

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS
30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101
CONTRACT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION MANAGEMENT SERVICES

PROJECT: CM/Design/Build for Hurricane Sandy Residential Community Recovery
In the Borough of Brooklyn

FMS NUMBER: SANDHRO

**REGISTRATION
NUMBER: 20151424707**

PIN: 8502015HR0012P

E-PIN: 85015P0007002

CONTRACTOR: LiRo Program and Construction Management, PE P.C.
3 Aerial Way
Syosset, NY 11791

Telephone: (516) 938-5476
Fax: (516) 938-5491

For the New York City Housing Recovery Office
April 2015

This AGREEMENT, made and entered into this 17th day of April, 2015, by and between the City of New York (the "City") acting by and through the Commissioner of the Department of Design and Construction (the "Commissioner") and LiRo Program and Construction Management, PE P.C. (the "Construction Manager" or "Contractor"), located at 3 Aerial Way, Syosset, NY 11791. The City and the Contractor may collectively be referred to as the "Parties."

WITNESSETH:

WHEREAS, the City desires to have Construction Management, design and construction performed on a Work Order basis for various projects, as described in Exhibit A, to ensure compliance with all local state and federal laws, rules and regulations; and

WHEREAS, the Contractor has been selected based upon and in consideration of its representation that it can perform the required services and complete the Projects in the time set forth herein,

WHEREAS, Hurricane Sandy struck New York on October 29, 2012, causing unprecedented damage throughout the City and damage to thousands of Homes that have not been fully rehabilitated many months later; and

WHEREAS, pursuant to the Disaster Relief Appropriations Act of 2013 (P.L. 113-2), the federal government authorized a supplemental appropriation to improve and streamline disaster assistance for Hurricane Sandy and allocated funds to the Department of Housing and Urban Development ("HUD") Community Development Fund to pay for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization, for activities authorized under title I of the Housing and Community Development Act of 1974; and

WHEREAS, HUD allocated funds to the City through the Community Development Block Grant Disaster Relief ("CDBG-DR") Program; and

WHEREAS, the Disaster Relief Appropriations Act also appropriated funds to the Federal Emergency Management Agency ("FEMA") and other federal agencies to pay for necessary expenses related to disaster relief; and

WHEREAS, in order to aid residents impacted by Hurricane Sandy with CDBG-DR and other federal funds, the City established the Build It Back Program, a construction program to rehabilitate private Homes that have been destroyed or damaged by Hurricane Sandy; and

WHEREAS, there is no public use, ownership, access, and/or enjoyment of the private one- to four-family Homes to be rehabilitated pursuant to this contract;

NOW THEREFORE, the parties to this Contract, in consideration of the mutual agreements contained herein, agree as follows:

ARTICLE 1 - DEFINITIONS

1.1 "Agreement" shall mean this Agreement which has been signed by the parties and each of the various parts of this Agreement set forth below, both as a whole and severally, whether or not existing in final approved form at the time of execution of this Agreement. In the event of any conflict between this Agreement and Contractor's Proposal, this Agreement shall prevail.

- 1.1.1 The Agreement
- 1.1.2 The Budget Director's Certificate
- 1.1.3 The Construction Documents
- 1.1.4 Exhibit A: Contract Information
- 1.1.5 Exhibit B: Staffing Requirements
- 1.1.6 Exhibit C: Partial Payment for Stored Material
- 1.1.7 Exhibit D: Requirements for Project Office
- 1.1.8 Exhibit E: Safety Requirements
- 1.1.9 Exhibit F: Form of Payment and Performance Bond
- 1.1.10 Exhibit G: Federal HUD Requirements (Appendix B, CDBG Rider)
- 1.1.11 Exhibit H: Sandy Recovery Hiring Plan
- 1.1.12 Exhibit I: NYC Build It Back Minimum Program Standards
- 1.1.13 Exhibit J: FEMA Elevation Certificate Instructions
- 1.1.14 Exhibit K: Enterprise Green Communities and Checklist
- 1.1.15 Exhibit L: Sample Damage Assessment Report, Tier 2 Environmental Review and Feasibility Study
- 1.1.16 Exhibit M: Whistleblower Protection Expansion Act Rider
- 1.1.17 Exhibit N: Schedule B: M/WBE Utilization Plan
- 1.1.18 Exhibit O Not Used
- 1.1.19 Notice of Award
- 1.1.20 Request for Proposals for the Contract

- 1.1.21 Contractor's Proposal submitted for the Contract
- 1.1.22 All provisions required by law to be inserted in this Agreement, whether actually inserted or not

1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

1.3 "Agency Chief Contracting Officer" ("ACCO") shall mean the person designated by the Commissioner to exercise such powers and duties with respect to procurement as are set forth in the Procurement Policy Board Rules.

1.4 "Allowance" shall mean those contract funds allocated for the payment of specific costs and expenses, in accordance with Article 42 hereof.

1.5 "Business Day" shall mean a day other than a Saturday, Sunday or a day on which the executive offices of the Department are not officially open for business.

1.6 "City" shall mean the City of New York.

1.7 "Commissioner" or "Agency Head" shall mean the Commissioner of the Department of Design and Construction of the City of New York, his/her successors, or duly authorized representative(s).

1.8 "Commissioner's Representative" shall mean the Project Manager designated by the Commissioner or any successor or alternate representative selected by the Commissioner.

1.9 "Comptroller" shall mean the Comptroller of the City of New York, his/her successors, or duly authorized representatives.

1.10 "Consultant" or "Consultant(s)" shall mean any person, firm, partnership or corporation engaged by the Contractor to furnish architectural, engineering, design, or any other consulting services for the Program.

1.11 "Construction Documents" shall mean the final plans, drawings and specifications and all modifications thereto prepared by consultant(s) engaged by the Contractor and approved in writing by the Commissioner. Upon such approval, the Construction Documents shall become part of this Agreement, as set forth in Article 1.1.3.

1.12 "Contract" or "Contract Documents" shall mean each of the various parts of the Agreement set forth in Article 1.1.

1.13 "Contract Work" shall mean everything required to be furnished and done by the Contractor pursuant to the Agreement, except Extra Work.

1.14 "Contractor" or "Construction Manager" or "CM" shall mean the, whether a corporation, firm, or individual, or any combination thereof, and its, their, his or her successors, personal representatives, executors, administrators and assigns, and any person, firm or corporation who or which shall at any time be substituted in the place of the party of the second part under this Contract.

1.14.1 "Day" or "Days", unless otherwise indicated shall mean calendar days.

1.15 "Department" or "DDC" shall mean the Department of Design and Construction of the City of New York acting by and through the Commissioner thereof, or his/her duly authorized representative.

1.16 "Drawings" shall mean all graphic or written illustrations, descriptions, explanations, directions, requirements and standards of performance applied to the Work as detailed and designated in the Construction Documents.

1.17 "Extra Work" shall mean work not reasonably foreseeable at the time of the execution of this Agreement or not reasonably inferable from the Agreement.

1.18 "Final Acceptance" shall mean acceptance of all the Work relating to each Home by the Commissioner.

1.18.1 "Final Approved Punch List" shall mean a list, approved pursuant to Article 10.4, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

1.19 "Government Entity" shall mean the United States, the State and City of New York, and any and every agency, department, court, commission, or other instrumentality or political subdivision of government of any kind whatsoever, now existing or hereafter created.

1.19.1 "Home" shall mean a one- to four-family Home assigned to the Contractor in a Work Order, including the building and land, that was adversely affected by Hurricane Sandy, that are included in the Housing Recovery Office's Build It Back program.

1.19.2 "Homeowner" shall mean the owner of a Home

1.19.3 "HUD Notices" means Federal Register Notices published by HUD as follows:

- "Allocations, Common Application, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane Sandy," Federal Register, Volume 78, No. 43 (March 5, 2013);
- "Clarifying Guidance, Waivers, and Alternative Requirements for Hurricane Sandy Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds," Federal Register, Volume 78, No. 76 (April 19, 2013);
- "Allocations, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant Disaster Recovery Funds in Response to Disasters Occurring in 2011 or 2012," Federal Register, Volume 78, No. 103 (May 29, 2013);
- "Additional Waivers and Alternative Requirements for Hurricane Sandy Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds," Federal Register, Volume 78, No. 149 (August 2, 2013);
- "Second Allocation, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane Sandy," Federal Register, Volume 78, No. 222 (November 18, 2013);
- "Clarifying Guidance, Waivers, and Alternative Requirements for Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds Under the Disaster Relief Appropriations Act, 2013," Federal Register, Volume 79, No. 59 (March 27, 2014);
- "Second Allocation, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Disasters Occurring in 2013," Federal Register, Volume 79, No. 106 (June 3, 2014); and
- "Additional Clarifying Guidance, Waivers, and Alternative Requirements for Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds Under the Disaster Relief Appropriations Act, 2013," Federal Register, Volume 79, No. 133 (July 11, 2014);

and all subsequent Federal Register Notices that are published and related to CDBG-DR assistance provided to the City of New York for recovery purposes related to Hurricane Sandy.

1.19.4 "Integrity Monitor" means the person or firm hired by the New York City Department of Investigation to conduct audits and investigations.

1.20 "Law(s)" shall mean each and every law, rule, regulation, order or ordinance of any kind whatsoever issued by any Government Entity, common law, or HUD Notice, in effect from the date hereof through Final Acceptance, applicable to or affecting the Project, the Site(s), the Construction Documents, the Work, and all employees engaged in Work hereunder.

1.21 "Lien" shall mean any and every lien, lease, security interest, or encumbrance of any kind whatsoever including, but not limited to, a Mechanic's Lien.

1.22 "Materialman" shall mean any person, firm, or corporation, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor to fabricate or deliver, or who actually fabricates or delivers, plant, material or equipment to be incorporated into the Work.

1.23 "Mayor" shall mean the Mayor of the City of New York, his successors or duly authorized representatives.

1.24 "Means and Methods of Construction" shall mean the labor, materials in temporary structures, tools, plant and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Agreement.

1.25 "Modification" shall mean any written amendment of this Agreement signed by both the Department and the Contractor.

1.25.1 "Program" shall mean all of the Projects assigned to the Contractor pursuant to this Agreement.

1.26 "Project" shall mean all of the Work required by this Agreement for a Home or group of Homes assigned to the Contractor by the Commissioner in a written Work Order.

1.27 "Project Executive" shall mean the person designated by the Contractor to provide, on an as needed basis, executive or management expertise and oversight with respect to the Program. The person so designated shall be identified as the Project Executive in Exhibit A and in the staffing plan approved by the Commissioner in accordance with Article 11.3.1

1.28 "Safety Standards" shall mean all laws, union rules and trade or industry custom or codes of any kind whatsoever, in effect from the date hereof through Final Acceptance, pertaining to worker safety and accident prevention applicable to the Projects and/or the Work (including, but not limited to, rules, regulations and standards adopted pursuant to the Occupational Safety and Health Act of 1970, as

amended from time to time).

1.29 "Samples" shall mean physical examples or specimens, intended to demonstrate workmanship or the characteristics of materials and equipment and/or to establish standards by which the Work will be judged. "Samples" includes (but is not limited to) raw materials, assemblies, completed items, working components or parts thereof, required under this Agreement or by the City to ascertain whether the kind, quality, assembly, construction, workmanship, finish, color, texture, grade or other characteristics of Work submitted by the Contractor conforms to the requirements of the Agreement.

1.30 "Shop Drawing" shall mean any and all drawings, diagrams, layouts, explanations, illustrations, manufacturer's drawings or other written or graphic materials which illustrate any portion of the Work.

1.31 "Site(s)" shall mean the area(s) upon or in which the Contractor's operations hereunder are carried on, and such other areas adjacent thereto as may be designated by the Commissioner's Representative.

1.32 "Specifications" shall mean all of the directions, requirements and standards of performance applied to the Work as detailed and designated in the Construction Documents.

1.33 "Subcontractor" shall mean any person, firm, or corporation, other than employees of the Contractor, who or which contracts with the Contractor or his Subcontractors to furnish, or actually furnishes consulting services, labor, or labor and materials, or labor and equipment, at the Site or in the performance of any of the Work hereunder. All Subcontractors are subject to the prior written approval of the Commissioner.

1.34 "Substantial Completion" shall mean the written determination by the Commissioner's Representative that the Work required for a Home is substantially, but not entirely, complete and the approval of the Final Approved Punch List.

1.35 "Unavoidable Delay" shall mean any delay or obstruction whatsoever in the Work resulting from any act or event which has had (or may reasonably be expected to have) a material adverse effect on Contractor's ability to perform its obligations under this Agreement, if such act or event is beyond the reasonable control of Contractor and such act or event was not (and would not have been) separately or concurrently caused by a negligent or willful act or omission of Contractor and/or could not have been prevented by reasonable actions on Contractor's part. Unavoidable Delay shall include without limitation:

- 1.35.1 Acts of God;
- 1.35.2 Unforeseeably severe weather conditions;
- 1.35.3 Fire, earthquake, explosion, landslide, lightning or flood;
- 1.35.4 Epidemic;
- 1.35.5 Strikes or lockouts;
- 1.35.6 Riots, civil disturbance, insurrection, enemy action or war;
- 1.35.7 Injunctions or orders of any Government Entity;
- 1.35.8 Embargoes or blockades.

1.36 "Utilities" shall mean any and all utility services and installations whatsoever including, but not limited to, gas, water, electricity, telephone, other telecommunications, steam, sewer and storm sewer, and all piping, wiring, conduit and/or other fixtures of every kind whatsoever related thereto or used in connection therewith.

1.37 "Work" shall mean all tasks and services required to complete the Program.

1.38 "Work Order" shall mean a written directive by the Commissioner by which a Project is assigned to the Contractor.

ARTICLE 2 - COMPLIANCE WITH LAWS

2.1 Procurement Policy Board Rules: This Contract is subject to the Rules of the Procurement Policy Board of the City of New York ("PPB Rules") in effect at the time of the receipt of proposals for this Contract. In the event of a conflict between the PPB Rules and a provision of this contract, the PPB Rules shall take precedence.

2.2 The Contractor shall comply with all local, State and Federal laws, rules and regulations applicable to this Agreement and to the work to be done hereunder.

2.3 The Contractor shall give or cause to be given all necessary notices, obtain or cause to be obtained all permits, and pay or cause to be paid all fees required in connection with the Work, and comply with all local, state and federal laws, rules and regulations affecting work of this character. These laws, rules and regulations shall take precedence over any requirements of this Contract where a conflict occurs. Nothing herein contained shall, however, be construed as permitting the use of material and equipment of lesser quality than specified hereunder, unless the specified material or equipment violates such laws, rules or regulations.

2.4 The Contractor shall be responsible for applying for and obtaining the required approval of all federal, state and local agencies having jurisdiction over the subject matter hereof. As provided in Article 10.4, such approvals are required for a determination of Substantial Completion.

2.5 In accordance with Section 165 of the State Finance Law, the Contractor agrees that tropical hardwoods, as defined in Section 165 of the State Finance Law, shall not be utilized in the performance of this Contract, except as the same are permitted by the foregoing provision of law.

2.6 The Contractor shall comply with all HUD requirements, including but not limited to those set forth in Exhibit G.

ARTICLE 3 - TIME OF ESSENCE

3.1 In performing the Work hereunder, the Contractor and the City shall place emphasis on considerations which will aid in expediting the construction consistent with the construction standards of the Build it Back program and procedures of the City. The Contractor agrees to use all resources at its command so that each Project is completed in an expeditious fashion by the various Subcontractors and to this end, it shall give constant attention to the adequacy of its own and each Subcontractor's planning, personnel, equipment and the availability of materials and supplies. The Contractor and the City acknowledge that time will be of the essence for each Home and will use their best efforts to prevent delays. If a situation cannot be resolved, the Contractor shall bring it to the immediate attention of the Commissioner.

ARTICLE 4 - AGREEMENT TO SERVE

4.1 The City hereby retains the Contractor to perform the Work hereinafter described, on the terms and conditions specified herein, and the Contractor hereby agrees to so serve. The Contractor is familiar with the terms of this Agreement, and the intended use of the Homes upon completion of construction. The Contractor hereby certifies that it has the necessary experience, expertise, personnel and resources to fulfill its obligations under this Agreement competently and efficiently. The Contractor agrees to use its best efforts to complete each Project as soon as possible, in a manner meeting the highest professional standards.

ARTICLE 5 - REPRESENTATIONS AND WARRANTIES

5.1 Responsibility and Competency: The Contractor warrants and represents as follows:

5.1.1 That it is financially solvent and sufficiently experienced and competent to perform the Work required by this Agreement, or to cause the same to be performed.

5.1.2 That its employees, agents, Consultants possess the requisite expertise, skill, experience and financial resources to perform the Work as required by this Agreement.

5.1.3 That (1) it is not in arrears to the City of New York upon debt, contract, or taxes; (2) it is not a defaulter, as surety or otherwise, upon any obligation of the City of New York; (3) it has not been declared not responsible or disqualified by any agency of the City of New York or State of New York, and it is not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department of agency, and (4) there is not any proceeding pending relating to the responsibility or qualification of the Contractor to receive public contracts,

5.2 Procurement of Agreement: The Contractor represents and warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage fee, contingent fee or any other compensation. The Contractor further represents and warrants that no payment, gift or thing of value has been made, given or promised to obtain this or any other agreement between the parties. The Contractor makes such representations and warranties to induce the City to enter into this Agreement and the City relies upon such representations and warranties in the execution hereof.

5.2.1 For a breach or violation of such representations or warranties, the Commissioner shall have the right to annul this Agreement without liability, entitling the City to recover all moneys paid hereunder and the Contractor shall not make claim for, or be entitled to recover, any sum or sums due under this Agreement. This remedy, if effected, shall not constitute the sole remedy afforded the City for falsity or breach, nor shall it constitute a waiver of the City's right to claim damages or refuse payment or to take any other action provided for by law or pursuant to this Agreement.

5.3 Conflicts of Interest:

5.3.1. The Contractor represents and warrants that neither it nor any of its directors, officers, members, partners or employees, has any interest nor shall they acquire any interest, directly or indirectly, which conflicts in any manner or degree with the performance of this Agreement. The Contractor further represents and warrants that no person having such interest or possible interest shall be employed by or connected with the Contractor in the performance of this Agreement.

5.3.2 Consistent with Charter § 2604 and other related provisions of the Charter, the Admin. Code and the New York State Penal Law, no elected official or other officer or employee of the City, nor any person whose salary is payable, in whole or in part, from the City Treasury, shall participate in any decision relating to this Agreement which affects his or her personal interest or the interest of any corporation, partnership or other entity in which he or she is, directly or indirectly, interested; nor shall any such official, officer, employee, or person have any interest in, or in the proceeds of, this Agreement. This Paragraph B shall not prevent directors, officers, members, partners, or employees of the Contractor from participating in decisions relating to this Agreement where their sole personal interest is in the Contractor.

5.3.3. The Contractor shall not employ a person or permit a person to serve as a member of the Board of Directors or as an

officer of the Contractor if such employment or service would violate Chapter 68 of the Charter.

5.4 Fair Practices: The Contractor and each person signing on its behalf certifies, under penalties of perjury, that to the best of its, his or her knowledge and belief:

5.4.1 The prices in this Contract have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other proposer or with any competitor;

5.4.2 Unless otherwise required by law, the prices which have been quoted in this contract and in the proposal submitted by the Contractor have not been knowingly disclosed by the Contractor prior to the proposal opening, directly or indirectly, to any other proposer or to any other competitor, and

5.4.3 No attempt has been made or will be made by the Contractor to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition.

5.4.4 The fact that the Contractor (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not, without more, constitute a disclosure within the meaning of the above.

ARTICLE 6 - TERM OF PERFORMANCE

6.1 Term of Contract: This Contract shall commence as of April 29, 2015 and shall remain in effect for 1825 consecutive calendar days unless otherwise terminated by the Commissioner pursuant to the terms of this Contract.

ARTICLE 7 - OVERVIEW OF CONTRACTOR'S SERVICES

7.1 The Contractor shall provide construction management / design / build services on a requirements basis for the types of tasks and services described in Exhibit A. This Agreement is for the rehabilitation of one- to four-family Homes within the City of New York that were damaged by Hurricane Sandy. Homeowners have agreed to participate in the Build it Back Program of the New York City Housing Recovery Office. This Agreement is being procured by the City and funded by the US Department of Housing and Urban Development ("HUD"), under the Federal Community Development Block Grant Disaster Relief Program. The Contractor must comply with all federal requirements, including but not limited to those described in "Exhibit G." The Contractor's Work shall include without limitation, investigation, planning, pre-construction, design, construction, management, supervision and coordination of all Work necessary and required for any Project assigned hereunder to effectuate its timely completion.

7.2 The Commissioner shall, by Work Order, assign various Homes or groups of Homes to the Contractor for the performance of required Work which may include the areas of work described in detail Exhibit A. Regarding the assignment of Projects, the Commissioner reserves the following rights: (1) to determine the order of priority for the performance of Work for the assigned Projects; (2) to increase or decrease the Projects assigned to the Contractor based on need or performance including assigning Sites outside the Borough assigned, and (3) To solicit separate design proposals from selected design Consultants for unique resilient developments which require greater innovation and creativity, and (4) To assign Homes that have designs that have been developed by another firm and assigned to the CM for construction only.

7.3 Ownership of Documents: Any and all material records or documents prepared by or for the Contractor pursuant to this Agreement, including, but not limited to, office diaries, field diaries, daily records of labor, materials and equipment used, notes, reports, including laboratory and plant inspection reports, designs, drawings, tracings, estimates, specifications, schedules, and/or photographs, shall be the property of the City. During the term of this Agreement and at any time within 6 years thereafter, the Contractor shall, upon demand, promptly deliver such records or documents to the Commissioner, or make such records or documents available to the Commissioner or his authorized representatives for review and reproduction at such place as may be designated by the Commissioner. Thereafter, the City may utilize such records or documents in whole or in part or in modified form and in such manner or for such purposes or as many times as it may deem advisable without employment of or additional compensation to the Contractor.

7.4 The City acknowledges and agrees that (i) Construction Manager's and its Consultants' engineering and architectural designs are not intended or represented to be suitable for use on the Project unless completed and signed by Construction Manager or its Consultants, (ii) Construction Manager's or its Consultants' engineering and architectural designs are not intended for use or reuse by the City for additions or alterations to the Project, Home (except the Home indicated on the engineering and architectural design) or any other project without prior written authorization (including completion, verification and adaptation) by the Construction Manager or its Consultant, (iii) any such unauthorized use, reuse or modification of Construction Manager or its Consultants of such engineering and architectural designs will be at the City's sole risk and without liability or legal exposure to Construction Manager or its Consultants, and (iv) the City shall indemnify and hold harmless Construction Manager and its Consultants from all claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from the City's unauthorized use, reuse or modification of Construction Manager's or its Consultants' engineering and architectural designs.

ARTICLE 8 - PROGRESS SCHEDULE

8.1 To enable the Work to be performed in an orderly and expeditious manner, the Contractor, within twenty (20) calendar days after being issued a Work Order, unless otherwise directed by the Commissioner, shall submit a proposed progress schedule for the assigned Work. The Contractor will use its best efforts to complete the Work assigned within the timeframes established in the Target Timeframes attached hereto in Exhibit A, If for any reason the Contractor cannot perform the Work within the timeframes established in the Target Timeframes it must state with specificity the reasons therefore and proposed amended timeframes. The Contractor shall amend the proposed progress schedule as directed by the Commissioner. The timeframes in the progress schedule will commence upon the Commissioner's approval thereof. Notwithstanding the foregoing, the Contractor shall begin Scoping and Design services upon issuance of a Work Order.

The progress schedule shall indicate the information specified below:

- 8.1.1 The anticipated time of commencement and completion of each of the various operations to be performed;
- 8.1.2 The sequence and inter-relationship of each these operations with the others;
- 8.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the work.

8.2 The proposed schedule shall be revised as directed by the Commissioner's Representative, until finally approved by him, and after such approval, shall, subject to the provisions of Article 17, be strictly adhered to by the Contractor.

8.3 If the Contractor shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 17 hereof, he must promptly adopt such other or additional means and methods of construction as will make up for the time lost and will assure completion in accordance with such schedule.

8.4 **Responsibility for Delay:** In the event that any Project or Home is not completed within the timeframe set forth in the approved Project Schedule, the Commissioner shall prepare a report analyzing the causes of the delay and determining responsibility for the same.

8.4.1 If the report indicates that the Contractor, as a result of its negligent actions or inactions, is responsible for the delay, or any portion thereof, the Commissioner, upon the expiration of a thirty (30) day cure period ("Grace Period"), shall deduct from any amount due and owing to the Contractor t, the amount of \$100.00 per day, for the period of the delay, until such time as the Work covered by the subject construction contract is Substantially Complete. Provided, however, Contractors aggregate liability for such damages shall in no event exceed ten percent (10%) of the Fee for Profit for such construction contract. In the event Contractor is assessed such damages yet meets the date of Substantial Completion set forth in the respective approved Project Schedule, the damages amounts previously deducted by the City, from Contractor's Fee for Profit, shall be credited by the City back to the Contractor.

8.4.2 If the Contractor files a dispute regarding its responsibility for the delay, or any portion thereof: the Contractor is obligated, while the dispute is pending, to continue performing any required Work pursuant to this Contract, and, if demanded by the Commissioner, to pay the amount described in the paragraph above.

8.4.3 The following shall have no relevance to a determination by the Commissioner that the Contractor is responsible for the delay, or any portion thereof: (a) approval by the Commissioner of any time extension(s), and/or (2) approval by the Commissioner of any revised Project Schedule. Any such approval(s) by the Commissioner shall not be referred to or offered in evidence by the Contractor or its attorneys in any dispute or proceeding regarding the Contractor's responsibility for the delay.

ARTICLE 9 - DESIGN CONSULTANT

The Contractor shall, through its design Consultant, provide all design services required for the Projects, as directed by the Commissioner. The types of Projects to be assigned to the Contractor under this Contract are set forth in Exhibit A.

9.3.1 **Approval of Consultants and Subconsultants:** Professional design services required hereunder shall be provided by persons or firms licensed by the State of New York. All Consultants performing such services are subject to the prior written approval of the Commissioner. If an approved Consultant elects to subcontract any portion of its subcontract, the proposed subconsultant is subject to the prior written approval of the Commissioner. The Commissioner's approval of a Consultant or subconsultant shall not relieve the Contractor of any of its responsibilities, duties and liabilities hereunder.

9.3.2 **Removal of Consultants:** An approved Consultant performing professional design services hereunder shall not be removed without the prior written approval of the Commissioner. The Commissioner reserves the right to require the Contractor to remove and replace an approved Consultant.

9.3.3 **Contractor's Responsibility for Consultants:** The Contractor shall be solely responsible to the City for the acts, defaults, errors or omissions of its Consultants and of such Consultant's officers, agents and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the Contractor to the extent of its subcontract.

9.3.4 **Specific Design Services:** Design Services required for the Project are described in detail in Exhibit A.

9.3.5 Design Compliance: All required design services shall be in accordance with: (1) criteria provided by DDC, and (2) all applicable local, state and federal laws, rules and regulations, including without limitation, the New York City Building Code and construction requirements in HUD Notices.

9.3.6 Approvals of Design: Final design documents are subject to: (1) written approval by the Commissioner, and (2) approval by all regulatory agencies whose approval of the design is required, including without limitation the New York State Department of Environmental Conservation, the New York City Department of Environmental Protection, the New York City Fire Department and the New York City Department of Buildings. All drawings shall bear all required stamps of approval, including the seal and authorized facsimile of the signature of the Architect of Record, and shall be accompanied by all necessary applications, certificates, or permits of all local, state and federal agencies having jurisdiction over the Work.

9.3.7 Review of Design Documents: Throughout the design process, the Contractor shall review and comment on the design, with special attention to the following issues: (1) constructability; (2) coordination; (3) economy and efficiency; (4) minimization of impact on agency operations; (5) division of the work for bidding purposes; (6) time of performance; (7) compliance with the required scope of Work; (8) compliance with DDC criteria, and (9) avoidance of inconsistencies, problems, delays and change orders during the construction process. At the time of submission of final design documents, the Contractor shall provide written comments addressing the above issues.

9.3.8 Submission and Approval of Final Design Documents: The provisions set forth below shall apply to the submission, review and resubmission of final design documents.

- (a) Within fourteen (14) consecutive calendar days of submission or resubmission of final design documents, the Commissioner shall: (1) approve the same in writing, or (2) approve the same as noted and indicate whether resubmission is required, or (3) disapprove the same and transmit changes or comments to the Contractor.
- (b) In the event the final design documents are not approved, the Contractor shall, within ten (10) consecutive calendar days of receipt of the Commissioner's changes or comments, revise such documents and resubmit the same to the Commissioner for written approval.
- (c) The day on which the final design documents are actually received by the respective party shall be considered the first consecutive calendar day for the purpose of calculating the submission, resubmission and review times set forth above; provided, however, documents received after 3:00 P.M. shall be deemed received the next consecutive calendar day.
- (d) Upon resubmission of final design documents, the Contractor shall not make any changes from the original submission, unless such changes are in response to comments by the Commissioner or are specifically noted in a written cover letter.

9.3.9 Subcontract Requirements: The subcontract(s) between the Contractor and the Consultant(s) hereunder shall be in accordance with the provisions set forth below, unless otherwise authorized in a written directive from the Commissioner.

- (a) Such subcontracts shall require that all design services comply with all criteria and requirements set forth in this Contract.
- (b) Such subcontracts shall contain provisions approved in advance by the Commissioner regarding the time for completion of all required design services.
- (c) Such subcontracts shall require that the Consultant carry the following types and amounts of insurance, unless an exemption is expressly authorized in advance in writing by the Commissioner: (1) commercial general liability insurance with coverage at least as broad as ISO Form CG 0001, occurrence (rather than claims-based) in the minimum amount of \$1,000,000 per occurrence (combined single limit), \$2,000,000 aggregate, with the City of New York and the Homeowner named as additional insureds thereunder with coverage at least as broad as ISO Form CG 20 26; (2) workers compensation insurance, disability benefits insurance, and employer's liability insurance, as required by New York State Law; and (3) professional liability insurance, as set forth in Article 23. All policies shall be in compliance with the requirements of Article 23, except as otherwise provided in this paragraph, and shall be issued by companies that meet the criteria set forth in such article. Proof of Insurance shall be provided to DDC in accordance with Article 23.
- (d) Such subcontracts shall contain a provision regarding the resolution of disputes between the Subcontractor and the Contractor. Such provision shall conform to the requirements set forth in Article 10.2.2(g).
- (e) Such subcontracts shall require that the Consultant agree not to make any claims against the City, its officers, agents or employees, by reason of such subcontract or any acts or omissions of the Contractor; provided however, such restrictions shall not apply to disputes submitted by Consultant pursuant to dispute resolution provisions contained in the subcontract.
- (f) Such subcontracts shall include a provision requiring the Subcontractor to make payment to each of its Subcontractors or suppliers for Work performed under this Contract in the same manner and within the same time period set forth in Article 43 ("Prompt Payment").
- (g) Such subcontracts shall require cooperation with the Integrity Monitor.

9.4 Patented and Proprietary Items: The Consultant shall not, without the prior written approval of the Commissioner, specify for the Project, or necessarily imply the required use of any article, product, material, fixture or form of construction, the use of which is covered by a patent, or which is otherwise exclusively controlled by a particular firm or group of firms.

9.4.1 The Contractor shall be solely responsible for and shall defend, indemnify, and hold the City harmless from any and all

claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the City may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the Contractor of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the Contractor and/or its Subcontractors and/or Consultants in the performance or completion of the Work. Insofar as the facts or Law relating to any claim would preclude the City from being completely indemnified by the Contractor, the City shall be partially indemnified by the Contractor to the fullest extent permitted by Law. The Contractor's contract with the Consultant shall contain a provision that the Consultant will indemnify and hold harmless the City and in the same manner as the Contractor must pursuant to this article 9.4.1.

9.5 Standard of Care

Design services provided under this Agreement will conform to the generally accepted standard of care, skill and diligence as would be provided by a prudent architectural or engineering firm experienced in supplying such services in the New York City area on projects of similar size and complexity ("Standard of Care"). Nothing in this Agreement will require a level of performance by the design Consultant higher than the Standard of Care. No other warranty of any kind, express or implied, at common law or created by statute, is extended, made, or intended with respect to the design services under this Agreement.

ARTICLE 10 - CONSTRUCTION WORK

10.1 General: The Contractor shall provide all required construction Work for a Project, as directed by the Commissioner. The types of Projects to be assigned to the Contractor pursuant to this Contract are set forth in Exhibit A. All construction work will be procured by bidding projects to the Pre-Qualified Lists (PQLs) set up by the City for the Build It Back Program.

10.1.1 Required Approvals: The Contractor's provision of all required Work for the Projects must comply with all federal, state and local requirements, including obtaining all required permits and approvals from regulatory agencies having jurisdiction over the Work, including without limitation the agencies set forth below.

- (a) New York State Department of Environmental Conservation
- (b) New York City Department of Environmental Protection
- (c) United States Environmental Protection Agency
- (d) New York City Fire Department, Bureau of Fire Protection (Certificate of Operation)
- (e) New York City Department of Buildings
- (f) New York City Department of Consumer Affairs
- (g) US Department of Housing and Urban Development

10.2 Subcontracts for Construction: As authorized in a written directive from the Commissioner, the Contractor shall, on the basis of fully coordinated Construction Documents, prepared by the design Consultant enter into subcontracts for all construction Work required for the various Projects. The Contractor may not provide the construction Work itself. For all construction contracts greater than \$300,000 procured through the PQL lists, the construction contractors will be required to enter into the BCTC Outer Borough Residential PLA.

10.2.1 Competitive Bid Procedure for Construction Work, Pre-Qualified List: Before entering into any subcontract for construction Work, the Contractor shall conduct a competitive bid procedure to construction Subcontractors that have been pre-qualified by DDC. DDC shall provide the Contractor with a list or lists, as appropriate, of Pre-Qualified construction Subcontractors. Such competitive bid procedure shall be in accordance with all DDC requirements, including without limitation, the items set forth below:

- (a) The Contractor shall prepare a Request for Bids ("RFB") for the required construction Work and shall submit the same to the Commissioner for review and approval prior to issuance. The Contractor shall utilize the "Hurricane Sandy-affected Residential Community Recovery Guidelines for Information for Bidders" in the preparation of bid documents. The RFB shall include the following items:
 - (1) Form of subcontract. Such subcontract shall comply with the requirements set forth below.
 - (2) Requirements applicable to bidders, as specified by DDC, including without limitation, requirements of HUD (e.g., a requirement that the Contractor is not federally debarred), for MWBE participation, and for safety. The Contractor shall comply with directions from DDC regarding the review of requirements included in the RFB. After the receipt of bids, DDC shall determine bidder compliance with such requirements.

- (b) Contracting firms submitting bids shall be required to complete and submit all forms or documentation the Commissioner may require.
- (c) The Contractor shall submit a tabulation of the bids received and recommendation for award to the Commissioner for his/her review and approval. If any bid received by the Contractor contains conditions and/or exclusions, the Contractor shall provide written notification of the same to the Commissioner. The Contractor shall proceed as directed by the Commissioner.

(d) The Contractor shall award the subcontract to the lowest responsive and responsible bidder approved in writing by the Commissioner. If the Commissioner does not approve a bidder because the Commissioner determines that the bidder is not responsive or

not responsible or both, and the bidder challenges the Commissioner's determination, the City shall be responsible for the reasonable costs of defending such determination. At the City's option, the City may take over the defense of the determination.

- (e) In the event less than three bids are received, no subcontract shall be awarded, unless the Contractor obtains the prior written approval of the Commissioner.
- (f) Limitation: The Contractor shall not employ or otherwise engage, or cause or permit any Subcontractor or subcontractor at whatever tier to employ or otherwise engage (1) the Contractor, (2) any subsidiary, affiliate or parent of the Contractor, or (3) any person whose immediate family member is employed by the Contractor at a salary in excess of ten thousand dollars (\$10,000.00) per annum, to perform work hereunder without the prior written approval of the Commissioner. For purposes of this Section, the term "immediate family member" shall mean a wife, husband, son, daughter, mother, father, brother, brother-in-law, sister, sister-in-law, son-in-law, daughter-in-law, mother-in-law, father-in-law, aunt, uncle, niece, nephew, stepparent or stepchild.

10.2.2 Exception: In order to ensure continuity of services, the Commissioner reserves the right to direct the Contractor to enter into subcontracts with specific Subcontractors at stipulated prices. In the event the Commissioner so directs the Contractor, the competitive bid procedure set forth above shall not apply.

10.2.3 Subcontract Requirements: Subcontracts between the Contractor and Subcontractors for Work hereunder shall be in accordance with the provisions set forth below, unless otherwise authorized in a written directive from the Commissioner. The form of subcontracts shall be subject to the prior approval of the Commissioner.

- (a) Such subcontracts shall require that all labor performed and all material furnished thereunder shall strictly comply with all requirements of this Agreement.
- (b) Such subcontracts shall contain the DDC Safety Requirements and DDC General Conditions. Such subcontracts shall contain provisions approved in advance by the Commissioner regarding: (1) time for completion; (2) performance requirements and assessment of liquidated damages; (3) warranties and/or guarantees.
- (c) Such subcontracts shall contain the same terms and conditions with respect to: (1) method of payment, as set forth in Article 42; (2) substantial completion, as set forth in Article 10.4; (3) method of payment for Extra Work, as set forth in Article 28; (4) extension of time, as set forth in Article 10.5; (5) termination without cause, as set forth in Article 45; (6) termination for cause, as set forth in Article 46; (7) omitted work, as set forth in Article 31; (8) tax exemption, as set forth in Article 49.
- (d) Such subcontracts shall require that all construction Subcontractors provide bid security in the form attached in Exhibit E, in an amount equivalent to five percent of the bid price, in accordance with 2 CFR 200.325(a), and performance and payment bonds, each of which shall be in an amount equal to or greater than 100% of the subcontract price and shall name the Contractor as obligee thereunder. Such bonds shall be provided by a surety company licensed and authorized to do business in the State of New York. Such bonds shall be identical in all respects to the form of bonds attached hereto as Exhibit E, with no variations, additions, or deletions to such form of bonds. Premiums for required bonds must be included in the Subcontractor's bid price. The Subcontractor shall be required to submit two (2) originals of such bonds, one of which shall be submitted to the City by the Contractor immediately after receipt. With respect to performance and payment bonds submitted by Subcontractors hereunder, the Contractor agrees, immediately upon receipt of the bonds, to execute an irrevocable assignment in accordance with the form of assignment attached hereto as Exhibit F. The Contractor shall submit such executed assignment to the City at the time it submits the original bonds.
- (e) Such subcontracts shall require that the Subcontractor carry the types and amounts of insurance set forth in Article 23, All required policies shall be in accordance with the terms and conditions set forth in Article 23 of this Contract. Proof of Insurance shall be provided to the City in accordance with Article 23.3.
- (f) Such subcontracts shall contain the following articles and shall require Subcontractor compliance with the same.
 - (1) Article 38: Labor Law Requirements
 - (2) Article 39: Payroll Reports
 - (3) Article 41: Noise Control Code Provisions
 - (4) Article 43: Prompt Payment
 - (5) Article 51: Locally Based Enterprise Program (if applicable)
 - (6) Article 49: Supplies, Labor, Services Materials and Tax Exemption
 - (7) Article 65: Ultra Low Sulfur Diesel Fuel
 - (8) Article 66: Ultra Low Sulfur Diesel Fuel (Consolidated Construction Act)
 - (9) Article 68: Participation by Minority-Owned and Women-Owned Business Enterprises in City Procurement.
 - (10) Sandy Recovery Hiring Plan
 - (11) Article 15.4 Indemnification, including intentional tortious acts of the subcontractor or its employees.
- (g) Such subcontracts shall contain a provision regarding the resolution of disputes between the Subcontractor and the Contractor. Such provision shall conform to the requirements set forth below.
 - (1) Such provision shall provide that all disputes the Subcontractor may have of the kind delineated in Article 29 of this Agreement shall be resolved by the City in accordance with Article 29 and the PPB Rules. As set forth in

Article 11, disputes submitted by a Subcontractor to the Contractor must be submitted by the Contractor to the City for resolution in accordance with Article 29.

- (2) Such provision shall provide that all terms, conditions, requirements and limitations set forth in Article 29, including the limitation on judicial review, shall apply to disputes submitted by the Subcontractor, except as otherwise provided in paragraph (3) below.
 - (3) Such provision shall provide that Subcontractor disputes and related material shall be submitted to the Contractor, not to the City. Such provision shall contain time frames specified by the Contractor for the submission of disputes and related material by the Subcontractor to the Contractor. Such time frames shall be reasonable and substantially similar to the time frames set forth in Article 29.
 - (4) Such provision shall provide that the Subcontractor agrees that it has no right to submit a dispute to the City.
- (h) Such subcontracts shall require that the Subcontractor agree not to make any claims against the City, its officers, agents or employees, by reason of such subcontract or any acts or omissions of the Contractor; provided however, such restrictions shall not apply to (1) demands filed by Subcontractors pursuant to Article 10.6 hereof, or (2) disputes submitted by Subcontractors pursuant to dispute resolution provisions contained in the subcontract, as described in paragraph (g) above.
 - (i) Such subcontracts shall stipulate that the Subcontractor, without any further notification or other process, gives its unconditional consent for its insurance carrier to release directly to the City documentation verifying its actual rate for workers' compensation insurance.
 - (j) Such subcontracts shall require cooperation with the Integrity Monitor.

10.2.4 Payment to Subcontractors: Payment by the Contractor to Subcontractors shall be in accordance with the provisions set forth below:

- (a) The Contractor shall pay all Subcontractors for and on account of Work performed by such Subcontractors in accordance with the terms of their respective subcontracts. If and when required by the Commissioner, the Contractor shall submit satisfactory evidence that it has made such payment.
- (b) The Contractor shall include on each requisition for payment the following data: Subcontractor name, value of the subcontract, total amount previously paid to Subcontractor for work previously requisitioned, and the amount, to be paid to the Subcontractor for work included in the requisition. The Contractor shall use the form of requisition provided by DDC, and include the address, Borough Block and Lot, and HRO number of each Home, with the costs delineated by Home.

10.2.5 Approval of Subcontractors: All Subcontractors and the dollar amounts of their subcontracts are subject to the prior written approval of the Commissioner. If an approved Subcontractor elects to subcontract any portion of its subcontract, the proposed sub-subcontractor and the dollar amount of its sub-subcontract are subject to the prior written approval of the Commissioner. No Subcontractor or sub-subcontractor shall be permitted on the Site until such written approval as required herein has been obtained. Any proposed change order to any subcontract(s) hereunder is subject to the prior written approval of the Commissioner. The Commissioner's approval of a Subcontractor shall not relieve the Contractor of any of its responsibilities, duties and liabilities hereunder.

10.2.6 Contractor's Responsibility for Subcontractors: In the event of default by any of the Contractor's Subcontractors, and such default is not caused by the Contractor's negligence the City will be responsible for the reasonable additional administrative costs incurred as a result of such default. Such additional administrative costs will be paid from the allowance for additional services.

10.3 Liquidated Damages: The Commissioner shall specify an amount of and basis for assessing liquidated damages to be included in each subcontract for construction work.. As directed by the Commissioner, the Contractor shall include such specified liquidated damage amount in each subcontract for construction work for the Project.

10.3.1 Any and all moneys collected by the Contractor as liquidated damages from its Subcontractors shall be paid by the Contractor to the City.

10.3.2 In each subcontract for construction work, the Contractor shall include a provision expressly giving the City a right of action against the Subcontractor in the event such Subcontractor fails to pay any liquidated damages determined to be due and owing thereunder.

10.4 Substantial Completion: The Contractor shall substantially complete the Work in each Home within the time fixed in the Work Order, or within the time to which such Substantial Completion may be extended.

10.4.1 Determining the Date of Substantial Completion: The Work will be deemed to be substantially complete when the two conditions set forth below have been met.

10.4.1.1 Inspection: The Commissioner's Representative has inspected the Work in the Home and has made a written determination that it is substantially complete.

10.4.1.2 Approval of Final Approved Punch List and Date for Final Acceptance: Following inspection of the Work in a Home, the Commissioner's Representative shall furnish the Contractor with a final punch list, specifying all items of Work to be completed and proposing dates for the completion of each specified item of Work. The Contractor shall then submit in writing to the Commissioner's Representative within ten (10) Days of the Commissioner's Representative furnishing the final punch list either acceptance of the dates or proposed alternative dates for the completion of each specified item of Work. If the Contractor proposes alternative dates, then, within a reasonable time after receipt, the Commissioner's Representative, in a written notification to the Contractor, shall approve the Contractor's completion dates or, if they are unable to agree, the Commissioner's Representative shall establish dates for the completion of each item of Work. If the Contractor neither accepts the dates nor proposes alternative dates within ten (10) Days, the schedule proposed by the Commissioner's Representative shall be deemed accepted. The latest completion date specified shall be the date for Final Acceptance of the Work.

10.4.2 Date of Substantial Completion. The date of approval of the Final Approved Punch List, shall be the date of Substantial Completion. The date of approval of the Final Approved Punch List shall be either (a) if the Contractor approves the final punch list and proposed dates for completion furnished by the Commissioner's Representative, the date of the Contractor's approval; or (b) if the Contractor neither accepts the dates nor proposes alternative dates, ten (10) Days after the Commissioner's Representative furnishes the Contractor with a final punch list and proposed dates for completion; or (c) if the Contractor proposes alternative dates, the date that the Commissioner's Representative sends written notification to the Contractor either approving the Contractor's proposed alternative dates or establishing dates for the completion for each item of Work.

10.4.3 Determining the Date of Final Acceptance: The Work in a Home will be accepted as final and complete as of the date of the Commissioner's Representative's inspection if, upon such inspection, the Commissioner's Representative finds that all items on the Final Approved Punch List are complete and no further Work in the Home remains to be done and that the contractor has obtained all regulatory approvals for the Work performed on a Home pursuant to this Agreement.. The Commissioner will then issue a written determination of Final Acceptance.

10.4.4 Request for Inspection: Inspection of the Work by the Commissioner's Representative for the purpose of Substantial Completion or Final Acceptance shall be made within ten (10) Days after receipt of the Contractor's written request therefor.

10.4.5 Request for Re-inspection: If upon inspection for the purpose of Substantial Completion or Final Acceptance, the Commissioner's Representative determines that there are items of Work still to be performed, the Contractor shall promptly perform them and then request a re-inspection. If upon re-inspection, the Commissioner's Representative determines that the Work is substantially complete or finally accepted, the date of such re-inspection shall be the date of Substantial Completion or Final Acceptance. Re-inspection by the Commissioner's Representative shall be made within ten (10) Days after receipt of the Contractor's written request therefor.

10.4.6 Initiation of Inspection by the Commissioner's Representative: If the Contractor does not request inspection or re-inspection of the Work for the purpose of Substantial Completion or Final Acceptance, the Commissioner's Representative may initiate such inspection or re-inspection. Alternatively, Substantial Completion shall occur on any date certified by the Commissioner, who shall have discretion to waive any of the foregoing conditions.

10.5 Extensions of Time for Subcontracted Work: If the performance of Work performed by Subcontractors hereunder is delayed for a reason set forth in Article 10.5.1 below, the Contractor may be allowed a reasonable extension of time. An extension of time for subcontracted work may be granted only by the Commissioner, upon written application by the Contractor.

10.5.1 Grounds for Extension: If such application is made, the Contractor shall be entitled to an extension of time for delay in completion of subcontracted work, if such delay is caused solely: (1) by the acts or omissions of the City, its officers, agents or employees; or (2) by the act or omissions of other contractors or a Homeowner; or (3) by Unavoidable Delay, as defined in Article 1.35 hereof, or other supervening conditions entirely beyond the control of either party hereto.

The Contractor shall, however, be entitled to an extension of time for such causes only for the number of days of delay which the Commissioner may determine to be due solely to such causes, and then only if the Contractor shall have strictly complied with all of the requirements of Articles 8, 16, and 17 hereof.

10.5.2 Extension for Concurrent Causes of Delay: The Contractor shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the subcontracted work as determined by the Commissioner, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the Contractor or of his Subcontractors or materialmen, and would of itself (irrespective of the concurrent causes) have delayed the subcontracted work, no extension of time will be allowed for the period of delay resulting from such act, fault or omission. The determination made by the Commissioner shall be binding and conclusive on the Contractor. The granting of an application for an extension of time for causes of delay other than those herein referred to shall be entirely within the discretion of the Commissioner.

Permitting the Contractor to continue with the subcontracted work after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the Contractor after such time, shall in no way operate as a waiver on the part of the City of any of its rights under this Contract.

10.5.3 Application for Extension of Time: Before the Contractor's request for a time extension for subcontracted work may be

approved, the Contractor must within five (5) calendar days after commencement of the condition which allegedly has caused or is causing the delay, submit a written application to the Commissioner identifying:

- (a) Contractor; the Subcontractor; the Contract registration number; and Project description;
- (b) Liquidated damage assessment rate, as specified in the subcontract;
- (c) Original subcontract bid amount;
- (d) Original subcontract start date and completion date;
- (e) Any previous time extensions granted (number and duration); and
- (f) Extension of time requested.

In addition, the application for extension of time shall set forth in detail:

- (a) Nature of each alleged cause of delay in completing the work;
- (b) Date upon which each such cause of delay began and ended and the number of days attributable to each such cause;
- (c) Statement that the Contractor waives all claims except for those delineated in the application, and the particulars of any claims which the Contractor does not agree to waive. For time extensions for final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and
- (d) Statement indicating the Contractor's understanding that the time extension is granted only for the purpose of permitting continuation of subcontract performance and payment for work performed and that the City retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

10.5.4 Determination of Time Extensions: Time extensions for subcontracted work shall be determined in writing by the Commissioner.

10.5.5 Delay Analysis: For extensions of time for final completion payments for subcontracted work, the agency engineering staff shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of the Contract). The report shall be made a part of the agency contract file.

10.6 Payment Guarantee.

10.6.1 The City shall, in accordance with the terms of this Article 10.6, guarantee payment of all lawful claims for:

- (a) Wages and compensation for labor performed and/or services rendered; and
- (b) Materials, equipment, and supplies provided, whether incorporated into the Work or not, when demands have been filed with the City as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the Work performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the City or the Contractor.

10.6.2 The provisions of Article 10.6 are subject to the following limitations and conditions:

- (a) If the Contractor provides a payment bond for a value that is less than one hundred (100%) percent of the value of the Contract Work, the payment bond provided by the Contractor shall be primary (and non-contributing) to the payment guarantee provided under this Article 10.6.
- (b) The guarantee is made for the benefit of all beneficiaries as defined in Article 10.6.1(b) provided that those beneficiaries strictly adhere to the terms and conditions of Article 10.6.2(d) and 10.6.2(e).
- (c) Nothing in this Article 10.6 shall prevent a beneficiary providing labor, services or material for the Work from suing the Contractor for any amounts due and owing the beneficiary by the Contractor.
- (d) Every person who has furnished labor or material, to the Contractor or to a Subcontractor of the Contractor, in the prosecution of the Work and who has not been paid in full therefor before the expiration of a period of ninety (90) Days after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a Subcontractor of the Contractor but no contractual relationship express or implied with the Contractor shall not have a right of action upon the guarantee unless he/she shall have given written notice to the Contractor within one hundred twenty (120) calendar days from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the Contractor or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Contractor at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the Contractor by other means, such notice shall be deemed sufficient.
- (e) Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.
- (f) The Contractor shall promptly forward to the City any notice or demand received pursuant to Article 10.6.2(d). The Contractor shall inform the City of any defenses to the notice or demand and shall forward to the City any documents the City requests concerning the notice or demand.
- (g) All demands made against the City by a beneficiary of this payment guarantee shall be presented to the Engineer along with

all written documentation concerning the demand which the Engineer deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the Contractor for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the Contractor and that the demand has not been paid by the Contractor within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the Contractor concerning such demand. The City shall notify the Contractor that a demand has been made. The Contractor shall inform the City of any defenses to the demand and shall forward to the City any documents the City requests concerning the demand. (h) The City shall make payment only if, after considering all defenses presented by the Contractor, it determines that the payment is due and owing to the beneficiary making the demand.

(h) No beneficiary shall be entitled to interest from the City, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

10.6.3 Upon the receipt by the City of a demand pursuant to this Article 10.6, the City may withhold from any payment otherwise due and owing to the Contractor under this Contract an amount sufficient to satisfy the demand.

(a) In the event the City determines that the demand is valid, the City shall notify the Contractor of such determination and the amount thereof and direct the Contractor to immediately pay such amount to the beneficiary. In the event the Contractor, within seven (7) calendar days of receipt of such notification from the City, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the Contractor to the beneficiary for the amount of the demand determined by the City to be valid. The Contractor, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the City, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

(b) In the event that the amount otherwise due and owing to the Contractor by the City is insufficient to satisfy such demand, the City may, at its option, require payment from the Contractor of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the City may have under Law or Contract.

(c) In the event the City determines that the demand is invalid, any amount withheld pending the City's review of such demand shall be paid to the Contractor; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 24 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

10.6.4 The provisions of this Article 10.6 shall not prevent the City and the Contractor from resolving disputes in accordance with the PPB Rules, where applicable.

10.6.5 In the event the City determines that the beneficiary is entitled to payment pursuant to this Article 10.6, such determination and any defenses and counterclaims raised by the Contractor shall be taken into account in evaluating the Contractor's performance.

10.6.6 Nothing in this Article 10.6 shall relieve the Contractor of the obligation to pay the claims of all persons with valid and lawful claims against the Contractor relating to the Work.

10.6.7 The payment guarantee made pursuant to this Article 10.6 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the Contractor or its Subcontractors in the prosecution of the Work under this Contract all of the rights and remedies afforded to such persons by such section, including but not limited to, the right to commence an action against the City on the payment guarantee provided by this Article 10.6 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 11 - CONSTRUCTION MANAGEMENT SERVICES

11.1 General Description of Construction Management Services: The Contractor shall provide, to the satisfaction of the Commissioner, all Work necessary and required for the inspection, supervision, management, coordination and administration of the Program, so that the required Work is properly executed, completed in a timely fashion and conforms to the requirements of the Construction Documents and to good construction practice. The Contractor shall provide construction management services as directed by the Commissioner. Such construction management services shall include without limitation the services set forth in this Article 11. The Contractor shall cooperate in all respects with representatives of the Commissioner concerning all aspects of the Program. The Contractor shall be entitled to reasonably rely on all City-supplied information and shall not be held liable for any defects arising out of errors in such City-supplied information.

11.2 The Contractor's Personnel

11.2.1 Key Personnel: It is the intent of the City to secure the personal services of those key design and construction management personnel identified in Exhibit A for the titles set forth therein. Accordingly, the Contractor agrees to assign such key personnel for the entire duration of Program. Failure by the Contractor to provide such key personnel will be considered a material breach of the Contract and grounds for termination for cause. Replacement of such key personnel will only be permitted in the following circumstances: (1) if the designated individual is no longer in the employ of the Contractor, or (2) if the City fails to direct the Contractor to commence work on the Program within nine (9) months of the date the Contractor submitted its technical proposal. Replacement of such key personnel must comply with the conditions set forth in Article 11.3.4 below.

11.2.2 Staffing Requirements: Staffing requirements for personnel are set forth in Exhibit B. Such staffing requirements specify the following: (1) titles of design and construction management personnel that may be required for the Program, (2) minimum requirements per title. The Contractor agrees, throughout the term of the Contract, to provide design and construction management personnel as directed by the Commissioner. The Contractor specifically agrees that its employees, agents and consultants shall possess the

experience, knowledge and character necessary to qualify them individually for the particular duties they perform.

11.2.3 Minimum Requirements Per Title: Design and construction management personnel providing services hereunder must satisfy the minimum requirements for the specific title in which he/she is performing services, as set forth in Exhibit B. The Contractor shall provide resumes or other documentation acceptable to the Commissioner to demonstrate that personnel provided hereunder comply with the minimum requirements per title.

11.3 Staffing Plan: A Staffing Plan for the Program shall be established as set forth below. Such Staffing Plan must be established and approved by the Commissioner prior to commencement of the Contractor's Work pursuant to this Contract.

11.3.1 Contents of Staffing Plan: The Staffing Plan shall include the items set forth below. Such Staffing Plan shall include only those titles of personnel necessary for the provision of the required Work.

- (a) Key Personnel: Individuals named in Exhibit A as Key Personnel
- (b) Other Personnel: Required titles and specific individual for each title

11.3.2 Proposed Staffing Plan: Within seven (7) calendar days after commencement of this Contract, the Contractor shall submit a proposed Staffing Plan for the Program. Such Staffing Plan shall include the items listed above. With respect to each proposed employee, the Contractor shall provide: (1) the employee's resume, as well as any other information detailing his/her technical qualifications and expertise, (2) the title in Exhibit B for which the employee meets the qualification requirements,

11.3.3 Review and Approval of Staffing Plan: The Commissioner shall review the Contractor's proposed Staffing Plan and shall direct revisions to the same if necessary prior to final approval thereof. As part of his/her review, the Commissioner shall determine (1) whether each specific employee meets the qualification requirements for the applicable title, The Contractor shall revise the proposed Staffing Plan as directed, until such plan is approved in writing by the Commissioner.

11.3.4 Revisions to the Staffing Plan: Any revisions to the Staffing Plan are subject to the prior written approval of the Commissioner.

- (a) Replacement Personnel: No substitutions for assigned personnel shall be permitted unless the proposed replacement has received the prior written approval of the Commissioner. Replacement personnel must possess qualifications substantially similar to those of the personnel being replaced. As set forth above, replacement of key design and construction management personnel will not be permitted unless the designated individual is no longer in the employ of the Contractor.
- (b) Changes by the Commissioner: The Commissioner reserves the right to direct changes to the Staffing Plan, including without limitation, modifying the titles of personnel necessary for the Program and increasing or decreasing the personnel assigned to the Program, based upon the scope of the required Work. The Contractor shall increase or decrease the personnel assigned to the Program, as directed by the Commissioner.
- (c) Removal of Personnel: At the Commissioner's request at any time, the Contractor shall remove any personnel and substitute another employee of the Contractor reasonably satisfactory to the Commissioner. The Commissioner may request such substitution at any time, in his/her sole discretion.
- (d) Revisions Due to Delay: In the event completion of a Project is delayed for any reason, including without limitation, strike, work stoppage, severe weather conditions or other circumstances not due to the fault of the Contractor, the Commissioner shall, in writing, direct revisions to the Staffing Plan to decrease the level of staffing to be maintained throughout the delay. During such period the Staffing Expenses will not be paid. The Contractor will be paid a reduced sum pursuant to the change order provisions of this Agreement.

11.4 Related Services: Throughout the Program, the Contractor shall be responsible for providing the related services set forth below. All costs for such related services are deemed included in the Staffing Expenses.

11.4.1 Throughout the term of this Contract, the Contractor shall be required to provide and maintain a Project Office, dedicated to the activities of personnel in connection with Projects assigned under this Contract. Such Project Office shall be in accordance with the requirements set forth in Exhibit D, including the location of the Project Office

11.4.2 The Contractor shall provide overnight delivery of the following Project documents: (1) bid and Contract Documents; (2) all required submittals, including without limitation shop drawings, material samples and catalogue cuts; (3) change orders; (4) documents with respect to payment, and (5) any other critical communications and/or documents.

11.4.3 The Contractor shall provide transportation, including parking and tolls, for the Project Executive(s) and all personnel assigned to the Program, except as otherwise provided below. The transportation provided shall be vehicular, unless a Project site can be easily accessed by public transportation. Contractors and/or consultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.

- (a) In the event the Contractor is directed in advance in writing by the Commissioner to provide services which require long distance travel, the Contractor shall be reimbursed for expenses incurred in connection with such long distance travel.

- (b) Long distance travel shall mean travel which is in excess of 75 miles from whichever of the following is closer to the destination: (1) Columbus Circle, or (2) the Contractor's home office.
- (c) Reimbursement for long distance travel expenses shall be as set forth in Article 42.5.

11.4.4 The Contractor shall provide communications equipment and service, including without limitation cellular telephones for the Project Executive(s) and all personnel assigned to the Program. The telephone numbers of all personnel assigned to the Program shall be submitted to the Commissioner.

11.5 NOT USED

11.6 Services During Construction

11.6.1 The Contractor shall undertake the following responsibilities with respect to the Progress Schedule:

- (a) Review proposed Progress Schedule(s), and any updates thereto, submitted by the Subcontractor(s) and direct the Subcontractor(s) to revise the same as necessary prior to Contractor submission of the Progress Schedule, or any updates thereto, to the Commissioner for approval in accordance with Article 8 hereof.
- (b) Take appropriate action to ensure compliance with the Progress Schedule by the Subcontractor(s).
- (c) Review the adequacy of the personnel and equipment of the Subcontractor(s) and the availability of necessary materials and supplies to ensure compliance with the Progress Schedule.
- (d) Notify the Commissioner of any anticipated delays in fabrication or construction.
- (e) Take appropriate action to minimize delays to the Project caused by labor disputes during construction.
- (f) If performance of the Work by the Subcontractor(s) falls behind the Progress Schedule, advise the Commissioner of the same and make recommendations as to what methods should be adopted to make up for lost time.

11.6.2 Review and evaluate the means and methods of construction and/or remediation proposed by the Subcontractor(s) and direct changes as necessary in the event the Contractor reasonably believes that such proposed means and methods of construction and/or remediation will constitute or create a hazard to the work, or persons or property, or will not produce finished work in accordance with the terms of the Construction Documents.

11.6.4 Undertake the following responsibilities with respect to the safety of the Project site:

- (a) Perform all CM responsibilities set forth in the DDC Safety Requirements (Exhibit E).
- (b) Review all Safety Programs and Site Safety Plan(s) developed by the Subcontractor(s) and direct revisions to the same as necessary prior to submission to DDC.
- (c) Take appropriate action to enforce Subcontractor compliance with (1) Safety Program, (2) Site Safety Plan, (3) DDC Safety Requirements, and (4) all applicable regulations that pertain to construction safety.
- (d) Promptly notify the Commissioner and the Subcontractor(s) if the Contractor observes any hazardous conditions at the Site or non-compliance by the Subcontractor(s) with its Safety Program, Site Safety Plan, DDC Safety Requirements, any applicable safety regulations or subcontract requirements.
- (e) Take or cause to be taken precautions to minimize the risk of injury to persons and damage to property resulting from or arising out of the Work.
- (f) In the event of an emergency, provide such labor, materials, equipment and supervision necessary to cure such emergency condition. The Contractor shall immediately notify the Commissioner of any such emergency condition.

11.6.5 Undertake the following responsibilities with respect to record keeping:

- (a) Keep accurate and detailed written records of the progress of each Home within the Work Order and the Project during all stages of planning and construction.
- (b) Maintain a daily job diary or log book describing all activities which occurred on the Project on a daily basis, including without limitation, all Work accomplished, the number of workers, identified by trade, employed at the Site by the Subcontractor(s), the number of hours worked, material shortages, labor difficulties, weather conditions, visits by officials, decisions reached, specific problems encountered, general and specific observations, and all other pertinent data relative to the performance of the Work.
- (c) Maintain accurate, orderly and detailed files and written records and documents regarding the Project, including without limitation, correspondence, minutes and/or reports of job conferences, progress reports, shop drawings and other submissions, subcontract documents, including all addenda, change orders, supplemental drawings records of all meetings and attempted meetings with Homeowners and all other Project-related documents
- (d) The Contractor shall provide any records, documents or information concerning the Project to the Commissioner as directed.
- (e) With respect to work to be performed on a time-and-materials, unit cost, or similar basis, requiring the keeping of records and computation therefrom, maintain cost accounting records in accordance with the City's procedures.
- (f) Ensure that record "As Built" Drawings are produced and kept current by the Subcontractor(s) in accordance with the requirements of the Construction Documents.
- (g) All Project records, including without limitation those specified above, shall be available to the Commissioner at all times immediately upon request, and the Commissioner shall have the right to remove such Project records and make copies

thereof.

11.6.6 Monitor compliance by the Subcontractor(s) with the following requirements applicable to the Work: (1) New York State Labor Law, except that prevailing wage laws are not applicable to this contract; (2) Americans with Disabilities Act (ADA); (3) requirements for the participation of M/WBEs, (4) the Sandy Hiring Plan and HUD requirements, and (5) requirements for the participation of Locally Based Enterprises (LBEs). If Participation Goals have been established for the participation of M/WBEs in the subcontracted Work, the Subcontractor is not required to comply with the LBE Program.

11.6.7 Undertake the following responsibilities with respect to Subcontractor payments:

- (a) Review all requisitions for payments submitted by the Subcontractor(s), including without limitation partial payments, payments for extra work, Substantial Completion and final payments.
- (b) Verify all estimates for payments of Work performed, computations, as well as field measurements and sketches necessary for payment purposes.
- (c) With respect to each requisition for payments submitted by the Subcontractor(s), determine the amount of liquidated damages, back charges or other deductions to be assessed.
- (d) Contractor's requisitions for payment for Work performed by Subcontractors, submitted in accordance with Article 42 hereof, shall be based upon and in accordance with Subcontractor requisitions for payment reviewed and approved by the Contractor.

11.6.8 Review and approve or disapprove applications for extensions of time submitted by the Subcontractor(s). The Contractor's request for a time extension for construction Work performed by Subcontractors, submitted for Commissioner approval in accordance with Article 10 hereof, shall be based upon and in accordance with Subcontractor applications for extensions of time reviewed and approved by the Contractor.

11.6.9 Review, evaluate and respond to requests from Subcontractors for explanatory information and/or interpretation of the meaning and intent of the Construction Documents. The Contractor shall confer with the Consultant, ascertain the Consultant's interpretation and prepare a response to the Subcontractor setting forth the Consultant's interpretation. In the event the Subcontractor disagrees with such interpretation, the Contractor shall prepare a detailed report to the Commissioner setting forth the Consultant's interpretation, the Subcontractor's interpretation and that by the Contractor.

11.6.10 Undertake the following responsibilities with respect to Subcontractor requests for change orders:

- (a) Review, evaluate and make a decision with respect to the validity of all written Subcontractor requests for change orders. The Contractor's decision as to the validity of the proposed Subcontractor change order shall be in writing and shall provide a reasonably detailed explanation for the decision based upon the information presented by the Subcontractor and the requirements of the Construction Documents.
- (b) If the Contractor decides that the Subcontractor's request for a change order is not valid, it shall provide such written decision to the Subcontractor, with a copy of the same to the Commissioner.
- (c) If the Contractor decides that the Subcontractor's request for a change order is valid, the Contractor shall prepare the proposed Subcontractor change order and submit the same to the Commissioner for approval. Such proposed Subcontractor change order shall include or be accompanied by the following: (1) the Contractor's written decision as to the validity of the change order, (2) the cost proposal submitted by the Subcontractor, (3) the Contractor's evaluation of such cost proposal, (4) the Contractor's own cost estimate of the quantities of labor, equipment and materials required for the performance of the proposed change order. The Contractor must be prepared to substantiate the information with respect to the change order to the Commissioner, the Engineering Audit Officer, the Comptroller and any other agency having jurisdiction in this area. The Commissioner will make all final determinations regarding change orders, modifications and additions to the Construction Documents.
- (d) If the Commissioner approves the Contractor's request for a Subcontractor change order, the Contractor shall negotiate a price, i.e., a lump sum price or unit prices, for the performance of the proposed change order work and submit the same to the Commissioner for his approval.

11.6.11 Conduct job meetings with the Subcontractor(s), Consultants, representatives of the Commissioner, interested city agencies and any other entities or individuals involved with the Program to discuss procedures, performance, progress, problems, scheduling and related issues. The Contractor shall prepare minutes of such meetings in a format authorized by the Commissioner and shall distribute such minutes to all attendees.

11.6.12 Undertake the following responsibilities with respect to Project and Program reports:

- (a) Submit written progress reports to the Commissioner on a monthly basis, unless otherwise directed. Such reports shall be based upon the most current information and shall include, without limitation:
 - (1) Progress Schedule, including information concerning the Work of the construction Subcontractor(s) and the percentage of completion of the Work;
 - (2) Change Order Tracking Sheet, indicating the number and amount of change orders;
 - (3) Shop Drawing Log Schedule;

- (4) Fabrication and Delivery Schedule;
 - (5) Budget for the Project, including a comparison of the original budget with current disbursements and the estimated cost to complete, and
 - (6) All information needed for reporting required by New York City Local Law 140 of 2013, (NYC Administrative Code 6-138.),
 - (7) Progress photographs, as set forth in Article 11.6.21.
- (b) Provide reports regarding the Work as may be directed by the Commissioner, incorporating such information, interpretation, detail or back-up material as may be required by the Commissioner.

11.6.13 Undertake the responsibilities set forth below with respect to disputes submitted by its Subcontractors. Disputes shall mean disputes of the kind delineated in Article 29 of this Agreement.

- (a) Review, evaluate and prepare a recommended determination with respect to disputes filed by its Subcontractors. The Contractor's recommendation shall be in writing, and shall contain a clearly stated, reasoned explanation for the determination based upon the information and evidence presented by the Subcontractor, as well as the requirements of the subcontract and the Construction Documents.
- (b) The Contractor shall submit the dispute filed by its Subcontractor to the City for resolution in accordance with Article 29 of this Agreement. The Contractor's submission shall be accompanied by the recommended determination described above.

11.6.14 Determine the need for and undertake default proceedings against the Subcontractor(s). In the event of default by a Subcontractor, the Contractor shall promptly submit for Commissioner approval an alternate Subcontractor(s) to perform the Work.

11.6.15 Undertake the following responsibilities with respect to Substantial Completion of the Work:

- (a) Inspect each Home in conjunction with the Consultant and the Commissioner's Representative at the time of Substantial Completion.
- (b) Furnish a detailed report to the Commissioner and the Consultant setting forth any discrepancies or deficiencies in the finished Work.
- (c) Take all appropriate action through its Subcontractors for the repair, replacement, restoration or rebuilding, as the Commissioner may determine, of any discrepancies or deficiencies in the finished Work.
- (d) Finalize all necessary Punch Lists, including completion dates for all items, and expedite execution of the same by its Subcontractors.

11.6.17 Undertake the following responsibilities with respect to Final Acceptance of the Work:

- (a) Inspect each Home in conjunction with the Consultant and the Commissioner's Representative at the time of Final Acceptance.
- (b) Furnish a detailed report to the Commissioner and the Consultant setting forth any discrepancies or deficiencies in the finished Work.
- (c) Take all appropriate action through its Subcontractors for the repair, replacement, restoration or rebuilding, as the Commissioner may determine, of any discrepancies or deficiencies in the finished Work.
- (d) Assemble and deliver to the Homeowner, with a copy to the Commissioner, all record "As Built" Drawings. The Contractor shall notify the Commissioner of any issues, problems or observations relative to such drawings.
- (e) Ensure that all regulatory approvals have been obtained, unless directed otherwise in writing by the Commissioner.

11.6.18 Collect guarantees from the manufacturer, maintenance and operations manuals, keying schedules and other data required of the Subcontractor(s), and maintain photographic records, material and equipment delivery records, visual aids, charts and graphs.

11.6.20 Undertake the following responsibilities with respect to maintenance and guarantee obligations:

- (a) Prior to the expiration of the guarantee period set forth in Article 25 hereof, inspect the Home and furnish a report to the Commissioner describing in detail any finished Work in which defects of materials or workmanship may have appeared or to which damage may have occurred because of such defects, during the applicable guarantee period.
- (b) Take all appropriate action through its Subcontractors for the repair, replacement, restoration or rebuilding, as the Commissioner may determine, of any finished Work in which defects of materials or workmanship may have appeared or to which damage may have occurred because of such defects, during the applicable guarantee period.

11.6.21 Take photographs to document the progress of the construction Work. Such photographs shall be taken on a bi-weekly basis until Substantial Completion of the Work. As indicated in Article 11.6.14, such photographs shall be included in each monthly progress report.

11.6.22 Provide or cause to be provided all temporary facilities and utilities as necessary for the performance of the Work.

11.6.23 In the event any claim is made or any action brought in any way relating to the design or construction of a Project, the Contractor shall diligently render to the City and/or the Homeowner all assistance which may be required. Such services shall be rendered by the Contractor without additional fee or other compensation, except for the costs and expense of personnel who were assigned to the Project as job-site or management staff, or comparable personnel if those who were assigned to the Project are no longer employed by the Contractor.

11.6.23 In the event any claim is made or any action brought in any way relating to the Work provided hereunder, including design, construction and/or remediation, the Contractor shall diligently render to the City and/or the Homeowner all assistance which the City and/or the Homeowner may require. Such Work shall be rendered by the Contractor without additional fee or other compensation, except for the costs and expense of personnel who were assigned to the Project as job-site or management staff, or comparable personnel if those who were assigned to the Project are no longer employed by the Contractor.

11.6.24 Perform such other Project related Work as may from time to time be directed by the Commissioner.

11.7 Reporting

11.7.1 As of March 2013, the City has implemented a new web based Subcontractor reporting system through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip. In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at that Site. Additional assistance with PIP may be received by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

In order to obtain Subcontractor approval under this Article and PPB Rule § 4-13, Contractor is required to list the Subcontractor in the system. For each Subcontractor listed, Contractor is required to provide the following information: maximum contract value, description of Subcontractor work, start and end date of the subcontract and identification of the Subcontractor's industry. Thereafter, Contractor will be required to report in the system the payments made to each Subcontractor within 30 calendar days of making the payment. If any of the required information changes throughout the Term of the Contract, Contractor will be required to revise the information in the system.

Failure of the Contractor to list a Subcontractor and/or to report Subcontractor payments in a timely fashion may result in the Department declaring the Contractor in default of the Contract and will subject Contractor to liquidated damages in the amount of \$100 per day for each day that the Contractor fails to identify a Subcontractor along with the required information about the Subcontractor and/or fails to report payments to a Subcontractor, beyond the time frames set forth herein or in the notice from the City. Article 15 shall govern the issue of liquidated damages.

11.8 Additional Services: The Contractor may be directed to provide additional services. Additional services shall be such services determined by the Commissioner to be necessary for the expeditious completion of a Project, and may include without limitation, the performance of general conditions Work and/or the purchase of miscellaneous items.

ARTICLE 12 - CHARACTER OF THE WORK

12.1 Unless otherwise expressly provided in this Agreement, the Work must be performed in accordance with the best, modern practice, with materials and workmanship of the highest quality, to the satisfaction of the Commissioner. All materials required for the Work shall be free from all defects, of the best available grade and quality, entirely satisfactory for the purpose intended, furnished in ample quantities to prevent delays, and in accordance with all requirements of this Agreement.

ARTICLE 13 - MEANS AND METHODS OF CONSTRUCTION

13.1 Unless otherwise expressly provided in this Agreement, the means and methods of construction and/or remediation shall be such as the Contractor may choose; subject, however, to the Commissioner's right to reject means and methods proposed by the Contractor which: (1) will constitute or create a hazard to the Work, or to persons or property; or (2) will not produce finished Work in accordance with the terms of the Agreement.

13.2 The Commissioner's approval of the Contractor's means and methods of construction and/or remediation, or his/her failure to exercise his right to reject such means or methods, shall not relieve the Contractor of his obligation to accomplish the result intended by the Agreement; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 14 - INSPECTION

14.1 During the progress of the Work and up to the date of Final Acceptance of all required Work, the Contractor shall at all times afford the representatives of the City and HUD every reasonable, safe and proper facility for inspecting all Work done or being done at the Site and also the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

14.2 The Contractor's obligation hereunder shall include the uncovering or taking down of finished Work and its restoration thereafter, provided, however that the order to uncover, take down and restore shall be in writing, and further provided that if Work thus exposed proves satisfactory, such uncovering or taking down and restoration shall be considered an item of Extra Work to be paid for in accordance

with the provisions of Article 26 hereof.

14.3 Inspection and approval by the Commissioner's Representative of finished Work or of work being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the Contractor of his obligation to perform the Work in strict accordance with the Agreement. Finished or unfinished Work found not to be in strict accordance with the Agreement shall be replaced as directed by the Commissioner's Representative, even though such Work may have been previously approved and paid for.

14.4 Rejected Work and materials must be promptly taken down and removed from the Site, which must at all times be kept in a reasonably clean and neat condition.

ARTICLE 15 - PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION

15.1 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall be under an absolute obligation to protect the finished and unfinished Work against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such Work at the Contractor's sole cost and expense, as directed by the Commissioner's Representative. The obligation to deliver finished Work in strict accordance with the Contract prior to Final Acceptance shall be absolute and shall not be affected by the Commissioner's Representative's approval of, or failure to prohibit, the Means and Methods of Construction used by the Contractor.

15.2 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall take all reasonable precautions to protect all persons and the property of the City, Homeowners, occupants of the Home, and of others from damage, loss or injury resulting from the Contractor's, and/or its Subcontractors' operations under this Contract. The Contractor's obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the Site suitable and sufficient protection such as lights, barricades, and enclosures.

15.3 The Contractor shall comply with the notification requirements set forth below in the event of any loss, damage or injury to Work, persons or property, or any accidents arising out of the operations of the Contractor and/or its Subcontractors under this Contract.

15.3.1 The Contractor shall make a full and complete report in writing to the Commissioner's Representative within three (3) calendar days after the occurrence.

15.3.2 The Contractor shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the Contractor's own employees) no later than twenty (20) calendar days after such event and again no later than twenty (20) calendar days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the City and/or the Engineer, Architect, or Project Manager are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured." Such notice shall also be sent to the Homeowner.

15.3.2(a) Whenever such notice is sent under a policy on which the City is an Additional Insured, the Contractor shall provide copies of the notice to the Comptroller, the Commissioner and the City Corporation Counsel. The copy to the Comptroller shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. The copy to the Commissioner shall be sent to Commissioner, NYC Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, NY 11101. The copy to the City Corporation Counsel shall be sent to Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

15.3.2(b) If the Contractor fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the Contractor shall indemnify the City all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the City.

15.4

The Contractor shall defend, indemnify and hold the City, its officers and employees harmless from any and all claims (even if the allegations of the lawsuit are without merit) costs and expenses (including reasonable attorneys' fees) to which the City, its officials and employees may be subjected to or which it may suffer or incur, or judgments, for damages on account of any injuries or death to any person or damage to any property arising out of or in connection with any operations of the Contractor and/or its Subcontractors and/or Consultants to the extent resulting from any negligent act of commission or omission, or failure to comply with the provisions of this Contract or of the Laws or for any intentional tortious act of the Contractor or its employees. Insofar as the facts or Law relating to any claim would preclude the City from being completely indemnified by the Contractor, the City shall be partially indemnified by the Contractor to the fullest extent permitted by Law.

15.4.1 Indemnification under Article 15.4 or any other provision of the Contract shall operate whether or not Contractor or its Subcontractors or Consultants have placed and maintained the insurance specified under Article 23.

15.4.2 Except to the extent indemnification is required pursuant to sections 9.4.1 and 15.4 of this Agreement or under the Insurance Program to be established under Article 71, the Parties agree that neither shall be liable to the other for damages in the nature of special, indirect or consequential damages in contract actions between the Parties.

15.5 The provisions of this Article 15 shall not be deemed to create any new right of action in favor of third parties against the Contractor, the City, or the Homeowners.

ARTICLE 16 - REQUEST FOR INFORMATION OR APPROVAL

16.1 From time to time as the Work progresses and in the sequence indicated by the approved Progress Schedule, the Contractor may submit to the Commissioner a specific request in writing for each item of information or approval required by him. These requests must state the latest date upon which the information or approval is actually required by the Contractor, and must be submitted sufficiently in

advance thereof to allow the Commissioner a reasonable time to act upon such submissions or any necessary re-submissions thereof.

16.2 The Contractor shall not have any right to an extension of time on account of delays due to his failure to submit his requests for the required information for the required approval in accordance with the above requirements.

ARTICLE 17 - NOTICE AND DOCUMENTATION OF DELAY DAMAGES AND OTHER DAMAGES; PRODUCTION OF FINANCIAL RECORDS

17.1 After the commencement of any condition which is causing or may cause a delay in completion of the Work, including conditions for which the Contractor may be entitled to an extension of time, the following notifications and submittals are required:

17.1.1 Within seven (7) calendar days after the commencement of such condition, the Contractor must notify the Commissioner's Representative in writing of the existence, nature and effect of such condition upon the approved progress schedule and the Work, and must state why and in what respects, if any, the condition is causing or may cause a delay.

17.1.2 If the Contractor shall claim to be sustaining damages for delay, by reason of any act or omission of the City or its agents, it shall submit to the Commissioner within forty-five (45) calendar days from the time such damages are first incurred, and every thirty (30) calendar days thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The Contractor may submit any of the above statements within such additional time as may be granted by the Commissioner in writing upon written request therefor. Failure of the Commissioner to respond in writing to a written request for additional time within thirty (30) calendar days shall be deemed a denial of the request. On failure of the Contractor to fully comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the Contractor may claim in any action arising under or by reason of this Contract shall not be different from or in excess of the statements made and documentation provided pursuant to this Article.

17.2 Failure of the Contractor to strictly comply with the requirements of Article 17.1.1 may, in the discretion of the Commissioner, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the Contractor to strictly comply with the requirements of Articles 17.1.1 and 17.1.2 shall be deemed a conclusive waiver by the Contractor of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

17.3 When appropriate and directed by the Commissioner's Representative, the progress schedule shall be revised by the Contractor until finally approved by the Commissioner's Representative. The revised progress schedule must be strictly adhered to by the Contractor.

17.4 If the Contractor shall claim to be sustaining damages by reason of any act or omission of the City or its agents, it shall submit to the Commissioner within forty-five (45) calendar days from the time such damages are first incurred, and every thirty (30) calendar days thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The Contractor may submit any of the above statements within such additional time as may be granted by the Commissioner in writing upon written request therefor. Failure of the Commissioner to respond in writing to a written request for additional time within thirty (30) calendar days shall be deemed a denial of the request. On failure of the Contractor to fully comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the Contractor may claim in any action or dispute resolution procedure arising under or by reason of this Contract shall not be different from or in excess of the statements and documentation made pursuant to this Article.

17.5 In addition to the foregoing statements, the Contractor shall, upon notice from the Commissioner, produce for examination at the Contractor's office, by the Commissioner's Representative, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, canceled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this Contract, and submit itself and persons in its employment, for examination under oath by any person designated by the Commissioner or Comptroller to investigate claims made or disputes against the City under this Contract. At such examination, a duly authorized representative of the Contractor may be present.

17.6 In addition to the statements required under Article 30 and this Article, the Contractor and/or its Subcontractor and/or Consultant shall, within thirty (30) calendar days upon notice from the Commissioner or Comptroller, produce for examination at the Contractor's and/or Subcontractor's and/or Consultant's office, by a representative of either the Commissioner or Comptroller, all of its books of account, bid documents, financial statements, accountant work papers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, canceled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this Contract. Further, the Contractor and/or its Subcontractor and/or Consultant shall submit any person in its employment, for examination under oath by any person designated by the Commissioner or Comptroller to investigate claims made or disputes against the City under this Contract. At such examination, a duly authorized representative of the Contractor may be present.

17.7 Unless the information and examination required under Article 17.6 is provided by the Contractor and/or its Subcontractor and/or Consultant upon thirty (30) calendar days' notice from the Commissioner or Comptroller, or upon the Commissioner's or Comptroller's written authorization to extend the time to comply, the City shall be released from all claims arising under, relating to or by reason of this Contract, except for sums certified by the Commissioner or Comptroller to be due under the provisions of this Contract. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the City to recover any sum in excess of the sums certified by the Commissioner or Comptroller to be due under or by reason of this Contract, the Contractor must allege in its complaint and prove, at trial or during such dispute resolution procedure,

compliance with the provisions of this Article.

17.8 In addition, after the commencement of any action or dispute resolution procedure by the Contractor arising under or by reason of this Contract, the City shall have the right to require the Contractor to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 17.6 and submit itself and all persons in its employ for examination under oath. If this Article is not complied with as required, then the Contractor hereby consents to the dismissal of the action or dispute resolution procedure.

ARTICLE 18 – Not Used

ARTICLE 19 - EXTENSION OF TIME

19.1 Upon written application by the Contractor, the Agency Chief Contracting Officer may grant an extension of time for performance of the Contract. Said application must state, at a minimum, in detail, each cause for delay, the date the cause of the alleged delay occurred, and the total number of delay in days attributable to such cause. The ruling of the Agency Chief Contracting Officer shall be final and binding as to the allowance of an extension and the number of days allowed.

ARTICLE 20 - OCCUPATION OR USE PRIOR TO COMPLETION

20.1 Unless otherwise provided for in the Work Order, the Homeowner may take over, use, occupy or operate any part of the Work at any time prior to Final Acceptance, upon written authorization of the Commissioner. Such authorization must include the date when the Homeowner may take over, use, occupy or operate part of the Work and a brief description of the relevant part of the Work. In the event the Homeowner takes over, uses, occupies, or operates any part of the Work:

20.1.1 the Commissioner shall issue a written certification of completion with respect to such part of the Work and shall submit a certification form with photo inventory of Work;

20.1.2 the Contractor shall be relieved of its absolute obligation to protect such part of the unfinished Work in accordance with Article 15; and

20.1.3 the Contractor's guarantee on such part of the Work shall begin on the date in the written authorization by the Contractor required in Article 20.1.

ARTICLE 21 - CHANGED CONDITIONS

21.1 Should the Contractor encounter during the progress of the Work, subsurface conditions at the Site materially differing from any shown on any documents furnished by the Commissioner or such subsurface conditions as could not reasonably have been anticipated by the Contractor and were not anticipated by the City, which conditions will materially affect the cost of the Work to be done under the Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If he finds that they do so materially differ, or that they could not reasonably have been anticipated by the Contractor and were not anticipated by the City, the Contract may be modified with his written approval. Any increase in cost resulting therefrom shall be in accordance with Article 26 and the Procurement Policy Board Rules.

ARTICLE 22 - ASSIGNMENTS

22.1 The Contractor shall not assign, transfer, convey or otherwise dispose of this Contract, or of its rights, obligations, duties, in whole or in part, or of its right to execute it, or its right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the moneys due or to become due under this contract, unless the prior written consent of the Commissioner shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments. Any such assignment, transfer, conveyance or other disposition without such consent shall be void.

22.2 Such assignment, transfer, or conveyance shall not be valid until filed in the office of the Department of Design and Construction and of the Comptroller with the written consent of the Commissioner endorsed thereon or attached thereto.

22.3 Failure of the Contractor to obtain the required prior written consent of the Commissioner to such an assignment, transfer or conveyance, shall be cause for termination for cause, at the option of the Commissioner; and, if so terminated, the City shall thereupon be relieved and discharged from any further liability and obligation to the Contractor, its assignees or transferees, and all monies that may become due under the contract shall be forfeited to the City, except so much thereof as may be necessary to pay the Contractor's employees.

22.4 The provisions of this Article shall not be construed to hinder, prevent or affect an assignment by the Contractor for the benefit of creditors made pursuant to the statutes of the State of New York.

22.5 The Contractor hereby assigns, sells and transfers to the City of New York all right, title and interest in and to any claims and causes of action arising under the antitrust laws of New York State or of the United States relating to the particular goods or services purchased or procured by the City under this Contract.

22.6 This Contract may be assigned by the City to any corporation, agency or instrumentality having authority to accept such assignment.

ARTICLE 23 - INSURANCE

23.1 Types of Insurance: From the date the Contractor is ordered to commence Work and throughout the term of this Contract, the Contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the following types and amounts of insurance. All insurance shall meet the requirements set forth in this Article 23. Wherever this Article requires that insurance coverage be "at least as broad" as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the Contractor can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

23.1.1 Commercial General Liability Insurance: The Contractor shall provide a Commercial General Liability Insurance policy (with the coverages indicated below) in the minimum amount of \$2,000,000 per occurrence (combined single limit), \$5,000,000 aggregate. The Contractor shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this Contract. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office ("ISO") Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a "per project" aggregate limit, as stated above, that applies separately to operations under this Contract.

Such Commercial General Liability Insurance shall name the City and the Homeowner as an Additional Insured. Coverage for the City shall specifically include the City's officials and employees, be at least as broad as the latest edition of ISO Form CG 2010 and completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

The general liability insurance policy provided shall include the following endorsements:

- (a) The City of New York, including its officials and employees, and the Homeowner are Additional Insureds under this policy.
- (b) Notice under the Policy to the Additional Insured shall be addressed to the Commissioner of the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York, New York 11101 and to the Homeowner at the address provided by the City.
- (c) Notice of Accident shall be given to the Company by the Insured within one hundred twenty (120) calendar days after notice of such accident has been sent to the Commissioner of the Department of Design and Construction and the Homeowner.
- (d) Notice of Claim shall be given to the Company within one hundred twenty (120) calendar days after such notice shall be filed with the Comptroller of the City of New York.
- (e) Any notice, demand or other writing by or on behalf of the Named Insured to the Insurance Company shall also be deemed to be a notice, demand, or other writing on behalf of the City and Homeowner as Additional Insureds. Any response by the Insurance Company to such notice, demand or other writing shall be addressed to Named Insured, to the Homeowner at the address provided by the City, and to the City at the following addresses: Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, N.Y. 10007; and Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, NY 10007.
- (f) Notice of Cancellation of Policy, as set forth in Article 23.2.4 below.

23.1.2 Professional Liability Insurance: Any Consultant engaged by the Contractor to perform professional services hereunder, and any subconsultant performing professional services, must provide Professional Liability insurance in the amount of at least One Million Dollars (\$1,000,000) per claim. The policy or policies shall include an endorsement to cover the liability arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the consultant or anyone employed by the consultant.

- (a) Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Consultant or subconsultant shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.

23.1.3 Workers' Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance: The Contractor shall provide, and shall cause its Subcontractors to provide, Workers Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance in accordance with the Laws of the State of New York on behalf of all employees providing services under this Contract

23.1.4 Commercial Automobile Liability Insurance: The Contractor shall provide liability insurance in the amount of \$1,000,000 per occurrence (combined single limit), \$2,000,000 aggregate, covering all owned, non-owned and hired vehicles to be used in

connection with this contract. Such policy shall name the City of New York as an additional insured thereunder. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

23.2 General Requirements for Insurance Coverage and Policies:

23.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the City Corporation Counsel.

23.2.2 The Contractor shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the City is an insured under the policy.

23.2.3 In his/her sole discretion, the Commissioner may, subject to the approval of the Comptroller and the City Corporation Counsel, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

23.2.4 The City's limits of coverage for all types of insurance required pursuant this contract shall be the greater of (i) the minimum limits set forth in the this agreement or (ii) the limits provided to the Contractor as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

23.2.5 The Contractor may satisfy its insurance obligations under this Article 23 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

23.2.6 Policies of insurance provided pursuant to this Article 23 shall be primary and non-contributing to any insurance or self-insurance maintained by the City.

23.3 Proof of Insurance:

23.3.1 For all types of insurance required by Article 23.1 except for Builder's Risk insurance, if required, the Contractor shall file proof of insurance in accordance with this Article 23.3 within ten (10) Days of award. For Builder's Risk, proof shall be filed by a date specified by the Commissioner or ten (10) Days prior to the commencement of the portion of the Work covered by such policy, whichever is earlier.

23.3.2 For Workers' Compensation Insurance provided pursuant to Article 23.1.3, the Contractor shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the Commissioner. For Disability Benefits Insurance provided pursuant to Article 23.1.3, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the Commissioner. ACORD forms are not acceptable.

23.3.3 For policies provided pursuant to all of Article 23.1 other than Builder's Risk, the Contractor shall submit one or more Certificates of Insurance on forms acceptable to the Commissioner. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 23.1.1 that the City and the Homeowner are Additional Insureds with coverage at least as broad as the most recent edition of ISO Forms CG 20 10, CG 20 37, and CG 20 26, as applicable; (c) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (d) the number assigned to the Contract by the City. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Broker" in the form attached to this agreement or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

23.3.4 Documentation confirming renewals of insurance shall be submitted to the Commissioner prior to the expiration date of coverage of policies required under this Contract. Such proofs of insurance shall comply with the requirements of Articles 23.3.2 and 23.3.3.

23.3.5 The Contractor shall be obligated to provide the City with a copy of any policy of insurance provided pursuant to this Article 23 upon the demand for such policy by the Commissioner or the City Corporation Counsel.

23.4 Operations of the Contractor:

23.4.1 The Contractor shall not commence the Work unless and until all required certificates have been submitted to and accepted by the Commissioner. Acceptance by the Commissioner of a certificate does not excuse the Contractor from securing insurance consistent with CITY OF NEW YORK

all provisions of this Article 23 or of any liability arising from its failure to do so.

23.4.2 The Contractor shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this Contract and shall be authorized to perform Work only during the effective period of all required coverage.

23.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the Contractor shall immediately stop all Work, and shall not recommence Work until authorized in writing to do so by the Commissioner. Upon quitting the Site, except as otherwise directed by the Commissioner, the Contractor shall leave all plant, materials, equipment, tools, and supplies on the Site. Contract time shall continue to run during such periods and no extensions of time will be granted. The Commissioner may also declare the Contractor in default for failure to maintain required insurance.

23.4.4 In the event the Contractor receives notice, from an insurance company or other person, that any insurance policy required under this Article 23 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the Contractor shall immediately forward a copy of such notice to both the Commissioner and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the Contractor shall ensure that there is no interruption in any of the insurance coverage required under this Article 23.

23.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 23, the Contractor shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this Contract (including notice to Commercial General Liability insurance carriers for events relating to the Contractor's own employees) no later than 20 days after such event. For any policy where the City and/or Homeowner are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York and Homeowner as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The Contractor shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

23.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 23, the Contractor shall at all times fully cooperate with the City with regard to such potential or actual claim.

23.5 Subcontractor Insurance: In the event the Contractor requires any Subcontractor to procure insurance with regard to any operations under this Contract and requires such Subcontractor to name the Contractor as an Additional Insured thereunder, the Contractor shall ensure that the Subcontractor name the City, including its officials and employees, as an Additional Insured with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

23.6 Wherever reference is made in Article 15 or this Article 23 to documents to be sent to the Commissioner (e.g., notices, filings, or submissions), such documents shall be sent to 30-30 Thomson Avenue, Long Island City, NY 11101. In the event no address is set forth in Schedule A, such documents are to be sent to the Commissioner's address as provided elsewhere in this Contract.

23.7 Apart from damages or losses covered by insurance provided pursuant to Articles 23.1.3, or 23.1.4, the Contractor waives all rights against the City, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 23 (whether or not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the Contractor and/or its employees, agents, or Subcontractors.

23.8 In the event the Contractor utilizes a self-insurance program to satisfy any of the requirements of this Article 23, the Contractor shall ensure that any such self-insurance program provides the City with all rights that would be provided by traditional insurance under this Article 23, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

23.9 Materiality/Non-Waiver: The Contractor's failure to secure policies in complete conformity with this Article 23, or to give an insurance company timely notice of any sort required in this Contract or to do anything else required by this Article 23 shall constitute a material breach of this Contract. Such breach shall not be waived or otherwise excused by any action or inaction by the City at any time.

23.10 Pursuant to General Municipal Law Section 108, this Contract shall be void and of no effect unless Contractor maintains Workers' Compensation Insurance for the term of this Contract to the extent required and in compliance with the New York State Workers' Compensation Law.

23.11 Other Remedies: Insurance coverage provided pursuant to this Article 23 or otherwise shall not relieve the Contractor of any liability under this Contract, nor shall it preclude the City from exercising any rights or taking such other actions available to it under any other provisions of this Contract or Law.

ARTICLE 24 - MONEY RETAINED AGAINST CLAIMS

24.1 If any claim shall be made by any person or entity against the City or against the Contractor and the City for any of the following:

- (a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Article 15, plus the reasonable costs of defending the City, which in the opinion of the Comptroller may not be paid by an insurance company (for any reason whatsoever); or
- (b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 9.4.1; or

- (c) Damage claimed to have been caused directly or indirectly by the failure of the Contractor to perform the Work in strict accordance with this Contract,

the amount of such claim, or so much thereof as the Comptroller may deem necessary, may be withheld by the Comptroller, as security against such claim, from any money due hereunder. The Comptroller, in his/her discretion, may permit the Contractor to substitute other satisfactory security in lieu of the monies so withheld.

24.2 If no action is commenced upon such claim within the time limited thereof by law, the Comptroller, upon written demand by the Contractor, shall return the amount so withheld without interest.

24.3 If an action on such claim is timely commenced and the liability of the City, or the Contractor, or both, shall have been established therein by a final judgment of a Court of competent jurisdiction, or if such claim shall have been admitted by the Contractor to be valid, the Comptroller shall pay such judgment or admitted claim out of the moneys retained by him under the provisions of this Article, and return the balance, if any, without interest, to the Contractor.

24.4 Liens: If any persons claiming to have performed any labor or furnished any material toward the performance or completion of this Contract file a lien against a Homeowner's property, the Contractor shall discharge such lien within 14 days pursuant to the New York Lien Law. The City may retain from the monies due or to become due under this Contract, so much of such monies as shall be sufficient to pay the amount claimed and the money so retained may be held by the City until the lien is discharged.

ARTICLE 25 - MAINTENANCE AND GUARANTY

25.1 The Contractor shall promptly repair, replace, restore or rebuild, as the Commissioner or Director of HRO may determine, any finished Work in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of Substantial Completion (or use and occupancy in accordance with Article 20).

25.1.1 For one year from the date of Substantial Completion by the Contractor, the Contractor shall maintain an email address to receive messages from the City directing the Contractor to repair, replace, restore or rebuild such defects of materials or workmanship or damage.

25.1.2 The Contractor shall check its designated email account at least once each business day and respond to the City's direction within one business day.

25.1.3 The City shall schedule an appointment with the Homeowner, the Contractor, a City representative. Generally such appointment will be scheduled within seven days, but may be sooner if the defect or damage presents a health or safety risk.

25.1.4 The Contractor shall be liable for liquidated damages in the amount of \$200 for failure to arrive at the appointment within 2 hours of the scheduled time.

25.1.5 At the appointment, the Commissioner's Representative shall draft a proposed repair order, which describes the Work to be completed and the time for completion. The proposed repair order, when signed by the Commissioner's Representative, the Homeowner, and the Contractor, shall constitute the approved repair order.

25.1.6 Upon completion of the Work, the Contractor shall notify the HRO Management Team and request an inspection.

25.1.7 The City shall perform an inspection on such Work.

25.2 As security for the faithful performance of its obligations hereunder, the Contractor, upon filing his requisition for the Substantial Completion payment hereunder, shall deposit with the Commissioner a sum equal to 1% of the value of the construction Work certified for payment in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the Comptroller; or obligations of the City of New York, which the Comptroller may approve as of equal value with the sum so required. Alternately, the Commissioner may withhold such amount from the Substantial Completion Payment.

25.3 If the Contractor has faithfully performed all of its obligations hereunder the Commissioner shall so certify to the Comptroller within five (5) Days after the expiration of one (1) year from the date of Final Acceptance of a Work. The security payment shall be repaid to the Contractor without interest within thirty (30) Days after certification by the Commissioner to the Comptroller that the Contractor has faithfully performed all of its obligations in connection with the Contract.

25.4 Notice by the Director of HRO or Commissioner to the Contractor to repair, replace, rebuild or restore such defective or damaged Work shall be timely, pursuant to this article, if given not later than ten (10) Days subsequent to the expiration of the one (1) year period provided for herein.

25.5 If the Contractor shall fail to repair, replace, rebuild or restore such defective or damaged Work promptly after receiving such notice, the Commissioner shall have the right to have the Work done by others and to deduct the cost thereof from the amount so deposited hereunder.

25.6 If the security payment so deposited is insufficient to cover the cost of such Work, the Contractor shall be liable to pay such deficiency on demand by the Commissioner.

25.7 The Director of HRO's certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective Work when performed by one other than the Contractor, shall be binding and conclusive upon the Contractor as to the amount thereof.

ARTICLE 26 - CONTRACT CHANGES

26.1 Changes may be made to this Contract only as duly authorized by the Agency Chief Contracting Officer or his or her designee. Contractors deviating from the requirements of an original purchase order or contract without a duly approved change order document, or written contract modification or amendment, do so at their own risk. All such changes, modifications and amendments will become a part of the original Contract. Work so ordered must be performed by the Contractor.

26.2 Contract changes will be made only for Work necessary to complete the Work included in the original scope of the Contract, and for non-material changes to the scope of the Contract. Changes are not permitted for any material alteration in the scope of the Projects. Contract changes may include any contract revision deemed necessary by the Contracting Officer. The Contractor may be entitled to a price adjustment for Extra Work performed pursuant to a written change order. If any part of the Contract Work is necessarily delayed by a change order, the Contractor may be entitled to an extension of time for performance. Adjustments to price shall be computed in one or more of the following ways: (1) by agreement of a fixed price; (2) by unit prices specified in the contract; (3) by time and material record; and/or (4) in any other manner approved by the City Chief Procurement Officer.

26.3 Where the cost of the change order has been negotiated in the absence of established cost history, the costs are subject to verification.

26.4 All payments for change orders are subject to pre-audit by the Engineering Audit Officer and may be post-audited by the Comptroller. If the audits reveal that the Contractor's costs for the change order work were inaccurately stated during negotiations, the Agency shall recoup the amount by which the costs were inaccurately stated by proportionately reducing the price of the change order. This remedy is not exclusive and in addition to all other rights and remedies of the City.

ARTICLE 27 - AUDIT AND EXAMINATION; INTEGRITY MONITOR

27.1 This Contract and all payments hereunder shall be subject to examination by the Engineering Audit Officer (EAO) of DDC and post-audit by the Comptroller of the City of New York in accordance with Law.

27.2.1 The City Department of Investigation ("DOI") shall engage an Integrity Monitor to monitor the Work of Contractor, including but not limited to its chief executive personnel, employees, Subcontractors, Consultants, suppliers, vendors and affiliated businesses and monitor and investigate allegations of fraud by the Contractor and other parties in connection with the Build it Back Program. Among other activities, the Integrity Monitor will:

1. conduct audits and investigations to determine Contractor's compliance with the Law;
2. conduct audits and investigations to determine Contractor's compliance with all the terms and conditions of this Contract and any other agreements it enters into with the City in connection with the Build it Back Program;
3. examine documents related to the operation of Build it Back Program in the possession of Contractor, that may relate to its responsibility;
4. review payment requisitions for accuracy;
5. audit disposal of contaminated and hazardous waste;
6. review payrolls and refer anomalies to DDC;
7. report any integrity issue immediately to DOI;
8. refer any work quality and/or safety issue immediately to DDC and to DOI if the issue relates to the integrity of the Contractor;¹
9. review Subcontractor approval documents;
10. maintain a site presence; and
11. investigate allegations of fraud in connection with the Build it Back Program.

27.2.2 Contractor shall fully cooperate with the Integrity Monitor.

27.2.3 Based on the Integrity Monitor's reports, the City may take remedial action or declare the Contractor in default.

ARTICLE 28 - METHODS OF PAYMENT FOR EXTRA WORK

28.1 Overrun of Unit Price Item: The provisions set forth below shall apply to overruns of unit price items which the Contractor, through its Subcontractor, is directed to provide. An overrun is any quantity of a unit price item which the Contractor, through its

¹ With respect to performance issues, DDC will determine what steps need to be taken if Contractor fails to do its job or does an inadequate job. The monitor(s) will identify performance issues for DDC, but DDC will determine the best way to proceed (e.g., require the Contractor to redo Work, withhold payment, replace the Contractor).

Subcontractor, is directed to provide which is in excess of one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

28.1.1 For any unit price item, the Contractor's Subcontractor will be paid at the unit price bid for any quantity up to one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the Work, the actual quantity of any unit price item required to complete the Work approaches the estimated quantity for that item, and due to errors, site conditions, changes in design, or any other reason, it appears that the actual quantity of any unit price item necessary to complete the Work will exceed the estimated quantity for that item by twenty-five (25%) percent, the Contractor shall immediately notify the Commissioner's Representative of such anticipated overrun. The Contractor's Subcontractor shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty five (125%) percent of the estimate quantity for that item set forth in the bid schedule without written authorization from the Commissioner's Representative.

28.1.2 If the actual quantity of any unit price item necessary to complete the Work will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the City reserves the right and the Contractor, through its Subcontractor, agrees to negotiate a new unit price for such item. In no event shall such negotiated new price exceed the unit bid price. If the City and Contractor, through its Subcontractor, cannot agree on a new unit price, then the City shall order the Contractor and the Contractor, through its Subcontractor agrees to provide additional quantities of the item on a time and material basis for the actual and reasonable cost as determined under Article 28.2, but in no event at a unit price exceeding the unit price bid.

28.2 Extra Work: For Extra Work where payment is by agreement on a fixed price in accordance with Article 26, the price to be paid for such Extra Work shall be based on the fair and reasonable estimated cost of the items set forth below. For Extra Work where payment is based on time and material records in accordance with Article 26, the price to be paid for such Extra Work shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

28.2.1 Necessary materials (including transportation to the Site); plus

28.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

28.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such Extra Work; plus

28.2.4 Reasonable rental value of Contractor-owned (or Subcontractor-owned, as applicable), necessary plant and equipment other than Small Tools, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. Contractor-owned (or Subcontractor-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the Contractor (or Subcontractor, as applicable), as determined by the Commissioner. In establishing cost reimbursement for non-operating Contractor-owned (or Subcontractor-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the City may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

28.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the Site, if any, provided that, in the case of non-Contractor-owned (or non-Subcontractor-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

28.2.6 Necessary fees charged by governmental entities; plus

28.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

28.2.8 Reasonable rental costs of non-Contractor-owned (or non-Subcontractor-owned, as applicable) necessary plant and equipment other than Small Tools, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. In lieu of renting, the City reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

28.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the City for the performance of the Extra Work which is different than the types of insurance required by Article 23. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB");

plus

28.2.10 Additional costs incurred as a result of the Extra Work for performance and payment bonds; plus

28.2.11 Twelve percent (12%) percent of the total of items in Articles 28.2.1 through 28.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on Payroll Taxes or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by this Agreement other than Workers' Compensation Insurance; plus

28.2.12 Ten (10%) percent of the total of items in Articles 28.2.1 through 28.2.5, plus the items in Article 28.2.11, as compensation for profit, except that no percentage for profit will be allowed on Payroll Taxes or on the premium portion of overtime pay or on sales and personal property taxes; plus

28.2.13 Five (5%) percent of the total of items in Articles 28.2.6 through 28.2.10 as compensation for overhead and profit.

28.3 Where the Extra Work is performed in whole or in part by other than the Subcontractor's own forces, the Subcontractor shall be paid, subject to audit by the Engineering Audit Officer, the cost of such Work computed in accordance with Article 28.2 above, plus an additional allowance of five (5%) percent to cover the Subcontractor's overhead and profit.

28.4 Where a change is ordered, involving both Extra Work and omitted or reduced subcontract Work, the subcontract price shall be adjusted, subject to audit by the EAO, in an amount based on the difference between the cost of such Extra Work and of the omitted or reduced Work. The cost of such Extra Work and of such omitted or reduced Work shall be computed based upon applicable subcontract unit prices. Where there are no applicable subcontract unit prices, the cost of such Extra Work and of such omitted or reduced subcontract Work shall be computed in accordance with the Articles 28.2.1 through 28.2.7. If the cost of such Extra Work exceeds the costs of such omitted or reduced subcontract Work, the subcontract price shall be increased by the difference, plus percentages for overhead and profit as provided in Articles 28.2.8 and 28.2.9. If the cost of the omitted or reduced subcontract Work exceeds the cost of the Extra Work, then the subcontract price shall be reduced by the difference.

28.5 Where the Contractor and the Commissioner can agree upon another method of payment for Extra Work in accordance with Article 26.2, or for Extra Work ordered in connection with omitted work, such method, subject to audit by the EAO, may, at the option of the Commissioner, be substituted for the cost plus a percentage method; provided in Article 28.2; provided, however, that if the Extra Work is performed by a sub-subcontractor engaged by a Subcontractor, the Subcontractor shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such sub-subcontractor's Work as computed in accordance with Article 28.2.

28.6 Unless the parties agree on a lump sum payment for Extra Work, requests for payment for Extra Work performed by construction Subcontractors shall be accompanied by signed time sheets, documenting by date the actual hours worked by specific personnel for whom payment is requested, and any other data as may be requested by the Commissioner.

28.7 The Contractor shall not be entitled to any mark-up whatsoever on payments for Extra Work ordered pursuant to Article 26 hereof performed by Subcontractors.

ARTICLE 29 - RESOLUTION OF DISPUTES

1. All disputes between the City and the Contractor of the kind delineated in this Article that arise under, or by virtue of, this Contract shall be finally resolved in accordance with the provisions of this article and the PPB Rules. This procedure for resolving disputes of the kind delineated herein shall be the exclusive means of resolving such disputes.

- (a) This Article shall not apply to disputes concerning matters dealt with in other sections of the PPB Rules, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.
- (b) This Article shall apply only to disputes about the scope of work delineated by the Contract, the interpretation of Contract documents, the amount to be paid for extra work or disputed work performed in connection with the Contract, the conformity of the Contractor's work to the Contract, and the acceptability and quality of the Contractor's work; such disputes arise when the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner makes a determination with which the Contractor disagrees.

2. All determinations required by this Article shall be made in writing, clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article shall be deemed a non-determination without prejudice that will allow application to the next level.

3. During such time as any dispute is being presented, heard, and considered pursuant to this Article, the Contract terms shall remain in force and effect and the Contractor shall continue to perform Work as directed by the ACCO or the Engineer. Failure of the Contractor to continue Work as directed shall constitute a waiver by the Contractor of its claim.

4. Presentation of Dispute to Commissioner.

- (a) Notice of Dispute and Agency Response. The Contractor shall present its dispute in writing (“Notice of Dispute”) to the Commissioner within thirty (30) days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the Contract. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the Contractor relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the Contractor in the dispute was arrived at. Within thirty (30) days after receipt of the detailed written submission comprising the complete Notice of Dispute, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, shall submit to the Commissioner all materials he or she deems pertinent to the dispute. Following initial submissions to the Commissioner, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the Commissioner shall be final. Willful failure of the Contractor to produce any requested material whose relevancy the Contractor has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the Contractor of its claim.
- (b) Commissioner Inquiry. The Commissioner shall examine the material and may, in his or her discretion, convene an informal conference with the Contractor, the ACCO, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, to resolve the issue by mutual consent prior to reaching a determination. The Commissioner may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The Commissioner’s ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the Commissioner participated therein. The Commissioner may or, at the request of any party to the dispute, shall compel the participation of any other contractor with a contract related to the work of this Contract and that contractor shall be bound by the decision of the Commissioner. Any contractor thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article as the Contractor initiating the dispute.
- (c) Commissioner Determination. Within thirty (30) days after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the Commissioner shall make his or her determination and shall deliver or send a copy of such determination to the Contractor, the ACCO and the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, as applicable, together with a statement concerning how the decision may be appealed.
- (d) Finality of Commissioner Decision. The Commissioner’s decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board (“CDRB”) pursuant to this Article. The City may not take a petition to the CDRB. However, should the Contractor take such a petition, the City may seek, and the CDRB may render, a determination less favorable to the Contractor and more favorable to the City than the decision of the Commissioner.

5. Presentation of Dispute to the Comptroller. Before any dispute may be brought by Contractor to the CDRB, the Contractor must first present its claim to the Comptroller for his or her review, investigation, and possible adjustment.

- (a) Time, Form, and Content of Notice. Within thirty (30) days of receipt of a decision by the Commissioner, the Contractor shall submit to the Comptroller and to the Commissioner a Notice of Claim regarding its dispute with the Agency. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the Contractor contends the dispute was wrongly decided by the Commissioner; (ii) a copy of the decision of the Commissioner, and (iii) a copy of all materials submitted by the Contractor to the Agency, including the Notice of Dispute. The Contractor may not present to the Comptroller any material not presented to the Commissioner, except at the request of the Comptroller.
- (b) Agency Response. Within thirty (30) days of receipt of the Notice of Claim, the Agency shall make available to the Comptroller a copy of all material submitted by the Agency to the Commissioner in connection with the dispute. The Agency may not present to the Comptroller any material not presented to the Commissioner, except at the request of the Comptroller.
- (c) Comptroller Investigation. The Comptroller may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in sections 7-201 and 7-203 of the New York City Administrative Code. In addition, the Comptroller may demand of either party, and such party shall provide, whatever additional material the Comptroller deems pertinent to the claim, including original business records of the Contractor. Willful failure of the Contractor to produce within fifteen (15) days any material requested by the Comptroller shall constitute a waiver by the Contractor of its claim. The Comptroller may also schedule an informal conference to be attended by the Contractor, Agency representatives, and any other personnel desired by the Comptroller.
- (d) Opportunity of Comptroller to Compromise or Adjust Claim. The Comptroller shall have forty-five (45) days from his or her receipt of all materials referred to in 5(c) to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the Contractor and the Comptroller, to a maximum of ninety (90) days from the Comptroller’s receipt of all the materials. The Contractor may not present its petition to the CDRB until the period for investigation and compromise delineated in this paragraph has expired. In compromising or adjusting any claim hereunder, the Comptroller may not revise or disregard the terms of the contract between the parties.

6. Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

- (a) The chief administrative law judge of the Office of Administrative Trials and Hearings (“OATH”) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this section as may be necessary in the execution of the CDRB’s functions, including, but not limited to, granting extensions of time to present or respond to submissions;
- (b) The City Chief Procurement Officer (“CCPO”) or his/her designee; any designee shall have the requisite background to consider

and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated, and

- (c) A person with appropriate expertise who is not an employee of the City. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH, with appropriate background to act as decision-makers in a dispute. Such individuals may not have a contract or dispute with the City or be an officer or employee of any company or organization that does, or regularly represent persons, companies, or organizations having disputes with the City.

7. Petition to CDRB. In the event the claim has not been settled or adjusted by the Comptroller within the period provided in this section, the Contractor, within thirty (30) days thereafter, may petition the CDRB to review the Commissioner's determination.

- (a) Form and Content of Petition by Contractor. The Contractor shall present its dispute to the CDRB in the form of a Petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the Contractor contends that the dispute was wrongly decided by the Commissioner; (ii) a copy of the written decision of the Commissioner; (iii) copies of all materials submitted by the Contractor to the Agency; (iv) a copy of the written decision of the Comptroller, if any, and (v) copies of all correspondence with, and material submitted by the Contractor to, the Comptroller's Office. The Contractor shall concurrently submit four complete sets of the Petition: one to the Corporation Counsel (Attn: Commercial and Real Estate Litigation Division), and three to the CDRB at OATH's offices, with proof of service on the Corporation Counsel. In addition, the Contractor shall submit a copy of the statement of the substance of the dispute, cited in (i) above, to both the Commissioner and the Comptroller.
- (b) Agency Response. Within thirty (30) days of receipt of the Petition by the Corporation Counsel, the Agency shall respond to the statement of the Contractor and make available to the CDRB all material it submitted to the Commissioner and Comptroller. Three complete copies of the Agency response shall be submitted to the CDRB at OATH's offices and one to the Contractor. Extensions of time for submittal of the Agency response shall be given as necessary upon a showing of good cause or, upon the consent of the parties, for an initial period of up to thirty (30) days.
- (c) Further Proceedings. The CDRB shall permit the Contractor to present its case by submission of memoranda, briefs, and oral argument. The CDRB shall also permit the Agency to present its case in response to the Contractor by submission of memoranda, briefs, and oral argument. If requested by the Corporation Counsel, the Comptroller shall provide reasonable assistance in the preparation of the Agency's case. Neither the Contractor nor the Agency may support its case with any documentation or other material that was not considered by the Comptroller, unless requested by the CDRB. The CDRB, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The CDRB, in its discretion, may combine more than one dispute between the parties for concurrent resolution.
- (d) CDRB Determination. Within forty-five (45) days of the conclusion of all submissions and oral arguments, the CDRB shall render a written decision resolving the dispute. In an unusually complex case, the CDRB may render its decision in a longer period of time, not to exceed ninety (90) days, and shall so advise the parties at the commencement of this period. The CDRB's decision must be consistent with the terms of the Contract. Decisions of the CDRB shall only resolve matters before the CDRB and shall not have precedential effect with respect to matters not before the CDRB.
- (e) Notification of CDRB Decision. The CDRB shall send a copy of its decision to the Contractor, the ACCO, the Engineer, the Comptroller, the Corporation Counsel, the Comptroller, the CCPO, and the PPB. A decision in favor of the Contractor shall be subject to the prompt payment provisions of the PPB Rules. The Required Payment Date shall be thirty (30) days after the date the parties are formally notified of the CDRB's decision.
- (f) Finality of CDRB Decision. The CDRB's decision shall be final and binding on all parties. Any party may seek review of the CDRB's decision solely in the form of a challenge, filed within four months of the date of the CDRB's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the CDRB's decision was made in violation of lawful procedure, was affected by an error of law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the CDRB in accordance with this Article.

8. Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this Article shall not affect or impair the ability of the Commissioner or the CDRB to make a binding and final decision pursuant to this Article.

ARTICLE 30 – RECORD KEEPING FOR EXTRA OR DISPUTED WORK

30.1 While the Contractor or any of its Subcontractors is performing Extra Work on a Time and Material Basis ordered by the Commissioner under Article 28, or is performing disputed Work, or complying with a determination or order under protest in accordance with Article 29 hereof, in each such case the Contractor shall furnish the Commissioner's Representative daily with three (3) copies of written statements signed by the Contractor's representative at the Site showing:

30.1.1 The name and number of each Worker employed on such Work or engaged in complying with such determination or order, the number of hours employed, and the character of the Work each is doing; and

30.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such Work or compliance with such determination or order, and from whom purchased or rented.

30.2 A copy of such statement will be countersigned by the Commissioner's Representative, noting thereon any items not agreed to or questioned, and will be returned to the Contractor within two (2) calendar days after submission.

30.3 The Contractor and its Subcontractors, when required by the Commissioner, or the Comptroller, shall also produce for inspection, at the office of the Contractor or Subcontractor, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports, and canceled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such Work, or in complying with such determination or order, and the amounts expended therefor, and shall permit the Commissioner and the Comptroller to make such extracts therefrom, or copies thereof, as they or either of them may desire.

30.4 In connection with the examination provided for herein, the Commissioner, upon demand therefor, will produce for inspection by the Contractor such records as the Agency may have with respect to such Extra or disputed Work performed under protest pursuant to order of the Commissioner, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the Contractor's claim.

30.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such Work or compliance with such determination or order.

ARTICLE 31 - OMITTED WORK

31.1 If any Work in a lump sum subcontract, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid subcontract is omitted by the Commissioner pursuant to Article 33, the subcontract price, subject to audit by the Engineering Audit Officer, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of Work omitted, subject to Article 31.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 42 shall be considered, but shall not be the determining factor.

31.2 If the whole of a lump sum item or units of any other item is so omitted by the Commissioner in a unit price, lump sum, or percentage-bid subcontract, then no payment will be made therefore, except as provided in Article 31.4.

31.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of Work omitted, subject to Article 31.4.

31.4 In the event the Subcontractor, with respect to any omitted Work, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of the subcontract and has been specifically fabricated for the sole purpose of the subcontract, but not yet incorporated into the Work, the Subcontractor shall be paid for such material and/or equipment, as set forth below; provided, however, such payment is contingent upon the Subcontractor's delivery of such material and/or equipment in acceptable condition to a location designated by the City.

31.4.1 Payment for such material and/or equipment shall be in accordance with Article 28, subject to the following modification. For the purpose of payment hereunder, the percentage for overhead and profit set forth in Article 28.2.11 shall be reduced from twelve (12%) percent to five (5%) percent.

31.5 The Contractor and its Subcontractors agree to make no claim for damages or for loss of overhead and profit with regard to any omitted Work.

ARTICLE 32 - THE COMMISSIONER'S REPRESENTATIVE

32.1 The Commissioner's Representative shall be the representative of the Commissioner, and subject to review by the Commissioner, shall have the power, in the first instance, to inspect the performance of the Work and exercise such other authority as the Commissioner may delegate. He shall not however, have the power to issue an Extra Work order, except as specifically designated in writing by the Commissioner.

ARTICLE 33 - THE COMMISSIONER

33.1 The Commissioner, in addition to those matters elsewhere herein expressly made subject to his determination, direction or approval, shall have the power: (a) to review and determine any and all questions in relation to this Agreement and its performance; and (b) to modify or change this Agreement so as to require: (i) the performance of Extra Work (subject, however, to the limitations specified in Article 26 hereof); or (ii) the omission of Work whenever he deems it in the interest of the City to do so; or both; and (c) to postpone, delay, suspend or terminate the whole or any part of the Work, whenever in his judgment such action is required in the interest of the City.

ARTICLE 34 - NO ESTOPPEL

34.1 Neither the City nor any department, officer, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this Agreement by the City, the Commissioner, the Commissioner's Representative, or any other officer, agent or employee of the City, either before or after the final completion and acceptance of the Work and payment therefor:

34.1.1 from showing the true and correct classification, amount, quality or character of the Work actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the Work or any part thereof does not in fact conform to the requirements of this Agreement; and

34.1.2 from demanding and recovering from the Contractor any overpayments made to him, or such damages as it may sustain by reason of his failure to perform each and every part of his Agreement in strict accordance with its items, or both.

ARTICLE 35 - EMPLOYEES

35.1 The Contractor and its Subcontractors and Consultants shall not employ on the Work:

35.1.1 anyone who is not competent, faithful and skilled in the Work for which he shall be employed; and whenever the Commissioner shall inform the Contractor, in writing, that any employee is, in his opinion, incompetent, unfaithful or disobedient, he shall be discharged from the Work forthwith, and shall not again be employed upon it; or

35.1.2 any labor, materials or means whose employment, or utilization during the course of this Agreement, may tend to or in any way cause or result in strikes, Work stoppages, delays, suspension of Work or similar troubles by workers employed by the Contractor or his Subcontractors, or by any of the trades working in or about the buildings and premises where Work is being performed under this Agreement, or by other contractors or their Subcontractors pursuant to other contracts, or on any other building or premises owned or operated by the City of New York, its agencies, departments, boards or authorities. Any violation by the Contractor of this requirement may, upon certification of the Commissioner, be considered as proper and sufficient cause for terminating the Contractor for cause and taking such action as set forth in Article 46 hereof, or such other action as the Commissioner may deem proper; or

35.1.3 in accordance with Section 220.3-e of the New York State Labor Law, any apprentice, unless he is registered individually, under a bona fide program registered with the New York State Department of Labor. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the Contractor as to his Work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above shall be paid the wage rate determined by the Comptroller of the City of New York for the classification of Work being actually performed. The Contractor or Subcontractor will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the Contract Work.

35.2 If the total cost of the Work under this Contract is at least two hundred fifty thousand dollars, all laborers, workers, and mechanics employed in the performance of the Contract on the work site, either by the Contractor, Subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be certified prior to performing any Work as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten hours in duration.

ARTICLE 36 - NO DISCRIMINATION

36.1 As required by New York State Labor Law Section 220-e, it is agreed between the parties hereto as follows:

36.1.1 That in the hiring of employees for the performance of Work under this Agreement or any subcontract hereunder, neither the Contractor, Subcontractor, nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the Work to which the employment relates;

36.1.2 That neither the Contractor, Subcontractor, nor any person on his behalf shall, in any manner discriminate against or intimidate any employee hired for the performance of Work under this Agreement on account of race, creed, color or national origin;

36.1.3 That there may be deducted from the amount payable to the Contractor by the City under this Agreement a penalty of five dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this Agreement; and

36.1.4 That this Agreement may be canceled or terminated by the City and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the Agreement.

36.1.5 The aforesaid provisions of this section covering every contract for or on behalf of the State or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

36.2 As required by New York City Administrative Code Section 6-108:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of building or engaged in the construction or repair of streets or highways pursuant to a contract with the City or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a contract with the City to refuse to employ or to refuse to continue in any employment any

person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in subdivision 36.2.1 above, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Disobedience of the foregoing provisions shall be deemed a violation of a material provision of this Agreement.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this section shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars or by imprisonment for not more than thirty days, or both.

ARTICLE 37 - EQUAL EMPLOYMENT OPPORTUNITY

37.1 This Contract is subject to the requirements of Executive Order No. 50 (1980) as revised ("E.O. 50") and the Rules and Regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this contract, the Contractor agrees that:

37.1.1 The Contractor will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship status with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment;

37.1.2 When it subcontracts, the Contractor will not engage in any unlawful discrimination in the selection of Subcontractors on the basis of the owners', partners' or shareholders' race, color, creed, national origin, sex, age, disability, marital status, sexual orientation or citizenship status;

37.1.3 The Contractor will state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that all qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship, or that it is an equal employment opportunity employer;

37.1.4 The Contractor will send to each labor organization or representative or workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E. O. 50 and the rules and regulations promulgated thereunder; and

37.1.5 The Contractor will furnish all information and reports including an Employment Report before the award of the contract which are required by E. O. 50, the rules and regulations promulgated thereunder, and orders of the Director of the Office of Labor Services ("DLS"), and will permit access to its books, records and accounts by DLS for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

37.2 The Contractor understands that in the event of its noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of the contract and noncompliance with the E. O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of DLS, the Director of DLS may direct the imposition by the Commissioner of any or all of the following sanctions:

- 37.2.1 disapproval of the Contractor;
- 37.2.2 suspension or termination of the contract;
- 37.2.3 declaring the Contractor in default; or
- 37.2.4 in lieu of any of the foregoing sanctions, the Director may impose an employment program.

The Director of the DLS may recommend to the Department head that a Board of Responsibility be convened for purposes of declaring a contractor who has repeatedly failed to comply with E.O. 50 and the rules and regulations promulgated thereunder to be non-responsible.

37.3 The Contractor agrees to include the provisions of the foregoing paragraphs in every subcontract in the amount of \$10,000 or more to which it becomes a party, unless exempted by E. O. 50 and the rules and regulations promulgated thereunder, so that such provisions will be binding upon each Subcontractor. The Contractor will take such action with respect to any subcontract as may be directed by the Director of DLS as a means of enforcing such provisions, including sanctions for noncompliance.

37.4 The Contractor further agrees that it will refrain from entering into any contract or contract modification subject to E. O. 50 and the rules and regulations promulgated thereunder with a Subcontractor who is not in compliance with the requirements of E. O. 50 and the rules and regulations promulgated thereunder.

ARTICLE 38. LABOR LAW REQUIREMENTS

Labor Law Compliance: The Contractor shall take appropriate action to ensure compliance by its Subcontractors with the Labor Law.

Subcontracts: The Contractor shall include the provisions of this Article 38 set forth below in all subcontracts for construction Work..

LABOR LAW REQUIREMENTS

38.1 Minimum Wages: All persons employed by the Contractor and any Subcontractor in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this Contract, shall be paid, without subsequent deduction or rebate unless expressly authorized by Law, not less than the sum mandated by Law. Minimum wages shall be the rates fixed by Federal and State Law. The Contractor shall maintain employment and payroll records that comply with the requirements of the Fair Labor Standards Act.

38.2 Working Conditions: No part of the Work, labor or services shall be performed or rendered by the Contractor in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this Contract. Compliance with the safety, sanitary and factory inspection Laws of the state in which the Work is to be performed shall be prima facie evidence of compliance with this article.

38.3 For any breach or violation of either Working Conditions (Article 38.2) and Minimum Wages (Article 38.1), the party responsible therefore shall be liable to the City for liquidated damages, which may be withheld from any amounts due on any Contracts with the City of such party responsible, or may be recovered in suits brought by the Corporation Counsel in the name of the City, in addition to damage for any other breach of this Contract, a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this Contract. In addition, the Commissioner shall have the right to cancel Contracts and enter into other Contracts for the completion of the original Contract, with or without public letting, and the original Contractor shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the Commissioner directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the Contractor of the withholding or recovery of such sums by the City.

38.4 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this Contract, and grounds for cancellation thereof by the City.

38.5 The Contractor shall provide laminated identification badges which indicate the worker's, laborer's or mechanic's name, trade, employer's name and employment starting date (month/day/year). The Contractor shall require as a condition of employment on the Site, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the City and Homeowner during the performance of the Work.

38.6 Should a harmful dust hazard be created in performing the Work of this Contract, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this Contract voidable in the sole discretion of the City.

ARTICLE 39 - PAYROLL REPORTS

Compliance: The Contractor shall take appropriate action to ensure compliance by its Subcontractors with the payroll requirements set forth herein.

Subcontracts: The Contractor shall include the provisions of this Article 39 set forth below in all subcontracts for construction Work for the Project.

PAYROLL REPORTS

39.1 The Contractor shall maintain on the Site the original payrolls or transcripts thereof. The Contractor and Subcontractor(s) shall submit original payrolls or transcripts, subscribed and affirmed by it as true, with each and every payment requisition. The Contractor and Subcontractor(s) shall produce within five (5) calendar days on the Site of the Work and upon a written order of the Commissioner, Commissioner's Representative, the ACCO, the Agency EAO, or the Comptroller, such original payrolls or transcripts thereof, subscribed and affirmed by it as true, and the statements signed by each worker pursuant to this Contract. In addition, the Contractor and Subcontractor(s) shall furnish to the Commissioner's Representative upon written demand any other information to satisfy the Commissioner's Representative that this Contract and the Labor Law, as to the hours of employment and rates of wages, are being observed. The Contractor shall maintain the payrolls or transcripts thereof for six (6) years from the date of completion of the Work on this Contract.

39.2 When directed by the Commissioner's Representative, the Contractor or Subcontractor shall provide an attendance sheet for each Day on which Work is performed on the Site. Such attendance sheet shall be in a form acceptable to the Agency and shall provide information for employees of the Contractor and Subcontractor(s).

ARTICLE 40 - DUST HAZARDS

40.1 Should a harmful dust hazard be created in performing the Work of this Agreement, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the State of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this Agreement void.

ARTICLE 41 - NOISE CONTROL CODE PROVISIONS

41.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the City ("Administrative Code"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this Contract and which are subject to the provisions of the City Noise Control Code shall be operated, conducted, constructed, or manufactured without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the Commissioner of the Department of Environmental Protection.

41.2 The Contractor agrees to comply with Section 24-219 of the Administrative Code of the City ("Administrative Code") and implementing rules codified at 15 Rules of the City of New York ("RCNY") Sections 28-100 et seq. In accordance with such provisions, the Contractor, if the Contractor is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each work Site, in which the Contractor shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the Contractor cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the New York City Department of Environmental Protection. In addition, the Contractor's certified Construction Noise Mitigation Plan is subject inspection by the Department of Environmental Protection in accordance with 15 RCNY §28-101. No Contract work may take place at a work Site unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the Contractor shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

ARTICLE 42 - PAYMENT TERMS AND CONDITIONS

42.1 General

42.1.1 Total Payments: Total payments for all Work performed and all expenses incurred pursuant to this Agreement shall not exceed the amount set forth in Exhibit A.

42.1.2 Executory Only: This Agreement shall be deemed executory only to the extent of the moneys appropriated and available for the purpose of the Agreement and no liability or account thereof shall be incurred beyond the amount of such moneys. It is therefore understood that neither this Agreement nor any representation by any public employee or officer creates any legal or moral obligation to request, appropriate or make available moneys for the purpose of this Agreement.

42.1.3 Allowances: In the event the allowance amounts described in this Article are not sufficient, as determined by the Commissioner, to cover the cost of the items of required Work for which Allowance amounts are specified, the City will increase the amounts of such Allowances.

42.1.4 Reallocation of Allowance Amounts: Notwithstanding the specific amounts allocated for Allowances, as set forth in Exhibit A, the Commissioner may, by issuance of a "No Cost Change Order" to the Contractor, reallocate such specific Allowance amounts within this Article 42.

42.1.5 This is not a fixed price lump sum contract. No fee or Payments will be earned or paid for any period of time after Final Completion of all Work. Payments will be made in a combination of milestone payment, fee for services payment, and hourly rates. The terms and conditions applicable to payment for all required services for the Project are set forth in this Article 42 and in Article 25 and 26 as applicable. Such payment categories directly correspond to Tasks identified in the Scope of Work and are identified below:

42.2 Tasks

- 42.2.1
- Task A Construction Management Services and Task C Construction Procurement Services:
- An Allowance in the amount set forth in Exhibit A is established for payment of Staffing Expenses in accordance with the provisions set forth below.

-
- Staffing Expenses (Annual Cost of professional staffing): monthly payment according to one twelfth of the amount in the final negotiated Fee Proposal. Staffing Expenses are further described in Article 42.3.
- 42.2.1.1 Allowances in the amount set forth in Exhibit A is established for payment for the Field Office Setup and Field Office Operation in accordance with the provisions set forth below.
-
-
- Set Up of Project Office (mobilization and demobilization): lump sum payment of the amount in the Fee Schedule
- Operation of the Project Office: monthly payment according to one thirty-sixth of the lump sum total set forth in the fee
- 42.2.1.2 An Allowance in the amount set forth in Exhibit A is established for payment of the Fee for Profit in accordance with the provisions set forth below.
-
- Fee for Profit in increments of 20 Homes per pathway: milestone payment. 25% of the Fee for Profit upon being issued a Work Order identifying a project; 25% of the Fee for Profit upon commencement of construction of 20 Homes; 25% of the Fee for Profit upon Substantial Completion; and 25% of the Fee for Profit upon Final Acceptance of 20 Homes.
 - 42.2.2
 - Task B Scoping and Design Services
 - 42.2.2.1 An Allowance in the amount set forth in Exhibit A is established for payment of Scoping and Design Services in accordance with the provisions set forth below.
 -
- Scoping and Design Services: milestone payment based on the Unit Price per Home for three different pathways set forth in the Fee Form attached hereto in Exhibit A. 10% payable upon completion of Scoping and cost estimate; 30% payable upon completion of preliminary design; 50% payable upon completion of final design documents including bid document; and 10% for construction services payable upon Final Acceptance. CMs shall not invoice the City more than once a month.
 - 42.2.2.2 An Allowance in the amount set forth in Exhibit A is established for payment of as needed Architectural, Engineering and Construction Management Services in accordance with the provisions set forth below.
- **As needed Architectural, Engineering and Construction Management Services:** monthly payment based on the hourly rates set forth in Exhibit A. Such services will be performed if and only if directed by the Commissioner. The hourly rates set forth are all inclusive and will not be subject to markup of any kind.
 - 42.2.3
 - Task C Construction Services
 - An allowance in the amount set forth in Exhibit A is established for payment for construction work for the Project performed by Subcontractors under the supervision and control of the Contractor.
 -
- The CM shall be paid the price of the award given to the construction contractor. Payments for Construction shall be invoiced in accordance with the chart below

Milestone Payments	Billed at Milestone (% of Construction Value)
Mobilization	10%
25%	10%
50%	25%
75%	25%
90% and Substantial Completion	10%
100% and Final Acceptance	20%

- 42.2.4 Task D Emergency Work
- An Allowance in the amount set forth in Exhibit A is established for payment for Emergency Work in accordance with the provisions set forth below.
-
- 42.2.5 Should critical life safety issues arise, emergency construction work may be directed by the Commissioner. For Homes requiring emergency work where a project has already been bid and awarded, the PQL contractor shall be

required to do the emergency work. For Homes requiring emergency work where a project has not been bid, the CM will be required to bid the work to at least three contractors off the appropriate PQL lists As Needed Environmental Testing.

42.5.1 An Allowance in the amount set forth in Exhibit A is established for payment for Environmental Testing in accordance with the provisions set forth below.

42.2.5.1 If the Commissioner determines that environmental testing is need for any part on the Program the Contractor will be directed to solicit no fewer than 3 bids for such services, upon terms and conditions established by the Commissioner. The Contractor shall award such work to the lowest responsive and reasonable bidder, as determined by the Commissioner..

The Contractor will be required to submit invoices not more than once a month with a breakdown by each Home identified by the application number and borough, block and lot number. These invoices will identify the names and titles of the Contractor, Consultant, Subcontractor,, hourly rate, and number of hours per pay period. Invoices for services will be accepted once every 30 days. Payments will be made to the Contractors in accordance with the Prompt Payment provisions of the New York City Procurement Policy Board Rules.

42.3 Staffing Expenses shall be deemed to include: (1) all expenses incurred by the Contractor in the performance of all required CM services for the Project (2) all expenses related to management and oversight, including, without limitation, any time spent by principals performing such duties, (3) all expenses in connection with providing the related services set forth in Article 11 and (4) all expenses related to overhead. Staffing Expenses shall include, without limitation, the items set forth below:

(a) Compensation paid to personnel of the Contractor including without limitation all officers, principals, employees and personnel of the Contractor, serving in whatever capacity, including the Project Executive set forth in Exhibit A. Compensation shall include without limitation: (1) wages and/or salaries; (2) all payments mandated by law, including without limitation, Social Security and Medicare taxes, insurance (Worker's Compensation, Employers Liability, Unemployment); (3) employer contributions, if any, to retirement plans, including without limitation pension and/or deferred compensation plans; (4) all payments for compensated absence time, including without limitation vacation time, sick time, personal time and holidays, and (5) costs for any and all other fringe and/or supplemental benefits.

(b) All expenses for compensation paid to construction management personnel identified in the approved Staffing Plan that are in excess of compensation for such personnel payable hereunder. Compensation for such personnel shall include without limitation the items listed in item (a) above.

(c) All expenses incurred by the Contractor in connection with providing the related services set forth in Article 11, including without limitation, transportation, meals and lodging, unless the Contractor is directed in advance in writing by the Commissioner to provide services which require long distance travel,

(d) All expenses incurred by the Contractor with respect to home office general facilities including, but not limited to, rental cost or depreciation factor, light, heat and water, telephone charges, including all charges for calls to the job site and DDC (except for long distance calls to other locations as specifically required by the Commissioner), sales, estimating expenses, accounting fees and bookkeeping expenses, electronic data processing services, including programming and rental equipment, dues and subscriptions, stationery, printing, postage, and any other office or miscellaneous expenses, except as otherwise expressly provided in an allowance for miscellaneous expenses.

(e) All expenses incurred by the Contractor with respect to applicable taxes of any kind whatsoever, including without limitation, federal, state and local income tax and any franchise or other business taxes.

(f) All insurance coverage determined by the Contractor to be necessary for the performance of all required services hereunder, including without limitation: (1) all insurance required under this Contract; (2) all insurance required by law, and (3) all other insurance maintained by the Contractor in the course of business, including without limitation, burglary and theft, general fidelity and payroll insurance.

(g) Any losses for theft or robbery sustained by Contractor.

(h) All expenses incurred by the Contractor with respect to fixed capital, including interest thereon or on monies borrowed.

(i) All expenses incurred by the Contractor with respect to legal services.

(j) All management, administrative or overhead expenses of any kind whatsoever incurred by the Contractor, including without limitation, (1) management and/or administrative expenses in connection with the Design Consultant, and (2)) management and/or administrative expenses in connection with the performance of additional services.

42.3.1 Effect of certain delay on Staffing Expenses.

The anticipated volume and timeframe for issuance of Work Orders is included in Exhibit A, attached hereto. The Contractor's Staffing Expenses are based on this anticipated work flow. If the Contractors work is delayed for reasons not attributable to its actions or failure to act and such delay causes the construction schedule to extend beyond that anticipated by the Parties, the Contractor and the City may then negotiate a revision to the Staffing Expenses in order to provide for the increased cost to the Contractor in managing the Work on those Homes that were subject to such delay. Additionally, under such circumstances Project Office Operations may extended and the cost therefore negotiated. It is the expectation of the Parties that all work referenced in the Anticipated Work Order Schedule in Exhibit A will be completed by the end of year three. Staffing Expenses will not be renegotiated until after completion of year two.

The following reasons for delay under this section may result in a renegotiation of Staffing Expenses :

1. delay caused by a Homeowner in approval of the scope of work or in granting access to the Home ;
2. delayed caused by the City;

3. delay in regulatory approvals;
4. Unanticipated market conditions that in the opinion of the Commissioner result in an insufficient quantity of prequalified contractors.

42.4 Construction.

42.4.1 Construction Work shall include all required Work for the types of Projects described in Exhibit A.

42.4.2 The total amount to be paid for Construction Work shall not exceed the cumulative total of the amounts for which subcontracts for Work for the Project are awarded and the amounts of any change orders to such subcontracts. No amounts shall be paid for Construction Work, unless the Commissioner has given prior written approval to the amount of award of the subcontract and the amount of any change orders thereto.

42.4.3 Bid Breakdown of Subcontract Price: Upon commencement of construction Work, the Contractor shall submit a bid breakdown of costs on a per subcontract and Home by Home basis, and any other information as may be required by the Commissioner. This breakdown shall be used for checking the Contractor's requests for partial payment for Work performed by Subcontractors and shall not be binding on the Commissioner for any purpose whatsoever.

42.4.4 Partial Payments: Partial payments to the Contractor for Work performed by Subcontractors shall be on the basis of and in proportion to the percentage of completion of all Work required under the subcontract, as determined by the Commissioner and as set forth in Article 42.2.3.

- (a) With respect to Work, partial payments may be made for materials, fixtures and equipment in advance of their actual incorporation in the work, subject to approval by the Commissioner and compliance with the requirements set forth in Exhibit D.

42.4.5 Substantial Completion Requisition: Upon written determination by the Commissioner that the Work of a subcontract is substantially complete, the Contractor shall submit a requisition for a Substantial Completion payment for that subcontract. The Contractor must submit the following with such requisition:

- (a) Final verified statement of any and all alleged claims against the City, and any pending dispute resolution procedures in accord with the PPB Rules and this Contract, in any way connected with or arising out of this Contract (including those as to which details may have been furnished pursuant to Articles 17, 29 and 30 hereof). With respect to each such claim, the Contractor shall set forth the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the Contractor claims the performance of the Work or a particular part thereof, was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the Commissioner and the Comptroller shall have the same right to inspect, and to make extracts or copies of, books, vouchers, records, etc., of the Contractor or the Subcontractor, as referred to in Articles 17, 29 and 30 hereof. Nothing contained in this Article is intended to or shall relieve the Contractor from the obligation of giving timely notice of claims pursuant to Articles 17, 29 and 30 hereof. The Contractor is warned that unless such claims are completely set forth as herein required, the Contractor, upon acceptance of the Substantial Completion payment pursuant to this Article, will have waived any such claims arising out of the Work for which payment is requested.
- (b) Final written complete punch list and a date for completion of all required Work. The punch list and completion date are subject to the written acceptance of the Commissioner.
- (c) If required, a request for a substantial or final extension of time.

42.4.6 Substantial Completion Payment: The Commissioner shall issue a voucher calling for payment to the Contractor of any part or all of the balance due for Work for which payment is requested, including moneys retained hereunder, less any and all deductions authorized to be made by the Commissioner, under this Contract or by law, and less twice the amount the Commissioner considers necessary to ensure the completion of the balance of the Work of the subcontract. No further partial payments shall be made to the Contractor after the Commissioner determines that the subcontracted Work is substantially complete, except the Substantial Completion payment and any requisitions for partial payment that were properly filed with the Commissioner prior to the date of Substantial Completion; provided, however, the Commissioner may grant a waiver for further partial payments after the date of Substantial Completion to permit payments for change order work. Such waiver shall be in writing.

42.4.7 Final Payment: After Final Acceptance by the Commissioner of the subcontracted Work, the Contractor shall submit all required certificates and documents, together with a requisition for the balance claimed to be due, less the amount authorized to be retained for maintenance under Article 25 hereof. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the Commissioner.

42.4.8 Requisition for Final Payment: The Contractor must also submit with the final requisition for Work performed any amendments to the final verified statement of any and all alleged claims against the City, and any pending dispute resolution procedures in accord with the PPB Rules and this Contract, in any way connected with or arising out of the Work performed for which payment is requested (including those as to which details may have been furnished pursuant to Articles 17, 29 and 30 hereof) that have occurred

subsequent to Substantial Completion, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item. With reference to each permissible claim, the Commissioner and the Comptroller shall have the same right to inspect, and to make extracts or copies of, the books, vouchers, records, etc., of the Contractor or Subcontractor, as referred to in Articles 17, 29 and 30 hereof. Nothing contained in this Article, is intended to or shall relieve the Contractor from the obligation of giving timely notice of claims pursuant to Articles 17, 29 and 30 hereof. The Contractor is warned that unless such claims are completely set forth as herein required, the Contractor upon acceptance of the final payment, pursuant to Article 44 hereof, will have waived any such claims arising out of the Work performed for which payment is requested.

42.4.9 Voucher for Final Payment: Upon determining the balance due for subcontracted Work for which payment is requested, other than on account of claims, the Commissioner's Representative will prepare and certify, and the Commissioner will approve, a voucher for final payment in that amount less any and all deductions authorized to be made by the Commissioner under Contract or by law. Such voucher shall thereupon be filed with the Comptroller and a copy thereof delivered to the Contractor. The Commissioner shall certify the voucher for final payment for subcontracted Work for which payment is requested following completion and acceptance of the work, provided all requests for extensions of time have been acted upon, if required. Payment pursuant to such final voucher, less any deductions authorized to be made by the Commissioner under Contract or by law, shall constitute final payment in accordance with Article 44 hereof.

42.4.10 No Mark-Up: The Contractor shall not be entitled to any mark-up whatsoever on payments for subcontracted Work performed by Subcontractors.

42.5 Miscellaneous Expenses

42.5.1 An allowance in the amount set forth in Exhibit A is established for reimbursement for miscellaneous expenses. The Contractor shall be reimbursed for expenses actually incurred in the procurement of miscellaneous items in accordance with the terms and conditions set forth below.

- (a) No miscellaneous expenses shall be incurred by the Contractor, or reimbursed unless expressly authorized in a written directive from the Commissioner. For miscellaneous expenses in excess of \$150, such written authorization must be provided in advance of the expenditure.
- (b) In the event the Contractor is directed to purchase any item(s) pursuant to this allowance, such item(s) shall, unless otherwise directed by the Commissioner, be the sole property of the City or the Homeowner upon delivery to the designated location. Upon completion of the required work, as directed by the Commissioner, the Contractor shall turn such item(s) over to the City.
- (c) With respect to miscellaneous expenses, the Contractor shall utilize the method of procurement and form of payment directed by the Commissioner.
- (d) Reimbursement for miscellaneous expenses shall be the actual and reasonable cost of the same, with no mark-up for the Contractor's overhead and profit. Requests for reimbursement for miscellaneous expenses shall be accompanied by receipted bills or any other data required by the Commissioner.
- (e) Reimbursement for long distance travel expenses, as set forth in Article 11, shall be in accordance with the normal travel allowances of the City of New York for its own employees as provided in Comptroller's "Directive #6, Travel, Meals, Lodging and Miscellaneous Agency Expenses." The Contractor shall not be entitled to any mark-up with respect to long distance travel expenses. Requests for reimbursement for long distance travel expenses shall be accompanied by receipted bills or any other data required by the Commissioner.
- (f) Miscellaneous items shall be those items determined by the Commissioner to be necessary for the Program and shall include without limitation the items set forth below.
 - (1) equipment specified by DDC
 - (2) Long distance travel, as set forth in Article 11

42.6 NOT USED

42.7 Requisitions for Payment

42.7.1 Requisitions for payment may be submitted in accordance with Article 42.2.3 as the work progresses, but not more often than once a month. Requisitions shall be in the authorized form and shall set forth the services performed by the Contractor and the total amount of partial payment requested. The total amount of partial payment requested shall be broken down into the following categories, to the extent each respective category applies to the payment period: identifying the housing units, by lot and block, on which Work was performed and for which payment is requested and identifying the applicable allowance(s) listed in Exhibit A. The Contractor shall submit one (1) original and two (2) copies of each requisition for payment. Requisitions for payment shall be accompanied by the documentation set forth below.

- (a) Project Progress Report: The Contractor shall submit a current report indicating (1) the percentage of completion of all required services for the Project, and (2) the Work the Contractor was directed to provide during the payment period.
- (b) Construction/ Work: For payment for construction Work, the Contractor shall submit the documentation set forth below:

- (1) Current report indicating: (1) the name and type of Work performed by each first tier Subcontractor, and (2) the percentage of completion of all required Work under that subcontract. A first tier Subcontractor shall mean a Subcontractor directly engaged by the Contractor.
- (2) Certified copies of payroll reports for all Subcontractors of whatever tier which have performed Work for the Project.

(d) Miscellaneous Expenses or Additional Services: For payment for miscellaneous expenses or additional Work, the Contractor shall submit the documentation set forth below:

- (1) Description of the miscellaneous expenses or additional Work the Contractor was directed to provide.
- (2) If payment is on a lump sum basis, a report on the progress of the Work, indicating the percentage of completion of all required Work.
- (3) If payment is on a unit price basis, a report indicating the number of completed units.
- (4) If payment is based on actual cost, receipted bills or any other data required by the Commissioner.

42.7.2 All payments hereunder are contingent upon the Contractor's satisfactory performance of the required Work. The Commissioner is authorized to make deductions for any Work performed hereunder which he/she determines to be unsatisfactory.

42.7.3 Following the receipt of a satisfactory requisition for payment, the Commissioner's Representative will prepare, and the Commissioner will approve, a voucher in the amount certified for partial payment, less any and all deductions authorized to be made by the Commissioner under any terms of this Agreement or by law. This voucher will thereupon be filed with the Comptroller, with a copy thereof available to the Contractor if requested.

42.8 Electronic Funds Transfer: In accordance with Section 6-107.1 of the New York City Administrative Code, the Contractor agrees to accept payments under this Agreement from the City by electronic funds transfer. An electronic funds transfer is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this Agreement, the Contractor shall designate one financial institution or other authorized payment agent and shall complete the "EFT Vendor Payment Enrollment Form" (available at <http://www.nyc.gov/dof>) in order to provide the Commissioner of Finance with information necessary for the Contractor to receive electronic funds transfer payments through the designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the Contractor shall constitute full satisfaction by the City for the amount of the payment under this agreement. The account information supplied by the Contractor to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by law.

42.8.1 The agency head may waive the application of the requirements herein to payments on contracts entered into pursuant to §315 of the City Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to which the contracting agency may waive the requirements hereunder for payments in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the City.

ARTICLE 43 - PROMPT PAYMENT

43.1 The Prompt Payment provisions of the Procurement Policy Board ("PPB") Rules in effect at the time of the solicitation for this Contract shall be applicable to payments hereunder. The provisions require the payment to contractors of interest on payments made after the required payment date, except as otherwise provided in the PPB Rules. The Contractor must submit a proper invoice to receive payment, except where the Contract provides that the Contractor will be paid at predetermined intervals without having to submit an invoice for each scheduled payment. Determination of interest due will be made in accordance with the provisions of the PPB Rules. If the Contractor is paid interest, the proportionate share of that interest shall be forwarded by the Contractor to its Subcontractor(s).

43.2 The Contractor shall pay each Subcontractor (including a materials supplier) not later than seven (7) calendar days after receipt of payment out of amounts paid to the Contractor by the City for work performed by the Subcontractor or supplier under this Contract.

43.3 The Contractor shall include in each of its subcontracts a provision requiring each Subcontractor to make payment to each of its Subcontractors or suppliers for Work performed under this Contract in the same manner and within the same time period set forth above.

43.4 If Contractor fails to make any payment to any Subcontractor or Materialman within seven (7) days after receipt of payment by the City pursuant to section 43.2 herein, then the Contractor shall pay interest on amounts due to such Subcontractor or Materialman at a rate of interest in effect on the date such payment is made by the Contractor computed in accordance with section 756-b (1)(b) of the NY General Business Law. Accrual of interest shall commence on the day immediately following the expiration of the seventh day following receipt of payment to the Contractor by the City and shall end on the date on which payment is made.

ARTICLE 44 - ACCEPTANCE OF FINAL PAYMENT

44.1 The acceptance by the Contractor, or by anyone claiming by or through him, of final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release to the City from any and all claims of and liability to the Contractor, or anyone claiming by or through him, for anything theretofore done or furnished for or relating to or arising out of this Contract and the Work done hereunder, and for any prior act, neglect or default on the part of the City or any of its officers, agents or employees, excepting only a claim against the City for the amounts deducted or retained in accordance with the terms and provisions of this Agreement or by law, and excepting a claim, not otherwise waived, which is contained in the verified statement filed with the Contractor's final requisitions for any work performed hereunder.

44.2 The Contractor is warned that the execution by him of a release, in connection with the acceptance of any final payment hereunder, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article, or those for amounts deducted by the Commissioner from the final requisition or by the Comptroller from the final payment as certified by the Commissioner's Representative and approved by the Commissioner, shall not be effective to reserve such claims, anything stated to the Contractor orally or in writing by any officer, agent or employee of the City to the contrary notwithstanding.

44.3 Should the Contractor refuse to accept any final payment hereunder as tendered by the Comptroller, it shall constitute a waiver of any right to interest thereon.

44.4 The Contractor, however, shall not be barred from commencing an action for breach of contract under this provision, provided that a detailed and verified statement of claim is served upon the Department and Comptroller not later than forty (40) days after the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

44.5 The provisions of this Article 44 shall apply to final payment(s) for work performed pursuant to subcontracts hereunder.

ARTICLE 45 - RIGHTS OF COMMISSIONER TO POSTPONE AND TERMINATE AGREEMENT

45.1 The Commissioner shall have the right, upon ten (10) calendar days prior written notice to the Contractor, to postpone, delay, suspend or terminate all or any portion of the Work to be performed by the Contractor under the Agreement, or any additions thereto or modifications thereof, at any time and for any reason deemed to be in the City's interest. In such event, the Contractor shall be paid such part of the payment items set forth in Article 42 as shall have become due and payable hereunder for the work done by him prior thereto, or for non-cancelable orders for material and/or equipment that is not capable of use except in the performance of this Agreement and has been specifically fabricated for the sole purpose of this Agreement and not incorporated into the Work, subject to audit by the Department and post-audit by the Comptroller. Such postponement, delay, suspension or termination shall not give rise to any cause of action for damages or extra remuneration against the City other than that provided for herein.

ARTICLE 46 - TERMINATION OF THIS AGREEMENT FOR CAUSE

46.1 If in the sole determination of the Commissioner: (1) the Contractor fails to perform any of the terms, covenants or provisions of this Agreement on its part to be performed, or (2) the Contractor fails to progress with the Work called for under this Agreement in a satisfactory manner, or (3) the conduct of the Contractor is such that the interests of the City are likely to be impaired or prejudiced, or (4) the Contractor shall violate any of the terms, covenants or provisions of this Agreement, then the Commissioner may, upon written notice to the Contractor, terminate this Agreement for cause. Upon issuance of such Notice the Contractor shall be entitled to a 30 day period to cure such cause referenced above to the satisfaction of the Commissioner. The Commissioner may suspend all or part of the Work for this 30 day period, and the Contractor will not be entitled to payment during such period. If such cause is not cured, in the sole opinion of the Commissioner, termination shall take effect upon the expiration of such 30 day period.

46.2 Upon such termination, the Contractor shall be entitled to payment of such amount, to be determined by the Commissioner, and subject to post-audit by the Comptroller, as shall fairly compensate him for the work satisfactorily performed prior to the termination date; provided, however, that the Commissioner shall deduct from such amount and from any amount due and payable to the Contractor prior to the termination date, but withheld or not paid, the total amount of additional expenses incurred by the City in order satisfactorily to complete the Work required to be performed by the Contractor under this Agreement, including the expense of engaging another Contractor for this purpose. If such additional expense shall exceed the amounts otherwise due and payable to the Contractor hereunder, the Contractor shall pay the City the full amount of such excess incurred by the City.

46.3 The Commissioner's determination upon which the termination of this Agreement for cause is based, as set forth in Article 46.1, shall be conclusive, final and binding on the parties and such a finding shall preclude the Contractor from commencing a plenary action for any damages relating to the Contract. If the Contractor protests the determination of the Commissioner, the Contractor may commence a lawsuit in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 47 - ACTIONS UPON TERMINATION

- 47.1 In the event of termination with or without cause, the Contractor shall, upon receipt of such notice, take the following actions:
- 47.1.1 Stop Work on the date specified in the notice;
 - 47.1.2 Take such action as may be necessary for the protection and preservation of the City's materials and property;
 - 47.1.3 Cancel all cancelable orders for material and equipment;
 - 47.1.4 Assign to the City and deliver to the Site or any other location designated by the Commissioner, any non-cancelable

orders for material and/or equipment that is not capable of use except in the performance of this Agreement and has been specifically fabricated for the sole purpose of this Agreement and not incorporated in the Work;

47.1.5 Take no action which will increase the amounts payable by the City under this Agreement.

ARTICLE 48 - CLAIMS AND ACTIONS THEREON

48.1 No claim against the City for damages for breach of contract or compensation for Extra Work shall be made or asserted in any action or proceeding at law or in equity, unless the Contractor shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims all as herein before provided.

48.2 Nor shall any such action or proceeding be instituted or maintained on any such claims unless such action or proceeding be commenced within one year after the date of the filing in the office of the Comptroller of the final payment voucher pursuant to Article 42; except that an action or proceeding on a claim for moneys deducted, retained or withheld under the provisions of this Agreement or by law, must be commenced within one year after the date of final payment hereunder or after such moneys become due and payable hereunder, whichever is later, and further except that an action or proceeding on a claim based upon the Commissioner's exercise of the right to terminate this Agreement for cause must be commenced within six months after the date the Commissioner exercises such right to terminate for cause.

ARTICLE 49. TAX

49.1 Pursuant to this Contract, the Contractor agrees to sell all tangible personal property, other than consumable supplies and other tangible personal property that the Contractor is required to remove from the Site during or upon completion of the Work, that is required, necessary or proper for or incidental to the construction and rehabilitation Work covered by this Contract. The purchase by Subcontractors or Materialmen of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the Contractor (either directly or through other Subcontractors). The sum paid under this Contract for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

49.2 The Contractor may include in its bid the cost to the Contractor of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on tangible personal property incorporated into the Dwellings. The Contractor and its Subcontractors shall be responsible for and pay any and all applicable taxes, including Sales and Compensation Use Taxes, on tangible personal property and leased tools, machinery, equipment or other property.

49.3 The Contractor shall not charge taxes to the City for services, including but not limited to, labor and profit.

ARTICLE 50 - NO CLAIM AGAINST OFFICERS, AGENTS OR EMPLOYEES

50.1 No claim whatsoever shall be made by the Contractor against any officer, agent or employee of the City for, or on account of, anything done or omitted to be done in connection with this Agreement.

50.2 The Contractor shall require each Subcontractor or consultant to agree in its subcontract not to make any claim against the City, its officers, agents or employees, by reason of such subcontract, or any acts or omissions of the Contractor; provided however, such restrictions shall not apply to (a) demands filed by Subcontractors pursuant to Article 10.6 hereof, or (b) disputes submitted by Subcontractors pursuant to dispute resolution provisions contained in the subcontract, as described in Article 10.2.2 (g) hereof.

ARTICLE 51 - LOCALLY BASED ENTERPRISE PROGRAM

NOTE: If goals have been established for the participation of M/WBEs in the subcontracted Work, the Subcontractor is not required to comply with the Locally Based Enterprise Program ("LBE").

51.1 This Contract is subject to the requirements of Administrative Code Section 6-108.1 and regulations promulgated thereunder. The Contractor shall not award any subcontract for Work hereunder unless and until these requirements have been complied with in their entirety.

51.2 The provisions set forth below shall apply to all subcontracts for Work hereunder entered into by the Contractor. The Contractor shall include the provisions set forth below in all subcontracts for Work hereunder.

51.2.1 Unless specifically waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, if any portion of the subcontract is sub-subcontracted, not less than ten percent of the total dollar amount of the subcontract shall be awarded to locally based enterprises ("LBEs"); except that where less than ten percent of the total dollar amount of the subcontract is sub-subcontracted, such lesser percentage shall be so awarded.

51.2.2 The Subcontractor shall not require performance and payment bonds from LBE sub-subcontractors.

51.2.3 If the Subcontractor has indicated prior to award that no Work will be sub-subcontracted, no Work shall be sub-subcontracted without the prior approval of the Commissioner, which shall be granted only if the Subcontractor makes a good faith effort beginning at least six weeks before the work is to be performed to obtain LBE sub-subcontractors to perform the work.

51.2.4 If the Subcontractor has not identified sufficient LBE sub-subcontractors prior to award, it shall sign a letter of compliance stating that it complies with Administrative Code §6-108.01, recognizes that achieving the LBE requirement is a condition of its subcontract, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the Subcontractor shall begin to solicit LBE's to perform sub-subcontracted work at least six weeks before the date such work is to be performed and shall demonstrate that a good faith effort has been made to obtain LBE's on each sub-subcontract until it meets the required percentage.

51.3 Failure of the Contractor to comply with the requirements of Administrative Code §6-108.01 and the regulations promulgated thereunder shall constitute a material breach of contract. Remedy for such breach of contract may include the imposition of any or all of the following sanctions:

- 51.3.1 Reducing the Contractor's compensation by an amount equal to the dollar value of the percentage of the LBE sub-subcontracting requirement not complied with;
- 51.3.2 Declaring the Contractor in default;
- 51.3.3 Where non-compliance is by an LBE, de-certifying and declaring the LBE ineligible to participate in the LBE program for a period of up to three years.

ARTICLE 52 - PARTICIPATION IN AN INTERNATIONAL BOYCOTT

52.1 The Contractor agrees that neither the Contractor nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce promulgated thereunder.

52.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the Contractor or a substantially-owned affiliated company thereof, participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the Comptroller may, at his option, render forfeit and void this Contract.

52.3 The Contractor shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code of the City of New York and the rules and regulations issued by the Comptroller thereunder.

ARTICLE 53 - INVESTIGATIONS

53.1 The parties to this agreement agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a State of New York (State) or City of New York (City) governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

53.1.1 If any person who has been advised that his or her statement, and any information from such statement, will not be used against him or her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the City, or any public benefit corporation organized under the laws of the State of New York, or;

53.1.2 If any person refuses to testify for a reason other than the assertion of his or her privilege against self-incrimination in an investigation, audit or inquiry conducted by a City or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under, any transaction, agreement, lease permit, contract, or license entered into with the City, the State, or any political subdivision thereof or any local development corporation within the City then;

53.1.3 The Commissioner or agency head whose agency is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon no less than five (5) days written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

53.1.4 If any non-governmental party to the hearing requests an adjournment, the commissioner or agency head who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license pending the final determination pursuant to Article 53.3 below without the City incurring any penalty or damages for delay or otherwise.

53.2 The penalties which may attach a final determination by the commissioner or agency head may include but shall not exceed:

53.2.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the City; and/or

53.2.2 The cancellation or termination of any and all such existing City contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this agreement, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the City incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the City.

53.3 The Commissioner or agency head shall consider and address in reaching his or her determination and in assessing an appropriate penalty the factors in Articles 53.3.1 and 53.3.2 below. He or she may also consider, if relevant and appropriate, the criteria established in Articles 53.3.3 and 53.3.4 below in addition to any other information which may be relevant and appropriate;

53.3.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

53.3.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including, but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

53.3.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City.

53.3.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under 53.2 above, provided that the party or entity has given actual notice to the commissioner or agency head upon the acquisition of the interest, or at the hearing called for in 53.1.3 above gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity must present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

53.4 Definitions Used in this Article

53.4.1 The term "license" or "permit" as used herein shall be defined as a license, permit, franchise or concession not granted as a matter of right.

53.4.2 The term "person" as used herein shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

53.4.3 The term "entity" as used herein shall be defined as any firm, partnership, corporation, association, or person that receives monies, benefits, licenses, leases, or permits from or through the City or otherwise transacts business with the City.

53.4.4 The term "member" as used herein shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

53.5 In addition to and notwithstanding any other provision of this agreement the Commissioner or Agency Head may in his or her sole discretion terminate this agreement upon not less than three (3) days written notice in the event consultant fails to promptly report in writing to the Commissioner of Investigation of the City of New York any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the City or other person, firm corporation or entity for any purpose which may be related to the procurement or obtaining of this agreement by the consultant, or affecting the performance of this contract.

ARTICLE 54 - ALL PRIOR WRITTEN OR ORAL AGREEMENTS EXCLUDED

54.1 The written agreement contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 55 - HEADINGS NOT BINDING

55.1 Article, Section and Chapter headings and the Table of Contents are inserted for convenience only and are not to be considered in the construction or interpretation of any provision hereof.

ARTICLE 56 - ERRORS

56.1 If this Agreement contains any errors, inconsistencies, ambiguities or discrepancies, including typographical errors, the Contractor shall request a clarification of same by writing to the Commissioner whose decision shall be binding on the parties.

ARTICLE 57 - UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

57.1 If this Agreement contains any unlawful provision not an essential part of the Agreement and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be

deemed stricken from the Agreement without affecting the binding force of the remainder.

ARTICLE 58 - ALL LEGAL PROVISIONS DEEMED INCLUDED

58.1 It is the intent and understanding of the parties to this Agreement that each and every provision of law required to be inserted in this Agreement shall and is inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this Agreement shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the law and without prejudice to the rights of either party hereunder.

ARTICLE 59 - WAIVER

59.1 Waiver by the City of a breach of any provision of this Agreement shall not be deemed to be a waiver of any other subsequent breach and shall not be construed to be a modification of the terms of the Agreement unless and until the same be agreed to in writing by the Commissioner.

ARTICLE 60 - ALL DEFENSES RESERVED

60.1 Each and every defense, right and remedy that the City has under this Agreement is not exclusive and it is in addition to and concurrent with all other defenses, right and remedies which the City has under this Agreement and which the City otherwise has, will have, or may have under law, equity, or otherwise.

ARTICLE 61 - CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

61.1 This Agreement shall be deemed to be executed in the City of New York, State of New York, regardless of the domicile of the Contractor, and shall be governed by and construed in accordance with the laws of the State of New York.

61.2 The parties agree that any and all claims asserted by or against the City arising under this Agreement or related thereto shall be heard and determined either in the courts of the United States located in New York City ("Federal Courts") or in the courts of the State of New York ("New York State Courts") located in the City and County of New York. To effect this agreement and intent, the Contractor agrees:

61.2.1 If the City initiates any action against the Contractor in Federal Court or in New York State Court, service of process may be made on the Contractor either in person, wherever such Contractor may be found, or by registered mail addressed to the Contractor at its address as set forth in this Agreement, or to such other address as the Contractor may provide to the City in writing; and

61.2.2 With respect to any action between the City and the Contractor in New York State Court, the Contractor hereby expressly waives and relinquishes any rights it might otherwise have (1) to move to dismiss on grounds of forum non conveniens; (2) to remove to Federal Court, and (3) to move for a change of venue to a New York State Court outside New York County.

61.2.3 With respect to any action between the City and the Contractor in Federal Court located in New York City, the Contractor expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a United States Court outside the City of New York.

61.2.4 If the Contractor commences any action against the City in a court located other than in the City and State of New York, upon request of the City, the Contractor shall either consent to a transfer of the action to a court of competent jurisdiction located in the City and State of New York or, if the court where the action is initially brought will not or cannot transfer the action, the Contractor shall consent to dismiss such action without prejudice and may thereafter reinstitute the action in a court of competent jurisdiction in New York City.

61.3 If any provision(s) of this Article is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 62 - SERVICES OF NOTICES

62.1 The Contractor hereby designates the business address on page 1 of this Agreement as the place where all notices, directions or other communications to the Contractor may be delivered, or to which they may be mailed. Actual delivery of any such notice, direction or communication to the aforesaid place or deposit of the same in a postpaid wrapper addressed thereto in any post office box regularly maintained by the United States Post Office Department shall be conclusively deemed to be sufficient service thereof upon the Contractor as of the date of such delivery or deposit.

62.2 Such address may be changed at any time by an instrument in writing executed and acknowledged by the Contractor and delivered to the Commissioner.

62.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the Contractor personally, or, if the Contractor is a corporation, upon any officer or director thereof.

62.3 The City hereby designates the following as its address for the service of any notice hereunder:

Department of Design and Construction
30-30 Thomson Avenue
Long Island City, New York 11101
Attention: Commissioner

ARTICLE 63 - MODIFICATION

63.1 In addition to the authority of the Commissioner to order Extra Work pursuant to Article 26 hereof or omit certain Work pursuant to Article 33 hereof, this Agreement may be modified from time to time in a writing signed by both parties in order to carry out and complete more fully and perfectly the Work agreed to be performed under this Agreement, provided, however, in no event shall such modification exceed the cost limitation approved by the Bureau of the Budget.

ARTICLE 64 - MacBRIDE PRINCIPLES PROVISIONS

64.1 Notice to all Prospective Contractors: Local Law No. 34 of 1991 became effective on September 10, 1991 and added section 6-115.1 to the Administrative Code of the City of New York. The local law provides for certain restrictions on City contracts to express the opposition of the people of the City of New York to employment discrimination practices in Northern Ireland and to encourage companies doing business in Northern Ireland to promote freedom of work place opportunity.

64.2 Pursuant to Section 6-115.1, prospective contractors for contracts to provide goods or services involving an expenditure of an amount greater than ten thousand dollars, or for construction involving an amount greater than fifteen thousand dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their contract, that any business operations in Northern Ireland conducted by the contractor and any individual or legal entity in which the contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the contractor will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

64.3 Prospective contractors are not required to agree to these conditions. However, in the case of contracts let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five percent of the lowest responsible bid for a contract to supply goods, services or construction of comparable quality, the contracting entity shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable law and rules, that it is in the best interest of the city that the contract be awarded to other than the lowest responsible bidder pursuant to Section 313(b)(2) of the City Charter.

64.4 In the case of contracts let by other than competitive sealed bidding, if a prospective contractor does not agree to these conditions, no agency, elected official or the Council shall award the contract to that bidder unless the entity seeking to use the goods, services or construction certifies in writing that the contract is necessary for the entity to perform its functions and there is no other responsible contractor who will supply goods, services or construction of comparable quality at a comparable price.

64.5 In accordance with section 6-115.1 of the Administrative Code of the City of New York, the Contractor stipulates that such Contractor and any individual or legal entity in which the Contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the Contractor either (a) have no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

64.6 For purposes of this section, the following terms shall have the following meanings: "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work place opportunity which require employers doing business in Northern Ireland to:

- 64.6.1 increase the representation of individuals from under represented religious groups in the work force, including managerial, supervisory, administrative, clerical and technical jobs;
- 64.6.2 take steps to promote adequate security for the protection of employees from under represented religious groups both at the work place and while traveling to and from work;
- 64.6.3 ban provocative religious or political emblems from the work place;
- 64.6.4 publicly advertise all job openings and make special recruitment efforts to attract applicants from under represented religious groups;
- 64.6.5 establish layoff, recall and termination procedures which do not in practice favor a particular religious group;
- 64.6.6 abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;
- 64.6.7 develop training programs that will prepare substantial numbers of current employees from underrepresented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade and improve the skills of workers from underrepresented religious groups;
- 64.6.8 establish procedures to assess, identify and actively recruit employees from underrepresented religious groups with potential for further advancement; and
- 64.6.9 appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their

full implementation.

64.7 The Contractor agrees that the covenants and representations in Article 64.5 above are material conditions to this contract. In the event the contracting entity receives information that the Contractor who made the stipulation required by this section is in violation thereof, the contracting entity shall review such information and give the Contractor an opportunity to respond. If the contracting entity finds that a violation has occurred, the entity shall have the right to declare the Contractor in default and/or terminate this Contract for cause and procure the supplies, services or work from another source in any manner the entity deems proper. In the event of such termination, the Contractor shall pay to the entity, or the entity in its sole discretion may withhold from any amounts otherwise payable to the Contractor, the difference between the Contract price for the uncompleted portion of this Contract and the cost to the contracting entity of completing performance of this Contract either itself or by engaging another contractor or contractors. In the case of a requirement contract, the Contractor shall be liable for such difference in price for the entire amount of supplies required by the contracting entity for the uncompleted term of its Contract. In the case of a construction contract, the contracting entity shall also have the right to hold the Contractor in partial or total default in accordance with the default provisions of this Contract, and/or may seek debarment or suspension of the Contractor. The rights and remedies of the entity hereunder shall be in addition to, and not in lieu of, any rights and remedies the entity has pursuant to this Contract or by operation of law.

ARTICLE 65 – ULTRA LOW SULFUR DIESEL FUEL

Ultra Low Sulfur Diesel Fuel: In accordance with the provision of Section 24-163.3 of the New York City Administrative Code, the Contractor specifically agrees as follows:

- I. Definitions: For the purpose of this Article, the following definitions apply:
 - A. “Contractor” means any person or entity that enters into a Public Works Contract with a City agency, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.
 - B. “Lower Manhattan” means the area of New York County consisting of the area to the south of and within Fourteenth Street.
 - C. “Motor Vehicle” means any self-propelled vehicle designed for transporting persons or property on a street or highway.
 - D. “Nonroad Engine” means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.
 - E. “Nonroad Vehicle” means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.
 - F. “Public Works Contract” means a contract with a City agency for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a City agency for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a City agency for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.
 - G. “Ultra Low Sulfur Diesel Fuel” means diesel fuel that has a sulfur content of no more than fifteen parts per million.
- II. Ultra Low Sulfur Diesel Fuel
 - A. All Contractors shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this contract.
 - B. Notwithstanding the requirements of paragraph A, Contractors may use diesel fuel that has a sulfur content of no more than thirty parts per million to fulfill the requirements of this Part II, where the Commissioner of the New York City Department of Environmental Protection (“DEP Commissioner”) has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of City agencies and Contractors. Any determination made pursuant to this subdivision shall expire after six months unless renewed.
 - C. Contractors shall not be required to comply with this Part II where the agency letting this contract makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million is not available to meet the requirements of Section 24-163.3 of the Administrative Code,

provided that such Contractor in its fulfillment of the requirements of this contract, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million is available. Any finding made pursuant to this subdivision shall expire after sixty days, at which time the requirements of this Part II shall be in full force and effect unless the agency renews the finding in writing and such renewal is approved by the DEP Commissioner.

D. Contractors may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.nyc.gov/dep or by contacting the Department issuing this solicitation.

E. The requirements of this Part II do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

F. The requirements of this Part II do not apply to Public Works Contracts entered into or renewed prior to June 19, 2004.

III. BEST AVAILABLE TECHNOLOGY

A. All Contractors shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this contract. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, Contractors shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The Contractor shall fully document all steps in the best available technology selection process and shall furnish such documentation to the Department or the DEP Commissioner upon request. The Contractor shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

B. No Contractor shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Part III within three years of having first utilized such technology for such vehicle.

C. This Part III shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty calendar days.

D. The Contractor shall not be required to comply with this Part III with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

1. Where the agency makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by those paragraphs is unavailable for such vehicle, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.
2. Where the DEP Commissioner has issued a written waiver based upon the Contractor having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.
3. In determining which technology to use for the purposes of subsections (D)(1) and (D)(2) above, Contractor shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.
4. Contractors shall submit requests for a finding or a waiver pursuant to this subsection (D) in writing to the DEP Commissioner, with a copy to the ACCO of the Department issuing the solicitation. Any finding or waiver made or issued pursuant to subsections (D)(1) and (D)(2) above shall expire after one hundred eighty days, at which time the requirements of subsection A shall be in full force and effect unless the agency renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

E. The requirements of this Part III do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

IV. Section 24-163 of the Administrative Code. Contractors shall comply with Section 24-163 of the New York City Administrative Code related to the idling of the engines of motor vehicles while parking.

V. COMPLIANCE

A. Contractor's compliance with these provisions may be independently monitored. If it is determined that the Contractor has failed to comply with any provision of this rider, any costs associated with any independent monitoring incurred by the City shall be reimbursed by the Contractor.

B. Any Contractor who violates any provision of this Article, except as provided in subsection (C) below, shall be liable for a civil penalty between the amounts of one thousand and ten thousand dollars, in addition to twice the amount of money saved by such Contractor for failure to comply with this Article.

C. No Contractor shall make a false claim with respect to the provisions of this Article to a City agency. Where a Contractor has been found to have done so, such Contractor shall be liable for a civil penalty of twenty thousand dollars, in addition to twice the amount of money saved by such Contractor in association with having made such false claim.

VI. REPORTING

A. For all Contracts covered by this Article, the Contractor shall report to the Department the following information:

1. The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;
2. The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;
3. The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;
4. The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Part III, including a breakdown by vehicle model and the type of technology used for each such vehicle;
5. The locations where such Nonroad Vehicles were used; and
6. Where a determination is in effect pursuant to Part II.B or II.C, detailed information concerning the Contractor's efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million.

B. The Contractor shall submit the information required by Paragraph A at the completion of work under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover work performed the preceding fiscal year (July 1- June 30).

ARTICLE 66 – ULTRA LOW SULFUR DIESEL FUEL COORDINATED CONSTRUCTION ACT FOR LOWER MANHATTAN

In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

I. DEFINITIONS: For purposes of this Article, the following definitions apply:

A. "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson river as it exists now or may be extended would intersect with the southerly line of West Houston street in the borough of Manhattan extended, thence easterly along the southerly side of West Houston street to the southerly side of Houston street, thence easterly along the southerly side of Houston street to the southerly side of East Houston street, thence northeasterly along the southerly side of East Houston street to the point where it would intersect with the United States pierhead line in the East river as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

B. "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City of New York known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

C. "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

D. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

E. "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

II. REQUIREMENTS: Contractors and Subcontractors are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine horsepower (HP) rating of 50 HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

ARTICLE 67 – VENDEX QUESTIONNAIRES

67.1 **Requirement:** Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, the Contractor may be obligated to complete and submit VENDEX Questionnaires. If required, Vendex Questionnaires must be completed and submitted before any award of contract
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may be made or before approval is given for a proposed Subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal or the Consultant, disapproval of a Subcontractor, subsequent withdrawal of approval for the use of an approved Subcontractor, or the cancellation of the contract after its award.

67.2 **Submission:** Vendex Questionnaires must be submitted directly to the Mayor’s Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007. In addition, the Contractor must submit a Confirmation of Vendex Compliance to the Department.

67.3 **Obtaining Forms:** Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The Contractor may also obtain Vendex forms and instructions by contacting the ACCO or the contact person for this contract.

ARTICLE 68: PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

M/WBE Participation: Requirements for the participation of M/WBEs apply to Work for the Project performed by Subcontractors under the supervision and control of the Contractor. Prior to the commencement of each type of Work, the City shall provide applicable M/WBE requirements to the Contractor in a form entitled “Schedule B: M/WBE Utilization Plan.” The Schedule B: M/WBE Utilization Plan shall be included by the Contractor in Bid Documents for subcontracts for Work for the Project, as directed by the City. Work includes required Work for various Projects, including pre-design services and any related construction and/or remediation Work. Such Work is paid for from the Allowance for Construction/Remediation Work. Bids that do not comply with the requirements for M/WBE participation, as set forth below, shall be deemed non-responsive.

Subcontracts: The Contractor shall include the language set forth below in all subcontracts for Work for the Project.

Locally Based Enterprise (LBE) Program: If Participation Goals have been established for the participation of M/WBEs in the subcontracted Work, the Subcontractor is not required to comply with the LBE Program.

NOTICE TO ALL PROSPECTIVE CONTRACTORS

PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter “Section 6-129”). Section 6-129 establishes the program for participation in City procurement (“M/WBE Program”) by minority- owned business enterprises (“MBEs”) and women-owned business enterprises (“WBEs”), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City’s procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services (“DSBS”) promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the “M/WBE Utilization Plan”), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A: PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The MBE and/or WBE Participation Goals established for this Contract or Task Orders issued pursuant to this Contract, (“Participation Goals”), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The Participation Goals represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If Participation Goals have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the Participation Goals, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If Participation Goals have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant Participation Goal, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct Subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant Participation Goal. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct Subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If Participation Goals have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct Subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the Participation Goals, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE Participation Goals, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the Participation Goals that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) Participation Goals on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If Participation Goals have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct Subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the Participation Goals as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct Subcontractors to indirect Subcontractors (as defined in Section 6-129(c)(22)). PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended Subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended Subcontractors in the bid submission, bidders may satisfy any Participation

Goals established for this Contract by proposing one or more Subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a Subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate Subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the Participation Goals. Such certification must occur prior to the firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to: the total amount the Contractor paid to its direct Subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct Subcontractors paid to indirect Subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a Subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct Subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to Subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct Subcontractors paid directly to their indirect Subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each Subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's M/WBE Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its M/WBE Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an M/WBE Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the Participation Goals should be modified.

10. Pre-award waiver of the Participation Goals. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the Participation Goals in accordance with Section 6-129, which requests that Agency change one or more Participation Goals on the grounds that the Participation Goals are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the Participation Goals, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the Participation Goals are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the Participation Goals to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its M/WBE Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the Participation Goals. In making such determination, Agency may consider whether the M/WBE Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of M/WBE Utilization Plan. (a) A Contractor may request a modification of its M/WBE Utilization Plan after award of this Contract. PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended Subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission. The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other

evidence, that it made reasonable, good faith efforts to meet the Participation Goals. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the Participation Goals when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its M/WBE Utilization Plan would be awarded to Subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an M/WBE Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the Participation Goals, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If Participation Goals have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE Subcontractors and the payments the Contractor made to such Subcontractors.

14. If Participation Goals have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an M/WBE Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the M/WBE Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an M/WBE Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as Subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required Participation Goals.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a Subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any M/WBE Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or Subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any M/WBE Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) Entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) Revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) Making a finding that the Contractor is in default of the Contract;
- (d) Terminating the Contract;
- (e) Declaring the Contractor to be in breach of Contract;
- (f) Withholding payment or reimbursement;
- (g) Determining not to renew the Contract;
- (h) Assessing actual and consequential damages;
- (i) Assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) Exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) Taking any other appropriate remedy.

4. If an M/WBE Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its Participation Goals contained in its M/WBE Utilization Plan or the Participation Goals as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the Participation Goals and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the Participation Goals, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

ARTICLE 69. LIMITED DEFENSE AND INDEMNIFICATION; ESCALATION

69.1 The rehabilitation of Dwellings, which are privately owned, is not a "public work" as that term is used in Labor Law section 220. The Contractor shall not be required to pay its workers prevailing wages for the Work unless there is a final judicial determination that Labor Law section 220 applies to the Work.

69.2 If a court makes a final determination, not subject to appeal, that Labor Law section 220 requires the Contractor to pay prevailing wages and that Article 8 of the Labor Law is applicable to this Work, the ACCO shall issue a change order, pursuant to Article 26, that (i) increases the prices paid to the Contractor in order to pay workers covered by Labor Law section 220 the amount required by prevailing wage schedule issued by the Comptroller and in effect at the time the Work was or is performed and (ii) requires compliance with Article 8 of the

Labor Law. The Contractor shall pay workers covered by Labor Law section 220 the difference between wages paid and the amount required pursuant to the Labor Law. Based on the employment and payroll records required by Article 39, the City shall reimburse the Contractor for the difference between the hourly rate paid and the amount required by such prevailing wage schedule and shall pay such difference as is applicable for the remainder of the Term.

69.3 The City shall defend and indemnify the Contractor for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising out of any dispute concerning the applicability of Labor Law section 220 to the Work. For the avoidance of doubt, the defense and indemnification in this Article 69.3 shall not apply to any claim that the Contractor has failed to act in accordance with applicable Law, including that the Contractor has failed to comply with Labor Law section 220 subsequent to a final judicial determination that Labor Law section 220 applies.

ARTICLE 70 CONFIDENTIALITY

70.1 The Contractor agrees to hold confidential, both during and after the completion or termination of this Contract, all of the reports, information, or data, furnished to, or prepared, assembled or used by, the Contractor under this Contract. The Contractor agrees that such reports, information, or data shall not be made available to any person or entity without the prior written approval of the Department. The Contractor agrees to maintain the confidentiality of such reports, information, or data by using a reasonable degree of care, and using at least the same degree of care that the Contractor uses to preserve the confidentiality of its own confidential information. In the event that the data contains social security numbers or other Personal Identifying Information, as such term is defined in Article 70A.2, the Contractor shall utilize best practice methods (e.g., encryption of electronic records) to protect the confidentiality of such data. The obligation under this Article to hold reports, information or data confidential shall not apply where the City would be required to disclose such reports, information or data pursuant to the State Freedom of Information Law ("FOIL"), provided that the Contractor provides advance notice to the City, in writing or by e-mail, that it intends to disclose such reports, information or data and the City does not inform the contractor, in writing or by e-mail, that such reports, information, or data are not subject to disclosure under FOIL.

70.2 The Contractor shall provide notice to the Department within three (3) calendar days of the discovery by the Contractor of any breach of security, as defined in Admin. Code § 10-501(b), of any data, encrypted or otherwise, in use by the Contractor that contains social security numbers or other personal identifying information as defined in Admin. Code § 10-501 ("Personal Identifying Information"), where such breach of security arises out of the acts or omissions of the Contractor or its employees, Subcontractors, or agents. Upon the discovery of such security breach, the Contractor shall take reasonable steps to remediate the cause or causes of such breach, and shall provide notice to the Department of such steps. In the event of such breach of security, without limiting any other right of the City, the City shall have the right to withhold further payments under this Contract for the purpose of set-off in sufficient sums to cover the costs of notifications and/or other actions mandated by any Law, or administrative or judicial order, to address the breach, and including any fines or disallowances imposed by the State or federal government as a result of the disclosure. The City shall also have the right to withhold further payments hereunder for the purpose of set-off in sufficient sums to cover the costs of credit monitoring services for the victims of such a breach of security by a national credit reporting agency, and/or any other commercially reasonable preventive measure. The Department shall provide the Contractor with written notice and an opportunity to comment on such measures prior to implementation. Alternatively, at the City's discretion, or if monies remaining to be earned or paid under this Contract are insufficient to cover the costs detailed above, the Contractor shall pay directly for the costs, detailed above, if any.

70.3 The Contractor shall restrict access to confidential information to persons who have a legitimate work related purpose to access such information. The Contractor agrees that it will instruct its officers, employees, and agents to maintain the confidentiality of any and all information required to be kept confidential by this Contract.

70.4 The Contractor, and its officers, employees, and agents shall notify the Department, at any time either during or after completion or termination of this Contract, of any intended statement to the press or any intended issuing of any material for publication in any media of communication (print, news, television, radio, Internet, etc.) regarding the services provided or the data collected pursuant to this Contract at least twenty-four (24) hours prior to any statement to the press or at least five (5) business days prior to the submission of the material for publication, or such shorter periods as are reasonable under the circumstances. The Contractor may not issue any statement or submit any material for publication that includes confidential information.

70.5 At the end of six years from the date of final payment or the date of earlier termination, Contractor shall return to the Department any and all confidential information in the possession of the Contractor or its Subcontractors. If the Contractor or its Subcontractors are legally required to retain any confidential information, the Contractor shall notify the Department in writing and set forth the confidential information that it intends to retain and the reasons why it is legally required to retain such information. The Contractor shall confer with the Department, in good faith, regarding any issues that arise from the Contractor retaining such confidential information.

70.6 A breach of this Article shall constitute a material breach of this Contract for which the Department may terminate this Contract. The Department reserves any and all other rights and remedies in the event of unauthorized disclosure.

Article 71. Insurance Program and Indemnity

- (a) **Establishment of Insurance Program.** The Department, in consultation with the Contractor, shall establish insurance, indemnification, and limitations on liability requirements to cover all of the Work of this Contract (the "Insurance Program"), prior to the commencement of construction Work. It is anticipated that such Insurance Program will contain a Contractor Controlled Insurance Program (CCIP), Professional Liability, Environmental, Commercial Automobile, and Builders Risk coverage for the Contractor, City and all Subcontractors, Consultants and Sub-Consultants working on the Program. The

Contractor shall assist the Department in the establishment of the Insurance Program. The Parties shall memorialize the Insurance Program in a Modification pursuant to Article 26 of the Contract.

- (b) **Interim Insurance Requirements.** At the time of the execution of the Contract, the Insurance Program has not been established. Until such time that the Modification memorializing the Insurance Program takes effect, (i) the Contractor shall provide design and scoping services; (ii) the insurance provisions in Articles 9, 15, and 23 and the defense and indemnity provisions of this Contract shall apply to such design and scoping services; and (iii) the Contractor shall not commence construction Work.
- (c) If, within 90 days of the execution date of this Contract, the Insurance Program described in (a) above, is not agreed to by the Parties, the Contractor shall be entitled to terminate this Contract upon 30 days' notice to the City of such intent to terminate. Upon such termination, the Contractor shall be entitled to payment for any Work satisfactorily performed, pursuant to the terms and conditions of this Contract.

IN WITNESS WHEREOF, the Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK:

By: 
Commissioner

CONTRACTOR:

LiRo Program and Construction Management PE P.C.

By: 
Print Name: Michael Burton
Title: SUP

EIN: 11-3205660

APPROVED AS TO FORM AND CERTIFIED
AS TO LEGAL AUTHORITY

Acting Corporation Counsel

DATE _____

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of NY County of Queens ss:

On this 16 day of April, 2015 before me personally came Michael Burton, who being by me duly sworn, did depose and say that he/she resides in the City of Chappaqua, NY, that he/she is the SVP of LIRI Program and Construction Management, the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Kathy Tuznik

Notary Public or Commissioner of Deeds

KATHY TUZNIK
NOTARY PUBLIC-STATE OF NEW YORK
No. 02TU6236626
Qualified in Queens County
My Commission Expires February 28, 2015/19

ACKNOWLEDGMENT BY COMMISSIONER

State of NY County of Queens ss:

On this 17 day of April, 2015 before me personally came Dr. Femiosky Peña-Mora to me known and known to me to be the Commissioner of the Department of Design and Construction of the City of New York, the person described as such in and who as such executed the foregoing instrument and he acknowledged to me that he executed the same as Commissioner for the purposes therein mentioned.

Kathy Tuznik

Notary Public or Commissioner of Deeds

KATHY TUZNIK
NOTARY PUBLIC-STATE OF NEW YORK
No. 02TU6236626
Qualified in Queens County
My Commission Expires February 28, 2015/19

AFFIRMATION

The undersigned proposer or bidder affirms and declares that said proposer or bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the proposer or bidder to receive public contract except

Full name of Proposer or Bidder *[below]*

Libro Program and Construction Management, PE P.C.

Address 3 Aerial Way

City Syosset State NY Zip Code 11791

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorships

SOCIAL SECURITY NUMBER _____

B - Partnership, Joint Venture or other unincorporated organization

EMPLOYER IDENTIFICATION NUMBER _____

C - Corporation

EMPLOYER IDENTIFICATION NUMBER 11-3205660

By Michael Russo

Signature

SVP and National Operations Manager

Title

If a corporation place seal here

Must be signed by an officer or duly authorized representative.

* Under the Federal Privacy Act, the furnishing of Social Security numbers by bidders or proposers on City contracts is voluntary. Failure to provide a Social Security number will not result in a bidder's/proposer's disqualification. Social Security numbers will be used to identify bidders, proposers or vendors to ensure their compliance with laws, to assist the City in enforcement of laws, as well as to provide the City a means of identifying businesses seeking City contracts.

EXHIBIT A: CONTRACT INFORMATION

(1) **TYPE OF SERVICES** Construction Management / design / build services on a Work Order basis for the type of projects described below. The Commissioner shall, by written directive, assign various Projects consisting of single or groups of various types of Homes to the CM for performance of the required services, as enumerated in the Scope of Work and the Work Order. Such projects will be located in Borough of Brooklyn.

(2) **TOTAL NOT TO EXCEED AMOUNT:** **\$275,530,566**

ALLOWANCES

Allowance for Scoping and Design Services Services 1+2.a+2.b+3	\$21,750,000
Allowance for As needed Architectural, Engineering and CM Services	\$1,042,250
Allowance for Staffing Expenses	\$49,976,066
Allowance for Field Office Setup	\$2,500,000
Allowance for Field Office Operations	\$3,900,000
Allowance for Fee for Profit	\$4,056,000
Allowance for Emergency Work	\$2,000,000
Allowance for Insurance Program	\$24,431,250
Allowance for Miscellaneous Expenses	\$1,000,000
Allowance for Environmental Testing	\$2,000,000
Allowance for Construction	\$162,875,000

(3) **KEY DESIGN AND CONSTRUCTION MANAGEMENT PERSONNEL**

List of Key Personnel:

- **Program Executive**
- **Project Executive**
- **Project Manager**
- **Lead Design Manager**
- **Design Project Manager**
- **Project Controls Manager**
- **Sandy Hiring Implementation Manager**
- **MWBE Compliance Officer**

(4) **SCOPE OF SERVICES**

The scope of work for this contract includes construction management, scoping and design services, and construction for the rehabilitation, elevation, and reconstruction of detached, semi-attached and fully attached, one- to four-family Homes, and common spaces and individual units in one to four-family buildings in three boroughs of New York City (Brooklyn, Queens, and Staten Island). This section supplements Articles 9, 10 and 11 of the Agreement. In the event of a conflict between Articles 9, 10 and 11 and the tasks enumerated here, these Tasks shall take precedence.

- **Construction Management:** The CM will be required to provide all services necessary and required for the quality, management, coordination, and administration of the work, including management of the M/WBE utilization plan, from commencement at the packaging of projects after the Homeowners' engagement through substantial completion, final acceptance, project close-out, and Homeowners' acceptance, including monitoring of the construction one year warranty period.
- **Scoping and Design Services:** The CM will be responsible for creating a comprehensive Scope of Work that falls within the parameters of the HRO provided feasibility study for each Home as per Exhibit L of the attached contract. Additional design work through architectural, engineering, and technical expertise shall, as necessary, be provided for complex design and infrastructure issues.
- **Construction:** The CM will be required to procure all construction contracts from a Pre-Qualified List of contractors (PQL) that will be provided and maintained by HRO/DDC. The CM must ensure that the approved scope of work is bid out and executed at the high level of quality standards and completed in a timely manner.
- **Post Construction:** The CM will be required to request a Final Inspection, resolve outstanding issues, receive a written determination of Final Acceptance, perform any necessary tasks to obtain regulatory approvals of the Work performed on a Home pursuant to this Agreement. as well as submit all documents and records including, but not limited to, warranty certificates, manuals, and drawings.

The Contractor is required use its best efforts to perform the necessary work within the timeframes established below.

Target Timeframes

Phase	Milestones	Construction Pathway	Contract Schedule	Defined Start of Phase	Defined Completion of Phase
Scoping and Design	100% Design Completion with DOB Approval if required	Rehabilitation	28 days	Work Order from DDC	DOB and/or DDC Approval as appropriate
Construction Procurement	Construction Start	Rehabilitation	45 days	DOB Approval	CM Issued NTP
Construction	Final Acceptance	Rehabilitation	42 days	CM Issued NTP	Final Acceptance
Scoping and Design	100% Design Completion with DOB Approval	Elevation (No BSA approval or DEC approval for other than general permit)	84 days	Work Order from DDC	DOB Approval
Construction Procurement	Construction Start	Elevation (No BSA approval or DEC approval for other than general permit)	60 days	DOB Approval	CM Issued NTP
Construction	Final Acceptance	Elevation (No BSA approval or DEC approval for other than general permit)	140 days	CM Issued NTP	Final Acceptance
Scoping and	100% Design	Elevation (BSA	168 days	Work Order	DOB Approval

Design	Completion with DOB Approval	approval or DEC approval for other than general permit required)		from DDC	
Construction Procurement	Construction Start	Elevation (BSA approval or DEC approval for other than general permit required)	60 days	DOB Approval	CM Issued NTP
Construction	Final Acceptance	Elevation (BSA approval or DEC approval for other than general permit required)	140 days	CM Issued NTP	Final Acceptance
Scoping and Design	100% Design Completion with DOB Approval	Reconstruction (No BSA approval or DEC approval for other than general permit)	112 days	Work Order from DDC	DOB Approval
Construction Procurement	Construction Start	Reconstruction (No BSA approval or DEC approval for other than general permit)	60 days	DOB Approval	CM Issued NTP
Construction	Final Acceptance	Reconstruction (No BSA approval or DEC approval for other than general permit)	224 days	CM Issued NTP	Final Acceptance
Scoping and Design	100% Design Completion with DOB Approval	Reconstruction (BSA approval or DEC approval for other than general permit required)	196 days	Work Order from DDC	DOB Approval
Construction Procurement	Construction Start	Reconstruction (BSA approval or DEC approval for other than general permit required)	60 days	DOB Approval	CM Issued NTP
Construction	Final Acceptance	Reconstruction (BSA approval or DEC approval for other than general permit required)	224 days	CM Issued NTP	Final Acceptance

Anticipated Work Order Schedule

	Brooklyn			
	<i>Elevation</i>	<i>Rehab</i>	<i>Reconstruction</i>	<i>Total</i>
5/1/2015	200	50	5	255
6/1/2015	100	25	10	135
9/1/2015	125	25	10	160
10/29/2015	125			125
Total	550	100	25	675

Attached	275
Nonattached	275

A. CONSTRUCTION MANAGEMENT:

The CM shall provide Construction Management Services in accordance with Article 11 of the attached contract.

Task A.1 Construction Management

The CM must provide and manage all services necessary during all phases of each concurrent project including quality, management, coordination, and administration of the work, so that the required design and construction work is properly executed, completed in a timely fashion and conforms to all applicable requirements and to good design and construction practice. This includes, but is not limited to:

- Tracking issues to resolution;
- Management and coordination of sub-consultants, contractors and subcontractors;
- Homeowner communication and coordination;
- Manage and monitor project compliance with MWBE participation goals on a weekly basis and take corrective action to ensure that project goals are met;
- Perform regular Quality Assurance and Quality Control checks;
- Monitor safety and security and compliance with safety and security plans;
- Document management and records retention; and
- Ensure compliance with all applicable City, State, and Federal requirements.

Task A.2 Implementation Plan:

At the onset of the contract, the CM will meet with HRO and DDC to review the scope of Borough(s) assigned to the CM. The CM will be provided detailed information about the Homeowners who are active in the program, their status with Build It Back, and their projected pathway. The CM will work with HRO and DDC to establish an Implementation Plan for design and construction of all potential Homes. The Implementation Plan will include plans to:

- **Facilitate the timely design and construction of all Homes;**
- **Minimize impact to the neighborhoods;**
- **Coordinate with other planned and on-going community construction projects;**
- **Identify and target Homeowners who have been displaced the longest;**
- **Cooperate and coordinate with local elected officials and civic leaders in partnership with HRO;**
- **Take into account any on-going Build It Back work being performed by other contractors, including Choose Your Own Contractors program;**
- **Focus on solutions for complex zoning, infrastructure, wetland, and other environmental issues and plans for coordination with other agencies for necessary approvals;**
- **Identify all attached Homes, and other Homes that have design and construction issues that need to be coordinated; and**
- **A Customer Satisfaction Plan submitted to HRO/DDC that describes how the CM will communicate with Homeowners during design and construction and manage Homeowner and Community relations throughout the project.**

Full implementation of the plan will be dependent on Homeowners' engagement in the Build It Back program, the case management process, and the selection of their individual pathway. HRO will work with the CM to prioritize Homeowners through case management based on the Implementation Plan developed by the CM for their Borough(s).

The Commissioner shall, by written Work Order(s), assign to the CM and their Design Consultant(s) a list or lists of impacted Homes for the performance of required services. All Homeowners must be found eligible, sign a pathway selection agreement, and pass the program's Quality Assurance review before they will be assigned by written Work Order to the CM. The CM will work with HRO to engage nearby applicants who have not completed the eligibility process so that nearby homes can be included in the Work Order, whenever possible.

The CM will develop a project schedule for design and construction as part of the Implementation Plan. The implementation plan is to be completed within 3 weeks of the Notice to Proceed and updated at the issuance of each Work Order.

The CM will develop and maintain Standard Operating Procedures (SOPs) for its operations to be reviewed by HRO/DDC, and the CM will update these SOPs to be consistent with Program changes and requirements.

Task A.3 Project Office(s):

The CM shall be required to set up and operate for the duration of the Program, a Project Office dedicated to the activities of personnel in connection with Projects assigned in the RFP. Requirements for Project Office are set forth in Exhibit D of the contract. The location of the Project Office is subject to agency approval. Where practicable, the Project Office shall be co-located with a Build it Back service center. This Project Office will accommodate space for up to twenty (20) City employees.

Task A.4: Program and Project Reporting, Compliance Reporting and Meetings

Project Reporting: Each CM will be required to record, track, manage and report on a bi-weekly and monthly basis the key milestones of all projects assigned according to a uniform reporting structure set forth by HRO/DDC. On a monthly basis, each

CM will be required to provide monthly budget updates. Each CM will also be required to prepare and provide reports in real-time and other communications as directed for HRO/DDC to evaluate Program performance. Each CM shall also undertake the responsibilities with respect to Project and Program reports as per Article 11.6.14 of the attached contract.

Because of the critical and time-sensitive nature of this assignment, the CM will be required to utilize, and directly enter project data into, IT/web-based systems developed by HRO which allow information to be recorded in a timely and transparent manner to ensure the integrity and timeliness of project data. Details of the IT system are prescribed in Task A.5.

- **Compliance Reporting:** The CM is required, in collaboration with HRO/DDC, to develop the format and frequency of delivery of compliance reports, including M/WBE goals, Safety and Security monitoring and all City, State and Federal requirements.
- **Meetings:** Each CM will be required to schedule and conduct standing meetings with representatives from DDC and HRO, the CM and/or sub-consultant(s). Each CM will also schedule and conduct meetings with regulatory agencies and any other entities or individuals including other Program vendors involved as directed to advance the projects in a timely fashion.
- The CM will be required to upload to the IT/web-based system developed by HRO project-specific compliance data and reports (including, but not limited to, lead clearance reports).

Task A.5 IT Database Administration

The CM must coordinate, track, monitor and report on a high volume of concurrently active projects during design, construction and closeouts in its selected region(s). The firm must interface with and directly enter data into existing databases and software platforms/packages operated and maintained by HRO. HRO is running the Case Management System hosted in the Microsoft Azure Cloud.

The technologies deployed in the Microsoft Azure cloud are as follows:

- Barracuda Web Application Firewall “WAF” firmware v7.9.0.19 - Application Firewall - www.barracuda.com
- MS Windows 2008/2012 Server Active Directory - User Authentication
- MS SQL 2012 Server - Dynamics CRM and SharePoint DBs
- MS ADFS 2.0 Server - Federation services
- MS Dynamics CRM 2011 Server - CRM Server/Client
- MS SharePoint 2013 Server - Document management
- Scribe Insight 7.6.1.36092 - CRM automation and data integration - www.scribesoft.com
- MS System Center 2012 Operations Manager - Systems Monitoring
- MS System Center 2012 Configuration Manager - Patch management
- MS Team Foundation Server 2013 - Development / Versioning

The project controls manager from the CM will be required to assist and work with program and IT staff in the development of new interfaces including developing business requirements, job aids, and trainings.

Task A.6 Compliance with Sandy Recovery Hiring Plan

CMs are encouraged to work with local Community Based Organizations, pre-apprenticeship and apprenticeship programs, and voluntary groups engaged in rebuilding efforts. The selected CM must provide one full-time staff dedicated to daily tracking compliance with the Sandy Recovery Hiring Plan, set forth in Exhibit H of the attached contract, to ensure the successful implementation of the Plan.

Task A.7 Homeowner Services

The CM will work closely with HRO/DDC to ensure the highest level of customer satisfaction. The CM will require direct interactions with Homeowners before assignment, during scoping and design, and during construction, close out, and one year warranty period, and will be required to record these contacts in HRO's CMS system. The CM will receive customer service referrals from HRO/DDC and respond promptly. The CM will use HRO/DDC applicant feedback to identify changes needed in the design/construction process in order to achieve better performance. Customer satisfaction shall be measured through validated customer complaints, feedback and surveys.

The CM will work with HRO/DDC to meet the needs and expectations of local communities, and engage potential Homeowners as necessary in learning more about the pathways and process, and encourage Homeowners to finalize their pathway decisions. Where Homeowners' pathway decisions are linked with other Homeowners, such as Homeowners of attached Homes or row houses, the CM may work with a group of Homeowners to discuss potential design options and pathways for the entire group. The CM needs to include a full-time Community Liaison position for this scope of work within their CM Staffing Expenses.

B. SCOPING AND DESIGN SERVICES PHASE:

Task B.1 Develop Scope of Work, Provide Design Solutions, and Determine Final Pathway and Services During Construction

The CM shall provide Design services in accordance with Article 9 of the attached contract. For each Home, a current HRO contractor will perform a Preliminary Damage Assessment and generate Feasibility and Tier II Environmental Reports that determine whether or not a Home is Substantially Damaged and the applicable environmental impacts to that Home. A Home that is deemed to be Substantially Damaged is one in which the cost of repairing the Home to its pre-storm condition exceeds 50% of the pre-storm value of the Home. The pre-storm value of the Home is determined by taking the total value of the property in the 2012 tax year and subtracting the value of the land, all from the Department of Finance database. This Substantial Damage calculation will be provided to the CM. The CM will review the Preliminary Damage Assessment, Feasibility, and Tier II Environmental Reports. Using those reports, the CM does a preliminary determination to assign a pathway for the repair among Rehabilitation, Elevation, or Reconstruction alternatives.

The scoping and design functions are then staged.

Scoping

For each Home, the CM and Design subconsultants engage the Home owner, inspect existing conditions, prepare layout drawings and do all related work towards obtaining the scope of work and preliminary cost estimate, including conducting all meetings with Homeowner to review and agree on scope of work including renderings, finish options, and layout. The CM and Design subconsultant will also create a photo inventory including all areas of damage and planned repairs. Pathways may change after

this scoping effort. The CM and Design subconsultants will conduct all site visits required to verify as built site conditions, prepare basic floor plans and photo inventory including all areas of damage and planned repairs, obtain measurements, and complete inventory storage checklist.

The CM and Design subconsultants will develop and prepare a program-compliant scope of work including, but not limited to: (1) incorporating all required lead abatement, asbestos remediation, mold remediation and any other required environmental remediation into scope of work, including written descriptions and quantities and incorporate any other repairs as a result of an approved engineer or architect's report; (2) incorporating any eligible repairs as a result of an approved engineer or architect report, where required; and (3) when requested, assessing the Scope of Work for a possible reduction of scope to meet a homeowner's funding deficiency.

Preliminary Design

The Preliminary design is a solution to all issues identified in the Scope and after the design consultation with the Homeowner, a final cost estimate is prepared. The documents go to HRO for review and preparation of the Homeowner agreement. If the Scope of Work differs from the original HRO assessment, and/or triggers a change in pathway, the scope of work will be submitted to HRO for approval prior to commencing the next phase of design.

Final Design

Upon approval of the Preliminary design and Homeowner agreement, CM designer gets required regulatory approvals and prepares the construction bid documents. The Homeowner is then engaged for a final sign off.

Services During Construction

CM designers attend meetings, respond to Request for Information, review submittals, and issue bulletins to ensure that construction matters related to the design are resolved.

Specific Design Requirements

The CM will be required to provide safe and efficient design solutions; ensure compliance with all local, state and federal laws, rules and regulations, including without limitation, compliance with all protocols required by the U.S Department of Housing and Urban Development, NYC Department of Buildings, New York City Department of Housing Preservation and Development, Board of Standards and Appeals, NYC Department of City Planning, New York State Department of Environmental Conservation, and Department of Interior National Fish & Wildlife; and services include pre-design investigation including title search services, site specific investigation, site surveying, cost estimating, zoning analysis, sewer and septic connections, wetland delineations, all other land use and zoning approvals, schematic design, design development, and regulatory approvals.

Rehabilitation – For those Homes preliminarily determined to be in the Rehabilitation pathway, the CM will be required to review the preliminary reports and assign a team to perform a Design Consultation (DC). The DC team will create the scope of work required to repair the remaining storm damage and identify any life safety issues in the Home.

The results of the DC for Rehabilitation will be used by the CM to create the Substantial Improvement calculation, which adds the amount of completed work indicated in the Feasibility Report to the work scoped in the DC. Should the Substantial Improvement percentage go over 50% of the pre-storm Home value, the Home will move into the Elevation pathway. Should it remain below 50%, the Home will remain in the Rehabilitation pathway.

Elevation - For Homes determined to be in the Elevation pathway, the CM will be required to review the preliminary reports and assign a team to perform an Elevation Design Consultation. In addition, the CM must research each Home to determine compliance with rules, regulations, and policies from the Department of Buildings and the Department of Finance in regard to the

existing building footprint and size and requirements, such as sprinklers, that will be imposed by the required elevation. Survey and geotechnical reports must be ordered and the Elevation Design Consultation team will then be sent to the site to document existing conditions, confirm the feasibility of elevation, and discuss potential solutions with the Homeowner. Following satisfactory results from the above investigations, the architectural or engineering sub-consultant will begin the design process for the Home elevation.

- All site visits required to verify as built site conditions, prepare basic floor plans and photo inventory including all areas of damage and planned repairs, obtain measurements, and complete inventory storage checklist
- Develop and prepare a program-compliant scope of work including, but not limited to:
 - Incorporating all required lead abatement, asbestos remediation, mold remediation and any other required environmental remediation into scope of work, including written descriptions and quantities and incorporate any other repairs as a result of an approved engineer or architect's report;

In certain cases following a home inspection, the home may need to obtain a report from a licensed structural engineer **Homes remaining in the Elevation pathway will require submission to the Department of Buildings of the plans for the elevation along with partial demolition plans for approval. The design of the Home elevation must incorporate zoning considerations, wetland compliance with NYS DEC where the Home is adjacent to or in a wetland, required Green Building Standards, BSA approval requirements (if needed), location factors including unmapped streets, Homes located in the bed of mapped streets, Homes on "courts" without direct access to public streets, street widening lines, substandard streets, attached or semi-attached Homes, varying requirements of different flood zones and program standards, among others. Plans will be reviewed by HRO/DDC for compliance with program standards prior to submission to the Department of Buildings. The CM will be expected to obtain all necessary signatures from Homeowners, pull all applicable permits, issue required notices, schedule required utility mark-outs and disconnections, and schedule all required pre-lift and lift inspections prior to elevation. HRO/DDC will provide any required Special Inspections.**

Upon completion of Schematic Design for Homes in the Elevation pathway, the CM will provide a Cost Reasonableness Analysis performed by a qualified cost estimator to compare the actual costs of elevation to the costs of reconstruction. Should the cost of Elevation exceed 100% of the cost of Reconstruction, or should the Elevation Consultation determine that the Home cannot feasibly be lifted, the Home will be moved to the Reconstruction pathway. Should the cost of Elevation exceed 75% of the cost of Reconstruction, the Homeowner will be given the option to move their Home to the Reconstruction pathway.

Reconstruction - For Homes whose initial pathway or subsequent examination puts them into the Reconstruction pathway, a number of factors will need to be decided. The design of the Home must incorporate the determination of eligible components of the Home to be replaced, including square footage, number of units, number and type of rooms, zoning considerations, wetland compliance with NYS DEC where Home is adjacent to or in a wetland, required Green Building Standards, Board of Standard and Appeals approval requirements (if needed), location factors including unmapped streets, Homes located in the bed of mapped streets, Homes on "courts" without direct access to public streets, street widening lines, substandard streets, attached or semi-attached Homes, varying requirements of different flood zones and program standards among others. Plans will be reviewed by HRO/DDC for compliance with program standards prior to submission to the NYC Department of Buildings.

Task B.2 Preparation of Construction Bid Documents

The CM will bundle Homes in its assigned borough in groups of projects for release of requests for bids for construction according to location, pathways, and other criteria so as to best expeditiously deliver a high volume of completed projects. Bid documents for the scope of work for the repair of the Homes shall be packaged according to these projects and are subject to HRO/DDC approval prior to bidding.

The CM will ensure, prior to commencement of the bidding process, that all necessary permits, certificates, licenses, or approvals required for performance of the Work have been obtained. Pre-bid meeting with contractors shall be held as necessary.

There are no limits to the number of Homes to be packaged for bid. DDC will have developed and maintained the following eight PQL at the execution of the CM/Design contracts:

General Construction for 1 to 4 Unit Homes over \$300,000

Electrical Rehabilitation for 1 to 4 Unit Homes over \$300,000

Plumbing Rehabilitation for 1 to 4 Unit Homes over \$300,000

Mechanical Rehabilitation for 1 to 4 Unit Homes over \$300,000

General Construction for 1 to 4 Unit Homes \$300,000 or less

Electrical Rehabilitation for 1 to 4 Unit Homes \$300,000 or less

Plumbing Rehabilitation for 1 to 4 Unit Homes \$300,000 or less

Mechanical Rehabilitation for 1 to 4 Unit Homes \$300,000 or less

Bid tabulation must be broken down by Homes. The CM must ensure that the construction contract is to be awarded to the lowest responsive and responsible bidder. Bids may have an allowance for Time and Material (T&M) not to exceed 2% of the bid amount. T&M payment structure must be based on bid hourly rates for normal, and premium hours.

The CM may not prepare bid scopes that require Alternate Bids without pre-approval in writing from DDC/HRO. Alternate Bid is defined as a bid that states an amount which may change from the quoted price if alternate methods and materials are chosen.

C. CONSTRUCTION PHASE

The CM shall provide Construction Services in accordance with Article 10 of the attached contract.

Task C.1 Construction Procurement

The CM will be responsible for the management of all bidding, design, permitting, scheduling of subcontractors, scheduling of inspections and construction related to each Home. The CM shall use a form of subcontract that is in compliance with the provisions of Article 10 of the Contract. The form of subcontract must be approved in advance by the Commissioner. HRO/DDC will complete a full due diligence review of construction contractors before they are allowed to be included in the PQL. However the CM will be required to undertake their own due diligence review at the 2nd tier subcontractors.

The CM will be required to procure all construction services from PQLs provided and maintained by HRO/DDC. The contracts awarded to the PQL contractors must have include a Schedule B: M/WBE Utilization that aligns with the goals in Attachment 7.

The CM bid documents must include a bid sheet which in addition to presenting the bid price for the Scope of Work must include labor rates for normal hours, premium and holiday hours to be applied if change orders are required on T & M. All the labor rates shall meet Labor Law Requirements in the Article 38 of the attached contract.

The CM will be responsible for the review and approval of bids, including conducting cost reasonableness and constructability analyses.

Task C.2 Services during the Construction Phase

The CM will provide the following services during the Construction Phase without limitation:

1. Manage and supervise the performance of the work by the Construction contractors described in each Scope of Work;
2. Communicate and coordinate the work with Construction contractors, Homeowners, and any other relevant regulatory agencies or community partners;
3. Ensure Construction contractors are providing all necessary materials and equipment to perform the work in a timely manner; and
4. Communicate and coordinate with design sub-consultants and other Program vendors as necessary.

Homes will not be determined to be complete until all work is completed and all required inspections have been performed and certificates (if any) issued by any and all appropriate oversight agencies and handover to the Homeowner.

In order to maximize work efficiencies, HRO/DDC reserves the following rights:

- (i) To determine the order of priority for the performance of the required services at the assigned sites;
- (ii) To increase or decrease the sites assigned to the CM depending on performance, including assigning sites outside the awarded borough;
- (iii) To increase or decrease the value of the CM contract and transfer that contract capacity to another CM contract;
- (iv) To directly solicit separate design proposals from selected Design Consultants for unique resilient developments which require greater innovation and creativity; and
- (v) To assign sites that have completed designs done by another firm for construction only to the CM.

D. EMERGENCY REPAIRS

Should critical life safety issues related to Sandy damage arise, HRO/DDC will issue directive to the CM for inspecting and ensuring that critical life safety issues in the Home are repaired on an emergency basis in compliance with HRO's Minimum Program Standards in Exhibit I of the attached contract. The CM will set up an after-hours point of contact person (weekdays between 5pm-9am and 24/7 on weekends/holidays) to be on-call to respond to HRO/DDC-related emergency calls. Upon receiving such a call or a notification during regular business hours, the CM will dispatch an emergency team to assess the situation. Examples of emergency repairs include, but are not limited to, a lack of heat/hot water, frozen pipes, and/or minor roof repairs threatening life/safety. The CM will share its findings and repair scope of work with the HRO/DDC program and case management leads immediately upon completion. The HRO/DDC program lead will approve/reject/modify the recommendations for the emergency repairs and authorize an emergency work order prior to repair commencement within 24 hours.

The CM will then provide the requisite crews of qualified personnel to perform the work, i.e., plumbers, electricians, mechanics, and general tradesmen within 24 hours.

For Homes already awarded to a PQL contractor, the CM must instruct the PQL contractors to make repairs on an emergency basis. For payment purpose, the work will be treated from the allowance for emergency work. Any additional CM fee will be paid from the additional A & E and CM allowance.

For Homes not yet awarded to PQL contractors, the CM must contact a minimum of three contractors on the appropriate PQL list, issue to each of them the same scope and opportunities for site visits and request bids for the completion of the work. The bid must be returned, evaluated and awarded within 48 hours.

Fee Form See chart on the following pages.

The estimated quantities are based on the case study offered in the RFP and are solely for the determination of a price for procurement. No quantity is guaranteed. The CM must incorporate the rates for the entire staff and administrative costs which are indicated in the. Scope of Work and Contract Conditions included in Article 42 and this Exhibit A.

FEE FORM - Borough of Brooklyn

Fee Form Tasks are more fully described above in the Scope of Services section of this Exhibit A.

	List of Services Borough of Brooklyn	Estimated Quantity of Homes (a)	Unit Price per Home (b)	Extended Price (a x b)
1.	<p>All required scoping and design services for rehabilitation of one-to four-family Homes for projects with a construction from \$10,001 to \$60,000 including:</p> <p>including:</p> <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Support Homeowner customer service • All meetings with Homeowner to review and agree on scope of work • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis) 	100	\$6,750	\$675,000
2.a	<p>All required scoping and design services for elevation of one- to four- family attached Homes including:</p> <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis) 	275	\$41,500	\$11,412,500
2.b	<p>All required scoping and design services for elevation of one- to four- family non-attached Homes including:</p> <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis) 	275	\$29,500	\$8,112,500

3.	All required scoping and design services reconstruction of one- to four- family Homes attached and non-attached including: <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis) 	25	\$62,000	\$1,550,000
4.	As needed Architectural, Engineering and Construction Management Services (Paid on a T&M Basis):	Estimated Hours (a)	Hourly Rate (b)	Extended Rate (a x b)
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	500	\$198	\$99,000
	Early Engineering (any pathway, prefinal design sign off by Homeowners)	500	\$187	\$93,500
	Emergency Construction Services	500	\$165	\$82,500
	Wetlands	500	\$187	\$93,500
	Septics	500	\$193	\$96,500
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	500	\$198	\$99,000
	Demolition Plans	500	\$193	\$96,500
	Post Approval Amendments	500	\$187	\$93,500
	SJO/RFI's	500	\$187	\$93,500
	Marine Engineering	500	\$193	\$96,500
	Other Technical Professionals	500	\$198	\$99,000
5.	Staffing Expenses Staffing Expenses covers the professional staffing and overhead of the Consultant, as described in Article 42.2.3 of the attached Contract.	Year One Lump Sum		\$28,096,549
		Year Two Lump Sum		\$21,233,697
		Year Three Lump Sum		\$645,820
		Year Four Lump Sum		
		Year Five Lump Sum		
6.	Project Office Setup (Mobilization and Demobilization)	Lump Sum		\$2,500,000
7.	Project Office Operation for 36 months	Lump Sum		\$3,900,000
8.	Fee for Profit	Estimated Qty of Groups of 20 Homes (a)	Unit Price per 20 Homes (b)	Extended Price (a x b)
		20 Rehabilitations	5	\$300,000
		20 Elevations	27.5	\$3,393,500
		20 Reconstructions	1.25	\$362,500

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Add Alternate: Provide a Unit Price for Design and Construction Management Services for additional homes identified for Rehabilitation. Unit Price per Home = \$17,851.00

**Services Not Included in Design Fee and to be provided on Time and Material basis:
Added T&M based Services**

	Service	Rehab	Elev	Recon
1	Design to address building wide life safety issues, and obtain regulatory approvals related to building-wide life safety design,	X		
2	Services required to develop Preliminary Feasibility Documents that have not been provided by HRO,	X	X	X
3	(Complex) Structural and MEP design,	X		
4	Hazmat services, including Asbestos, Lead and Mold surveys and testing	X	X	X
5	Complex Civil Engineering, surveys and design, including site drainage, grading, retaining walls, site engineering	X		
6	Site Utilities design from the house to external network, including Storm Retention System, Sewer, Gas, Water, Electrical systems design and regulatory approvals for non-standard construction beyond the service connection.	X	X	X
7	Design related to Emergency repairs,	X	X	X
8	Historic Preservation and/or Restoration design and approvals,	X	X	X
9	Design for Zoning Variances, filing and obtaining BSA Variances and Special Permits, and other regulatory approvals for non-standard construction,	X	X	X
10	Neighborhood Streetscape design, including compliance with the New York City Zoning Resolution beyond the property line.	X	X	X
11	Community Presentations	X		

[Every Certificate of Insurance must be accompanied by either the following certification by the broker setting forth the following text and required information and signatures or complete copies of all policies referenced in the Certificate of Insurance. In the absence of completed policies, binders are acceptable.]

CERTIFICATION BY BROKER

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects, and that the described insurance is effective as of the date of this Certification.

Alliant Insurance Services, Inc
[Name of broker (typewritten)]

333 Earle Ovington Blvd., Suite 700 Uniondale, NY 11553
[Address of broker (typewritten)]


[Signature of authorized officer of broker]

Sharon Oderwald
[Name of authorized officer (typewritten)]

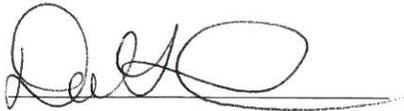
Account Manager
[Title of authorized officer (typewritten)]

516-414-8609
[Contact Phone Number for Broker (typewritten)]

Sharon.Oderwald@alliant.com
[Email Address of Broker (typewritten)]

Sworn to before me this

27th day of April, 2015_



NOTARY PUBLIC

DANA GRANICE
Notary Public, State of New York
No. 01GR6099128
Qualified in Nassau County
Commission Expires September 22, 2015

EXHIBIT B

STAFFING REQUIREMENTS A

FMS ID: TBD

PROJECT: Construction Management/Design/Build for the rehabilitation, elevation and/or rebuilding of substantially damaged and non-substantially damaged residential Homes
 Overall staffing requirements for design and construction management personnel for the Project have been established by the Commissioner and are set forth below. Such staffing requirements specify the titles of design and construction management personnel that may be required for the Project. A staffing plan for the project shall be established in accordance with the procedure set forth in Article 11 of the contract.

List of Key Personnel:

- Program Executive
- Project Executive
- Project Manager
- Lead Design Manager
- Design Project Manager
- Project Controls Manager
- Sandy Hiring Implementation Manager
- MWBE Compliance Officer

Minimum Qualification Requirements Per Title

Any personnel provided by the CM and/or its Design Consultants must satisfy the Minimum Requirements Per Title set forth below.

ARCHITECTURAL PERSONNEL

Title	Number of Years of Experience	Professional License or Certification
Principal	10	Professional License
Project Architect	7	Professional License
Project Manager (Architecture)	7	
Senior Architectural Designer	5	
Junior Architectural Designer	3	
Architectural Technician	1	
Senior Interior Designer	5	
Junior Interior Designer	3	
Interiors Technician	1	
Programming Specialist	3	
Senior Landscape Architect	5	Professional License
Junior Landscape Architect	3	
Senior Landscape Architectural Designer	5	
Junior Landscape Architectural Designer	3	
Landscape Technician	1	
Senior Draftsperson/CAD	5	
Junior Draftsperson/CAD	1	

ENGINEERING PERSONNEL

Title	Number of Years of Experience	Professional License or Certification
Principal	10	Professional License
Project Engineer	7	Professional License
Project Manager (Engineer)	7	
Senior Structural Engineering Designer	5	

Senior Electrical Designer	5	
Senior Plumbing Designer	5	
Senior HVAC Designer	5	
Junior Structural Engineering Designer	3	
Junior Electrical Designer	3	
Junior Plumbing Designer	3	
Junior HVAC Designer	1	
Engineering Technician	1	
Senior Engineering Draftsperson/CAD	5	
Junior Engineering Draftsperson/CAD	1	

PERSONNEL FOR ESTIMATING

Title	Number of Years of Experience	Professional License or Certification
Principal	7	Professional Certification
Senior Estimator	7	
Junior Estimator	3	

PERSONNEL FOR VARIOUS SPECIALTIES

Title	Number of Years of Experience	Professional License or Certification
Principal	7	Professional Certification
Fire Protection Specialist	5	
Geotechnical Specialist	5	
Marine Engineer	10	Professional License
Environmental Conservationist	5	
Arborist	3	ISA Certified
Expediter	5	
Clerical	0	

CONSTRUCTION MANAGEMENT PERSONNEL

TITLES	Academic Qualification (Minimum)	Licensure	Number of Years of Experience	Number of Years in Relevant Supervising Experience
Program Executive	BS		10	7
Project Executive	BS		10	7
Project Manager	BS in Engineering, Architecture, Construction Management related degree	PE, RA or CCM or an additional 10 years of supervising experience	10	5
Assistant Project Manager	BS in Engineering, Architecture, Construction Management related degree		7	5
Lead Design Manager	BS in Engineering, Architecture, Construction related degree	RA	7	5
Design Project Manager	BS in Engineering, Architecture, Construction Management related degree		5	3
Resident Engineer	BS in Engineering (CE, EE or ME)	PE	7	3
Construction Inspector	BS or an additional 5 years of relevant experience		3	2
Project Controls Manager	BS in Engineering, Architecture, Construction Management or related degree		10-15	5 years of leadership in projects of the similar size and

TITLES	Academic Qualification (Minimum)	Licensure	Number of Years of Experience	Number of Years in Relevant Supervising Experience
				complexity
Sandy Hiring Implementation Manager	BS or an additional 5 years of relevant experience		5	2
Office Engineer/Utilities Coordinator/Operational Logistics Coordinator	BS in Engineering (CE, EE or ME)		5	3
Clerical	High School Diploma	Computer Skills	0	
M/WBE Compliance Officer			5	2

EXHIBIT C

PARTIAL PAYMENT FOR STORED MATERIAL

The Commissioner may authorize partial payment for certain materials, fixtures and equipment, prior to their incorporation in the Work, but only in strict accordance with and subject to all the terms and conditions set forth in Paragraphs 1 through 16 below. The Contractor may request such partial payment on behalf of its Subcontractors.

1. The Contractor shall submit to the Commissioner a written request, in quadruplicate, for payment for materials purchased or to be purchased for which it desires to be paid prior to their actual incorporation in the Work. The request shall be accompanied by a schedule of the types and quantities of materials, and shall state whether such materials are to be stored on or off the site.
2. Where the materials are to be stored off the site, they shall be stored at a place other than the Contractor's or Subcontractor's premises (except with the written consent of the Commissioner) and under the conditions prescribed or approved by the Commissioner. The Contractor shall set apart and separately store at the place or places of storage all materials and shall clearly mark same "PROPERTY OF THE CITY OF NEW YORK", and further, shall not at any time move any of said materials to another off-site place of storage without the prior written consent of the Commissioner. Materials may be removed from their place of storage off the site for incorporation in the work upon approval of the Commissioner's Representative.
3. Where the materials are to be stored at the site, they shall be stored at such locations as shall be designated by the Commissioner's Representative and only in such quantities as, in the opinion of the Commissioner's Representative, will not interfere with the proper performance of the Work by the Contractor or by other contractors then engaged in performing work on the site. Such materials shall not be removed from their place of storage on the site except for incorporation in the Work, without the approval of the Commissioner's Representative.
4. **INSURANCE**
 - a. **STORAGE OFF-SITE:** Where the materials are stored off the site and until such time as they are incorporated in the Work, the Contractor shall fully insure such materials against any and all risks of destruction, damage or loss including but not limited to fire, theft, and any other casualty or happening. The policy of insurance shall be payable to the City of New York. It shall be in such terms and amounts as shall be approved by the Commissioner and shall be placed with a company duly licensed to do business in the State of New York. The Contractor shall deliver the original and one copy of such policy or policies marked "Fully Paid" to the Commissioner.
 - b. **STORAGE ON THE SITE:** Where the materials are stored at the site, the Contractor shall furnish satisfactory evidence to the Commissioner that they are properly insured against loss, by endorsements or otherwise, under the policy or policies of insurance obtained by the Contractor to cover losses to materials owned or installed by him. The policy of insurance shall cover fire and extended coverage against windstorm, hail, explosion and riot attending a strike, civil commotion, aircraft, vehicles and smoke.
 - c. Subject to approval by the Commissioner, the above described insurance may be provided by the Contractor's Subcontractor.
5. All costs, charges and expenses arising out of the storage of such materials, shall be paid by the Contractor and the City hereby reserves the right to retain out of any partial or final payment made under the Contract an amount sufficient to cover such costs, charges and expenses with the understanding that the City shall have and may exercise any and all other remedies at law for the recovery of such cost, charges and expenses. There shall be no increase in the Contract price for such costs, charges and expenses and the Contractor shall not make any claim or demand for compensation therefor.
6. The Contractor shall pay any and all costs of handling and delivery of materials, to the place of storage and from the place of storage to the site of the work; and the City shall have the right to retain from any partial or final payment an amount sufficient to cover the cost of such handling and delivery.
7. In the event that the whole or any part of these materials are lost, damaged or destroyed in advance of their satisfactory incorporation in the Work, the Contractor at his own cost, shall replace such lost, damaged or destroyed materials of the same character and quality. The City will reimburse the Contractor for the cost of the replaced materials to the extent, and only to the extent, of the moneys actually received by the City under the policies of insurance hereinbefore referred to. Until such time as the materials are replaced, the City will deduct from the value of the stored materials or from any other money due under the Contract, the amount paid to the Contractor for such lost, damaged or destroyed materials.
8. Should any of the materials paid for the City hereunder be subsequently rejected or incorporated in the Work in a manner or by a method not in accordance with the Contract Documents, the Contractor shall remove and replace such defective or improperly incorporated material with materials complying with the Contract Documents. Until such materials are replaced, the City will deduct from the value of the stored materials or from any other money due the Contractor, the amount paid by the City for such rejected or improperly incorporated materials.
9. Payments for the cost of materials made hereunder shall not be deemed to be an acceptance of such materials as being in accordance with the Contract Documents, and the Contractor always retains and must comply with his duty to deliver to the site and properly incorporate in the Work only materials which comply with the Contract Documents.
10. The Contractor shall retain any and all risks in connection with the damage, destruction or loss of the materials paid for hereunder to the time of delivery of the same to the site of the Work and their proper incorporation in the Work in accordance with the Contract Documents.
11. The Contractor shall comply with all laws and the regulations of any governmental body or agency pertaining to the priority purchase, allocation and use of the materials.

12. When requesting payment for such materials, the Contractor shall submit with the partial estimate duly authenticated documents of title, such as bills of sale, invoices or warehouse receipts, all in quadruplicate. The executed bills of sale shall transfer title to the materials from the Contractor to the City (in the event that the invoices state that the material has been purchased by a Subcontractor, bills of sale in quadruplicate will also be required transferring title to the materials from Subcontractor to the Contractor).
13. Where the Contractor, with the approval of the Commissioner has purchased unusually large quantities of materials in order to assure their availability for the Work, the Commissioner at his option, may waive the requirements of paragraph "12" provided the Contractor furnishes evidence in the form of an affidavit of the Contractor in quadruplicate, and such other proof as the Commissioner may require, that he is the sole owner of such materials and has purchased them free and clear of all liens and other encumbrances. In such event, the Contractor shall pay for such materials and submit proof thereof, in the same manner as provided in paragraph "12" hereof, within seven (7) days after receipt of payment therefor from the Comptroller. Failure on the part of the Contractor to submit satisfactory evidence that he has paid in full for all such materials shall preclude him from payments under the Contract.
14. The Contractor shall include in each succeeding partial estimate requisition a summary of materials stored which shall set forth the quantity and value of materials in storage, on or off the site, at the end of each preceding estimate period; the amount removed for incorporation in the Work; the quantity and value of materials delivered during the current period and the total value of materials on hand for which payment thereof will be included in the current payment estimate.
15. Upon proof to the satisfaction of the Commissioner of the actual cost of such materials and upon submission of proper proof of title as required under paragraph "12" or "13" hereof, payment will be made therefore to the extent of 85%, provided however, that the cost so verified, established and approved shall not exceed the estimated cost of such materials included in the approved detailed breakdown estimate submitted in accordance with Article 42 of the Contract; if it does, the City will pay only 85% approved estimated cost.
16. Upon the incorporation in the Work of any such materials, which have been paid for in advance of such incorporation in accordance with the foregoing provisions, payment will be made for such materials incorporated in the Work pursuant to Article 42 of the Contract, less any sums paid pursuant to paragraph "15" herein.

EXHIBIT D: REQUIREMENTS FOR PROJECT OFFICE

- 1) **General:** Throughout the term of this Contract, subject to the payment provisions of the Fee Form included in Exhibit A, the Contractor shall be required to provide and maintain a Project Office, dedicated to the activities of personnel in connection with Projects assigned under this Contract, and including up to 20 City personnel. Such Project Office shall be in accordance with the requirements set forth in this Exhibit D. The Project Office shall be located within the assigned borough at a location acceptable to the Commissioner.

- (2) **Cost Included in Schedule A**

- (3) **Ownership of Components:** In the event the Contractor elects to purchase any of the components of the Project Office to be provided hereunder, such components shall remain the sole property of the Contractor.

- (4) **Risk of Loss:** The entire risk of loss with respect to the Project Office shall remain solely and completely with the Contractor. The Contractor shall be responsible for the cost of any insurance coverage determined by the Contractor to be necessary for the Project Office.

- (5) **Replacement:** In the event the Project Office or any component(s) thereof is lost, damaged, or determined by the Commissioner to be defective or noncompliant with the requirements set forth in this Exhibit D, the Contractor shall be responsible, at its sole cost and expense, to replace such component(s) within two weeks from the date of such loss or damage, or written notice from the Commissioner that the component is defective or noncompliant.

- (6) **Compliance:** The Project Office provided by the Contractor in accordance with this Exhibit D shall comply with all applicable federal, state and local laws, rules and regulations, including without limitation, the New York City Building Code.

- (7) **Project Office Requirements:** The required Project Office shall be sufficient in size to accommodate all personnel assigned to the Project. The Project Office shall have sufficient toilet facilities for all assigned personnel.

- (8) **Utilities:** The Contractor shall be responsible for providing all necessary utilities for the Project Office, including without limitation, water, heat, air conditioning, electricity and telephone service. Cellular telephone service shall include both incoming and outgoing calls.

- (9) **Maintenance Services:** The Contractor shall be responsible for providing all cleaning and maintenance services in connection with the Project Office, including without limitation maintenance of equipment.

- (10) **Office Supplies:** The Contractor shall be responsible for providing all office supplies, including without limitation, pens, pencils, stationery, filtered drinking water and sanitary supplies.

(11) Office Furniture and Equipment: The Project Office provided by the Contractor shall include the offices, furniture, accessories and equipment specified below. All items and /or equipment furnished hereunder shall be in excellent condition and functioning properly. All equipment furnished hereunder shall be the most current model.

- (a) Office furniture, cubicles and/or desks for all personnel assigned to the Project
- (b) Shared private office for the Project Manager and Assistant Project Manager.
- (c) Conference room for at least twelve (12) people.
- (d) Flex type multi line telephone system, including modem and fax lines with voice mail
- (e) One (1) high volume copier (50 copies per minute)
- (f) One (1) fax machine
- (g) Minimum of four (4) networked computers, plus file server and all associated computer software, in accordance with Paragraph 13 below
- (h) Minimum of one (1) heavy duty laser printer
- (i) Mobile communication system (cellular telephones or two way radios) for all personnel assigned to the Project

(12) File Transfer Protocol Site: The contractor shall furnish a File Transfer Protocol (FTP) site for the exchange of electronic project data. The FTP site shall include the ability to create multiple secure folders with unique usernames and access passwords. The storage capacity of the FTP site shall be a minimum of 300 megabytes. It shall be accessible using either Microsoft Windows or Apple Macintosh operating systems. The Contractor shall verify and ensure that the FTP site is compliant with the "client" security and network access restrictions.

(13) Requirements for Computer Equipment: Any personal computers ("PCS") required in this Exhibit D must meet the following specifications.

- (a) Personal Computer(s) – Workstation Configuration
 - (1) Acceptable Models: Dell, Gateway, Toshiba, HP, IBM, or an approved equal. (Note: an approved equal requires written approval of the Assistant Commissioner of ITS.)
 - (2) Processor: Pentium i5 or i7
 - (3) System RAM: 8GB SDRAM or DDR
 - (4) Hard Disk Drive(s): 500GB (Gigabytes) or larger.
 - (5) CD-RW: Internal CD-RW, 48x Speed or faster.
 - (6) 16xDVD+/-RWDVD Burner (with double layer write capability) 16x Speed or faster
 - (7) I/O Ports: Must have at least one (1) Serial Port one, (1) Parallel Port, 2 USB Ports. Serial Ports must consist of UART 16550 Chip or better.
 - (8) Video Display Card: PCI Interface with a minimum of 1GB of RAM.
 - (9) Monitor: 17" TFT LCD monitor.

- (10) Available Exp. Slots: System as configured above shall have at least two (2) full size PCI Slots available.
 - (11) NA
 - (12) Other Peripherals: Optical scroll Mouse, 101 Key Keyboard, Mouse Pad and all necessary cables.
 - (13) Software Requirements: Microsoft Windows Professional Windows 7, Microsoft Office 2012 or higher Professional; Microsoft Project 2012 or higher Professional, Adobe Acrobat Professional, Anti-Virus with one year updates subscription, Auto Cad 2014.
- (b) Computers shall be provided with the following:
- (1) One (1) broad-band internet service account. This account will be active for the life of the project.
 - (2) One (1) 600 DPI HP Laser Jet Printer (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size).
 - (3) All necessary Cabling.
 - (4) Storage Boxes for and Blank CDs/DVDs.
 - (5) Printer Table.
 - (6) UPS/Surge Surpressor combo.
- (c) All Computer Hardware shall come with a three (3) year warranty for on-site repair or replacement. Additionally, and notwithstanding any terms of the warranty to the contrary, the Contractor is responsible for rectifying all computer problems or equipment failures within one (1) business day.
- (d) An adequate supply of blank CD's/DVD's, and paper and toner cartridges for the printer shall be provided by the Contractor, and shall be replenished by the Contractor as required.
- (e) It is the Contractor's responsibility to ensure that electrical service and phone connections are also available at all times.
- (f) Broadband connectivity is preferred at each field office location. Please take into consideration that an extra phone line dedicated to the modem must be ordered as part of the contract unless Internet broadband connectivity, via Cable or DSL, is available at the planned field office location. Any questions regarding this policy should be directed to Raul Canabal, Assistant Commissioner of Information Technology Services at 718-391-1668.

EXHIBIT E

**CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
SAFETY REQUIREMENTS**

THE DDC SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

- I. POLICY ON SITE SAFETY**
- II. PURPOSE**
- III. DEFINITIONS**
- IV. RESPONSIBILITIES**
- V. SAFETY QUESTIONNAIRE**
- VI. SAFETY PROGRAM AND SITE SAFETY PLAN**
- VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW**
- VIII. EVALUATION DURING WORK IN PROGRESS**
- IX. SAFETY PERFORMANCE EVALUATION**

I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction (DDC) is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is DDC's policy that work carried out by Contractors on DDC jobsites must, at a minimum, comply with applicable federal, state and city laws, rules and regulations, including without limitation:

- ❑ U. S. Department of Labor 29 Code of Federal Regulations (CFR) Part 1926 and applicable Sub-parts of Part 1910 – U.S. Occupational Safety and Health Administration (OSHA) including, but not limited to “Respiratory Protection” (29 CFR 1910.134), “Permit-Required Confined Spaces” (29 CFR 1910.146), and “Hazard Communication” (29 CFR 1910.1200);
- ❑ New York State Department of Labor Industrial Code Rule 23 – Protection in Construction, Demolition and Excavation;
- ❑ New York City Construction Codes, Title 28
- ❑ NYC Department of Transportation Title 34 Chapter 2 – Highway Rules
- ❑ New York State Department of Labor Industrial Code Rule 753
- ❑ NYC Local Law No. 113 (2005) Noise Control Code

In addition, all regulations promulgated by the NYC Department of Transportation, including requirements for Maintenance and Protection of Traffic (MPT), are applicable when contained in contract specifications. While MPT is a significant component of work in our Infrastructure Division, it does not supersede or exempt Contractors from complying with other applicable health and safety standards (for example, excavating and trenching standards, operation of heavy equipment and compliance with City environmental and noise regulations).

II. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazard, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Agency Chief Contracting Officer (ACCO): The ACCO shall mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO.

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them.

Construction Safety Auditor: A representative of the QACS Construction Safety Unit who provides inspection and assessment services to enhance health and safety on all DDC construction projects. The activities of the Construction Safety Auditor include performing site surveys, reviewing health and safety plans, reviewing construction permits, and rendering technical advice and assistance to DDC Resident Engineers and Project Managers.

Construction Safety Unit: A part of QACS within the Division of Technical Support that assesses contractor safety on DDC jobsites and advises responsible parties of needed corrective actions.

Construction Superintendent: A representative of the contractor responsible for overseeing performance of the required construction work. This individual must engage in sound construction practices, and is responsible to maintain a safe work site. In the case of a project involving the demolition, alteration or new construction of buildings, the Construction Superintendent must be licensed by the NYC Department of Buildings.

Contractor: For purposes of these Safety Requirements, the term “Contractor” shall mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term “Contractor” shall include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System (“JOCS Contract”), and (3) a subcontract with a CM/Builder (“First Tier Subcontract”).

Director - Quality Assurance and Construction Safety (QACS): Responsible for the operations of the QACS Construction Safety Unit and the DDC Site Safety management programs.

Job Hazard Assessment (JHA): A process of identifying site-specific hazards that may be present during construction and establishing the means and methods to reduce or eliminate those hazards.

Jobsite Safety Coordinator: A person designated by the Contractor to be onsite during all activities. This individual shall have received, at a minimum, the OSHA 10-hour construction safety program. Other examples of acceptable training are the 30-hour OSHA Safety and

Health Standards for the Construction Industry training program (OSHA 510) or a degree/certificate in a safety and health from a college-level curriculum. This person does not necessarily have to be dedicated full-time to site safety, but must have sufficient experience and authority to undertake corrective action and must qualify to be a competent person. For certain projects, as defined in NYC Construction Codes – Title 28, this person may be required to have a Site Safety Manager’s License issued by the NYC DOB.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design and trenching and shoring, among others.

Resident Engineer (RE) / Construction Project Manager (CPM): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. (The RE/CPM may be a third-party consultant, including a CM, retained by DDC.)

Safety Program: Established by the Contractor that covers all operations of that Contractor and establishes the Contractor’s overall safety policy, regulatory compliance plan and minimum safety standards. The Safety Program must be submitted prior to award and is subject to review and acceptance by the Construction Safety Unit.

Safety Questionnaire: Used by DDC to evaluate Contractor’s current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified and updated annually or as requested by the DDC.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a specific project. The Site Safety Plan must identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Site Safety Plan must be submitted prior to award and is subject to review and acceptance by the Construction Safety Unit.

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property or the environment.

Weekly Safety Meetings: Weekly documented jobsite safety meetings, given to all jobsite personnel by contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects shall conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer / Construction Project Manager / Construction Manager

- Monitors the issuance of safety- related permits, approvals and drawings and maintains copies on site.
- Monitors construction-related work activities to confirm that they are conducted in accordance with DDC policies and all applicable regulations that pertain to construction safety.
- Maintains documentation and periodically attends weekly safety meeting.
- Notifies the Construction Safety Unit and the ACCO’s Insurance and Risk Management Unit of project- related accidents and emergencies, as per DDC’s Construction Safety Emergency Protocol.
- Gathers facts related to all accidents and prepares DDC Accident Reports.
- Notifies the Construction Safety Unit of outside regulatory agency inspections and forwards a copy of the inspection report within three days of its receipt.
- Monitors the conditions at the site for conformance with the Site Safety Plan and DDC construction documents.
- Notifies the contractor and DDC in the event that any condition or activity exists that is not in compliance with the Site Safety Plan, applicable federal, state or local codes or any condition that presents a potential risk of injury to the public or workers or possible damage to property.
- Notifies DDC of any emergency condition and directs the contractor to provide such labor, materials, equipment and supervision to abate such conditions.
- Reports gross safety violations to the Construction Safety Unit immediately.

B. Contractors

- Complete a Safety Questionnaire and submit with its bid or as part of a pre-qualification package.
- Provide a Written Job Hazard Assessment (JHA) that identifies expected safety issues of the work to be performed. JHA shall be included with the Site Safety Plan submitted by the contractor.
- Submit a Site Safety Plan and Safety Program within 10 business days of notification from DDC that it has been identified as the low bidder. The Site Safety Plan and Safety Program are subject to review and acceptance by the Construction Safety Unit prior to an award of contract. The Site Safety Plan shall be revised and updated as necessary.

- Ensure that all employees are aware of the hazards associated with the project through formal and informal training and/or other communications. Conduct and document weekly safety meetings for the duration of the project. Documentation to be provided to the RE/CPM/CM on a monthly basis.
- Name a Construction Superintendent, if required.
- Name a Job Site Safety Coordinator. The Contractor will be required to identify the Job Site Safety Coordinator in the Site Safety Plan.
- Comply with all mandated federal, state and local safety and health rules and regulations.
- Comply with all provisions of the Site Safety Plan.
- As part of the Site Safety Plan, prepare a site specific MPT (if not otherwise provided in the contract documents) and comply with all of its provisions.
- Conduct and document site-specific safety orientation for Contractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Job Site Safety Coordinator will conduct this training prior to mobilization and provide documentation to the RE/CPM/CM.
- Provide, replace and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.).
- Report unsafe conditions or hazards to the DDC RE/CPM/CM as soon as practical, but no more than 24 hours after discovery, and take action to remove or abate such conditions.
- Report any accident involving injuries to workers or the general public, as well as property damage, to the DDC RE/CPM/CM within two (2) hours.
- Notify the DDC RE/CPM/CM within two (2) hours of the start of an inspection by any regulatory agency personnel, including OSHA.
- Maintain all records pertaining to all required compliance documents and accident and injury reports.
- Respond to DDC recommendations on safety, which shall in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety and environmental performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor must submit a completed DDC Safety Questionnaire listing their workers' compensation experience modification rating and OSHA Incidence Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor must provide the requested update within 30 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

- Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
- Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
- Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three years; and
- Criteria 4: A fatality (worker or member of public) experienced on or near Contractor's worksite within the last three (3) years; and
- Criteria 5: An unacceptable rating by QACS based on past performance on DDC projects; and
- Criteria 6: Contractor has in place an acceptable corporate safety program and its employees shall have completed all documented relative safety training; and
- Criteria 7: Contractor shall provide OSHA Injury Records (currently OSHA 300 Log) for the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Construction Safety Unit may request, through the ACCO, more detail concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, OSHA records, OSHA and DOB citations, EPA citations and written Safety Programs.

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

The Contractor shall submit the following within 10 days of notification from DDC that it has been identified as the low bidder: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standard, and the Site Safety Plan shall identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to an award of contract.

The Site Safety Plan shall apply to all Contractor and Subcontractor operations, and shall have at a minimum, the following elements. Each element shall be described in a separate section in the written document. It may be necessary to modify the basic format for certain unique or high-risk projects (such as tunnels or high-rise construction). The basic elements are as follows:

1. Responsibility and Organization: Identify the person or persons with authority and responsibility for implementing the Site Safety Plan. Provide an organization chart and define levels of authority and responsibility. Identify the Competent Person, the Construction Superintendent (if required), the Job Safety Coordinator and the Qualified Person required for this project.

2. **Communication:** Establish a system for communicating with employees and Subcontractors on matters relating to worker and public safety and health and environmental protection, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. An emergency response notification protocol is to be established that also includes after hours contact numbers. The plan must also include provisions for weekly safety meetings held by the Job Site Safety Coordinator.
3. **Job Hazard Assessment:** A written document submitted by the contractor, used to identify expected job hazards and public safety risks and state the specific means and methods to reduce, control or eliminate those hazards. This part of the Site Safety Plan must also include how on-going evaluations of those risks and hazards will be carried out, including plans for periodic inspections to identify unsafe conditions, work practices and public safety hazards.
4. **Accident/Exposure Investigation:** Establish a procedure to investigate and report occupational and public injury or illness, property damage, vehicle accidents or other mishaps.
5. **Hazard Correction:** Establish means, methods and/or procedures for correcting unsafe or unhealthy conditions that might be exposing both the public and workers to hazards. Corrective actions must be taken immediately when observed or discovered. Should an imminent hazard exist which cannot be immediately abated without endangering employees, the public and/or property, remove or restrict all exposed persons from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. When corrective actions cannot be taken immediately, temporary measures should be taken until such time permanent measures are taken to eliminate the potential risks or hazards
6. **Training:** Describe site-specific hazard training programs. In addition to the required safety orientation, additional site specific training, in the form of required weekly safety meetings, will be required. Contractors must also initiate training when: a) new employees are hired; b) employees are given new job assignments for which training has not been previously received; c) new substances, processes, procedures or equipment are introduced that might represent a new public or worker hazard; d) the employee is made aware of a new or previously unrecognized hazard; e) new supervisors are assigned to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed; and f) after a jobsite incident or accident has occurred.
7. **Recordkeeping:** Establish procedures to maintain records of scheduled and periodic inspections, weekly safety meetings, and training records. Updated records shall be maintained at the jobsite, accessible to the Construction Safety Auditors and/or Quality Assurance Auditors/RE/CPM, and retained in accordance with DDC policy.

The most critical component of the Site Safety Plan is the Job Hazard Assessment section. This section must address specific hazards that are anticipated throughout the project. Each Site Safety Plan must address, at a minimum:

- Public and pedestrian safety
- Fall protection
- Electrical hazards
- Scaffolding
- Fire protection
- Emergency notification & response
- Housekeeping / debris removal
- Dust control
- Maintenance and protection of traffic
- Trenching and excavating
- Heavy equipment operations
- Material / equipment storage
- Environmental contamination
- Sheeting and shoring
- Alcohol and Drug Abuse Policy

The following additional hazards must be addressed, if applicable, based on the contract safety specifications and/or the results of the JHA (the list is not all-inclusive):

- Basic Personal Protective Equipment
- Compressed Air
- Compressed Gas Cylinders
- Cranes, Derricks and Hoists
- Demolition
- Electrical safety
- Excavations and Trenching
- Fall Protection – Floor openings/Stairways
- Fall Protection – Guardrails Toe boards etc.
- Fall Protection – Leading Edge
- Fall Protection – Personal Fall Protection Devices
- Fire Protection and Fire Prevention
- Hazard Communication (RIGHT TO KNOW)
- Hazardous Energy & Lock Out / Tag Out

- Housekeeping/ Sanitation
- Maintenance and Protection of Traffic (MPT)
- Man Lifts /Aerial Lifts
- Marine Operations
- Motor Vehicle Safety
- Overhead Power lines
- Permit Required Confined Space
- Portable Ladders
- Powered Actuated Tools
- Powered Material Handling Equipment
- Scaffolds – Mobile
- Scaffolds – Stationary
- Scaffolds – Suspended
- Slings
- Steel Erection
- Welding and Cutting (Hot Work)
- Airborne Contaminants – Particulates – General
- Asbestos
- Blood borne Pathogens
- Hearing Protection
- Lead in Construction
- Mercury in Construction
- PCB's
- Respiratory Protection
- Silica
- Thermal Stress
- West Nile Virus
- Rodents and Vermin
- Noise Mitigation Plan

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor will be required to submit a Safety Program. In addition, certain DDC Operating Units may establish program or client-specific safety requirements. The contractor's Site Safety Plan must address such program or client specific safety requirements.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

As part of the construction kick-off meeting, a Site Safety Plan review will be part of the agenda. A QACS representative will participate in this meeting with the contractor prior to the start of the project for the purpose of:

- A. Reviewing the safety issues detailed in the contract.
- B. Reviewing the Site Safety Plan.
- C. Reviewing any new issues or information that was not previously addressed.
- D. Discussing planned inspections and audits of the site by DDC personnel.

VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Superintendents or Safety Representatives.
- B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and forward them to the Construction Safety Unit on a weekly basis. Any critical deficiencies shall be immediately reported to QACS phone# (718) 391-1624 or (718) 391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director- QACS, or designee will meet with the Contractor's safety representative, the DDC project manager, the RE/CPM, or the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.
- D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.

- E. The contractor shall inform the Construction Safety Unit and ACCO Insurance and Risk Management Unit of all medical injuries or illnesses that require doctors' treatment resulting from an on-the-job incident within 24 hours of the occurrence. The Construction Safety Unit shall also be immediately informed of all fatalities, catastrophic accidents with more than one employee hospitalized, any injuries to members of the general public and major equipment damage (e.g., property damage, equipment rollovers, loads dropped from crane). QACS shall maintain a record of all contractor injuries and illnesses during the project and provide regular reports to the Agency.
- F. The Construction Safety Unit shall be immediately notified at the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections. The Director of Quality Assurance & Construction Safety shall maintain a log of all contractor OSHA/EPA inspections and citations during the project.

IX. SAFETY PERFORMANCE EVALUATION

The contractor's safety record, including all DDC inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which will be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

EXHIBIT F
FORM OF BID, PERFORMANCE AND PAYMENT BONDS

BID BOND 1
FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, _____

hereinafter referred to as the "Principal", and _____

hereinafter referred to as the "Surety" are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "CITY", or to its successors and assigns in the penal sum of _____

(\$_____), Dollars lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal is about to submit (or has submitted) to the City the accompanying proposal, hereby made a part hereof, to enter into a contract in writing for _____

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall not withdraw said Proposal without the consent of the City for a period of forty-five (45) days after the opening of bids and in the event of acceptance of the Principal's Proposal by the City, if the Principal shall:

- (a) Within ten (10) days after notification by the City, execute in quadruplicate and deliver to the City all the executed counterparts of the Contract in the form set forth in the Contract Documents, in accordance with the proposal as accepted, and
- (b) Furnish a performance bond and separate payment bond, as may be required by the City, for the faithful performance and proper fulfillment of such Contract, which bonds shall be satisfactory in all respects to the City and shall be executed by good and sufficient sureties, and
- (c) In all respects perform the agreement created by the acceptance of said Proposal as provided in the Information for Bidders, bound herewith and made a part hereof, or if the City shall reject the aforesaid Proposal, then this obligation shall be null and void; otherwise to remain in full force and effect.

BID BOND 2

In the event that the Proposal of the Principal shall be accepted and the Contract be awarded to him the Surety hereunder agrees subject only to the payment by the Principal of the premium therefore, if requested by the City, to write the aforementioned performance and payment bonds in the form set forth in the Contract Documents.

It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

There shall be no liability under this bond if, in the event of the acceptance of the Principal's Proposal by the City, either a performance bond or payment bond, or both, shall not be required by the City on or before the 30th day after the date on which the City signs the Contract.

The surety, for the value received, hereby stipulates and agrees that the obligations of the Surety and its bond shall in no way be impaired or affected by any postponements of the date upon which the City will receive or open bids, or by any extensions of the time within which the City may accept the Principal's Proposal, or by any waiver by the City of any of the requirements of the Information for Bidders, and the Surety hereby waives notice of any such postponements, extensions, or waivers.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the _____ day of _____, _____.

(Seal)

_____(L.S.)

Principal

By: _____

(Seal)

Surety

By: _____

BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally came _____ to me known, who, being by me duly sworn, did depose and say that he resides at _____ that he is the _____ of _____ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared _____ to me known and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public

AFFIX ACKNOWLEDGMENTS AND JUSTIFICATION OF SURETIES

PERFORMANCE BOND 1

PERFORMANCE BOND

KNOW ALL MEN BY THESES PRESENTS; That we; _____

hereinafter referred to as the "Principal", and _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to

hereinafter referred to as the "CM", or to its successors, or to its assigns in the penal sum of

(\$ _____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the CM for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and/or replacement of defective Work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the CM from all cost and damage which it may suffer by reason of failure so to do, and shall fully reimburse and repay the CM for all outlay and expense which the CM may incur in making good any such default, and shall protect the said CM against, and pay any and all amounts, damages, costs and judgments which may or shall be recovered against said CM or any of its officers or agents of which the said CM may be called upon to pay any person or corporation by reason of any damages arising or growing out of the doing of said Work, or the repair or maintenance thereof, or the manner of doing the same, or the neglect of the said PRINCIPAL, or his (their, its) agents or servants, or the improper performance of the said Work by the said PRINCIPAL, or his (their, its) agents or servants, or the infringement of any patent or patent rights by reason of the use of any materials furnished or work done as aforesaid or otherwise, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, if requested to do so by the CM, to fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, if the CM determines that the Principal, for any cause, has failed or neglected to fully perform and complete such Work. The Surety (Sureties) further agrees to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the

PERFORMANCE BOND 2

CM and to complete all Work within such time as the CM may fix. The Surety and the CM reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or Work to be performed thereunder, or by any payment thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any assignment by the CM of its rights, title and interest in and to such bond, and said Surety (Sureties) hereby waives notice of any such assignment by the CM.

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____(L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

PERFORMANCE BOND 3

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

PERFORMANCE BOND 4

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * *

Affix Acknowledgments and Justification of Sureties.

PAYMENT BOND 1

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____

hereinafter referred to as the "Principal", and _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to

_____ ,

hereinafter referred to as the "CM", or to its successors, or to its assigns in the penal sum of

\$ _____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the CM for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the Project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any Subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

PAYMENT BOND 2

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the CM.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the CM liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the CM to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including Subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the CM to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal. The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any assignment by the CM of its rights, title and interest in and to such bond, and said Surety (Sureties) hereby waives notice of any such assignment by the CM.

PAYMENT BOND 3

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____(L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

PAYMENT BOND 4

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * *

Affix Acknowledgments and Justification of Sureties.

THIS AGREEMENT made and entered into this _____ day of _____, _____, by and between _____ (hereinafter the "CM"), located at _____, and the City of New York, Department of Design and Construction (hereinafter the "City"), located at 30-30 Thomson Avenue, Long Island City, New York.

WITNESSETH:

WHEREAS the City has entered into a certain contract with the CM, bearing Comptroller's Registration Number _____ (hereinafter the "Contract"); and

WHEREAS pursuant to the Contract, the CM is obligated to subcontract certain work and to obtain payment and performance bonds from the subcontractors; and

WHEREAS pursuant to the Contract, the CM has agreed to assign all its rights, title and interest under the subject bonds, in the manner set forth herein;

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, the parties hereto do hereby agree as follows:

The CM hereby makes an irrevocable assignment to the City of all its rights, title and interest in and to the below described performance and payment bonds, including any subrogation or other right of the CM to receive any payments that may become due and owing by the Surety thereunder:

Performance and Payment Bonds (Bond # _____) issued to _____, by _____, designating _____ as Obligee, with respect to a contract for _____

provided, however, this assignment shall become effective only upon the happening of one or more of the events set forth below:

- (1) The Commissioner of the Department of Design and Construction, or his authorized designee, in his sole and absolute discretion, determines in writing that:
 - (a) The CM has been terminated for cause with respect to the Contract; or
 - (b) The CM has been terminated without cause with respect to the Contract; or
 - (c) The CM has abandoned the Contract; or
 - (d) The CM has failed to make demand upon the Surety to perform its obligations under the above described bond(s), when circumstances have warranted that such action should be taken and the City has so notified the CM in writing.
- (2) A voluntary or involuntary petition in bankruptcy has been filed by or against the CM, or, in the event the CM is a joint venture, a voluntary or involuntary petition in bankruptcy has been filed by or against either or both of the joint venture partners acting as the CM.

IN WITNESS WHEREOF, the parties hereto do set their hands and agree as follows.

CM: _____ City of New York, Department of Design and Construction:

By: _____ By: _____

Title: _____ Deputy Commissioner

ACKNOWLEDGMENT BY CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT BY COMMISSIONER

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, to me known and known to me to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and he acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

Notary Public or Commissioner of Deeds

EXHIBIT G

**HUD Requirements
HURRICANE SANDY CDBG-DR APPENDIX**

NOTICE

THIS DOCUMENT CONTAINS CONDITIONS FOR USE WITH PROCUREMENT CONTRACTS AND SUBRECIPIENT AGREEMENTS, ALONG WITH APPENDIX B, WHICH PROVIDE FOR AN ELIGIBLE ACTIVITY FUNDED IN WHOLE OR IN PART BY CDBG-DR FUNDS APPROPRIATED PURSUANT TO THE DISASTER RELIEF APPROPRIATIONS ACT OF 2013 (P.L. 113-2). IT MUST BE ANNEXED TO ALL SUCH CONTRACTS ALONG WITH A LINK TO HUD DOCKET NO. FR056960-N-01 (MAR. 5, 2013) AND APPENDIX B, AND EXPRESSLY MADE A PART OF, AND INCORPORATED BY REFERENCE INTO THOSE CONTRACTS.

ARTICLE 1. DEFINITIONS

The definitions in Article 1 of Appendix B apply to this Hurricane Sandy CDBG-DR Appendix.

ARTICLE 2. ADMINISTRATIVE CAP

Pursuant to the Disaster Relief Appropriations Act of 2013 (P.L. 113-2) and Section VI(A)(10)(b) of HUD Docket No. FR-5696-N-01, attached, a Subrecipient shall not be reimbursed for general administration costs that exceed five percent.

ARTICLE 3. FLOOD INSURANCE

Subrecipients shall implement procedures and mechanisms to ensure that assisted property owners comply with all flood insurance requirements set forth in Section VI(B)(31) of HUD Docket No. FR-5696-N-01.

ARTICLE 4. CIVIL RIGHTS REQUIREMENTS

Subrecipients shall comply with all civil-rights related requirements, pursuant to 24 CFR § 570.503(b)(5).

ARTICLE 5. RELIGIOUS ORGANIZATIONS

In addition to the provisions in Article 2(m)(iv) of Appendix B, which cover a religious or denominational institution or organization operated for religious purposes which is supervised or controlled by or in connection with a religious or denominational institution or organization, payment may be authorized for a portion of eligible rehabilitation or construction costs attributable to the non-religious use of a facility that is not used exclusively for religious purposes, pursuant to Section VI(A)(4)(c) of HUD Docket No. FR-5696-N-01.

ARTICLE 6. QUARTERLY REPORTS

The reports required by Article (5)(b) of Appendix B shall be provided by the Contractor or Subrecipient to the City on a quarterly basis, pursuant to Section VI(A)(2)(e) of HUD Docket No. FR-5696-N-01.

ARTICLE 7. CONSTRUCTION STANDARDS

The Contractor or Subrecipient shall comply with the construction standards concerning energy efficiency set forth in section VI(A)(1)(a)(5) of HUD Docket No. FR-5696-N-01.

ARTICLE 8. PROGRAM INCOME

To the extent deemed necessary by the City, the Program Income provisions set forth in Article 2(1) of Appendix B may be waived and instead the City may apply the alternative program requirements set forth in Section VI(A)(17)(a)-(b) of Docket No. FR-5696-N-01, which concern the definition of program income. In such event, the alternative requirements shall be set forth in the Subrecipient Agreement.

ARTICLE 9. PERFORMANCE REQUIREMENTS AND LIQUIDATED DAMAGES

Contractor and or Subrecipient shall be subject to the performance requirements and liquidated damages set forth in the Agreement.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR-5696-N-01]

**Allocations, Common Application, Waivers, and Alternative Requirements for Grantees Receiving
Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane
Sandy**

Available On-line at

http://portal.hud.gov/hudportal/documents/huddoc?id=CDBG-FR_Sandy_Notice.PDF

APPENDIX B

NOTICE

THIS PACKAGE CONTAINS SUPPLEMENTARY GENERAL CONDITIONS FOR USE WITH PROCUREMENT CONTRACTS AND SUBRECIPIENT AGREEMENTS WHICH PROVIDE FOR AN ELIGIBLE ACTIVITY FUNDED IN WHOLE OR IN PART UNDER TITLE I OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974 (P.L. 93-383) AS AMENDED. IT MUST BE ANNEXED TO ALL SUCH CONTRACTS, AND EXPRESSLY MADE A PART OF, AND INCORPORATED BY REFERENCE INTO THOSE CONTRACTS.

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ARTICLE 1

DEFINITIONS

As used in this Contract:

- (a) "Act" means Title 1 of the Housing and Community Development Act of 1974 (P.L. 93-383) as amended.
- (b) "Agency" and/or "Recipient" means the entity, or entities, executing this Agreement on behalf of the City of New York.
- (c) "City" means the City of New York.
- (d) "Construction" means the building, rehabilitation, alteration, conversion, extension, demolition, painting or repair of any improvement to real property.
- (e) "Contractor" and/or "Subrecipient" means the entity or entities executing this Agreement, other than the Agency.
- (f) "Grant" means Community Development Block Grant Program funds provided to the Contractor through the City of New York and by the Federal Department of Housing and Urban Development.
- (g) "HUD" means the Secretary of Housing and Urban Development or a person authorized to act on his or her behalf.
- (h) "Program" means the New York City Community Development Block Grant Program approved by HUD as the same may from time to time be amended.
- (i) "Subcontractor" means any person, firm or corporation, other than employees of the Contractor, or another Subcontractor who is engaged by the Contractor to furnish labor or labor and materials at the site of the work performed under this agreement.

ARTICLE 2

FEDERAL CONDITIONS

This Agreement is subject to:

(a) Title 1 of the Housing and Community Development Act of 1974 (P.L. 93-383) as amended (The Act) and all rules, regulations and requirements now issued or hereafter issued pursuant to the Act; the Agreement may be suspended and/or terminated without liability to the City if the Grant to the City pursuant to the Act is suspended or terminated, and unless and until the City or Agency receives Community Development funds in an amount that is deemed sufficient to enable it to fund this Agreement, the City or Agency is under no obligation to make any payments to the Contractor. In this regard, the Agency is under no obligation to make any payments to the Contractor, and shall not make any such payment, and the Contractor shall not commence performance, until:

- (i) the Agency has received from the City's Office of Management and Budget instructions to proceed, evidencing compliance with the National Environmental Policy Act, as amended, and with regulations of the U.S. Department of Housing and Urban Development, related thereto, found at 24 CFR Part 58, and;
- (ii) the Contractor has been notified of such instructions by the Agency. Furthermore, the Contractor and the City mutually agree that the Contractor shall not advance any funds, from any source without limitation, to pay for costs intended to be paid for under this Agreement prior to the receipt and notification described in this paragraph (a), and the City shall not reimburse the Contractor for any costs incurred in violation of this provision.

(b) Title VIII of the Civil Rights Act of 1968 (P.L. 90-284; 42 U.S.C. §§ 3602-3620), as amended, which prohibits discrimination in the sale or rental of housing and in the provision of brokerage services based on race, color, religion, sex, national origin, disability, or familial status, and which requires affirmative action in the furtherance of Fair Housing objectives.

(c) Executive Order 11063, as amended by Executive Order 12259, pursuant to regulations issued at 24 CFR Part 107 which prohibits discrimination on the basis of race, color, religion, sex or national origin and requires equal opportunity in housing constructed, operated or provided with federal funds.

(d) Title VI of the Civil Rights Act of 1964 (P.L. 88-352; 42 U.S.C. §§ 2000d *et seq.*) and implementing regulations in 24 CFR Part 1, which states that no person shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or otherwise be subject to discrimination under any Program or activity made possible by, or resulting from, this agreement. The provisions of this Article 2(d) shall be incorporated in and made a part of all subcontracts executed in connection with this agreement.

(e) Section 3 of the Housing and Urban Development Act of 1968 (P.L. 90-448). Pursuant to 24 CFR § 135.38, the Contractor agrees to the following:

A. The work to be performed under this Agreement is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701 u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this Agreement agree to comply with HUD'S regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this Agreement, the parties to this Agreement certify that they are under no contractual or other impediments that would prevent them from complying with the Part 135 regulations.

C. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the

qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the Subcontractor is in violation of the regulations in 24 CFR Part 135. The Contractor will not subcontract with any Subcontractor where the Contractor has notice or knowledge that the Subcontractor has been found in violation of the regulations in 24 CFR Part 135.

E. The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the Agreement is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR Part 135.

F. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this Agreement for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with Section 3 covered Indian Housing Assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this Agreement. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Agreement that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with Section 7(b).

(f) Lead-Based Paint Poison Prevention provisions found in 24 CFR § 570.608, the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4821-4846), the Residential Lead Based Paint Hazard Reduction Act of 1992 (U.S.C. §§ 4851-4856, and 24 CFR Part 35, subparts A, B, J, K, and R. This Article 2(f) is to be included in all subcontracts, for work in connection with this Agreement, which relate to residential structures.

(g) Pursuant to the provisions in 24 CFR § 570.605, Section 202(a) of the Flood Disaster Protection Act of 1973 (42 U.S.C. § 4106), and the regulations in 44 CFR Parts 59-79 apply to this Agreement.

(h) Consistent with 24 CFR § 570.614, the Contractor warrants that all services, programs, and/or Construction (including design and alteration) under this Agreement shall be performed in accordance with all federal, state and local laws and regulations regarding accessibility standards for persons with disabilities including, but not limited to, the following: Section 504 of the Rehabilitation Act, the Architectural Barriers Act of 1968 (42 U.S.C. § 4151-4157), the Uniform Federal Accessibility Standards (Appendix A to 24 CFR Part 40 and Appendix A to 41 CFR Part 101-19, subpart 101-19.6), and the Americans with Disabilities Act (42 U.S.C. § 12131; 47 U.S.C. §§ 155, 201, 218, and 225).

(i) The Historic Preservation Act of 1966 (P.L. 89-665; 16 U.S.C. §§ 470 *et seq.*), the Archeological and Historic Preservation Act of 1974 (P.L. 93-291; 16 U.S.C. §§ 469-469c), Executive Order 11593 and regulations at 36 CFR Part 800. In general, this requires concurrence from the State Historic Preservation Officer for all rehabilitation and demolition of historic properties that are fifty years old or older or that are included on a Federal, state, or local historic property list.

(j) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. §§ 4601-4655) and regulations at 49 CFR Part 24.

(k) Uniform Administrative Requirements.

- (i) Subrecipients that are governmental entities, including those that are public agencies or authorities, shall comply with the following:
 - a. Federal Office of Management and Budget (OMB) circular A-87, Cost Principles for State, Local and Indian Tribal Governments;
 - b. Federal Office of Management and Budget (OMB) circular A-133, Audits of States, Local Governments, and Non-Profit Organizations (rev. 6/27/03);
 - c. The sections of 24 CFR Part 85, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, that are set forth in 24 CFR § 570.502(a).
- (ii) Subrecipients, except those which are governmental entities, public agencies or authorities, shall comply with the following:
 - a. Federal Office of Management and Budget (OMB) circular A-122, Cost Principles Non-Profit Organizations;
 - b. In the event that the Contractor is an educational institution, Federal Office of Management and Budget (OMB) circular A-21, Cost Principles for Educational Institutions;
 - c. The sections of 24 CFR Part 84, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and other Non-Profit Organizations, that are set forth in 24 CFR § 570.502(b). The provisions of 24 CFR Part 84 implement OMB circular A-110;
 - d. Federal Office of Management and Budget (OMB) Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations (rev. 6/27/03).
 - e. Execution of a subrecipient agreement.
- (iii) Contractors shall comply with the provisions of 24 CFR Part 85 and 48 CFR Part 31, as applicable.

(l) The Contractor agrees that if any income is generated from the Community Development Block Grant Program funded activities, Contractor shall return such income to the City's Community Development Block Grant Program unless expressly authorized by the City. Such funds are subject to all applicable requirements governing the use of Community Development Block Grant funds, including 24 CFR § 570.503(b)(3), which provides that, at the end of the program year, the City may require remittance of all or part of any program income balances (including investments thereof) held by the Subrecipient (except those needed for immediate cash needs, cash balances of a revolving loan fund, cash balances from a lump sum drawdown, or cash or investments held for section 108 security needs).

(m) If the Contractor is, or may be deemed to be, a religious or denominational institution or organization operated for religious purposes which is supervised or controlled by or in connection with a religious or denominational institution or organization, the Contractor agrees that in connection with services to be provided under this Agreement:

- (i) it shall not discriminate against any employee or applicant for employment on the basis of religion and shall not limit employment or give preference in employment to persons on the basis of religion.

- (ii) it shall not discriminate against any person applying for such public services on the basis of religion or religious belief and shall not limit such services or give preference to persons on the basis of religion or religious belief.
- (iii) it shall provide no religious instruction or counseling, conduct no religious worship or services, engage in no religious proselytizing, and exert no other religious influence in the provision of such public services.
- (iv) it shall not use CDBG funds for the acquisition, construction, or rehabilitation of structures to the extent that those structures are used for inherently religious activities. CDBG funds may be used for the acquisition, construction, or rehabilitation of structures only to the extent that those structures are used for conducting eligible activities under 24 CFR Part 570. Where a structure is used for both eligible and inherently religious activities, CDBG funds may not exceed the cost of those portions of the acquisition, construction, or rehabilitation that are attributable to eligible activities in accordance with the cost accounting requirements applicable to CDBG funds in 24 CFR Part 570. Sanctuaries, chapels, or other rooms that a CDBG-funded religious congregation uses as its principal place of worship, however, are ineligible for CDBG-funded improvements. Disposition of real property is subject to 24 CFR § 570.200(j)(5).

(n) Executive Order 11246, as amended, and the implementing regulations contained in 41 CFR Chapter 60, as amended, prohibit discrimination in employment due to race, color, religion, sex or national origin during the performance of all Federal or federally assisted contracts.

- (i) During the performance of this Agreement the Contractor agrees as follows:
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
 - b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, sex, religion or national origin.
 - c. The Contractor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other Agreement or understanding, a notice to be provided by the Agency contracting officer, advising the labor union or worker's representatives of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, as amended, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations and relevant orders of the Secretary of Labor.

e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the Department and the Secretary of Labor for purposes of investigations to ascertain compliance with such rules, regulations, and orders.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Agreement or with any of such rules, regulations, or orders, this Agreement may be cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted Construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

g. The Contractor will include the provisions of this Article 2(n) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, as amended, so that provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for non-compliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

(o) The Contractor agrees that if it enters a Construction subcontract as part of its Agreement with the City, and this Construction subcontract is for an amount more than \$10,000, the notice found at FEDERAL EXHIBIT 1 of this Agreement must be included in that Construction subcontract.

ARTICLE 3 ADDITIONAL FEDERAL CONDITIONS FOR CONSTRUCTION

In the event that this Agreement involves Construction work, design for Construction or Construction services, all such work or services performed or administered by the Contractor shall be subject to the following requirements in addition to those set forth in Article 2.

- (a) Federal Labor Standards: The Contractor will comply with the following:
 - (i) The Davis-Bacon Act (40 U.S.C. §§ 3141 *et seq.*): In Construction contracts involving an excess of \$2000, unless exclusively in connection with the rehabilitation of residential property containing fewer than 8 units, all laborers and mechanics must be paid at a rate not less than those determined by the Secretary of Labor to be prevailing for the City, which rates are to be provided by the Agency. These wage rates are a federally mandated minimum only, and will be superseded by any State or City requirement mandating higher wage rates. The Contractor also agrees to comply with Department of Labor Regulations pursuant to the Davis-Bacon Act found in 29 CFR Parts 1, 3, 5 and 7 which enforce statutory labor standards provisions.
 - (ii) Sections 103 and 107 of the Contract Work Hours and Safe Standards Act (40 U.S.C. §§ 3701 *et seq.*), which provides that no laborer or mechanic shall be required or permitted

to work more than eight hours in a calendar day or in excess of forty hours in any workweek, unless such laborer or mechanic is paid at an overtime rate of 1½ times his/her basic rate of pay for all hours worked in excess of these limits, under any Construction Agreement costing in excess of \$2000. In the event of a violation of this provision, the Contractor shall not only be liable to any affected employee for his/her unpaid wages, but shall be additionally liable to the United States for liquidated damages.

- (iii) The Copeland “Anti-Kickback” Act (18 U.S.C. § 874), as supplemented by the regulations contained in 29 CFR Part 3, requiring that all laborers and mechanics shall be paid unconditionally and not less often than once a week, and prohibiting all but “permissible” salary deductions.
 - (iv) The more complete detailed statement of Federal Labor Standards annexed hereto as FEDERAL EXHIBIT 2.
 - (v) The provisions of Article 3(a) of this Agreement shall be included in all subcontracts for work in connection with this Agreement.
- (b) Executive Order 11246, as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR chapter 60) for Construction contracts or subcontracts in excess of \$10,000.

Standard Federal Equal Employment Opportunity Construction Contract Specifications for Contracts and Subcontracts in Excess of \$10,000.

1. As used in these specifications:
 - a. “Covered area” means the geographical area described in the solicitation from which this Agreement resulted;
 - b. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. “Employer identification number” means the Federal Social Security number used on the Employer’s Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. “Minority” includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any Construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Agreement resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan.

Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this Agreement resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each Construction trade in which it has employees in the covered area. Covered Construction Contractors performing Construction work in geographical areas where they do not have a Federal or federally assisted Construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each Construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor,

this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where Construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of Construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female Construction contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a Contractor association, joint Contractor-union, Contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the Program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246 or suspended or is otherwise excluded from or ineligible for participation in federal assistance programs.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, Construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours

worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for hiring of local or other areas residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

ARTICLE 4

NONDISCRIMINATION

(a) The Contractor shall not, in any Program or activity receiving funds under this Agreement, discriminate against any person on the grounds of race, color, national origin, religion, sex, age, or disability. The Contractor agrees to comply with provisions of 24 CFR Part 6, 8, and 146.

ARTICLE 5

RECORDS AND AUDITS

(a) Records shall be maintained in accordance with requirements prescribed by HUD and/or the City with respect to all matters covered by this Agreement and retained for at least three years after the City makes final payments and all other pending matters concerning this Agreement are closed.

(b) At such times on such forms as HUD and/or the City may require, there shall be furnished to HUD and/or the City such statements, records, reports, data and information, as HUD and/or the City may request pertaining to matters covered by this Agreement. At a minimum, such forms will include the following:

- (i) Annual Data Collection Report forms for the purpose of including specific Program description, accomplishment, expenditure and beneficiary information in the City's Annual Performance Report.
- (ii) Annual Property Register forms for the purpose of tracking the use of CDBG purchased real property.

(c) At any time during normal business hours and as often as the City, the Agency, HUD, Inspector General, U.S. General Accounting Office, and/or the Comptroller General of the United States may deem necessary, the Contractor shall make available for examination to the City, HUD, Inspector General, U.S. General Accounting Office and/or representatives of the Comptroller General all of its books, accounts, records, reports, files, and other papers or property with respect to all matters covered by this Agreement and shall permit the City, HUD and/or representatives of the Comptroller General and the U.S. General Accounting Office to audit, examine, make excerpts of, and make transcriptions from such books, accounts, records, reports, files, and other papers or property and to make audits of all contracts, invoices, materials, payrolls, records or personnel, conditions of employment and other data relating to all matters covered by this Agreement.

ARTICLE 6

UNEARNED PAYMENTS

Unearned payments under this Agreement may be suspended or terminated upon refusal to accept any additional conditions that may be imposed by HUD at any time, or if the Grant to the City under the Act is suspended or terminated. Unearned payments received by the Contractor will be returned to the City. All interest on funds advanced to the Contractor will be returned to the City.

ARTICLE 7

DISBURSEMENT RESTRICTIONS

No money under this Agreement shall be disbursed by the Agency to any Contractor except pursuant to a written contract which incorporates the applicable Supplementary General Conditions and unless the Contractor is in compliance with HUD requirements with regard to accounting and fiscal matters, to the extent they are applicable, and provided that the Agency has completed HUD requirements, including but not limited to environmental certifications pursuant to 24 CFR 58.

ARTICLE 8

DOCUMENTATION OF COSTS

All costs shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers, or other official documentation evidencing in proper detail the nature and propriety of the charges. All checks, payrolls, invoices, contracts, vouchers, orders or other accounting documents, pertaining in whole or in part to the Contract, shall be clearly identified and readily accessible.

ARTICLE 9

BONDING

The Agency must receive a statement from the Contractor's chief fiscal officer or their insurer assuring that all persons handling funds received or disbursed under this Agreement are covered by fidelity insurance in an amount and manner consistent with the coverage deemed necessary by the City of New York for its own employees. If the bond is cancelled or coverage is substantially reduced, the Contractor shall promptly notify the Agency of this fact in every case not later than 48 hours. In such event, the Agency shall not disburse any more funds to the Contractor until it has received assurance that adequate coverage has subsequently been obtained.

ARTICLE 10

ACCOUNTING SYSTEM

The Contractor shall submit to the Agency a detailed description of its accounting, reporting and internal control systems, including but not limited to the procedures for cash receipts, cash disbursements, payrolls, personnel policies, fixed petty cash controls and other systems which are necessary under the circumstances. The Agency shall evaluate and document all systems and only upon acceptance and approval of the accounting, reporting and internal control systems by the Agency, shall funds be disbursed to the Contractor, other provisions of the Agreement notwithstanding.

ARTICLE 11

COPYRIGHTS

(a) Any reports, documents, data, photographs, deliverables, and/or other materials produced pursuant to this Agreement and any and all drafts and/or other preliminary materials in any format related to such items produced pursuant to this Agreement, shall upon their creation become the exclusive property of the City.

(b) Any reports, documents, data, photographs, deliverables, and/or other materials, including software, produced pursuant to this Agreement ("Copyrightable Materials"), shall be considered "work-made-for-hire" within the meaning and purview of Section 101 of the United States Copyright Act, 17 U.S.C. § 101, and the City shall be the copyright owner thereof and of all aspects, elements and components thereof in which copyright protection might subsist. To the extent that the Copyrightable Materials do not qualify as "work-made-for-hire," the Contractor hereby irrevocably transfers, assigns and conveys exclusive copyright ownership in and to the Copyrightable Materials to the City, free and clear of any liens, claims, or other encumbrances. The Contractor shall retain no copyright or intellectual property interest in the Copyrightable Materials. The Copyrightable Materials shall be used by the Contractor for no purpose other than in the performance of this Agreement without the prior permission of the City. The Department may grant the contractor a license to use the Copyrightable Materials on such terms as determined by the Department and set forth in the license.

(c) The Contractor acknowledges that the City may, in its sole discretion, register copyright in the Copyrightable Materials with the U.S. Copyright Office or any other government agency authorized to grant copyright registrations. The Contractor shall cooperate in this effort, and agrees to provide any further documentation necessary to accomplish this.

(d) The Contractor represents and warrants that the Copyrightable Materials: (i) are wholly original material not published elsewhere (except for materials that is in the public domain); (ii) do not violate any copyright law; (iii) do not constitute defamation or invasion of the right of privacy or publicity; and (iv) are not infringement, of any kind, of the rights of any third party. To the extent that the Copyrightable Materials incorporate any non-original material, the Contractor has obtained all necessary permissions and clearances in writing, for the use of such non-original material under this Agreement, copies of which shall be provided to the city upon execution of this Agreement.

(e) HUD reserves a royalty-free, nonexclusive, perpetual and irrevocable license to reproduce, publish, display, perform, distribute, or otherwise use, and to authorize others to use, for Federal or State government purposes, the copyright in any Copyrightable Materials developed under or the rights to which are purchased under this Agreement.

(f) If the Contractor publishes a work dealing with any aspect of performance under this Agreement, or with the results of such performance, the City shall have a royalty-free, non-exclusive irrevocable license to reproduce, publish or otherwise use such work for City governmental purposes.

ARTICLE 12

PATENTS

The Contractor shall promptly and fully report to the City any discovery or invention arising out of or developed in the course of performance of this Agreement. In addition, any discovery or invention arising out of or developed in the course of work aided by this Agreement shall be promptly and fully reported to HUD for determination by HUD as to whether patent protection on such invention or discovery, including rights under any patent issued thereon, shall be disposed of and administered, in order to protect the public interest.

ARTICLE 13

SUBCONTRACTORS

(a) The provisions of this Agreement shall apply to Subcontractors and their officers, agents and employees in all respects as if they were employees of the Contractor. The Contractor shall not be discharged from its obligations and liabilities, but shall be liable for all acts and negligence of Subcontractors, and their officers, agents and employees, as if they were employees of the Contractor.

(b) Employees of the Subcontractor shall be subject to the same provisions as employees of the Contractor.

(c) The services furnished by Subcontractors shall be subject to the provisions hereof as if furnished directly by the Contractor, and the Contractor shall remain responsible therefor.

ARTICLE 14

SUSPENSION AND TERMINATION

(a) Where the Contractor fails to perform the work satisfactorily as enumerated in the part of this Agreement known as the scope of work, the City may withhold payment, in addition to any other remedy provided for by this Agreement. Where there is failure to comply with the Agreement terms, the City reserves the right to terminate the Agreement. The City further reserves the right to terminate the Agreement for convenience.

(b) The Contractor certifies that neither it nor its principals is currently in a state of debarment, suspension or other ineligible status as a result of prior performance, failure, fraud, or violation of City laws. The Contractor further

certifies that neither it nor its principals is debarred, suspended, otherwise excluded from or ineligible for participation in Federal assistance programs. The City reserves the right to terminate this Agreement if knowledge of debarment, suspension or other ineligibility has been withheld by the Contractor.

(c) If this Agreement is between the City and a subrecipient, the City may suspend or terminate the Agreement if Subrecipient materially fails to comply with any terms of this Agreement, pursuant to 24 CFR § 85.43, and for convenience, pursuant to 24 CFR § 85.44.

ARTICLE 15

REVERSION OF ASSETS

(a) At the Contract's expiration, the Contractor shall transfer to the City all Community Development funds on hand at the time of expiration and any accounts receivable attributable to the use of Community Development funds.

(b) Any real property under the City's or the Contractor's control that was acquired in whole or in part with Community Development funds in excess of \$25,000 will be used to meet the national objectives in Section 570.208 or disposed in a manner which results in the Program being reimbursed in the amount of the current fair market value of the property less any portion thereof attributable to expenditures of non-Community Development funds for acquisition of, or improvements to, the property.

(c) Any real property under the City's control that was improved in whole or in part with Community Development funds in excess of \$25,000 will be used to meet the national objectives in Section 570.208 for a period equal to the life of those improvements. The term shall be determined by the Office of Management and Budget's Office of Community Development. If the City decides to dispose of or change the use of that property so that it no longer continues to meet a national objective, the Program shall be reimbursed in the amount of the current replacement cost of those improvements, divided by the number of years of the life of the improvements, multiplied by the number of years that remain in the life of the improvements.

(d) Any real property under the Contractor's control that was improved in whole or in part with Community Development funds in excess of \$25,000 will be used to meet the national objectives in Section 570.208 for a period of five years after the date of completion of those improvements or disposed in a manner which results in the Program being reimbursed in the amount of the current replacement cost of those improvements.

(e) Title to all equipment in excess of \$150 purchased or leased pursuant to this Agreement with Community Development funds or furnished by the City shall vest in the City and the same shall be conspicuously labeled as such.

ARTICLE 16

SMALL FIRMS, M/WBE FIRMS, AND LABOR SURPLUS AREA FIRMS

The Contractor shall take the following affirmative steps in the letting of subcontracts, if subcontracts are to be let, in order to ensure that minority firms, women's business enterprises, and labor surplus area firms are used when possible:

- (a) Placing qualified small minority businesses and women's business enterprises on solicitation lists;
- (b) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(d) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and

(e) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

ARTICLE 17

ENVIRONMENTAL PROTECTION

For agreements, subcontracts, and subgrants of amounts in excess of \$100,000, the Contractor shall comply with all applicable standards, orders, or requirements issued under the Clean Air Act (42 U.S.C. § 7401, Federal Water Pollution Control Act (33 U.S.C. §§ 1251, *et seq.*) Section 508 of the Clean Water Act (33 U.S.C. § 1368), Executive Order 11738, and Environmental Protection Agency regulations (provisions of 40 CFR Part 50 and 2 CFR Part 1532 related to the Clean Air Act and Clean Water Act).

ARTICLE 18

ENERGY EFFICIENCY

The Contractor shall comply with mandatory standards and policies relating to energy efficiency that are contained in the New York State energy conservation plan issued in compliance with the Energy Policy Conservation Act (Pub. L. 94-163).

ARTICLE 19

HATCH ACT; LOBBYING; CONFLICT OF INTEREST

(a) Hatch Act: The Subrecipient agrees that no funds provided, nor personnel employed under this Agreement, shall be in any way or to any extent engaged in the conduct of political activities in violation of Chapter 15 of Title V of the U.S.C.

(b) Lobbying: The Subrecipient agrees that no funds provided will be used by it or its subcontractors in violation of 24 CFR § 87.100.

(c) Conflict of Interest: The Subrecipient agrees to abide by the provisions of 24 CFR §§ 84.42, 85.36, and 570.611.

ARTICLE 20

CONFLICTS; EXHIBITS; SUBCONTRACT PROVISIONS

If any provision in this Appendix B directly conflicts with any other provision in the Contract, the provision in Appendix B shall be controlling.

Federal Exhibits 1 and 2, are attached to, and made a part of this Appendix B.

Any subcontracts entered into pursuant to this Agreement shall incorporate the following City of New York provisions by reference, which shall be binding on every Subcontractor:

- Investigations;
- Executive Order 50; and
- Conflicts of Interest

NOTICE TO BIDDERS

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246, as amended) FOR ALL CD FUNDED CONSTRUCTION CONTRACTS AND SUB-CONTRACTS IN EXCESS OF \$10,000.

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all Construction work in the covered area, are as follows:

Goals and Timetables for Minorities

<u>Trade</u>	<u>Goal</u> <u>(percent)</u>
Electricians	9.0 to 10.2
Carpenters	27.6 to 32.0
Steamfitters	12.2 to 13.5
Metal Lathers	24.6 to 25.6
Painters	28.6 to 26.0
Operating Engineers	25.6 to 26.0
Plumbers	12.0 to 14.5
Iron Workers (structural)	25.9 to 32.0
Elevator Constructors	5.5 to 6.5
Bricklayers	13.4 to 15.5
Asbestos Workers	22.8 to 28.0
Roofers	6.3 to 7.5
Iron Workers (ornamental)	22.4 to 23.0
Cement Masons	23.0 to 27.0
Glazers	16.0 to 20.0
Plasterers	15.8 to 18.0
Teamsters	22.0 to 22.5
Boilermakers	13.0 to 15.5
All Other	16.4 to 17.5

Goals and Timetables for Women

These goals are applicable to all the Contractor’s Construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs Construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved Construction.

The Contractor’s compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall made a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor’s goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any Construction subcontract in excess of \$10,000 at any tier for Construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Agreement, the “covered area” is the City of New York.

EXHIBIT H

Sandy Recovery Hiring Plan

SANDY RECOVERY HIRING PLAN

The Contractor is required to develop and implement a Sandy Recovery Hiring Plan for low-income and very low-income persons, Sandy-impacted residents, minorities, and women in accordance with the provisions set forth below.

Requirements

The following requirements are part of this Contract and will be passed on to all applicable Subcontractors and Subconsultants, and all Contractors chosen off the Pre-Qualified lists:

- For all construction contracts above \$300,000, the contractors and subcontractors must demonstrate apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the NYS Commissioner of Labor, and that have a demonstrated success in graduating apprentices.
- For all construction contracts above \$300,000, the contractors and subcontractors awarded this work shall be subject to the Building and Construction Trades Council of Greater New York and Vicinity (BCTC) Outer Borough Residential PLA, which provides efficiencies and labor costs savings sufficient to justify its use pursuant to federal and state law.
- Section 3 of the HUD Act of 1968, which requires, to the greatest extent feasible, economic opportunities for 30 percent of new hires be given to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing; see Appendix B, attached hereto as Exhibit G.
- Executive Order 11246, which prohibits discrimination in employment due to race, color, religion, sex or national origin, and requires the implementation of goals for minority and female participation for work involving any Construction trade; see Appendix B and Fed. Exhibit 1, attached hereto as Exhibit G.
- Contractor and subcontractors are encouraged to employ 20 percent Sandy-impacted residents on the construction projects.

- Contractor and all subcontractors agree to register all job opportunities arising from the work under this Contract with Sandy Recovery Workforce1, managed by NYC Department of Small Business Services, and comply with the provisions set forth below.

This section does not limit Contractor's or its Subcontractors' ability to assess the qualifications of prospective workers, and to make final hiring and retention decisions. No provision of this section shall be interpreted so as to require a Contractor or Subcontractor to employ a worker not qualified for the position in question, or to employ any particular worker.

Strategies and Methods

The Sandy Recovery Hiring Plan shall demonstrate the proposer's capability and plan for ensuring compliance with the hiring requirements.

In an effort to provide pathways for hiring of persons impacted by Sandy, Contractors are encouraged to work with local community-based organizations, pre-apprenticeship and apprenticeship programs, and voluntary groups engaged in rebuilding efforts.

The Contractor will work with Workforce1 and the City on specific outreach events including Sandy Recovery Opportunity and Resource Fairs and Hire on the Spot events, connecting Sandy-impacted residents with Sandy Recovery opportunities.

The Sandy Recovery Hiring Plan should show plans to work with organizations to create a pathway and opportunities on these projects and a plan to show compliance with the hiring requirements.

Management and Compliance

The Contractor will develop a Sandy Recovery Hiring Plan for approval by HRO and DDC. Proposers should include in the proposal a Sandy Recovery Hiring Plan that, if adopted, would serve as the basis for determining Contractor's and its Subcontractors' compliance with the hiring requirements specified herein.

The Contractor must provide at least one full-time staff dedicated to tracking hiring daily at the job sites and ensuring implementation of the requirements of the Plan. The Contractor must comply with monthly reporting requirements set forth by HRO, which include, but are not limited to, data that HRO is required to report under Local Law 140 of the City of New York and Section 3 of the Housing and Urban Development Act of 1968, as well as data collection related to Executive Order 11246.

Specific Requirements

A. APPRENTICESHIP PROGRAM REQUIREMENT

Please be advised that, pursuant to the authority granted to the City under Labor Law §816-b, HRO/DDC hereby requires that for all construction contracts awarded above \$300,000 as a result of this Contract, the contractors and subcontractors must have, prior to entering into such contract or subcontract, apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the New York State Commissioner of Labor, and have a demonstrated success in graduating apprentices.

The failure to prove, upon request, that these requirements have been met shall result in the contract not being awarded to the contractor or the subcontractor not being approved. Please be further advised that, pursuant to Labor Law §220, the allowable ratio of apprentices to journeypersons in any craft classification shall not be greater than the ratio permitted to the contractor as to its workforce on any job under the registered apprenticeship program.

B. SANDY IMPACTED Resident Hiring Commitment

Contractor and subcontractors are encouraged to employ 20 percent Sandy-impacted residents on the construction projects.

C. Job Posting Requirements

Contractor and all subcontractors agree to inform Sandy Recovery Workforce1, managed by NYC Department of Small Business Services, of all job opportunities arising from this Contract. The Contractor must inform Sandy Recovery Workforce1 of any hiring need, and the requirements of the jobs to be filled, no less than three weeks prior to the intended first day of employment for each new position, unless otherwise approved by the City. Sandy Recovery Workforce1 will work with Contractor to develop a recruitment plan which will outline clear instructions as to when, where, and how interviews will take place. Sandy Recovery Workforce1 will screen applicants based on employer requirements and refer applicants whom it believes are qualified to the Contractor for interviews. The Contractor must interview referred applicants whom it believes are qualified, and must provide feedback on all interviewed candidates within two business days and report new hires to Sandy Recovery Workforce1 once confirmed.

Sandy-impacted residents will be given first priority to register for opportunities with the rebuilding effort on-line and at Workforce1 and Build it Back centers.

This requirement does not apply when obtaining labor through the BCTC Outer Borough PLA. The City and the BCTC will work together with the Contractor and community based organizations to recruit and train New York City residents, with an emphasis on Sandy-impacted low income residents, through existing apprenticeship programs and pre-apprenticeship programs with direct entry agreements with BCTC affiliated unions approved by the New York State Department of Labor.

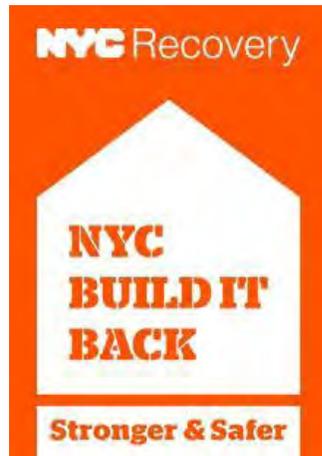
D. Workforce Recordkeeping Requirements

The Contractor must provide at least one full-time staff dedicated to tracking local hiring daily at the job sites and ensuring implementation of the requirements of this Rider.

The Contractor must comply with monthly reporting requirements set forth by HRO, which include, but are not limited to, data that HRO is required to report under Local Law 140 of the City of New York and Section 3 of the Housing and Urban Development Act of 1968, as well as data collection related to Executive Order 11246. The Contractor must provide HRO with a Monthly Report of such data by the fifteenth of every month for the prior month using the paper and/ or electronic reporting format provided by HRO, and must complete all applicable fields. In the situation that reporting particular information is impossible for the Contractor, the Contractor may apply for an exemption. Any application for an exemption must be made before the expiration of thirty (30) days after the commencement date of this Agreement, and shall be in the form specified by HRO. Exemption may be granted upon a showing that the operation of this Section will constitute a hardship, within the sole discretion of the Department. The content of this Monthly Report may change at any time as the City's reporting needs change.

Furthermore, the Contractor must complete weekly Certified Payroll reports using the WH-347 form, available from the U.S. Department of Labor, Wage and Hour Division, which may be submitted each month concurrent with the aforementioned Monthly Report.

EXHIBIT I
NYC Build It Back Minimum Standards



**NEW YORK CITY BUILD IT BACK
PROGRAM**

**HOUSING REHABILITATION PROGRAM
MINIMUM PROGRAM STANDARDS**

Revision 1.1: December 16, 2013

[Revision 1.2: January 10, 2014](#)

[Revision 1.3: January 31, 2014](#)

[Revision 1.4: May 28, 2014](#)

NYC Build It Back Housing Rehabilitation Standards

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I PREFACE & GUIDING PRINCIPLES

The purpose of this document is to establish the eligible and ineligible scope under the NYC Build it Back – Housing Rehabilitation program. Please note that there will be differences in the scope for Substantially damaged and Non-substantially damaged homes. There are also differences in both NYC and NYS codes for multiple dwellings (3 – 4 units). The architect, engineer and contractors performing design or construction services for the Build It Back program are expected to be knowledgeable in the requisite codes and required inspections. Additionally, this document provides design standards and other requirements where not otherwise determined – or expressly covered – by program specifications or code. It is designed to assist in achieving consistency throughout rehabilitation activities funded with CDBG Disaster Recovery Funds; to ensure that all applicants receive an equal assessment, and that inspectors apply a uniform method during each inspection.

Substantially damaged homes, those homes damaged 50% or more of their pre-storm value, will be elevated to meet the requirements of the City of New York & FEMA. Non-substantially damaged homes will be inspected for weather tightness, storm related damage and Life Safety. Conditions will be repaired as indicated in this document.

This document is not intended to reduce or exclude any applicable city, state or federal laws, codes or regulations. This document is subject to revisions and additional clarifications provided by the Program.

This document assumes that a knowledgeable inspector will thoroughly inspect each dwelling to verify the presence and condition of all components, systems and equipment of the dwelling.

A. NYC Build it Back Guiding Principles for Rehabilitation Work

New York City's Action Plan¹ identifies specific objectives related to housing rehabilitation, including:

- Helping people affected by Sandy directly by replacing and rehabilitating housing units, including identifying opportunities for mitigation enhancement measures;
- Helping people affected by Sandy by improving the resilience of their housing units while restoring their buildings/residences;
- Supporting resilience improvements to reduce risk and strengthen neighborhoods in flood zones.

In determining whether certain work is considered program eligible or ineligible, the underlying principle is to ensure that low and moderate income persons affected by Hurricane Sandy are left with safe, decent and sanitary housing. To this end, assistance will not be used for luxury items, including but not limited to, garage door openers, security systems, swimming pools, fences, and television satellite dishes or cable wiring. Build it Back will rehabilitate areas of the home, including but not limited to:

- Site (limited)
- Exterior Building Surfaces
- Foundations & Structure
- Windows & Doors
- Roofing
- Insulation & Ventilation

¹ <http://www.nyc.gov/html/cdbg/html/plan/read.shtml>
NYC Build it Back Housing Rehabilitation Standards

- Electric
- Plumbing Systems
- HVAC
- Appliances
- Elevation of Substantially Damaged Homes
- Lead-based paint and asbestos abatement and mold remediation (as required by law).

B. Safe, Decent and Sanitary Housing

The inspector shall inspect the entire home to determine areas of damage related to Hurricane Sandy. If a home is determined to be substantially damaged, the entire home is to be brought up to the applicable NYC building code, including all interior rooms, exterior components, and site conditions, to ensure that all components, systems and equipment of a dwelling referenced in this document shall be in good working order and condition and be capable of being used for the purpose in which they were intended and/or designed. Areas that were storm damaged in non-substantially damaged homes or are required to be upgraded by Green Building Standards shall be rehabilitated to the extent necessary.

C. Repair v. Replace

Storm damaged components, systems and/or equipment that are not in good working order and condition shall be repaired, provided that the contractor will be able to warranty and guarantee the safety of the repair. When the item cannot be repaired, it shall be replaced in accordance with all code and program requirements. In substantially damaged homes, all utilities must meet NYC code and green building standards, whichever is the more restrictive.

D. Underlying Conditions

The program will rehabilitate/abate only those underlying conditions that must be addressed order to restore an element or system affected by storm damage, or to remediate any Life Safety hazards. The program will not repair damage due to deferred maintenance if not storm damaged.

E. Interior

All interior ceilings, walls and floors must not have any serious defects such as severe bulging or leaning, medium to large holes, loose surface materials, severe buckling, missing components or other serious damage that could result in structural failure. The condition of the egress route for all interior stairs, halls, porches, walkways, etc. must not present a danger of tripping or falling.

F. Exterior

Storm damaged exterior envelope must be sealed and secure so as to resist damage from future weather conditions. All exterior walls (including foundation walls) or roof must not have any serious defects such as leaning, buckling, sagging, large holes, or defects that may result in the structural failure. The condition of all exterior stairs, porches, walkways, etc., on a path of egress only, must not present a danger of tripping or falling or provide any obstructions to safe exiting.

G. Mitigation

Based on degree of damage, the program requires certain mitigation measures that reduce risk for future disasters that may go above and beyond federal, state, or local construction or code requirements. Any required mitigation measure is specified within each section of this document.

H. Resiliency – Elevating Utilities²

New York City recommended Flood Resiliency Measures include elevation or other flood protection of the following critical building equipment and utilities: fire protection equipment ; electrical equipment (including panels, switch gear, and transformers); heating, ventilation, and air conditioning (HVAC) equipment (including boilers, furnaces, and burners); plumbing equipment (including domestic water equipment and sump pump power feeds); telecommunications equipment; elevator equipment; and emergency generators and associated fuel tanks and pumps (subject to the approval of the Code amendments under review).

Elevation or flood-proofing of this equipment will be required to meet the standard of the higher of the BFE, as set forth in the PWMs, or the FIRMs in effect at this time, in each case, plus 1 to 2 feet of freeboard (as applicable). Upon adoption of the new FIRMs, elevation will be required to meet the standard of the BFE, as set forth in the new FIRMs, plus 1 to 2 feet of freeboard (as applicable).

To comply with this goal, the Build It Back program will offer to elevate most utilities in non-substantially damaged homes to levels above the Design Flood Elevation (DFE = Base Flood Elevation plus Freeboard) to the best of its ability where feasible.

In those homes where utilities will be elevated, the Contractor’s surveyor must provide a datum line indicating the DFE.

NOTE: Newly repaired or installed utilities will only be elevated if the newly installed equipment, provided it is currently working and usable; can be reused in the elevation and elevation is feasible. No newly installed, functioning, utilities will be discarded. Selected utilities, such as electrical panels, may be elevated when elevation of all utilities is not possible. Homeowner’s may choose not to have utilities elevated.

Steam or oil-fired boilers will not be elevated in non-substantially damaged homes. In non-substantially damaged homes, existing air conditioning compressors, even if being repaired or replaced, will not be elevated.

References:

[FEMA Hurricane Sandy Recovery Advisory – RA3, Restoring Mechanical, Electrical and Plumbing Systems in Non-Substantially Damaged Residential Buildings.](http://www.nyc.gov/html/sirr/downloads/pdf/final_report/Ch4_Buildings_FINAL_singles.pdf)³

I. Green Building Requirements

The program requires compliance with the CPD Green Retrofit Checklist for Non-substantially damaged buildings and Enterprise Green Communities for Substantially damaged buildings. Rehabilitation work must follow and apply the appropriate checklist to the extent applicable in relation to the work being performed. The phrase “when replacing” in the Checklist refers to the mandatory replacement only

² http://www.nyc.gov/html/sirr/downloads/pdf/final_report/Ch4_Buildings_FINAL_singles.pdf

³ http://www.fema.gov/media-library-data/20130726-1906-25045-0662/sandy_ra3_restoringmep_final_508.pdf

when replacing such system as required by the program or code. If the item/equipment is not being replaced by the program, compliance is not required. [See specific requirements for each standard.](#)

J. Accessibility Accommodations

All program participants are eligible to receive options for a basic “accessibility package” in areas being repaired

The program will rehabilitate and/or install certain accessibility options, including ramps and/or lifts, for program participants deemed eligible during Program intake.

K. Code Compliance

In order to ensure that the program leaves residents with safe, decent and sanitary housing, we will repair certain code compliance issues observed in the home. This will include addressing life safety hazards in the storm damaged and non-storm damaged areas of the home.

Depending on year built and the work being performed, homes in the Build It Back program are covered by different NYC Building Codes. They may be covered by the 1938 Code, the 1968 Code or the 2008 Code. It is the responsibility of the Consultant and/or Contractor to be knowledgeable about the appropriate, applicable code(s) for every home.

Please see “[Effective Code Construction Dates](#)”⁴ on the New York City DOB website for assistance.

1. New Construction
 - a) [Permitted before July 1, 2008 \(PDF\)](#)
 - b) [Application filed between July 1, 2008 and July 1, 2009 \(PDF\)](#)
 - c) [Application filed after July 1, 2009 \(PDF\)](#)
2. Alterations to Existing Buildings
 - a) [Permitted before July 1, 2008 \(PDF\)](#)
 - b) [Application filed between July 1, 2008 and July 1, 2009 \(PDF\)](#)
 - c) [Application filed after July 1, 2009 \(PDF\)](#)

Please note that it is the expectation of the Build It Back program and the responsibility of all consultants to be knowledgeable about and apply all applicable codes. Codes change or are amended in the City of New York on a continuing basis and information can always be found on the [Department of Buildings](#)⁵ or the New York City Council website. Significant code changes and/or updates will be going into effect on October 1, 2014 as per Local Law 141 of 2013, including changes to Appendix G and a [new requirement for products with specified mold resistant ratings in assemblies in selected locations](#).

⁴ http://www.nyc.gov/html/dob/html/codes_and_reference_materials/effectivedate.shtml

⁵ <http://www.nyc.gov/html/dob/html/home/home.shtml>

Changes regarding the implementation of a Coastal A zone in New York City will be implemented immediately. This may require some additional coordination with the Department of Buildings when filing applications. [See elevation section for more details.](#)

L. [Existing Code Violations](#)

Violations are issued by the Department of Buildings when a property does not comply with a part of the New York City Construction Codes and or Zoning Resolution.

The program will correct only those existing violations which impact the immediate safe occupancy of the home, even if the violating conditions are unrelated to the storm damaged areas. If the program becomes aware of violations that remain open with the NYC Department of Buildings (DOB) but the condition has already been corrected, the program will take no additional action unless a new or amended Certificate of Occupancy will be required. It will otherwise remain the responsibility of the homeowner to officially close the violation with DOB.

M. Critical Life Safety Issues Observed

If the program assessors, contractors or inspectors become aware of a condition in the home that involves a critical Life Safety issue, these repairs will be included in our scope of work. These repairs should be included regardless of whether or not the area was damaged by the storm. There are two types of this work:

1. Immediately Hazardous Life Safety Conditions: Defined as “A” type complaint issues⁶ by the DOB. The presence of these issues requires notification to DOB (process TBD). Examples of these issues include:
 - a) Unsafe material storage
 - b) Building shaking, vibrating, affected stability
 - c) Egress – locked, blocked, improper or no secondary means of egress where required.
 - d) Boiler- fumes, smoke, carbon monoxide
 - e) Gas hook-up/piping- illegal or defective
 - f) Falling debris of any kind
 - g) Unsafe/illegal demolition

2. Other Critical Life Safety Issues: Any conditions observed in the home that would prevent a homeowner from safely occupying their home should be looked at in all homes and added to the scope of work, including:

⁶ http://www.nyc.gov/html/dob/downloads/pdf/complaint_category.pdf

- a) Smoke and carbon monoxide to current code in substantially damaged homes. Sealed battery units will be installed in non-substantially damaged homes, unless replacing an existing hard wired unit.
- b) Operable windows where required in substantially damaged homes and limited to areas being repaired in non-substantially damaged homes.
- c) Obvious unsafe electrical conditions (exposed wiring, dangling fixtures, etc)
- d) Obvious unsafe gas/boiler conditions (leaking gas pipes, illegal/improper venting, missing chimney liners)

N. Open Permits or Ongoing Work

All in-progress repairs must be completed and all construction must be stopped prior to the program starting the damage assessment process.

The program may require certain types of open permits to be closed in order for the applicant to move forward with the Build it Back program

O. Compliance with applicable New York City Building Codes

1. Structures that are determined to be substantially damaged and rehabilitated will be required to be brought into full compliance with the appropriate NYC building code, including the repair of non-code compliant scope items which were not damaged by Sandy. Additional cost factors will be determined to account for required, anticipated compliance with applicable code to areas and systems of the structure not damaged by the storm.
 - a) On October 9, 2013 the City Council adopted the Flood Resilience Zoning Text Amendment. The zoning text changes are now in effect.
2. For non-substantially damaged homes, the system being repaired needs to be brought up to compliance for that specific work type (ie electrical, plumbing) for the entire home. If there is damage to the electrical system on the first floor, the electrician would need to examine the electrical system for the entire home, to determine whether there are any unsafe conditions that require upgrading to comply with code. For example, if the wire in the entire house is cloth but the flooding was only in the basement, the electrician should make sure all the wiring is in compliance.
 - a) If BiB scope is electrical work only, no other systems need to be addressed unless life safety hazards (as addressed elsewhere in this document) are observed.
 - b) Contractor or their subcontractor would pull the permit for a specific work type and DOB will only inspect what is on the application. The application must indicate what work is being done to bring the system into compliance

3. Non-compliances (“grandfathered”) unrelated to the system being repaired do not need to be fixed unless they present life safety issues. For example, a bedroom window not meeting current egress requirements would not have to be enlarged if work was being performed on the plumbing system.

P. Ineligible Scope

The Program has currently determined the following items to be excluded from the BIB Scope of Work:

1. Repair or replacement of detached structures such as sheds and garages, detached decks, porches, patios or gazebos, swimming pools, docks or boat ramps.
2. Replacement of special features, trims, and designer features that exceed basic livability requirements and features of standard grade homes such as solar panels, sky lights , wainscoting and wood paneling, Jacuzzis, copper gutters and roofs, unless the damage to these items present a health or safety hazard (whereby they will be replaced with the program standard quality of material) or are determined to be protected historic features.
3. Repair or replacement of fencing
4. Repair or replacement of cable or security systems.
5. Replacement of clothes washer and/or dryer.
6. Repair or replacement of items not damaged by the storm.
7. Repair or replacement of specialty finishes, extra kitchens, replacement of bathrooms, or non-vital equipment in cellars and basements that are below Base Flood Elevation in non-substantially damaged structures unless the basement contains a documented legal residential unit. Limited repairs will be made in basements containing legally habitable spaces. See [Basements & Cellars](#)
8. Replacement of landscaping – except where required by program
9. Repair or replacement of any home furnishings

Q. Compliance Requirements

1. Housing that is constructed or rehabilitated with CDBG funds must meet all applicable local, state & federal codes and regulations, rehabilitation standards, ordinances, and zoning ordinances at the time of project completion.
2. Green Building Retrofit Checklist or Enterprise Green Communities.–The HUD CPD Green Retrofit Checklist or Enterprise Green Communities Criteria promote energy efficiency and green building practices for residential retrofit projects. Grantees must follow the checklist as outlined in the subsequent program requirements.
3. NYC Energy Code Compliance –Applicable to areas being rehabilitated. See Code Compliance Guide for information on Energy Code requirements

II GENERAL PROGRAM STANDARDS FOR ALL HOMES

A. General

1. Homeowner Selections - Homeowners have a limited choice in style and color for select items. Selections are only applicable if the area covered by the selection is being repaired or resiliency measures are being installed. Refer to “Program Specifications” and the “Homeowner Selection Brochure” for complete standards and specifications. No other alternatives will be offered or installed except as follows. Homeowners selecting the Choose Your Own Contractor (CYOC) Program will have limited options to upgrade selections. Upon signing a Tri-Party agreement, all selections become final and no changes will be permitted.
2. Water Conserving Fixtures
 - a) In addition to storm damaged areas of homes or outfitting required by the Green Building Standards, all homes will be outfitted with Water-Conserving toilets, if not present in areas not covered by storm damage or Green Building Standards. Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets — 1.28 gpf.
3. Where feasible, utilities in non-substantially damaged homes will be elevated above the Design Flood Elevation as defined by 1 RCNY §3606-04 - Appendix G of the NYC Building Code.
 - a. Due to a potential loss of usable floor space, homeowner’s may choose not to have utilities elevated.
 - b. Steam systems will not be elevated.
 - c. Air Conditioning compressors will not be elevated.
 - d. Homes having utilities replaced by Rapid Repair or having installed new equipment subsequent to Hurricane Sandy will be eligible if the equipment can be elevated and reused. If the equipment is in good working order and cannot be elevated, it will remain in its current location.
 - e. Electrical panels should be elevated whenever possible.
4. The BIB program will not replace washers and/or dryers, however, in substantially damaged homes, a location will be provided, where possible, for side by side or a stacked washer/dryer with appropriate electrical outlet(s), gas connection, drain and venting.

B. Kitchens

1. Requirement(s)
2. Program Policies
 - a) One kitchen per dwelling unit.
 - b) Every dwelling unit shall have one kitchen room or kitchenette equipped with a sink, range, refrigerator, ventilation, and flooring.

3. Design Standards – to be adhered to as closely as possible given actual site conditions.

Equipment Standards

- 84" to top of cabinets.
 - Allowances for tables: The NKBA (National Kitchen & Bath Assoc.) recommends a minimum of 32 inches if no traffic needs to pass. 36 inches will let someone squeeze by, and 44 inches will let a person walk by. If a wheelchair needs to pass, allow 60 inches.
- General
- Work Triangle: The work triangle represents the three major work stations of the kitchen: the cooking area, the refrigerator and the sink. Measuring from the center of each, the maximum total length of the triangle should not be greater than 26 feet with the maximum leg no greater than 9 feet and the minimum not less than 4 feet.
 - LF of countertop dependent on available space. Minimum 10 LF wherever possible.
- Counter Space Area
- Work Surfaces: Preferably should be one continuous section of uninterrupted countertop 30" – 36" long near primary work area (sink) if at all possible. Minimum 15" section of countertop required on handle side of refrigerator and on either side of drop-in range.
 - If base cabinets must be replaced, upper cabinets will also be replaced to match.
 - 18" between countertop and upper cabinets, therefore upper cabinets will be 30" high standard.
 - One full height, 24" deep, pantry or utility cabinet is permissible – maximum 24" wide (see pictures below). Pantries should be placed adjacent to walls.
 - For currently existing islands only, cabinets only will be replaced. No cooktops or other appliances will be installed on islands. No new countertops will be installed.
 - All kitchens will have a minimum of 1 (one) 3 or 4-drawer cabinet (homeowner's choice) of 18" wide or greater for every 3 base cabinets (excluding sink base).
 - Base blind corners must have swing out lazy-susans if straight into corner or fully opening door (see pictures).
- Cabinets
- Upper blind corners should be open shelving or fully opening doors. (see pictures). Unreachable blind upper only upon homeowner's request.
 - No roll-out drawers behind doors will be permitted – shelves only, except one pantry (see pantry options).
 - Shelf Space: The NKBA (National Kitchen and Bath Association)⁷ recommends a total shelf/drawer frontage of 1,400 inches for a small kitchen (less than 150sf). Each drawer or each individual shelf should be counted towards the total. If you have a 24" wide upper cabinet, 30" high with 3 shelves, you will have 6' of shelving. A 24" base cabinet with 4 drawers is another 8', so this one 24" area of your kitchen has 14' of shelving. The storage should be designed to the following specs: as closely as possible to the following:
 - Wall 300"
 - Base 520"
 - Drawer 360"

⁷ [National Kitchen & Bath Association Kitchen Design Guidelines](#)

- Pantry 180"
 - Misc. 40"
- Ventilation
- Microwaves over ranges or ventilation fans are to be vented to exterior whenever possible.
 - Microwave Over Range: Must meet manufacturer's recommendations for height above cooktop. Cabinet will be installed over microwave OR
 - Ventilation Hood: 6" high – minimum 66" to bottom of upper cabinet as per installation instructions. Cabinet above to be 30" wide x 12" deep x 18" high. Vent as above.
- Sink
- Place sink under operable windows whenever possible. Cooking apparatus is not to be placed under operable windows.
- Islands
- Existing cabinetry, dishwashers or sinks in existing islands will be replaced with program standard items or repaired for minor damage. No cooktops or other appliances will be installed on islands. No new islands will be created.
 - For new kitchen layouts, no entry door should interfere with the safe operation of appliances, nor should appliance doors interfere with one another.
- Appliances
- In substantially damaged homes refrigerators and dishwashers not meeting Energy Star requirements will be replaced with program compliant appliances.

4. Ineligible Items

The following items are not eligible for repair, replacement or installation:

- a) Wall ovens
 - b) Peninsula or island cabinets – unless limited replacement
 - c) Specialty cabinets, other than blind corners or pantries
 - d) Specialty countertops, flooring or lighting, other than program offerings
- #### 5. Homeowner Choice of Items from Program Offerings
- a) Floor
 - b) Cabinet Style & Color
 - c) Light Fixture
 - d) Sink
 - e) Refrigerator, Range, Dishwasher
 - f) Ventilation

C. Bathrooms/Toilet Rooms/Powder Rooms

1. Requirements

- a) Every dwelling unit shall contain at least one room which is equipped with a flushing toilet and a lavatory.
 - b) Every substantially damaged dwelling unit shall contain at least one bathtub and/or shower. The bathtub and/or shower unit(s) need not be located in the same room as the flush water closet and lavatory. The bathtub and/or shower unit may be located in a separate room.
 - c) In all homes, all storm damaged non-compliant toilets and/or faucets will be replaced with WaterSense certified, water conserving, program approved, fixtures.
 - d) In all substantially damaged homes, all non-compliant toilets and/or faucets will be replaced with WaterSense certified, water conserving, program approved, fixtures as is required by the Green Building Standards.
 - e) Please see Green Building Standards for specific requirements.
2. Program Policies
- a) Every affected bathroom shall have doors equipped with a privacy lock or latch in good working order.
 - b) Grab bars or reinforcement for grab bars with walls may be installed when requested by Homeowner if area is being repaired.
3. Ineligible Items
- a) Whirlpool tubs
 - b) Fixtures and/or faucets, cabinetry, flooring or lighting in styles or colors other than offered by program unless in the Choose Your Own Contractor (CYOC) program.
4. Homeowner Choice of Items from Program Offerings
- a) Toilet – Comfort height or Dual flush low flow
 - b) Sink – pedestal or vanity
 - c) Floor – Ceramic Tile or Sheet Vinyl
 - d) Lighting - program specified fixture over mirror/medicine cabinet or (space permitting only) program specified wall sconce on either side of mirror/medicine cabinet.
 - e) Mirror or medicine cabinet (recessed when possible).

D. Living Rooms

1. Requirement(s)

Habitable rooms, other than bedrooms, will be rehabilitated as per the Program's "Guiding Principles" contained in this document.

2. Homeowner Choice of Items

- a) Flooring – Wood look vinyl plank flooring, sheet vinyl or carpet
- b) Lighting – Ceiling Fan or Standard Light Fixture

E. Dining Rooms

1. Requirement(s)

A maximum of one dining room may be rehabilitated per legal dwelling unit. Dining rooms will be rehabilitated as per the Program’s “Guiding Principles” contained in this document.

2. Homeowner Choice of Items

- a) Flooring – Wood look vinyl plank flooring, sheet vinyl or carpet
- b) Lighting – Choice from ceiling mounted or hanging pendant

F. Bedrooms

1. Requirement(s)

Bedrooms will be rehabilitated as per the Program’s “Guiding Principles” contained in this document.

2. Program Policies:

- a) When the structure requires the redesign of interior partitions, a closet shall be provided, space permitting, with a minimum depth of 2’ and shall contain a rod and shelf.
- b) When a fully above grade bedroom requires reconstruction or for all substantially damaged homes, the room shall be made code compliant in regard to the egress, size, opening requirements and energy requirements of windows.
- c) Sleeping areas in basements will be rehabilitated only if they previously met all codes for legally habitable space. Windows and window wells will not be resized if not code compliant
- d) For non-substantially homes, when an exterior wall is being repaired, windows shall meet egress and ventilation requirements.

3. Homeowner Choice of Items

- a) Flooring - Wood look vinyl plank flooring or carpet
- b) Light Fixtures – Ceiling Fan or Standard Ceiling Fixture

G. Basements & Cellars⁸

⁸ <http://www.nyc.gov/html/hpd/downloads/pdf/housing-info.pdf>

BASEMENT. A story partly below the grade plane and having less than one-half its clear height (measured from finished floor to finished ceiling) below the grade plane.⁹

CELLAR. That portion of a building that is partly or wholly underground, and having one-half or more of its clear height (measured from finished floor to finished ceiling) below the grade plane. Cellars shall not be counted as stories in measuring the height of the buildings.

GRADE PLANE. A reference plane representing the level of the curb as established by the city engineer in the Borough President’s office, measured at the center of the front of a building. Where a building faces on more than one street, the grade plane shall be the average of the levels of the curbs at the center of each front.

Exception: The grade plane shall not be referenced to the level of the curb, but shall be considered the average elevation of the final grade adjoining all exterior walls of a building, calculated from final grade elevations taken at intervals of 10 feet (3048 mm) around the perimeter of the building where:

No curb elevation has been legally established on the city map; or

Every part of the building is set back more than 25 feet (7620 mm) from a street line.

Cellars in private dwellings can **NEVER** be lawfully rented or occupied

Basements in private dwellings can **NEVER** be lawfully rented or occupied unless the conditions meet the minimum requirements for light, air, sanitation and egress, and have received approval by the Department of Buildings.

1. Requirement(s) for “Habitable Space”

- a) Complies with the requirements of the New York City Housing Maintenance Code - [New York City Administrative Code – Article 5 – Occupancy of Cellars and Basements¹⁰](#) and [New York City Building Code – Chapter 12 – Interior Environments¹¹](#)

a. Including, but not limited to:

i. *Minimum ceiling height 7’*

ii. [Lighting & Ventilation¹²](#)

1. The total area of all windows in each habitable room shall be at least one-tenth the floor area of such room, or twelve square feet, whichever is greater.
2. Maximum window sill height 44” above floor

iii. *Temperature and Humidity Control*

iv. *Meets standards above for % above grade*

⁹ <http://www.mzarchitects.com/wp-content/uploads/2012/04/DOBTechForumNewCodechapter356.pdf>

¹⁰

<http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=@SLADC0T27C2SC3A5+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW>

¹¹ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter12.pdf

¹² [http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$ADC27-2062\\$\\$@TXADC027-2062+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$ADC27-2062$$@TXADC027-2062+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW)

- b) [§ 27-2087 Occupancy of cellars and basements in one- and two-family dwellings](#)^{13 14}

2. Program Policies

- a) The BIB policy is not to lose legal dwelling units, number as documented in the Department of Finance or Department of Buildings records.
- a. For substantially damaged homes:
- i. *If all units can be elevated, no matter how classified (basement or not) the program will elevate all units.*
 - ii. *If all units cannot be elevated the program architects/engineers will determine whether there is a cost efficient way to rebuild the lost unit(s).*
 - iii. *If there is not, the house will flip to reconstruction.*
- b) Legal Documented Basement Apartment - For non-substantially damaged homes, where a dwelling had a legal, documented basement apartment prior to Hurricane Sandy, such apartment - will be rehabilitated, meeting the requirements above for dampproofing or waterproofing if required.
- a. Remove damaged materials, clean and remediate, if required
 - b. Bathroom and/or kitchen will be rehabilitated in line with program standards.
 - c. Emergency egress & rescue windows will be made code compliant if wall containing window is being repaired.
- c) Basements with Legal Habitable Rooms - For non-substantially damaged homes, where a dwelling had legal habitable (meeting requirements for window/light/ventilation, ceiling height standards, and all other codes) rooms and studs remain, resheetrock, replace doors, include basic electrical, light fixtures, basic flooring,
- a. No carpet, no faux wood vinyl floors, no ceiling fans, pendants, chandeliers, no ceramic tile,
 - b. Remove damaged materials, clean and remediate, if required
 - c. Replace damaged walls, doors, windows, light fixtures as per program standards
 - d. No kitchens will be repaired or replaced in basements unless legal documented dwelling unit.
 - e. Minor repairs may be made to existing bathrooms, no fixtures will be replaced.
- d) Other Basement Space - will be rehabilitated only to the extent necessary to meet any minimal applicable codes.
- a. Remove damaged materials, clean and remediate, if required
 - b. Rehabilitated only to the extent necessary to meet any applicable codes.

¹³ [http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$ADC27-2087\\$\\$@TXADC027-2087+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$ADC27-2087$$@TXADC027-2087+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW)

¹⁴

<http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=@SLADC0T27C2SC3A1+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW>

- c. Secondary kitchens or baths will not be replaced
 - d. If space is left from elevated utilities, space to be left with basic finishes.
- e) Electrical systems to meet current codes if being addressed. Cellars
- a. Remove damaged materials, clean and remediate, if required
 - b. Rehabilitated only to the extent necessary to meet any applicable codes.
 - c. No cellar living space will be rehabilitated
 - d. Electrical wiring not required for code compliance will be removed if exposed.
- f) For elevated homes, the BIB program will not replace any lost basement or cellar space except for legal documented dwelling units.
3. Homeowner Choice of Items – Legal Basement Apartment or Rooms
- a) Flooring
- a. Ceramic Tile in Kitchen or Bath only
 - b. Sheet Vinyl or Resilient Vinyl Tile in other parts of basement
 - c. No carpeting
- b) No Ceiling Fans, Chandeliers or Pendants in Basements. Light Fixtures will be standard fixtures only.
- c) Kitchen – see standard kitchen choices
- d) Bath – see standard bathroom choices

H. Egress

1. Requirement(s)

Substantially damaged homes will be made compliant with all applicable egress code requirements. Basements or cellars will be filled in as required by FEMA. Areas below design flood elevation will not be enclosed unless required by foundation conditions and may be used for storage, access and/or parking only.

For non-substantially damaged homes, any room other than the basement, which is being repaired, will be made compliant with egress requirements if the work includes work on an exterior wall containing a window required for egress, provided that it was a legally habitable room at the time of construction (ie: bedroom window sizes may be made compliant with egress requirements, but windows will not be added to non-compliant rooms).

Basements that contained legally documented apartments or legally habitable space will be repaired.

I. Smoke Detectors

1. Requirement(s)

All homes will be made compliant with the New York City Fire Protection Code:¹⁵

[2008 NYC Building Code – Chapter 9 – Fire Protection](#) including but not limited to the following:

907.2.10.1.1 Smoke alarms in Groups R-2, R-3, and I-1. Single-or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, and I-1, regardless of occupant load at all of the following locations within a dwelling unit:

- a) On the ceiling or wall outside of each room used for sleeping purposes within 15 feet (4572 mm) from the door to such room.
 - b) In each room used for sleeping purposes.
 - c) In each story within a dwelling unit, including below-grade stories and penthouses of any area, but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
2. Local Law 112 includes replacement of smoke alarms required in dwelling units by the New York City Building Code when the alarms have met manufacturers' suggested useful life, as well as end-of-life notification and power source requirements. All smoke alarms installed after the effective date of the ordinance must comply with UL 217; feature a non-removable, non-replaceable battery that powers the alarm for a minimum of 10 years; and shall emit an audible end-of-life signal notifying consumers at the expiration of the useful life of the alarm. Alarms installed to replace existing battery-operated alarms must be 10-year sealed alarms meeting other specifications of this code.¹⁶
3. Policy
- a) Substantially damaged homes -
 - a. Required smoke alarms shall receive their primary power from a dedicated branch circuit or the unswitched portion of a branch circuit also used for power and lighting, and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over-current protection.
 - b) Non-substantially damaged homes
 - a. dwelling units in existing buildings may, in the alternative, be equipped with battery-operated smoke detecting devices except where such buildings are substantially improved or altered on or after January 1, 1982.¹⁷

J. Carbon Monoxide Detectors¹⁸

¹⁵ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter9.pdf

¹⁶ <http://www.nyc.gov/html/dob/downloads/pdf/ll112of2013.pdf>

¹⁷ http://www.nyc.gov/html/dob/downloads/rules/1_RCNY_28-01.pdf

1. Requirement(s)

All homes will be made compliant with the New York City Fire Protection Code: [2008 NYC Building Code – Chapter 9 – Fire Protection](#) Section - including but not limited to the following:

Groups I-1, R-2 and R-3. Carbon monoxide alarms shall be installed in affected dwelling units as per Section 908.7.1.1.

908.7.1.1 Affected dwelling units. Carbon monoxide alarms or detectors shall be required within the following dwelling units:

1. Units on the same story where carbon monoxide producing equipment or enclosed parking is located.
2. Units on the stories above and below the floor where carbon monoxide producing equipment or enclosed parking is located.
3. Units in a building containing a carbon monoxide producing furnace, boiler, or water heater as part of a central system.
4. Units in a building served by a carbon monoxide producing furnace, boiler, or water heater as part of a central system that is located in an adjoining or attached building.

908.7.1.1.1 Required locations within dwelling units. Carbon monoxide alarms or detectors shall be located within dwelling units as follows:

1. Outside of any room used for sleeping purposes, within 15 feet (4572 mm) of the entrance to such room.
2. In any room used for sleeping purposes.
3. On any story within a dwelling unit, including below-grade stories and penthouses of any area, but not including crawl spaces and uninhabitable attics.

2. Policy

a) Substantially damaged homes

- a. Carbon monoxide alarms or detectors shall comply with the power source, interconnection, and acceptance testing requirements as required for smoke alarms in accordance with Sections 907.2.10.2 through 907.2.10.4.

b) Non-substantially damaged homes

- a. Buildings in existence on November 1, 2004, and buildings with work permits issued prior to November 1, 2004, may, in the alternative, be equipped with battery operated CO alarms compliant with RS 17-14 § 5.2.3 or plug-in type CO alarms with a back-up battery compliant with RS 17-14 § 5.2.4, except where such buildings are substantially improved or altered on or after November 1, 2004.

¹⁸ [RCNY 28-02 Carbon Monoxide Detecting Devices and Systems](#)

K. Sprinklers

1. Requirement(s)

Please see NYC Building Code and [NYC FDNY](#)¹⁹ codes requirements regarding requirements for sprinklers. The Build It Back program will install sprinklers in substantially damaged homes when required by NYC DOB or FDNY.

2. Test & Plan Submission Requirements for all homes requiring sprinklers

- a) [Hydrant Flow Tests](#)²⁰ to be performed by the New York City Department of Environmental Protection are required to determine the adequacy of water pressure from domestic water lines for all sprinkler installations. [See NYC ADC Law 27-963 for pressure requirements.](#)²¹
 - a. Where sufficient water supply for a sprinkler system is not available from the City's water supply, the NFPA 13R or 13D allows an as-of-right allowance for an on-site water supply tank.
 - b) Backflow prevention plans or the "Form for Backflow Prevention Device Exemption for a Facility with One Domestic Service Only" letter must be prepared by a Professional Engineer or Registered Architect and submitted to the NYC Dept. of Environmental Protection for approval. A copy of your approved plans will be returned to the submitting entity.²²²³²⁴
 - c) Sprinkler layouts and location of backflow prevention devices and valves must be shown on plans submitted to the Department of Buildings with elevation submission when required.

L. Attached Garages

1. Requirement(s)

- a) See Green Building Standards for any garages remaining under elevated homes.

2. Program Policies

- a) In non-substantially damaged homes only areas being repaired should comply with applicable NYC Codes.

M. Attics

1. Program Policies

- a) Attic space will be counted where:

¹⁹ <http://www.nyc.gov/html/fdny/html/firecode/fag.shtml>

²⁰ http://www.nyc.gov/html/dep/pdf/water_sewer/38.pdf

²¹ <http://codes.lp.findlaw.com/nycode/ADC/27/1/17/4/27-963>

²² http://www.nyc.gov/html/dep/pdf/water_sewer/backflow.pdf

²³ http://www.nyc.gov/html/dep/pdf/water_sewer/6_cross_connection_risk_assessment.pdf

²⁴ http://www.nyc.gov/html/dep/pdf/water_sewer/42_doh_supplement.pdf

- a. Accessible by permanent staircase
- b. Has finished floors, walls, ceiling
- c. Has operable windows meeting light/ventilation/egress requirements
- d. Ceiling height is equal to or exceeds 8 feet.

III GREEN BUILDING STANDARDS

A. Substantially Damaged Homes – [Enterprise Green Communities](#)²⁵

The Build It Back Program is not requiring Enterprise Green Communities Certification; however, all substantially damaged homes must meet the mandatory criteria outlined in the Enterprise Green Communities program to the extent possible for the type of rehabilitation being performed.

The Build It Back program anticipates that most substantially damaged homes will fall under the “Moderate Rehab” requirements of Enterprise Green Communities and only Mandatory items for Moderate Rehab will be required, except where specifically noted.

Definitions of Construction Type – to be applied as is appropriate

A Substantial Rehab (or Gut Rehab) is defined as a project that includes the replacement and /or improvement of all the major systems of the building, including its envelope. The building envelope is defined as the air barrier and thermal barrier separating exterior from interior space.

For Substantial Rehab projects, this could include either removing materials down to the studs or structural masonry on one side of the exterior walls and subsequently improving the building envelope to meet the whole-building energy performance levels for the project type, or creating a new thermal and air barrier around the building that allows the project to achieve Enterprise Green Communities Criteria whole-building energy performance levels for the project type.

A Moderate Rehab is defined as a project that does not include major systems or building envelope work as described for a Substantial Rehab. Moderate Rehab projects must meet the mandatory measures applicable to this construction type.

ENTERPRISE GREEN COMMUNITIES - REQUIREMENTS:

1. Environmental Remediation

Conduct an environmental site assessment to determine whether any hazardous materials are present on site. – Being performed at intake

2. Landscaping

Provide new plants (including trees, shrubs, and ground cover) such that at least 50% of area available for landscaping is planted with native or adaptive species, all new plants are appropriate to the site’s soil and microclimate, and none of the new plants is an invasive species.

3. Efficient Irrigation and Water Reuse –

²⁵ <http://www.enterprisecommunity.com/servlet/servlet.FileDownload?file=00Pa000000FxxvNEAR>

If irrigation is utilized, install an efficient irrigation or water reuse system.

NOTE: The Build It Back Program will not install or repair irrigation systems.

4. Water-Conserving Fixtures

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets — 1.28 gpf; Urinals — 0.5 gpf; Showerheads — 2.0 gpm; Kitchen faucets — 2.0 gpm; Bathroom faucets — 1.5 gpm

5. 5.1c Building Performance Standard: Single Family and Multifamily (three stories or fewer) (Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to a Home Energy Rating System (HERS) Index of 85.

As per “[Building Performance Standard 5.1c: Guidelines for Moderate and Substantial Rehab Projects Addendum](#)”, certain building construction types undergoing a moderate or substantial rehabilitation as defined by the 2011 Enterprise Green Communities Criteria are unable to achieve a Home Energy Rating System (HERS) Index of 85, as required by Enterprise Green Communities mandatory criterion 5.1c without undertaking drastic renovations to the building envelope that may not be feasible under the project scope and budget.²⁶ These building types either do not have insulation, and/or their construction type (e.g., double- or triple-brick masonry construction) does not allow for them to install insulation. In response, Enterprise has developed the following alternative compliance pathway.

Alternative Compliance Pathway Building Performance Standard 5.1c –

Single Family and Low-Rise Multifamily (3 stories or fewer) Single family and low-rise multifamily (3 stories or fewer) moderate rehab projects built pre-1980, OR single family and low-rise multifamily (3 stories or fewer) substantial rehab projects built pre-1980 that have walls made of only brick / masonry walls are eligible to use the addendum. Substantial rehab projects that were built after 1980 and/or used other construction methods besides brick / masonry, such as wood frame construction, cannot use the addendum.

Eligible projects must meet the following requirements.

1. Achieve a HERS Index of 100 or less,
2. Projects must follow the guidance under the “recommendations” section of the Criterion 5.1c of the 2011 Enterprise Green Communities Criteria,
3. Replace the cooling, heating and domestic hot water equipment with the minimum efficiencies indicated in the table below^{2,3}.

²⁶ <http://www.enterprisecommunity.com/servlet/servlet.FileDownload?file=00P3000000E2IPOEA3>

Climate	Cooling Systems	Heating Systems	Domestic Hot Water
4,5	≥ 13 SEER A/C; OR ≥ 14.5 SEER/ 12 EER/ 8.5 HSPF ENERGY STAR qualified heat pump	≥ 90 AFUE gas furnace; OR ≥ 14.5 SEER/ 12 EER/ 8.5 HSPF ENERGY STAR qualified heat pump; OR ≥ 85 AFUE boiler; OR ≥ 85 AFUE oil furnace	Gas (EF): 40 Gal = 0.61 60 Gal = 0.57 80 Gal = 0.53 Electric (EF): 40 Gal = 0.93 50 Gal = 0.92 80 Gal = 0.89 Oil or Gas: Integrated with space heating boiler
Attached Homes (Climate Zones 4,5,6,7)	≥ 14 SEER/ 11.5 EER ENERGY STAR qualified A/C; OR ≥ 14 SEER/ 11.5 EER ENERGY STAR qualified heat pump	≥ 90% AFUE ENERGY STAR qualified gas furnace; OR ≥ 8.5 HSPF ENERGY STAR qualified heat pump; OR ≥ 85% AFUE ENERGY STAR qualified boiler or furnace	Gas (EF): 40 Gal = 0.61 60 Gal = 0.57 80 Gal = 0.53 Electric (EF): 40 Gal = 0.93 50 Gal = 0.92 80 Gal = 0.89
<p>1. Buildings rehabilitated to a Home Energy Rating System (HERS) Index of 85 will achieve approximately 2009 IECC energy performance levels.</p> <p>2. Mechanical equipment efficiencies in the table are taken from the ENERGY STAR Version 2 Builder Option Packages</p> <p>3. In addition to the ENERGY STAR requirements, Enterprise requires that all combustion equipment or appliances be power-vented or closed-combustion per Criterion measure 7.8.</p> <p>4. All systems must be “right-sized” according to the ENERGY STAR Version 2 requirements</p>			

6. Sizing of Heating and Cooling Equipment and Ducts

Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J, S, and D, or ASHRAE handbooks."

7. ENERGY STAR Appliances

If providing appliances, install ENERGY STAR–labeled clothes washers, dishwashers, refrigerators and other applicable appliances.

NOTE: The Build It Back Program will not install or repair clothes washers or dryers

8. Efficient Lighting: Interior Units

Install efficient interior lighting, appropriate for project type, either ENERGY STAR Advanced Lighting Package (ALP) or lighting specified in EPA’s MFHR program.

9. Efficient Lighting: Common Areas and Emergency Lighting

Follow the guidance appropriate for the project type: use ENERGY STAR–labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; **OR** if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.

10. Efficient Lighting: Exterior

Install efficient exterior lighting, appropriate for project type: either ENERGY STAR compact fluorescents or LEDs, or lighting specified in EPA's MFHR program.

11. Electricity Meter (New Construction, Substantial Rehab and Moderate Rehab) –

Install individual or sub-metered electric meters in all dwelling units. (not mandatory for Moderate Rehab)

12. Low / No VOC Paints and Primers

All interior paints and primers must be less than or equal to the following VOC levels: Flats – 50 g/L; Non-flats – 50 g/L; Floor – 100 g/L

13. Low / No VOC Adhesives and Sealants

All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.

14. Construction Waste Management

Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

15. Reduced Heat-Island Effect: Roofing

When replacing applicable type of roof, use Energy Star-compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area.

16. Composite Wood Products that Emit Low / No Formaldehyde

All composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

17. Environmentally Preferable Flooring

Do not install carpets in entryways, laundry rooms, bathrooms, kitchens / kitchenettes, utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unfinished hardwood floors, OR in compliance with the Scientific Certification System's FloorScore program criteria.

18. Exhaust Fans: Bathroom (Required for New Construction and Substantial Rehab only - Optional for Moderate)

Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).

19. Exhaust Fans: Kitchen (Required for New Construction and Substantial Rehab only - Optional for Moderate)

Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.

NOTE: All kitchens will have over the range exhaust systems that must be vented to the exterior whenever possible. The program will not install a central ventilation system as specified above for Moderate damage and only for Substantial damage if the kitchen exhaust cannot be vented to the exterior.

20. Ventilation (Required for New Construction and Substantial Rehab only - Optional for Moderate)

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.

21. Clothes Dryer Exhaust - Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.

22. Combustion Equipment - Specify power-vented or closed-combustion equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.

23. Mold Prevention: Water Heaters

Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

24. Mold Prevention: Surfaces

In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

25. Mold Prevention: Tub and Shower Enclosures

Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

26. Vapor Barrier Strategies (New Construction and Rehab Projects with foundation work only)

Install vapor barriers that meet specified criteria appropriate for the foundation type.

27. Water Drainage

Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.

28. Garage Isolation

Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space, and install a CO alarm inside the house in the room with a door to the garage and outside all sleeping areas.

29. Integrated Pest Management

Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.²⁷

30. Lead-Safe Work Practices

For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.

31. Building Maintenance Manual (all Multifamily Projects)

Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.

32. Resident Manual

Provide a guide for homeowners and renters that explains the intent, benefits, use and maintenance of green building features.

33. Resident and Property Manager Orientation

Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.

B. Non-substantially Damaged Homes – Green Building Retrofit Checklist

1. Water Conservation

When replacing, install or retrofit water conserving fixtures in any unit and common facility, whether or not they are being repaired, use the following specifications: Toilets-- 1.28 gpf; Urinals-- 0.5 gpf; Showerheads-- 2.0 gpm; Kitchen faucets-- 2.0 gpm; and Bathroom faucets-- 1.5gpm. [gpf = gallons per flush; gpm = gallons per minute]

NOTE: Non-compliant toilets not covered under storm damage will be replaced with program approved toilets in all bathrooms.

2. ENERGY STAR Appliances

When replacing, install ENERGY STAR-labeled dishwashers, refrigerators, and any other applicable appliance(s), if these appliance categories are provided in units or common areas.

3. Air Sealing: Building Envelope – SEE PROGRAM POLICIES FOR COMPLETE REQUIREMENTS²⁸

²⁷ <http://www.nyc.gov/html/doh/downloads/pdf/pest/pest-bro-healthy-home.pdf>

For areas being repaired, seal all accessible gaps and penetrations in the building envelope. If applicable, use low VOC caulk or foam.

4. Insulation: Attic (if applicable to building type)

For areas being repaired, for attics with closed floor cavities directly above the conditioned space, blow in insulation per manufacturer's specifications to a minimum density of 3.5 Lbs. per cubic foot (CF). For attics with open floor cavities directly above the conditioned space, install insulation to meet or exceed IECC levels.

5. Insulation: Flooring (if applicable to building type)

For areas being repaired, install \geq R-19 insulation in contact with the subfloor in buildings with floor systems over vented crawl spaces. Install a 6-mil vapor barrier in contact with 100% of the floor of the crawl space (the ground), overlapping seams and piers at least 6 inches.

6. Duct Sealing (if applicable to building type)

To the extent the recovery rehabilitation work being undertaken is related to the unit's HVAC system, grantees must apply the 'Duct Sealing' Green Checklist item to ducts in unconditioned space serving individual residential housing units.

In buildings with ducted forced-air heating and cooling systems, seal all penetrations of the air distribution system to reduce leakage in order to meet or exceed ENERGY STAR for Homes' duct leakage standard.

7. Air Barrier System – SEE PROGRAM POLICIES FOR COMPLETE REQUIREMENTS

For areas being repaired, ensure continuous unbroken air barrier surrounding all conditioned space and dwelling units. Align insulation completely and continuously with the air barrier.

8. Radiant Barriers: Roofing

When replacing or making a substantial repair to the roof, use radiant barrier sheathing or other radiant barrier material; if economically feasible, also use cool roofing materials.

9. Windows

When replacing windows, install geographically appropriate ENERGY STAR rated windows.

10. Sizing of Heating and Cooling Equipment

When replacing, size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or 2012 ASHRAE Handbook--HVAC Systems and Equipment or most recent edition.

11. Domestic Hot Water Systems

When replacing domestic water heating system(s), ensure the system(s) meet or exceed the efficiency requirements of ENERGY STAR for Homes' Reference Design. Insulate pipes by at least R-4.

12. Efficient Lighting: Interior

When replacing, follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); **OR** follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; **OR** when replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.

13. Efficient Lighting: Exterior

When replacing, follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt; **OR** follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; **OR** when replacing, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.

14. Air Ventilation: Single Family and Multifamily (three stories or fewer) – SEE PROGRAM POLICIES FOR COMPLETE REQUIREMENTS

When replacing, install an in-unit ventilation system capable of providing adequate fresh air per ASHRAE 62.2 requirements.

15. Composite Wood Products that Emit Low/No Formaldehyde

Composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

16. Environmentally Preferable Flooring

When replacing flooring, use environmentally preferable flooring, including the FloorScore certification. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives.

17. Low/No VOC Paints and Primers

All interior paints and primers must be less than or equal to the following VOC levels: Flats-- 50 g/L; Non-flats--50 g/L; Floor--100 g/L. [g/L = grams per liter; levels are based on a combination of the Master Painters Institute (MPI) and GreenSeal standards.]

18. Low/No VOC Adhesives and Sealants

All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.

19. Clothes Dryer Exhaust

When replacing, vent clothes dryers directly to the outdoors using rigid-type duct work.

20. Mold Inspection and Remediation

Inspect the interior and exterior of the building for evidence of moisture problems in storm damaged areas only. Document the extent and location of the problems, and implement the proposed repairs according to the Moisture section of the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades.

21. Combustion Equipment

When installing new space and water-heating equipment, specify power-vented or direct vent combustion equipment.

22. Mold Prevention: Hot Water Heaters

When replacing, provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

23. Mold Prevention: Surfaces

When replacing or repairing bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

24. Mold Prevention: Tub and Shower Enclosures

When replacing or repairing tub and/or shower enclosures, use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

25. Integrated Pest Management – SEE PROGRAM POLICIES FOR COMPLETE REQUIREMENTS

In areas being repaired, seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.

26. Lead-Safe Work Practices

For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule.

C. Energy Conservation

1. Requirement(s)

All substantially damaged homes will require Energy Code Analysis as required by the NYC Energy Code. [See 2011 NYC Energy Conservation Code](#)²⁹

IV PROGRAM STANDARDS FOR UTILITIES

A. Hot Water Supply

1. Requirement(s)
 - a) Every dwelling shall have supplied water-heating equipment (water heater and hot water supply lines) that is free of leaks, connected to the source of fuel or power, and is capable of heating water to be drawn for general usage.
 - b) Please see General Program Standards for information about elevating utilities in non-substantially damaged homes.
 - c) Please see Green Building Standards for Green Requirements.
2. Program Policies
 - d) No water heaters (except point-of-use water heaters) shall be allowed in the toilet rooms or bathrooms, bedrooms, or sleeping rooms.
 - a) No gas water heaters shall be allowed in a clothes closet(s).
 - b) All gas water heaters shall be vented in a safe manner to a chimney or flue leading to the exterior of the dwelling. Unlined brick chimneys must have a metal B-vent liner installed to meet manufacturer's venting requirements. If metal chimney venting cannot be added, a power vented water heater may be installed. Size of the B-vent is critical for proper venting. Install according to manufacturer's recommendations.
 - c) All water heaters shall be equipped with a pressure/temperature relief valve possessing a full-sized (non-reduced) rigid copper or steel discharge pipe to within six (6) inches of the floor. The steel discharge pipe shall not be threaded at the discharge end.
 - d) All water heaters must be installed to manufacturer's installation specifications.
 - e) All new water heaters shall have internal foam insulation that is a minimum of R-10.
 - f) Gas water heaters shall have an EF rating of .62 or higher and a recovery efficiency of .75 or better and/or meet Energy Star requirements at the time of installation.
 - g) Electric water heaters shall be Energy Star rated.
 - h) Where feasible, tankless water heaters may be installed in accordance with manufacturer's guidelines and sized to provide adequate hot water supply to all fixtures.
 - i) Gas supply lines and or electrical capacity must be evaluated before installing tankless water heaters.

²⁹ http://www.nyc.gov/html/dob/downloads/pdf/2.1.12-Residential_Module.pdf

B. Potable Water Supply

1. Requirement

- a) Every dwelling shall be connected to an approved (by the jurisdiction having authority) potable water source.

C. Plumbing Systems

1. Requirement

- a) All dwelling plumbing systems shall be capable of safely and adequately providing a water supply and wastewater disposal for all plumbing fixtures.
- b) Property owner owns the tap at the main and the entire connection into the property. The Dept. of Environmental Protection owns the meter in the premises. Damage on Homeowner's property will be repaired.

D. Connection to Sanitary Sewer

1. Requirement

- a) Every dwelling shall be connected to an approved (by the jurisdiction having authority) sanitary sewer system or properly operating septic system.

Property owner owns from the spur on the city sewer to the building premise, the city owns the mainline sewer or water main and the private concern owns any connection. Damage on homeowner's property will be repaired.

- b) As per [Local Law 83 of 2013](#)³⁰ backflow prevention devices may be required even if a sprinkler system is not being installed in a home. Please see the referenced law for full details.

E. Septic Systems³¹

1. Requirement(s)

As per the Department of Buildings, all existing septic systems shall undergo a visual inspection performed by registered design professional ("RDP"). This inspection must include:

- a) Verify that there is no evidence of surface failure of the existing system;

³⁰ <http://www.nyc.gov/html/dob/downloads/pdf/l183of2013.pdf>

³¹ From NYC Housing Recovery Training Module II – DOB Overview

- b) Inspection, where possible, of all piping leading from the residence to the system. If piping is damaged it must be replaced prior to testing;
 - c) Inspection of the interior of the system to verify that the system is free of structural damage and debris; and verify that the system is suitable for service. This shall include:
 - d) Clean and pump existing septic systems. All sludge and storm debris must be removed from the holding tank.
 - e) Infiltration testing of existing on-site private sewage disposal systems
 - f) Repair damaged or malfunctioning septic systems
2. Program Policies
 - a) If a home is on septic which needs to be repaired and sewer is available in the street, the home will be connected to the sewer system wherever possible.
 3. Certification of Existing Septic Systems:
 - a) Where a RDP has determined by testing and inspection that an existing system that was damaged or malfunctioning is adequate to place in service the RDP shall submit a certification to the Department when a permit is required. If a permit is not required the certification shall be maintained in the records of the BIB data system.

F. Electrical Service

1. Requirement(s)
 - a) All electrical work performed in any home shall fully comply with the NYC Electrical Code.
2. All electrical components should be observed for Life Safety issues, including service, meter, wiring, and fixtures, even if no electrical work is being specified. Unsafe, hazardous components must be repaired or replaced.
 - b) All electrical work shall be in compliance with the adopted electrical code requirements in accordance with any and all city or state requirements having jurisdiction.
 - c) The department of buildings shall not issue a permit or, if applicable, an electrical sign-off pursuant to an application that involves the energizing of a meter in a one-, two-, three-, or four-family residence, if the department finds that such action will cause the total number of meters for the building to exceed the number of dwelling units specified for such building in the certificate of occupancy, or if there is no certificate of occupancy, as determined by the department, except as permitted herein... ³²

³² http://www.nyc.gov/html/dob/downloads/bldgs_code/electrical_code_local_law_39of2011.pdf

d) The panel, service mast, etc. shall also be installed to local utility company requirements.

a. Con Edison - <http://www.coned.com/>

b. Long Island Power Authority (LIPA) – <http://www.lipower.org/>

c. National Grid - http://www2.nationalgridus.com/index_ny.jsp

3. Program Policies

a) When replacing, all dwelling units shall have a minimum, 150 ampere breaker controlled electrical panel.

b) Basement wiring that was submerged and has not been replaced, should be replaced.

c) For all substantially damaged homes and for non-substantially damaged homes with elevated electrical panels, a disconnect should be provided at the panel box for all electrical circuits having terminations below the DFE (design flood elevation).

In non-substantially damaged homes the program will only be replacing electrical outlets if the electrical system is being repaired or replaced or if a particular outlet is damaged.

G. Convenience Outlets

1. Requirement

a) All electrical work performed in any home shall fully comply with the NYC Electrical Code.

2. Reference

[Administrative Code of the City of New York - Title 27 Construction & Maintenance - Chapter 3 Electrical Code](#)

H. Lighting

1. Requirement(s)

a) All electrical work performed in any home shall fully comply with the NYC Electrical Code.

b) Please see Green Building Standards for specific requirements

V PROGRAM STANDARDS FOR HEATING & COOLING

A. Heating Systems

1. Requirement(s)

a) All heating systems (and central air-conditioning systems where they exist) shall be capable of safely and adequately heating (or cooling as applicable) for all living space and must meet the requirements of the NYC Building Code, Fuel Gas Code and Mechanical Code is applicable

b) Please see Green Building Standards for specific requirements

2. Program Policies

- a) Every heating system burning solid, liquid or gaseous fuels shall be vented in a safe manner to a chimney or flue leading to the exterior of the dwelling. The heating system chimney and/or flue shall be of such design to assure proper draft and shall be adequately supported.
- b) Every heating system burning solid, liquid or gaseous fuels shall be vented in a safe manner to a chimney or flue leading to the exterior of the dwelling. The heating system chimney and/or flue shall be of such design to assure proper draft and shall be adequately supported.
- c) No heating system source burning solid, liquid or gaseous fuels shall be located in any habitable room or bathroom, including any toilet room.
- d) Every fuel burning appliance (solid, liquid or gaseous fuels) shall have adequate combustion air and ventilation air. All new furnaces will have sealed combustion with combustion air brought in from the exterior of the house and installed in accordance with manufacturer's guidelines.
- e) Every heat duct, steam pipe and hot water pipe shall be free of leaks and shall function such that an adequate amount of heat is delivered where intended. All accessible duct joints must be sealed with mastic or any other acceptable product. Newly installed ductwork must also be sealed. All accessible steam piping and hot water piping must be installed with an approved material.
- f) Every seal between any of the sections of the heating source(s) shall be air-tight so that noxious gases and fumes will not escape into the dwelling.
- g) No space heater shall be of a portable type.
- h) Minimum requirements for forced air furnaces, when installed, will be no less than a 92% AFUE, or the minimum AFUE, if greater than 92%, to obtain a local utility rebate (Energy Star rated for Central-Northern climates). Also install a digital programmable thermostat. Condensate lines will drain to a floor drain or have a condensate pump installed and piped to discharge. All furnace duct work shall be equipped with an air filter clean out location that has a tight fitting cover installed over it.
- i) All boilers, when replaced, will have an "A" rating and be no less than 87% AFUE rating. All combustion air will be from the exterior of the house. The addition of zone valves may be useful to reduce energy cost. Heat lines shall be insulated with approved material. Programmable thermostats will be installed.
- j) All wood, pellet, corn, switch grass, hydrogen, or other biomass fuel stoves must be installed to manufacturer's guidelines. Where such guidelines are not available, the heating unit will be removed. Venting and combustion air must be installed in accordance with manufacturer's requirements.

- k) Unless we are replacing combustibile equipment, the BIB program will not be creating any fire-rated enclosures or ceilings.

B. Cooling Systems

1. Requirement(s)
 - a) Please see Green Building Standards
2. Program Policies
 - a) Nonworking or improperly functioning central air conditioning systems may be replaced as part of the rehabilitation work.
 - b) The installation of a central air conditioning system, where it currently does not exist, is permissible only when it is documented to be medically necessary.
 - c) Window A/C units will not be replaced. Existing window units will be removed from homes to be elevated
 - d) A/C units, if replaced, shall not be less than 14 SEER or the lowest SEER rating that is available at the time of installation but not less than 14 SEER. All units shall be installed, when possible, on either the north or east side of the dwelling or in an area that will provide shade for the unit. The correct coil will be installed that is compatible with both the furnace and A/C unit.
 - e) In rooms being repaired, non-functioning, non-repairable air conditioners will be removed and drained of all CFCs.
 - f) When in areas of storm damage, existing central air conditioning will be inspected, serviced and refurbished to operate safely.
3. Ineligible Items
 - a) New central air conditioning systems will not be installed where none existed prior to Hurricane Sandy.

VI PROGRAM STANDARDS FOR THE INTERIORS OF STRUCTURES

A. Stairs

1. Requirement(s)

- a) If replacing existing stairs, stairs will need to conform as close as possible to new construction and egress standards, but replacement stairs do not need to be in compliance with new codes. Any newly added and constructed stairs (interior and exterior stairways where no stair previously existed) shall comply with the requirements of the [New York City Building Code – Chapter 10 – Means of Egress](#) and any other applicable regulations³³

B. Interior Walls, Floors, Ceilings, Doors & Windows

1. Requirement(s)

- a) For substantially damaged homes and areas being repaired in non-substantially damaged homes, all interior spaces shall comply with all requirements of [NYC Building Code Chapter 12 – Interior Environments](#).³⁴ The provisions of Chapter 12 shall govern ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodent proofing associated with the interior spaces of buildings as well as any and all other applicable codes and regulations.
- b) Please see Green Building Standards

2. Program Policies

- a) In substantially damaged homes and in areas being repaired in non-substantially damaged homes, all operable windows shall be capable of being easily opened and held in an open position by window hardware.
- b) In addition, any windows required to be operable in all homes shall be operable.
- c) In substantially damaged homes and in areas being repaired in non-substantially damaged homes, all operable exterior windows being replaced shall be provided with screens. Half screens on windows are allowable. All windows will operate, remain in an open position when placed there, lock when closed and the open section will be covered with a screen.
- d) In substantially damaged homes and in areas being repaired in non-substantially damaged homes, unit windows located on the first floor, at the basement level, on a fire escape, porch, or other outside space that can be reached from the ground and that are designed to be opened must have a locking device. (Windows with sills less than six feet off the ground are considered accessible.)

VII PROGRAM STANDARDS FOR EXTERIOR OF STRUCTURES

A. Site

1. Requirement(s)

³³ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter10.pdf

³⁴ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter12.pdf

- a) When the site surrounding a building has been disturbed, all grading adjacent to the building and for a distance of at least 10 feet away from the building, or to property line, will slope away from the structure at a pitch of at least 1 inch per foot.
- b) If the soil is workable, all bare earth will be reseeded. All areas disturbed during the course of construction or as indicated in the Job Order or drawings shall be seeded or reseeded with New York State recommended, drought-resistant varieties including blends such as fine fescue cultivars.³⁵
- c) Essential paving on paths of egress, such as front walks and driveways with minor defects will be repaired to match. Tripping hazards greater than ¼" must be addressed. Un-repairable essential walks will be replaced with cost effective paving. Un-repairable driveways will be removed and replaced with gravel.
- d) Trees that are hazardous to the existing home or proposed construction will be removed. Removal will include cutting close to the ground, grinding of the stump to 12 inches below the finished grade, installation of topsoil and re-seeding.
- e) Please see Green Building Standards for Substantially damaged homes.

2. Ineligible Items

- a) Fences will not be replaced.
- b) Landscaping other than basic seeding will not be replaced unless required by code.

3. Landscaping

When required by Enterprise Green Communities or as a zoning mitigation, plants used should be those deemed as a "[Salt Tolerant Species](#)"³⁶ as defined by the NYC Department of Parks & Recreation (DPR) or a species from [the Native Species Planting Guide for New York City and Vicinity](#), issued by the Natural Resources Group of DPR³⁷.

B. Detached Structures

1. Requirement(s)

2. Program Policies

- a) Improvements must be physically attached to the house and be permanent in nature (e.g., sheds or garages located separately from the house are ineligible).
- b) Unsafe, hazardous accessory structures in danger of collapse, including detached garages, or fencing will be removed. Deteriorated structures or fencing that do not present Life Safety hazards will not be addressed.

3. Ineligible Items

³⁵ <http://ecommons.library.cornell.edu/bitstream/1813/3574/2/Lawn%20Care%20without%20Pesticides.pdf>

³⁶ http://www.nycgovparks.org/sub_about/parks_divisions/gnpc/pdf/salt_tolerant_species_list.pdf

³⁷ http://www.nycgovparks.org/sub_about/parks_divisions/nrg/documents/Native_Species_Planting_Guide.pdf

- a) Sheds or garages located separately from the house
- b) Accessory structures such as sheds or garages will not be rehabilitated or elevated.
- c) Patios or ground level decks will not be repaired.

C. Foundations, Exterior Walls, Soffits and Fascia

- 1. Requirement(s)
- 2. Program Policies
 - a) Every storm damaged foundation, exterior wall, soffit and fascia shall be made weather resistant. Products for exterior walls, roofs, soffits, and fascia shall be installed in accordance with the manufacturer's guidelines.
 - b) Roof replacement shall be installed in accordance with the manufacturer's requirements. When installing asphalt or fiberglass shingles, a minimum of a 30 year shingle shall be used. When replacing or making a substantial repair to the roof, use radiant barrier sheathing or other radiant barrier material; if economically feasible, also use cool roofing materials.
 - c) Damaged retaining walls necessary for the support of the primary structure will be repaired.
 - d) Storm damaged foundations will be repaired or replaced to be sound, reasonably level, and free from movement. Structural framing and masonry will be free from visible deterioration, rot, or serious termite damage. Prior to rehab, all sagging floor joists or rafters will be visually inspected, and significant structural damage and its cause will be corrected.
 - e) New structural walls will be minimum 2" x 4", 16" OC. All exterior walls that are part of the building envelope (the air barrier and thermal barrier separating the conditioned space from the non-conditioned space) will be insulated with a minimum R-13 insulation and sheathed to code.

D. Drainage

- 1. Requirement(s)
- 2. Program Policies – When Site is disturbed during construction
 - a) When disturbed during the course of construction, the ground around the dwelling shall be sloped away from foundation walls to divert water away from the structure.
 - b) When necessitated by storm damage, repaired gutters and downspouts must be in good repair, leak free and collect storm water from all lower roof edges.
 - c) Concrete splash blocks will be installed to move water away from the foundation.

- d) The system must move all storm water away from the building and prevent water from entering the structure.

E. Windows/Ventilation/Natural Lighting

1. Requirement(s)

- a) In areas being repaired in non-substantially damaged homes, or for all substantially damaged one & two family homes: required windows must meet³⁸ [§ 27-2062 Lighting and ventilation in one- and two-family dwellings](#) and/or [Chapter 12 - Interior Environments](#)³⁹ as applicable.

F. Exterior Doors and Basement Entries (Including Cellar Hatchways)

1. Requirement(s)

- a) All electrical work must comply with the NYC Electrical Code.

2. Program Policies for Substantially Damaged Homes or areas being repaired only, on Non-Substantially damaged homes.

- a) Every window, exterior door, basement entry and cellar hatchway shall be tight fitting within their frames, be rodent-proof, insect-proof and be weatherproof such that water and surface drainage is prevented from entering the dwelling. In addition, the following requirements shall also be met:
 - b) When replacing, all exterior doors and windows shall be equipped with security locks. Deadbolts are not required.
 - c) Every window sash shall be fully equipped with glass window panes which are without cracks or holes. Every window sash to be replaced shall use Energy Star rated for North Central climate zone windows unless the existing windows have insulated glass. Stained or leaded glass found to be historically significant may be protected by a fixed low-E glass storm window. Every window sash shall fit tightly within its frame, and be secured in a manner consistent with the window design. All window jambs will be sealed. All rope weight openings shall be insulated before installing the new window. Energy Star rated for North-Central climate zone.
 - d) Storm doors, when installed, shall also be equipped with a self-closing device.
 - e) Every exterior door, when closed, shall fit properly within its frame and shall have door hinges and security locks or latches. All exterior doors will be no less than metal clad insulated (foam filled) doors. All jambs and thresholds will be sealed.

³⁸ [http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=\\$\\$ADC27-2062\\$\\$@TXADC027-2062+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW](http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=$$ADC27-2062$$@TXADC027-2062+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW)

³⁹ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter12.pdf

- f) Every exterior door shall be not less than two foot-eight inches (2'-8") in width and not less than six foot-eight inches (6'-8") in height. Existing door sizes will be grandfathered, but, when replacing, an attempt shall be made to have at least one exterior door that is not less than 36 inches wide and no less than 6'-8" high.
- g) All houses will have 4" house numbers clearly displayed near the front door, and a standard size mailbox, wall-hung at the entrance where possible.

G. Porches and Decks

- 1. Requirement(s)
- 2. Program Policies
 - a) Steps, stairways, and porch decks on egress routes will be structurally sound, reasonably level, with smooth and even surfaces. Repairs will match existing materials. Stairs to be replaced must meet all applicable codes.
 - b) The repair of porches and/or decks other than those used for primary access to a home is not covered by the Build It Back program unless such porch or deck is part of the legal egress path from the home.
 - a. Storm damaged deteriorated concrete porches falling within the parameters above will be repaired when possible. Unsafe wood porch components will be repaired with readily available materials to conform closely to porches in the neighborhood. Porch repairs will be structurally sound, with smooth and even decking surfaces. Deteriorated wood structural components will be replaced with preservative-treated wood.
 - b. For non-substantially damaged homes, access to rear porches deemed structurally unsound will be replaced with a stairway and minimal landing only. Non-essential doors will be replaced with windows.
 - c. Basic repair – pressure treated wood, railings rebuilt to meet code if non-compliant. Spindles to match existing or to be nominal 2x2 square.
 - d. Attached decks on non-historic porches will be replaced with 5/4" preservative-treated decking when being repaired.
 - e. The program will not build or rebuild decks in the rear or side of homes unless required to meet NYC Building Code. Rear decks will not be elevated. Doors not required for egress will be converted to windows. A single rear stairway and minimal landing may replace a rear deck when code requirements permit.

H. Railings

- 1. Requirement(s)
- 2. Program Policies

- a) Existing handrails on egress routes will be structurally sound. Guard rails are required on any accessible area as per NYC Building Code. Sound railings may be repaired if it is possible to maintain the existing style.
 - b) Handrails will be present on one side of all interior and exterior steps or stairways with more than two risers and around porches or platforms over 30" above the adjacent ground level, and will meet local codes. On historic structures railing repairs or new railings will be historically sensitive.
 - c) Replaced railings will meet NYC Building Code. Replaced wood structural components will be preservative-treated to match existing. Minor repairs should match existing whenever possible.
3. Ineligible Items
- a) Deteriorated railings in non-storm damaged areas will not be repaired unless they present a Life Safety hazard.

I. Chimneys

- 1. Requirement(s)
- 2. Program Policies
 - a) Masonry chimneys serving fireplaces will be repaired for minor damage on non-elevated houses
 - b) Sound chimneys serving fireplaces will not be lined.
 - c) Structurally unsound chimneys presenting Life Safety Hazards will be removed unless required for combustion ventilation. When chimneys must be used for combustion ventilation, they will be relined when required.
 - d) Masonry/stone chimneys with major damage will be removed.
 - e) Masonry/stone chimneys will not be elevated. They will be removed. If associated with a masonry fireplace, the fireplace will be removed also.

J. Siding

- 1. Requirement(s)
- 2. Program Policies
 - a) In storm damaged areas of the home, siding and trim will be intact and weatherproof. All exterior wood components will have a minimum of two continuous coats of paint, and no exterior painted surface will have any deteriorated paint. Buildings designated as historic will have existing wood siding repaired in kind. New exterior wood will blend with existing and will be spot-primed and top-coated in a lead-safe manner.

- b) Buildings not designated as historic by the Housing Recovery Office environmental review may have siding replaced with Fiber Cement Siding to match the existing configuration. New wood components will be FSC certified.
 - c) If siding is being repaired and contains asbestos, replace all siding.
 - d) If over 50% of non-masonry (not brick or stucco) siding is damaged on one wall or if repairs are required on 3 walls, all siding will be replaced.
 - e) Stucco siding will be patched where damaged. Material may be tinted or painted to match as closely as possible.
 - f) Brick siding will be patched with brick matched as closely as possible to existing.
 - g) Standard replacement of siding will be Fiber Cement siding or approved equal.
 - h) If repair covers more than 20% of one wall, entire house will be repainted.
3. Homeowner Choice of Items
- a) Homeowner will have a choice of vinyl siding colors if completely replaced or program selected exterior paint colors. Partial repairs of masonry walls should attempt to match existing siding color.

K. Roofing

1. Requirement(s)
2. Program Policies
 - a) If over 20% of roof is damaged, roof to be replaced. When possible, replacement roofs should meet requirements of Green Retrofit Checklist or Enterprise Green Communities.
 - b) Missing and leaking shingles and flashing will be repaired on otherwise functional storm damaged roofs. Slate, metal and tile roofs will be repaired when possible. Antennae will be removed if non-functioning and hazardous.
 - c) New York City is within the Hurricane Prone region. It is not in the Wind-Borne Debris Region. Elevated homes should contain required connections between roof, walls, floors and foundations. NYC Building Code Sec. 1609.3 specifies a basic wind speed of 98mph.⁴⁰ While this does not reach the 100 MPH speed required to trigger NYC Building Code Sec 2308.2.1, an applicant can elect to comply with the Wood Frame Construction Manual for One-and Two-Family Dwellings provided the applicant meets the criteria set forth in the code.

⁴⁰ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter16.pdf

- d) Attic ventilation , attic insulation and radiant energy barriers must meet the requirements of the Green Retrofit Checklist or Enterprise Green Communities when applicable.

VIII PROGRAM STANDARDS FOR HAZARDOUS MATERIALS

A. Asbestos

- 1. Requirement(s)
 - a) Remediation of asbestos will be required as outlined in the report provided to BIB JOC contractors. Asbestos will be remediated only where disturbed by the scope of work.

B. Lead

- 1. Requirement(s)
 - a) EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA (or an EPA authorized state), use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices.⁴¹
 - b) For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule. See HUD's "[Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing \(2012 Edition\)](#)"⁴²
- 2. Prohibited Methods
 - a) Do not use prohibited paint removal methods:
 - a. Open flame burning or torching.
 - b. Heat guns operating above 1,100 °F.
 - c. Machine sanding or grinding without a HEPA vacuum exhaust tool.
 - d. Uncontained hydroblasting or high-pressure wash.
 - e. Abrasive blasting or sandblasting without a HEPA vacuum exhaust tool.
 - b) Avoid using the following methods:
 - a. Methylene chloride chemical paint removers.
 - b. Dry scraping (except for limited areas).

C. Mold

⁴¹ <http://www2.epa.gov/lead/renovation-repair-and-painting-program>

⁴² http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/lbp/hudguidelines

1. Requirement(s)
 - a) Mold Inspection and Remediation
 - b) Inspect the interior and exterior of the building for evidence of moisture problems in storm damaged areas. Document the extent and location of the problems, and implement the proposed repairs according to the Moisture section of the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades.
2. Program Policy
 - a) When a mold infestation is determined to be present, the BIB program will determine and correct the causes of mold, whether storm damaged or not. In cases of deferred maintenance, the BIB program will do the minimum required to prevent a reoccurrence of mold.

IX PROGRAM STANDARDS FOR ENVIRONMENTAL COMPLIANCE

A. Wetlands Requirements

1. Please see applicable permit(s) for requirements
2. Tidal Wetland Land Use Regulations (6NYCRR Part 661.5)⁴³
3. Buildings Bulletin 2009-012⁴⁴

This document establishes construction document submittal procedures for work in Tidal Wetlands, Freshwater Wetlands, and Coastal Erosion Hazard Areas
4. General Permit 2-12-002 is effective in New York City, only. This permit expires October 31, 2014. This General Permits covers:
 - i. *Repairing or rebuilding existing fences, or installing new temporary fences, in the regulated adjacent areas of freshwater wetlands and tidal wetlands.*
 - ii. *Removal of debris from waterways and tidal wetlands.*
 - iii. *Removal of debris from certain freshwater wetlands and adjacent areas on Staten Island.*
 - iv. *In-kind/in-place repair or reconstruction of docks, catwalks and floats that were functional before Hurricane Sandy.*
5. General Permit for Hurricane Sandy to Reconstruct Residential Structures in New York City (DEC Region 2), GP-2-13-002. General Permit GP-2-13-002, issued on July 16, 2013 replaces General Permit GP-2-13-001 and extends the permit's expiration date until October 31, 2016.⁴⁵

⁴³ <http://www.dec.ny.gov/permits/6347.html>

⁴⁴ http://www.nyc.gov/html/dob/downloads/bldgs_bulletins/bb_2009-012.pdf

⁴⁵ <http://www.dec.ny.gov/permits/89343.html>

General Permit GP-2-13-002⁴⁶ authorizes the reconstruction of houses on properties regulated by DEC under the Tidal Wetlands Act (ECL Article 25) and/or the Freshwater Wetlands Act (ECL Article 24) destroyed by Hurricane Sandy and Red-tagged or Yellow-tagged by the New York City Department of Buildings for "Demolition" while waiving the procedural requirements of the Uniform Procedures Act (ECL Article 70).

General Permit GP-2-14-002 was issued to NYC Dept of Housing Preservation and Development (HPD) effective 5/15/14 through 4/30/19. Under certain conditions this permit permits the following activities in regulated Freshwater Wetlands Adjacent Areas and/or Tidal Wetlands Adjacent Areas (not in the wetlands themselves) for properties damaged or destroyed by Hurricane Sandy. Please see the actual permit for complete details.

1. Elevate and reconstruct, in-kind and in-place, lawfully existing and functional (as of October 27, 2012) residential structures and appurtenant structures. Work at these properties may include geotechnical borings to provide information for the design of foundation supports.
2. Demolish existing residential structures, appurtenant structures and utilities.
3. Establish or re-establish connections to a municipal sanitary sewer system. (NOTE: Homes that propose to be serviced by an on-site septic system are not eligible for coverage under this General Permit.)
 - a) At the current time, a home covered by the General Permit requires a "[Joint Application Form](#)" to be submitted to DEC⁴⁷

B. Bulkheads

1. Program Policies
 - a) The Build It Back Program will not repair or replace any damaged bulkheads. Work will be strictly limited to the homes and attachments to homes, as well as an immediately surrounding property only as required by code or other local or federal agencies.

C. Sinkholes

1. Unless affecting the structural stability of a home, the Build It Back Program will not repair or address any sinkholes. Work will be strictly limited to the homes and attachments to homes, as well as an immediately surrounding property only as required by code or other local or federal agencies.

X PROGRAM STANDARDS FOR ACCESSIBILITY

1. Requirement(s)
2. Program Policies
 - a) Available in all homes when being repaired or replaced

⁴⁶ http://www.dec.ny.gov/docs/permits_ej_operations_pdf/gp213002prmt.pdf

⁴⁷ http://www.dec.ny.gov/docs/permits_ej_operations_pdf/gp213002jntapp.pdf

- a. Lever handles at all doors
 - b. ADA-compliant appliances (where produced)
 - c. ADA-compliant handles for all plumbing fixtures
 - d. Choice of comfort height or standard height toilet
 - e. Installation of grab bars or wall reinforcement.
- b) Available by documented need at intake – ONLY APPLICABLE TO AREAS BEING REPAIRED
- a. Modified kitchen cabinets
 - b. Modified height electrical outlets
 - c. Redesign existing space to accommodate special needs
 - d. Widened doorways
 - e. Roll-in showers
 - f. Low threshold construction
 - g. Ramp or lift (lifts only available when ramp not possible)
 - h. Hearing impaired aids – Signal lights for doorbells & alarms
 - i. Visual impairment aids – Tactile warnings & Edge Cuing for walking surfaces
3. Refer to Americans with Disabilities Act guidelines and recommendations published by the American National Standards Institute for universal design criteria as well as the [Fair Housing Act Design Manual](#).

XI PROGRAM STANDARDS FOR HOME ELEVATIONS

A. Requirement(s)

1. All homes in a Special Hazard Flood Area (SFHA) with a Substantial Damage or Substantial Improvement calculation over 50% must be elevated.
2. As of October 1, 2014, Appendix G of the NYC Building Code will be applicable as follows. Appendix G, in conjunction with the *New York City Construction Codes*, provides minimum requirements for development located, in whole or in part, in areas of special flood hazard and shaded X-Zones within the jurisdiction of New York City. These areas each have different requirements. All design professionals are responsible for complying with all applicable codes. The Build It Back program will immediately implement compliance with all requirements for each of the zones listed below.
 - a) **A-ZONE.** An area of special flood hazard without high velocity wave action. When not shown on the FIRMs, the water surface elevation may be determined from available data by the registered design professional of record in accordance with Section G103.3. See also “Area of special flood hazard.

- b) **COASTAL A-ZONE:** An area within a special flood hazard area, shown on FEMA FIRMs 360497 as an area bounded by a “Limit of Moderate Wave Action,” landward of a V-Zone or landward of an open coast without mapped V-Zones. In a Coastal A-Zone, the principal source of flooding must be astronomical tides, storm surges, seiches, or tsunamis, and not riverine flooding. During the base flood conditions, the potential for breaking wave heights must be greater than or equal to 1 foot, 6 inches (457 mm). In no case shall an area of special flood hazard be deemed a coastal A-Zone unless and until it has been identified as such on the adopted FEMA FIRMs 360497.
- c) **SHADED X-ZONE.** The land in the floodplain delineated as subject to a 0.2-percent or greater chance of flooding, but less than one percent of flooding, in any given year. Such areas are designated on the Flood Insurance Rate Map (FIRM) as shaded X-Zones.
- d) **V-ZONE.** An area of special flood hazard subject to high-velocity wave action.
3. Elevate to most restrictive FEMA Base Flood Elevation (BFE) plus freeboard.
 4. All basements must be filled in. Architect/Engineer to detail methods of demolition and fill.
 5. All elevations will be considered Partial Demolitions by the Dept of Buildings.
 6. A number of Special Inspections are required by the Dept of Buildings for many steps and materials used in home elevations. Please see Building Bulletin 2013-13 for information.⁴⁸
 7. Space under the elevated first floor is to be used for parking, storage or access only. Space will not be conditioned, except if required to protect access of utilities to homes.
 8. Space under the elevated first floor must be wet-floodproofed.
 9. Only flood-damage-resistant materials and finishes as outlined in [FEMA Flood Damage-Resistant Materials Requirements, TB2](#)⁴⁹, shall be utilized below the Design Flood Elevation for substantially damaged homes. As of October 1, 2014 gypsum board or cement board using in an assembly in certain areas, including interior faces of exterior walls of basements, cellars, and other below grade rooms, must have a mold resistant rating of 10 in accordance with ASTM D3273. Please confirm requirements with applicable codes⁵⁰. Other than those and any other applicable codes, flood damage resistant materials are not required in non-substantially damaged homes.

⁴⁸ http://www.nyc.gov/html/dob/downloads/bldgs_bulletins/bb_2013-013.pdf

⁴⁹ http://www.fema.gov/media-library-data/20130726-1502-20490-4764/fema_tb_2_rev1.pdf

⁵⁰ <http://www.nyc.gov/html/dob/downloads/pdf/ll13of2014.pdf>

10. The NFIP requires that the fuel system for a new or substantially improved structure located in a Special Flood Hazard Area (SFHA) be designed so that floodwaters cannot infiltrate or accumulate within any component of the system. All utilities must be elevated above Design Flood Elevation (DFE). If relocation is not possible within a floor or attic of the home, elevated platforms or attachments for utilities may be used provided they meet all applicable codes and regulations.⁵¹
11. Gas, Electric, Water meter locations must meet all requirements of the appropriate utility company.
12. Utilities to be suitably protected against freeze-thaw and exposure to damage
13. Sprinklers to be installed whenever required by NYC Fire or Building Code.
14. A frost free hose-bibb should be provided at the ground level.
15. NYC Building Code Chapter 33 – Safeguards During Construction or Demolition⁵² must be followed in its entirety for all construction.

B. Program Policies

1. New foundations to be most cost effective method to meet NYC Building & Zoning code requirements – depends on site conditions, however closed foundations are not encouraged.
2. If on-site parking existed pre-storm, and parking cannot be recreated by the alternate methods permitted under the Zoning Text Amendment and the height required for the elevation permits parking or fits into the category permitting additional elevation to permit parking, parking will be created with necessary details provided on elevation drawings for curb cuts, gravel driveway, sidewalk repair/replacement.
3. When not required and height of elevation and foundation type permit opportunities for parking, design of elevation should accommodate future parking when possible at no additional cost. No garage doors will be installed; no curb cuts or parking surfaces will be provided.
4. Oil Tanks must be anchored as per NYC & FEMA requirements.
5. The reuse of existing foundations is discouraged unless the engineers determine that the condition of the existing foundation is suitable.
6. Shallow foundations shall be completely removed.
7. For deep foundations, at the discretion of the engineer, the basement slab is to be removed and the existing walls to contain openings to allow for the equalization of hydrostatic pressure. The walls may remain.

⁵¹ http://www.fema.gov/media-library-data/20130726-1514-20490-7165/p_348.pdf

⁵² http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter33.pdf

8. Convert Oil to gas if possible
9. Site to be seeded and graded to direct water away from home.
10. Laundry Facilities - Electrical outlets, gas connection (if previously existing), hot and cold water lines, drains and vents are to be provided on elevated floor for laundry facilities when possible. No washers or dryers will be replaced as part of this program.
11. Ineligible Items
 - a) No garage doors
 - b) No entry doors will be installed below elevated first floor unless required for primary access to home.
 - c) No conditioned space below elevated first floor (unless required for protection of utilities)
 - d) Rear decks or porches will not be elevated, unless legally required for egress. A single stairway and landing may replace a legal deck if code permits. Other doors of all kinds to such spaces will be replaced with windows.

12. [Zoning Text Amendment](#) ⁵³

All requirements of the Zoning Text Amendment are in force for the Build It Back Program. A few relevant items are outlined below. Please see Amendment for complete requirements.

- a) Mitigation Options – Order of preference depending on height of elevation
 - a. Stair Direction Change (1 credit)
 - b. Trees or shrubs at least three feet high (1 credit)
 - c. Open Porch (1 credit)
 - d. Roofed or Trellised Porch (2)
 - e. Raised Front Yard – Not offered by Build It Back Program

b) Lifts

For single- and two-family residences, lifts for persons with disabilities shall be permitted obstructions in any open space required on the zoning lot and in courts, yards and rear yard equivalents, provided that in front yards, such lifts are unenclosed.

c) Parking

- a. Alternative height measurement for single- and two-family residences
R1 R2 R3 R4 R5
- b. For Residential Buildings with Below-Grade Parking
R1 R2 R3 R4 R5

⁵³ http://www.nyc.gov/html/dcp/pdf/flood_resiliency/final_text.pdf

- c. For Elevated Buildings
R1 R2 R3 R4 R5

XII MULTIFAMILY 3 – 4 UNIT HOMES

A. Best Practice for Multifamily Homes:

1. Because of the complexity of the laws governing housing standards, and their variability according to building type, it is essential to refer to the actual laws, local and state housing codes, and such other codes as building and sanitary codes in order to ascertain which standards apply to a given building. In addition, relevant information can be found in state and local regulations.

B. Definitions from New York State Multiple Dwelling Law as [revised 2010](#)

1. A "multiple dwelling" is a dwelling which is either rented, leased, let or hired out, to be occupied, or is occupied as the residence or home of three or more families living independently of each other.
2. A "class A" multiple dwelling is a multiple dwelling which is occupied for permanent residence purposes. This class shall include tenements, flat houses, maisonette apartments, apartment houses, apartment hotels, bachelor apartments, studio apartments, duplex apartments, kitchenette apartments, garden-type maisonette dwelling projects, and all other multiple dwellings except class B multiple dwellings.

C. From the [Metropolitan Council on Housing – The Laws Governing Housing Standards in New York City](#)⁵⁴:

1. The [Multiple Dwelling Law](#), the [Multiple Residence Law](#), and the [New York City Housing Maintenance Code](#) delineate minimum standards for light and air, fire protection and safety, and sanitation and health in various classes of dwellings, including Class "A" and Class "B" multiple dwellings. The [Multiple Dwelling Law](#) applies to cities with a population of 325,000 or more (i.e., New York City), while the [Multiple Residence Law](#) applies to cities with less than 325,000 and to all towns and villages. Note that municipalities may by local law adopt housing standards that are as strict as the Multiple Dwelling Law or stricter.
 - a) A "Class 'A'" multiple dwelling is a multiple dwelling which is generally occupied for permanent residence purposes. Class "A" multiple dwellings include apartments buildings and "apartment hotels," and most other types of apartments. [Multiple Dwelling Law § 4 \(8\) \(a\)](#).

⁵⁴ http://metcouncilonhousing.org/help_and_answers/new_york_city_and_state_housing_standards

- b) A "Class 'B'" multiple dwelling is a multiple dwelling which is generally occupied transiently, as the temporary abode of individuals or families who are lodged with or without meals. Class "B" multiple dwellings include hotels, rooming houses, club houses, college and school dormitories, and dwellings designed as private dwellings but occupied by one or two families with five or more transient boarders, roomers, or lodgers in one household. [Multiple Dwelling Law § 4 \(9\)](#).
2. In addition to setting the minimum standards for Class "A" and Class "B" dwellings, the [Multiple Dwelling Law](#), the [Multiple Residence Law](#), and the [Housing Maintenance Code](#) set forth the owner's and the tenant's responsibilities concerning compliance, registration requirements for owners, and enforcement mechanisms that range from the imposition of civil penalties for the failure to correct violations to the destruction of buildings constituting nuisances. See the charts below.
3. In addition, they set forth tenant remedies for owners' violations. The [New York City Housing Maintenance Code](#) classifies violations of the code into "nonhazardous," or "A," violations, "hazardous," or "B," violations, and "immediately hazardous," or "C," violations. [New York City Administrative Code § 27-2115 \(d\)](#). The Department of Housing Preservation and Development has promulgated a [list](#) of violations classified as "rent impairing" violations under [Multiple Dwelling Law § 302-a](#). See [28 RCNY § 25-191](#).

D. City and State Housing Standards Applicable in New York City (including but not limited to)

Condition	Housing Maintenance Code (Administrative Code of the City of New York) §	Multiple Dwelling Law §
Artificial lighting	27-2037 to 27-2040	64 (1)
Boiler room	27-2033 (access)	65
Building entrance doors and Intercom	N/A	50-a
Cellar entrance	N/A	54
Elevator mirrors	27-2042	51-b
Entrance halls (bells)	N/A	57
Fire protection, fire escapes and smoke detecting devices	27-2044 to 27-2046	53 , 68 , 232
Heat	27-2028 ,	79 ; Energy Law § 17-103
Hot water, water supply	27-2024 , 27-2025 , 27-2031 , 27-2032	75
Lead paint	27-2056.1 et seq. (Local Law 1 of 2004)	N/A
Lighting and ventilation	27-2057 to 27-2062	30 , 217
Lobby attendant services	N/A	50-c
Locks to apartment doors; landlord's right to key	27-2043	51-c
Mail service	27-2047	57
Painting	27-2013 to 27-2016	29 , 80
Peepholes	27-2041	51-a
Privacy	N/A	82
Repairs, vermin, waste	27-2005 , 27-2011 , 27-2018 , 27-2019 , 27-	78 , 80 , 81 , 83

collection, janitorial services	2021, 27-2023, 27-2052 to 27-2056	
Room size minimums and occupancy regulations	27-2074 to 27-2080; 27-2082 to 27-2088	31 , 34
Sewers and drainage	27-2026, 27-2027	77
Stairs	N/A	52
Tenant's responsibilities	27-2009, 27-2012	78 , 80
Vehicle storage	N/A	60
Water closets and bathrooms	27-2063 to 27-2069	76

E. Consequences of wrong MD Classification on PW1 (from NYC DOB)

1. Incorrect egress and fire protection analysis
2. Incorrect designation on C of O
3. Revocation of plan approval and permit
4. Revocation of C of O
5. Disciplinary action against applicant

F. More Information

1. [PW-1: Multiple Dwelling Classifications](#)⁵⁵
2. General Applicability of MDL
 - a) HAEA – Hereafter Erected - Originally erected as a multiple dwelling in accordance with the laws in effect after January 1, 1929
 - b) NLT – New Law Tenement - Originally erected as a multiple dwelling in accordance with the laws in effect after April 12, 1901 and prior to April 18, 1929
 - c) OLT – Old Law Tenement - Originally erected as a multiple dwelling in accordance with the laws in effect prior to April 12, 1901,
 - d) HCA – Heretofore Converted – One or Two family converted to multifamily prior to april 18, 1929

	Only a few sections, NOT egress	2008 BC, including 2008 egress
	Only a few sections, NOT egress	1968 BC, including 1968
	Articles 1 to 5, including	1938 BC, but NOT egress
	Article 7 (and 1 to 3 as applicable), including egress	1938 BC, but NOT egress

⁵⁵ http://www.nyc.gov/html/dob/downloads/pdf/pw1_code.pdf

	Article 7 (and 1 to 3 as applicable), including egress	1938 BC, but NOT egress
	Article 7 (and 1 to 3 as applicable), including egress	1938 BC, but NOT egress

XIII DEFINITIONS

A. Definitions - Resources

1. **Reference:** [New York City Administrative Code Title 27 – Chapter 2 – Housing Maintenance Code](#)⁵⁶
2. **Reference:** [New York City AC – Title 27 – Chapter 1 - Construction and Maintenance § 27-232: Definitions](#)⁵⁷
3. **Reference:** [NYC Dept of Buildings – Appendix G – Flood Resistant Construction](#)⁵⁸
4. **Reference:** [Zoning Text Amendment – Chapter 4 – Special Regulations Applying in Flood Hazard Areas](#)⁵⁹
5. [HUD Green Retrofit Checklist](#).
6. **Reference:** [Chapter 12: Interior Environment of the NYC AC § 28-701.2](#).⁶⁰
7. **Reference:** [National Flood Insurance Program Definitions](#)⁶¹

XIV REFERENCES

A. FEMA

1. [FEMA Retrofitting References](#)⁶²
2. [FEMA Technical Bulletin 2 – Flood Damage-Resistant Materials Requirements](#)⁶³
3. P-259 Engineering Principles and Practices of Retrofitting Floodprone Residential Structures, Third Edition
4. P-312 Homeowner's Guide to Retrofitting - Six Ways to Protect Your Home From Flooding
5. P-347 Above the Flood: Elevating Your Floodprone House

⁵⁶

<http://public.leginfo.state.ny.us/LAWSSEAF.cgi?QUERYTYPE=LAWS+&QUERYDATA=@PLADC0T27C2+&LIST=LAW+&BROWSER=BROWSER+&TOKEN=05661412+&TARGET=VIEW>

⁵⁷ http://www.nyc.gov/html/dob/downloads/bldgs_code/bc27s2.pdf

⁵⁸ http://www.nyc.gov/html/dob/downloads/pdf/cc_appendix_g.pdf

⁵⁹ <http://www.nyc.gov/html/dcp/pdf/zone/art06c04.pdf>

⁶⁰ http://www.nyc.gov/html/dob/downloads/pdf/cc_chapter12.pdf

⁶¹ <http://www.fema.gov/national-flood-insurance-program/definitions>

⁶² <http://usasearch.fema.gov/search?query=residential+retrofitting&op=Search&affiliate=fema>

⁶³ http://www.fema.gov/media-library-data/20130726-1502-20490-4764/fema_tb_2_rev1.pdf

6. P-348 Protecting Utilities From Flood Damage
7. P-499 Home Builder's Guide to Coastal Construction
8. P-55 Coastal Construction Manual: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas (4th ed.)
9. P-550 Recommended Residential Construction for Coastal Areas: Building on Strong and Safe Foundations
10. P-804 Wind Retrofit Guide for Residential Buildings
11. [Hurricane Sandy Recovery Advisories - FEMA](#)⁶⁴
12. [Hurricane Ike Recovery Advisories - FEMA](#)⁶⁵

B. NYC Department of Building

1. [NYC Building Code Appendix G – Flood-Resistant Construction](#)⁶⁶
2. [After Hurricane Sandy: Construction in Flood Zones and Procedures for Rebuilding](#)⁶⁷
3. [Rebuilding NYC After Hurricane Sandy](#)⁶⁸
4. [Buildings Bulletin 2013-13 – To Clarify Special Inspection Requirements related to raising, lifting, elevating or moving buildings](#)⁶⁹
5. [Residential Energy Efficiency](#)⁷⁰
6. [Buildings Bulletin 2013-001 Habitable Space Multifamily Dwellings](#)

C. NYC Planning Department

1. [Zoning Text Amendment](#)⁷¹

D. HUD - Housing and Urban Development

1. [Disaster Recovery Homeowner Rehabilitation Program Design and Implementation Toolkit – Tool 2: Housing Program Guidelines](#) – Referenced in HUD Notice of 3/15/13⁷²

⁶⁴ <http://www.fema.gov/media-library/assets/documents/30966>

⁶⁵ http://www.fema.gov/media-library-data/20130726-1644-20490-3272/hurricane_ike_ras_09rev.pdf

⁶⁶ http://www.nyc.gov/html/dob/downloads/pdf/cc_appendix_g.pdf

⁶⁷ http://www.nyc.gov/html/dob/downloads/pdf/after_hurricane_sandy_AIA_presentation.pdf

⁶⁸ http://www.nyc.gov/html/dob/downloads/pdf/rebuilding_after_hurricane_sandy.pdf

⁶⁹ http://www.nyc.gov/html/dob/downloads/bldgs_bulletins/bb_2013-013.pdf

⁷⁰ http://www.nyc.gov/html/dob/downloads/pdf/2.1.12-Residential_Module.pdf

⁷¹ http://www.nyc.gov/html/dcp/pdf/flood_resiliency/final_text.pdf

⁷²

[https://www.onecpd.info/resources/documents/Disaster Recovery Homeowner Rehab Housing Program Guidelines.docx](https://www.onecpd.info/resources/documents/Disaster_Recovery_Homeowner_Rehab_Housing_Program_Guidelines.docx)

2. [Sample Single-Family Housing Rehabilitation Standard \(HUD Referenced in Notice of 2/19/13\)](#)⁷³

E. Lead

1. [Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing \(2012 Edition\)](#)⁷⁴
2. [EPA Lead Homepage](#)⁷⁵

F. US Department of Energy

1. [Wall Air Sealing and Insulation Methods in Existing Homes](#)

G. New York City Fire Department

1. [New York City Fire Code 2014](#)⁷⁶
2. [New York City Fire Code 2008](#)⁷⁷

XV REVISIONS

A. Revision 1.2: January 10, 2014

Control and click on item below to go to amended section

1. [Basements & Cellars](#)
2. [Critical Life Safety Issues Observed](#)
3. [Compliance with applicable New York City Building Codes](#)
4. [Bathrooms/Toilet Rooms/Powder Rooms](#)
5. [Electrical Service](#)
6. [Bedrooms](#)
7. [Attached Garages](#)
8. [Green Building Standards](#)
9. [REFERENCES](#)
10. [Smoke Detectors](#)
11. [Carbon Monoxide Detectors](#)

⁷³ <https://www.onecpd.info/resources/documents/SingleFamilyHousingRehabilitationStandard.doc>

⁷⁴ http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/lbp/hudguidelines

⁷⁵ <http://www2.epa.gov/lead>

⁷⁶ http://www.nyc.gov/html/fdny/html/firecode/table_of_contents_2014.shtml

⁷⁷

http://www.nyc.gov/html/fdny/pdf/firecode/2009/fire_code_l126_2008_amended_l137_41_64_2009_final_comp_ete.pdf

12. [Resiliency – Elevating Utilities](#)

B. Revision 1.3: January 31, 2014

1. [Basements & Cellars](#)
2. [Open Permits or Ongoing Work](#)
3. [Resiliency – Elevating Utilities](#)
4. [Attics](#)
5. [Smoke Detectors](#)
6. [Carbon Monoxide Detectors](#)
7. [Heating Systems](#)

C. Revision 1.4: May 28, 2014

1. [Resiliency – Elevating Utilities](#)
2. [Home Elevations](#)
3. [Septic Systems](#)
4. [Electrical Service](#)
5. [Program Standards for Accessibility](#)
6. [Connection to Sanitary Sewer](#)
7. [Code Compliance](#)
8. [Basements & Cellars](#)
9. [Bathrooms/Toilet Rooms/Powder Rooms](#)
10. [MULTIFAMILY 3 – 4 UNIT HOMES](#)
11. [GENERAL PROGRAM STANDARDS FOR ALL HOMES](#)
12. [Roofing](#)
13. [Siding](#)
14. [Smoke Detectors](#)
15. [Mold](#)
16. [PROGRAM STANDARDS FOR ENVIRONMENTAL COMPLIANCE](#)
17. [Critical Life Safety Issues Observed](#)
18. [Ineligible Scope](#)

EXHIBIT J
FEMA Elevation Certificate Instructions



FEMA

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

National Flood Insurance Program ELEVATION CERTIFICATE

Paperwork Reduction Act Notice

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or the applicant may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

Purpose of the Elevation Certificate

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate Post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. The Elevation Certificate is not required for Pre-FIRM buildings unless the building is being rated under the optional Post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate, available on FEMA's website at <http://www.fema.gov/library/viewRecord.do?id=1727>.

ELEVATION CERTIFICATE

IMPORTANT: Follow the instructions on pages 1-9.

OMB No. 1660-0008
 Expiration Date: July 31, 2015

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Company NAIC Number:
City	State
ZIP Code	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____	
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.	
A7. Building Diagram Number _____	
A8. For a building with a crawlspace or enclosure(s):	A9. For a building with an attached garage:
a) Square footage of crawlspace or enclosure(s) _____ sq ft	a) Square footage of attached garage _____ sq ft
b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____	b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
c) Total net area of flood openings in A8.b _____ sq in	c) Total net area of flood openings in A9.b _____ sq in
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No	d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number			B2. County Name			B3. State		
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)			
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____								
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____								
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input type="checkbox"/> No Designation Date: ____/____/____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA								

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: _____ Vertical Datum: _____

Indicate elevation datum used for the elevations in items a) through h) below. NGVD 1929 NAVD 1988 Other/Source: _____
 Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____ . _____	<input type="checkbox"/> feet <input type="checkbox"/> meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No
 Check here if attachments.

Certifier's Name		License Number	
Title	Company Name		
Address	City	State	ZIP Code
Signature	Date	Telephone	



ELEVATION CERTIFICATE, page 2

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	State	ZIP Code	Company NAIC Number:

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments

Signature

Date

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ feet meters above or below the HAG.
 - b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ feet meters above or below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8–9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ . _____ feet meters above or below the HAG.
- E3. Attached garage (top of slab) is _____ . _____ feet meters above or below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is _____ . _____ feet meters above or below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community’s floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER’S REPRESENTATIVE) CERTIFICATION

The property owner or owner’s authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner’s Authorized Representative’s Name

Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments

Check here if attachments.

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community’s floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4–G9) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued
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- G7. This permit has been issued for: New Construction Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building: _____ . _____ feet meters Datum _____
- G9. BFE or (in Zone AO) depth of flooding at the building site: _____ . _____ feet meters Datum _____
- G10. Community’s design flood elevation: _____ . _____ feet meters Datum _____

Local Official’s Name	Title
Community Name	Telephone
Signature	Date

Comments

Check here if attachments.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	State	ZIP Code	Company NAIC Number:

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Instructions for Completing the Elevation Certificate

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form. For Zones AO and A (without BFE), a community official, a property owner, or an owner’s representative may provide information on this certificate, unless the elevations are intended for use in supporting a request for a LOMA or LOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA or LOMR-F.

The property owner, the owner’s representative, or local official who is authorized by law to administer the community floodplain ordinance can complete Section A and Section B. The partially completed form can then be given to the land surveyor, engineer, or architect to complete Section C. The land surveyor, engineer, or architect should verify the information provided by the property owner or owner’s representative to ensure that this certificate is complete.

In Puerto Rico only, elevations for building information and flood hazard information may be entered in meters.

SECTION A – PROPERTY INFORMATION

Items A1–A4. This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building’s complete street address, and the lot and block numbers. If the building’s address is different from the owner’s address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, “building” means both a building and a manufactured (mobile) home.

A map may be attached to this certificate to show the location of the building on the property. A tax map, FIRM, or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of the appropriate section if needed, or attach additional comments.

Item A5. Provide latitude and longitude coordinates for the center of the front of the building. Use either decimal degrees (e.g., 39.5043°, -110.7585°) or degrees, minutes, seconds (e.g., 39° 30' 15.5", -110° 45' 30.7") format. If decimal degrees are used, provide coordinates to at least 4 decimal places or better. When using degrees, minutes, seconds, provide seconds to at least 1 decimal place or better. The latitude and longitude coordinates must be accurate within 66 feet. When the latitude and longitude are provided by a surveyor, check the “Yes” box in Section D and indicate the method used to determine the latitude and longitude in the Comments area of Section D. If the Elevation Certificate is being certified by other than a licensed surveyor, engineer, or architect, this information is not required. Provide the type of datum used to obtain the latitude and longitude. FEMA prefers the use of NAD 1983.

Item A6. If the Elevation Certificate is being used to obtain flood insurance through the NFIP, the certifier must provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3" × 3". Digital photographs are acceptable.

Item A7. Select the diagram on pages 7–9 that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C2.a–h. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified.

Item A8.a Provide the square footage of the crawlspace or enclosure(s) below the lowest elevated floor of an elevated building with or without permanent flood openings. Take the measurement from the outside of the crawlspace or enclosure(s). Examples of elevated buildings constructed with crawlspace and enclosure(s) are shown in Diagrams 6–9 on pages 8–9. Diagram 2, 4, or 9 should be used for a building constructed with a crawlspace floor that is below the exterior grade on all sides.

Items A8.b–d Enter in Item A8.b the number of permanent flood openings in the crawlspace or enclosure(s) that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. Estimate the total net area of all such permanent flood openings in square inches, excluding any bars, louvers, or other covers of the permanent flood openings, and enter the total in Item A8.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A8.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the crawlspace or enclosure(s) have no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter “0” (zero) in Items A8.b–c.

Item A9.a Provide the square footage of the attached garage with or without permanent flood openings. Take the measurement from the outside of the garage.

Items A9.b–d Enter in Item A9.b the number of permanent flood openings in the attached garage that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. This includes any openings that are in the garage door that are no higher than 1.0 foot above the adjacent grade. Estimate the total net area of all such permanent flood openings in square inches and enter the total in Item A9.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A9.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the garage has no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter “0” (zero) in Items A9.b–c.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate on the basis of the FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIRM panel that includes the building’s location. Information about the current FIRM is available from the Federal Emergency Management Agency (FEMA) by calling 1-800-358-9616. If a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR-F) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

For a building in an area that has been annexed by one community but is shown on another community’s FIRM, enter the community name and 6-digit number of the annexing community in Item B1, the name of the county or new county, if necessary, in Item B2, and the FIRM index date for the annexing community in Item B6. Enter information from the actual FIRM panel that shows the building location, even if it is the FIRM for the previous jurisdiction, in Items B4, B5, B7, B8, and B9.

If the map in effect at the time of the building’s construction was other than the current FIRM, and you have the past map information pertaining to the building, provide the information in the Comments area of Section D.

Item B1. NFIP Community Name & Community Number. Enter the complete name of the community in which the building is located and the associated 6-digit community number. For a newly incorporated community, use the name and 6-digit number of the new community. Under the NFIP, a “community” is any State or area or political subdivision thereof, or any Indian tribe or authorized native organization, that has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the *NFIP Community Status Book*, available on FEMA’s web site at <http://www.fema.gov/fema/csb.shtm>, or call 1-800-358-9616.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county, enter “unincorporated area.” For an independent city, enter “independent city.”

Item B3. State. Enter the 2-letter state abbreviation (for example, VA, TX, CA).

Items B4–B5. Map/Panel Number and Suffix. Enter the 10-character “Map Number” or “Community Panel Number” shown on the FIRM where the building or manufactured (mobile) home is located. For maps in a county-wide format, the sixth character of the “Map Number” is the letter “C” followed by a 4-digit map number. For maps not in a county-wide format, enter the “Community Panel Number” shown on the FIRM.

Item B6. FIRM Index Date. Enter the effective date or the map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the map effective date or the map revised date shown on the FIRM panel. This will be the latest of all dates shown on the map. The current FIRM panel effective date can be determined by calling 1-800-358-9616.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter “A” or “V” are considered Special Flood Hazard Areas. The flood zones are A, AE, A1–A30, V, VE, V1–V30, AH, AO, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. Each flood zone is defined in the legend of the FIRM panel on which it appears.

Item B9. Base Flood Elevation(s). Using the appropriate Flood Insurance Study (FIS) Profile, Floodway Data Table, or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site. If the building is located in more than 1 flood zone in Item B8, list all appropriate BFEs in Item B9. BFEs are shown on a FIRM or FIS Profile for Zones A1–A30, AE, AH, V1–V30, VE, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO; flood depth numbers are shown for Zone AO. Use the AR BFE if the building is located in any of Zones AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. In A or V zones where BFEs are not provided on the FIRM, BFEs may be available from another source. For example, the community may have established BFEs or obtained BFE data from other sources for the building site. For subdivisions and other developments of more than 50 lots or 5 acres, establishment of BFEs is required by the community’s floodplain management ordinance. If a BFE is obtained from another source, enter the BFE in Item B9. In an A Zone where BFEs are not available, complete Section E and enter N/A for Section B, Item B9. Enter the BFE to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Item B10. Indicate the source of the BFE that you entered in Item B9. If the BFE is from a source other than FIS Profile, FIRM, or community, describe the source of the BFE.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced as shown on the map legend. The vertical datum is shown in the Map Legend and/or the Notes to Users on the FIRM.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). (OPAs are portions of coastal barriers that are owned by Federal, State, or local governments or by certain non-profit organizations and used primarily for natural resources protection.) Federal flood insurance is prohibited in designated CBRS areas or OPAs for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS or OPA designation. For the first CBRS designations, that date is October 1, 1983. Information about CBRS areas and OPAs may be obtained on the FEMA web site at <http://www.fema.gov/business/nfip/cbrs/cbrs.shtm>.

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO, or if this certificate is being used to support a request for a LOMA or LOMR-F. If the building is located in Zone AO or Zone A (without BFE), complete Section E instead. To ensure that all required elevations are obtained, it may be necessary to enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or machinery and equipment).

Surveyors may not be able to gain access to some crawlspaces to shoot the elevation of the crawlspace floor. If access to the crawlspace is limited or cannot be gained, follow one of these procedures.

- Use a yardstick or tape measure to measure the height from the floor of the crawlspace to the “next higher floor,” and then subtract the crawlspace height from the elevation of the “next higher floor.” If there is no access to the crawlspace, use the exterior grade next to the structure to measure the height of the crawlspace to the “next higher floor.”
- Contact the local floodplain administrator of the community in which the building is located. The community may have documentation of the elevation of the crawlspace floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawlspace floor to the next higher floor, try to verify this by looking inside the crawlspace through any openings or vents.

In all 3 cases, provide the elevation in the Comments area of Section D on the back of the form and a brief description of how the elevation was obtained.

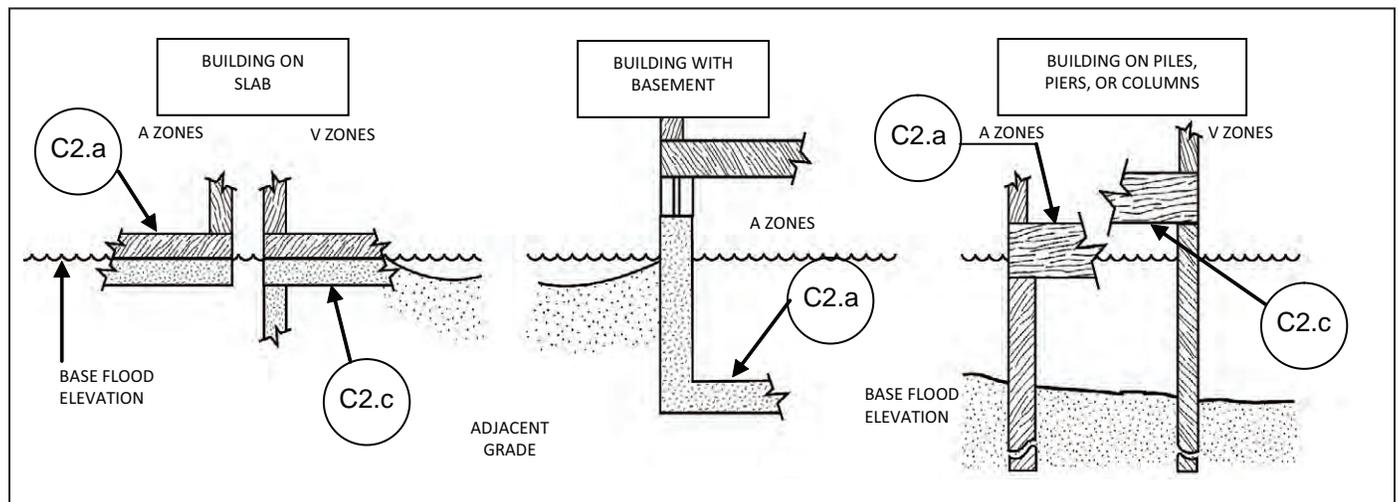
Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first 2 choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C2.a–h. Use the Comments area of Section D to provide elevations obtained from the construction plans or drawings. Select “Finished Construction” only when all machinery and/or equipment such as furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.

Item C2. A field survey is required for Items C2.a–h. Most control networks will assign a unique identifier for each benchmark. For example, the National Geodetic Survey uses the Permanent Identifier (PID). For the benchmark utilized, provide the PID or other unique identifier assigned by the maintainer of the benchmark. For GPS survey, indicate the benchmark used for the base station, the Continuously Operating Reference Stations (CORS) sites used for an On-line Positioning User Service (OPUS) solution (also attach the OPUS report), or the name of the Real Time Network used.

Also provide the vertical datum for the benchmark elevation. All elevations for the certificate, including the elevations for Items C2.a–h, must use the same datum on which the BFE is based. Show the conversion from the field survey datum used if it differs from the datum used for the BFE entered in Item B9 and indicate the conversion software used. Show the datum conversion, if applicable, in the Comments area of Section D.

For property experiencing ground subsidence, the most recent reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted. Enter elevations in Items C2.a–h to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items C2.a–d Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item A7) in Items C2.a–c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C2.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C2.c. If the flood zone cannot be determined, enter elevations for all of Items C2.a–h. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings



elevated on a crawlspace, Diagrams 8 and 9, enter the elevation of the top of the crawlspace floor in Item C2.a, whether or not the crawlspace has permanent flood openings (flood vents). If any item does not apply to the building, enter “N/A” for not applicable.

Item C2.e Enter the lowest platform elevation of at least 1 of the following machinery and equipment items: elevators and their associated equipment, furnaces, hot water heaters, heat pumps, and air conditioners in an attached garage or enclosure or on an open utility platform that provides utility services for the building. Note that elevations for these specific machinery and equipment items are required in order to rate the building for flood insurance. Local floodplain management officials are required to ensure that all machinery and equipment servicing the building are protected from flooding. Thus, local officials may require that elevation information for all machinery and equipment, including ductwork, be documented on the Elevation Certificate. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/

or equipment. Indicate machinery/equipment type and its general location, e.g., on floor inside garage or on platform affixed to exterior wall, in the Comments area of Section D or Section G, as appropriate. If this item does not apply to the building, enter “N/A” for not applicable.

Items C2.f–g Enter the elevation of the ground, sidewalk, or patio slab immediately next to the building. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

Item C2.h Enter the lowest grade elevation at the deck support or stairs. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

Complete as indicated. This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by law to certify elevation information. Place your license number, your seal (as allowed by the State licensing board), your signature, and the date in the box in Section D. You are certifying that the information on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D, on the back of the certificate, to provide datum, elevation, openings, or other relevant information not specified on the front.

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO or Zone A (without BFE). Otherwise, complete Section C instead. Explain in the Section F Comments area if the measurement provided under Items E1–E4 is based on the “natural grade.”

Items E1.a and b Enter in Item E1.a the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG). Enter in Item E1.b the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the lowest adjacent grade (LAG). For buildings in Zone AO, the community’s floodplain management ordinance requires the lowest floor of the building be elevated above the highest adjacent grade at least as high as the depth number on the FIRM. Buildings in Zone A (without BFE) may qualify for a lower insurance rate if an engineered BFE is developed at the site.

Item E2. For Building Diagrams 6–9 with permanent flood openings (see pages 8–9), enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the next higher floor or elevated floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG).

Item E3. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, for the top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If this item does not apply to the building, enter “N/A” for not applicable.

Item E4. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, of the platform elevation that supports the machinery and/or equipment servicing the building. Indicate machinery/equipment type in the Comments area of Section F. If this item does not apply to the building, enter “N/A” for not applicable.

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community’s floodplain management ordinance.

SECTION F – PROPERTY OWNER (OR OWNER’S REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements taken by a property owner or property owner’s representative when responding to Sections A, B, and E. The address entered in this section must be the actual mailing address of the property owner or property owner’s representative who provided the information on the certificate.

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

Complete as indicated. The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Section C may be filled in by the local official as provided in the instructions below for Item G1. If the authorized community official completes Sections C, E, or G, complete the appropriate item(s) and sign this section.

Check **Item G1** if Section C is completed with elevation data from other documentation, including elevations obtained from the Community Rating System Elevation Software, that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/A1–A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.

Check **Item G2** if information is entered in Section E by the community for a building in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

Check **Item G3** if the information in Items G4–G10 has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G4–G10 provide a way to document these determinations.

Item G4. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G5. Date Permit Issued. Enter the date the permit was issued for the building.

Item G6. Date Certificate of Compliance/Occupancy Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G7. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement. The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G8. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9. BFE. Using the appropriate FIRM panel, FIS Profile, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

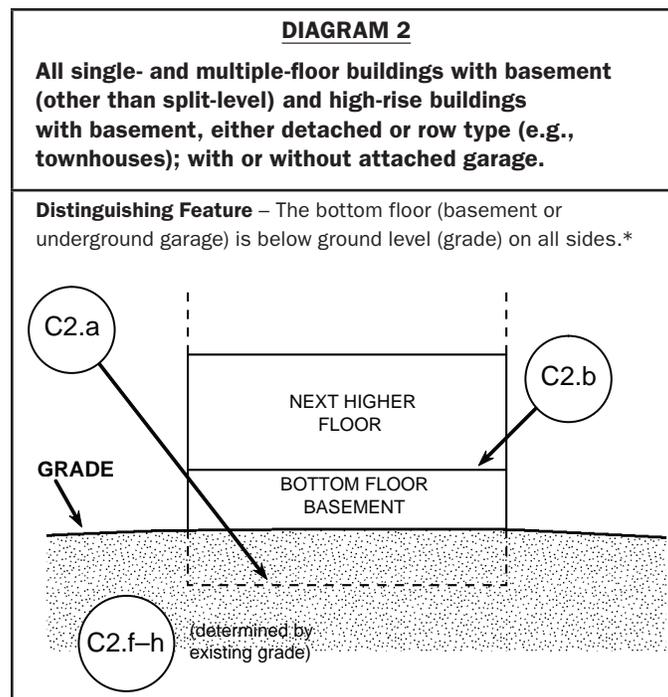
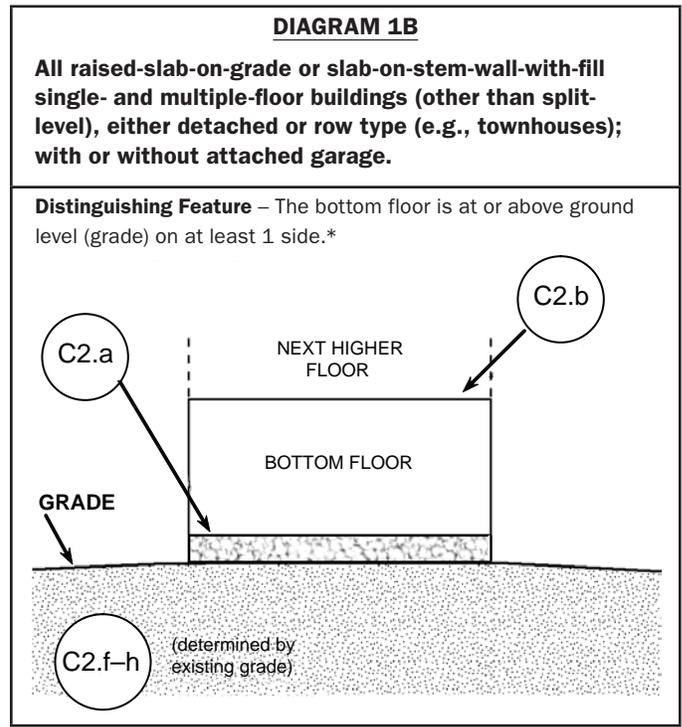
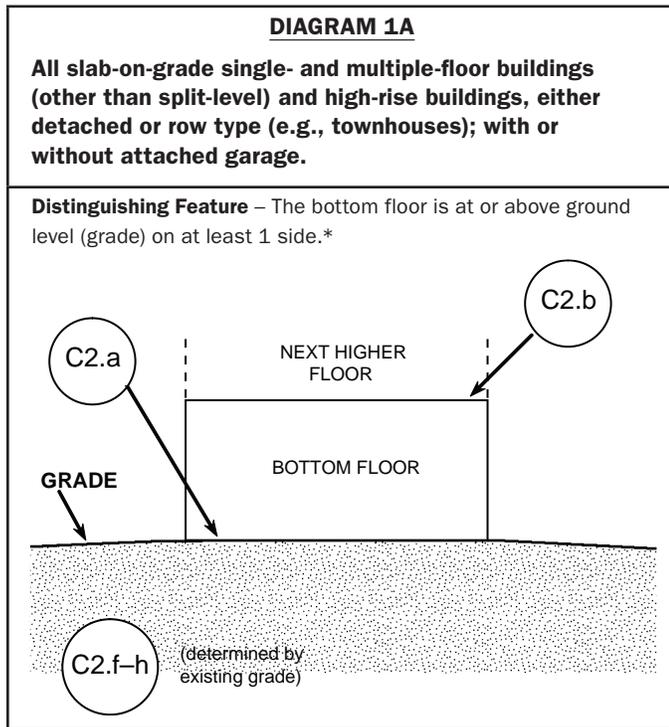
Item G10. Community's design flood elevation. Enter the elevation (including freeboard above the BFE) to which the community requires the lowest floor to be elevated. Indicate the elevation datum used.

Enter your name, title, and telephone number, and the name of the community. Sign and enter the date in the appropriate blanks.

Building Diagrams

The following diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7, the square footage of crawlspace or enclosure(s) and the area of flood openings in square inches in Items A8.a–c, the square footage of attached garage and the area of flood openings in square inches in Items A9.a–c, and the elevations in Items C2.a–h.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least 1 side.*

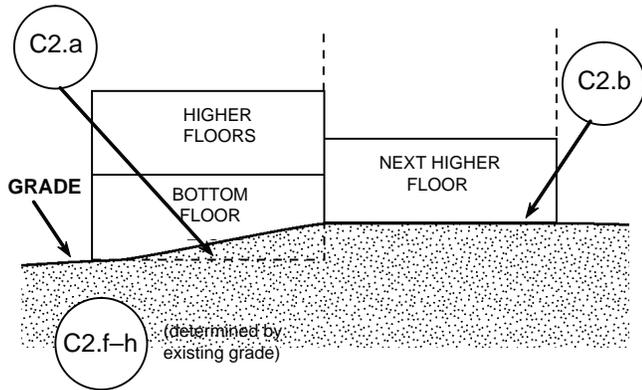


DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

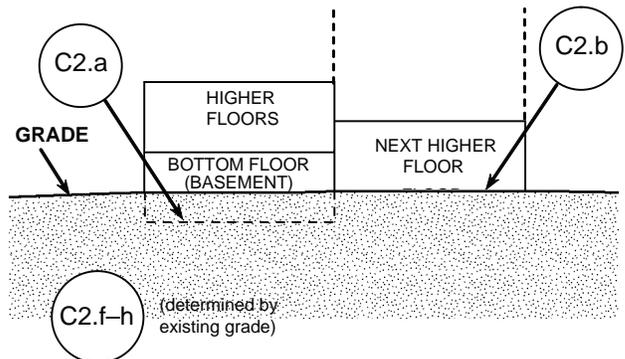


DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or insect screening is permissible).

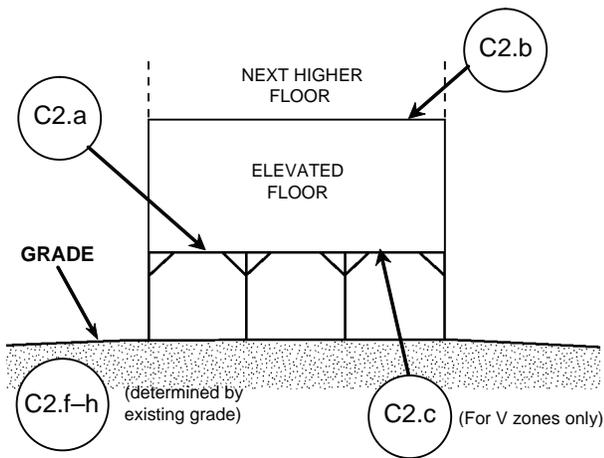
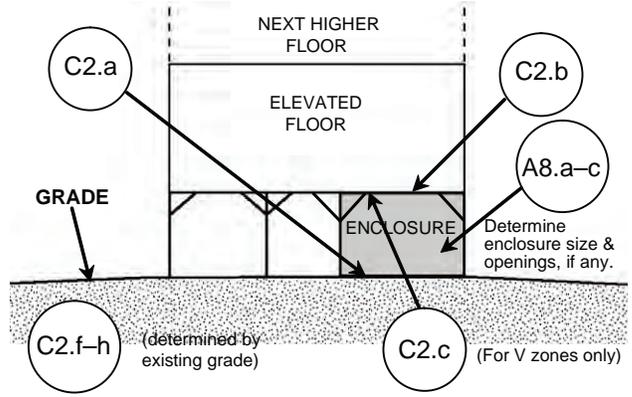


DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.

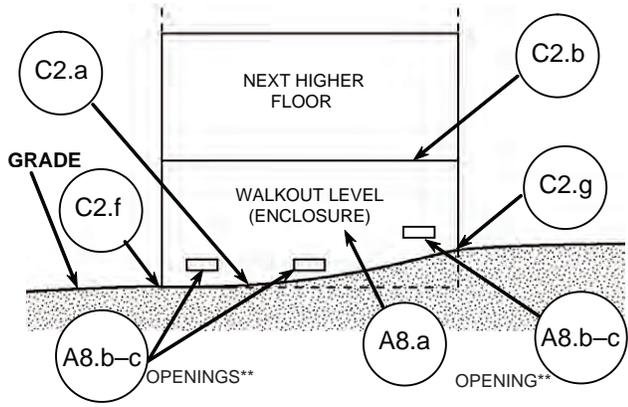


DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings** present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.

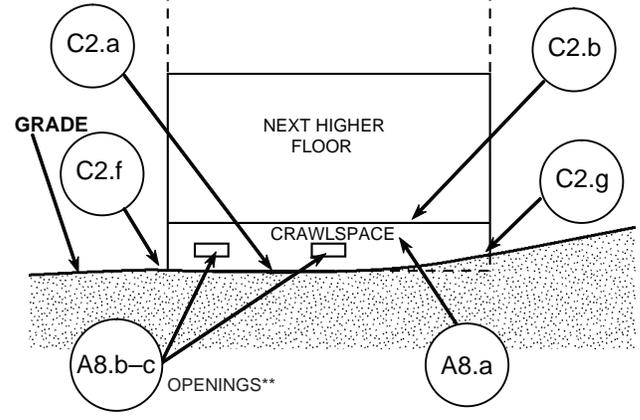
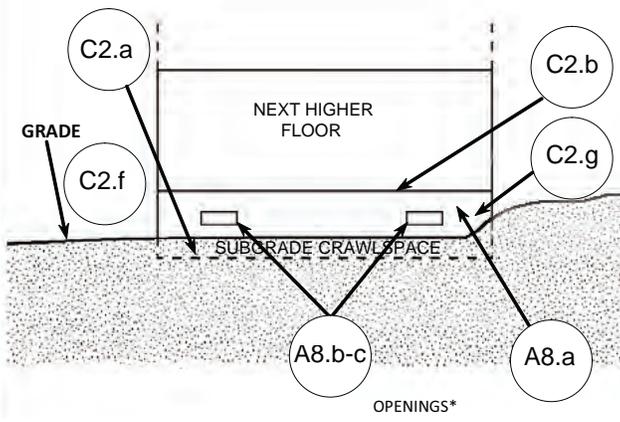


DIAGRAM 9

All buildings (other than split-level) elevated on a sub-grade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2.)



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

EXHIBIT K
Enterprise Green Communities Checklist



2011 ENTERPRISE GREEN COMMUNITIES CRITERIA

INTEGRATIVE DESIGN.
LOCATION + NEIGHBOR
HOOD FABRIC. ENERGY
EFFICIENCY. MATERIALS
BENEFICIAL TO THE ENVI
RONMENT. WATER CONS
ERVATION. SITE IMPROVE
MENTS. HEALTHY LIVING
ENVIRONMENT. OPERA
TIONS + MAINTENANCE.

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Enterprise Community Partners

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Enterprise Homes

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We also thank the hundreds of developers now integrating the Enterprise Green Communities Criteria into affordable housing developments across the country.

Special thanks to Nicole Gudzowsky and Catherine Hyde for editorial oversight. Any errors in this document are the sole responsibility of Enterprise Green Communities.

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- 1 INTEGRATIVE DESIGN
 - 2 LOCATION+
NEIGHBORHOOD FABRIC
 - 3 SITE IMPROVEMENTS
 - 4 WATER CONSERVATION
 - 5 ENERGY EFFICIENCY
 - 6 MATERIALS BENEFICIAL
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 - 7 HEALTHY LIVING ENVIRONMENT
 - 8 OPERATIONS +MAINTENANCE
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Introduction

Enterprise Green Communities is transforming the way America thinks about, designs, builds, and rehabilitates affordable housing. Green building integrates materials and methods that promote environmental quality, economic vitality, and social benefits through design, construction, and operation of the built environment. Enterprise Green Communities aligns affordable housing investment strategies with environmentally responsive building practices.

As a community of affordable housing providers, we have an opportunity to advance green building strategies that significantly reduce the impact on water quality, air pollution, and global warming, and the depletion of natural resources, while simultaneously lowering operating costs and maintenance needs. Adopting green building practices will contribute to the physical health and well-being of individuals and communities.

HOW TO USE THIS DOCUMENT

The Enterprise Green Communities Criteria were developed collaboratively by a number of leading national organizations and experts for the purpose of providing a clear, cost-effective framework for all affordable housing development types, including New Construction and Rehabilitation in both multifamily and single-family projects.

The 2011 Enterprise Green Communities Criteria are grouped into the following eight categories:

1. Integrative Design
2. Location + Neighborhood Fabric
3. Site Improvements
4. Water Conservation
5. Energy Efficiency
6. Materials Beneficial to the Environment
7. Healthy Living Environment
8. Operations+ Maintenance

All measures for all project types (single-family, low-rise multifamily, and mid-/high-rise multifamily) and construction types (New Construction, Moderate Rehab, and Substantial Rehab) are located within this set of criteria. Exemptions based on location or project or construction type are identified within each criterion as appropriate.

DEFINITIONS OF CONSTRUCTION TYPE

A Substantial Rehab (or Gut Rehab) is defined as a project that includes the replacement and/or improvement of all the major systems of the building, including its envelope. The building envelope is defined as the air barrier and thermal barrier separating exterior from interior space. For Substantial Rehab projects, this could include either removing materials down to the studs or structural masonry on one side of the exterior walls and subsequently improving the building envelope to meet the whole-building energy performance levels for the project type, or creating a new thermal and air barrier around the building that allows the project to achieve Enterprise Green Communities Criteria whole-building energy performance levels for the project type.

A Moderate Rehab is defined as a project that does not include major systems or building envelope work as described for a Substantial Rehab. Moderate Rehab projects must meet the mandatory

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measures applicable to this construction type and achieve a requisite number of optional points based on the project's scope.

Due to constraints inherent with Rehab projects, Substantial and Moderate Rehab projects are not required to complete the ENERGY STAR requirements and instead must comply with the guidelines under Criteria 5.1c and 5.1d.

CERTIFICATION

Enterprise Green Communities offers an online process for certifying green affordable housing developments that meet the Criteria. The process is available for any affordable housing project that meets the eligibility parameters outlined on the Certification website:

www.greencommunitiesonline.org/tools/certification/

To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.

Enterprise Green Communities Certification is a two-step process, with Step 1 occurring during the design phase and Step 2 occurring after the construction end date. In the first step, projects are required to submit an online certification request form and upload related documentation. These documents include a project overview, a project site plan, a context map, the energy modeling form, and the intended methods of meeting the Criteria. All documents must be submitted before the expected construction start date. Upon submission, Enterprise Green Communities conducts a review of the materials and provides feedback to the project team as necessary.

Step 2 of certification requires the project team to complete the final certification form online within 60 days of construction completion and to submit the following additional documentation: compliance report, utility release form, ENERGY STAR certificate, cost development form, and project photos. Following Step 2, Enterprise Green Communities conducts a final review and determines whether the project can be certified under the Criteria.

More information on the Enterprise Green Communities Certification process is available in Appendix A of this document.

WEBLINKS

Enterprise Green Communities Criteria website:
www.greencommunitiesonline.org/tools/criteria/

Mailbox to email questions on the 2011 Criteria:
greencommunities@enterprisecommunity.org

Enterprise Green Communities Online Discussion Forum:
forum.greencommunitiesonline.org/

Enterprise Green Communities Certification website:
www.greencommunitiesonline.org/tools/certification/

Mailbox to email questions on Enterprise Green Communities Certification:
certification@enterprisecommunity.org



M = MANDATORY

=AVAILABLE OPTIONAL POINTS

2011 Enterprise Green Communities Criteria Checklist

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria. To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.

YES NO MAYBE

M

I.1a Green Development Plan: Integrative Design Meeting(s)

Conduct one or more integrative design meetings and submit a Green Development Plan or equivalent documentation.

YES NO MAYBE

M

I.1b Green Development Plan: Criteria Documentation

Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.

YES NO MAYBE

2

1.2a Universal Design (New Construction only)

Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines.

YES NO MAYBE

2 or 3

1.2b Universal Design (Substantial and Moderate Rehab only)

Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines [2 points] and, for an additional point, the remainder of the ground-floor units and elevator-reachable units should have accessible unit entrances.

SUBTOTAL OPTIONAL POINTS

YES NO MAYBE

M

2.1 Sensitive Site Protection (New Construction only)

Do not locate new development, including buildings, built structures, roads, or other parking areas, on portions of sites that meet any of the following provisions:

- Land within 100 feet of wetlands, including isolated wetlands or streams
- Land on slope greater than 15%
- Land with prime soils, unique soils, or soils of state significance
- Public parkland
- Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists
- Land with elevation at or below the 100-year floodplain

YES NO MAYBE

M

2.2 Connections to Existing Development and Infrastructure (New Construction only, except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000)

Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous to existing development. Connect the project to the pedestrian grid.

M = MANDATORY
= AVAILABLE OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)	
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>M 2.3 Compact Development (<i>New Construction only</i>) Design and build the project to a density of at least:</p> <ul style="list-style-type: none"> • <i>Urban/Small Cities</i>: 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater • <i>Suburban/Mid-Size Towns</i>: 7 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater • <i>Rural/Tribal/Small Towns</i>: 5 units per acre for detached or semi-detached housing; 10 units per acre for townhomes; 15 units per acre for apartments
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>5 or 6 2.4 Compact Development Design and build the project to a density of at least:</p> <ul style="list-style-type: none"> • <i>Urban/Small Cities</i>: 15 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater [5 points] • <i>Suburban/Mid-Size Towns</i>: 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater [6 points] • <i>Rural/Tribal/Small Towns</i>: 7.5 units per acre for detached or semi-detached housing; 12 units per acre for townhomes; 20 units per acre for apartments [6 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>M 2.5 Proximity to Services (<i>New Construction only</i>) Locate the project within:</p> <ul style="list-style-type: none"> • <i>Urban/Small Cities</i>: a 0.25-mile walk distance of at least two OR a 0.5-mile walk distance of at least four of the list of facilities • <i>Suburban/Mid-Size Towns</i>: a 0.5-mile walk distance of at least three OR a 1-mile walk distance of at least six of the list of facilities • <i>Rural/Tribal/Small Towns</i>: two miles of at least two of the list of facilities
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>M 2.6 Preservation of and Access to Open Space: Rural/Tribal /Small Towns Only (<i>New Construction only</i>) Set aside a minimum of 10% of the total project acreage as open space for use by residents OR locate project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>3 max 2.7 Preservation of and Access to Open Space Set aside a percentage of the total project acreage as open space for use by residents: 20% [1 point]; 30% [2 points]; and 40% + written statement of preservation/conservation policy for set-aside land [3 points]</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>5 2.8 Access to Public Transportation Locate the project within:</p> <ul style="list-style-type: none"> • <i>Urban/Small Cities</i>: a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday and 32 or more transit rides on the weekend • <i>Suburban/Mid-Size Towns</i>: a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 60 or more transit rides per weekday and some type of weekend ride option • <i>Rural/Tribal/Small Towns</i>: S-mile distance of either a vehicle share program, a dial-a-ride program, an employer van pool, or public-private regional transportation
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	<p>5 2.9 Walkable Neighborhoods: Connections to Surrounding Neighborhood-Rural/Tribal/Small Towns Connect the project to public spaces, open spaces, and adjacent development by providing at least three separate connections from the project to sidewalks or pathways in surrounding neighborhoods and natural areas.</p>

M = MANDATORY
=AVAILABLE OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	7 max	2.10 Smart Site Location: Passive Solar Heating/ Cooling Demonstrate a building with a passive solar design, orientation, and shading that meet specified guidelines. <i>Select one:</i> <ul style="list-style-type: none"> • Single building-New Construction [7points] • Multiple buildings-New Construction [7points] • Moderate or Substantial Rehab [7 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	2	2.11 Brownfield or Adaptive Reuse Site Locate the project on a brownfield or adaptive reuse site. <i>Select either:</i> adaptive reuse site [2 points] or brownfield remediation [2 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6	2.12 Access to Fresh, Local Foods Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens; community-supported agriculture; proximity to farmers market.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4	2.13 LEED for Neighborhood Development Certification Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.
<hr style="width: 20%; margin-left: auto; margin-right: 0;"/> SUBTOTAL OPTIONAL POINTS		
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.1 Environmental Remediation Conduct an environmental site assessment to determine whether any hazardous materials are present on site.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.2 Erosion and Sedimentation Control <i>(Except for infill sites with buildable area smaller than one acre)</i> Implement EPA's Best Management Practices for erosion and sedimentation control during construction.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.3 Low-Impact Development <i>(New Construction only)</i> Projects located on greenfields must meet the list of low-impact development criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.4 Landscaping Provide new plants (including trees, shrubs, and ground cover) such that at least 50% of area available for landscaping is planted with native or adaptive species, all new plants are appropriate to the site's soil and microclimate, and none of the new plants is an invasive species.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.5 Efficient Irrigation and Water Reuse If irrigation is utilized, install an efficient irrigation or water reuse system.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	2 or 6	3.6 Surface Stormwater Management Retain, infiltrate, and/or harvest stormwater on site. <i>Select only one:</i> partial stormwater retention [2 points] or full stormwater retention [6 points]
<hr style="width: 20%; margin-left: auto; margin-right: 0;"/> SUBTOTAL OPTIONAL POINTS		

M = MANDATORY

=AVAILABLE OPTIONAL POINTS

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	4.1 Water-Conserving Fixtures Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.28 gpf; Urinals-0.5 gpf; Showerheads-2.0 gpm; Kitchen faucets-2.0 gpm; Bathroom faucets-1.5 gpm
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6 max	4.2 Advanced Water-Conserving Appliances and Fixtures Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.2 gpf; Showerheads-1.5 gpm; Kitchen faucets-1.5 gpm; Bathroom faucets-0.5 gpm. <i>Select any, or all, of the options:</i> <ul style="list-style-type: none"> • Toilets [2 points] • Showerheads [2 points] • Faucets-kitchen and bathroom [2 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4 max	4.3 Water Reuse Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs. <ul style="list-style-type: none"> • 10% reuse [1 point] • 20% reuse [2 points] • 30% reuse [3 points] • 40% reuse [4 points]
<hr/> SUBTOTAL OPTIONAL POINTS		
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.1a Building Performance Standard: Single family and Multifamily (three stories or fewer) <i>(New Construction only)</i> Certify the project under ENERGY STAR New Homes.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.1b Building Performance Standard: Multifamily (four stories or more) <i>(New Construction only)</i> Demonstrate compliance with EPA's Multifamily High-Rise program (MFHR) using either the prescriptive or the performance pathway.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.1c Building Performance Standard: Single family and Multifamily (three stories or fewer) <i>(Substantial and Moderate Rehab only)</i> Demonstrate that the final energy performance of the building is equivalent to a Home Energy Rating System (HERS) Index of 85.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.1d Building Performance Standard: Multifamily (four stories or more) <i>(Substantial and Moderate Rehab only)</i> Demonstrate that the final energy performance of the building is equivalent to ASHRAE 90.1-2007.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	15 max	5.2 Additional Reductions in Energy Use Improve whole-building energy performance by percentage increment above baseline building performance standard for additional points.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.3 Sizing of Heating and Cooling Equipment Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or ASHRAE handbooks.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.4 ENERGY STAR Appliances If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.

M = MANDATORY
=AVAILABLE OPTIONAL POINTS

ENERGY EFFICIENCY (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.5a Efficient Lighting: Interior Units Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.5b Efficient Lighting: Common Areas and Emergency Lighting Follow the guidance appropriate for the project type: use ENERGY STAR-labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; OR if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.5c Efficient Lighting: Exterior Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEOs with a minimum efficacy of 45lumens/watt; OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR if replacing, install ENERGY STAR compact fluorescents or LEOs with a minimum efficacy of 45lumens/watt.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.6a Electricity Meter <i>(New Construction and Substantial Rehab only)</i> Install individual or sub-metered electric meters in all dwelling units.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	3	5.6b Electricity Meter <i>(Moderate Rehab only)</i> Install individual or sub-metered electric meters in all dwelling units.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	12 max	5.7a Renewable Energy Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	1 or 2	5.7b Photovoltaic/Solar Hot Water Ready Site, design, engineer, and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5	5.8 Advanced Metering Infrastructure Site, design, engineer, and wire the development to accommodate installation of smart meters and/or be able to interface with smart grid systems in the future.
SUBTOTAL OPTIONAL POINTS		

6: MATERIALS BENEFICIAL TO THE ENVIRONMENT

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	6.1 Low/No VOC Paints and Primers All interior paints and primers must be less than or equal to the following VOC levels: Flats-50 giL; Non-flats-50 g/L; Floor-100 giL
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	6.2 Low/No VOC Adhesives and Sealants All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	6.3 Construction Waste Management Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

M = MANDATORY
 # =AVAILABLE OPTIONAL POINTS

MATERIALS BENEFICIAL TO THE ENVIRONMENT (CONTINUED)

YES NO MAYBE **5**
max

6.4 Construction Waste Management: Optional

Determine percentage of waste diversion and earn all points below that threshold:

- 35% waste diversion [1 point]
- 45% waste diversion [1 point]
- 55% waste diversion [1 point]
- 65% waste diversion [1 point]
- 75% waste diversion [1 point]

YES NO MAYBE **5**

6.5 Recycling Storage for Multifamily Project

Provide one or more easily accessible, permanent areas for the collection and storage of materials for recycling.

YES NO MAYBE **5**
max

6.6 Recycled Content Material

Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. *Select from the following:*

- Framing materials [1 point]
- Exterior materials: siding, masonry, roofing [1 point]
- Concrete/cement and aggregate [1 point]
- Drywall/interior sheathing [1 point]
- Flooring materials [1 point]

YES NO MAYBE **5**
max

6.7 Regional Material Selection

Use products that were extracted, processed, and manufactured within 500 miles of the home or building for a minimum of 50% of the building material value (based on cost). *Select any or all of these options:*

- Framing materials [1 point]
- Exterior materials: siding, masonry, roofing [1 point]
- Concrete/cement and aggregate [1 point]
- Drywall/interior sheathing [1 point]
- Flooring materials [1 point]

YES NO MAYBE **5**

6.8 Certified, Salvaged, and Engineered Wood Products

Commit to using wood products and materials of at least 25% that are (by cost): FSC-certified, salvaged products, or engineered framing materials without urea-formaldehyde binders.

YES NO MAYBE **1 or 3**

6.9a Reduced Heat-Island Effect: Roofing

Use Energy Star-compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area. *Select only one: cool roof [3 points] or green roof [1 point]*

YES NO MAYBE **2**

6.9b Reduced Heat-Island Effect: Paving

Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

SUBTOTAL OPTIONAL POINTS

YES NO MAYBE **M**

7.1 Composite Wood Products that Emit Low/No Formaldehyde

All composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

M = MANDATORY
 # = AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.2 Environmentally Preferable Flooring	Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unfinished hardwood floors, OR in compliance with the Scientific Certification System's FloorScore program criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4	7.3 Environmentally Preferable Flooring: Alternative Sources	Use non-vinyl, non-carpet floor coverings in all rooms of building.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.4a Exhaust Fans: Bathroom <i>(New Construction and Substantial Rehab only)</i>	Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6	7.4b Exhaust Fans: Bathroom <i>(Moderate Rehab only)</i>	Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.5a Exhaust Fans: Kitchen <i>(New Construction and Substantial Rehab only)</i>	Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6	7.5b Exhaust Fans: Kitchen <i>(Moderate Rehab only)</i>	Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.6a Ventilation <i>(New Construction and Substantial Rehab only)</i>	Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5	7.6b Ventilation <i>(Moderate Rehab only)</i>	Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.7 Clothes Dryer Exhaust	Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.8 Combustion Equipment	Specify power-vented or direct vent equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.9a Mold Prevention: Water Heaters	Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.9b Mold Prevention: Surfaces	In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.9c Mold Prevention: Tub and Shower Enclosures	Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

M = MANDATORY
 # = AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.10 Vapor Barrier Strategies <i>(New Construction and Rehab Projects with foundation work only)</i> Install vapor barriers that meet specified criteria appropriate for the foundation type.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.11 Radon Mitigation <i>(New Construction and Substantial Rehab only)</i> For New Construction in EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. For Substantial Rehab projects in those Zones, test for the presence of radon and mitigate if elevated levels exist.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.12 Water Drainage <i>(New Construction and Rehab projects replacing assemblies called out in Criterion only)</i> Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.13 Garage Isolation Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space, and install a CO alarm inside the house in the room with a door to the garage and outside all sleeping areas.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.14 Integrated Pest Management Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.15 Lead-Safe Work Practices <i>(Substantial and Moderate Rehab only)</i> For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	9	7.16 Smoke-Free Building Implement and enforce a no smoking policy in all common, individual living areas, and with a 25-foot perimeter around the exterior of all residential buildings.

SUBTOTAL OPTIONAL POINTS

8: OPERATIONS+ MAINTENANCE

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	8.1 Building Maintenance Manual <i>(All Multifamily Projects)</i> Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	8.2 Resident Manual Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	8.3 Resident and Property Manager Orientation Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	12	8.4 Project Data Collection and Monitoring System Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years.

SUBTOTAL OPTIONAL POINTS

TOTAL OPTIONAL POINTS

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INTEGRATIVE DESIGN

**An integrative
design process
facilitates the design
and development
team's achievement
of green objectives
throughout the
project life cycle.**

1.1a

Mandatory

Green Development Plan: Integrative Design Meeting(s)

REQUIREMENTS

Conduct one or more integrative design meeting(s) as appropriate for your project and submit a Green Development Plan or equivalent documentation that outlines the integrative design approach used for this development that demonstrates involvement of the entire project team throughout the design and development process.

RATIONALE

An integrative design process facilitates the design and development team's achievement of green objectives throughout the project life cycle. The outcomes of an integrative design process can include substantially lower development costs and greater health, economic, and environmental benefits for residents, property owners, and communities.

RECOMMENDATIONS

- Conduct a green design charrette with the full development team, including participants from the following disciplines or interests:
 - Prospective or current residents
 - Architecture or residential building design
 - Mechanical or energy engineering
 - Building science or performance testing
 - Green building or sustainable design
 - Civil engineering, landscape architecture, habitat restoration, or land-use planning
 - Building management and maintenance
 - Environmental science
 - Public health
- Best practices in documenting the integrative design charrette process required of project teams submitting for Certification include:
 - A roster of the name and role of each member of the professional design and development team
 - A statement of the overall green development goals of the project and the expected intended outcomes from addressing those goals
 - A summary of the process that was used to select the green building strategies, systems, and materials that will be incorporated into the project
 - A description of how each of the mandatory and optional items will be included in the project
 - Identification of which members of the design and development team are responsible for implementing the green features

- A description of follow-up measures to be taken through the completion of design, permitting, construction, and operation to ensure that the green features are included and correctly installed, and that the owners or tenants receive information about the function and operation of the features
- Meeting minutes or other documentation that captures and summarizes components of the integrative design process
- Consider revisiting the "Intended Methods" tab of the Certification Workbook, required under Step 1 of the Enterprise Green Communities Certification process, as the construction documents are developed to ensure that methods outlined early in the process are followed through the construction phase.
- If the project team is not seeking Enterprise Green Communities Certification, they should reference the above-mentioned information within an internal Green Development Plan.
- Project performance and durability can be dramatically affected by decisions and processes established during the integrative design phase. Advanced Energy developed the following list of recommendations for project teams to consider during integrative design, based on an evaluation of Enterprise Green Communities projects:
 - Consider adding specific energy consumption thresholds or goals for each project that will be evaluated after project completion.
 - Document your process for approaching and complying with the Criteria for use in your future green projects. Include specific options for complying with Criteria, contact information for useful resources (organizations, websites, product distributors, etc.), and lessons learned.
 - Adjust the scopes of all of the projects in your portfolio to match the Criteria in order to avoid confusion with changing expectations.
 - Add building envelope and mechanical installation details to your plans and specifications for the most critical project components, paying particular attention to: air handler closet air sealing, floor system and band air sealing, party wall air sealing, proper insulation installation, ventilation system installation, and duct sealing with "bucket" mastic. Also provide the construction team with installation guides for the measures above.
 - Consider creating incentives for your construction team based on the performance of various building components.
 - Add self-verification requirements for your construction team for certain project items that demand proper installation (e.g., testing of water fixtures, testing of bath fans, air sealing of air handler closets). Self-verification for product-based measures (submitting cut-sheets for appropriate paints, carpets, etc.) is most likely unnecessary.

RESOURCES

- Enterprise Green Communities offers a variety of resources to support the integrative design process: www.greencommunitiesonline.org/tools/funding/grants/charrette.asp
- Enterprise Green Communities maintains a comprehensive registry of qualified green affordable housing TA providers that are available for support on the design, construction, rehabilitation, and operations of green affordable housing. To find a Green technical assistance (TA) provider near you, search the list found at www.greencommunitiesonline.org/tools/resources/technical_assistance.asp

- **Whole Building Design Guide:** www.wbdg.org/wbdg_approach.php
This website describes the core elements of "whole building design," which includes the combination of an integrative design approach and an integrative team process. This site helps users identify design objectives and organize their processes to meet those objectives.
- *The Integrative Design Guide to Green Building: Redefining the Practice of Sustainability.* ?group and Bill Reed (2009). This book provides guidance to building professionals on incorporating integrative design into every phase of a project.

1.1b

Mandatory

Green Development Plan: Criteria Documentation

REQUIREMENTS

Create design and construction documentation (e.g., plans, details, specifications) to include information on implementation of appropriate Enterprise Green Communities Criteria.

RATIONALE

Projects that explicitly address accountability among project team members and implementation details for Enterprise Green Communities Criteria in design and construction documentation tend to successfully implement the Criteria on site during the construction phase.

RECOMMENDATIONS

Using the chart on pages 21 and 22 for guidance, incorporate all Enterprise Green Communities Criteria mandatory and optional measures that the project intends to meet as indicated in the Green Development Plan.

1.2a

Optional | 2 points

Universal Design: New Construction

REQUIREMENTS

Design a minimum of 150/0 of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. The remainder of the ground-floor units and elevator-reachable units should be designed in accordance with ICC/ANSI A117.1, Type B.

RATIONALE

Universal design features result in a building that is sensitive to a wide range of resident needs, including those who have temporary or permanent disabilities. The creation of comfortable environments for a diverse population increases the likelihood of dynamic, diverse communities.

RECOMMENDATIONS

Universal design features should be considered during the integrative design process.

RESOURCES

- For more information about the ICC/ANSI A117.1 standard: webstore.ansi.org/RecordDetail.aspx?sku=ICC%2FANSI+A117.1-2003 and www.iccsafe.org/store/Pages/Product.aspx?id=9033X03#longdesc
- Enterprise Green Communities offers a variety of resources to support the integrative design process, during which universal design concepts should be considered: www.greencommunitiesonline.org/tools/funding/grants/charrette.asp

1.2b

Optional | 2 or 3 points

Universal Design: Substantial and Moderate Rehab

REQUIREMENTS

- Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. [2 points]

AND, for 1 additional point:

- The remainder of the ground-floor units and elevator-reachable units should have accessible unit entrances (designed to accommodate wheelchair-bound people). [1 point]

RATIONALE

Universal design features result in a building that is sensitive to a wide range of resident needs, including those who have temporary or permanent disabilities. The creation of comfortable environments for a diverse population increases the likelihood of dynamic, diverse communities.

RECOMMENDATIONS

Universal design features should be considered during the integrative design process, based on the sustainability goals of the project.

RESOURCES

- For more information about the ICC/ANSI A117.1 standard: webstore.ansi.org/RecordDetail.aspx?sku=ICC%2FANSI+A117.1-2003 and www.iccsafe.org/store/Pages/Product.aspx?id=9033X03#longdesc
- Enterprise Green Communities offers a variety of resources to support the integrative design process, during which universal design concepts should be considered: www.greencommunitiesonline.org/tools/funding/grants/charrette.asp

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CRITERION	PROJECT PLANS	SPEC BOOK
1.1a-b Green Development Plan: Integrative Design Meeting(s)		
1.2a-b Universal Design	X	X
2.1 Sensitive Site Protection	X	
2.2 Connections to Existing Development and Infrastructure	X	
2.3 Compact Development (Mandatory)		
2.4 Compact Development (Optional)		
2.5 Proximity to Services		
2.6 Preservation of and Access to Open Space: Rural/Tribal/Small Towns	X	
2.7 Preservation of and Access to Open Space	X	
2.8 Access to Public Transportation		
2.9 Walkable Neighborhoods: Connections to Surrounding Neighborhoods	X	
2.10 Smart Site Location-Passive Solar Heating /Cooling	X	X
2.11 Brownfield or Adaptive Reuse Site	X	
2.12 Access to Fresh, Local Foods	X (if meeting Option 1)	
2.13 LEED for Neighborhood Development Certification		
3.1 Environmental Remediation		X
3.2 Erosion and Sedimentation Control	X	X
3.3 Low Impact Development	X	X
3.4 Landscaping	X	X
3.5 Efficient Irrigation and Water Reuse		X
3.6 Surface Stormwater Management	X	X
4.1 Water-Conserving Appliances and Fixtures	X	X
4.2 Advanced Water-Conserving Appliances and Fixtures	X	X
4.3 Water Reuse	X	X
5.1a-d Building Performance Standards	X	X
5.2 Additional Reductions in Energy Use	X	X
5.3 Sizing of Heating and Cooling Equipment	X	X
5.4 ENERGY STAR Appliances		X
5.5a-c Efficient Lighting		X
5.6a-b Electricity Meter	X	X
5.7a Renewable Energy	X	X
5.7b Photovoltaic/ Solar Hot Water Ready	X	X
5.8 Advanced Metering Infrastructure	X	X

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CRITERION (CONTINUED)	PROJECT PLANS	SPEC BOOK
6.1 Low/No VOC Paints and Primers		X
6.2 Low/No VOC Adhesives and Sealants		X
6.3 Construction Waste Management		X
6.4 Construction Waste Management: Optional		X
6.5 Recycling Storage for Multifamily Building	X	X
6.6 Recycled Content Material		X
6.7 Regional Material Selection		X
6.8 Certified, Salvaged, and Engineered Wood Products		X
6.9a-b Reducing Heat-Island Effect		X
7.1 Composite Wood Products that Emit Low/No Formaldehyde		X
7.2 Environmentally Preferable Flooring	X	X
7.3 Environmentally Preferable Flooring: Alternative Sources	X	X
7.4 Exhaust Fans: Bathroom	X	X
7.5 Exhaust Fans: Kitchen	X	X
7.6 Ventilation	X	X
7.7 Clothes Dryer Exhaust	X	X
7.8 Combustion Equipment	X	X
7.9 Mold Prevention	X	X
7.10 Vapor Barrier Strategies	X	X
7.11 Radon Mitigation	X	X
7.12 Water Drainage	X	X
7.13 Garage Isolation	X	
7.14 Integrated Pest Management	X	X
7.15 Lead-Safe Work Practices		X
7.16 Smoke-Free Building		X
8.1 Maintenance Manual		
8.2 Resident Manual		
8.3 Resident and Property Manager(s) Orientation		
8.4 Project Data Collection and Monitoring System		

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LOCATION + NEIGHBORHOOD FABRIC

Locating a project within an existing neighborhood and in close proximity to infrastructure encourages more resource-efficient development of land, reduces development costs, conserves energy, and adds to the vitality of the overall community.

INSTRUCTIONS

The Location+ Neighborhood Fabric category offers three pathways for projects, based on the location of the project and the surrounding development patterns. Project teams should first determine the appropriate category—Urban/Small Cities, Suburban/Mid-Size Towns, or Rural/Tribal/Small Towns—using the methodologies described below.

Projects Seeking Certification

If the project team determines that the project should be placed in a category other than that resulting from the analysis below, the team can provide a more detailed analysis that demonstrates the rationale for inclusion within a different category. Project teams should email certification@enterprisecommunity.org to provide this information prior to submitting under Step 1 of the Enterprise Green Communities Certification process.

Guidance for Moderate and Substantial Rehab Projects

Moderate and Substantial Rehab projects are exempt from all mandatory measures in the Enterprise Green Communities Location + Neighborhood Fabric Criteria category. These project types are eligible for any optional points that are applicable to their particular classification (either Urban/Small Cities, Suburban/Mid-Size Towns, or Rural/Tribal/Small Towns) and any optional points that are applicable to all classifications. For a Rehab project, project teams should follow the methodologies described below to determine the project's classification in one of the three pathways, and then determine whether there are optional criteria for which the project can achieve points.

CALCULATING DENSITY

There are different ways to calculate density, and using one methodology may produce dramatically different net residential density results than another. For the purposes of this categorization exercise, Enterprise Green Communities Criteria uses the Center for Neighborhood Technology's (CNT) net residential density calculation that underlies its Housing + Transportation (H+T) Affordability Index (htaindex.cnt.org/). This calculation uses U.S. Census data to aggregate residential acreage and number of households from all blocks deemed "residential" within a census block group.

Urban/Small Cities

Projects located within a place where the surrounding residential density is 7 dwelling units per acre or more should follow the Urban/Small Cities pathway through the Location + Neighborhood Fabric category. Surrounding net residential density must be calculated by determining the net residential density of the census block group in which it is located using CNT's Housing + Transportation Affordability Index and multiplying that density by 1.5.

Suburban/Mid-Size Towns

Projects located within a place where the surrounding residential density is fewer than 7 dwelling units per acre should follow the Suburban/Mid-Size Towns pathway through the Location + Neighborhood Fabric category. Surrounding net residential density must be calculated by determining the net residential density of the census block group in which it is located using CNT's Housing + Transportation Affordability Index and multiplying that density by 1.5.

Rural/Tribal/Small Towns

Projects that meet one or more of the criteria below qualify for the Rural/Tribal/Small Towns pathway:

- Projects classified as rural as defined in Section 520 of the Housing Act of 1949 (42 U.S.C. 1490)
 - Any open country or any town, village, city, or place that is not part of or associated with an urban area, and that:
 1. has a population in excess of 2,500 but not in excess of 10,000 if it is rural in character, or
 2. has a population in excess of 10,000 but not in excess of 20,000 and is not contained within a standard metropolitan statistical area
- Projects eligible for funding under USDA Rural Housing Services programs
- Projects located on Native American Reservations and land owned by Native Alaskans
- Projects located in colonias communities as defined by HUD and certified by one of the four border states: Texas, New Mexico, Arizona, and California

Projects located on tribal lands in urban or suburban locations, as per the Enterprise Green Communities pathway classifications, are required to meet the Criteria in that particular pathway, rather than the Rural/Tribal/Small Towns pathway.

METHODOLOGY TO DETERMINE CLASSIFICATION

Urban/Small Cities and Suburban/Mid-Size Towns Classifications

Projects within the Urban/Small Cities and Suburban/Mid-Size Towns categories (i.e., any projects that do not meet the Rural/Tribal/Small Towns definition) should use the expanded Housing + Transportation Affordability Index online at htaindex.cnt.org/residential-density.php. This tool was custom-developed for Enterprise Green Communities projects by CNT to determine net residential density. The tool builds on CNT's original H+T Affordability Index to provide the net residential density by census block group for the entire country.

Within the CNT tool, residential density represents household density of residential areas, in contrast to population density on land area. Blocks (within block groups) are selected on the criteria that gross density (households per land acre) must be greater than one. From these selected blocks, both households and land acres are aggregated to the block group level, at which level residential density is calculated as households per residential acre.

Instructions: Determining the surrounding residential density of your project location

Note: If you are unsure if your project falls under the USDA definition of "rural," you should follow the instructions below.

1. Go to CNT's Housing + Transportation Index at:
htaindex.cnt.org/residential-density.php
2. In the text box, type in the address of your project. Separate the street address, city, state, and ZIP code with commas. Press the "Enter" key on your keyboard.
3. The map will refresh and show the project location identified by address in Step 2 above. Under the map, the residential density of your census block group will be displayed.
4. Once you have the residential density for your project, multiply that number by 1.5 to bring the residential density in line with traditional density calculations. That calculation is described here:

Net Residential Density (using CNT tool) x 1.5 = Surrounding Net Residential Density

Rural/Tribal/Small Towns

If a project is not eligible for USDA RHS funding, located on Federally Recognized Tribal Trust Land, or within a colonias as defined in the Glossary, then the project team should use the following instructions to determine whether the Rural/Tribal/Small Towns pathway is appropriate.

Instructions: Determining USDA RHS funding eligibility

Obtain information on your project site at the USDA Rural Development web page that identifies USDA RD-eligible areas, as determined by USDA's housing programs:
eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do

- Under *Property Eligibility*, select the program type. Once the page refreshes, do one of these things:
 1. Enter the project address in the appropriate fields *or* select a state from the map.
 2. Click the Text Description button for information on eligibility by state.
 3. Click on your county.

2.1

Mandatory

Sensitive Site Protection

See exemptions in Criterion

REQUIREMENTS

Do not locate new projects, including buildings, built structures, roads, or parking areas, on portions of sites that meet any of the following provisions:

1. Land within 100 feet of wetlands, including isolated wetlands or streams. Maintain or establish riparian buffer using native vegetation where possible. Bike and foot paths are allowed if at least 25 feet from the wetlands boundary.
2. Land on slope greater than 15%
3. Land with prime soils, unique soils, or soils of state significance
4. Public parkland
5. Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists
6. Land with elevation at or below the 100-year floodplain

EXEMPTIONS

- Infill sites are exempt from provisions 2 and 3 above. (See Glossary for detail on what can be classified as an infill site.)
- Projects on previously developed sites are exempt from provision 1 above.
- Infill projects in the International Energy Conservation Code (IECC) Climate Zone 2 (hot/humid climates) that follow the National Flood Insurance Program requirements (www.fema.gov/plan/prevent/floodplain/index.shtm) are exempt from provision 6 above.

RATIONALE

Proper site selection avoids damage to or loss of fragile and scarce environmental resources. It also reduces the risk of building damage from flooding.

RECOMMENDATIONS

Protect habitat of potential endangered species. Use state and local lists to identify these habitats.

RESOURCES

- U.S. Department of Energy, Building Technologies Program: www.eere.energy.gov/buildings/info/design/buildingsiting/index.html
Addresses methods that can help to minimize impacts to the site.
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
A detailed map that shows climate zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each climate zone.
- U.S. Department of Agriculture, Natural Resources Conservation Service's Web Soil Survey: websoilsurvey.nrcs.usda.gov/app/

- Digital Q3 Flood Data Availability, States Map, Federal Emergency Management Agency (FEMA), FEMA's national flood information maps: [msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=productQ3Map&title=Q3o/o20Availability%20-o/o20Stateo/o20Map&parent=productInfo&parentTitle=Producto/o20Information](https://www.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=productQ3Map&title=Q3o/o20Availability%20-o/o20Stateo/o20Map&parent=productInfo&parentTitle=Producto/o20Information)

2.2

Mandatory

Connections to Existing Development and Infrastructure

Except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000

REQUIREMENTS

Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous (having at least 25% of the perimeter bordering) to existing development.

Connect the project to the pedestrian grid by creating new or enhancing existing sidewalks or other all-weather pathways to link the project to public spaces, open spaces, and adjacent development.

Do not build on tracts of land that require installing a septic tank within 1,000 feet or more from the property line of the tract being developed or a sanitary sewer line extension of 2,500 feet or more from the property line of the tract being developed.

RATIONALE

Locating a project within an existing neighborhood and in close proximity to infrastructure encourages more resource-efficient development of land, reduces development costs, conserves energy, and adds to the vitality of the overall community.

2.3

Mandatory

Compact Development

REQUIREMENTS

Design and build the project to the density required for the location type, using the calculation for project net density described below.

Density Requirements by Development Type:

- **Urban/Small Cities:** A minimum of at least 10 dwelling units per acre or at least 75% of surrounding net residential density, whichever is greater.
- **Suburban/Mid-Size Towns:** A minimum of at least 7 dwelling units per acre or at least 75% of surrounding net residential density, whichever is greater.
- **Rural/Tribal/Small Towns:** A minimum net density of 5 units per acre for detached or semi-detached houses; 10 units per acre for townhomes; 15 units per acre for apartments.

RECOMMENDATIONS

- Calculate project net density by taking the total dwelling units after construction, divided by the acreage of the entire tract down to one decimal point, minus the dedicated acreage of public street rights of way, riparian and wetland buffers, open space that has been dedicated through a conservation program, and other non-buildable areas.
- Net density calculations do not include land that is set aside for future building phases or development. For multi-phased projects, the project net density should include only the portion of the parcel that is being used for that particular phase.
- If the project has a mix of development types, then the project team should calculate net density using a weighted average.
- Surrounding net residential density should be calculated by determining the net residential density of the census block group in which it is located using CNT's Housing+ Transportation Affordability Index and multiplying that density by 1.5.

RATIONALE

Compact development encourages more resource-efficient development of land, reduces project costs, and conserves energy. Additionally, it supports demand for other infrastructure such as public transportation and commercial development.

RESOURCES

- Congress for New Urbanism: www.cnu.org
This nonprofit organization provides tools and resources for promoting walkable, neighborhood-based development as an alternative to sprawl.
- Smart Growth Network: www.smartgrowth.org
This website outlines smart growth principles, provides a guide through smart growth terms and technical concepts, and hosts a searchable catalogue of reports, websites, tools, and case studies.
- Urban Land Institute: www.washington.uli.org
This nonprofit organization promotes the responsible use of land to enhance the total environment. ULI's online bookstore includes numerous publications regarding compact and higher-density development.

2.4

Optional | 5 or 6 points Compact Development

REQUIREMENTS

Design and build the project to the density required for the location type, using the calculation for project net density described below.

Density Requirements by Development Type:

- Urban/Small Cities: A minimum of at least 15 dwelling units per acre [5 points]
- Suburban/Mid-Size Towns: A minimum of at least 10 dwelling units per acre [6 points]
- Rural/Tribal/Small Towns: A minimum net density of 7.5 units per acre for detached or semi-detached houses; 12 units per acre for townhomes; 20 units per acre for apartments [6 points]

RATIONALE

Compact development encourages more resource-efficient development of land, reduces project costs, and conserves energy. Additionally, it supports demand for other infrastructure such as public transportation and commercial development.

RECOMMENDATIONS

- Calculate project net density by taking the total dwelling units after construction, divided by the acreage of the entire tract down to one decimal point, minus the dedicated acreage of public street rights of way, riparian and wetland buffers, open space that has been dedicated through a conservation program, and other non-buildable areas.
- Net density calculations do not include land that is set aside for future building phases or development. For multi-phased projects, the project net density should include only the portion of the parcel that is being used for that particular phase.
- If the project has a mix of development types, then the project team should calculate net density using a weighted average.

RESOURCES

- Congress for New Urbanism: www.cnu.org
This nonprofit organization provides tools and resources for promoting walkable, neighborhood-based development as an alternative to sprawl.
- Smart Growth Network: www.smartgrowth.org
This website outlines smart growth principles, provides a guide through smart growth terms and technical concepts, and hosts a searchable catalogue of reports, websites, tools, and case studies.
- Urban Land Institute: www.washington.uli.org
This nonprofit organization promotes the responsible use of land to enhance the total environment. ULI's online bookstore includes numerous publications regarding compact and higher-density development.

2.5 *Mandatory*
Proximity to Services

REQUIREMENTS

Locate the project within these set distances from the designated number of facilities in the table below:

- Urban /Small Cities: a 0.25-mile walk distance of at least two *or* a 0.5-mile walk distance of at least four facilities
- Suburban/ Mid-Size Towns: a 0.5-mile walk distance of at least three, *or* a 1-mile walk distance of at least six facilities
- Rural/Tribal/Small Towns: 2 miles of at least two facilities (*except for projects located on tribal lands, in colonias communities, or in communities of population less than 10,000*)

RETAIL	SERVICES	CIVIC AND COMMUNITY FACILITIES
Supermarket	Bank	Adult or senior care (licensed)
Other food store with produce	Gym, health club, exercise studio	Child care (licensed)
Farmers market	Hair care Laundry, dry cleaner	Community or recreation center
Clothing store or department store selling clothes	Restaurant, cafe, diner	Cultural arts facility (museum, performing arts)
Hardware store		Educational facility (including K-12 school, university, adult education center, vocational school, community college)
Pharmacy		Entertainment venue (theater, sports)
Other retail		Government office that serves public on-site
		Place of worship
		Medical clinic or office that treats patients
		Police or fire station
		Post office
		Public library
		Public park
		Social services center

List taken from LEED 2009 Neighborhood Development Rating System

RATIONALE

Compact development encourages more resource-efficient development of land, reduces project costs, and conserves energy. Additionally, it supports demand for other infrastructure such as public transportation and commercial development.

RECOMMENDATIONS

Provide a context map demonstrating that the center of the site is within the required walk distances of an adequate number of services. Google Maps offers a function to demonstrate walk distance. On Google Maps, go to "Directions" and select "Walk Directions" to obtain this information.



EXAMPLE OF CONTEXT MAP
 DEMONSTRATING PROXIMITY
 TO SERVICES

1. Restaurant
2. Place of Worship
3. supermarket
4. Educational facility (college)
5. Hospital
6. Adult and senior care (licensed)

RESOURCES

- Safe Routes to School National Partnership: www.saferoutespartnership.org/home
 This network of more than 300 nonprofit organizations, government agencies, schools, and professionals works to advance the Safe Routes to School (SRTS) movement in the United States. SRTS can provide a variety of important benefits to children and their communities, including increasing physical activity, reducing traffic congestion, improving air quality, and enhancing neighborhood safety.

2.6

Mandatory

Preservation of and Access to Open Space: Rural/Tribal/Small Towns

REQUIREMENTS

Set aside a minimum of 10% of the total project acreage as open space for use by residents.

OR

Locate project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres. The open space requirement may be met by either one large open space or two smaller spaces totaling 0.75 acre.

RATIONALE

Access to open space and natural resources improves quality of life and provides the opportunity to better understand the importance of the natural environment.

RECOMMENDATIONS

- Consider providing a site plan with total acres and the number of acres of the proposed open space and a narrative for a security, maintenance, and operations plan for the preservation of the open space.
- To calculate open space, deduct buildings, private outdoor areas, streets, and roadways. Open space calculations should not include streets, roadways, or private outdoor areas.
- Good design for open space should include at least one pedestrian trail or walkway, and should be improved to the extent necessary for safety.

RESOURCES

- U.S. Environmental Protection Agency, Smart Growth and Open Space Conservation: www.epa.gov/smartgrowth/openspace.htm
- Trust for Public Land: www.tpl.org/tier2_kad.cfm?folder_id=3133
This organization conducts research to acquire knowledge about conservation issues and to improve conservation practices.
- Embrace Open Space, Citizens Resources: www.embraceopenspace.nonprofitoffice.com/index.asp?Type=B_LIST&SEC=o/o7B6FSB2EF3-C9B6-49B2-989B-DE2FBA9F4F13o/o7D

2.7

Optional | 3 points maximum
Preservation of and Access to Open Space

Available for all projects

REQUIREMENTS

Set aside additional open space in the total project acreage for use by residents.

PERCENTAGE OF OPEN SPACE SET ASIDE	NUMBER OF OPTIONAL POINTS
20%	1 point
30%	2 points
40% +written statement of preservation/conservation policy for set-aside land	3 points

RATIONALE

Access to open space and natural resources improves quality of life and provides the opportunity to better understand the importance of the natural environment.

RECOMMENDATIONS

- Consider providing a site plan with total acres and the number of acres of the proposed open space and a narrative for a security, maintenance, and operations plan for the preservation of the open space.
- To calculate open space, deduct buildings, private outdoor areas, streets, and roadways. Open space calculations should not include streets, roadways, or private outdoor areas.

- Good design for open space should include at least one pedestrian trail or walkway, and should be improved to the extent necessary for safety.

RESOURCES

- U.S. Environmental Protection Agency, Smart Growth and Open Space Conservation: www.epa.gov/smartgrowth/openspace.htm
- Trust for Public Land: www.tpl.org/tier2_kad.cfm?folder_id=3133
This organization conducts research to acquire knowledge about conservation issues and to improve conservation practices.
- Embrace Open Space, Citizens Resources: www.embraceopenspace.nonprofitoffice.com/index.asp?Type=B_LIST&SEC=o/o7B6FSB2EF3-C9B6-49B2-989B-DE2FBA9F4F13o/o7D

2.8

Optional | 5 points

Access to Public Transportation

REQUIREMENTS

- **Urban/Small Cities:** locate project within a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday, and 32 or more transit rides on the weekend
- **Suburban/Mid-Size Towns:** locate project within a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting at least 60 or more transit rides per weekday, and some type of weekend ride option
- **Rural/Tribal/Small Towns:** locate project within a 0.5-mile distance of the following transit options: 1) vehicle share program; 2) dial-a-ride program; 3) employer vanpool; or 4) public-private regional transportation

RATIONALE

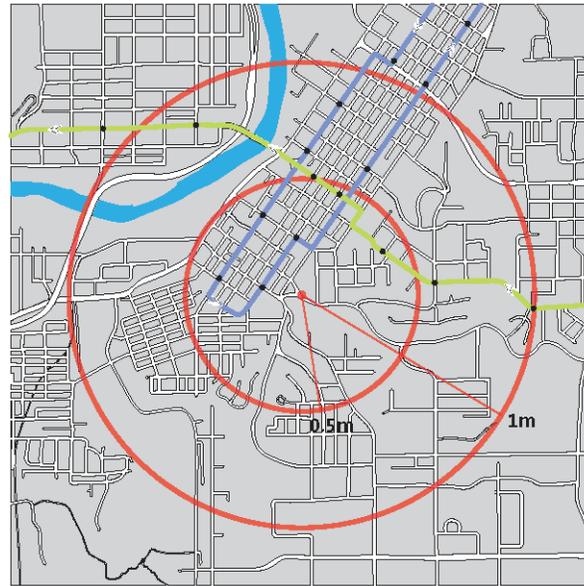
Projects located near transit reduce residents' need to own a car, thereby eliminating or lowering the costs of auto ownership. Transit use reduces related emissions of air pollutants and carbon dioxide.

RECOMMENDATIONS

Use a context map to demonstrate that the center of the site is within the required walk distance of combined transit options that provide an adequate number of rides per weekday.

RESOURCES

- Google Maps offers a function to demonstrate walk distance. On Google Maps, go to "Directions" and select "Walk Directions" to obtain this information.
- Reconnecting America: www.reconnectingamerica.org
This national nonprofit organization provides both the public and the private sectors with a fact-based perspective on development-oriented transit and transit-oriented development. The organization seeks to reinvent the planning and delivery system for building regions and communities around transit and walking rather than solely around the automobile.



EXAMPLE OF CONTEXT MAP
DEMONSTRATING ACCESS TO
PUBLIC TRANSPORTATION

— Downtown Loop Bus
60 stops/weekday
35 stops/weekend day

— Bridge Loop Bus W
40 stops/weekday
24 stops/weekend day

- Victoria Transportation Policy Institute: www.vtpi.org
This independent research organization provides consulting and publicly available research about solutions to emerging transportation issues, such as transportation demand management.
- Community Transportation Association of America, "Profiles of Innovative Rural Vanpool Programs": web1.ctaa.org/webmodules/webarticles/articlefiles/Profiles_of_Innovative_Rural_Vanpool_Programs.pdf
This paper describes several exceptional vanpool programs around the country.

2.9

Optional | 5 points

Walkable Neighborhoods: Connections to Surrounding Neighborhoods-Rural/Tribal/Small Towns Only

REQUIREMENTS

Connect the project to public and open spaces and adjacent development by providing at least three separate connections (excluding entrances/exits from a single building) from the project to sidewalks or pathways in surrounding neighborhoods and natural areas.

Types of connections can include roadways, bike trails, sidewalks, footpaths, and the like.

RATIONALE

Connections to adjacent development and public and open spaces promote walking, biking, and other healthy lifestyles.

RECOMMENDATIONS

- Pedestrian activity and improved safety can be encouraged by placing parking underground or locating the garage in the rear or on the side of a home, creating a more traditional residential streetscape.

- Consider using porous pavement for sidewalks and other paved surfaces to reduce stormwater runoff and the distribution of pollutants to streams, rivers, and water bodies. Design sidewalks to distribute stormwater to open space for recharge and to prevent flooding.
- Integrate pedestrian and bicycle connections from the new project to the surrounding neighborhoods through sidewalks, bike lanes, or paths.
- Where possible, wait until project is occupied before laying out paved pathways/sidewalks from the project to the surrounding neighborhood. Build the pathways/sidewalks where there is visible evidence of pedestrian and bicycle use.

2.10

Optional | 7 points maximum

Smart Site Location: Passive Solar Heating/Cooling

Available for all projects

REQUIREMENTS

Demonstrate a project with a passive solar design, orientation, and shading that meets the following guidelines. Documentation must include sun angles and a wall section showing compliance with the project's Climate Zone (see map on next page), and a site plan indicating true north.

PROJECT TYPE	POTENTIAL POINTS	REQUIREMENTS
Stand-alone building	7	Meet all guidelines
Projects with multiple buildings	2	25% of the homes meet all guidelines
	4	50% of the homes meet all guidelines
	6	75% of the homes meet all guidelines
	7	100% of the homes meet all guidelines
Moderate or Substantial Rehab projects	2	All new windows must comply with the windows guidelines by climate zone (Item 3)
	2	All south-facing elevations must comply with shading guidelines (Item 4)

Guidelines

1. Building orientation

Elongate the building on an east-west axis with a minimum ratio of width to depth of 2:1 and orient the east-west axis of the building to be within 20 degrees of true east-west.

2. Glazing

Climate Zones 1-3: The glazing area on the north- and south-facing facade should be 50% greater than the sum of the glazing areas on the east- and west-facing walls.

Climate Zones 4-7: The glazing area on the south-facing facade should be 30% greater than the sum of the glazing areas on the east-, west-, and north-facing facades.

3. Glazing type

Provide windows with U-values and solar heat gain coefficients (SHGC) by orientation and Climate Zone that meet the requirements in the following table and map.

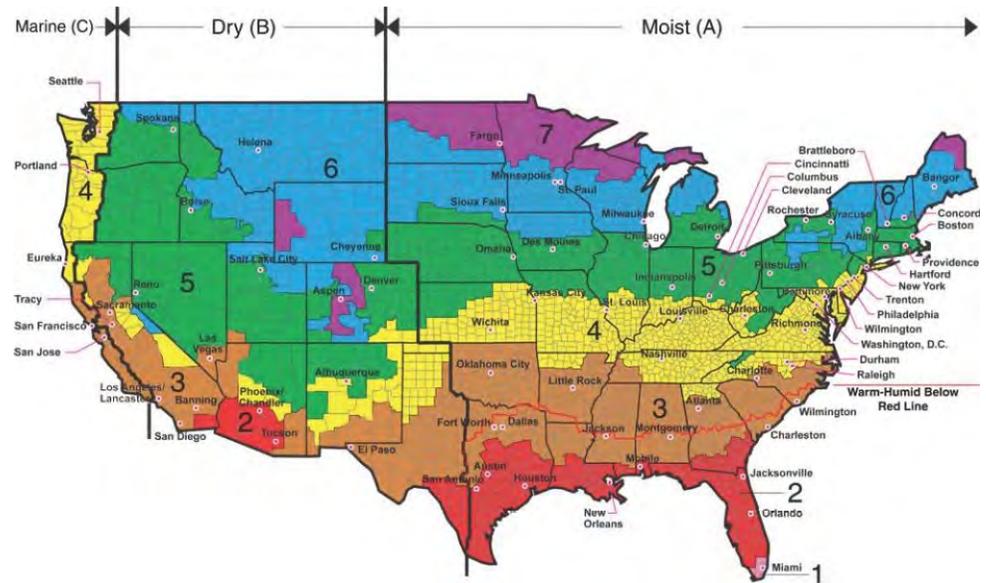
4. Shading

For south-facing windows, follow the shading requirements in the following table and map.

REQUIREMENTS FOR GLAZING AND SHADING

CLIMATE ZONE	U-FACTOR	MINIMUM SOLAR HEAT GAIN COEFFICIENT	PERCENTAGE OF WINDOW THAT NEEDS TO BE SHADED BY JUNE 21
1, 2	0.25	0.50	100%
3, 4	0.30	0.40	75%
5, 6, 7	0.35	0.30	50%

2009 IECC CLIMATE ZONES



All of Alaska is Zone 7 except for the following Boroughs in Zone 6: Bethel, DeWillingham, Fairbanks, N. Star, Nome North Slope, Northwest Arctic, Southeast Fairbanks, Wade Hampton, and Yukon-Koyukuk. Zone 1 includes Hawaii, Guam, Puerto Rico, and the Virgin Islands.

RATIONALE

The utilization of passive solar energy through design minimizes reliance on mechanical heating, lowers the cooling load, and provides more residents with access to daylight.

RECOMMENDATIONS

- Interior spaces requiring the most lighting, heating, and cooling should be along the south face of the building.
- A narrow floor plate (less than 40 feet), single-loaded corridors, and an open floor plan optimize daylight and natural ventilation.
- Thermal Massing, Climate Zones 2-7
 - Locate a material with high thermal mass on the southern portion of the house where sunlight hits during the heating season.
 - Materials with thermal mass include brick, concrete, stone, water, and any other material of a similar high density and specific heat capacity.
 - The thermal mass location must be shown in the schematic wall section of the southern fa ades.
- Additional Potential Passive Cooling Strategies
 - Plant deciduous shade trees on the south fa ades.
 - Maximize cross ventilation by installing operable windows at the leeward and windward sides of the building.

RESOURCES

- U.S. Department of Energy, "Passive Solar Design," Technology Fact Sheet: [apps1.eere.energy.gov/buildings/publications/pdfs/building_america/29236.pdf](https://www.energy.gov/buildings/publications/pdfs/building_america/29236.pdf)
This fact sheet includes tips and techniques for passive solar heating, passive solar cooling, thermal storage, and daylighting.
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
A detailed map that shows climate zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each climate zone.
- U.S. Department of Energy, National Renewable Energy Laboratory, "Passive Solar Design for the Home," Report #DOE/G0-102001-1105, February 2001: www.nrel.gov/docs/fy0lostV27954.pdf
- U.S. Department of Energy, Passive Solar Design-Roof Overhangs: www.energysavers.gov/your_home/designing_remodeling/index.cfm/mytopic=10280

2.11

Optional | 2 points

Brownfield or Adaptive Reuse Site

Available for all project types

REQUIREMENTS

Locate the project on a brownfield or adaptive reuse site.

For brownfields, locate the project on a site, part or all of which is documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program), or on a site defined as a brownfield by a local, state, or federal government agency; and remediate site contamination such that the controlling public authority approves the protective measures and/or cleanup as effective, safe, and appropriate for the future use of the site.

RATIONALE

Use of brownfields or adaptive reuse sites reduces pressure on undeveloped land. Reuse of existing structures reduces the need for new materials.

RESOURCES

- U.S. Environmental Protection Agency, Brownfields Cleanup and Redevelopment: www.epa.gov/brownfields/index.html
There is information on this site about EPA's Brownfields Program, including the brownfields law, EPA Brownfields Grants, technical tools and resources, and brownfield projects across the country.
- Municipal Research and Services Center of Washington, Infill Development Strategies for Shaping Livable Neighborhoods: www.mrsc.org/Publications/textfill.aspx
This site contains an overview of strategies for encouraging and implementing infill development patterns.
- National Vacant Properties Campaign: www.vacantproperties.org
This website provides information, resources, tools, and assistance to support vacant property revitalization efforts.

2.12

Optional | 6 points

Access to Fresh, Local Foods

Available for all project types

REQUIREMENTS

Option 1: Neighborhood Farms and Gardens [6 points]

a) Dedicate permanent and viable growing space and/or related facilities (such as greenhouses) within the project equal or greater in size to 50 square feet per dwelling unit of the project. Provide solar access, fencing, watering systems, garden bed enhancements (such as raised beds), secure storage space for tools, and pedestrian access for these spaces. Ensure that the spaces are owned and managed by an entity that includes occupants of the project in its decision making, such as a community group, homeowners' association, or public body.

Established community gardens outside the project boundary but within a 0.5-mile walk distance of the project's geographic center can satisfy this option if the garden otherwise meets all of the option requirements.

b) Dedicate permanent and viable growing space and/or related facilities (such as greenhouses) within the project equal or greater in size to 50 square feet per dwelling unit of the project, and establish an agreement with a local farming operation to farm the land. Ensure in the agreement that at least 50% of the produce is made available for purchase by the project's residents. Provide solar access, fencing, watering systems, garden bed enhancements (such as raised beds), and secure storage space for tools.

OR

Option 2: Community-Supported Agriculture [6 points]

Offer a specified location within the project boundaries for delivery of community-supported agriculture (CSA) program shares for residents, project staff, and surrounding community members, as appropriate. The farm(s) supplying the CSA shares must be within 150 miles of the project site. Shares must be delivered to the specified delivery point on a regular schedule at least twice a month for at least four months of the year.

OR

Option 3: Proximity to Farmers Market [6 points]

Locate the project's geographic center within a 0.5-mile walk distance of an existing or planned farmers market that is open or will operate at least once a week for at least five months of the year. Farmers market vendors may sell only items grown within 150 miles of the project site. A planned farmers market must have firm commitments from farmers and vendors that the market will meet all of the above requirements and be in full operation by the time there is 50% occupancy of the project's dwelling units.

RATIONALE

Access to fresh produce offers healthy food options for residents. This measure also supports local economic development that increases the economic value and production of farmlands and community gardens.

RECOMMENDATIONS

- For projects pursuing Option 1a, consider bringing in an individual or group (e.g., master gardener(s) or a garden club) to work with the residents to establish the garden and maintain productivity.
- For projects pursuing Option 2 or 3, encourage the farms supplying the produce to accept food stamps.

RESOURCES

- Local Harvest: www.localharvest.org
This website offers a search function to find farmers markets, family farms, and other sources of local, sustainably grown food in a given area.
- U.S. Department of Agriculture, National Agricultural Library, Food and Nutrition Information Center, Community Food Systems: fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=2&tax_subject=276&topic_id=1344&placement_default=O
This website links to dozens of publications, programs, and other sites.

2.13

Optional | 4 points

LEED for Neighborhood Development Certification

Available for all project types

REQUIREMENTS

Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.

RATIONALE

Projects located in LEED for Neighborhood Development Certified Developments have taken steps to minimize the environmental impact of land development practices. LEED for Neighborhood Development is designed to certify exemplary development projects that perform well in terms of smart growth, urbanism, and green building.

RESOURCES

- U.S. Green Building Council, LEED for Neighborhood Development:
www.usgbc.org/DisplayPage.aspx?CMSPageID=148
This page has links to the LEED rating system, a project checklist, and information on certification.

INTRODUCTION

CRITERIA CHECKLIST

1 INTEGRATIVE DESIGN

2 LOCATION +
NEIGHBORHOOD FABRIC**3 SITE IMPROVEMENTS**

4 WATER CONSERVATION

5 ENERGY EFFICIENCY

6 MATERIALS BENEFICIAL
TO THE ENVIRONMENT

7 HEALTHY LIVING ENVIRONMENT

8 OPERATIONS + MAINTENANCE

APPENDICES

GLOSSARY

SITE IMPROVEMENTS

**Low impact design
and development
principles
minimize the site's
environmental
footprint.**

3.1

Mandatory

Environmental Remediation

REQUIREMENTS

Conduct a Phase I Environmental Site Assessment, a Tier II Environmental Review Assessment per HUD funding requirements, an environmental site assessment approved by HUD through the Part 50 or Part 58 process, or an environmental site assessment approved by USDA through the 1940-G or 1794 process, and any additional assessments required to determine whether any hazardous materials are present on-site.

If an environmental site assessment reveals that mitigation is necessary, perform the appropriate mitigation steps as required.

RATIONALE

The environmental site assessment determines the potential environmental liabilities associated with property acquisition and ownership.

RESOURCES

- HUD, Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities (24 CFR Part 58 process):
www.hud.gov/offices/pih/ih/codetalk/nap/docs/24cfr58.pdf
- HUD, Part 50 process: www.hud.gov/offices/pih/ih/codetalk/docs/24cfr50.pdf
- USDA, Environmental Review Process, 1940-G and 1794 processes:
www.rurdev.usda.gov/pa/environmental.htm

3.2

Mandatory

Erosion and Sedimentation Control

Except for infill sites with buildable area smaller than one acre

REQUIREMENTS

Implement EPA's Best Management Practices for erosion and sedimentation control during construction, referring to the EPA document "Storm Water Management for Construction Activities" (EPA 832-R-92-005), or state or local requirements, whichever is more stringent.

RATIONALE

Erosion and sedimentation control during site development keeps valuable topsoil on-site and reduces pollution, stormwater runoff, and sedimentation associated with construction activities into local waterways. Soils compacted from construction activities are less able to absorb water, resist plant root penetration, and lack the porosity needed for adequate aeration.

RECOMMENDATIONS

Common erosion control measures include:

- Stockpile and protect disturbed topsoil from erosion for reuse.
- Control the path and velocity of runoff with silt fencing or comparable measures.
- Protect on-site storm sewer inlets, streams, and lakes with straw bales, silt fencing, silt sacks, rock filters, or comparable measures.
- Provide swales to divert surface water from hillsides.
- If soil in a sloped area is disturbed during construction, use tiers, erosion blankets, compost blankets, filter socks and berms, or some comparable approach to keep soil stabilized.
- Consider opting for one of the following methods-phasing, seeding, grading, protecting on-site vegetation, directing runoff to on-site depressions, or swales-instead of using silt fencing. Additionally, the measures that are employed should result in no visible off-site discharge.

RESOURCES

- U.S. Environmental Protection Agency, "Storm Water Management for Construction Activities" (EPA 832-R-92-005) maybe downloaded from the National Service Center for Environmental Publications at www.epa.gov/nscep/ or purchased as item PB 922 359 51 from the National Technical Information Service at yosemite.epa.gov/water/owrcatalog.nsf
- CPESCSM Inc.: www.cpesc.net
Search the directory on this website to find certified erosion and sedimentation control professionals in your state.
- U.S. Environmental Protection Agency, Erosion and Sediment Control Model Ordinances: www.epa.gov/owow/nps/ordinance/erosion.htm
This resource is geared toward helping municipalities draft ordinances for erosion and sedimentation control and might serve as a helpful tool in developing company policies for meeting this measure.

3.3

Mandatory

Low-Impact Development

Mandatory for New Construction projects located on greenfield development

REQUIREMENTS

Projects located on greenfields must meet the following low-impact development criteria:

- Achieve **Option 1** of Criterion 3.6, Surface Stormwater Management.
- Design roadways to be along topographic contours and ridge lines so as to avoid erosion and unnecessary cut and fill.
- Do not locate projects on sites with a grade of 15% or more.
- Design roadway plans to utilize the minimum necessary pavement required by code, such as narrower roads, minimized parking, and thoughtful road layout. Consult with local fire department(s) regarding roadway sizing as needed.

- Design roadway sections with localized retention such as swales, retention basins, plantings, and permeable paving to convey, capture, infiltrate, and/or reuse stormwater. This can be demonstrated through achieving Criterion 3.6, Surface Stormwater Management.
- For projects located in Rural/Tribal/Small Towns as defined in the Location + Neighborhood Fabric category, do not implement a curb and gutter system. Minimize sidewalks or pathways to one side of the road where people would naturally travel. Projects located in municipalities that require curb and gutter infrastructure for all developments are exempt from this sub-requirement.

EXEMPTIONS

Projects built on greyfields or brownfields (previously developed sites) or infill sites, defined as those that have at least 75% of the perimeter bordering existing development or roads and with access to existing infrastructure, are not required to meet this measure.

RATIONALE

Low impact design and development principles minimize the site's environmental footprint.

RECOMMENDATIONS

Keep existing trees and vegetation to the extent feasible.

RESOURCES

- U.S. Environmental Protection Agency, *Low-Impact Development Design Strategies: An Integrated Design Approach*: www.epa.gov/owow/NPS/lidnatl.pdf

3.4

Mandatory **Landscaping**

Only if providing landscaping

REQUIREMENTS

Provide plants (including trees, shrubs, and groundcover) such that at least 50% of the area available for landscaping is planted with native or adaptive species. Also, all new plants must be appropriate to the site's soil and microclimate, and none of the new plants should be invasive species.

RATIONALE

Native and adaptive plants are well suited to the climate and provide excellent erosion, sediment, dust, and pollution control. Native and adaptive plants are more resistant to naturally occurring disease, insects, and low levels of nutrients, thereby reducing or eliminating the need for fertilizers, pesticides, or herbicides.

RECOMMENDATIONS

- Consider "naturescaping," a landscaping strategy that conserves water and reduces runoff while providing habitat for beneficial insects, birds, and other wildlife. In areas where water shortages are common, consider "xeriscaping," a landscaping strategy that uses drought-resistant plants to significantly reduce or eliminate the need for irrigation.
- Consult a local arborist and consider involving a landscape architect in the architectural design process to identify appropriate areas for landscaping and shading.
- Consider integrating the landscape plan with the stormwater management plan to provide water and drainage that is complementary with plants.
- While turf may be appropriate for some landscaping, such as for play areas, it should be minimized wherever possible, except in climates where no irrigation is needed. Non-native turf needs about 35 inches of water per year to thrive, whereas native turf needs much less. Turfgrass also requires mowing, and the cumulative effects of electric and gas mowing equipment contribute to the deterioration of local air quality.
- The project team should strive to use only organic and non-toxic fertilizers, pesticides, herbicides, fungicides, and pre-emergents.

RESOURCES

- U.S. Environmental Protection Agency, GreenScapes:
www.epa.gov/epawaste/consERVE/rrr/greenscapes/index.htm
This "naturescaping" program provides cost-efficient and environmentally friendly solutions for landscaping. Designed to help preserve natural resources and prevent waste and pollution, GreenScapes encourages holistic decisions regarding waste generation and disposal and the associated impacts on land, water, air, and energy use.
- USDA Agricultural Cooperative Extension System: www.csrees.usda.gov/Extension/index.html
Lists of local drought-tolerant plants may be available from local USDA Agricultural Cooperative Extension System offices, as well as through numerous online resources.
- Native Plant Information Network: www.wildflower.org/explore/
The site, maintained by the Lady Bird Johnson Wildflower Center, includes a database of native wildflowers, plants, and landscapes throughout North America. The website also includes a National Suppliers Directory.
- USDA National Invasive Species Information Center:
www.invasivespeciesinfo.gov/plants/main.shtml
As part of the USDA's National Agricultural Library, NISIC serves as a reference gateway to information, organizations, and services about invasive species.
- U.S. Forest Service "Celebrating Wildflowers":
www.fs.fed.us/wildflowers/nativegardening/instructions.shtml
This site has extensive information on native gardening, selecting appropriate native plants, and invasive plant species, and has basic instructions for restoration and native landscaping projects.

3.5

Mandatory

Efficient Irrigation and Water Reuse

If irrigation is utilized

REQUIREMENTS

If irrigation is utilized, install an efficient irrigation or water reuse system. These irrigation requirements are mandatory only for permanent landscaping that requires regular irrigation.

Option 1

An efficient irrigation system must include the following at a minimum:

- a drip irrigation system for at least 50% of landscape planting beds
- separately zoned turf and each type of bedding area, based on watering needs
- a timer /controller that activates the valves for each watering zone at the best time of day to minimize evaporative losses while maintaining healthy plants and obeying local regulations and water-use guidance
- a moisture sensor controller or rain delay controller

Option 2

Reuse water for irrigation from one of the following sources:

- treated greywater
- rainwater, collected from the roof or site
- water from a municipal recycled water system

For all projects, watering tubes for trees are allowed for a period of two years.

RATIONALE

Accurate delivery of water reduces evaporation and eliminates overspray. Proper scheduling eliminates fluctuations between wet and dry states that stress plants.

RECOMMENDATIONS

Use high-efficiency irrigation nozzles with an average distribution uniformity (DU) of at least 0.70. This may include conventional rotors, multi-stream rotors, or high-efficiency spray heads, but the DU must be verified by manufacturer documentation or third-party tests.

RESOURCES

- American Society of Landscape Architects (ASLA): www.asla.org
ASLA is the national professional association representing landscape architects. Their site provides information about members, products, services, publications, and events.
- U.S. Environmental Protection Agency, WaterSense: Efficiency Made Easy: www.epa.gov/watersense/index/html
This site provides information on the EPA WaterSense labeling program for water-efficient landscape irrigation products, plus tips and recommendations for water-efficient irrigation. Follow the link to *Weather- or Sensor-Based Irrigation Control Technologies* for related information on high-efficiency irrigation controllers.

- U.S. Environmental Protection Agency, *Water-Efficient Landscaping: Preventing Pollution and Using Resources Wisely*: www.epa.gov/owm/water-efficiency/docs/water-efficient_landscaping_508.pdf
This manual provides information about reducing water consumption through creative landscaping techniques.
- American Water Works Association, *WaterWiser®: The Water Efficiency Clearinghouse*: www.awwa.org/waterwiser/
This clearinghouse provides articles, reference materials, and papers on all forms of water efficiency.

3.6

Optional | 2 or 6 points

Surface Stormwater Management

REQUIREMENTS

Option 1 [2 points]

Retain, infiltrate, and/or harvest the first 0.5 inch of rain that falls on the entire site in a 24-hour period.

Option 2 [6 points]

Retain, infiltrate, and/or harvest all stormwater, as calculated for a one-year storm event, on-site or on adjacent site(s), so that no stormwater is discharged to drains/inlets.

For either option, assure that the project plans and specifications call for permanent labeling of all storm drains or storm inlets to clearly indicate where the drain or inlet leads.

RATIONALE

Reducing or eliminating stormwater runoff through design and management techniques increases on-site filtration, reduces total suspended solids (TSS) and other pollutants from entering waterways, and reduces soil erosion. Water storage and nutrient collection processes reduce the need for irrigation and contribute to forming a healthier ecological community within the landscape.

RECOMMENDATIONS

- This criterion may be met by using a combination of multiple strategies and technologies, as long as there exists the capacity to retain the first 0.5 inch of rainfall that falls on the entire site. Stormwater management strategies could include disconnected downspouts, permeable paving, swales, retention basins, green roofs, sidewalk planters, xeriscaping, and nature-scaping. See Criteria 3.4-3.6 for synergistic measures.
- For Option 2, local resources can be used to determine the projected rainfall for a one-year storm event at the project site.
- If a rainwater harvesting and storage strategy is considered in addition to infiltration, check with state and local governments to verify that capture and/or reuse of rainwater is permitted. If not, consider appealing local rules.

- Attempt to make use of innovative, low-impact techniques such as disconnected downspouts, permeable paving, swales, retention basins, rain gardens, ecoroofs, rain barrels, and cisterns to convey, capture, infiltrate, and /or reuse stormwater.
- Strive to minimize impervious areas (surfaces that do not allow stormwater infiltration), including roofs, driveways, sidewalks, and streets, or use porous materials for such areas. Water-permeable materials include pervious interlocking concrete paving blocks, concrete grid pavers, perforated brick pavers, and compacted gravel.
- To provide a visual reminder that storm sewer inlets connect to area waterways and ground-water storages, use a plaque, tile, painted, or pre-cast message such as "No Dumping. Drains to [name of water source]." If project is unable to label storm inlets due to jurisdictional constraints, the project team must provide documentation.

RESOURCES

- U.S. Environmental Protection Agency, Storm Drain Marking: cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=15
- U.S. Environmental Protection Agency, *Low-Impact Development Design Strategies: An Integrated Design Approach*: www.epa.gov/owow/NPS/lidnatl.pdf
- National Association of Home Builders Research Center ToolBase Services: Permeable Pavement: www.toolbase.org/Technology-Inventory/Sitework/permeable-pavement
In a resource provided through a partnership with the Department of Housing and Urban Development, the Partnership for Advancing Technology in Housing, and the National Association of Home Builders Research Center, this site provides details, lists of manufacturers, and related information on permeable paving options.

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WATER CONSERVATION

Water conservation translates into direct utility savings for residents and building owners and lowers infrastructure costs associated with stormwater management and water treatment facilities.

4.1

Mandatory

Water-Conserving Fixtures

For all projects

REQUIREMENTS

Install water-conserving fixtures in all units and any common facilities with the following specifications:

- Toilets-1.28 gpf (gallons per flush) or less, including dual-flush toilets and pressure-assisted toilets (Note that there are both dual-flush and single-flush models of 1.28 gpf toilets available.)
- Urinals-0.5 gpf or less
- Showerheads-2.0 gpm (gallons per minute) or less
- Kitchen faucets-2.0 gpm or less
- Bathroom faucets-1.5 gpm or less

Substantial and Moderate Rehab projects must replace or retrofit all fixtures to meet the flow rates above.

RATIONALE

Water conservation translates into direct utility savings for residents and building owners and lowers infrastructure costs associated with stormwater management and water treatment facilities.

RECOMMENDATIONS

- Certain existing fixtures, such as bathroom faucets, can be retrofitted with an aerator to reduce water flow to the requisite level.
- Dual-flush toilets typically have an average flow rate calculated and provided by the manufacturer. However, if this information is not available, use a 2:1 ratio to determine the average flow rate.

For example, with a dual-flush toilet that has a 0.8 low-volume flush to a 1.6 high-volume flush, the calculation would be:

$$\frac{(0.8 \times 2) + (1.6 \times 1)}{3} = 1.067 \text{ average gpf}$$

- For senior projects, consider using single-flush toilets that meet the criterion flow rates, rather than dual-flush toilets. Feedback from past Enterprise Green Communities projects suggests that senior populations maybe unsure of the dual-flush technology, which may lead to their having difficulty in operating the toilets in an effective and appropriate way.
- For projects using bathtubs rather than showers, the tub faucet is exempt from this measure.
- Consider conducting a WaterSense water pressure test at the street level, given that a project's water pressure and the distance between the source of water and the fixture(s) may allow a fixture to release more or less water than its rating indicates.

RESOURCES

- Not all high-efficiency toilets operate equally well, and poor design can lead to ineffective flushing and the need for multiple flushes. The EPA's WaterSense program certifies toilets that achieve both water efficiency and operational effectiveness. The WaterSense label identifies high-efficiency products that have been verified for performance. WaterSense currently has a specification for high-efficiency toilets and bathroom faucets, and specification for showerheads is under development. Information is available at: www.epa.gov/owm/water-efficiency
- Maximum Performance (MaP™) Testing California Urban Water Conservation Council: www.cuwcc.org/maptesting.lasso
The MaP™ testing project was initiated in 2003 to test toilet models' performance. This testing protocol simulates real-world use to help consumers identify high-efficiency toilets that not only save water but also work well. The current MaP testing report provides performance information on 470 toilet models. This site provides access to the complete listings of the tested toilets.

4.2

Optional | 6 points maximum

Advanced Water-Conserving Appliances and Fixtures

REQUIREMENTS

Install water-conserving fixtures in all units and any common space bathrooms with the following specifications. Inclusion of each type of fixture is worth two optional points.

- **Option 1 [2 points]:** All toilets-1.2 gpf (gallons per flush) or less
- **Option 2 [2 points]:** All showerheads-1.5 gpm (gallons per minute) or less
- **Option 3 [2 points]:** All faucets for kitchens and bathrooms
 - Kitchen faucets -1.5 gpm or less
 - Bathroom faucets-0.5 gpm or less

Substantial and Moderate Rehab projects can replace or retrofit all fixtures to meet the flow rates above to achieve these optional points.

RATIONALE

Water conservation translates into direct utility savings for residents and building owners and lowers infrastructure costs associated with stormwater management and water treatment facilities.

RECOMMENDATIONS

- Certain existing fixtures, such as bathroom faucets, can be retrofitted with an aerator to reduce water flow to the requisite level.
- Dual-flush toilets typically have an average flow rate calculated and provided by the manufacturer. However, if this information is not available, use a 2:1 ratio to determine the average flow rate.

$$\frac{(\text{low flow volume rate} \times 2) + (\text{high flow volume rate} \times 1)}{3} = \text{average flow rate}$$

For example, with a dual-flush toilet that has a 0.8 low-volume flush to a 1.6 high-volume flush, the calculation would be:

$$\frac{(0.8 \times 2) + (1.6 \times 1)}{3} = 1.067 \text{ average gpf}$$

- For senior projects, consider using single-flush toilets that meet the criterion flow rates, rather than dual-flush toilets. Feedback from past Enterprise Green Communities projects suggests that senior populations maybe unsure of the dual-flush technology, which may lead to their having difficulty in operating the toilets in an effective and appropriate way.
- For projects using bathtubs rather than showers, the tub faucet is exempt from this measure.
- Consider conducting a WaterSense water pressure test at the street level, given that a project's water pressure and the distance between the source of water and the fixture(s) may allow a fixture to release more or less water than its rating indicates.

RESOURCES

- Not all high-efficiency toilets operate equally well, and poor design can lead to ineffective flushing and the need for multiple flushes. The EPA's WaterSense program certifies toilets that achieve both water efficiency and operational effectiveness. The WaterSense label identifies high-efficiency products that have been verified for performance. WaterSense currently has a specification for high-efficiency toilets and bathroom faucets, and specification for shower-heads is under development. Information is available at: www.epa.gov/owm/water-efficiency
- Maximum Performance (MaP™) Testing California Urban Water Conservation Council: www.cuwcc.org/maptesting.lasso
 The MaP™ testing project was initiated in 2003 to test toilet models' performance. This testing protocol simulates real-world use to help consumers identify high-efficiency toilets that not only save water but also work well. The current MaP testing report provides performance information on 470 toilet models. This site provides access to the complete listings of the tested toilets.

4.3

Optional | 4 points maximum
Water Reuse

REQUIREMENTS

Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs.

To achieve optional points, provide the defined percentage of the project's total water needs through rainwater and/or greywater (using either one or a combination of both strategies). Total water needs include all exterior and interior water use.

TOTAL WATER NEEDS SUPPLIED BY RAINWATER AND/OR GREYWATER	NUMBER OF OPTIONAL POINTS
10%	1 point
20%	2 points
30%	3 points
40%	4 points

RATIONALE

Rainwater and greywater reuse strategies reduce the need for municipal water supplies and sewage treatment.

RECOMMENDATIONS

- Rainwater can be harvested from impervious surfaces such as roofs and carried via gutters and downspouts to a storage tank or cistern where it can be treated or filtered for potable uses. Untreated rainwater may be used for non-potable uses.
- Greywater may be stored and treated for non-potable uses such as toilet flushing and irrigation.
- Rainwater and greywater systems are subject to state and local regulations and special requirements. In some jurisdictions, rainwater or greywater systems may not be allowed. Check with your local building code officials for requirements.
- Consider striving for rainwater and greywater utilization beyond 20%. In some cases, employing rainwater and greywater harvesting, treatment, and reuse can provide for all of a project's water needs.

RESOURCES

- American Water Works Association, WaterWiser®: The Water Efficiency Clearinghouse: www.awwa.org/waterwiser/
 This clearinghouse provides articles, reference materials, and papers on water recycling, greywater, and rainwater reuse.
- International Living Building Institute, Achieving Water Independence in Buildings: ilbi.org/resources/reports/water/oregon
 This downloadable publication explains water reuse systems and regulatory barriers, and provides information for those wishing to explore the possibilities of water reuse in buildings and to reform limiting regulation.

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ENERGY EFFICIENCY

Improvements in building energy performance result in utility cost savings from more efficient heating, cooling, hot water, lights and appliances, which improves residents' comfort and lowers operating costs.

5.1a

Mandatory

Building Performance Standard

New Construction: Single-family and multifamily buildings, three stories or fewer

REQUIREMENTS

Certify the project under ENERGY STAR New Homes Version 2, 2.5, or 3 depending on when the project is permitted. See the "Recommendations" section for additional information on the registration timeline and pathways for projects to achieve ENERGY STAR.

The following project types are subject to this requirement:

- Single-family detached homes (includes detached homes, townhomes, rowhomes, duplexes, and triplexes)
- Units in multifamily buildings that are three stories or fewer
- Units in multifamily buildings that are four or five stories and have their own heating, cooling, and hot water systems, separate from other units

Projects in Oregon, Washington state, Idaho, and Montana must meet the performance requirements of Northwest ENERGY STAR Homes Program.

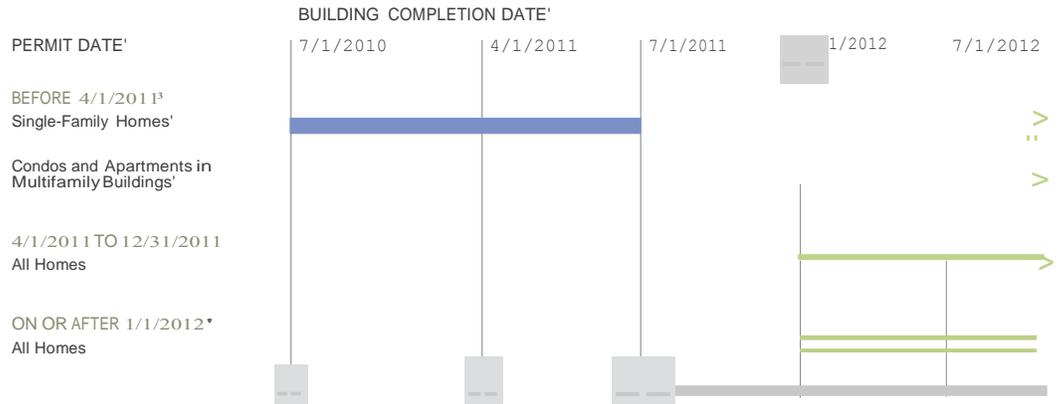
For other states with an energy code exceeding the 2009 IECC, EPA regional program requirements have been developed. Go to www.energystar.gov/homes for the latest list.

RATIONALE

ENERGY STAR-qualified homes are independently verified to be energy efficient and durable. These high-performance homes achieve energy savings in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, reduce operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

ENERGY STAR FOR NEW HOMES PROGRAM IMPLEMENTATION



1. The completion date is the date of the rating, which will be listed on the ENERGY STAR label for each qualified home.
2. The permit date is the date of the permit or the date of the contract on the home.
3. Homes can be qualified under the Version 2.5 guidelines in advance of the dates above at the discretion of builders and their raters. However, homes may not be qualified as Version 3 until January 1, 2012.
4. Single-family homes include detached homes, townhomes, rowhomes, duplexes, and triplexes.
5. All multi-family homes financed through low-income housing agencies may earn the ENERGY STAR under the best iteration of the guidelines, Version 2, until January 1, 2013 as long as the application for funding for those homes was received by the low income housing agency before April 1, 2011. If the application for funding is received between April 1, 2011 and December 31, 2011, then the homes must earn the ENERGY STAR under the Version 2.5 guidelines if completed before January 1, 2012, and under the Version 3 guidelines if completed after January 1, 2012. If the application for funding is received on or after January 1, 2012 then the homes must earn the ENERGY STAR under the Version 3 guidelines.
6. Where a utility or state sponsor is mandating or incentivizing early adoption of Version 3 in their area, EPA will allow the labeling of ENERGY STAR Version 3 prior to January 1, 2012 on a pilot program basis, provided that the sponsor meets certain requirements.

- Projects permitted before April 1, 2011 can certify under ENERGY STAR New Homes Version 2 or higher using either the performance or prescriptive pathway.
- Projects permitted between April 1, 2011 and December 31, 2011 must certify under ENERGY STAR New Homes Version 2.5 or higher using either the performance or prescriptive pathway.
- Projects permitted on or after January 1, 2012 must certify under ENERGY STAR New Homes Version 3.
- ENERGY STAR New Homes Version 2.5 and 3 are designed to be at least 15% more stringent than the 2009 IECC for all new single-family detached and low-rise multifamily residential structures under four stories. Multifamily residential buildings that are four or five stories and have their own heating, cooling, and hot water systems, separate from other units, may also qualify for ENERGY STAR. Residential buildings can achieve this by using a prescriptive or a performance path.
- For the prescriptive path, projects must meet the ENERGY STAR Reference Design, a set of design specifications compiled by ENERGY STAR.

- For the performance path, projects will utilize the ENERGY STAR Reference Design and a Size Adjustment Factor to determine an ENERGY STAR HERS Index Target for each home.
 - The baseline building performance standard can only be met through building performance improvements, and not through the addition of electric-generating renewable energy systems. Other "renewable" technologies such as solar domestic hot water collectors and geothermal H/AC systems (ground source heat pumps) can be included.
- Under ENERGY STAR Version 2.5, both paths are required to complete sections 3 and 5 of the "Thermal Enclosure System Rater Checklist." The other checklists must be completed, but are not enforced.
- Under ENERGY STAR Version 3, both paths are required to complete the "Thermal Enclosure System Rater Checklist," as well as:
 - HVAC System Quality Installation Contractor Checklist
 - HVAC System Quality Installation Rater Checklist
 - Water Management System Building Checklist (or Indoor airPLUS Verification Checklist)
- During the design phase, work with a qualified Home Energy Rater to set energy efficiency goals that comply with ENERGY STAR Version 2.5 and 3. After the project team has decided on an "energy package," build the finalized building performance threshold and measures into the project plans and specs, work with the HERS Rater to create and implement a verification plan during the construction processes, and conduct building performance tests post-construction.
- ENERGY STAR Version 2.5 and 3 offers a sampling protocol that allows a builder with a large volume of projects to qualify a group of new homes to meet ENERGY STAR guidelines based on pre-analysis of building plans and subsequent random testing and inspections of a sample set of the homes as-built. For more information on the U.S. EPA sampling protocols, see the adopted 2006 Enhancements to National Home Energy Ratings Standards at www.resnet.us/standards/sampling_standard.pdf

RESOURCES

- For more information regarding ENERGY STAR standards: www.energystar.gov/homes
- For more information regarding Pacific Northwest ENERGY STAR for New Homes, visit www.northwestenergystar.com/partner-resources/index.html
- To identify a Home Energy Rater in your area visit www.energystar.gov/index.cfm?fuseaction=new_homes_partners.locator or call the ENERGY STAR toll-free hotline: 888.STAR.YES
- New guidelines for ENERGY STAR Version 2.5 and 3.0 prescriptive and performance path: www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_2011_comments
- The EPA provides additional guidance for qualifying units in multifamily buildings (including buildings with four or five stories): www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_multifamily_units
- The California Advanced Homes Program (CAHP) offers California projects financial incentives and best-practice resources at www.californiaadvancedhomes.com/
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
A detailed map that shows climate zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each climate zone.

5.1b

Mandatory

Building Performance Standard

New Construction: Multifamily buildings, four stories or more

REQUIREMENTS

- Meet the ENERGY STAR Multifamily High-Rise program (MFHR) guidelines. Projects permitted on or after January 1, 2012 must be certified through the ENERGY STAR MFHR program. See the "Recommendations" section for the Enterprise Green Communities implementation timeline for the ENERGY STAR MFHR program.

OR

- Multifamily buildings that are four or five stories, in which all units have their own heating, cooling, and hot water systems, separate from other units, may choose to comply with Criterion 5.1a and meet the requirements of ENERGY STAR New Homes Version 2.5 or 3.
- Projects in California, regardless of size, must exceed by 15% the version of Title 24 under which the project is permitted.

RATIONALE

Buildings meeting the Multifamily High-Rise program guidelines are designed to be energy efficient and durable. These high-performance buildings achieve energy savings in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, reduce operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

ENERGY STAR MULTIFAMILY HIGH-RISE PROGRAM IMPLEMENTATION

	PERMIT DATE•	
	BEFORE 01/01/2011	ON OR AFTER 01/01/2012
MULTIFAMILY MID-RISE OR HIGH-RISE BUILDINGS	Project must meet the ENERGY STAR MFHR guidelines, but does not need to certify through the MFHR program	Project must certify through the ENERGY STAR MFHR program

The permit date is the date of the permit or the date of the contract on the building

- Projects participating in the ENERGY STAR MFHR program are designed to perform at least 15% better than ASHRAE 90.1-2007. A project can achieve this by using a prescriptive or a performance path.
 - Prescriptive Path: The project must meet the MFHR Mandatory Prescriptive Path Requirements, and be verified and field-tested according to the ENERGY STAR MFHR Testing and Verification Protocols.
 - Performance Path: The project must meet the MFHR Mandatory Requirements, a 15% energy performance target over ASHRAE 90.1-2007, and be verified and field-tested in accordance with the ENERGY STAR Testing and Verification Protocols.

- To calculate the energy performance target required to meet the Performance Path requirements, the project team must:
 - Identify a qualified professional with experience performing energy modeling per ASHRAE Standard 90.1, Appendix G. In the early design stage, the qualified professional should prepare the energy model and work with the integrative design team to identify cost-effective strategies for meeting the performance target.
 - Calculate the baseline building performance rating according to the EPA's Multifamily High-Rise Simulation Guidelines building performance rating method, which is based on Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda).
- Appendix G of Standard 90.1-2007 is the method for calculating the baseline and projected energy consumption of a building. This method includes all energy costs associated with the building project.
 - The baseline building performance standard (5.1b) can only be met through building performance improvements, and not through the addition of electric-generating renewable energy systems. Other "renewable" technologies such as solar domestic hot water collectors and geothermal H/AC systems (ground source heat pumps) can be included.

Software approved by the EPA's Multifamily High-Rise program includes:

- DOE2
- eQuest
- VisualDOE
- EZDOE
- TRACE
- HAP
- TRNSYS
- EnergyPlus

California projects following Title 24 must use the approved list of energy modeling software:

- Energy Pro 5.1
- Micropas 8.1
- CALRES 2008 v1.1

RESOURCES

- EPA's Multifamily High-Rise program details, including the prescriptive and performance path guidelines and the testing and verification protocols: www.energystar.gov

5.1c

Mandatory

Building Performance Standard

Substantial and Moderate Rehab: Single-family and multifamily, three stories or fewer

REQUIREMENTS

Demonstrate that the energy performance of the completed building is equivalent to a HERS Index of 85 through energy modeling that generates a Home Energy Rating certificate.

RATIONALE

Buildings rehabilitated to a HERS Index of 85 will achieve approximately 2009 IECC energy performance levels in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, reduce operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

- To demonstrate energy performance equivalent to a HERS Index 85, contract with a certified Home Energy Rater (HERS). The HERS rater will perform energy modeling and generate the HERS certificate.
- The HERS rater will be responsible for:
 - creating an energy model to the building plans and specified building plans and specifications to show the building's projected energy performance in the design stage
 - conducting a mid construction pre-drywall thermal enclosure, using the ENERGY STAR version 3 "Thermal Enclosure System Rater Checklist"
 - verifying the final performance of the building with post-construction performance testing, including a blower door and duct blaster test of the home and/or units
- The energy rating software used must be accredited by either RESNET or the California Energy Commission.
- Any method or strategy (except for electric-generating renewable energy systems) can be implemented to satisfy the targeted minimum energy performance.
- If rehabilitating a multifamily low-rise building, generate a HERS certificate for each unique floorplan within the project or subdivision.

RESOURCES

- U.S. Department of Energy, Air Sealing, Technology Fact Sheet:
[apps1.eere.energy.gov/buildings/publications/pdfs/building_america/26290.pdf](https://www.eere.energy.gov/buildings/publications/pdfs/building_america/26290.pdf)
This fact sheet describes the importance of sealing air leaks and providing controlled ventilation.
- To identify a Home Energy Rater in your area, call the ENERGY STAR toll-free hotline: 888.STAR.YES or www.energystar.gov/indeX/cfm?fuseaction=new_homes_partners.locator

- Enterprise Green Communities Single-Family Rehabilitation Specifications: www.greencommunitiesonline.org
A set of green single-family specifications for insulation, air-sealing, and other details that can be customized to your project.
- Enterprise Green Communities Neighborhood Stabilization Program: www.greenbuildingadvisor.com/green-communities-nsp
Enterprise and BuildingGreen have partnered to offer technical resources that build on Enterprise's Green Rehabilitation Specifications. These resources are largely focused on the application of building science concepts that are critical to a building's performance.
- The city of Fort Collins, Colorado, provides audit standards for their Home Efficiency Program: www.fcgov.com/conservation/res-home-efficiency.php
- Building Performance Institute, Combustion Safety Procedures: www.bpi.org/tools_downloads.aspx?selectedTypeID=1&selectedID=2
This site provides a set of guidelines regarding combustion safety when conducting audits and diagnostic testing.
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
A detailed map that shows Climate Zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each Climate Zone.
- Residential Energy Services Network (RESNET): www.resnet.us
A resource where residents can learn about the energy audit and rating process and search the RESNET directory to find certified energy auditors and raters.

5.1d

Mandatory

Building Performance Standard

Substantial and Moderate Rehab: Multifamily, four stories or more

REQUIREMENTS

Demonstrate that the energy performance of the completed building will be equivalent to ASHRAE 90.1-2007 using an energy model created by a qualified energy services provider.

This performance requirement can only be met through building performance improvements, and not through the addition of electric-generating renewable energy systems.

RATIONALE

Buildings rehabilitated to ASHRAE 90.1-2007 energy performance levels achieve energy savings in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, lower operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

- To demonstrate energy performance equivalent to ASHRAE 90.1-2007, contract with an energy services provider. The energy services provider will be responsible for:
 - creating an energy model with the building plans and specifications to show the building's projected energy performance in the design stages
 - conducting a mid-construction pre-drywall thermal enclosure inspection
 - verifying the final performance of the building with performance testing
- The energy services provider must use an energy rating software approved through EPA's MFHR program.
 - The project does not have to follow the code requirements of the ASHRAE 90.1 2007; it is only required to meet the minimum energy performance target that was calculated from the energy model. Any method or strategy (except for electric-generating renewable energy systems) can be implemented to satisfy the targeted minimum energy performance.
 - Projects in California must use the version of Title 24 under which the project is permitted to calculate the targeted minimum energy performance.

Software approved by the EPA's Multifamily High-Rise program includes:

- DOE2
- eQuest
- VisuasDOE
- EZDOE
- TRACE
- HAP
- TRNSYS
- EnergyPlus

California projects following Title 24 must use the approved list of energy modeling software:

- Energy Pro 5.1
- Micropas 8.1
- CALRES 2008 v1.1

RESOURCES

- U.S. Department of Energy, Air Sealing, Technology Fact Sheet:
apps1.eere.energy.gov/buildings/publications/pdfs/building_america/2_6290.pdf
This fact sheet describes the importance of sealing air leaks and providing controlled ventilation.
- Enterprise Green Communities Multifamily Rehabilitation Specifications:
www.greencommunitiesonline.org
A set of model green building specifications for Moderate Rehab projects that includes details on insulation, air sealing, and performance testing that can be customized for your project.
- For more information on ASHRAE 90.1-2007: www.ashrae.org or 800.527.4723

5.2

Optional | 15 points maximum Additional Reductions in Energy Use

REQUIREMENTS

5.2a. New Construction-Single-Family and Multifamily Buildings (three stories or fewer): 1 point for each additional 1 point decrease in the targeted HERS Index as outlined in Criterion 5.1a

5.2b. New Construction-Multifamily Buildings (four stories or more): 1 point for each additional 1% energy improvement from the required energy performance target calculated in Criterion 5.1b

5.2c. Substantial and Moderate Rehab -Single-Family and Multifamily Buildings (three stories or fewer): 1 point for each additional 1 point decrease in the targeted HERS Index as outlined in Criterion 5.1c

5.2d. Substantial and Moderate Rehab -Multifamily Buildings (four stories or more): 1 point for each additional 1% energy improvement from the required energy performance target calculated in Criterion 5.1d

RATIONALE

Improvements in building energy performance result in utility cost savings from more efficient heating, cooling, hot water, lights and appliances, which improve residents comfort, lower operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

- Using the baseline energy model created in Criteria 5.1a-5.1d, analyze and adopt energy improvements to achieve additional energy reductions beyond the mandatory levels.
- Projects that use a prescriptive path for Criteria 5.1a-5.1d will not be able to obtain points under this credit.
- Additional reductions in energy use must be captured by energy conservation measures associated with improved building component systems, and not through the addition of electric-generating renewable energy systems. See Criterion 5.7 for renewable energy points.

RESOURCES

- Projects can reference the Passive House Institute US standard as a means to go above and beyond in energy performance. Information about Passive House concepts and standards can be found at: www.passivehouse.us
- The Building America program offers free research publications, webinars, and newsletters on cost-effective, energy efficient building strategies: www1.eere.energy.gov/buildings/building_america/

5.3

Mandatory
Sizing of Heating and Cooling Equipment

REQUIREMENTS

Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or ASHRAE handbooks.

RATIONALE

Appropriately sized equipment can save money, ensure adequate dehumidification, and prevent short-cycling that can lead to excess moisture in the air.

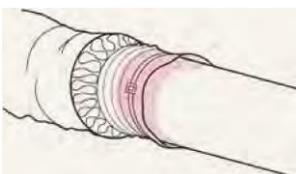
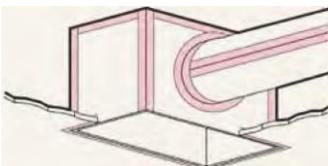
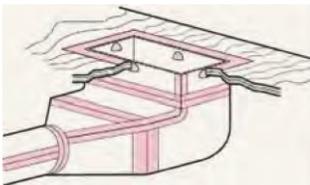
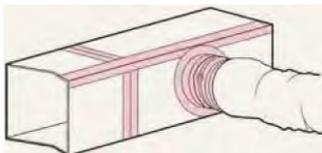
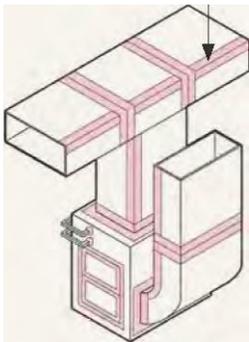
RECOMMENDATIONS

- The HVAC contractor generates a Manual J load calculation to ensure proper sizing of the cooling system. This calculation accounts for factors such as the home's orientation with respect to the sun, window design and insulation R-value, installation quality, and building air leakage. The contractor can use one of the HVAC industry-adopted software programs, based upon Manual J, which assists with these designs. Consult www.acca.org for a list of software programs to perform Manual J calculations.
- Consider locating air handler and ductwork within the building envelope. Do not locate air handler or ductwork within the garage space (see Criterion 7.14 for more information).

RESOURCES

- Air Conditioning Contractors of America, Manual J: Residential Load Calculation: www.acca.org/store/product.php?pid=286
- Air Conditioning Contractors of America, "HVAC Quality Installation Specification: Residential and Commercial Heating, Ventilating, and Air Conditioning Applications": www.acca.org/tech
 The site also includes links to various articles and other ANSI and ACCA standards.
- California Energy Commission, Procedures for HVAC System Design and Installation: www.energy.ca.gov/efficiency/qualityhomes/procedures.html
 This site provides an overview of good practices for designing and installing the HVAC system, as well as detailed strategies and measures for the "house as a system" approach to construction.
- For additional information on duct sealing details: www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_ducts

Mastic



5.4

Mandatory

ENERGY STAR Appliances

If providing appliances

REQUIREMENTS

If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.

RATIONALE

ENERGY STAR products meet strict energy-efficiency criteria set by EPA. These products reduce utility costs and greenhouse gas emissions.

RECOMMENDATIONS

The specifications of the installed appliances should be reflected in the energy modeling building input data report.

RESOURCES

- For bulk orders of ENERGY STAR products, use the web-based purchasing tool "Quantity Quotes": www.quantityquotes.net
This site connects purchasing groups with suppliers.
- When preparing project specifications, find ENERGY STAR product information, including model numbers, at www.energystar.gov/index.cfm?c=products.pr

5.5a

Mandatory

Efficient Lighting: Interior Units

REQUIREMENTS

New Construction-Single-Family and Multifamily Buildings (three stories or fewer): Install the ENERGY STAR Advanced Lighting Package (ALP) in all buildings. ENERGY STAR-qualified LED fixtures can qualify in the place of ENERGY STAR-labeled fixtures. Fixtures with screw-base lamps are permitted only in uninhabited spaces such as closets and storage areas.

New Construction-Multifamily Buildings (four stories or more): Projects must follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed light fixtures within units must be ENERGY STAR qualified or have ENERGY STAR-qualified lamps installed. Fixtures with screw-base lamps are permitted only in uninhabited spaces such as closets and storage areas.

Substantial and Moderate Rehab: If being replaced, new fixtures and ceiling fans are required to meet or exceed ENERGY STAR efficiency levels. If reusing existing fixtures in a rehab, projects must install screw-in compact fluorescent light bulbs (CFLs).

RATIONALE

Energy reductions through efficient lighting products contribute to lower utility costs and lower greenhouse gas emissions.

RECOMMENDATIONS

- The ENERGY STAR ALP requires that a minimum of 60% ENERGY STAR-qualified fixtures and 100% ENERGY STAR-qualified ceiling fans and ceiling fans with lighting are installed.
- Screw-in adapters that convert incandescent light sockets into pin-type sockets can be used to meet the requirement.

RESOURCES

- ENERGY STAR Advanced Lighting Package (ALP) specifications:
www.energystar.gov/index.cfm?c=bldrs_lenders_raters.ALP_Builder
This site includes complete information on EPA's ALP specifications and requirements, along with extensive technical resources, qualified product and manufacturer lists and locators, case studies, and marketing support resources.
- For more information on lighting: www.energystar.gov
- The Lighting Research Center: www.lrc.rpi.edu/
This university-based, independent lighting research and education group provides objective and timely information about lighting technologies and applications, and about human response to light.

5.5b

Mandatory

Efficient Lighting: Common Areas and Emergency Lighting

Multifamily buildings

REQUIREMENTS

Common Area lighting

New Construction-Multifamily Buildings: Projects should use ENERGY STAR-labeled fixtures, LEDs, *TB* fixtures with electronic ballasts or better, or any equivalent high-performance lighting fixtures and bulbs in all common areas. Non-apartment spaces, except those intended for 24-hour operation, or where automatic shutoff would endanger the safety of the occupants, must have occupancy sensors or automatic bi-level lighting controls.

Projects following the ENERGY STAR MFHR prescriptive path must install fixtures that meet the following requirements: 80% of installed fixtures in common spaces must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed.

Substantial and Moderate Rehab-Multifamily Buildings: If being replaced, new common space and emergency lighting fixtures must be ENERGY STAR-labeled fixtures, LEDs, *TB* fixtures with electronic ballasts or better, or any equivalent high-performance lighting fixtures and bulbs. If reusing existing fixtures in a rehab, projects must install screw-in compact fluorescent light bulbs (CFLs) where applicable.

Emergency Lighting

All Multifamily Buildings: If installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes; fixtures located above stairwell doors and other forms of egress shall contain a battery backup feature. Photoluminescent exit signs may be used as an alternative to LED signs only if all local code requirements are satisfied.

RATIONALE

Energy reductions through efficient lighting products contribute to lower utility costs and lower greenhouse gas emissions.

5.5c

Mandatory

Efficient Lighting: Exterior

REQUIREMENTS

New Construction-Single-Family and Multifamily Buildings (three stories or fewer): Install ENERGY STAR qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt, equipped with daylight sensors on all outdoor lighting, including front and rear porch lights in single-family homes.

- Fixtures should include automatic switching on timers or photocell controls for all lighting not intended for 24-hour operation or required for security.
- All fixtures must be full cut-off fixtures that shield light pollution from the night sky.

New Construction-Multifamily Buildings (four stories or more): Projects must follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed. Fixtures must include automatic switches on timers or photocell controls except fixtures intended for 24-hour operation, required for security or located on apartment balconies.

Substantial and Moderate Rehab- Single-Family and Multifamily Buildings: If being replaced, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt, equipped with daylight sensors on all outdoor lighting, including front and rear porch lights in single-family homes.

- Fixtures should include automatic switching on timers or photocell controls for all lighting not intended for 24-hour operation or required for security.
- All fixtures must be full cut-off fixtures that shield light pollution from the night sky.

RATIONALE

Energy reductions through efficient lighting products contribute to lower utility costs and lower greenhouse gas emissions.

RECOMMENDATIONS

Design outdoor lighting to eliminate light trespass from the project site and to minimize impact on nocturnal environments.

RESOURCES

- Illuminating Engineering Society of North America's Recommended Practice Manual: Lighting for Exterior Environments
- Full Cut-off Dark Sky Approved Fixtures: www.darksky.org

5.6a

Mandatory

Electricity Meter

For New Construction and Substantial Rehab, except for single-room occupancy and designated supportive housing dwelling units

REQUIREMENTS

Install individual or sub-metered electric meters in all dwelling units.

RATIONALE

Providing information to residents on the cost and usage associated with the electricity consumption in their unit may reduce energy use.

RECOMMENDATIONS

Individual metering and /or sub-metering should be specified in the Integrative Design stage.

5.6b

Optional | 3 points

Electricity Meter

For Moderate Rehab projects

REQUIREMENTS

Install individual or sub-metered electric meters in all dwelling units.

RATIONALE

Providing information to residents on the cost and usage associated with the electricity consumption in their unit may reduce energy use.

RECOMMENDATIONS

Individual meters or sub-meters should be specified in the Integrative Design stage.

5.7a

Optional | 12points maximum
Renewable Energy

REQUIREMENTS

Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand. Refer to the table below for the point structure.

	1-5%	6-10%	11-20%	21-30%	10%
Single-Family	—	—	4	8	12
Low-Rise (2-3 stories)	—	4	8	12	—
Mid-Rise / High-Rise (4 stories or more)	4	8	12	—	—

RATIONALE

Renewable energy reduces environmental impacts such as greenhouse gas emissions that are associated with energy sourced and produced from fossil fuels. Use of on-site renewable energy technologies can also result in energy cost savings.

RECOMMENDATIONS

- When calculating points for Criterion 5.7a, use the total energy consumption of the building(s) estimated in the energy model for Criteria 5.1a-5.1d.
- Projects that use a prescriptive path for Criteria 5.1a-5.1d will not be able to obtain points under Criterion 5.7a.
- To provide a higher percentage of the project's estimated annual energy consumption with electric-generating renewable energy sources, focus on reducing the building's overall energy consumption in Criteria 5.1a-5.1d and 5.2 with energy-efficiency measures. Energy-efficiency measures are generally more cost-effective than renewables.

RESOURCES

- American Solar Energy Society: www.ases.org
 ASES is a nonprofit organization committed to a sustainable energy economy. ASES accelerates the development and use of solar and other renewable energy resources through advocacy, education, research, and collaboration among professionals, policymakers, and the public.
- American Wind Energy Association: www.awea.org
 AWEA is a national trade association representing wind power plant developers, wind turbine manufacturers, utilities, consultants, insurers, financiers, researchers, and others involved in the wind industry.
- Database of State Incentives for Renewable Energy: www.dsireusa.org
 The North Carolina Solar Center developed this database to collect information on state financial and regulatory incentives (e.g., tax credits, grants, and special utility rates) designed to promote the application of renewable energy technologies. DSIRE also offers additional features, such as preparing and printing reports that detail the incentives on a state-by-state basis.

- **Florida Solar Energy Center:** www.fsec.ucf.edu/en/consumer/solar_electricity/index.htm
This is a resource for basic information on types of photovoltaic solar electric systems, sizing, installation, and system ratings. FSEC also has an industry resources page that includes its *Photovoltaic System Design Course Manual*, available at www.fsec.ucf.edu/en/education/cont_ed/manuals/orderform_pvmanual.htm
- **National Renewable Energy Laboratory:** www.nrel.gov/ncpv
NREL photovoltaic research provides a clearinghouse on all aspects of photovoltaic solar cell systems.
- **National Renewable Energy Laboratory:** www.nrel.gov
NREL is a leader in the U.S. Department of Energy's effort to create a secure energy future for the nation that is environmentally and economically sustainable.
- **U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy:** www.eere.energy.gov
This website provides information on renewable energy technologies and energy efficiency.

5.7b

*Optional | 1 or 2 points***Photovoltaic / Solar Hot Water Ready****REQUIREMENTS**

Site, design, engineer, and /or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.

Minimum required south-facing exposure:

- **Single-Family and Low-Rise Buildings:** 250 square feet of unobstructed roof area that is oriented within 15 degrees of true south
- **Mid- and High-Rise Multifamily Buildings:** \geq 30% of unobstructed roof area or maximum that is oriented within 15 degrees of true south

RATIONALE

Designing for the future installation of photovoltaics or solar hot water systems allows a building owner the flexibility to transition to increased energy generation through renewable energy sources, as resources become available. Installation of renewable energy systems is a hedge against rising costs for purchased energy.

RECOMMENDATIONS

- When designing a photovoltaic or solar hot water ready system, include the following in the project plans and specifications (as applicable to each technology):
 - Site map showing that the building(s) have a southern orientation and unobstructed access to sunlight
 - A design schematic of the future solar array, indicating the south face, slope, and any rooftop equipment that could obstruct the array
 - The type of roof to be installed (e.g., asphalt, standing seam metal, tile)
 - The future location within the building for the inverter

- For solar hot water, run piping from the designed or current location of the water heater up to the prospective solar hot water collectors.
- Check the local zoning laws to ensure that future buildings will not be able to shade your array.
- Work with an engineer to calculate that the roof can carry the dead load of the solar equipment and withstand the wind loads.
- Determine if the roof has a warranty and if the placement of the solar equipment voids the warranty.
- General contractor, PV, and/or solar hot water contractor must document the information on the roof load, location of conduit, piping and the potential location of the dash box. GC, PV, and solar hot water contractor should provide documentation to building owner and manager.
- The first cost of PV can be high, but grants and subsidies are available in many states.

RESOURCES

- National Renewable Energy Laboratory, "Solar Ready Buildings Planning Guide," NREL Technical Report (NREL/TP-7A2-46078): www.nrel.gov/docs/fy10osti/46078.pdf
A paper published by NREL in December 2009 that details design guidelines and checklists for designing solar-ready buildings.
- Database of State Incentives for Renewables & Efficiency: www.dsireusa.org
The North Carolina Solar Center developed this database to collect information on state financial and regulatory incentives (e.g., tax credits, grants, and special utility rates) designed to promote the application of renewable energy technologies. DSIRE also offers additional features, such as preparing and printing reports that detail the incentives on a state-by-state basis.

5.8

Optional | 5 points

Advanced Metering Infrastructure

REQUIREMENTS

Site, design, engineer, and wire the development to accommodate installation of smart meters and /or be able to interface with smart grid systems in the future.

RATIONALE

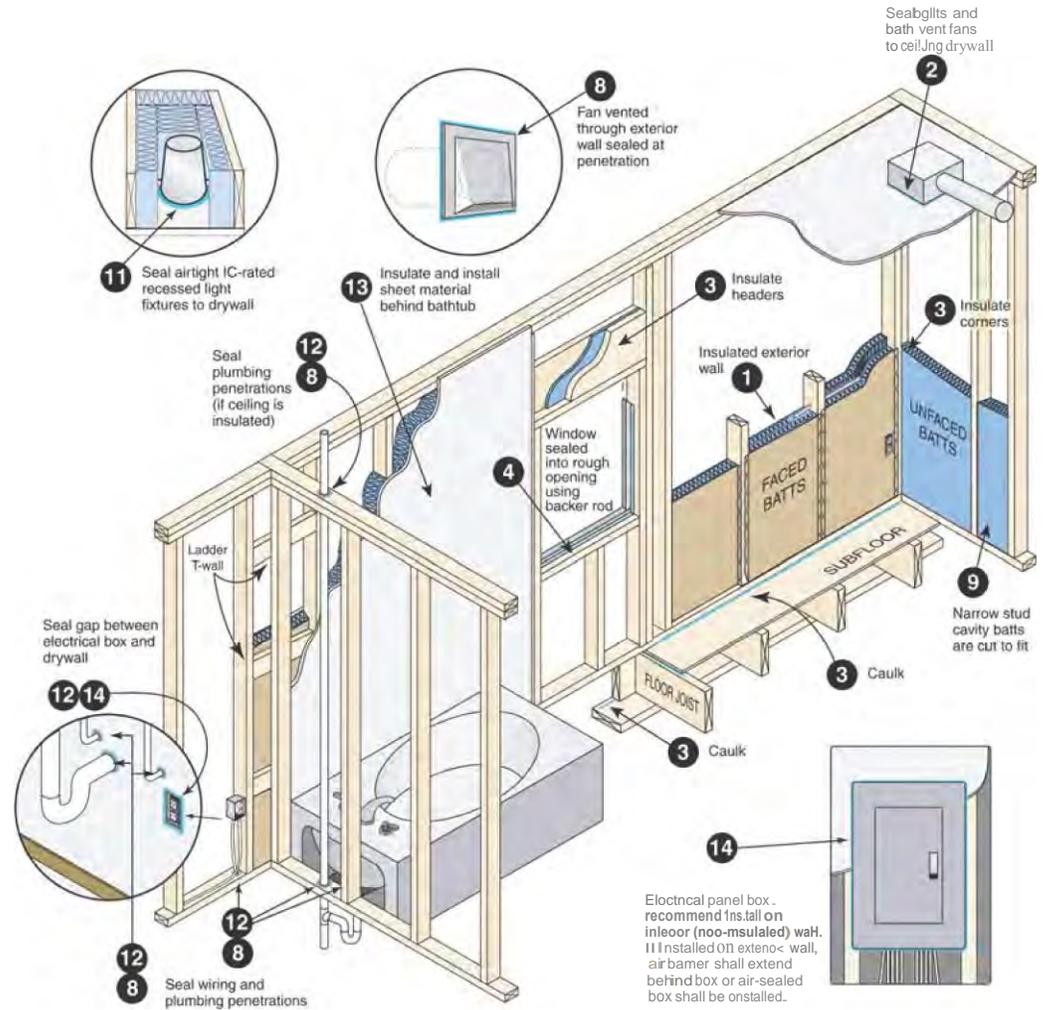
Installation of smart meters allows for more control over a project's electricity use, to realize savings associated during off-peak times. Education on energy consumption habits will allow residents, building staff, and owners to fully realize the environmental and economic benefits that green housing offers.

RESOURCES

- Smart Grid Information Clearinghouse: www.sgiclearinghouse.org/
- U.S. Department of Energy, "The Smart Grid: An Introduction":
[www.oe.energy.gov/DocumentsandMedia/DOE_SG_Book_Single_Pages\(1\).pdf](http://www.oe.energy.gov/DocumentsandMedia/DOE_SG_Book_Single_Pages(1).pdf)

AIR SEALING KEY POINTS

Note: Additional air sealing details are available in Appendix B



AIR BARRIER AND INSULATION INSPECTION COMPONENT GUIDE

COMPONENT	CRITERIA
Air barrier and thermal barrier	<p>Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier</p> <p>Breaks or joints in the air barrier are filled or repaired</p> <p>Air-permeable insulation is not used as a sealing material</p> <p>Air-permeable insulation is inside of an air barrier</p>
Ceiling/attic	<p>Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed</p> <p>Attic access (except unvented attic), knee-wall door, or drop-down stair is sealed</p>
Walls	<p>Corners and headers are insulated; junction of foundation and sill plate is sealed</p>
Windows and doors	<p>Space between window/door jambs and framing is sealed</p>
Rim joists	<p>Rim joists are insulated and include an air barrier</p>
Floors (including above-garage cantilevered floors)	<p>Insulation is installed to maintain permanent contact with underside of and subfloor decking</p> <p>Air barrier is installed at any exposed edge of insulation</p>
Crawl space walls	<p>Insulation is permanently attached to walls</p> <p>Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped</p>
Shafts, penetrations	<p>Duct shafts, utility penetrations, knee walls, and flue shafts opening to exterior or unconditioned space are sealed</p>
Narrow cavities	<p>Batts in narrow cavities are cuttofit, or narrow cavities are filled with sprayed/blown insulation</p>
Garage separation	<p>Air sealing is provided between the garage and conditioned spaces</p>
Recessed lighting	<p>Recessed light fixtures are airtight, IC rated, and sealed to dry wall</p> <p>Exception-fixtures in conditioned space</p>
Plumbing and wiring	<p>Insulation is placed between outside and pipes</p> <p>Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring</p>
Shower/tub on exterior wall	<p>Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall</p>
Electrical/phone box	<p>Air barrier extends behind boxes or air-sealed-type boxes are installed exterior walls</p>
Common wall	<p>Air barrier is installed in common wall between dwelling units</p>
HVAC register boots	<p>HVAC register boots that penetrate building envelope are sealed to subfloor or drywall</p>
Fireplace	<p>Fireplace walls include an air barrier</p>

INTRODUCTION

CRITERIA CHECKLIST

1 INTEGRATIVE DESIGN

2 LOCATION+
NEIGHBORHOOD FABRIC

It does not cover all air sealing locations or techniques. Other code provisions may be applicable as well

ENERGY EFFICIENCY



INTRODUCTION

CRITERIA CHECKLIST

1 INTEGRATIVE DESIGN

2 LOCATION +
NEIGHBORHOOD FABRIC

3 SITE IMPROVEMENTS

4 WATER CONSERVATION

5 ENERGY EFFICIENCY

6 MATERIALS BENEFICIAL
TO THE ENVIRONMENT

7 HEALTHY LIVING ENVIRONMENT

8 OPERATIONS + MAINTENANCE

APPENDICES

GLOSSARY

MATERIALS BENEFICIAL TO THE ENVIRONMENT

Purchasing green construction materials, diverting construction debris and recycling and reusing materials whenever possible reduces waste and disposal costs.

6.1

Mandatory
Low / No VOC Paints and Primers

REQUIREMENTS

All interior paints and primers must be less than or equal to the following VOC levels, in grams per liter, based on a combination of the MPI and GreenSeal standards.

PAINT TYPE	MAXIMUM VOC LIMIT
Flats	50 g/L
Non-flats	50 g/L
Floor	100 g/L
Anti-corrosive	250 g/L

RATIONALE

Interior paints and primers may release VOCs, particularly when wet. Exposure to individual VOCs and mixtures of VOCs can cause or aggravate health conditions, including allergies, asthma, and irritation of the eyes, nose, and airways; however, no health-based standards for indoor non-occupational exposure have been set.

RECOMMENDATIONS

Avoid epoxy-based paints, even those that comply with VOC standards, as these contain the chemical Bisphenol A. Bisphenol A was identified by the EPA on March 29, 2010, as a "chemical of concern." See www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

RESOURCES

Products do not have to meet MPI or Green Seal standards per this criterion, but these standards may be helpful in locating products that meet the maximum VOC levels.

- The MPI Green Performance Standard for Paints & Coatings GPS-2-08 list of products: www.specifygreen.com/API/Introduction.html
- Green Seal standard and locator for finding products: www.greenseal.org/certification/standards/GS-II_paints_and_coatings_standard.pdf and www.greenseal.org/findaproduct/index.cfm

6.2

Mandatory

Low/No VOC Adhesives and Sealants

REQUIREMENTS

All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with Regulation 8, Rule 51, of the Bay Area Air Quality Management District (BAAQMD).

VOC limits

South Coast Air Quality Management District (AQMD), Rule 1168, establishes VOC limits for adhesives: www.aqmd.gov/rules/reg11/r1168.pdf

AQMD ARCHITECTURAL APPLICATIONS CURRENT VOC LIMIT
Less water and less exempt compounds in grams per liter

PRODUCT TYPE	VOC LIMIT (G/L)
Indoor carpet adhesives	50
Carpet pad adhesives	50
Outdoor carpet adhesives	150
Wood flooring adhesives	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250

Bay Area Air Quality Management District Regulation 8, Rule 51, establishes VOC limits for sealants: www.baaqmd.gov/

Bay Area Air Quality Management District Regulation 8, Rule 51, establishes VOC limits for sealants: www.baaqmd.gov/

8-51-301 Adhesive Product, Application Limits: Except as provided in Section 8-51-305, a person shall not use in the following applications any adhesive product with a VOC content, as defined in Section 8-51-226, that exceeds the following VOC limits (expressed as grams of VOC per liter):

BAAQMD VOC STANDARDS

Indoor floor covering installation	150
Multipurpose construction	200
Nonmembrane roof installation /repair	300
Outdoor floor covering installation	250
Single-ply roof material installation/repair	250
Structural glazing	100
Ceramic tile installation	130
Cove base installation	150
Perimeter bonded sheet vinyl flooring installation	660

More information can be found online at www.baaqmd.gov//media/Files/Planning/o20ando/o20Research/Rules/o20ando/o20Regs/reg%2008/rgO851.ashx

RATIONALE

Interior adhesives and sealants may release VOCs, particularly when wet. Exposure to individual VOCs and mixtures of VOCs can cause or aggravate health conditions, including allergies, asthma, and irritation of the eyes, nose, and airways; however, no health-based standards for indoor non-occupational exposure have been set.

RECOMMENDATIONS

- Many construction adhesives are not capable of adhering at temperatures below 40°F. Projects located in cold climates only (Climate Zones 6 and 7, based on IECC 2006) may be exempted from the required low-VOC adhesives and sealants if they prove problematic due to the above reason. In this instance, please identify in the project submittal documents if other adhesives and/or sealants were needed and at what stage of construction the project team was unable to use required low-VOC products.
- Avoid epoxy-based caulks and epoxy-based sealants, as these contain Bisphenol A. Bisphenol A was listed on March 29, 2010 by the EPA as a "chemical of concern." See: www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

RESOURCES

- U.S. Department of Energy, National Renewable Energy Laboratory, "Weatherize Your Home-Caulk and Weather Strip": www.nrel.gov/docs/fyOlostV28039.pdf
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
A detailed map that shows Climate Zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each Climate Zone.

6.3

Mandatory

Construction Waste Management

REQUIREMENTS

Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

RATIONALE

Diverting construction debris and recycling and reusing materials whenever possible reduces waste and disposal costs. In addition, construction waste management reduces the project's impact on landfills.

RECOMMENDATIONS

- Investigate and document local options for recycling or reusing all anticipated major constituents of the project waste stream, including cardboard packaging and "household" recyclables (e.g., beverage containers).
- Consider creating detailed framing plans or scopes of work and accompanying architectural details for use on the job site. Consider creating a detailed cut list and lumber order prior to construction.
- For projects with limited access to recycling centers, consider waste diversion strategies such as using panelized walls and roof trusses to minimize total materials.
- Consider recycling carpet for rehab projects when carpeting is being removed. The specification language below may be customized and included to determine whether carpet recycling is feasible and cost-effective in your locale.
 - Vendor shall supply a price quote to recycle carpet and carpet components at 100%, 50%, and 30% of product tonnage.
 - Property manager shall identify the carpet product and polymer, nylon, polypropylene (which is documented on carpet specification). This will enable the carpet vendor to ascertain the recyclability of the product.
- Some manufacturers of drywall and certain types of ceiling tiles will accept the return of old materials for re-processing.

RESOURCES

- NAHB Research Center, Toolbase.org, Best Practices for Construction Waste Management: www.toolbase.org/Best-Practices/Construction-Waste/waste-mgmt-field-guide
This site includes frequently asked questions, case studies, reports, and various links. It includes *A Builder's Field Guide*, which includes guidance for creating a step-by-step construction waste management and recovery plan.
- U.S. Environmental Protection Agency, WasteWise Program: www.epa.gov/wastewise/targeted/challenge/cbres.htm
This site has information about the WasteWise Building Challenge program, including articles, publications, and various links and resources for more information.

- U.S. Environmental Protection Agency, Construction and Demolition Debris: www.epa.gov/epaoswer/non-hw/debris-new/index.htm
This site includes basic information on construction and demolition debris disposal practices, regional and state programs, publications, and links.
- Construction Materials Recycling Association: www.cdrecycling.org
This site includes links to websites on recycling concrete, asphalt roof shingles, and drywall, as well as a state-by-state listing of construction waste reusers and recyclers.

6.4

Optional | 5 points maximum

Construction Waste Management

REQUIREMENTS

Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by more than 25% by weight through recycling, salvaging, or waste diversion strategies.

RATIONALE

Diverting construction debris and recycling and reusing materials whenever possible reduces waste and disposal costs. In addition, construction waste management reduces the project's impact on landfills.

RECOMMENDATIONS

The following tables provides the point calculations for construction waste management:

PERCENTAGE OF CONSTRUCTION WASTE RECYCLED, SALVAGED, OR DIVERTED	POINTS AWARDED
25%	Mandatory
35%	1
45%	2
55%	3
65%	4
75%	5

- Investigate and document local options for recycling or reuse of all anticipated major constituents of the project waste stream, including cardboard packaging and "household" recyclables (e.g., beverage containers).
- Consider creating detailed framing plans or scopes of work and accompanying architectural details for use on the job site. Consider creating a detailed cut list and lumber order prior to construction.
- For projects with limited access to recycling centers, consider waste diversion strategies such as using panelized walls and roof trusses to minimize overall material use.

- Consider recycling carpet for rehab projects when carpeting is being removed. The specification language below may be customized and included to determine whether carpet recycling is feasible and cost-effective in your locale.
- Vendor shall supply a price quote to recycle carpet and carpet components at 100%/0, 50%/0, and 30%/0 of product tonnage.
- Property manager shall identify the carpet product and polymer, nylon, polypropylene (which is documented on carpet specification). This will enable the carpet vendor to ascertain the recyclability of the product.

RESOURCES

- NAHB Research Center, Toolbase.org, Best Practices for Construction Waste Management: www.toolbase.org/Best-Practices/Construction-Waste/waste-mgmt-field-guide
This site includes frequently asked questions, case studies, reports, and various links. It includes *A Builder's Field Guide*, which includes guidance for creating a step-by-step construction waste management and recovery plan.
- U.S. Environmental Protection Agency, WasteWise Program: www.epa.gov/wastewise/targeted/challenge/cbres.htm
This site has information about the WasteWise Building Challenge program, including articles, publications, and various links and resources for more information.
- U.S. Environmental Protection Agency, Construction and Demolition Debris: www.epa.gov/epaoswer/non-hw/debris-new/index.htm
This site includes basic information on construction and demolition debris disposal practices, regional and state programs, publications, and links.
- Construction Materials Recycling Association: www.cdrecycling.org
This site includes links to websites on recycling concrete, asphalt roof shingles, and drywall, as well as a state-by-state listing of construction waste reusers and recyclers.

6.5

Optional | 5 points

Recycling Storage for Multifamily Project

REQUIREMENTS

Provide one or more easily accessible, permanent, and dedicated areas for the collection and storage of materials for recycling for the entire project. Materials must include, at a minimum, paper, corrugated cardboard, glass, plastics, and metals.

RATIONALE

Recycling prevents usable materials from entering the waste stream.

RECOMMENDATIONS

- Ensure that the recycling program has management support.
- Designate an area for recyclable collection and storage that is appropriately sized and located in a convenient area.

- Identify local waste handlers and buyers for glass, plastic, metals, office paper, newspaper, cardboard, and organic wastes.
- Instruct occupants on recycling procedures through clear and visible signs that include pictures and/or languages of residents. Also, include the recycling plan in the Resident Manual.
- Ensure that the recycling program is monitored and improved to address contamination, low participation, and the like.
- Ensure that project staff follow procedures for collecting recyclables for your recycling hauler, and include those procedures in the project maintenance manual.

6.6

Optional | 5 points maximum Recycled Content Material

REQUIREMENTS

A building material must make up at least 90% of the project component either by weight or by volume to qualify under this measure.

A qualifying building material must be composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content to achieve 1 point.

The following table lists the project components and example materials that a team can incorporate for optional points. Each material that meets the requirements of this Criterion is worth 1 point.

PROJECT COMPONENT	BUILDING MATERIAL (EXAMPLES)
Framing	Wood, concrete, steel, aluminum
Siding or masonry	Wood, metal, masonry
Flooring (non-structural)	Linoleum, cork, bamboo, reclaimed wood, sealed concrete, carpet
Concrete/cement and aggregate	Urbanite
Roofing	Wood shingles, asphalt shingles, tile, metal
Insulation	Fiberglass batt, cellulose, rigid panel
Sheathing	Plywood, OSB

RATIONALE

Use of building materials with recycled content reduces the negative environmental impact resulting from extraction and processing of virgin materials.

RECOMMENDATIONS

Consider the incorporation of recycled content building materials from the early stages of project design.

RESOURCES

- Federal Trade Commission, "Guides for the Use of Environmental Marketing Claims," 16 CFR 260.7(e): www.ftc.gov/bcp/grrrrule/guides980427.htm
Many commonly used products, such as metals, concrete, masonry, acoustic tile, drywall, carpet, ceramic tile, and insulation, are now available with recycled content.
- GreenSpec Directory, Building Green: www.buildinggreen.com
The online GreenSpec® Directory lists product descriptions for more than 2,000 environmentally preferable products.
- Pharos Project, Healthy Building Network: www.pharosproject.net
The Pharos Project provides health and environmental data about the manufacture, use, and end of life of building materials specified in a web-based tool.

6.7

Optional | 5 points maximum

Regional Material Selection

REQUIREMENTS

Use products that were extracted, processed, and manufactured within 500 miles of the project for a minimum of 50%, based on cost, of the building materials' value.

Building material types that can qualify for these points include the following (*each material can qualify for 1 point*):

- Framing materials
- Exterior materials-siding, masonry, roofing
- Concrete/cement and aggregate
- Drywall/ interior sheathing
- Flooring materials

RATIONALE

Building materials that are extracted, processed, and manufactured locally to the project site minimize the energy embedded in their transportation and contribute to the local economy.

RECOMMENDATIONS

Natural building materials that are approved by HUD or USDA can qualify for points under this measure.

RESOURCES

- GreenSpec Directory, Building Green: www.buildinggreen.com
The online GreenSpec® Directory lists product descriptions for more than 2,000 environmentally preferable products.
- Pharos Project, Healthy Building Network: www.pharosproject.net
The Pharos Project provides health and environmental data about the manufacture, use, and end of life of building materials specified in a web-based tool.

6.8

Optional | 5 points
Certified, Salvaged, and Engineered Wood Products

REQUIREMENTS

Commit to using wood products and materials of at least 25%, by cost, that are either:

- Certified in accordance with the Forest Stewardship Council
- Salvaged products
- Engineered framing materials that do not include urea formaldehyde-based binders (see Criterion 7.1)

The percentage of certified, salvaged, and engineered wood products is based on cost or value.

RATIONALE

Less than 10% of the old growth forest remains in the United States. The use of salvaged wood and engineered wood products precludes the need to use old-growth lumber. Forest Stewardship Council-certified wood encourages forestry practices that are environmentally responsible.

EQUATION

Sum of the value of all certified, salvaged, or engineered wood products	The value of all wood products as structural components	Percentage of total wood products that meet this criterion
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RESOURCES

- For help in locating FSC-certified products, fill out the form found at www.fscus.org/faqs/fsc_products.php and at www.findfsc.org. FSC will circulate it to certified companies, and these companies will contact you if they have the desired product(s) available.
- Rainforest Alliance, "SmartGuide to Green Building Wood Sources": www.rainforestalliance.org!smartguides. This site lists U.S. suppliers, manufacturers, and distributors of FSC-certified building products.

6.9a

Optional | 1 or 3 points

Reduced Heat-Island Effect: Roofing

REQUIREMENTS

Option 1 [3 points]

Use ENERGY STAR-compliant roofing, which requires:

	ROOF SLOPE	INITIAL SOLAR REFLECTANCE	MAINTAINED SOLAR REFLECTANCE	EMISSIVITY
Low slope	< 2:12	0.65	0.50	0.8
Steep slope	> 2:12	0.25	0.15	0.8

Emissivity should be greater than or equal to 0.8 when tested in accordance with ASTM 408. For Option 1, 100% of the roof area must meet the requirements above to achieve optional points.

OR

Option 2 [1 point]

Install a "green" (vegetated) roof for at least 50% of the roof area.

Combinations of ENERGY STAR-compliant and vegetated roofing can be used, providing they collectively cover 75% of the roof area.

RATIONALE

Urban heat islands increase local air temperatures due to the absorption of solar energy by the built environment. Reducing the heat island effect decreases energy consumption by decreasing loads on cooling systems.

RECOMMENDATIONS

Avoid PVC membrane roofing, which is manufactured using phthalates, a chemical listed on December 30, 2009 by EPA as a "chemical of concern" to human health: www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

RESOURCES

- Cool Roof Rating Council, Directory of Rated Products: www.coolroofs.org/products/search.php
 CRRC maintains a third-party rating system of radiative properties of roof surfacing materials.
- U.S. Environmental Protection Agency, Heat Island Effect: www.epa.gov/heatisland
 This site contains information about heat island effect, its social and environmental costs, and strategies to minimize its prevalence, including shading and coloration of hardscapes.
- Lawrence Berkeley National Laboratory, Heat Island Group: eetd.lbl.gov/Heatisland
 The Lawrence Berkeley National Laboratory conducts research to find, analyze, and implement solutions to minimizing heat island effects; its current efforts focus on the study and development of more reflective surfaces for roadways and buildings.

6.9b

*Optional | 2 points***Reducing Heat-Island Effect: Paving****REQUIREMENTS**

Use light colored, high albedo materials and/or an opengrid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

RATIONALE

Urban heat islands increase local air temperatures due to the absorption of solar energy by the built environment. Reducing the heat island effect decreases energy consumption by decreasing loads on cooling systems.

RESOURCES

- U.S. Environmental Protection Agency, Heat Island Effect: www.epa.gov/heatisland
This site contains information about heat island effect, its social and environmental costs and strategies to minimize its prevalence, including shading and coloration of hardscapes.
- Lawrence Berkeley National Laboratory, Heat Island Group: www.eetd.lbl.gov/Heatisland
The Lawrence Berkeley National Laboratory conducts research to find, analyze, and implement solutions to minimizing heat island effects. Its current efforts focus on the study and development of more reflective surfaces for roadways and buildings.

- 1 INTEGRATIVE DESIGN
 - 2 LOCATION+
NEIGHBORHOOD FABRIC
 - 3 SITE IMPROVEMENTS
 - 4 WATER CONSERVATION
 - 5 ENERGY EFFICIENCY
 - 6 MATERIALS BENEFICIAL
TO THE ENVIRONMENT
 - 7 HEALTHY LIVING ENVIRONMENT
 - 8 OPERATIONS +MAINTENANCE
- APPENDICES
GLOSSARY



HEALTHY LIVING ENVIRONMENT

Optimal ventilation improves indoor air quality and the flow of fresh air throughout the home, contributing to a healthier living environment.

7.1

Mandatory

Composite Wood Products that Emit Low or No Formaldehyde

REQUIREMENTS

All composite wood products (plywood, OSB, MDF, cabinetry) must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants, per Criterion 6.2.

RATIONALE

Composite wood products using formaldehyde-based binders will emit formaldehyde, which is a volatile organic compound. Symptoms of exposure vary widely and include a host of bodily reactions. Avoiding products that emit formaldehyde will reduce the quantity of harmful indoor air contaminants.

RECOMMENDATIONS

- Make this requirement part of the specifications for sub-contractor submittals. Obtain the manufacturer's specifications to determine whether materials meet this requirement. Seek composite wood products compliant with California 93120. California 93120 is a regulation issued by the California Air Resources Board (CARB) limiting allowable formaldehyde emissions from composite wood products.
- Seek composite wood products with no added formaldehyde-based compounds in the contents. Seek composite wood products with CARB No Added Formaldehyde (NAF) certification. Also, Scientific Certification Systems offers a Formaldehyde Free certification, and product listings are available at www.scscertified.com/products/index.php
- If feasible, specify formaldehyde-free hardwood, plywood, particleboard, or medium-density fiberboard.

RESOURCES

- In July 2010, the U.S. Congress passed Public Law No: 111-199, the S. 1660: Formaldehyde Standards for Composite Wood Products Act, which updates the Toxic Substances Control Act of 1976 to align with the recent California legislation 93120. More information on Public Law No: 111-199 S.1660 can be found online at www.govtrack.us/congress/bill.xpd?bill=s111-1660. A summary of the Toxic Substances Control Act of 1976 can be found online at the EPA's website at www.epa.gov/lawsregs/laws/tsca.html
- The California Air Resources Board approved an Airborne Toxic Control Measure in April 2007 to reduce formaldehyde emissions from composite wood products including hardwood plywood, medium-density fiberboard, and particleboard (Title 17, California Code of Regulations 93120-93120.12). California 93120. More information can be found at: www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf

7.2

Mandatory

Environmentally Preferable Flooring

If project scope includes provision of flooring

REQUIREMENTS

Prohibited Locations

Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, or any rooms of ground-connected floors.

Products

Any hard surface flooring products used must be either ceramic tile *or* unfinished hardwood floors *or* meet the Scientific Certification System's FloorScore program criteria (including pre-finished hardwood flooring).

The use of reclaimed flooring is encouraged, and such flooring need not meet the FloorScore certification. Reclaimed wood flooring should be free of lead-based paint, and tiles should be free of asbestos.

Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives.

RATIONALE

Carpets have a short lifespan (studies suggest 3-5 years), and thus may need frequent replacement. More durable flooring options that last longer and wear better than carpet promote resource conservation through their longevity. New carpets, padding, and adhesives also release VOCs that may pose health hazards to residents and workers. In addition, carpets trap dust and other allergens.

RECOMMENDATIONS

- Throughout the home, consider non-carpet flooring alternatives such as natural linoleum; Forest Stewardship Council (FSC)-certified or salvaged hardwoods; cork; bamboo; ceramic or stone tile; or sealed concrete.
- Make this requirement part of the specifications for sub-contractor submittals.

RESOURCES

- The SCS FloorScore program website includes information about the program, as well as a list of certified products that is updated regularly: www.scs-certified.com/iaq/floorscore.html and www.rfci.com/index.php?option=com_content&view=article&id=101&Itemid=100
- The Carpet and Rug Institute maintains a list of manufacturers and products meeting the Green Label Plus standard: www.carpet-rug.org/residential-customers/selecting-the-right-carpet-or-rug/green-label.cfm
- For online comparison of flooring alternatives, see the Healthy Building Network's Pharos Project: www.pharosproject.net

7.3

Optional | 4 points

Environmentally Preferable Flooring: Alternative Sources

REQUIREMENTS

Use non-vinyl, non-carpet floor coverings in all rooms of the building.

RATIONALE

Natural and renewable alternative flooring materials have demonstrated environmental benefits, including low levels of VOC emissions and environmentally friendly production methods. These products are good substitutes for standard products linked with certain health hazards.

RECOMMENDATIONS

- Whenever possible, select resilient flooring that has passed a California 01350 test (FloorScore, CHPS) or NSF/ANSI 332. For California 01350, give highest preference to those that pass the residential version of the test, as the residential test is more stringent.
- Use alternative flooring materials such as natural linoleum, ceramic tile, bamboo, cork, or hardwood (especially salvaged wood).
- For basements, leave the slab exposed and stained with low-VOC material rather than providing any floor treatments.

RESOURCES

- BuildingGreen, "Green Building Products: The GreenSpec Guide to Residential Building Materials": www.buildinggreen.com/ecommerce/gbp.cfm
- For online comparison of flooring alternatives, see the Healthy Building Network's Pharos Project: www.pharosproject.net
- The U.S. Environmental Protection Agency identified phthalates, a chemical used to make sheet vinyl pliable, as a "chemical of concern" on December 30, 2009: www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

7.4a

Mandatory

Exhaust Fans: Bathroom

New Construction and Substantial Rehab

REQUIREMENTS

Install ENERGY STAR-labeled intermittent bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay offswitch, ventilation controller). Intermittent bathroom fans should operate at an exhaust rate of 50 cubic feet per minute (cfm) to the outdoors, per ASHRAE 62.2-2010.

OR

Install ENERGY STAR-labeled continuous bathroom fans that exhaust to the outdoors and operate continuously at a rate of 20 cfm, per ASHRAE 62.2-2010.

OR

Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and electronically commutated motors (ECM), with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in bathrooms reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. ENERGY STAR-qualified fans use 65% less energy on average than standard models and move more air per unit of energy used with less noise. Timers and humidistat sensors help ensure that fans regularly remove moisture and provide increased ventilation.

RECOMMENDATIONS

- If the continuous bathroom fan option is used to meet the ventilation requirements for whole house ventilation under Criterion 7.6 or 7.7, project teams should be careful not to exceed the cfm requirements for whole building/unit ventilation (i.e., the fan should have the capability to be set to a low-speed condition or controlled by a cycle timer to meet the requirement).
- Placing a single multi-port, in-line fan in each apartment to exhaust air from the kitchen and bathroom(s) is an acceptable ventilation strategy. In addition to meeting local code requirements for the minimum distance of thru-wall exhaust vents from windows, the in-line fan must be ENERGY STAR-labeled, and the kitchen and bathroom exhaust ventilation rates must comply with ASHRAE 62.2-2010.
- Consider performing the following test to determine if an installed bathroom exhaust fan is pulling roughly the appropriate amount of air. Tear off single squares of toilet paper, hold the toilet paper square up to the fan grill, and turn the fan on. If a bathroom fan can hold one square of toilet paper, then it is pulling about 25 cfm; if a bathroom fan can hold two squares on top of each other, then it is pulling about 50 cfm.

RESOURCES

- ENERGY STAR: www.energystar.gov/index.cfm?c=vent_fans.pr_vent_fans
This website describes the advantages of ENERGY STAR-labeled bathroom, utility room, and kitchen exhaust fans, and provides product and manufacturer lists.
- Home Ventilating Institute, Ventilation Systems and Controls: www.hvi.org/ and www.hvi.org/assets/pdfs/Ventilation_Controls_for_Life-Styles.pdf
The HVI provides consumers an assurance of product performance. It also works to increase public awareness of the need for good ventilation and provides resources for selecting the proper ventilation products.

- Building Science Information, "Review of Residential Ventilation Technologies": www.buildingscience.com/documents/guides-and-manuals/gm-review-residential-ventilation-technologies/view?searchterm=Residential%20Ventilation%20Technologies
This page provides a link to a report that reviews current and potential ventilation technologies for residential buildings with particular emphasis on North American climates and construction.

7.4b

Optional | 6 points

Exhaust Fans: Bathroom

Moderate Rehab

REQUIREMENTS

Install ENERGY STAR-labeled intermittent bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller). Intermittent bathroom fans should operate at an exhaust rate of 50 cfm to the outdoors, per ASHRAE 62.2-2010.

OR

Install ENERGY STAR-labeled continuous bathroom fans that exhaust to the outdoors and operate continuously at a rate of 20 cfm, per ASHRAE 62.2-2010.

OR

Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and ECM, with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in bathrooms reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. ENERGY STAR-labeled fans use 65% less energy on average than standard models and move more air per unit of energy used with less noise. Timers and humidistat sensors help ensure that fans regularly remove moisture and provide increased ventilation.

RECOMMENDATIONS

- If the continuous bathroom fan option is used to meet the ventilation requirements for whole house ventilation under Criterion 7.6 or 7.7, project teams should be careful not to exceed the cfm requirements for whole project ventilation (i.e., the fan should have the capability to be set to a low-speed condition or controlled by a cycle timer to meet the requirement).

- Placing a single multi-port, in-line fan in each apartment to exhaust air from the kitchen and bathroom(s) is an acceptable ventilation strategy. In addition to meeting local code requirements for the minimum distance of thru-wall exhaust vents from windows, the in-line fan must be ENERGY STAR-labeled, and the kitchen and bathroom exhaust ventilation rates must comply with ASHRAE 62.2-2010.
- Consider performing the following test to determine if an installed bathroom exhaust fan is pulling roughly the appropriate amount of air. Tear off single squares of toilet paper, hold the toilet paper square up to the fan grill, and turn the fan on. If a bathroom fan can hold one square of toilet paper, then it is pulling about 25 cfm; if a bathroom fan can hold two squares on top of each other, then it is pulling about 50 cfm.

RESOURCES

- For more information on bathroom fans, go to the products section of the ENERGY STAR homepage: www.energystar.gov/index.cfm?c=vent_fans.pr_vent_fans
This website describes the advantages of ENERGY STAR-labeled bathroom, utility room, and kitchen exhaust fans, and provides product and manufacturer lists.
- Home Ventilating Institute, Ventilation Systems and Controls: www.hvi.org/ and www.hvi.org/assets/pdfs/Ventilation_Controls_for_Life-Styles.pdf
The HVI provides consumers an assurance of product performance. It also works to increase public awareness of the need for good ventilation and provides resources for selecting the proper ventilation products.
- Building Science Information, "Review of Residential Ventilation Technologies": www.buildingscience.com/documents/guides-and-manuals/gm-review-residential-ventilation-technologies/view?searchterm=Residential%20Ventilation%20Technologies
This page provides a link to a report that reviews current and potential ventilation technologies for residential buildings with particular emphasis on North American climates and construction.

7.5a

Mandatory

Exhaust Fans: Kitchen

New Construction and Substantial Rehab

REQUIREMENTS

Install power-vented fans or range hoods that exhaust to the outdoors at an intermittent rate of 100 cfm, per ASHRAE 62.2-2010.

OR

Install power-vented fans or range hoods that exhaust to the outdoors at a continuous rate of five air changes per hour based on kitchen volume.

OR

Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and ECM with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in kitchens reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. Besides helping to reduce moisture, kitchen fans also help remove carbon dioxide and carbon monoxide over fuel-burning appliances and other air contaminants that may be by-products of cooking.

RECOMMENDATIONS

- There is currently no ENERGY STAR labeling program for kitchen range fans. Avoid oversized range fans, which can depressurize homes and cause back-drafting of combustion appliances.
- Placing a single multi-port, in-line fan in each apartment to exhaust air from the kitchen and bathroom(s) is an acceptable ventilation strategy. In addition to meeting local code requirements for the minimum distance of thru-wall exhaust vents from windows, the in-line fan must be ENERGY STAR-labeled, and the kitchen and bathroom exhaust ventilation rates must comply with ASHRAE 62.2-2010. Ensure that the placement of the exhaust grill meets code requirements for kitchen ventilation.

RESOURCES

- For more information on kitchen fans or range hoods, go to the products section of the ENERGY STAR homepage: www.energystar.gov

7.5b

Optional | 6 points

Exhaust Fans: Kitchen

Moderate Rehab

REQUIREMENTS

Install power-vented fans or range hoods that exhaust to the exterior at an intermittent rate of 100 cfm, per ASHRAE 62.2-2010.

OR

Install power-vented fans or range hoods that exhaust to the exterior at a continuous rate of five air changes per hour based on kitchen volume.

OR

Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and ECM, with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in kitchens reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. Besides helping to reduce moisture, kitchen fans also help remove carbon dioxide and carbon monoxide over fuel-burning appliances and other air contaminants that may be by-products of cooking.

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RESOURCES

- For more information on kitchen fans or range hoods, go to the products section of the ENERGY STAR homepage: www.energystar.gov

7.6a

Mandatory **Ventilation**

New Construction and Substantial Rehab

REQUIREMENTS

Single-Family and Low-Rise Multifamily

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE 62.2-2010 requirements for single-family and low-rise multifamily dwellings.

Use the following formula, or refer to the table on the next page as a reference for calculating the ventilation rate.

$$[7.5 \text{ cfm per}(\# \text{ of bedrooms} + 1)] + [1 \text{ dm per } 100\text{ft}^2 \text{ of floor area}] = (\text{ASHRAE } 62.2-2010)$$

Multifamily, four stories or more

Install a ventilation system capable of providing adequate fresh air per ASHRAE 62.2-2010 for all dwelling units, and ASHRAE 62.1-2010 for all hallways and common spaces.

$$[7.5 \text{ cfm per}(\# \text{ of bedrooms} +1)] + [1\text{dm per } 100\text{ft}^2 \text{ of floor area}] = (\text{ASHRAE } 62.2\text{-}2010)$$

AND

$$[0.06 \text{ cfm per } 1\text{ft}^2 \text{ of common corridors}] = (\text{ASHRAE } 62.1\text{-}2010)$$

Alternatively, project teams can use the table below from ASHRAE 62.2-2010 to determine required ventilation rates. Note that the table provides ventilation air requirements for a single-family or a multifamily unit. Thus, the floor area and number of bedrooms listed should be used to derive the required cfm for each unit. Then the units should be aggregated along with the required cfm for the common space to reach the total required cfm for the project.

VENTILATION AIR REQUIREMENTS (IN CFMS)

FLOOR AREA (BY UNIT) FT'	BEDROOMS (BY UNIT)				
	0-1	2	3	4	> 7
< 1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150

For Substantial Rehab projects, consult Appendix A of ASHRAE 62.2-2010, which provides options relevant to existing buildings.

Multifamily Projects with Central Ventilation Systems

Establish ventilation rates for bathrooms, kitchens, and units based on ASHRAE 62.2-2010 requirements. Using these ventilation levels, install a centralized ventilation system that is balanced to run at the required ASHRAE 62.2-2010 levels for each unit and 62.1-2010 levels for common spaces. Provide Enterprise Green Communities with information on the central systems and controls used to achieve the residential in-unit ventilation requirements per ASHRAE 62.2-2010.

RATIONALE

Optimal ventilation improves indoor air quality and the flow of fresh air throughout the home, contributing to a healthier living environment.

RECOMMENDATIONS

- With continuous, demand-controlled, or other centralized ventilation systems, the project team (specifically, the designer, installer, and maintenance staff) should ensure that the systems are balanced from unit to unit to meet the requirements of ASHRAE 62.2-2010. Also, consider the following guidance:
 - For fans designed to exhaust more than 250 cfm, consider using ECM with speed controllers mounted near the fan for ease of balancing.
 - For fans designed to exhaust less than 250 cfm, consider using direct drive with speed controller mounted near the fan for ease of balancing.
- For climate-specific strategies, project teams should consult ASHRAE 62.2-2010.
- For projects located in hot and humid climates, systems should be designed to be capable of ASHRAE 62.2 ventilation levels. Supplemental dehumidification is likely necessary for compliance in these climates to maintain comfort during times of high ambient relative humidity. Additionally, the goal should be to design a system to meet ASHRAE requirements and then provide for additional accommodations to adjust the amount of outside air flow being introduced.
- Consider the following controls for introducing outside air:
 - Flow control/butterfly damper to allow for control over the amount of air being introduced through the outside air intake.
 - Shut-off damper (electronic or barometric) to close off the outside air intake when the HVAC system is not calling for air.
 - Fan timer /cyclers on the system that allows for control over how many minutes of a "system run cycle" the outside air intake remains open.
 - Per ASHRAE ventilation requirements, reliance on operable windows is not permitted as a strategy to meet ASHRAE 62.2 whole-project ventilation requirements.

RESOURCES

- Specify a mechanical whole-house ventilation system per ASHRAE 62.2-2010 and the EPA ENERGY STAR with Indoor Air Package Specifications.
- ASHRAE Standard 62.2-2010: www.ashrae.org/technology/page/548
This site provides a viewable version of ASHRAE Standard 62.2-2010. The online version cannot be printed or saved but can be previewed.
- University of Minnesota, Common Questions about Heat and Energy Recovery Ventilators: www.extension.umn.edu/distribution/housingandclothing/DK7284.html
This site provides a brief, easy-to-understand overview of heat- and energy-recovery ventilators.
- Building Science.com, Review of Residential Ventilation Technologies: www.buildingscience.com/documents/reports
This page provides a link to "Review of Residential Ventilation Technologies," a report that reviews current and potential ventilation technologies for residential projects, with particular emphasis on North American climates and construction.

7.6b

Optional | 5 points

Ventilation

Moderate Rehab

REQUIREMENTS

Single-Family and Low-Rise Multifamily

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE 62.2 requirements for single-family and low-rise multifamily dwellings.

$$[7.5 \text{ cfm per}(\# \text{ of bedrooms}+1)] + [1 \text{ dm per } 100 \text{ ft}^2 \text{ offloor area}] = (\text{dm requirements per ASHRAE } 62.2\text{-}2010)$$

Multifamily, four stories or more

Install a ventilation system capable of providing adequate fresh air per ASHRAE 62.2 for all dwelling units, and ASHRAE 62.1 for all hallways and common spaces.

$$[7.5 \text{ cfm per}(\# \text{ of bedrooms}+1)] + [1 \text{ dm per } 100 \text{ ft}^2 \text{ offloor area}] = (\text{dm requirements per ASHRAE } 62.2\text{-}2010)$$

AND

$$[0.06 \text{ cfm per } 1 \text{ ft}^2 \text{ of common corridors}] = (\text{ASHRAE } 62.1\text{-}2010)$$

For Moderate Rehab projects, consult Appendix A of ASHRAE 62.2, which provides options relevant to existing buildings that enable owners to take credit for existing ventilation.

Multifamily Projects with Central Ventilation Systems

Establish ventilation rates for bathrooms, kitchens, and units, based on ASHRAE 62.2-2010 requirements. Using these ventilation levels, install a centralized ventilation system that is balanced to run at the required ASHRAE 62.2-2010 levels for each unit and 62.1-2010 levels for common spaces. Provide Enterprise Green Communities with information on the central systems and controls used to achieve the residential in-unit ventilation requirements per ASHRAE 62.2-2010.

RATIONALE

Optimal ventilation improves indoor air quality and the flow of fresh air throughout the home, contributing to a healthier living environment.

RECOMMENDATIONS

- With continuous, demand-controlled, or other centralized ventilation systems, the project team (specifically, the designer, installer, and maintenance staff) should ensure that the systems are balanced from unit to unit to meet the requirements of ASHRAE 62.2-2010. Also, consider the following guidance:
 - For fans designed to exhaust more than 250 cfm, consider using ECM with speed controllers mounted near the fan for ease of balancing.
 - For fans designed to exhaust less than 250 cfm, consider using direct drive with speed controller mounted near the fan for ease of balancing.

- For climate-specific strategies, project teams should consult ASHRAE 62.2-2010.
- For projects located in hot and humid climates, systems should be designed to be capable of ASHRAE 62.2 ventilation levels. Supplemental dehumidification is likely necessary for compliance in these climates to maintain comfort during times of high ambient relative humidity. Additionally, the goal should be to design a system to meet ASHRAE requirements and then provide for additional accommodations to adjust the amount of outside air flow being introduced.
- Consider the following controls for introducing outside air:
 - Flow control/butterfly damper to allow for control over the amount of air being introduced through the outside air intake.
 - Shut-off damper (electronic or barometric) to close off the outside air intake when the HVAC system is not calling for air.
 - Fan timer/cycler on the system that allows for control over how many minutes of a "system run cycle" that the outside air intake remains open.
 - Per ASHRAE ventilation requirements, reliance on operable windows is not permitted as a strategy to meet ASHRAE 62.2 whole-building ventilation requirements.

RESOURCES

- National Center for Healthy Housing, Ventilation Fact Sheets:
www.nchh.org/Training!Green-and-Healthy-Housing.aspx
 - Improving Ventilation in Multifamily Buildings that Do Not Have Fan-Powered Ventilation
 - Improving Ventilation in Existing or New Buildings with Central Roof Exhaust
 - Improving Ventilation in New and Existing Multifamily Unit Buildings with Individual Unit Ventilation Systems

7.7

Mandatory **Clothes Dryer Exhaust**

REQUIREMENTS

Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.

RATIONALE

Outdoor venting of clothes dryers substantially reduces air moisture that can lead to mold growth.

RECOMMENDATIONS

- It is important to minimize the duct run to avoid buildup of moisture and particles that can inhibit the flow of air through the duct. Rigid duct materials are preferred to help ensure clean ducts and reduce buildup of particles and moisture.
- Locating the dryer on an exterior wall will allow a minimized duct run for the exhaust.

7.8

Mandatory

Combustion Equipment

For projects with combustion equipment

REQUIREMENTS

Specify power-vented or direct vent equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.

Projects should install one hard-wired carbon monoxide (CO) alarm for each sleeping area, minimum one per floor. Multifamily projects should follow state law requirements for location of CO alarms, if respective state law addresses CO alarm placement in multifamily projects and conflicts with the Enterprise Green Communities requirement.

Projects without combustion equipment (i.e., space and water heating equipment, cook tops, and any other combustion equipment) or attached garages are exempt from this measure. Also, projects with combustion equipment located in detached utility building(s) or open-air facilities are exempt from this measure.

RATIONALE

Direct-vent systems draw all the air needed directly from the outside so there is no risk of spilling combustion contaminants into the residence. Power-vented equipment uses a fan or blower to create the pressure difference that causes air to flow from inside the house, through the combustion device, and out an approved chimney or vent system, to the outdoors.

RESOURCES

- U.S. Environmental Protection Agency, Combustion Products and Carbon Monoxide: www.epa.gov/iaq/combust.html and www.epa.gov/iaq/co.html
These two extensive EPA sites describe the sources of carbon monoxide and other combustion gases, their health effects, steps to reduce exposure, related standards and guidelines, and additional resources and links.
- Canada Mortgage and Housing Corporation: www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/inaiqu/inaiqu_004.cfm
This site is part of CMHC's "About Your House" series of educational articles. It includes information about combustion gases, the effects of exposure, and strategies for limiting exposure.
- Underwriters Laboratories, Product Safety Tips: CO Alarms: www.ul.com/global/veng/pages/corporate/newsroom/storyideas/carbonmonoxide/tips/
This site provides a basic overview of the problems associated with carbon monoxide, as well as tips about purchasing and installing carbon monoxide alarms.
- U.S. Consumer Product Safety Commission: "Carbon Monoxide Questions and Answers": www.cpsc.gov/cpscpub/pubs/466.html

7.8

Mandatory

Mold Prevention: Water Heaters

REQUIREMENTS

Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

Water heaters should be located in rooms with non-water sensitive floor coverings. Drain pans should be sloped and corrosion resistant (e.g., stainless or plastic) with drains at the low point. Condensate lines should be drained to a drainage system, and not just deposited under slab.

RATIONALE

The use of heaters with drains and catch pans prevents moisture problems caused by leakage or overflow. This prevents water from sitting idle, creating excess moisture and allowing mold to germinate.

RECOMMENDATIONS

- Tankless water heaters, by virtue of the product type, meet the intent of this measure.
- If local code does not permit draining to the exterior of the project, water heaters can be drained directly to the sewer line.

RESOURCES

- American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Standard 62.1-2007 User's Manual:
www.techstreet.com/cgi-bin/detail?product_id=1571685
- International Code Council, "Mold: Tips on Prevention and Control":
www.iccsafe.org/Store/Pages/Product.aspx?id=7310S
- Canada Mortgage and Housing Corporation's "Fighting Mold":
www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_OOS.cfm
For information on mold identification and remediation in existing homes.

7.9b

Mandatory

Mold Prevention: Surfaces

REQUIREMENTS

In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

RATIONALE

The use of moisture-resistant materials in wet areas reduces moisture buildup, diminishing the potential for indoor mold growth that may yield odors and pose health hazards to residents.

RECOMMENDATIONS

When possible, avoid materials that facilitate the growth of mold spores, such as vinyl wallpaper and unsealed grout.

RESOURCES

- BuildingGreen: www.buildinggreen.com
Resources on product composition and performance.
- Canada Mortgage and Housing Corporation, Fighting Mold-The Homeowners' Guide: www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_OOS.cfm
For information on mold identification and remediation in existing homes.

7.9c

Mandatory

Mold Prevention: Tub and Shower Enclosures

Except for projects that do not have shower or bathroom work in scope

REQUIREMENTS

Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

RATIONALE

The use of moisture-resistant materials in wet areas reduces moisture buildup, diminishing the potential for indoor mold growth that may yield odors and pose health hazards to residents.

RESOURCES

- Canada Mortgage and Housing Corporation, Fighting Mold-The Homeowners' Guide: www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_OOS.cfm
For information on mold identification and remediation in existing homes.

7.9b

Mandatory

Vapor Barrier Strategies

For all New Construction and any Rehab projects with foundation work in scope

REQUIREMENTS

Beneath Concrete Slabs, Including Basements

- Provide vapor barriers under all slabs.
- Install a capillary break as follows:
 - Install a 4-inch layer of 1/2-inch diameter or greater clean aggregate, covered with 6 mil (or thicker) polyethylene sheeting, overlapped 6 to 12 inches at the seams, and in direct contact with the concrete slab above.

OR

- Install a 4-inch uniform layer of sand, overlain with a layer or strips of geotextile drainage matting installed according to the manufacturer's instructions, and covered with polyethylene sheeting overlapped 6 to 12 inches at the seams.
- On interior below-grade walls, avoid using separate vapor barrier or a below-grade vertical insulation (such as polyethylene sheeting, vinyl wallpaper, or foil faced), which can trap moisture inside wall systems. Semi-vapor-permeable rigid insulation is not considered a vapor barrier.

Beneath Crawl Spaces

- Install 8-mil minimum thickness cross-laminated polyethylene on the crawl floor, extended at least 12 inches up on piers and foundation walls, and with joints overlapping at least 12 inches. (The 8-mil polyethylene and the cross-lamination ensure longevity of the poly.)
- Line the likely "high-traffic" areas of the crawl space with foam board, so the polyethylene beneath will not be disturbed.

RATIONALE

Water can migrate through concrete and most other masonry materials. Proper foundation drainage prevents water from saturated soils from being pushed by hydrostatic pressure through small cracks. Vapor barriers and waterproofing materials can greatly reduce the migration of moisture that can occur even in non-saturated soils.

RECOMMENDATIONS

Ensure that other trades' work does not puncture the vapor barrier.

RESOURCES

- Advanced Energy: www.crawlspaces.org/
- Building Science Corporation: www.buildingscience.com/resources/cond-crawlspaces
Features a good article on conditioned crawl spaces.
- The Energy & Environmental Building Alliance: www.eeba.org/resources/climate/index.html
This organization provides links to building science topics by climate.
- U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Building America: www1.eere.energy.gov/buildings/building_america/about.html
Free downloads on best building practices.
- The Partnership for Advanced Technology in Housing: www.pathnet.org
This site has an extensive, searchable resource section with pertinent information about construction solutions.

7.11

Mandatory Radon Mitigation

New Construction and Substantial Rehab

REQUIREMENTS

New Construction

In EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. Also, install a vertical vent pipe with junction box within 10 feet of an electrical outlet, in case an active system should prove necessary in the future.

Substantial Rehab

Substantial Rehab projects located in EPA Zone 1 and 2 areas should be tested for the presence of radon. If the radon level is elevated, above 4 pCi/L (pica curies per liter), install radon-reduction measures.

Follow EPA guidance for conducting a radon test.

Underground Garages Serving Multifamily Projects

Follow the prescriptive measure below taken from EPA's Indoor airPLUS program, as well as Criteria 7.11 and 7.14:

- *IAP 2.1 Radon control:* Foundation air sealing with polyurethane caulk or the equivalent at all slab openings, penetrations, and control or expansion joints. Sump covers also shall be air sealed (e.g., mechanically attached with full gasket seal or equivalent).

RATIONALE

Exposure to radon is the second leading cause of lung cancer in the United States. Testing and mitigation if necessary will reduce concentrations of radon that can leak into homes through cracks in the slab and foundation.

RECOMMENDATIONS

- Additional guidance for dealing with underground garages:
 - International Mechanical Code (IMC), which requires 0.75 cfm/sf for garages serving multifamily projects, and ASHRAE Standard 62.1-2010 section 5.15, which encourages maintaining attached garage air pressure at or below adjacent occupiable spaces.
 - If the pressure management strategy is not designed to continually maintain negative pressure in the underground garage space relative to the occupied spaces (i.e., if a timer is used for exhaust fan control), then radon control is not assured. In such situations, use either the radon-resistant New Construction techniques summarized in IAP spec 2.1 (www.epa.gov/indoorairplus/construction_specifications.html#moisture%20control) and detailed further in EPA guidance and/or test the occupied space for radon.
 - If the underground garage does not cover the entire foundation (i.e., some living space is directly above a slab or crawlspace), then those portions of the project should be handled per Indoor airPLUS specs.
 - Any mechanical or service closets in the garage area that are connected to the conditioned enclosure should be aggressively sealed between the garage and the conditioned space.
- For projects located on brownfields or proximate to industrial operations that are not in EPA Zone 1 or 2 areas, consider testing for radon to determine if elevated levels exist on-site. If the radon level is elevated above 4 pCi/L (pica curies per liter), install radon-reduction measures.

RESOURCES

- U.S. Environmental Protection Agency: www.epa.gov/radon/zonemap.html
Or contact your state radon coordinator through the state health office, to determine if your project is located in a Zone 1 or 2 radon area.
- U.S. Environmental Protection Agency, "Protocols for Radon and Radon Decay Product Measurements in Homes": www.epa.gov/radon/pdfs/homes_protocols.pdf
- National Center for Healthy Housing, "Radon-Resistant Construction: Low-Rise Multi-Family Housing": www.nchh.org/Training/Green-and-Healthy-Housing.aspx
- U.S. Environmental Protection Agency, "Building Radon Out," 2006 (#EPN402-K-01-002): www.epa.gov/radon/pdfs/buildradonout.pdf
- U.S. Environmental Protection Agency, "Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings": www.epa.gov/radon/pubs/mitstds.html
- American Lung Association, Radon Fact Sheet: www.lungusa.org/healthy-air/home/resources/radon.html
This is a general overview of the health risks associated with radon exposure.
- Washington State, Extension Energy Program, "Builder's Field Guide": www.energy.wsu.edu/Documents/Builders_Field_Guide-2006.pdf
Chapter 2 of this field guide provides tips, procedures, and schematics for understanding how to mitigate radon risks during new construction.

7.12

Mandatory **Water Drainage**

This measure applies to Moderate and Substantial Rehab projects only when replacing particular assemblies called out in the prescriptive requirements below.

REQUIREMENTS

Provide drainage of water away from windows, walls, and foundations by implementing the following techniques.

Water Management-Walls

- Provide a housewrap/weather-resistive barrier with sheets lapped, shingle-style, especially over windows, doors, and other penetrations to prevent rainwater that penetrates the finished exterior cladding system from entering the wall assembly or being introduced into window or door openings.
- Provide a pathway for liquid water that has penetrated the cladding system or accumulates due to daily or seasonal changes in thermal and humidity levels behind the cladding system to safely exit the exterior wall assembly.
- Flashing and/or weather-resistive barriers installed in rough window and door openings must integrate with window and door unit flashings, particularly at the sill and head.

OR

- Install pan flashing, side flashing that extends over pan flashing, and head flashing (top flashing) that extends over side flashing on windows and exterior door openings. Apply window pan flashing over building paper at sill and corner patches.
- Flashings at roof/wall intersections and at penetrations through the wall (i.e., plumbing, electrical, vents, HVAC refrigerant lines, and the like) that are provided by other trades must be integrated with the drainage plane to keep water from entering the wall assembly.

Water Management-Roof Systems

- Installation of drip edge at entire perimeter of roof.
- Install flashing where sloped roofs meet gable wall end and integrate all vertical walls into project drainage plane.
- Use kick-out flashings at all wall/eave intersections and integrate into drainage plane.
- At wall/roof intersections, maintain ≥ 2 " clearance between wall cladding and roofing materials.

Integrity and Continuity of the Thermal Barrier

- The drainage plane, when properly sealed, can also reduce airflow through the wall assembly, which improves the thermal performance of the cavity insulation.

RATIONALE

Diverting water from the project prevents bulk water entry into foundations and basements, which can contribute to moisture-related problems such as mold and the deterioration of wood and other building materials. Flashing helps direct water away from wall cavities to the drainage plane.

RECOMMENDATIONS

- Where a high water table is anticipated or observed, or has been documented in the soil boring report, or where specifically recommended by the geotechnical engineer, provide subsurface drain tile or other drainage system in strict accordance with the geotechnical engineer's or other qualified professional's recommendations, to divert underground water away from the structure. Coordinate these requirements with those of Criteria 7.10a and 7.10b as modified herewith.
- Ensure that a vapor barrier with the appropriate permeability rating is installed on the correct side of the wall assembly, based on climatic considerations.
- Best practices include a grade of one-half inch per foot, or approximately a 40/0 pitch. EPA recommends a 20/0 pitch (one-quarter inch per foot) for hard surfaces such as patio slabs, walks, and driveways.

RESOURCES

- U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Building America: www.eere.energy.gov/buildings/building_america/about.html
Free downloads on best building practices.
- U.S. Environmental Protection Agency, Indoor airPLUS Construction Specifications: www.epa.gov/indoorairplus/construction_specifications.html#moisturecontrol
Includes detailed construction specifications, several of which are focused on moisture management.
- The Energy & Environmental Building Alliance, Water Management Guide (for purchase only): www.eeba.org/bookstore/prod-Water_Management_Guide-9.aspx

ANNUAL PRECIPITATION MAP OF NORTH AMERICA



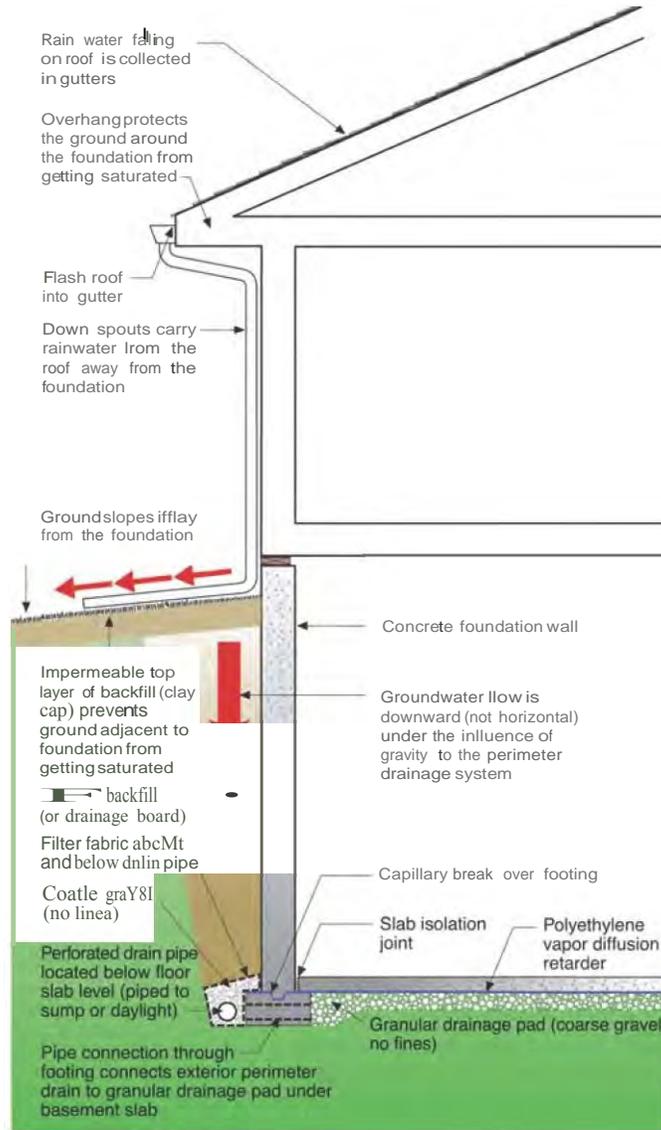
Exposure

- Extreme (over 60" ventilated* rain screen)
- High (40"–60" rain screen/vented** cladding/vented drainage space
- Moderate (20"–40" drainage plane /drainage space
- Low (under 20" face seal)

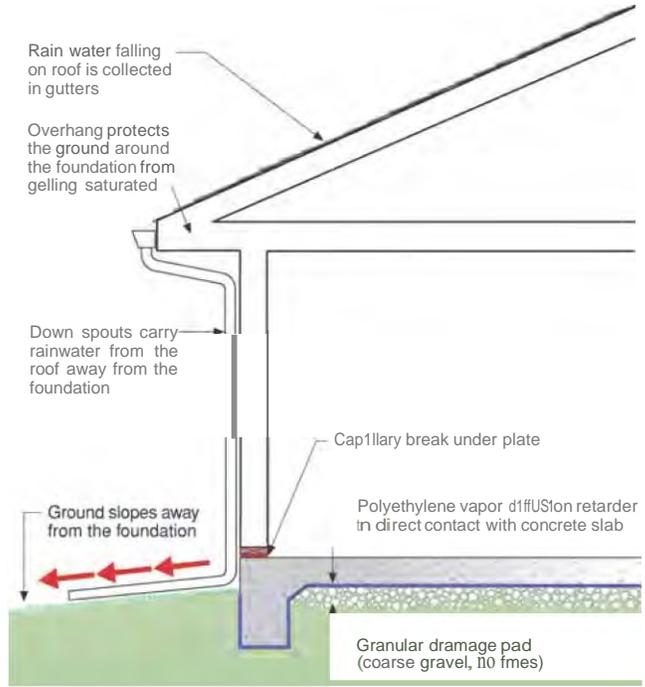
*Ventilated means insect-protected air holes in the top and bottom of the cladding assembly, creating the potential for directional air flow in the air space behind the cladding.

**Vented means insect-protected holes in the cladding assembly not located at the top and bottom, so that while limited air exchange in this air space is possible, air flow is not

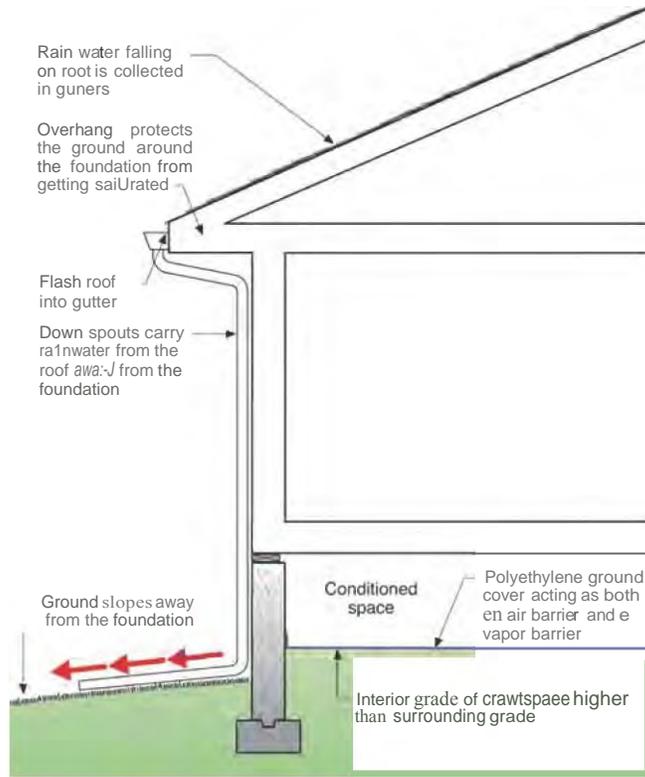
WATER DRAINAGE: BASEMENT



WATER DRAINAGE: SLAB ON GRADE



WATER DRAINAGE: CONDITIONED CRAWLSPACE



7.13

Mandatory Garage Isolation

REQUIREMENTS

- Provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space.
- Do not install ductwork or air handling equipment in a garage.
- All connecting doors between living space and garage must include an automatic closer / spring hinges, and be fixed with gaskets or otherwise made substantially airtight with weather stripping.
- In single-family and multifamily buildings with garages, install a CO alarm inside the house in the room with a door to the garage AND outside all sleeping areas.
- Common walls and ceilings between attached garages and living spaces must be visually inspected to ensure that they are air-sealed before insulation is installed (requirement taken from EPA's Indoor airPLUS program 5.5).

RATIONALE

Carbon monoxide inhalation can be dangerous to human health. The air barrier and air sealing will help prevent carbon monoxide migration from the garage to the living space, and the CO alarm will help ensure that residents are alerted in the case of accidental accumulation of the gas.

RECOMMENDATIONS

Refer to ASHRAE 62.2 to specify garage contaminant isolation measures.

RESOURCES

- National Institute of Standards and Technology, "Air and Pollutant Transport from Attached Garages to Residential Living Spaces": www.fire.nist.gov/bfrlpubs/build03/art068.html
This report provides an overview of the major issues, as well as a review of relevant scientific studies and a series of field studies.
- The Energy & Environmental Building Alliance, "Builder's Guide" series for specific North American climate zones: Cold Climates, Mixed Humid Climates, Hot-Humid Climates, and Hot-Dry & Mixed Dry Climates, by Joseph Lstiburek, Ph.D., P.Eng. Building Science Press: www.eeba.org/bookstore/cat-Builders_Guides-4.aspx
Refer to the discussion and construction details regarding air sealing and connected garages.

7.14

Mandatory

Integrated Pest Management

REQUIREMENTS

Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate non-toxic sealing methods to prevent pest entry. Provide rodent- and corrosion-proof screens (e.g., copper or stainless steel mesh or rigid metal cloth) for openings greater than $\frac{1}{8}$ inch.

Develop an integrated pest management (IPM) policy and, as part of that, develop resident guidance related to pesticide use, housekeeping, and prompt reporting of pest problems to be included in the Maintenance and Resident Manuals for cockroaches, rodents, and bedbugs.

RATIONALE

Sealing of cracks and penetrations will minimize entry points for pests such as rodents and cockroaches. Avoiding unnecessary pesticides, improving resident housekeeping, and promptly responding to pest problems will reduce the chemicals needed to treat pests and will keep homes pest-free longer than a routine chemical treatment program.

RECOMMENDATIONS

- For guidance on low-VOC caulk, see Criterion 7.2.
- Integrated pest management work should be completed in conjunction with air sealing. Project teams should work with an air sealing contractor to ensure that IPM strategies are part of scope.

RESOURCES

- "How to Control Pests Safely: Getting Rid of Cockroaches and Mice," New York City Department of Health and Mental Hygiene, under the header "Guide to Safe Pest Control in the Home": www.nyc.gov/html/doh/html/pest/pest3.shtml
- The National Center for Healthy Housing, Integrated Pest Management in Affordable Housing: www.healthyhomestraining.org/IPM/
This webpage has resources dedicated to IPM in affordable housing, including model RFPs and contract language for greener pest control, case studies, and training.

7.15

Mandatory

Lead-Safe Work Practices

REQUIREMENTS

For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation (RRP) (40 CFR 745) and applicable HUD requirements at 24 CFR 35.

RATIONALE

Any activity that disturbs painted surfaces or project components in pre-1978 dwellings that contain lead-based paint may generate and spread lead dust and debris, increasing the risk of lead poisoning for exposed children and families. Controlling lead dust and debris helps minimize lead in the environment.

RECOMMENDATIONS

- Consider undertaking a lead inspection to determine if the property or surfaces to be disturbed contain lead-based paint. Properties built from 1960 through 1978 are more likely to be free of lead-based paint. Housing and painted components documented to be free of lead-based paint (using EPA-approved methods) are exempt from EPA Renovation, Repair and Painting Regulation. In housing built before 1940, it is very likely that lead-based paint is present.
- Undertake the appropriate training and certification for in-house maintenance staff and ensure that contractors are meeting the lead RRP requirements.

RESOURCES

- U.S. Environmental Protection Agency: www.epa.gov/lead/pubs/traincert.htm and U.S. Department of Housing and Urban Development: www.hud.gov/offices/lead/training/index.cfm Information about lead-safe work practices.
- U.S. Environmental Protection Agency, Small Entity Compliance Guide to Renovate Right EPA's Lead-Based Paint Renovation, Repair, and Painting Program: www.epa.gov/lead/pubs/sbcomplianceguide.pdf and www.epa.gov/lead/pubs/renovation.htm General information on compliance with these requirements.

7.16

Optional | 9 points **Smoke-Free Building**

REQUIREMENTS

Implement and enforce a no-smoking policy in all common and individual living areas, and with a 25-foot perimeter around the exterior of all residential projects. The lease language must prohibit smoking in these locations and specify that it is a violation of the lease to smoke. The no-smoking restriction applies to all owners, tenants, guests, and servicepersons.

RATIONALE

Secondhand smoke is the third leading cause of preventable death in the country. Air filtration and ventilation systems do not eliminate the health hazards caused by secondhand smoke. Tobacco smoke from one unit may seep through the cracks, be circulated by a shared ventilation system, or otherwise enter the living space of another. In addition to the negative health effects, smoking significantly increases fire hazard and increases cleaning and maintenance costs.

RECOMMENDATIONS

- Many property insurance companies offer a discount for projects with no-smoking policies.
- Project owners and property managers should inform residents that they are prohibited from smoking in the project. A designated outdoor smoking area should be provided as an alternative arrangement for those who smoke.
- Provide suitable receptacles in the designated outdoor smoking area for the disposal of cigarette butt litter. Ensure that the receptacles are inside the project line and do not encroach into public space.

RESOURCES

- National Center for Healthy Housing, "Reasons to Explore Smoke-Free Housing Fact Sheet": www.nchh.org/Training/Green-and-Healthy-Housing.aspx
- American Lung Association, Air Quality in the Home: www.lungusa.org
This site includes an entire section devoted to indoor air quality in the home. Choose "Air Quality" at the bottom of the screen and then click "Indoor Air Quality" and "Air Quality in the Home" to find numerous articles and educational pieces about maintaining a healthy indoor environment.
- U.S. Environmental Protection Agency, Indoor Air Quality Division: www.epa.gov/iaq
This site has numerous resources related to indoor air quality in homes, including reports and web links.

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An orientation to the project helps educate residents and property managers on the green features that were designed to deliver health, economic, and environmental benefits, as well as their role in realizing those benefits in their own lives and the lives of future residents.

8.1

Mandatory

Building Maintenance Manual

For all multifamily projects

REQUIREMENTS

Provide a manual that addresses the following:

- operations and maintenance guidance for all appliances
- HVAC operation and maintenance schedule
- location of water-system turnoffs
- lighting equipment
- paving materials and landscaping
- green cleaning products and schedule(s)
- pest control
- any other systems within the project, including renewable energy systems if applicable
- an occupancy turnover plan that describes the turnover process, including all materials that are frequently replaced at turnover and the process of educating the residents about proper use and maintenance of all project systems

RATIONALE

Regular building maintenance using green methods helps minimize utility consumption and provides a healthy and durable living environment for residents.

RECOMMENDATIONS

- During the design process, keep a running list of how maintenance and landscaping teams and residents may need to be involved with the building in order to ensure that its lifespan is maximized and that it will perform as intended. Once the project team has completed the integrative design process (see Criterion 1.1), amend templates of the Operations and Maintenance documents with project-specific information for maintenance and residents. By working in this manner, Operations and Maintenance documents will be informed by the development process and completed at the same time the project is ready for occupancy.
- Manuals and other training materials are most effective when presented in conjunction with training sessions. These educational sessions give the project maintenance staff an opportunity to share best practices and troubleshoot project performance problems together.
- Consider developing an integrated pest management (IPM) policy and, as part of that, develop guidance related to pesticide use, housekeeping, and prompt reporting of pest problems to be included in maintenance manuals.
- If the project is utilizing greywater, design and institute a policy that requires biodegradable soaps, cleaners, and other products that are flushed down the drains.
- Provide maintenance staff with local information for handling hazardous waste, including fluorescent and compact fluorescent lighting (CFLs).

RESOURCES

- Enterprise Green Communities, Building Maintenance Manual Templates in Information Resources: www.greencommunitiesonline.org/tools/resources/index.asp
- For language on residential IPM policy, the University of Minnesota offers the following resource: www.entomology.umn.edu/cues/em/index.html
- National Center for Healthy Housing, "Healthy Homes Maintenance Checklist": www.nchh.org/Portals/0/Contents/Maintenance_Checklist2009.pdf

8.2

Mandatory **Resident Manual**

REQUIREMENTS

Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features. The guide also should include the location of transit stops and other neighborhood amenities, and encourage additional green activities such as recycling, gardening, use of healthy cleaning materials, alternative measures to pest control, and purchase of green power.

For single-family projects, and multifamily projects as applicable, include these additional instructions within the Resident Manual:

- a routine maintenance plan
- operations and maintenance guidance for all appliances and special plumbing fixtures (e.g., dual-flush toilets)
- HVAC operation
- cautions or appropriate maintenance on renewable energy systems
- location of water-system turnoffs
- lighting equipment
- interior finish materials, including paints, caulks, and flooring
- paving materials and landscaping
- pest control
- special health considerations if greywater is used indoors (e.g., do not drink from the toilet in emergency situations)
- any other systems that are part of the home

RATIONALE

Education on the operations and maintenance of the home will allow residents to fully realize the environmental, health, and economic benefits that green housing offers. This resource is intended to familiarize residents with the green features and methods used in their new home and additional activities they could initiate to realize the home's benefits.

RECOMMENDATIONS

- During the design process, keep a running list of how maintenance and landscaping teams and residents may need to be involved with the building in order to ensure that its lifespan is maximized and that it will perform as intended. Once the project team has completed the integrative design process (see Criterion 1.1), amend templates of the Operations and Maintenance documents with project-specific information for maintenance and residents. By working in this manner, Operations and Maintenance documents will be informed by the development process and completed at the same time the project is ready for occupancy.
- If the project is utilizing greywater, design and institute a policy that requires biodegradable soaps, cleaners, and other products that are flushed down the drains.
- Provide homeowners/tenants with two radon test kits designed for 48-hour exposure, and include instructions for use and follow-up action, per EPA's Indoor Air Package.
- Provide residents with local information for handling household hazardous waste, including CFLs.
- Consider including ENERGY STAR "Best Practices" information in the Resident Manual. See the following websites:
 - For washers and dryers: www.energystar.gov/index.cfm?c=clotheswash.clothes_washers_performance_tips
 - For refrigerators: www.energystar.gov/index.cfm?c=refrig.pr_best_practices_refrigerators
 - For dishwashers: www.energystar.gov/index.cfm?c=dishwash.pr_best_practices
- For additional best practices on ENERGY STAR products:
www.energystar.gov/index.cfm?c=products.pr_find_es_products
Select a product type, click on "Buying Guidance," and scroll down to the bottom of the page to select "Best Practices" products.

RESOURCES

- Refer to the Enterprise Green Communities Resident Manual Templates: www.greencommunitiesonline.org/tools/resources/index.asp
- Connecticut Department of Environmental Protection, "A Green Home Is a Healthy Home": www.ct.gov/dep/lib/dep/p2/individual/healthyhome.pdf
This is a simple brochure with a readable layout and good presentation.
- Home Energy Resource MN: www.homeenergyresource.mn.org/index.aspx
This site provides information for homeowners on maintaining their home. It includes seasonal checklists and step-by-step instructions for general maintenance, as well as special instructions for new home buyers on maintaining their home during its first year.

8.3

Mandatory

Resident and Property Manager Orientation

REQUIREMENTS

Provide a comprehensive walk through and orientation for the residents and property manager(s) using the appropriate manual (see Criteria 8.1 and 8.2) to review the project's green features, operations, and maintenance, and, for the resident orientation, the neighborhood amenities that may facilitate a healthy lifestyle.

RATIONALE

An orientation to the project helps educate residents and property manager(s) on the green features that were designed to deliver health, economic, and environmental benefits, as well as their role in realizing those benefits in their own lives and the lives of future residents.

8.4

Optional | 12 points

Project Data Collection and Monitoring System

REQUIREMENTS

Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years. Allow Enterprise access to that data.

For submetered projects, property owner/developer must agree to collect utility release forms from a percentage of residents to track actual utility data of a sample of homes. The following table identifies the percentage of residents for which the property owner/developer must collect and track utility data, as based on the project size in total number of units.

NUMBER OF UNITS	PERCENTAGE OF UNITS
0-25 units	50%
25-100 units	25%
100+ units	15%

RATIONALE

A data collection and monitoring system helps project owners, on site staff, and residents to understand project performance issues. Once an issue is identified, appropriate actions can be taken to maximize cost savings and health benefits associated with green building features.

RECOMMENDATIONS

- Provide Enterprise with access to the performance data annually for a fiveyear period through the Utility Release Form (submitted as part of the Enterprise Green Communities Certification process) and/or the EPA's Portfolio Manager account information to help populate its database intended to collect national information on green affordable housing.

-
- Ensure that the training for residents and building maintenance staff includes information on how to effectively use the data collection, monitoring, and reporting system.
 - Multifamily building data can be tracked and analyzed using EPA's Portfolio Manager tool.
 - Property owners have indicated that the best time to collect tenant release forms is during tenant lease-up.
 - Whole-project energy monitoring systems (also known as smart meters) are a strategy that can help a project attain optional points under Criterion 5.8.

RESOURCES

- Environmental Protection Agency, Portfolio Manager Overview:
www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager
The Portfolio Manager Overview is an interactive energy management tool that allows the project team to track and assess energy and water consumption across its entire portfolio of buildings in a secure online environment.

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Appendix A: The Enterprise Green Communities Certification and Verification Process

Enterprise offers a free, online green building certification program to all types of qualified affordable housing projects, including single-family and multifamily buildings that are New Construction, Substantial Rehab, and Moderate Rehab.

All projects seeking Certification are required to meet the following eligibility parameters:

1. Qualify under Enterprise's definition of affordable housing: rental projects serving residents at or below 60% AMI (area median income) and for-sale projects serving residents at or below 80% AMI.
2. Apply for Certification during the design phase prior to the construction start date.
3. Participate in the Enterprise Green Communities verification process if project is selected.

At a minimum, the development must meet the Enterprise Green Communities Criteria mandatory measures and achieve the requisite number of optional points applicable to the construction type. Under the 2011 Criteria, New Construction projects are required to achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must achieve 30 optional points.

Any project team submitting a request for certification to Enterprise Green Communities may be subject to on-site verification by a third party from the Enterprise Green Communities Technical Assistance Provider Network. Developments will be selected quarterly for on-site verification, using a sampling approach based on the number of certification requests submitted in a given quarter. Enterprise Green Communities covers the cost of this verification for development teams.

ENTERPRISE GREEN COMMUNITIES ONLINE CERTIFICATION PROCESS

Certification is a two-step online submittal and review process that aligns with the design and construction process of the development. Development teams apply for Step 1 review during the design phase before the construction start date. Within 60 days of the construction end date, they proceed to the final (Step 2) review. The Certification process can be found at www.greencommunitiesonline.org/tools/certification/

Step 1

During the design phase and before the construction start date, developments seeking Certification are required to submit a set of online forms and submittals for Step 1. Upon receiving completed submittal documents, Enterprise Green Communities will conduct a review of the materials and approve the project or, in some instances, request additional information from the development team.

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The following submittals must be completed by the development team:

- **Development Registration Form.** General information including but not limited to the location, developer, construction schedule, building type, and size.
- **Development Overview Form.** A brief description of the development's mechanical systems and building envelope, as well as building code(s) and green building program(s) the development will meet.
- **Intended Methods Form.** Indicates how a development plans to comply with the mandatory and optional points of the Criteria. It also requires that responsibility for meeting an individual criterion is identified among the team and signatures are obtained from team members.
- **Site Plan.** Indicates the development's proximity to existing infrastructure and its integration into the adjacent pedestrian grid.
- **Context Map.** Indicates the development's proximity to community amenities and public transportation.
- **Energy Modeling Form.** Demonstrates improved energy performance of the building and how it will be met.

Waiver Request Process

Enterprise Green Communities provides a formal waiver request process for teams with extenuating circumstances that may preclude the full integration of a mandatory criterion. To maintain the technical integrity of the Criteria, Enterprise Green Communities offers this waiver request process on a limited basis in response to situations in which an alternative approach or an explicit waiver for a single measure may be acceptable. The waiver request is available online.

Step 2

Within 60 days of the completion of construction, the team completes the online Final Certification Form and submits a Compliance Report, a Cost Development Form, any ENERGY STAR certificates, a Utility Release Form, and project photos. Following Step 2, Enterprise Green Communities conducts a final review and determines whether development will be certified in accordance with meeting the Criteria. Enterprise Green Communities issues notification of certification to the primary project contact via email within 30 days of receiving a completed submission.

The following submittals must be completed by the development team:

- **Compliance Report.** A revised version of the Intended Methods Form from Step 1 requiring project teams to document any changes in their strategy to meet the Criteria.
- **ENERGY STAR Certificate(s).** Official certificates from ENERGY STAR detailing compliance with the program. (Not required for Moderate Rehab projects.)
- **Cost Development Form.** Documents the incremental costs that project teams incurred when meeting the Criteria.
- **Photos.** Before, during, and after photos of the project, uploaded by the team.
- **Utility Release Form(s).** A series of forms that authorize Enterprise Green Communities to conduct energy data monitoring after the completion of the project.

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VERIFICATION PROTOCOL

The Enterprise Green Communities Verification Protocol is designed to bring the benefits of third-party, on-site assessment and performance testing to developments seeking Certification. Each quarter, Enterprise Green Communities selects a group of projects that apply for Certification to participate in the Verification Protocol. All developments that apply for Certification may be subject to verification by Enterprise Green Communities. Costs for this verification are covered by Enterprise. The developer is connected with the technical assistance (TA) provider assigned by Enterprise Green Communities to work with the team. The TA providers selected to perform the verification work are local or regional organizations with expertise in green building assessments.

The Verification Protocol consists of three review stages:

Desktop review

In this initial stage, the TA provider reviews all criteria that can be documented and verified prior to site visits. The TA provider uses information submitted in Step 1 of the Certification process as well as additional information from the team, including the specifications book, construction schedule, project drawings, and HVAC sizing summary.

Pre-drywall site visit

During the first site visit, the TA provider conducts a pre-drywall inspection and documents the results in a related checklist. If the development team is working with an ENERGY STAR rater, the TA provider will not duplicate the rater's scope of work.

Post-construction site visit

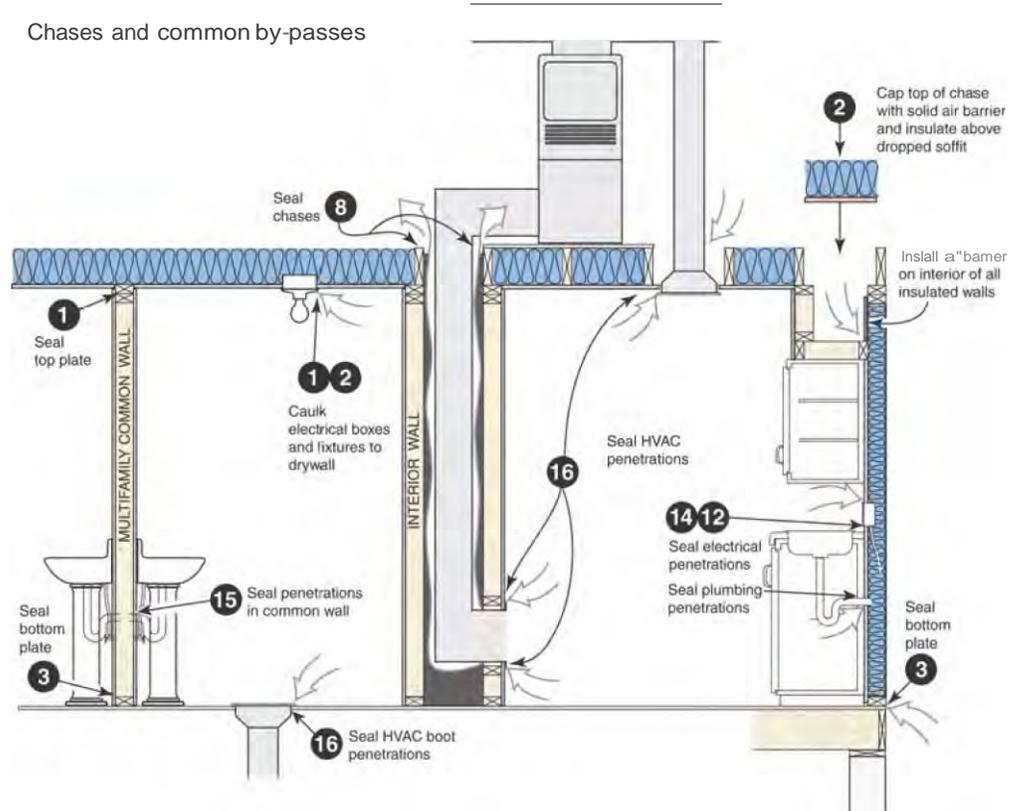
During this site visit, the TA provider conducts a series of energy and water performance testing procedures appropriate for the building and construction type of the development and documents the results in a related checklist.

If the desktop review or site visits reveal deficiencies, the TA provider will notify the appropriate team member, and provide recommendations and guidelines on how to correct the issue(s). Development teams will be required to fix accordingly.

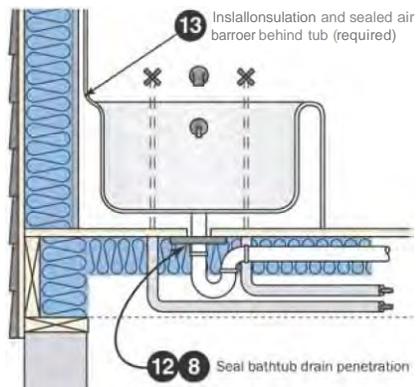
Following completion of verification review, the TA provider submits a brief report to Enterprise Green Communities and the development team describing the development's compliance with the Criteria, any recommendations made to the team for improvement, and performance testing results. The information gathered by the TA provider informs Enterprise Green Communities of how best to assist development teams seeking certification.

Appendix B: Air Sealing Key Points

Chases and common by-passes



Shower/tub drain rough opening



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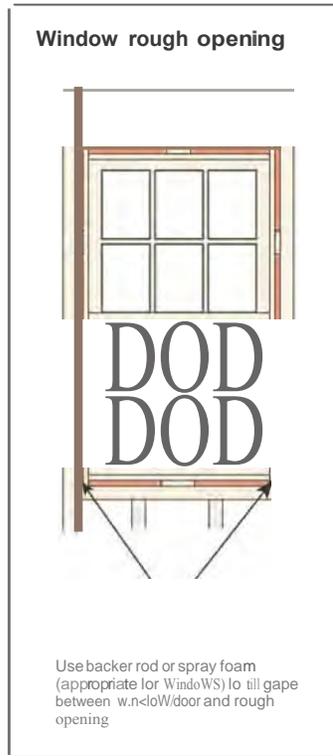
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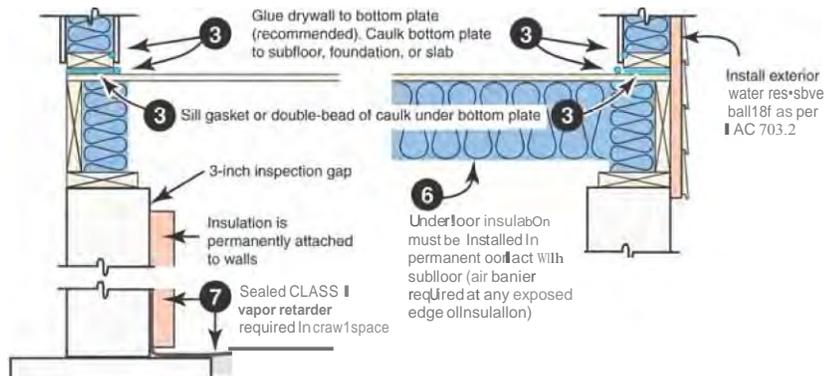
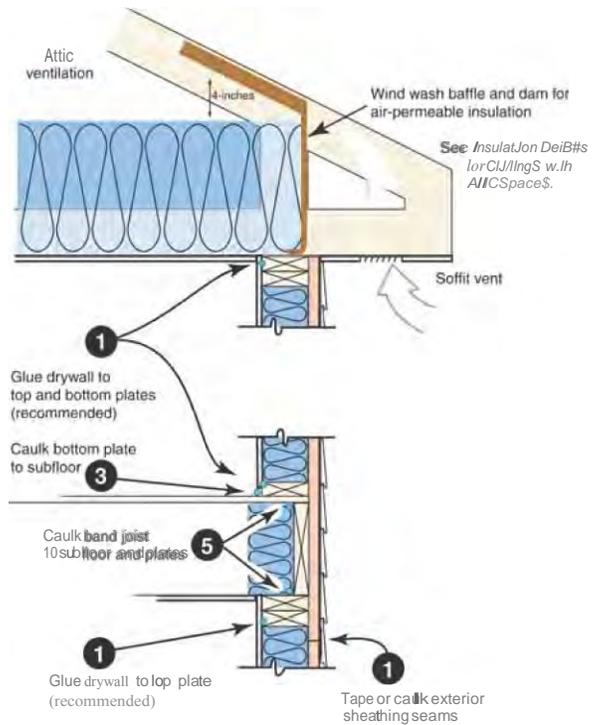
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Wall cross-section



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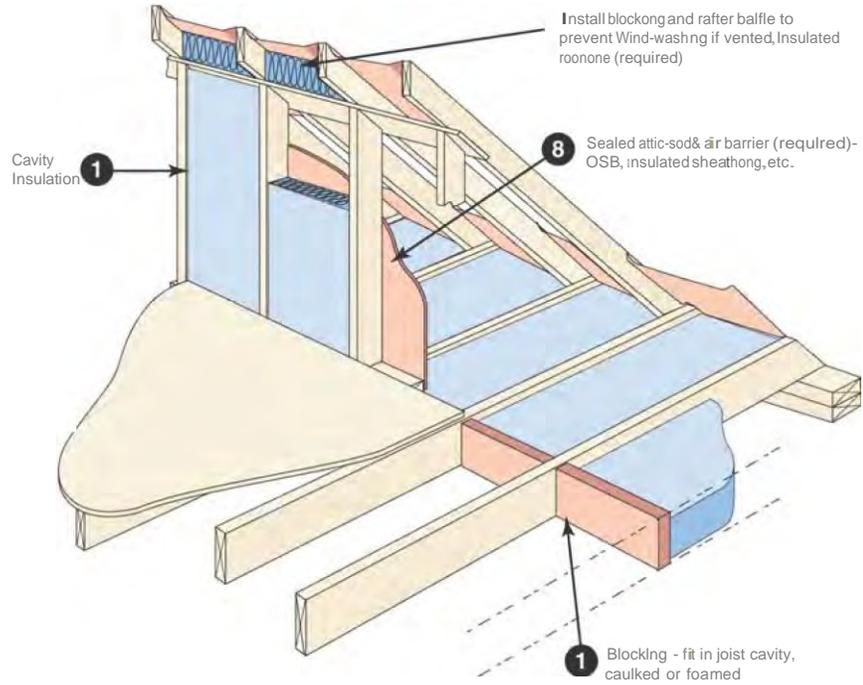
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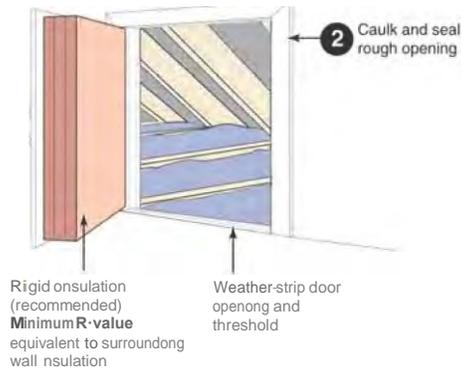
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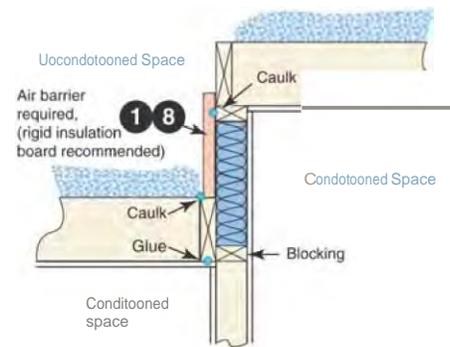
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Attic knee-walls



Two-level attic



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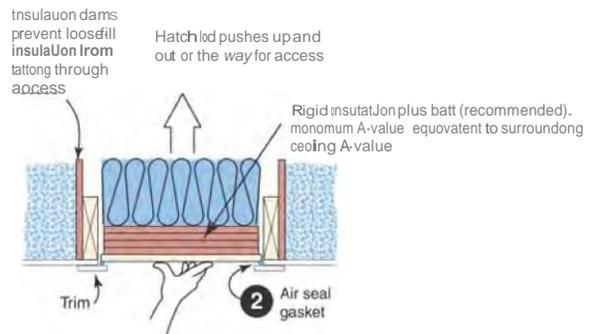
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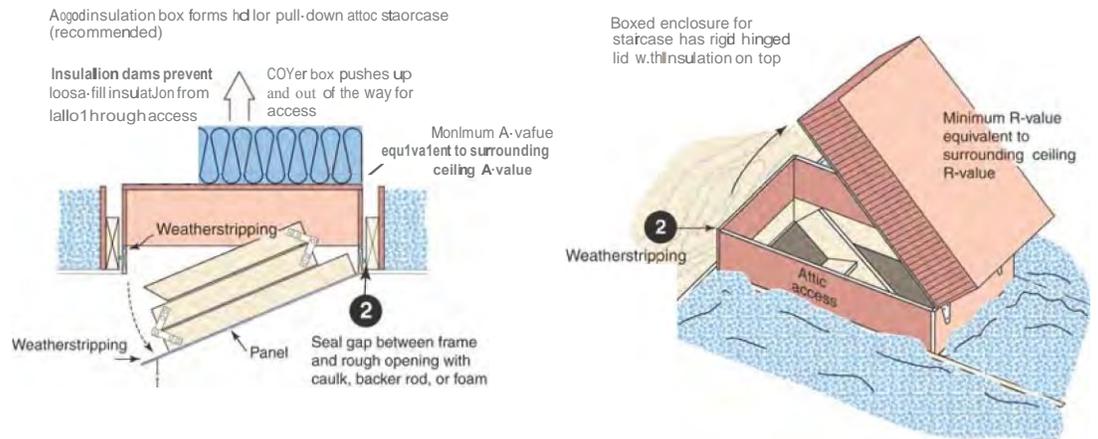
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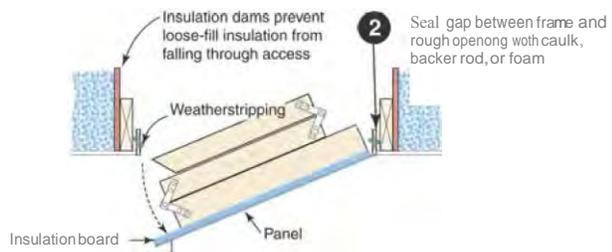
Attic scuttle



Attic pull-down stairs



Attic pull-down stairs



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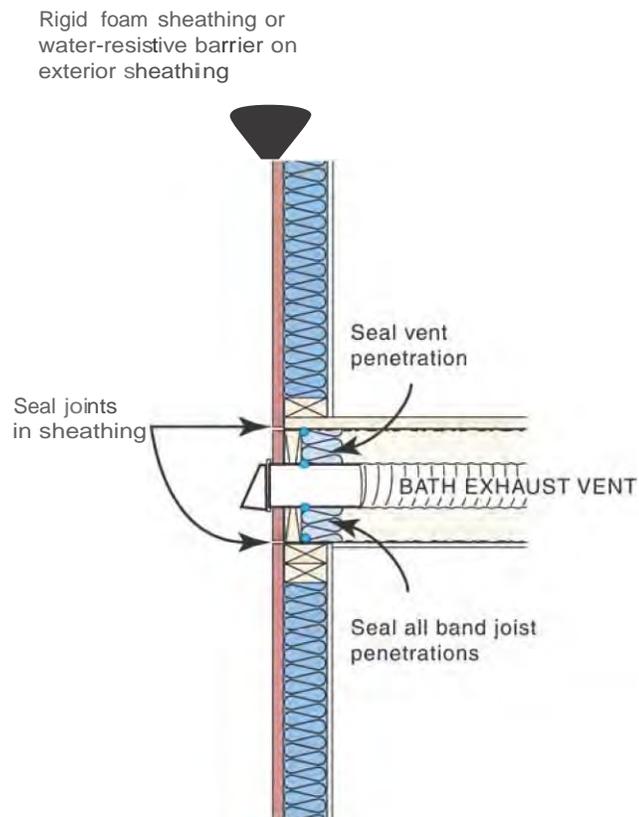
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1. Cap and seal all chases, including chases for grouped utility lines and radon vents.
2. Seal penetrations in mechanical closet, including penetrations for the:
 - supply plenum
 - outside air ventilation
 - refrigerant line
 - plumbing
 - electrical
 - gas fuel
3. Seal band area at exterior sheathing side and all penetrations through band.
4. Air seal at drywall finishing for any wall adjacent to stairwell or elevator.
Air seal this gap at every change in floor level.
5. Seal miscellaneous clustered penetrations through building envelope (e.g., refrigerant lines).



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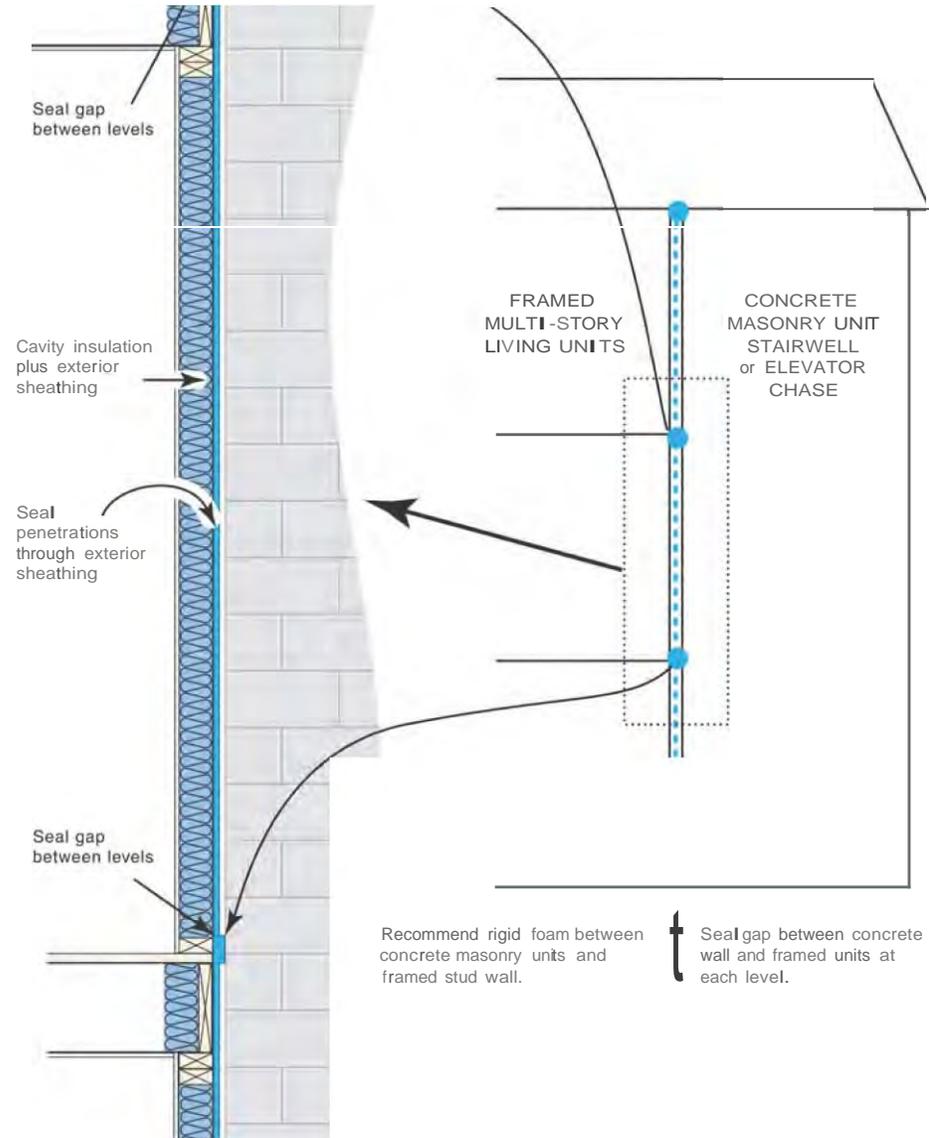
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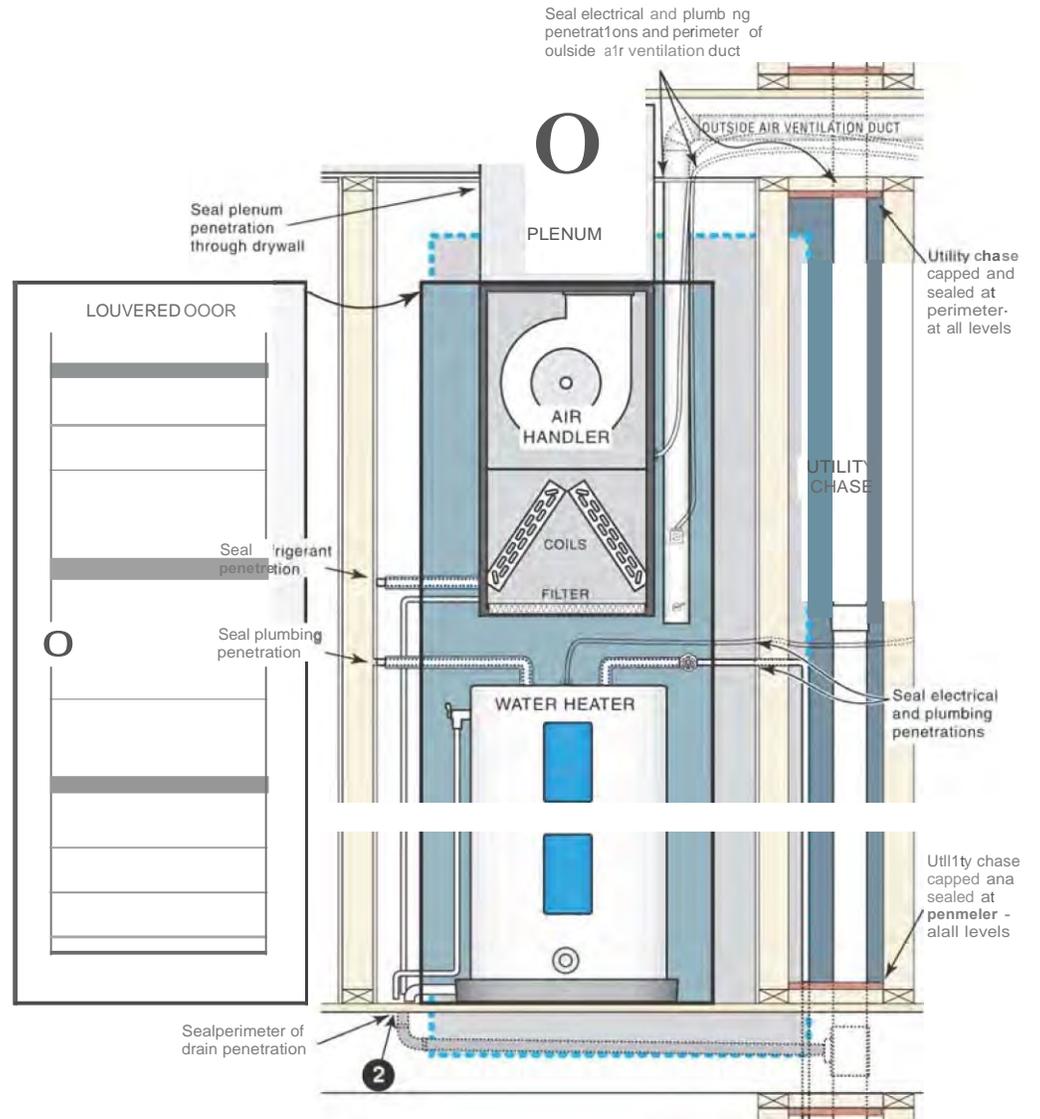
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AIR SEALING KEY POINTS (CONTINUED)

Mechanical closet



Disclaimer: This document is intended solely to help graphically demonstrate the air leakage provisions of section 402.4 of the 2009 IECC. It does not cover all air sealing locations or techniques. Other code provisions may be applicable as well.

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CRITERIA CHECKLIST

1 INTEGRATIVE DESIGN

- LOCATION+ NEIGHBORHOOD FABRIC
- SITE IMPROVEMENTS

4 WATER CONSERVATION

- ENERGY EFFICIENCY

6 MATERIALS BENEFICIAL TO THE ENVIRONMENT

7 HEALTHY LIVING ENVIRONMENT

8 OPERATIONS +MAINTENANCE

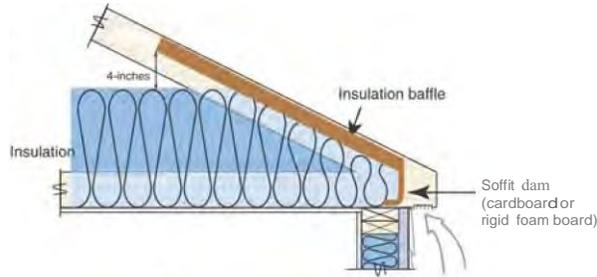
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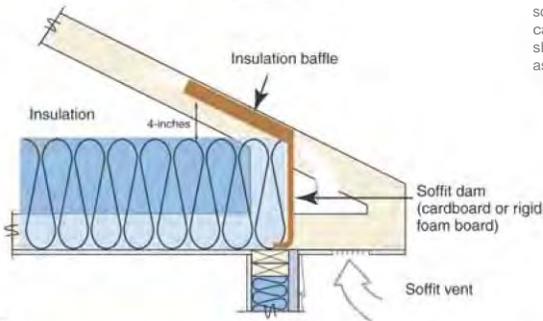
AIR SEALING KEY POINTS (CONTINUED)

Roof and truss

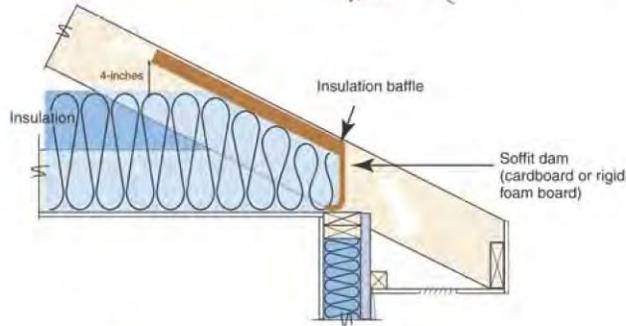
Standard Truss with tapered insulation depth



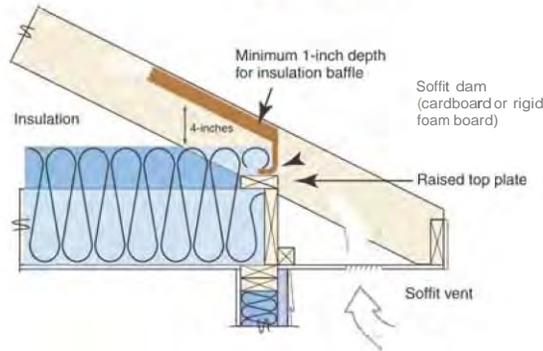
Energy Truss with full height insulation (recommended)



Standard rafter and top plate with tapered insulation depth



Rafter on raised top plate with full height insulation (recommended)



Note: Wind wash baffle and air-permeable insulation dam. For air permeable insulation in vented attics, baffles shall be installed adjacent to soffit and eave vents. A minimum of a 1-inch gap shall be provided between the insulation and the roof sheathing and at the location of the vent. The baffle shall extend over the top of the insulation inward until it is at least 4 inches vertically above the top of the insulation. Any solid materials such as cardboard or thin insulating sheathing shall be permissible as the baffle.

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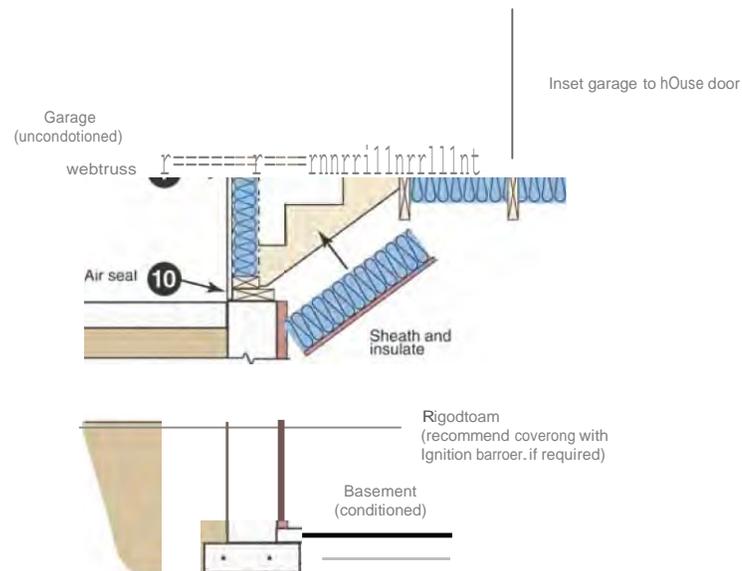
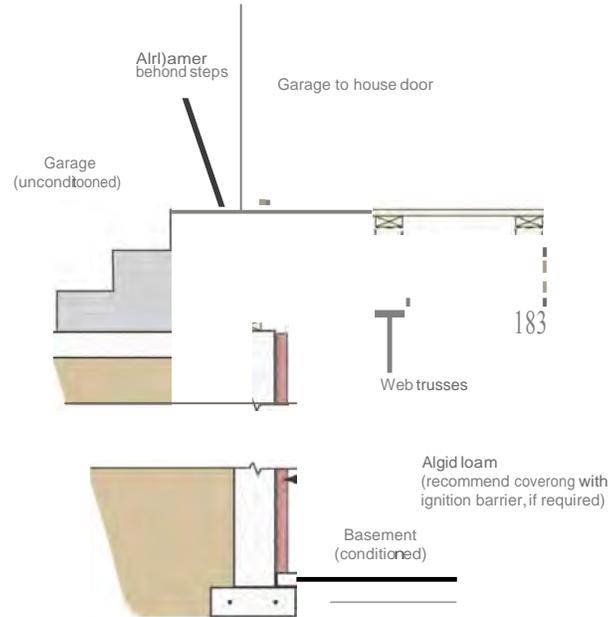
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AIR SEALING KEY POINTS (CONTINUED)

Garage



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Glossary

Websites listed were last accessed December 1, 2010.

Adaptive plant species:A non-native plant species that performs similarly to a native species in a particular region, state, ecosystem, and habitat, and that 1) can survive temperature/weather extremes in the microclimate; 2) requires little irrigation or fertilization, once established; 3) is resistant to local pests and diseases; and 4) does not displace other plants, as invasives do.

Adaptive reuse site: A site that was previously developed for non-residential purposes in which at least 25% of the proposed development will reuse existing non-residential structures.

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) Standard 62.2-2010: Establishes minimum requirements for ventilation and acceptable indoor air quality in low-rise residential building. www.ashrae.org/technology/page/548)

ASHRAE Standard 90.1-2007:Establishes minimum requirements for the energy-efficient design of buildings, except single-family houses, multifamily structures of three stories or fewer above grade, and manufactured houses (mobile and modular). This standard is also the basis of Chapter 7 of the International Code Council's International Energy Conservation Codes. State energy codes that may be more stringent than ASHRAE 90.1 are identified on the U.S. Department of Energy's Building Energy Codes website, www.energycodes.gov.

Berm:A sloped wall or embankment, typically constructed of earth, hay bales, or timber framing, used to prevent inflow or outflow of material into or out of an area. www.epa.gov/OUST/pubs/tum_appx.pdf

Building Performance Institute (BPI):A national standards development and credentialing organization for residential energy-efficiency retrofit work that provides training through a network of affiliate organizations, individual certifications, company accreditations, and quality assurance programs.

California 01350:A Special Environmental Requirements standard specification developed by the State of California to cover key environmental performance and public health considerations for building projects. Contains guidelines for energy, materials, water efficiency, indoor air quality (IAQ), nontoxic performance standards for cleaning and maintenance products, and sustainable site planning and landscaping considerations, among other measures. www.calrecycle.ca.gov/greenbuilding/specs/section01350/

CFM(cubic feet per minute):A standard unit of measurement for airflow that indicates how many cubic feet of air are passing through a fixed point per minute.

Charrette:A focused and collaborative brainstorming session held at the beginning of a project to bring people from different disciplines and backgrounds together to explore design options for a particular area or site. All stakeholders are encouraged to exchange ideas and information beyond their areas of expertise so as to allow truly integrative design solutions to take form. www.wbdg.org/wbdg_approach.php

Colonias community:Any identifiable community in the U.S.-Mexico border regions of Arizona, California, New Mexico, and Texas that is determined to be a colonia on the basis of objective criteria, including lack of a potable water supply, inadequate sewage systems, and a shortage of decent, safe, and sanitary housing. The border region means the area within 150 miles of the U.S.-Mexico border excluding Metropolitan Statistical Areas with populations exceeding one million (according to the National Affordable Housing Act of 1990, Section 916).

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Common area:An area available for use by more than one person, including rental or sales offices, entrances, hallways, shared leisure rooms, resident services areas, and laundry rooms.

CSA (Community-Supported Agriculture):A community of individuals who pledge support to a farm operation so that the farmland becomes the community's farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. Typically, members of the farm or garden pledge in advance to cover the anticipated costs of the farm operation and the farmer's salary. In return, they receive shares in the farm's bounty throughout the growing season. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. www.nal.usda.gov/afsic/pubs/csa/csadef.shtml

Compost blanket:A layer of loosely applied compost or composted material that is placed on the soil in disturbed areas to control erosion and retain sediment resulting from sheet-flow runoff. cfpub.epa.gov/npdes/stormwater/menuotbmps/index.cfm?action=factsheet_results&view=specific&bmp=118&minmeasure=4

CO (carbon monoxide):A colorless, odorless, and tasteless gas that greatly affects indoor air quality. Because it is impossible to see, taste, or smell the toxic fumes, CO can kill you before you are aware it is in your home. At lower levels of exposure, CO causes mild effects that are often mistaken for the flu. These symptoms include headaches, dizziness, disorientation, nausea, and fatigue. www.epa.gov/iaq/co.html

Dial-a-ride program:A privately or publicly operated program that provides an on-demand ride service, requiring passengers to call ahead to reserve a ride. These programs usually provide connections between different transportation systems and/or employment centers, and must operate at least Monday through Friday to qualify.

Distribution Uniformity:A measure of the evenness of irrigation water coverage over a given area. www.epa.gov/watersense/docs/ws_water_budget_approach508.pdf

DU (distribution uniformity):A standard unit of measurement that looks at how uniformly water is applied to a defined area.

ECM (electronically commutated motor):A DC electric motor that uses electricity efficiently, particularly at lower speeds. Also known as a "brushless DC motor."

Emissivity:A unitless measure, describing the relative ability of a surface to emit heat through radiation, ranging from 0.00 (minimum radiation of heat) to 1.00 (maximum radiation of heat). Generally, more reflective materials have a lower emissivity.

Employer vanpool:A program in which 5 to 15 people (over the age of 16) ride together to and from work. The vanpool may be public or private, but must carry all passengers more than half the distance to work to qualify. Vanpools may be employer-operated, sponsored by transit agencies, or administered by third-party operators.

ENERGY STAR:A voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Introduced by the EPA in 1992, ENERGY STAR is an accepted, national standard for single-family and low-rise residential New Construction projects. ENERGY STAR New Homes Version 3 will be expanded to include mid-rise multifamily buildings with their own heating, cooling, and hot water systems.

Engineered wood products:Wood building materials manufactured by gluing particles, fibers, or veneers to increase strength. For the purposes of Criterion 6.8, Green Communities considers prefabricated and precut wood products as "engineered wood products." www.astm.org/SNEWS/JUNE_2003/yehjun03.html

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Entryway:Threshold separating the indoor space from the outdoor space.

Environmental site assessment:An investigation of the site's conditions often performed before acquisition of a property to satisfy the due-diligence requirements of a property transaction.

Erosion blankets:Porous fabrics used for a variety of purposes, including separators, reinforcement, filtration and drainage, and erosion control. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=45&minmeasure=4

Filter sock:A mesh tube filled with composted material that is placed perpendicular to sheet-flow runoff to control erosion and retain sediment in disturbed areas. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=120&minmeasure=4

Formaldehyde:A chemical used widely by industry to manufacture building materials and numerous household products. Formaldehyde is also a by-product of combustion and certain other natural processes, and thus may be present in substantial concentrations both indoors and outdoors. Health effects include eye, nose, and throat irritation; wheezing and coughing; fatigue; skin rash; and severe allergic reactions. May cause cancer. www.epa.gov/iaqjformalde.html

Greenfield:A previously undeveloped parcel of land.

Green roof:A planted roof that reduces stormwater runoff. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=114&minmeasure=5

Greywater:Wastewater produced from baths and showers, clothes washers, and lavatories. Greywater gets its name from its cloudy appearance and from its status as being neither fresh (as in potable water) nor heavily contaminated (as in blackwater from toilet waste). greywater.sustainablesources.com/

HERS Index (Home Energy Rating System Index):A scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home (based on the 2006 International Energy Conservation Code) scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower a home's HERS Index, the more energy-efficient it is in comparison to the HERS Reference Home. Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference Home; thus a home with a HERS Index of 85 is 15% more energy-efficient than the HERS Reference Home, and a home with a HERS Index of 80 is 20% more energy-efficient.

Home Energy Rating:An analysis of a home's construction plans and onsite inspections. Based on the home's plans, the Home Energy Rater uses an energy-efficiency software package to perform an energy analysis of the home's design. This analysis yields a projected, pre-construction HERS Index. Upon completion of the plan review, the rater will work with the builder to identify the energy-efficiency improvements needed to ensure that the house will meet ENERGY STAR performance guidelines. The rater then conducts on-site inspections, typically including a blower door test (to test the leakiness of the house) and a duct test (to test the leakiness of the ducts). Results of these tests, along with inputs derived from the plan review, are used to generate the HERS Index score for the home.

IECC (International Energy Conservation Code):A model building energy code created by the International Code Council to set a minimum standard for energy efficiency. www.iccsafe.org/Pages/default.aspx

Intill:A site with 75% of its perimeter bordering existing development or roads and with access to existing infrastructure.

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Integrative design: A design approach that brings together at an early stage in project planning all the members of the building stakeholder community, and the technical planning, design, and construction team (including green building consultants such as the green rater, mechanical engineer/energy expert, and others) to look at the project objectives, building materials, systems, and assemblies from many different perspectives. This approach is a deviation from the typical planning and design process of relying on the expertise of specialists who work in their respective specialties somewhat isolated from each other. www.wbdg.org/wbdg_approach.php

Intermittent rate: Ventilation that stops and starts at regular intervals (i.e., the opposite of continuous ventilation).

LED (light-emitting diode): Energy-efficient lights that produce less initial heat per lumen, consume less energy, and last longer than conventional incandescent and fluorescent lights.

Low-impact development: A strategy of site design where the goal is to restore the natural, pre-developed ability of an urban site to absorb stormwater. cfj.mb.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=124&minmeasure=S

Maintained solar reflectance: A measure of a material's ability to maintain its initially rated solar reflectance. Products are tested over a period of three years.

Manual D: Manual prepared by the Air Conditioning Contractors of America (ACCA) on residential duct sizing.

Manual J: Manual prepared by ACCA on residential load calculations. www.acca.org/store/product.php?pid=172

Manual S: Manual prepared by ACCA on residential equipment selection. www.acca.org/store/product.php?pid=154

Moderate rehabilitation: Enterprise Green Communities defines a moderate rehab as a project that does not fully gut and expose the structure and air barrier of the building envelope or replace/improve all major systems of the building.

Native plant species: A plant species that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions. web4.audubon.org/bird!at_home/PlantNativeSpecies.html

Naturescaping: A method of landscaping that reduces water use, energy consumption, and chemical needs by using climate-appropriate plants and maintenance techniques.

Non-buildable land: Land that is not economically feasible to be developed, such as easements, utility fall zones, unsuitable soil, steep grades, water features, wetlands, or natural preserves.

Open space: Undeveloped land that is permanently set aside for public use. Open space may be used as community open space or preserved as green space, and includes parcels in conservation easement or land trust, park or recreation areas, and community gardens.

Permeable paving: A porous cover system that encourages groundwater recharge and infiltration. www.epa.gov/oaintrnt/stormwater/pavers.htm and www.epa.gov/greeningepa/stormwater/best_practices.htm

Phenol-formaldehyde: A resin used in the manufacture of composite wood products primarily for outdoor use, including softwood plywood and flake or oriented strand board. Composite wood products that contain phenol-formaldehyde generally emit formaldehyde at lower rates than those containing urea formaldehyde resin. www.epa.gov/iaqjformalde.html

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Photocell:A light-sensitive device that detects ambient light and controls exterior fixtures accordingly.

Photovoltaics:Composite materials that convert sunlight directly into electrical power.

Post-consumer waste:Materials or finished products that have served their intended use and so have been diverted or recovered from waste destined for disposal. www.epa.gov/OCEPAterms/pterm.html

Post-industrial waste (also called pre-consumer waste):Materials generated in manufacturing and converting processes such as manufacturing scrap and trimmings and cuttings. www.epa.gov/OCEPAterms/pterm.html

Public-private regional transportation:Private company offering public transit services through a public funding stream, based on a regular schedule and permanent stops.

Radon:A colorless, odorless, and tasteless gas that greatly affects indoor air quality. According to the EPA, radon exposure is the second leading cause of lung cancer in the United States. www.epa.gov/radon/pubs/citguide.html

Resilient flooring:Flooring products in which the wearing surface is non-textile, including but not limited to rubber, polymeric, and linoleum. webstore.ansi.org/RecordDetail.aspx?sku=NSF%2FANSI+332-2010

RESNET (Residential Energy Services Network):A national, nonprofit corporation that certifies raters to evaluate building energy performance using HERS. www.resnet.us

Retention basin:A shallow impoundment designed to infiltrate stormwater into the soil. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=69

Road section:The cross-section through a street, with particular attention paid to the width of the street and its hydrology. Carefully planned road sections can decrease the amount of impervious surfaces and can improve the overall stormwater management for the project site. More information can be found in the document *Low-Impact Development Design Strategies: An Integrated Design Approach*, found at www.epa.gov/OWOW/nps/lidnatl.pdf.

Rock filter:A permanent or temporary stone structure installed to serve as a sediment-filtering device in drainage ways. Allows a pool to form in an excavated or natural depression, where sediment can settle. The pool is then dewatered through the gravel rock dam. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=57&minmeasure=4

Silt fencing:A temporary fabric barrier surrounding a site to control stormwater runoff. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=56

Silt sacks:Tube-shaped erosion-control devices. cfpub.epa.gov/npdesjstormwaterjmenuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=121&minmeasure=4

Smart grid:A modern electrical grid that integrates a digital communication overlay on the electro-mechanical grid from the power plant to the end-use appliance.

Smart meter:A system that collects energy usage data (both energy consumption and production, if renewable systems are present) from a home or building.

Solar hot water system:Captures, converts, and transfers heat from direct and indirect sunlight to heat an auxiliary water tank and provide hot water for a building's occupants.

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Solar reflectance (or albedo): A measure of a material's ability to reflect sunlight (including the visible, infrared, and ultraviolet wavelengths) on a scale of 0 to 1. A solar reflectance value of 0.0 indicates that the surface absorbs all solar radiation, and a 1.0 solar reflectance value represents total reflectivity.

Solar south: A measurement of the sun's true position based on its path across the sky. It is different from magnetic south, which is taken from a compass reading. Methods for calculating solar south include the solar noon method or a compass using a magnetic declination chart to correct for magnetic declination.

Straw bale: A bound block of straw and organic material used to control stormwater runoff. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=122&minmeasure=4

Substantial rehabilitation: Enterprise Green Communities defines a substantial rehab (or gut rehab) as a project that guts and exposes the building envelope to expose the structure and air barrier and replaces or improves major systems of the building.

Supportive housing dwelling units: Permanent housing with attached intensive services targeted to populations that have special needs, including people who are currently or formerly homeless; those with serious, chronic mental health issues; people in various stages of recovery from substance abuse; people with *HN/AIDS*, or physical or developmental disabilities; the formerly incarcerated, the frail elderly, homeless or emancipated youth, and victims of domestic violence; and other groups that would not be able to live independently and maintain housing without intensive support.

Swales: Shallow grass-covered hydraulic conveyance channels that help to slow runoff and facilitate infiltration. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=75&minmeasure=5

TS fixture: A fixture made up of a tubular fluorescent bulb and an electronic ballast, both operating with a higher efficacy than traditional tubular fluorescent design technology, such as the T12 bulb and magnetic ballast.

Tiers: Earthen embankments that reduce erosion by slowing, collecting, and redistributing surface runoff to stable outlets that increase the distance of overland runoff flow. cfjmb.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=46&minmeasure=4

Title 24 (2008 Building Energy Efficiency Standards, Title 24, Part 6): The building energy performance standards for the State of California. www.energy.ca.gov/title24/2008standards/index.html

Transit ride: A scheduled stop along a defined route of one form of public transportation (bus, rail, or ferry).

Universal design: The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The principles of universal design are as follows: 1) equitable use, 2) flexibility in use, 3) simple and intuitive use, 4) perceptible information, 5) tolerance for error, 6) low physical effort, and 7) size and space for approach and use. www.design.ncsu.edu/jcud/about_udjudprinciples.htm

Urea-formaldehyde: A toxic resin created from formaldehyde that causes similar side effects. Composite wood products made for indoor use, such as particleboard, hardwood plywood paneling, and medium-density fiberboard, often contain this resin. www.epa.gov/iaq/formalde.html

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Vehicle share program:A private system in which a company or a group of individuals share vehicles on a reservation basis and pay for the use on the basis of time or mileage. Programs that qualify under Criterion 2.15 must have an established formal agreement among participants.

Ventilation:The process of supplying outdoor air to, or removing indoor air from, a dwelling by natural or mechanical means. Such air may or may not have been conditioned.

VOCs (Volatile Organic Compounds):A large group of carbon-based chemicals that easily evaporate at room temperature. www.epa.gov/iaq/voc.html

Walk distance:The distance a pedestrian must travel between origins and destinations without obstruction, in a safe and comfortable environment on a continuous network of sidewalks, all-weather-surface footpaths, crosswalks, or equivalent pedestrian facilities. Any crossing of a street with speeds at or greater than 30 miles per hour requires controlled crossing (e.g., a stop sign or stop light).

Watershed:The area of land where all of the water that is under it or drains off of it goes into the same place. www.epa.gov/jowowjwatershedjwhatish.html

Weekend ride options:A public transit option of either bus, rail, or ferry service. Employer-assisted vanpools and dial-a-ride programs are examples of qualifying weekend service.

Xeriscaping:A method of landscaping aimed at reducing or eliminating excess water from irrigation by using drought-tolerant plants. www.epa.gov/epawaste/conservation/rrr/greenscapes/index.htm



Enterprise Green Communities
American City Building
10227 Wincopin Circle
Columbia, MD 21044
800.624.4298

www.greencommunitiesonline.org
www.enterprisecommunity.org



M = MANDATORY

=AVAILABLE OPTIONAL POINTS

2011 Enterprise Green Communities Criteria Checklist

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria. To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.

YES NO MAYBE

M

I.1a Green Development Plan: Integrative Design Meeting(s)

Conduct one or more integrative design meetings and submit a Green Development Plan or equivalent documentation.

YES NO MAYBE

M

I.1b Green Development Plan: Criteria Documentation

Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.

YES NO MAYBE

2

1.2a Universal Design (New Construction only)

Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines.

YES NO MAYBE

2 or 3

1.2b Universal Design (Substantial and Moderate Rehab only)

Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines [2 points] and, for an additional point, the remainder of the ground-floor units and elevator-reachable units should have accessible unit entrances.

SUBTOTAL OPTIONAL POINTS

YES NO MAYBE

M

2.1 Sensitive Site Protection (New Construction only)

Do not locate new development, including buildings, built structures, roads, or other parking areas, on portions of sites that meet any of the following provisions:

- Land within 100 feet of wetlands, including isolated wetlands or streams
- Land on slope greater than 15%
- Land with prime soils, unique soils, or soils of state significance
- Public parkland
- Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists
- Land with elevation at or below the 100-year floodplain

YES NO MAYBE

M

2.2 Connections to Existing Development and Infrastructure (New Construction only, except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000)

Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous to existing development. Connect the project to the pedestrian grid.

M = MANDATORY

= AVAILABLE OPTIONAL POINTS

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)	2.3 Compact Development <i>(New Construction only)</i> Design and build the project to a density of at least: <ul style="list-style-type: none"> • <i>Urban/Small Cities:</i> 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater • <i>Suburban/Mid-Size Towns:</i> 7 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater • <i>Rural/Tribal/Small Towns:</i> 5 units per acre for detached or semi-detached housing; 10 units per acre for townhomes; 15 units per acre for apartments
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5 or 6		2.4 Compact Development Design and build the project to a density of at least: <ul style="list-style-type: none"> • <i>Urban/Small Cities:</i> 15 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater [5 points] • <i>Suburban/Mid-Size Towns:</i> 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater [6 points] • <i>Rural/Tribal/Small Towns:</i> 7.5 units per acre for detached or semi-detached housing; 12 units per acre for townhomes; 20 units per acre for apartments [6 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M		2.5 Proximity to Services <i>(New Construction only)</i> Locate the project within: <ul style="list-style-type: none"> • <i>Urban/Small Cities:</i> a 0.25-mile walk distance of at least two OR a 0.5-mile walk distance of at least four of the list of facilities • <i>Suburban/Mid-Size Towns:</i> a 0.5-mile walk distance of at least three OR a 1-mile walk distance of at least six of the list of facilities • <i>Rural/Tribal/Small Towns:</i> two miles of at least two of the list of facilities
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M		2.6 Preservation of and Access to Open Space: Rural/Tribal /Small Towns Only <i>(New Construction only)</i> Set aside a minimum of 10% of the total project acreage as open space for use by residents OR locate project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	3 max		2.7 Preservation of and Access to Open Space Set aside a percentage of the total project acreage as open space for use by residents: 20% [1 point] ; 30% [2 points] ; and 40% + written statement of preservation/conservation policy for set-aside land [3 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5		2.8 Access to Public Transportation Locate the project within: <ul style="list-style-type: none"> • <i>Urban/Small Cities:</i> a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday and 32 or more transit rides on the weekend • <i>Suburban/Mid-Size Towns:</i> a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 60 or more transit rides per weekday and some type of weekend ride option • <i>Rural/Tribal/Small Towns:</i> S-mile distance of either a vehicle share program, a dial-a-ride program, an employer van pool, or public-private regional transportation
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5		2.9 Walkable Neighborhoods: Connections to Surrounding Neighborhood-Rural/Tribal/Small Towns Connect the project to public spaces, open spaces, and adjacent development by providing at least three separate connections from the project to sidewalks or pathways in surrounding neighborhoods and natural areas.

M = MANDATORY

=AVAILABLE OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	7 max	2.10 Smart Site Location: Passive Solar Heating/ Cooling Demonstrate a building with a passive solar design, orientation, and shading that meet specified guidelines. <i>Select one:</i> <ul style="list-style-type: none"> • Single building-New Construction [7points] • Multiple buildings-New Construction [7points] • Moderate or Substantial Rehab [7 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	2	2.11 Brownfield or Adaptive Reuse Site Locate the project on a brownfield or adaptive reuse site. <i>Select either:</i> adaptive reuse site [2 points] or brownfield remediation [2 points]
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6	2.12 Access to Fresh, Local Foods Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens; community-supported agriculture; proximity to farmers market.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4	2.13 LEED for Neighborhood Development Certification Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.
<hr style="width: 20%; margin-left: auto; margin-right: 0;"/> SUBTOTAL OPTIONAL POINTS		
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.1 Environmental Remediation Conduct an environmental site assessment to determine whether any hazardous materials are present on site.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.2 Erosion and Sedimentation Control <i>(Except for infill sites with buildable area smaller than one acre)</i> Implement EPA's Best Management Practices for erosion and sedimentation control during construction.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.3 Low-Impact Development <i>(New Construction only)</i> Projects located on greenfields must meet the list of low-impact development criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.4 Landscaping Provide new plants (including trees, shrubs, and ground cover) such that at least 50% of area available for landscaping is planted with native or adaptive species, all new plants are appropriate to the site's soil and microclimate, and none of the new plants is an invasive species.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	3.5 Efficient Irrigation and Water Reuse If irrigation is utilized, install an efficient irrigation or water reuse system.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	2 or 6	3.6 Surface Stormwater Management Retain, infiltrate, and/or harvest stormwater on site. <i>Select only one:</i> partial stormwater retention [2 points] or full stormwater retention [6 points]
<hr style="width: 20%; margin-left: auto; margin-right: 0;"/> SUBTOTAL OPTIONAL POINTS		

M = MANDATORY

=AVAILABLE OPTIONAL POINTS

YES NO MAYBE

M **4.1 Water-Conserving Fixtures**

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.28 gpf; Urinals-0.5 gpf; Showerheads-2.0 gpm; Kitchen faucets-2.0 gpm; Bathroom faucets-1.5 gpm

YES NO MAYBE

6
max **4.2 Advanced Water-Conserving Appliances and Fixtures**

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.2 gpf; Showerheads-1.5 gpm; Kitchen faucets-1.5 gpm; Bathroom faucets-0.5 gpm. *Select any, or all, of the options:*

- Toilets [2 points]
- Showerheads [2 points]
- Faucets-kitchen and bathroom [2 points]

YES NO MAYBE

4
max **4.3 Water Reuse**

Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs.

- 10% reuse [1 point]
- 20% reuse [2 points]
- 30% reuse [3 points]
- 40% reuse [4 points]

SUBTOTAL OPTIONAL POINTS

YES NO MAYBE

M **5.1a Building Performance Standard: Single family and Multifamily** (three stories or fewer)
(New Construction only)

Certify the project under ENERGY STAR New Homes.

YES NO MAYBE

M **5.1b Building Performance Standard: Multifamily** (four stories or more)
(New Construction only)

Demonstrate compliance with EPA's Multifamily High-Rise program (MFHR) using either the prescriptive or the performance pathway.

YES NO MAYBE

M **5.1c Building Performance Standard: Single family and Multifamily** (three stories or fewer)
(Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to a Home Energy Rating System (HERS) Index of 85.

YES NO MAYBE

M **5.1d Building Performance Standard: Multifamily** (four stories or more)
(Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to ASHRAE 90.1-2007.

YES NO MAYBE

15
max **5.2 Additional Reductions in Energy Use**

Improve whole-building energy performance by percentage increment above baseline building performance standard for additional points.

YES NO MAYBE

M **5.3 Sizing of Heating and Cooling Equipment**

Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or ASHRAE handbooks.

YES NO MAYBE

M **5.4 ENERGY STAR Appliances**

If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.

M = MANDATORY
=AVAILABLE OPTIONAL POINTS

ENERGY EFFICIENCY (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.5a Efficient Lighting: Interior Units Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.5b Efficient Lighting: Common Areas and Emergency Lighting Follow the guidance appropriate for the project type: use ENERGY STAR-labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; OR if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.5c Efficient Lighting: Exterior Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEOs with a minimum efficacy of 45lumens/watt; OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR if replacing, install ENERGY STAR compact fluorescents or LEOs with a minimum efficacy of 45lumens/watt.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	5.6a Electricity Meter <i>(New Construction and Substantial Rehab only)</i> Install individual or sub-metered electric meters in all dwelling units.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	3	5.6b Electricity Meter <i>(Moderate Rehab only)</i> Install individual or sub-metered electric meters in all dwelling units.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	12 max	5.7a Renewable Energy Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	1 or 2	5.7b Photovoltaic/Solar Hot Water Ready Site, design, engineer, and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5	5.8 Advanced Metering Infrastructure Site, design, engineer, and wire the development to accommodate installation of smart meters and/or be able to interface with smart grid systems in the future.
SUBTOTAL OPTIONAL POINTS		

6: MATERIALS BENEFICIAL TO THE ENVIRONMENT

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	6.1 Low/No VOC Paints and Primers All interior paints and primers must be less than or equal to the following VOC levels: Flats-50 g/L; Non-flats-50 g/L; Floor-100 giL
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	6.2 Low/No VOC Adhesives and Sealants All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	6.3 Construction Waste Management Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

M = MANDATORY

=AVAILABLE OPTIONAL POINTS

MATERIALS BENEFICIAL TO THE ENVIRONMENT (CONTINUED)

YES NO MAYBE

5
max

6.4 Construction Waste Management: Optional

Determine percentage of waste diversion and earn all points below that threshold:

- 35% waste diversion [1 point]
- 45% waste diversion [1 point]
- 55% waste diversion [1 point]
- 65% waste diversion [1 point]
- 75% waste diversion [1 point]

YES NO MAYBE

5

6.5 Recycling Storage for Multifamily Project

Provide one or more easily accessible, permanent areas for the collection and storage of materials for recycling.

YES NO MAYBE

5
max

6.6 Recycled Content Material

Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. *Select from the following:*

- Framing materials [1 point]
- Exterior materials: siding, masonry, roofing [1 point]
- Concrete/cement and aggregate [1 point]
- Drywall/interior sheathing [1 point]
- Flooring materials [1 point]

YES NO MAYBE

5
max

6.7 Regional Material Selection

Use products that were extracted, processed, and manufactured within 500 miles of the home or building for a minimum of 50% of the building material value (based on cost). *Select any or all of these options:*

- Framing materials [1 point]
- Exterior materials: siding, masonry, roofing [1 point]
- Concrete/cement and aggregate [1 point]
- Drywall/interior sheathing [1 point]
- Flooring materials [1 point]

YES NO MAYBE

5

6.8 Certified, Salvaged, and Engineered Wood Products

Commit to using wood products and materials of at least 25% that are (by cost): FSC-certified, salvaged products, or engineered framing materials without urea-formaldehyde binders.

YES NO MAYBE

1 or 3

6.9a Reduced Heat-Island Effect: Roofing

Use Energy Star-compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area. *Select only one: cool roof [3 points] or green roof [1 point]*

YES NO MAYBE

2

6.9b Reduced Heat-Island Effect: Paving

Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

SUBTOTAL OPTIONAL POINTS

YES NO MAYBE

M

7.1 Composite Wood Products that Emit Low/No Formaldehyde

All composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

M = MANDATORY

=AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)			
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.2 Environmentally Preferable Flooring	Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unfinished hardwood floors, OR in compliance with the Scientific Certification System's FloorScore program criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4	7.3 Environmentally Preferable Flooring: Alternative Sources	Use non-vinyl, non-carpet floor coverings in all rooms of building.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.4a Exhaust Fans: Bathroom <i>(New Construction and Substantial Rehab only)</i>	Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6	7.4b Exhaust Fans: Bathroom <i>(Moderate Rehab only)</i>	Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.5a Exhaust Fans: Kitchen <i>(New Construction and Substantial Rehab only)</i>	Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	6	7.5b Exhaust Fans: Kitchen <i>(Moderate Rehab only)</i>	Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.6a Ventilation <i>(New Construction and Substantial Rehab only)</i>	Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5	7.6b Ventilation <i>(Moderate Rehab only)</i>	Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.7 Clothes Dryer Exhaust	Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.8 Combustion Equipment	Specify power-vented or direct vent equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.9a Mold Prevention: Water Heaters	Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.9b Mold Prevention: Surfaces	In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	7.9c Mold Prevention: Tub and Shower Enclosures	Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

M = MANDATORY

=AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>7.10 Vapor Barrier Strategies <i>(New Construction and Rehab Projects with foundation work only)</i> Install vapor barriers that meet specified criteria appropriate for the foundation type.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>7.11 Radon Mitigation <i>(New Construction and Substantial Rehab only)</i> For New Construction in EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. For Substantial Rehab projects in those Zones, test for the presence of radon and mitigate if elevated levels exist.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>7.12 Water Drainage <i>(New Construction and Rehab projects replacing assemblies called out in Criterion only)</i> Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>7.13 Garage Isolation Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space, and install a CO alarm inside the house in the room with a door to the garage and outside all sleeping areas.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>7.14 Integrated Pest Management Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>7.15 Lead-Safe Work Practices <i>(Substantial and Moderate Rehab only)</i> For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	9	<p>7.16 Smoke-Free Building Implement and enforce a no smoking policy in all common, individual living areas, and with a 25-foot perimeter around the exterior of all residential buildings.</p>
SUBTOTAL OPTIONAL POINTS		
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>8.1 Building Maintenance Manual <i>(All Multifamily Projects)</i> Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>8.2 Resident Manual Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<p>8.3 Resident and Property Manager Orientation Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.</p>
<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	12	<p>8.4 Project Data Collection and Monitoring System Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years.</p>
SUBTOTAL OPTIONAL POINTS		
TOTAL OPTIONAL POINTS		

EXHIBIT L
Sample Damage Assessment Report
Tier 23 Environmental Review and Feasibility Study

Dewberry

Insured: [REDACTED]
Property: [REDACTED]
Home: [REDACTED]

Home: [REDACTED]

Claim Rep.: [REDACTED]

Estimator: [REDACTED]

Claim Number: [REDACTED]

Policy Number: [REDACTED]

Type of Loss: [REDACTED]

Date Contacted: [REDACTED]
Date of Loss: [REDACTED]
Date Inspected: [REDACTED]

Date Received: [REDACTED]
Date Entered: [REDACTED]

Price List: [REDACTED]
Estimate: [REDACTED]

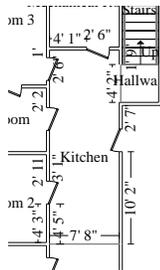
Two story detached dwelling on crawlspace.

[REDACTED]

Main Level

Main Level

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
1. R&R #ORC# Batt insulation - 10" - R30 - unfaced batt	1,084.02 SF	0.43	1.28	0.00	1,853.68
2. R&R #ORC# Batt insulation - 6" - R19 - unfaced batt	1,291.02 SF	0.36	0.97	0.00	1,717.06
HVAC					
3. R&R #ONU# Central air - condenser unit - 4 ton - 14-15 SEER	1.00 EA	50.14	2,614.92	0.00	2,665.06
4. R&R #ONU# Circuit breaker - main disconnect - 100 amp	1.00 EA	8.60	95.29	0.00	103.89
5. R&R #ONU# Disconnect box - 60 amp - non fused	1.00 EA	14.40	139.81	0.00	154.21
6. #ONU# 110 volt wiring (12/2 copper conductor with ground)	4.00 LF	0.36	1.05	0.00	5.64
7. R&R #ONU# Flexible metal conduit, 1/2" to 1"	4.00 LF	3.01	8.39	0.00	45.60
ROOF & SIDING					
8. R&R #ORC# Batt insulation - 6" - R19 - unfaced batt	1,291.02 SF	0.36	0.97	0.00	1,717.06
9. R&R #ORC# 3 tab - 20 yr. - composition shingle roofing - incl. felt	18.00 SQ	70.64	222.46	0.00	5,275.80
10. R&R #ORC# Siding - vinyl	1,291.02 SF	0.52	2.90	0.00	4,415.29
Total: Main Level				0.00	17,953.29



Kitchen

Height: 8'

369.33 SF Walls	164.25 SF Ceiling
533.58 SF Walls & Ceiling	164.25 SF Floor
18.25 SY Flooring	46.17 LF Floor Perimeter
46.17 LF Ceil. Perimeter	

Missing Wall

7' 8" X 8'

Opens into DINING_ROOM

Missing Wall

4' 2" X 8'

Opens into HALLWAY

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
KITCHEN / BATH					
11. #ORC# Cabinetry - lower (base) units - Premium grade	10.00 LF	9.01	342.75	0.00	3,517.60
12. R&R #ORC# Countertop - flat laid plastic laminate	10.00 LF	5.17	37.13	0.00	423.00
13. #ORC# Cabinetry - upper (wall) units - Premium grade	10.00 LF	9.01	271.52	0.00	2,805.30

[REDACTED]

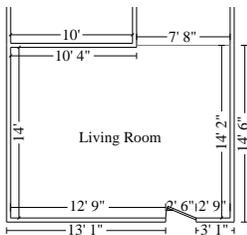
[REDACTED]

CONTINUED - Kitchen

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
14. #ORC# Sink - double - Standard grade	1.00 EA	24.00	276.37	0.00	300.37
15. #ORC# Sink faucet - Kitchen - Standard grade	1.00 EA	0.00	158.56	0.00	158.56
16. #ORC# Range - freestanding - gas	1.00 EA	0.00	616.53	0.00	616.53
17. #ORC# Refrigerator - bottom freezer - 18 to 22 cf	1.00 EA	0.00	954.81	0.00	954.81
18. #ORC# Dishwasher - Standard grade	1.00 EA	0.00	426.21	0.00	426.21
19. #ORC# Microwave oven - over range w/built-in hood - Standard grd	1.00 EA	0.00	277.73	0.00	277.73
PLUMBING					
20. #ORC# Plumbing fixture supply line	2.00 EA	6.00	20.15	0.00	52.30
ELECTRICAL					
21. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
22. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
23. #RRR# Ground fault interrupter (GFI) outlet	2.00 EA	5.42	32.80	0.00	76.44
24. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
25. #RRR# Rewire – average residence copper wiring with conduit	164.25 SF	0.00	4.36	0.00	716.13
WINDOWS & DOORS					
26. #ORC# Exterior door - metal - insulated / wood - High grade	1.00 EA	26.19	431.97	0.00	458.16
27. #ORC# Door lockset & deadbolt - exterior	1.00 EA	0.00	88.20	0.00	88.20
28. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
29. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
30. R&R #ORC# Storm door assembly - Standard grade	1.00 EA	21.18	173.69	0.00	194.87
FLOORS, WALLS, CEILING					
31. R&R #ORC# Sheathing - OSB - 5/8"	164.25 SF	0.68	1.57	0.00	369.56
32. R&R #ORC# Tile floor covering - Standard grade	164.25 SF	3.00	6.71	0.00	1,594.87
33. #ORV# Baseboard – 3 1/4"	46.17 LF	0.55	0.00	0.00	25.39
34. #ORC# Baseboard – 3 1/4"	46.17 LF	0.00	2.73	0.00	126.04
35. #ORC# Paint baseboard - two coats	46.17 LF	0.00	1.31	0.00	60.48
36. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	369.33 SF	0.50	0.00	0.00	184.67

CONTINUED - Kitchen

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
37. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	369.33 SF	0.00	2.12	0.00	782.98
38. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	164.25 SF	0.51	0.00	0.00	83.77
39. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	164.25 SF	0.00	2.22	0.00	364.64
40. #ORC# Paint the walls and ceiling - two coats	533.58 SF	0.00	0.89	0.00	474.89
41. R&R #ORC# Stud wall - 2" x 4" x 8' - 16" oc	46.17 LF	2.07	17.26	0.00	892.46
42. R&R #ORC# Joist - floor or ceiling - 2x8 - w/blocking - 16" oc	164.25 SF	1.07	2.69	0.00	617.58
Totals: Kitchen				0.00	16,936.40



Living Room

Height: 8'

452.00 SF Walls	253.28 SF Ceiling
705.28 SF Walls & Ceiling	253.28 SF Floor
28.14 SY Flooring	56.50 LF Floor Perimeter
56.50 LF Ceil. Perimeter	

Missing Wall

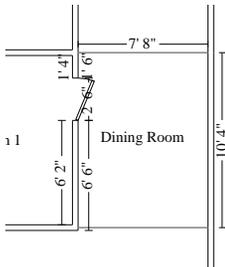
7' 8" X 8'

Opens into DINING_ROOM

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
43. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
44. #RRR# Switch	4.00 EA	6.05	12.79	0.00	75.36
45. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
46. #RRR# Rewire – average residence copper wiring with conduit	253.28 SF	0.00	4.36	0.00	1,104.30
47. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
48. #ORC# Exterior door - metal - insulated / wood - High grade	1.00 EA	26.19	431.97	0.00	458.16
49. #ORC# Door lockset & deadbolt - exterior	1.00 EA	0.00	88.20	0.00	88.20
50. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
51. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
52. R&R #ORC# Storm door assembly - Standard grade	1.00 EA	21.18	173.69	0.00	194.87

CONTINUED - Living Room

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
53. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
54. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
55. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
56. R&R #ORC# Sheathing - OSB - 5/8"	253.28 SF	0.68	1.57	0.00	569.88
57. #ORC# Engineered wood flooring - floating - Premium grade	253.28 SF	1.40	16.91	0.00	4,637.55
58. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	452.00 SF	0.50	0.00	0.00	226.00
59. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	452.00 SF	0.00	2.12	0.00	958.24
60. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	253.28 SF	0.51	0.00	0.00	129.17
61. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	253.28 SF	0.00	2.22	0.00	562.28
62. #ORV# Baseboard - 3 1/4"	56.50 LF	0.55	0.00	0.00	31.08
63. #ORC# Baseboard - 3 1/4"	56.50 LF	0.00	2.73	0.00	154.25
64. #ORC# Paint baseboard - two coats	56.50 LF	0.00	1.31	0.00	74.02
65. #ORC# Paint the walls and ceiling - two coats	705.28 SF	0.00	0.89	0.00	627.70
66. R&R #ORC# Stud wall - 2" x 4" x 8' - 16" oc	56.50 LF	2.07	17.26	0.00	1,092.15
67. R&R #ORC# Joist - floor or ceiling - 2x8 - w/blocking - 16" oc	253.28 SF	1.07	2.69	0.00	952.33
Totals: Living Room				0.00	12,824.62



Dining Room

Height: 8'

166.67 SF Walls	79.22 SF Ceiling
245.89 SF Walls & Ceiling	79.22 SF Floor
8.80 SY Flooring	20.83 LF Floor Perimeter
20.83 LF Ceil. Perimeter	

Missing Wall

7' 8" X 8'

Opens into KITCHEN

Missing Wall

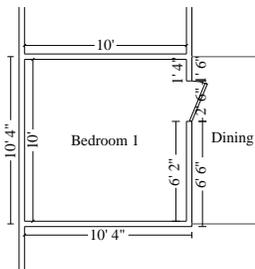
7' 8" X 8'

Opens into LIVING_ROOM

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					

CONTINUED - Dining Room

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
68. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
69. #RRR# Switch	4.00 EA	6.05	12.79	0.00	75.36
70. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
71. #RRR# Rewire – average residence copper wiring with conduit	79.22 SF	0.00	4.36	0.00	345.40
WINDOWS & DOORS					
72. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
73. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
74. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
75. R&R #ORC# Sheathing - OSB - 5/8"	79.22 SF	0.68	1.57	0.00	178.25
76. #ORC# Engineered wood flooring - floating - Premium grade	79.22 SF	1.40	16.91	0.00	1,450.52
77. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	166.67 SF	0.50	0.00	0.00	83.34
78. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	166.67 SF	0.00	2.12	0.00	353.34
79. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	79.22 SF	0.51	0.00	0.00	40.40
80. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	79.22 SF	0.00	2.22	0.00	175.87
81. #ORV# Baseboard – 3 1/4"	20.83 LF	0.55	0.00	0.00	11.46
82. #ORC# Baseboard – 3 1/4"	20.83 LF	0.00	2.73	0.00	56.87
83. #ORC# Paint baseboard - two coats	20.83 LF	0.00	1.31	0.00	27.29
84. #ORC# Paint the walls and ceiling - two coats	245.89 SF	0.00	0.89	0.00	218.84
Totals: Dining Room				0.00	3,570.13



Bedroom 1

Height: 8'

320.00 SF Walls	100.00 SF Ceiling
420.00 SF Walls & Ceiling	100.00 SF Floor
11.11 SY Flooring	40.00 LF Floor Perimeter
40.00 LF Ceil. Perimeter	

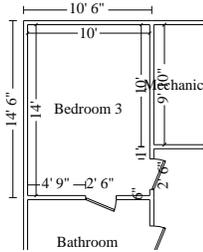
DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
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CONTINUED - Bedroom 1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
85. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
86. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
87. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
88. #RRR# Rewire – average residence copper wiring with conduit	100.00 SF	0.00	4.36	0.00	436.00
89. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
90. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
91. #ORC# Interior door unit - Standard grade	1.00 EA	22.51	144.32	0.00	166.83
92. #ORC# Door knob - interior - Standard grade	1.00 EA	0.00	31.92	0.00	31.92
93. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
94. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
95. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
96. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
97. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
98. R&R #ORC# Sheathing - OSB - 5/8"	100.00 SF	0.68	1.57	0.00	225.00
99. #ORC# Pre-finished solid wood flooring (Premium grade)	100.00 SF	2.81	16.13	0.00	1,894.00
100. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	320.00 SF	0.50	0.00	0.00	160.00
101. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	320.00 SF	0.00	2.12	0.00	678.40
102. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	100.00 SF	0.51	0.00	0.00	51.00
103. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	100.00 SF	0.00	2.22	0.00	222.00
104. #ORV# Baseboard – 3 1/4"	40.00 LF	0.55	0.00	0.00	22.00
105. #ORC# Baseboard – 3 1/4"	40.00 LF	0.00	2.73	0.00	109.20
106. #ORC# Paint baseboard - two coats	40.00 LF	0.00	1.31	0.00	52.40
107. #ORC# Paint the walls and ceiling - two coats	420.00 SF	0.00	0.89	0.00	373.80

CONTINUED - Bedroom 1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
Totals: Bedroom 1				0.00	5,476.09



Bedroom 3

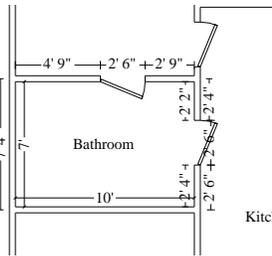
Height: 8'

384.00 SF Walls	140.00 SF Ceiling
524.00 SF Walls & Ceiling	140.00 SF Floor
15.56 SY Flooring	48.00 LF Floor Perimeter
48.00 LF Ceil. Perimeter	

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
108. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
109. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
110. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
111. #RRR# Rewire – average residence copper wiring with conduit	140.00 SF	0.00	4.36	0.00	610.40
112. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
113. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
114. #ORC# Interior door unit - Standard grade	3.00 EA	22.51	144.32	0.00	500.49
115. #ORC# Door knob - interior - Standard grade	3.00 EA	0.00	31.92	0.00	95.76
116. #ORC# Paint door slab only - 2 coats (per side)	6.00 EA	0.00	27.48	0.00	164.88
117. #ORC# Paint door/window trim & jamb - 2 coats (per side)	6.00 EA	0.00	28.29	0.00	169.74
118. R&R #ORC# Vinyl window, single hung, 13-19 sf	2.00 EA	27.10	294.10	0.00	642.40
119. R&R #ORC# Window trim set (casing & stop)	28.00 LF	0.60	3.69	0.00	120.12
120. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
FLOORS, WALLS, CEILING					
121. R&R #ORC# Sheathing - OSB - 5/8"	140.00 SF	0.68	1.57	0.00	315.00
122. #ORC# Pre-finished solid wood flooring (Premium grade)	140.00 SF	2.81	16.13	0.00	2,651.60
123. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	384.00 SF	0.50	0.00	0.00	192.00

CONTINUED - Bedroom 3

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
124. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	384.00 SF	0.00	2.12	0.00	814.08
125. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	140.00 SF	0.51	0.00	0.00	71.40
126. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	140.00 SF	0.00	2.22	0.00	310.80
127. #ORV# Baseboard - 3 1/4"	48.00 LF	0.55	0.00	0.00	26.40
128. #ORC# Baseboard - 3 1/4"	48.00 LF	0.00	2.73	0.00	131.04
129. #ORC# Paint baseboard - two coats	48.00 LF	0.00	1.31	0.00	62.88
130. #ORC# Paint the walls and ceiling - two coats	524.00 SF	0.00	0.89	0.00	466.36
Totals: Bedroom 3				0.00	7,934.38



Bathroom

Height: 8'

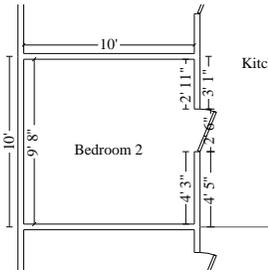
272.00 SF Walls	70.00 SF Ceiling
342.00 SF Walls & Ceiling	70.00 SF Floor
7.78 SY Flooring	34.00 LF Floor Perimeter
34.00 LF Ceil. Perimeter	

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
KITCHEN / BATH					
131. Remove #ORV# Fiberglass tub & shower combination	1.00 EA	99.99	0.00	0.00	99.99
132. #ORC# Fiberglass tub & shower combination	1.00 EA	0.00	942.10	0.00	942.10
133. #ORC# Tub/shower faucet - Standard grade	1.00 EA	0.00	280.10	0.00	280.10
134. Remove #ORV# Pedestal sink - Standard grade	1.00 EA	30.01	0.00	0.00	30.01
135. #ORC# Pedestal sink - Standard grade	1.00 EA	0.00	405.45	0.00	405.45
136. #ORC# Sink faucet - Bathroom - Standard grade	1.00 EA	0.00	150.51	0.00	150.51
137. Remove #ORV# Toilet - Standard grade	1.00 EA	30.01	0.00	0.00	30.01
138. #ORC# Toilet - Standard grade	1.00 EA	0.00	333.80	0.00	333.80
139. #ORC# Toilet seat - Standard grade	1.00 EA	0.00	39.58	0.00	39.58
140. #ORV# Medicine cabinet - Standard grade	1.00 EA	21.63	0.00	0.00	21.63

Dewberry

CONTINUED - Bathroom

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
141. #ORC# Medicine cabinet - Standard grade	1.00 EA	0.00	89.98	0.00	89.98
142. #ORC# Bath accessory - Standard grade	1.00 EA	6.00	19.18	0.00	25.18
PLUMBING					
143. #ORC# Plumbing fixture supply line	3.00 EA	6.00	20.15	0.00	78.45
ELECTRICAL					
144. #RRR# Ground fault interrupter (GFI) outlet	2.00 EA	5.42	32.80	0.00	76.44
145. #RRR# Outlet	2.00 EA	6.05	12.76	0.00	37.62
146. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
147. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
148. #RRR# Rewire – average residence copper wiring with conduit	70.00 SF	0.00	4.36	0.00	305.20
WINDOWS & DOORS					
149. #ORC# Interior door unit - Standard grade	1.00 EA	22.51	144.32	0.00	166.83
150. #ORC# Door knob - interior - Standard grade	1.00 EA	0.00	31.92	0.00	31.92
151. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
152. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
FLOORS, WALLS, CEILING					
153. R&R #ORC# Sheathing - OSB - 5/8"	70.00 SF	0.68	1.57	0.00	157.50
154. R&R #ORC# Tile floor covering - Standard grade	70.00 SF	3.00	6.71	0.00	679.70
155. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	272.00 SF	0.50	0.00	0.00	136.00
156. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	272.00 SF	0.00	2.12	0.00	576.64
157. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	70.00 SF	0.51	0.00	0.00	35.70
158. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	70.00 SF	0.00	2.22	0.00	155.40
159. #ORV# Baseboard – 3 1/4"	34.00 LF	0.55	0.00	0.00	18.70
160. #ORC# Baseboard – 3 1/4"	34.00 LF	0.00	2.73	0.00	92.82
161. #ORC# Paint baseboard - two coats	34.00 LF	0.00	1.31	0.00	44.54
162. #ORC# Paint the walls and ceiling - two coats	342.00 SF	0.00	0.89	0.00	304.38
Totals: Bathroom				0.00	5,563.80



Bedroom 2

Height: 8'

314.67 SF Walls	96.67 SF Ceiling
411.33 SF Walls & Ceiling	96.67 SF Floor
10.74 SY Flooring	39.33 LF Floor Perimeter
39.33 LF Ceil. Perimeter	

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
163. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
164. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
165. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
166. #RRR# Rewire – average residence copper wiring with conduit	96.67 SF	0.00	4.36	0.00	421.48
167. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
168. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
169. #ORC# Interior door unit - Standard grade	2.00 EA	22.51	144.32	0.00	333.66
170. #ORC# Door knob - interior - Standard grade	2.00 EA	0.00	31.92	0.00	63.84
171. #ORC# Paint door slab only - 2 coats (per side)	4.00 EA	0.00	27.48	0.00	109.92
172. #ORC# Paint door/window trim & jamb - 2 coats (per side)	4.00 EA	0.00	28.29	0.00	113.16
173. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
174. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
175. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
176. Remove #ORV# Sheathing - OSB - 5/8"	96.67 SF	0.68	0.00	0.00	65.74
177. #ORC# Sheathing - OSB - 5/8"	96.67 SF	0.00	1.57	0.00	151.77
178. Remove #ORV# Carpet - Standard grade	96.67 SF	0.33	0.00	0.00	31.90
179. #ORC# Carpet pad - Standard grade	96.67 SF	0.00	0.43	0.00	41.57
180. #ORV# Carpet pad - Standard grade	96.67 SF	0.14	0.00	0.00	13.53
181. #ORC# Carpet - Standard grade	96.67 SF	0.00	2.47	0.00	238.77
182. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	314.67 SF	0.50	0.00	0.00	157.34

CONTINUED - Bedroom 2

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
183. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	314.67 SF	0.00	2.12	0.00	667.10
184. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	96.67 SF	0.51	0.00	0.00	49.30
185. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	96.67 SF	0.00	2.22	0.00	214.61
186. #ORV# Baseboard – 3 1/4"	39.33 LF	0.55	0.00	0.00	21.63
187. #ORC# Baseboard – 3 1/4"	39.33 LF	0.00	2.73	0.00	107.37
188. #ORC# Paint baseboard - two coats	39.33 LF	0.00	1.31	0.00	51.52
189. #ORC# Paint the walls and ceiling - two coats	411.33 SF	0.00	0.89	0.00	366.08
Totals: Bedroom 2				0.00	4,162.29



Mechanical Room

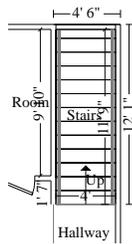
Height: 8'

280.00 SF Walls	75.39 SF Ceiling
355.39 SF Walls & Ceiling	75.39 SF Floor
8.38 SY Flooring	35.00 LF Floor Perimeter
35.00 LF Ceil. Perimeter	

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
190. #ORV# Furnace - forced air - 125,000 BTU	1.00 EA	75.50	2,080.36	0.00	2,155.86
191. #RRR# Water heater – 40 gallon – Gas – 6 yr	1.00 EA	69.39	848.13	0.00	917.52
192. #RRR# Circuit breaker – main disconnect – 150 – 200 amp	1.00 EA	8.60	189.11	0.00	197.71
193. #RRR# Breaker panel -150 amp	1.00 EA	298.83	877.49	0.00	1,176.32
ELECTRICAL					
194. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
195. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
196. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
197. #RRR# Rewire – average residence copper wiring with conduit	75.39 SF	0.00	4.36	0.00	328.70
WINDOWS & DOORS					
198. #ORC# Interior door unit - Standard grade	1.00 EA	22.51	144.32	0.00	166.83
199. #ORC# Door knob - interior - Standard grade	1.00 EA	0.00	31.92	0.00	31.92

CONTINUED - Mechanical Room

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
200. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
201. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
FLOORS, WALLS, CEILING					
202. R&R #ORC# Sheathing - OSB - 5/8"	75.39 SF	0.68	1.57	0.00	169.63
203. R&R #ORC# Tile floor covering - Standard grade	75.39 SF	3.00	6.71	0.00	732.04
204. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	280.00 SF	0.50	0.00	0.00	140.00
205. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	280.00 SF	0.00	2.12	0.00	593.60
206. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	75.39 SF	0.51	0.00	0.00	38.45
207. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	75.39 SF	0.00	2.22	0.00	167.37
208. #ORV# Baseboard - 3 1/4"	35.00 LF	0.55	0.00	0.00	19.25
209. #ORC# Baseboard - 3 1/4"	35.00 LF	0.00	2.73	0.00	95.55
210. #ORC# Paint baseboard - two coats	35.00 LF	0.00	1.31	0.00	45.85
211. #ORC# Paint the walls and ceiling - two coats	355.39 SF	0.00	0.89	0.00	316.30
Totals: Mechanical Room				0.00	7,585.76



Stairs

Height: 17'

296.32 SF Walls	47.00 SF Ceiling
343.32 SF Walls & Ceiling	86.50 SF Floor
9.61 SY Flooring	28.57 LF Floor Perimeter
23.50 LF Ceil. Perimeter	

Missing Wall

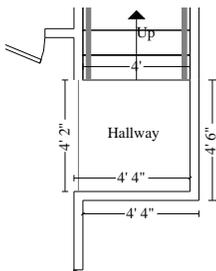
4' X 17'

Opens into HALLWAY

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
FLOORS, WALLS, CEILING					
212. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	296.32 SF	0.50	0.00	0.00	148.16
213. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	296.32 SF	0.00	2.12	0.00	628.20
214. #ORV# Baseboard - 3 1/4"	28.57 LF	0.55	0.00	0.00	15.71
215. #ORC# Baseboard - 3 1/4"	28.57 LF	0.00	2.73	0.00	78.00

CONTINUED - Stairs

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
216. #ORC# Paint baseboard - two coats	28.57 LF	0.00	1.31	0.00	37.43
217. #ORC# Paint the walls and ceiling - two coats	343.32 SF	0.00	0.89	0.00	305.55
Totals: Stairs				0.00	1,213.05



Hallway

Height: 8'

68.00 SF Walls	17.36 SF Ceiling
85.36 SF Walls & Ceiling	17.36 SF Floor
1.93 SY Flooring	8.50 LF Floor Perimeter
12.50 LF Ceil. Perimeter	

Missing Wall

4' 2" X 8'

Opens into KITCHEN

Missing Wall

4' X 8'

Opens into STAIRS

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
218. #RRR# Outlet	1.00 EA	6.05	12.76	0.00	18.81
219. #RRR# Switch	1.00 EA	6.05	12.79	0.00	18.84
220. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
221. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
222. #RRR# Rewire – average residence copper wiring with conduit	17.36 SF	0.00	4.36	0.00	75.69
FLOORS, WALLS, CEILING					
223. Remove #ORV# Sheathing - OSB - 5/8"	17.36 SF	0.68	0.00	0.00	11.80
224. #ORC# Sheathing - OSB - 5/8"	17.36 SF	0.00	1.57	0.00	27.26
225. Remove #ORV# Tile floor covering - Standard grade	17.36 SF	3.00	0.00	0.00	52.08
226. #ORC# Tile floor covering - Standard grade	17.36 SF	0.00	6.71	0.00	116.49
227. #ORV# Baseboard – 3 1/4"	8.50 LF	0.55	0.00	0.00	4.68
228. #ORC# Baseboard – 3 1/4"	8.50 LF	0.00	2.73	0.00	23.21
229. #ORC# Paint baseboard - two coats	8.50 LF	0.00	1.31	0.00	11.14
230. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	68.00 SF	0.50	0.00	0.00	34.00
231. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	68.00 SF	0.00	2.12	0.00	144.16

CONTINUED - Hallway

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
232. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	17.36 SF	0.51	0.00	0.00	8.85
233. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	17.36 SF	0.00	2.22	0.00	38.54
234. #ORC# Paint the walls and ceiling - two coats	85.36 SF	0.00	0.89	0.00	75.97
Totals: Hallway				0.00	856.70

Environment1

Height: 4"

Environment1

1.57 SF Walls
 2.92 SF Walls & Ceiling
 0.15 SY Flooring
 4.70 LF Ceil. Perimeter

1.36 SF Ceiling
 1.36 SF Floor
 4.70 LF Floor Perimeter

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
235. (Material Only) #ALA# LATITUDE #ALA#		0.00	0.00	0.00	0.00
236. (Material Only) #ALO# LONGITUDE #ALO#		0.00	0.00	0.00	0.00
237. (Material Only) #EPH# SIGNS OF POOR HOUSEKEEPING #EPH# -	NO	0.00	0.00	0.00	0.00
238. (Material Only) #EDV# 55 GAL DRUMS VISIBLE #EDV# -	NO	0.00	0.00	0.00	0.00
239. (Material Only) #EDL# 55 GAL DRUMS LEAKING #EDL# -	NO	0.00	0.00	0.00	0.00
240. (Material Only) #EPT# PUSTs #EPT# -Basement	NO	0.00	0.00	0.00	0.00
241. (Material Only) #EVP# UST VENTS OR FILL PIPES #EVP# -	NO	0.00	0.00	0.00	0.00
242. (Material Only) #EST# ASTs ABOVE GROUND #EST# -	NO	0.00	0.00	0.00	0.00

CONTINUED - Environment1

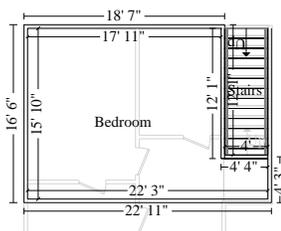
DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
243. (Material Only) #EMW# GROUND WATERING MONITORING WELLS #EMW# -	NO	0.00	0.00	0.00	0.00
244. (Material Only) #ESS# ANY SURFACE STAINING #ESS# -	NO	0.00	0.00	0.00	0.00
245. (Material Only) #EFS# FAULTY SEPTIC SYSTEM #EFS# -	NO	0.00	0.00	0.00	0.00
246. (Material Only) #ESW# PERMANENT STANDING WATER #ESW# -	NO	0.00	0.00	0.00	0.00
247. (Material Only) #EDG# DISTRESSED VEGETATION #EDG# -	NO	0.00	0.00	0.00	0.00
248. (Material Only) #EUO# ADDITIONAL UNUSUAL OBJECTS #EUO# -	NO	0.00	0.00	0.00	0.00
249. (Material Only) #EEI# ENCROACHMENT ISSUES #EEI# -ENCROACHMENT DESCRIPTION: ENCROACHMENT SIDE OF STRUCTURE:	NO	0.00	0.00	0.00	0.00
250. (Material Only) #EWF# WATER FRONTAGE #EWF# -WATER FRONTAGE STABILIZATION DESCRIBE: DESCRIBE CONDITION, IS IT IN DISREPAIR:	NO	0.00	0.00	0.00	0.00
251. (Material Only) #HSE# SIGNIFICANT HISTORICAL EVENT #HSE# -	NO	0.00	0.00	0.00	0.00
252. (Material Only) #HAG# STRUCTURE 45 YEARS OR OLDER #HAG# -	YS	0.00	0.00	0.00	0.00
253. (Material Only) #AUN# NUMBER OF UNITS #AUN# -	1.00 EA	0.00	0.00	0.00	0.00
254. (Material Only) #ASQ# TOTAL SQUARE FOOTAGE OF DWELLING #ASQ# -	1,470.00 SF	0.00	0.00	0.00	0.00



CONTINUED - Environment1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
255. (Material Only) #AWM# HIGH WATER MARK BASEMENT #AWM# -	LF	0.00	0.00	0.00	0.00
256. (Material Only) #AWF# HIGH WATER MARK FIRST FLOOR #AWF# -	5.00 LF	0.00	0.00	0.00	0.00
257. (Material Only) #AGF# GROUND TO BOTTOM JOIST #AGF# -LEVEL GROUND TO BOTTOM OF FLOOR JOIST	3.00 IN	0.00	0.00	0.00	0.00
258. (Material Only) #AFT# FOUNDATION TYPE #AFT# -FOUNDATION TYPE NAME: CRAWLSPACE	UN	0.00	0.00	0.00	0.00
259. (Material Only) #AFL# NUMBER OF FLOORS ABOVE SLAB, BASEMENT OR CRAWL SPACE #AFL# Number of Floors:	2.00 EA	0.00	0.00	0.00	0.00
260. (Material Only) #ASH# DOES DWELLING HAVE STEAM HEAT #ASH# STEAM HEAT:	NO	0.00	0.00	0.00	0.00
261. (Material Only) #ADS# IS DWELLING DESTROYED #ADS# DWELLING DESTROYED:	NO	0.00	0.00	0.00	0.00
262. (Material Only) #ASP# SPECIAL NEEDS #ASP# SPECIAL NEEDS:	NO	0.00	0.00	0.00	0.00
263. (Material Only) #EYS# DOES DWELLING HAVE A SEPTIC TANK #EYS# SEPTIC TANK	NO	0.00	0.00	0.00	0.00
Totals: Environment1				0.00	0.00
Total: Main Level				0.00	84,076.51

Level 2



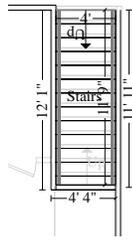
Bedroom

Height: 8'

613.54 SF Walls	299.79 SF Ceiling
913.34 SF Walls & Ceiling	299.79 SF Floor
33.31 SY Flooring	76.15 LF Floor Perimeter
76.15 LF Ceil. Perimeter	

CONTINUED - Bedroom

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
264. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
Totals: Bedroom				0.00	126.78



Stairs

Height: 17'

296.32 SF Walls	47.00 SF Ceiling
343.32 SF Walls & Ceiling	86.50 SF Floor
9.61 SY Flooring	28.57 LF Floor Perimeter
23.50 LF Ceil. Perimeter	

Missing Wall

4' X 17'

Opens into Exterior

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
282. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
Totals: Stairs				0.00	126.78
Total: Level 2				0.00	253.56

Line Item Totals: [REDACTED] **0.00** **84,330.07**

Grand Total Areas:

3,834.42 SF Walls	1,391.32 SF Ceiling	5,225.74 SF Walls and Ceiling
1,470.32 SF Floor	163.37 SY Flooring	466.33 LF Floor Perimeter
0.00 SF Long Wall	0.00 SF Short Wall	460.19 LF Ceil. Perimeter
1,470.32 Floor Area	1,507.53 Total Area	3,014.84 Interior Wall Area
1,854.13 Exterior Wall Area	210.02 Exterior Perimeter of Walls	
0.00 Surface Area	0.00 Number of Squares	0.00 Total Perimeter Length
0.00 Total Ridge Length	0.00 Total Hip Length	

Summary for Dwelling

Line Item Total	84,330.07
Replacement Cost Value	\$84,330.07
Net Claim	\$84,330.07



Recap by Room

Estimate: [REDACTED]

Area: Main Level	17,953.29	21.29%
Kitchen	16,936.40	20.08%
Living Room	12,824.62	15.21%
Dining Room	3,570.13	4.23%
Bedroom 1	5,476.09	6.49%
Bedroom 3	7,934.38	9.41%
Bathroom	5,563.80	6.60%
Bedroom 2	4,162.29	4.94%
Mechanical Room	7,585.76	9.00%
Stairs	1,213.05	1.44%
Hallway	856.70	1.02%
<hr/>		
Area Subtotal: Main Level	84,076.51	99.70%
Area: Level 2		
Bedroom	126.78	0.15%
Stairs	126.78	0.15%
<hr/>		
Area Subtotal: Level 2	253.56	0.30%
<hr/>		
Subtotal of Areas	84,330.07	100.00%
<hr/>		
Total	84,330.07	100.00%



1 Damaged

Date Taken: 1/31/2014

Taken By: [REDACTED]



Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

HUD Grant Number: [REDACTED]

NYC OMB Submittal date:	[REDACTED]	Application #:	[REDACTED]
Date of field inspection:	[REDACTED]	Date review initiated:	[REDACTED]
Inspector name:	[REDACTED]	Reviewer name:	[REDACTED]
Name of applicant: [REDACTED]			
Property address: [REDACTED]			
Borough:	[REDACTED]	Census tract:	[REDACTED]
Block:	[REDACTED]	Lot:	[REDACTED]
Target building site(s):	[REDACTED]	GPS Coordinates (Lat/Long):	[REDACTED] [REDACTED]

Attachments: A-Constraints and Floodplain Map; B-Environmental Data Sheet; C-Photographs; D-Lead-based Paint Assessment;

Project Description:

The NYC Build it Back: Single-Family Houses (1-4 Units) Tier I Environmental Review of the Proposed CDBG-DR (Tier I EA) Funded Action was completed to establish measures for compliance with multiple State and Federal environmental regulations for the program, including various Codes of Federal Regulation (CFR), United States Codes (USC), Executive Orders (EO), New York Codes, Rules and Regulations (NYCRR), as well as any applicable regulations. This is the Tier II site-specific review for activities eligible under this program, for which funds were released at the Tier 1 level on 8/3/13.

- This home was constructed in 1930, as verified by NYC Department of Finance. The proposed project involves reimbursement of previously performed construction activities (refer to Pre-Award Activity Environmental Review) at an existing residential property with the above-listed address. The home site received damage as a result of Hurricane Sandy, and also includes;
- The proposed project involves rehabilitation activities on an existing residential property with the above-listed address, where the home site is not located in the 100-year floodplain but received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence including , to bring it to current minimum residential property standards and compliance with applicable requirements, and site-specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document). Activities would be limited to the disturbed area of the previously developed residential site.
- The proposed project involves rehabilitation activities on an existing residential property with the above-listed address, where the home site is located in the 100-year floodplain and received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence including , to bring it to current minimum residential property standards and compliance with applicable requirements, and site-specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document). Activities would be limited to the disturbed area of the previously developed residential site.
- The proposed project involves rehabilitation and elevation activities on an existing residential property with the above-listed address, where the home site is located in the 100-year floodplain and received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence, including HVAC, electrical, and life safety measures, to bring it to current minimum residential property standards as well as compliance with applicable requirements including elevation of the home two feet above the base flood elevation (BFE) for properties of 1-2 Units, or one foot above BFE for properties of 3-4 Units in accordance with the Federal Emergency Management Agency-issued New York City Preliminary data dated 12.5.13, and site-specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document).
- The proposed project involves home reconstruction on an existing residential property with the above listed address, where the home site received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence including , to bring it to current minimum residential property standards and compliance with applicable requirements, and site specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document). If the home site is located in the floodplain, compliance with the local floodplain ordinance would be required and include elevation of the home (two feet above the BFE for properties of 1-2 Units, or one foot above BFE for properties of 3-4 Units) in accordance with the Federal Emergency Management Agency-issued New York City Preliminary data dated 12.5.13.

Finding of this Tier II Site Specific Review

- The proposed project and pre-award activities comply with environmental requirements for funding.
- The proposed project does not comply with environmental requirements for funding because
- A finding cannot be made without





Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

Site Specific Findings

1. Historic Preservation (36 CFR Part 800)

Architecture

Has the building been demolished?

- Yes (Architectural Review Concluded - Proceed to Archaeology).
- No.

If the building is still extant, is it 45 years or greater in age?

- Yes.
- No (Architectural Review Concluded - Proceed to Archaeology).

If the building is 45 years or greater in age, has it been previously identified as listed or eligible for listing on the New York State or National Registers of Historic Places?

- Yes.
 - Is the building a designated New York City Landmark, or calendared for designation?
 - Yes (Submit to the Landmarks Preservation Commission (LPC) for Review).
 - No.
 - Is the property identified as a National Historic Landmark (NHL)?
 - Yes (Submit to the National Parks Service NHL Program Manager for Review).
 - No.

- No.
 - Is the building a designated New York City Landmark, or calendared for designation?
 - Yes (Submit to LPC for Review).
 - No.

Is the building recommended eligible for listing on the New York State or National Register of Historic Places?

- Yes.
- No (Review Concluded per Tier 1 EA: Programmatic Agreement, LPC Consultation 08/30/2013, and SHPO Consultation 08/26/2013).

If the building has been identified or recommended as eligible for, or listed on, the New York State or National Registers of Historic Places, is the proposed undertaking allowable under Appendix B of the May 2013 FEMA Programmatic Agreement?

- Yes (No Adverse Effect; Review Concluded).
Cite Allowance # and Page:
- No (Submit to the Office of Parks, Recreation and Historic Preservation (OPRHP) for Review).

Comments/Review Results/Special Circumstances (as necessary):

Archaeology

Does the project involve ground disturbance?

- Yes.
- No.

Is the property located within an OPRHP archaeological sensitivity zone?

- Yes.
- No.

Is the proposed ground disturbance greater than five feet from the existing or former building footprint?

- Yes.
- No.

If all three answers are "Yes," then submit the proposed undertaking to LPC for archaeological review. If any of the three answers is "No," then archaeological review is concluded.

Comments/Review Results/Special Circumstances (as necessary):

[Redacted]





Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

2. Floodplain Management and Flood Insurance (EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6)

The proposed site is (check only one of the following):

- In a 100-year floodplain (AE and VE zones) and in a National Flood Insurance Program (NFIP)-participating community. Is the activity in a floodway? Source cited below.
 - Yes. **Does not comply** with Executive Order (EO) 11988, 24 CFR Part 55, and 24 CFR Part 58.6. (Analysis complete)
 - No. The activity:
 - Is known to be exempt from the 8-Step floodplain management decision making process under 24 CFR 55.12(b)(2). See comments below. **Complies** with EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6. Activity requires a NYC Department of Buildings permit.
 - Is not known to be exempt from the 8-Step floodplain management decision making process but is adequately covered by the Tier I 8-Step Process completed for rehabilitation, reconstruction, elevation, and mitigation under the Tier I Single-family Houses (1-4 Units) EA. Substantial improvement actions will be elevated to the best available (most recent) flood elevation plus at least two feet for properties of 1-2 Units, or one foot for properties of 3-4 Units. **Complies** with EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6. See comments below. Activity requires a NYC Department of Buildings permit.
 - Is not known to be exempt from the 8-Step floodplain management decision making process and is not adequately covered by the Tier I 8-Step process completed for rehabilitation, reconstruction, elevation, and mitigation under the Tier I Single-family Houses (1-4 Units) EA. A site-specific supplement to the 8-Step Process has been prepared and is on file. Substantial improvement actions will be elevated to the best available (most recent) flood elevation plus at least two feet for properties of 1-2 Units, or one foot for properties of 3-4 Units. **Complies** with EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6. Activity requires a NYC Department of Buildings permit.
- In a 500-year floodplain (shaded Zone X) (Analysis complete)
- Outside the 500-year floodplain (unshaded Zone X) (Analysis complete)

Comments:

[Redacted comments area]





Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

3. Wetlands Protection (EO 11990 and Clean Water Act, especially Section 404)

Are coastal or freshwater wetlands on or adjacent to the site?

- No. See comments below. (Analysis complete)
- Yes. Would the activity affect the wetlands?
 - No. Outside wetland or no effect on wetlands. See comments below. **Compliance met.** (Analysis complete)
 - Yes. Possible adverse effect associated with constructing in or near wetlands. Would the effect be permanent or temporary?
 - Permanent. See comments below. **Activity not in compliance.** (Analysis complete)
 - Temporary. Temporary impacts are described below. **Compliance met.** (Analysis complete)

Has an 8-Step Process been completed?

- No. **Activity not in compliance.**
- Yes. Identify the location of the 8-Step Process Review.
 - Activity in compliance** with EO 11990 and the Clean Water Act. See comments below. (Analysis complete).
 - Activity not in compliance** with EO 11990 and the Clean Water Act. See comments below. (Analysis complete).

Comments:

[Redacted]

4. Coastal Zone Management Act (Section 307 (c), (d))

Is the activity located within the Coastal Zone?

- No. (Analysis complete).
- Yes. Activities proposed under the NYC Build It Back program were determined to not substantially hinder the achievement of any Waterfront Revitalization Program (WRP) policy by the Waterfront and Open Space Division of the NYC Department of City Planning, which recommended that the NYC Build It Back program be found consistent with WRP policies (letter from Michael Marrella, Director, Waterfront and Open Space Division, to Patrick Blanchfield, Director of Environmental Planning, NYC Department of Housing Preservation and Development, dated May 7, 2013 regarding WRP Project #13-049; included in Attachment D-4 of the Tier I EA). The program was also determined to meet the general consistency concurrence criteria of New York State's Department of State (letter to Mr. Aaron Werner, NYC Housing Preservation and Development dated May 10, 2013 from Jeffrey Zappieri, Supervisor, Consistency Review Unit, Division of Coastal Resources, regarding Project F-2013-03 88 (FA)). Should federal permits or other form of federal authorization be required, consultation with the Division of Coastal Resources would be required. **Activity in compliance.** (Analysis complete).

5. Sole Source Aquifers (40 CFR Part 149)

Not applicable. Compliance determined in the Tier I EA.

6. Endangered Species Act (16 USC 1531 et seq., 50 CFR Part 402)

Based on desktop review, could the proposed activity affect piping plovers?

- No. Piping plovers would not be affected by any eligible activity; property is not located within the piping plover sensitivity areas, per the Tier I EA. (Analysis complete)
 - Yes, piping plovers may be affected by the proposed activity. Based upon review of the Tier I analysis for the piping plover, it has been determined that (check only one of the following):
 - The project is located within the buffer zone, but not the area of concern for the piping plover. Eligible project activities cannot proceed during the nesting season which occurs from April 1 to September 1. Explain finding and cite supporting documentation. (Analysis complete).
 - The project is located within the area of concern for the piping plover. Eligible project activities cannot proceed during the nesting season which occurs from April 1 to September 1, and will require United States Fish and Wildlife Service (USF&WS) consultation. Explain finding and cite supporting documentation. (Analysis complete)
- Consultation with USF&WS resulted in a determination that (check only one of the following):
- The proposed activity, including appropriate measures to avoid adverse impacts, would not adversely affect piping plovers. Explain how this conclusion was reached. Describe required mitigation measures. Cite and attach Consultation letter/supporting documentation. **Activity in compliance.** (Analysis complete)
 - The proposed activity would adversely affect the piping plover. Explain how this conclusion was reached. Cite and attach Consultation letter/supporting documentation. **Activity not in compliance.** (Analysis complete)

Comments:





Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

7. Coastal Barrier Resource Act (CBRA)/Coastal Barrier Improvement Act (24 CFR 58.6(c))

Based on desktop review, could the proposed activity be located within a CBRA Unit, Otherwise Protected Area, or Otherwise Protected Area buffer?

- No. The proposed activity is not within a CBRA Unit, Otherwise Protected Area, or Otherwise Protected Area buffer; refer to Attachment A-Constraints and Floodplain Map. **Compliance met.** (Analysis complete)
- Yes. The proposed activity appears to be within an Otherwise Protected Area or an Otherwise Protected Area buffer, and consultation with USF&WS is required. Consultation with USF&WS regarding the proposed activity within the Otherwise Protected Area or buffer is complete and resulted in a determination that (check only one of the following):
 - USF&WS determined that the project is not within a CBRA Otherwise Protected Area or buffer, and/or will not have an effect on the protected resource. Consultation response is attached. **Compliance met.** (Analysis complete)
 - USF&WS determined that the project is located within a CBRA Otherwise Protected Area or buffer, and the proposed activity would affect the protected resource. Consultation response is attached; **activity not in compliance.** (Analysis complete).

Comments:

8. Wild & Scenic Rivers Act (Sections 7(b), (c))

Not applicable. Compliance determined in the Tier I EA.

9. Air Quality (Clean Air Act, Section 176 (c) & (d), & 40 CFR Part 6, 51, & 93)

Not applicable. Compliance determined in the Tier I EA.

10. Farmland Protection Policy Act (7 CFR Part 658)

Not applicable. Compliance determined in the Tier I EA.

11. Environmental Justice (EO 12898)

Not applicable. Compliance determined in the Tier I EA.

12. Toxic Chemicals and Gases, Hazardous Materials, Contamination, and Radioactive Substances (24 CFR Part 58.5(i)(2))

Do any of the following apply to the subject property? (1) Property is listed on an EPA Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list; (2) Property is within 3,000 feet of a landfill site, hazardous waste or solid waste cleanup site; (3) Has an underground storage tank (which is not a residential fuel tank); (4) Known or suspected to be contaminated by toxic chemicals or radioactive materials; or (5) During site reconnaissance of subject property and visible adjoining properties, inspector has observed potential environmental concerns. Refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet.

Finding Categories

- No. Recognized environmental conditions (RECs), as presented in the Tier I EA, are not present. Property is not within the 3,000 foot critical distance (CD) of hazardous facilities/ toxic cleanup sites and no RECs were observed during site reconnaissance; refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet. (Analysis complete).
- Yes. Property is within the CD of hazardous facilities/ toxic cleanup sites or RECs were observed during site reconnaissance but no threat is found to exist. Explain findings; refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet. (Analysis complete).
- Yes. RECs identified during site reconnaissance and subsequently resolved by applicant. Explain (1) initial finding, (2) subsequent measures taken to resolve identified RECs by applicant, and (3) confirmation that RECs no longer present. No American Society of Testing Materials (ASTM) Phase 1 ESA required for compliance. (Analysis complete).
- Yes. RECs identified during site reconnaissance that cannot be fully resolved under the above findings category. Explain findings; refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet. Without submittal of specific site assessment information (ASTM Phase 1 ESA, Phase II ESA, or vapor intrusion investigative study), site will be considered as not being in compliance with HUD's 24 CFR 58.5(i)(2) site contamination regulation and Phase I Threshold policy. If this information exists, it must be submitted to NYCDEP for review.

Comments:

13. Environmental Criteria and Standards: Noise Abatement and Control (24 CFR Part 51, Subpart B)

Not applicable. Compliance determined in the Tier I EA.



Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

14. Environmental Criteria and Standards: Siting of HUD-Assisted Projects near Hazardous Operations (24 CFR Part 51, Subpart C)

Are stationary aboveground storage tank(s) (ASTs) present on or immediately adjacent to the subject property and do they contain explosive or combustible substance(s)?

- No. Refer to Attachment B-Environmental Data Sheet. **Compliance met.** (Analysis complete)
- Yes. AST(s) present on or immediately adjacent to subject property. AST located beyond Acceptable Separation Distance (ASD), or explosive or combustible hazard mitigated per 24 CFR 51.205. Explain findings; refer to Attachment B-Environmental Data Sheet. **Compliance met.** (Analysis complete)
- Yes. AST(s) present on subject property, is not located beyond ASD and/or mitigated per 24 CFR 51.205. Explain findings; refer to Attachment B-Environmental Data Sheet. **Activity not in compliance.** (Analysis complete)

Comments:

15. Airport Clear Zones and Accident Potential Zones (24 CFR Part 51, Subpart D)

Based on desktop review, could proposed activity be located within 2,500 feet of a civilian airport?

- No. The proposed activity is more than 2,500 feet from the closest airport, and not within a civilian airport clear zone or protection zone; refer to Attachment A-Constraints and Floodplain Map. **Compliance met.** (Analysis complete)
- Yes. The proposed activity is within 2,500 feet of a civilian airport and consultation with the airport authority is complete and resulted in a determination that (check only one of the following):
 - The proposed activity is located near but not within the airport's runway clear zone (RCZ) or the protection zone (RPZ). Explain finding and attach supporting documentation. **Compliance met.** (Analysis complete)
 - The proposed activity is located within the airport's runway clear zone (RCZ) or the runway protection zone (RPZ). Explain finding that the activity is not in compliance and attach supporting documentation. (Analysis complete)

Comments:

16. Fish and Wildlife Coordination Act (16 USC 661-666c)

Would the proposed activity include impounding, diverting, deepening or otherwise modifying the waters of any stream or other body of water? (Check one of the following):

- No. Property is not located within any mapped waterways; refer to Attachment A - Constraints and Floodplain Map **Compliance met.** (Analysis complete)
- Yes. The activity would temporarily (impound, divert, deepen or otherwise modify) the waters of a stream or body of water, would require coordination with USF&WS, the National Marine Fisheries Service (NMFS), the United States Army Corps of Engineers (USACE), and New York State Department of Environmental Conservation(NYSDEC), and the application of mitigation measures to protect and restore the resource. Explain the determination, the applicable mitigation measures, and attach appropriate map. **Compliance met.** (Analysis complete)
- Yes. The activity would permanently (insert impound, divert, deepen or otherwise modify) the waters of a stream or body of water and adversely affect fish and wildlife habitat. Explain basis for conclusion. **Activity not in compliance.** (Analysis complete)

Comments:

17. Magnuson-Stevens Fishery Conservation and Management Act (24 CFR Part 51, Subpart B)

Not applicable. Compliance determined in the Tier I EA.

18. Agriculture and Markets Law (Title 1 NYCRR Section 139.2)

Is the project within a quarantine zone?

- No. Project is within The Bronx, Manhattan, or Staten Island, and/or outside quarantine zone as presented in Tier I EA. (Analysis complete)
- Yes. (If yard waste, storm clean-up, and normal tree maintenance activities involve twigs and/or branches of 1/2" or more in diameter of Asian Longhorn Beetle (ALB) host species, proper handling, and disposal is required. Cite state and/or federal phytosanitary certificates.)

Comments:



Tier II: Site-Specific Environmental Assessment Environmental Mitigation & Conditions Summary

HUD Grant Number: [REDACTED]			
NYC OMB Submittal date:	[REDACTED]	Application #:	[REDACTED]
Date of field inspection:	[REDACTED]	Date review initiated:	[REDACTED]
Inspector name:	[REDACTED]	Reviewer name:	[REDACTED]
Name of applicant: [REDACTED]			
Property address: [REDACTED]			
Borough:	[REDACTED]	Census tract:	[REDACTED]
Block:	[REDACTED]	Lot:	[REDACTED]
Target building site(s):	[REDACTED]	GPS Coordinates (Lat/Long):	[REDACTED] [REDACTED]

The following environmental mitigation measures and conditions shall be complied with for the subject project:

- Historic Preservation: Ground disturbances associated with the proposed Undertaking are limited to within five feet of the footprint of the former structure.

- Floodplain Management: The lowest floor, including the basement, shall be elevated to the base flood elevation +2 feet; enclosed spaces below the design flood elevation shall be useable solely for parking of vehicles, building access, storage, or crawlspace, and shall be wet floodproofed; only flood-damage-resistant materials and finishes shall be utilized below the base flood elevation; and utilities and attendant equipment shall be located one foot above the base flood, or shall be constructed so as to prevent water from entering or accumulating within the components during conditions of flooding. The project is required to comply with the City's local floodplain ordinance, and participate in the National Flood Insurance Program.

- Lead-based Paint: Must adhere to Federal, State and local lead-based paint regulations as further detailed in Attachment D.

Should project plans change (e.g., ground disturbance for utilities and other site specific ground disturbance) the project may be subject to further review and additional mitigation measures.



Attachment B
TIER II: Site-Inspection
Environmental Data Sheet

1 Application Number	██████████	
2 Inspector Name	██████████	
3 Block, Lot	██████████	
	YES	NO
4. Are there any signs of poor housekeeping on the site? (mounds of rubble, garbage, or solid waste or improperly stored household quantities of petroleum products, pesticides, paints, thinners, cleaning fluids, automotive batteries, damaged, abandoned, and/or dangerous vehicles or other motorized equipment; pits, pools, lagoons, or ponds of hazardous substances or petroleum products located on the site)		NO
a. If yes, ask the customer about any known past uses.		
b. If yes, attach photos of suspected environmental issues if any.		
5. Are there any 55-gallon drums or containers visible on the site?		NO
a. If yes, are they leaking?		NO
b. If yes, are tank contents displayed on outside (used oil, unknown)?		
c. If yes, attach photos (capture drum label photo also if possible)		
6. Are there any signs of petroleum underground storage tanks (PUSTs) on the site?		NO
a. If yes, are there UST vents or fill pipes visible on the site?		NO
b. If yes, attach photos.		
7. Are there any signs of above-ground storage tanks (ASTs) on the site, or immediate adjacent visible sites?		NO
b. Attach photos.		
8. Are there any signs of surface staining?		NO
a. If yes, describe the issue.		
b. If yes, attach photos.		
9. Are there any ground water monitoring or injection wells on the site?		NO
a. If yes, attach photos.		
10. Is there evidence of a faulty septic system on the site?		NO
a. If yes, attach photos.		
11. Is there any permanent standing water, such as a pond or stream, located on the site? (Do not include run-off or ponding from recent weather events)		NO
a. If yes, attach photos.		
12. Is there any distressed vegetation on the site?		NO
a. If yes, attach photos.		





Attachment B
TIER II: Site-Inspection
Environmental Data Sheet

<p>13. Are there any encroachment issues impacting the structure?</p> <p>a. If yes, describe the issue.</p> <p>b. If yes, which side of the structure is affected?</p> <p>* front</p> <p>* back</p> <p>* left</p> <p>* right</p> <p>* entire footprint</p> <p>* roof</p> <p>c. If yes, approximate the distance from the structure.</p> <p>d. If yes, attach photos.</p>	<p>NO</p>
<p>14. What type of foundation is present?</p> <p>a. slab</p> <p>b. crawlspace</p> <p>c. basement</p> <p>d. walkout basement</p> <p>e. raised piles</p> <p>f. stone</p> <p>g. brick</p> <p>h. cellar</p>	<p>CRAWLSPACE</p>
<p>15. If the structure is 45 years old or older, attach the following specific photos:</p> <p>a. Full view of each façade of each existing building on the site</p> <p>b. Views towards the site from all directions</p> <p>c. View of frontages across the street from the site</p> <p>d. Attach views of the entire streetscape</p>	<p>YES</p>
<p>16. Is the customer aware of any significant historical events or persons associated with the structure?</p>	<p>NO</p>
<p>17. Does the subject lot have water frontage?</p> <p>a. If yes, what type of stabilization is present?</p> <p>* bulkhead (steel sheet or wood with piling)</p> <p>* rip-rap</p> <p>* gabion</p> <p>b. If yes, describe the condition of the stabilization - is it in disrepair? (broken, leaning, undermined, missing, etc)</p>	<p>NO</p>
<p>18. Measured First Floor Above Grade</p>	<p>■</p>
<p>19. Estimated Total Square Footage as verified in the field.</p>	<p>■</p>





NYC Houses: Feasibility Determination Report

HUD Grant Number: [REDACTED]			
Report Submittal Date:	[REDACTED]	Applicant ID:	[REDACTED]
Date of Field Inspection:	[REDACTED]	Date of Feasibility Review:	[REDACTED]
Feasibility Reviewer Name:	[REDACTED]	QC Reviewer Name:	[REDACTED]
Name of Applicant: [REDACTED]			

Property Overview:

Property Address: [REDACTED]					
Borough:	[REDACTED]	Census Tract:	[REDACTED]	Block:	[REDACTED]
Lot:	[REDACTED]	GPS Coordinates (front right):		Lat:	[REDACTED]
Long:	[REDACTED]	Year Built:	[REDACTED]	Field SF:	[REDACTED]
Number of Levels:	[REDACTED]	Number of Units (DAR):	[REDACTED]	Number of Units (DOF):	[REDACTED]
Basement/Cellar:	[REDACTED]	Special Needs (Y/N)		[REDACTED]	Eligible SF:
[REDACTED]	[REDACTED]	Special Needs (Y/N)	[REDACTED]	Eligible SF:	[REDACTED]
SFHA:	[REDACTED]	BFE:	[REDACTED]	LAG:	[REDACTED]
Measured FFAG:	[REDACTED]	DOB Tag:	[REDACTED]	Demolished (Y/N):	
[REDACTED]	[REDACTED]	JOC Multiplier:	[REDACTED]	In a Wetland (Y/N):	
[REDACTED]	[REDACTED]	Open Permits (Y/N):	[REDACTED]	Open Violations (Y/N):	
[REDACTED]	[REDACTED]	Open Permits (Y/N):	[REDACTED]	Open Violations (Y/N):	

Summary of Program Offering and Findings:

Program Offering Summary:
<p>Preliminary program offering is Major Rehabilitation, pending issue resolution.</p> <p>Based on the results of the damage assessment, the home is substantially damaged and/or estimated to be substantially improved by the scope of the Build it Back program. It has additionally been determined based on preliminary data that the home can be feasibly and cost effectively brought into compliance with Appendix G of the NYC building code.</p> <p>The home is located in the 100-year floodplain and should be elevated to a height of approximately 9.25' above grade. The final design flood elevation must provide 2' of freeboard above the base flood elevation. A minimum first floor elevation will be provided by a New York State licensed surveyor prior to submission of the final construction drawings. Soil borings and a detailed structural engineering analysis will be required to confirm the feasibility and means and methods of the elevation.</p> <p>Construction will include repair of the remaining storm damaged areas of the home to a basic finish level consistent with program standards. Any observed life-safety concerns will also be corrected. Additional upgrades and construction may be required to comply with NYC building code. Unless already present, sprinklers must be added to the residence.</p> <p>The home was tested for the presence of lead hazards and asbestos containing materials. All identified lead hazards must be abated during construction. Appropriate abatement measures are required for all construction disturbing identified hazardous materials. Complete test results are attached to the record in CMS.</p> <p>A site-specific Tier II environmental review has been completed for this property based on the estimated scope of work. Design and construction must comply with all the conditions and mitigation specified in that document. Should the project scope be significantly altered subsequent to the date of the Tier II document, a revised environmental review may be required prior to receiving funding.</p> <p>Residents should anticipate needing to completely vacate the home during elevation. Details and duration will be confirmed during detailed scoping.</p>





NYC Houses: Feasibility Determination Report

Cost to Complete:			
Total Cost to Complete (<i>calculation shown on page 2 of this report</i>):			\$188,531.41
Pathway Comparison:			
<i>Description</i>	<i>Total Value</i>	<i>Pre-storm Structure Value</i>	<i>Percentage Comparison</i>
Substantial Damage Comparison:	\$123,181.27	\$186,000.00	66.23%
Substantial Improvement Comparison Estimate:	\$133,288.43	\$186,000.00	71.66%
Reconstruction Comparison :	\$188,531.41	\$404,850.00	46.57%
Coordination of Benefits Summary:			
<i>Completed By:</i>	<i>Initial Est.</i>	<i>Coordination of Benefits Summary</i>	
Completed Contractor Repairs	\$66,637.11	\$113,283.09	
Completed Self-Performed Repairs	\$0.00	\$0.00	
Completed Rapid Repairs	\$8,382.08	\$0.00	
Completed Volunteer Repairs	\$4,678.40	\$0.00	
+ Sum of Completed Repairs:	\$79,697.59	\$113,283.09	

Cost to Complete:

Cost Inputs	Total
Total Needed Repairs and Mitigation (Moderate Rehab):	
Total Rehabilitation Cost (Major Rehab):	\$188,531.41
Total Reconstruction Cost (Reconstruction):	
Total Cost to Complete:	\$188,531.41

List of Report Attachments:

<i>Document Name</i>	<i>Attached (Y/N)</i>
Assessment Summary	Y
Elevation Calculation (only required if SD or SI Estimate are greater than 50%):	Y
Destroyed Property Calculation (only required if the property is destroyed):	N
Needed Repairs Detail Sheet	Y
DOF NPV Notice (only required if the property is destroyed):	N
Parcel Map (only required if the property is destroyed):	N
OEM Documents (only required if the property is destroyed and document is available):	N
Notes to the Feasibility Report (includes all calculation definitions)	Y





NYC Houses: Feasibility Determination Report

Attachment: Assessment Summary

Assessment Summary:

Completed Repairs:		<i>Program Determinations</i>	
<i>Completed By:</i>	<i>Initial Est.</i>	<i>Substantial Damage</i>	<i>Substantial Improvement Est.</i>
+ Sum of Completed Repairs:	\$79,697.59	\$118,749.41	\$118,749.41
Needed Repairs:		<i>Program Determinations</i>	
<i>Construction Type</i>	<i>Initial Est.</i>	<i>Substantial Damage</i>	<i>Substantial Improvement Est.</i>
Remaining Storm Damage	\$2,974.40	\$4,431.86	\$3,884.57
Life Safety Improvements	\$1,658.08		\$2,165.45
+ Sum of Needed Repairs:	\$4,632.48	\$4,431.86	\$6,050.02
Mitigation:		<i>Program Determinations</i>	
<i>Mitigation Type</i>	<i>Initial Est.</i>	<i>Substantial Damage</i>	<i>Substantial Improvement Est.</i>
Lead Mitigation Base Cost:			
Asbestos Mitigation Base Cost:			
Lead Based Paint Hazards			
Storm Damage Lead Mitigation			
Storm Damage Asbestos Mitigation			
Storm Damage Other Mitigation			
Life Safety Lead Mitigation			
Life Safety Asbestos Mitigation			
Life Safety Other Mitigation			
Raise Utilities (<i>excludes steam heat</i>)	\$6,500.00		\$8,489.00
+ Sum of Mitigation Costs:	\$6,500.00	\$0.00	\$8,489.00
Assessment Summary Total			
<i>Sum of Completed Repairs, Needed Repairs and Mitigation Costs):</i>		\$123,181.27	\$133,288.43
DOF Value:		\$186,000.00	\$186,000.00
Substantial Damage/Substantial Improvement Est. Comparison:		66.23%	71.66%





NYC Houses: Feasibility Determination Report

Attachment: Elevation Calculation

Elevation Overview:

BFE+Freeboard:	16'	Technically Feasible (Y/N):	Y
Eligible for Zoning Allowance (9') (Y/N):	No	Existing Foundation:	CRAWLSPACE
Height Above Ground (=BFE + Freeboard – LAG):	9.25'	Conceptual Foundation Type	Spread Footings & Columns/Piers
Substandard Street (Y/N)	Y	Fire District (Y/N):	N

Rehabilitation Estimate:

Assessment Summary Values		Program Cost
Sum of Needed Repairs		\$6,050.02
+ Sum of Mitigation Costs		\$8,489.00
- Raise Utilities		-\$8,489.00
Code Compliance for Structure:		
System	Estimated Cost	Program Cost
Electrical:	\$6,188.70	
Sprinklers:	\$12,862.50	
+Sum of Code Compliance Costs:		\$24,880.87
Home Elevation:		
Elevation Cost (breakdown provided in E-6)	\$120,674.21	Program Cost
+Sum of Elevation Costs:		\$157,600.52
Total Rehabilitation Cost (Total of the 5 lines above):		\$188,531.41

Reconstruction Estimate:

Reconstruction Cost:	
Eligible Square Ft.	1,470
x Reconstruction Program SF Price	\$255.00
= Base Reconstruction Cost	
	\$374,850.00
+ Demolition: Fixed Cost	\$30,000.00
+ Mitigation: Fixed Cost (use \$15,000 if positive for asbestos and/or lead, otherwise leave blank)	
+ Environmental Compliance	
Total Reconstruction Cost	
	\$404,850.00

Reconstruction Comparison:

Comparison Factors	Program Cost
Total Rehabilitation Cost (from above):	\$188,531.41
Total Reconstruction Cost (from above):	\$404,850.00
Reconstruction Comparison (Total Rehabilitation/Total Reconstruction: display as a %):	46.57%





NYC Houses: Feasibility Determination Report

Attachment: Elevation Calculation

Elevation Cost Breakdown:						
ELEVATION COST ESTIMATE FOR 1 to 4 FAMILY DETACHED HOME ON SHALLOW FOUNDATION WITHOUT BASEMENT						
Building Plan Dimensions			Elevation Data			
Width (ft):	18.67		BFE (ft):	14.00		
Length (ft):	56.67		DFE (ft):	16.00		
Estimated Building Plan Area (SF):	1,130		LAG (ft):	6.75		
Elevated Height Above Grade (ft)	9.25					
Estimated Number Footings	24.00					
Item No.	Description	Quantity	Unit	Unit Price	Total Cost	Details/Assumptions
1 - HOUSE LIFTING						
1.1	LIFTING - BASE COST (up to 6 ft)	1	LS	\$35,000.00	\$35,000	Base cost for lifting operation
1.2	LIFTING - ADDITIONAL COST (6 to 8 ft)	2.00	FT	\$500.00	\$1,000	Additional cost for higher lift
1.3	LIFTING - ADDITIONAL COST (8 to 12 ft)	1.25	FT	\$1,500.00	\$1,882	Additional cost for higher lift
2 - SHALLOW FOUNDATIONS (FOOTINGS)						
2.1	FOOTINGS	24	EA	\$951.00	\$22,824	3 ft x 3 ft reinforced concrete footing
3 - PIERS/COLUMNS (FROM FOOTING TO HOUSE)						
3.1	REINFORCED CONCRETE PIERS/COLUMNS*	294.1120834	LF	\$120.00	\$35,293	12-inch square reinforced concrete
3.2	HOUSE FRAME CONNECTIONS TO PIERS*	24	EA	\$332.00	\$7,968	Costs for connections to house frame
4 - HOUSE FRAMING AND DETAILS						
4.1	INSULATION	1,186	SF	\$2.00	\$2,373	Underfloor insulation on raised home
4.2	SILL BOARDS	151	LF	\$4.20	\$634	Perimeter 2x8 boards installed
4.3	ACCESS STAIRS	2	EA	\$4,000.00	\$8,000	2 new access stairs; no ADA elevator
4.4	UTILITIES - SANITARY SEWER	24	LF	\$60.00	\$1,440	New run from existing location below
4.5	UTILITIES - PLUMBING	24	LF	\$60.00	\$1,440	grade to new elevation, x 1.5
4.6	UTILITIES - ELECTRICAL	47	LF	\$60.00	\$2,820	Same length as other utilities x 2.5
SUBTOTAL COST					\$120,674	
SQUARE FOOTAGE COST					\$106.81	



NYC Houses: Feasibility Determination Report

Attachment: Needed Repairs Details Sheet Unrepaired Storm Damage

Location	Cost
Main Level	\$2,974.40
Total	\$2,974.40

Life Safety Improvements

Location	Cost
Main Level == Living Room	\$224.35
Level 2 == Bedroom	\$126.78
Level 2 == Stairs	\$126.78
Main Level == Bedroom 1	\$351.13
Main Level == Bedroom 2	\$351.13
Main Level == Bedroom 3	\$351.13
Main Level == Hallway	\$126.78
Total	\$1,658.08





NYC Houses: Feasibility Determination Report

Attachment: Notes to the Feasibility Report

A. Glossary of Terms Used

Assessment Summary	An attachment to the feasibility determination report that documents the values of completed repairs, needed repairs, and associated mitigation as observed during the damage assessment that contribute to determining whether the home is substantially damaged or is estimated to be substantially improved by the scope of Build it Back Program construction.
Basement	An initial determination based on the measured height of the first floor joist above ground that the home most likely has a basement following the NYC Building Code definition. A finding of basement will be recorded for all homes with a partially below grade level and a measured first floor above grade greater than 4 feet.
BFE	The Base Flood Elevation is the level in feet measured from datum of the 100-year flood at the property as indicated on the Preliminary Flood Insurance Rate Map (PFIRM) prepared by the Federal Emergency Management Agency (FEMA). Datum is a recognized base surveyor elevation that can be used anywhere in the U.S.
Cellar	An initial determination based on the measured height of the first floor joist above ground that the home most likely has a cellar following the NYC Building Code definition. A finding of cellar will be recorded for all homes with a partially below grade level and a measured first floor above grade of 4 feet or less.
Code Compliance for Structure	The anticipated building systems affected and estimated value of additional construction required to bring the entire home into compliance with the current NYC Building Code. The final scope of work and construction costs will be determined at detailed scoping.
Conceptual Foundation Type	A conceptual elevated foundation system based on the SFHA, BFE, and visual assessment of the property. The final elevated foundation system will be determined at detailed scoping. Conceptual foundation types include: <ul style="list-style-type: none">• Shallow spread footings with fully grouted, reinforced masonry piers for homes located in riverine SFHAs; or• Deep drilled shaft foundations with fully grouted, reinforced masonry piers for homes located in coastal SFHAs and SFHAs designated as areas with limited moderate wave action.





NYC Houses: Feasibility Determination Report

Coordination of Benefits Summary

The valuation of permanent storm recovery construction already completed in the home as observed during the damage assessment that is compared to validated sources of storm recovery benefits awarded to the homeowner. The initial estimate is based on industry standard contractor pricing in the outer boroughs of New York City in August 2013. The value of work completed compared to benefits received depends on the entity that performed the work:

- A paid general contractor
- The homeowner or other unpaid friends and/or family members
- NYC Rapid Repairs
- A volunteer or charitable organization that donated their time

Cost to Complete

The cost to complete is an initial estimate of the total program cost of construction to complete the home. It includes contractor multipliers.

Demolished

Yes if there was no home structure remaining when the damage assessor inspected the property or if the structure was determined to be a total loss and unsafe to enter and assess.

Destroyed Property Calculation

An attachment to the feasibility determination report that is included only when the home was assessed to be demolished. The attachment documents the calculation of the estimated reconstruction cost to complete.

DOB Tag

The color tag assigned to the home by the NYC Department of Buildings if the home was inspected by them following Hurricane Sandy.

DOF NPV Notice

The NYC Department of Finance Notice of Property Value issued January 15, 2012 is used to support a determination of Eligible SF, particularly when the home is already destroyed.

Elevation Calculation

An attachment to the feasibility determination report that is included only when a home that is not already demolished is determined to be substantially damaged or estimated to be substantially improved. The attachment documents the calculation and analysis of:

- The estimated rehabilitation cost including home elevation, if assumed feasible;
- The estimated reconstruction cost to demolish the existing home and rebuild a new home; and
- The comparison of the rehabilitation cost to the reconstruction cost to determine the preferred cost effective program option.

Eligible for Zoning Allowance

Yes if the elevation height mandated by the NYC Building Code Appendix G





NYC Houses: Feasibility Determination Report

and Build it Back program policy meets the conditions of the NYC zoning allowance that provides for additional home elevation in order to create parking beneath the elevated structure. One and two family homes being raised to more than 6 feet above grade, but less than 9 feet, may be raised to 9 feet to allow for parking without applying for a zoning variance. Build it Back will not provide this additional home elevation.

Eligible SF

For homes to be reconstructed or elevated only, the maximum gross square footage to be built back under the program. For destroyed homes, multiple sources of City data are consulted in order to determine the most probable pre-storm square footage of the home. For non-destroyed homes, it is the above ground portion of the measured Field SF.

Environmental Compliance

The estimated cost of environmental abatement and mitigation required by the National Environmental Policy Act (NEPA) and within Build it Back program policy standards associated with reconstructing a new home.

Existing Foundation

The prominent foundation type currently supporting the home generally classified as:

- Slab for homes with a foundation slab only;
- Crawlspace for homes with foundation structures having minimal height; or
- Basement for homes with foundation structures that either are a full story level or have approximately full story height.

Field SF

The gross square footage of your home as measured by the damage assessor when the property was inspected. If the home has been demolished and/or destroyed prior to the damage assessment, the damage assessor's best estimate of the gross square footage of the home before the storm based on visible traces, photographs, etc.

Fire District

Yes if the property is located in a mapped NYC fire district. Fire district maps are found in NYC Building Code Appendix D. The entire boroughs of Manhattan, Brooklyn, and the Bronx are considered fire districts. If yes, sprinklers are required to be added to the home if not already installed.

Freeboard

The height above the BFE a structure is elevated. Build it Back policy is to elevate all 1 and 2 unit homes no less than 2 feet above BFE and all 3 and 4 unit homes no less than 1 foot above BFE when elevation is required by NYC Building Code Appendix G.

GPS Coordinates

During the damage assessment, the damage assessor obtained a GPS location from the front, right corner of the home. This location is presented in digital





NYC Houses: Feasibility Determination Report

format and is an additional locator of the property and structure that was assessed.

Height Above Ground	The anticipated finished height above ground of the first floor after elevation is complete.
Home Elevation (Cost)	An initial estimate of the costs to elevate the home to the approximate height above ground determined by the BFE, freeboard, and LAG. The cost estimate is based on the height of elevation, the dimensions of the building footprint, and the conceptual foundation type. The final requirements and costs will be determined at detailed scoping.
In a Wetland	Yes if the property is found to be within a mapped wetland or the regulated adjacent area to a mapped wetland based on geospatial analysis. Yes does not necessarily imply the project will impact the wetland.
JOC Multiplier	The negotiated job order contract multiplier for the rehabilitation contractor assigned to the property's region. This value will be multiplied to established unit prices for all construction completed by a program rehabilitation contractor.
LAG	The Lowest Adjacent Grade is the lowest elevation on the property measured from datum. Datum is a recognized base surveyor elevation that can be used anywhere in the U.S. The LAG provides an initial estimate of the ground elevation around the home to compare to the BFE.
Measured FFAG	The height between the lowest ground point near the building perimeter and the bottom of the first floor above ground (FFAG) as measured by the damage assessor when the property was inspected.
Mitigation	The value of additional or altered construction that is required by federal, state, or NYC law and/or Build it Back program policies and the specific conditions of the assessed property. Mitigation activities in this program can include: <ul style="list-style-type: none">• Abatement of observed Lead-Based Paint Hazards in the home according to a HUD-compliant Lead Risk Assessment;• Mitigation and controls when disturbing painted surfaces that tested positive for lead-based paint but are not determined to be Lead-Based Paint Hazards according to a HUD-compliant Lead Risk Assessment;• Abatement of disturbed asbestos containing materials as determined by the final construction scope of work and sampling performed by a Certified Asbestos Investigator;• Environmental abatement and mitigation required by the National Environmental Policy Act (NEPA) and within Build it Back program policy standards such as use of approved in-kind materials in compliance with the Programmatic Agreement for recognized historic landmarks,





NYC Houses: Feasibility Determination Report

installing vapor barriers to protect the property from downstream hazardous material contamination, or limited hazardous material removal; or

- Raising typical home utilities above the floodplain when feasible and the existing heating system is not steam based.

Needed Repairs The value of the repairs still needed to return the home to near pre-storm condition and ensuring decent, safe, and sanitary conditions as observed during the damage assessment. Needed repairs are classified by the type of construction:

- Unrepaired storm damage
- Life-safety improvements

Needed Repair Detail Sheet An attachment to the feasibility determination report that lists the areas of the home where needed repairs were identified by the damage assessor when the property was inspected. The final scope of work and construction locations will be determined at detailed scoping.

Number of Levels The total number of stories in the home as observed by the damage assessor when the property was inspected. Cellars are not included as a level.

Number of Units (DAR) The number of separate living units located in the home as identified by the damage assessor when the property was inspected. This number is based on information provided to the damage assessor by the homeowner and visual observation of the home. The number does not necessarily indicate living units in compliance with NYC Building Code regulations.

Number of Units (DOF) The number of separate living units located in the home according to the NYC Department of Finance records.

OEM Documents The file of letters, checklists, reports and photos compiled by the NYC Office of Emergency Management for homes that were destroyed following Hurricane Sandy. The compiled information is used to support a determination of Eligible SF when available and the home is already destroyed.

Open Permits Yes if there is at least one permit on file with the NYC Department of Buildings for work on the property that has not been fully signed off. The permit(s) is not expected to alter the program offering indicated in this report.

Open Violations Yes if there is at least one active violation assessed against the property by the NYC Department of Buildings. The violation(s) does not affect the program offering indicated in this report.





NYC Houses: Feasibility Determination Report

Parcel Map	A map indicating the assessed property and structure footprint according to the NYC MapPLUTO database. The map and footprint data is used to support a determination of Eligible SF, particularly when the home is already destroyed.
Reconstruction Comparison	The reconstruction comparison is the ratio of construction costs to rehabilitate and elevate the home over the costs to demolish and reconstruct a new home. The reconstruction comparison is calculated only when a home is substantially damaged or estimated to be substantially improved. If the ratio is 80% or greater the program will recommend the reconstruction offering.
Reconstruction Program SF Price	The estimated new home construction cost per square foot established by the Build it Back program. The cost depends on the Eligible SF of the reconstructed home.
Site Prep	The estimated cost of site preparation work required prior to beginning reconstruction for a home that has already been destroyed. Site prep items can include excavating and backfilling existing foundation remnants.
SFHA	The Special Flood Hazard Area is the official terminology for the flood zone the property is located in. It is a letter or letter and number code delineated on the Preliminary Flood Insurance Rate Map (PFIRM) prepared by the Federal Emergency Management Agency (FEMA) for areas located in the 100-year floodplain. No code is entered for properties outside of the 100-year floodplain.
Special Needs	Yes if there are special accessibility or other needs of the household members that may require custom construction, as identified through the Build it Back application or the damage assessor when the property was inspected.
Substandard Street	Yes if the width of the street the home faces is less than the minimum standard 38 feet for public streets set by the NYC Fire Code. If yes, sprinklers are required to be added to the home if not already installed.
Substantial Damage	The substantial damage comparison is the ratio of the costs of all repairs necessary to restore the home to its pre-storm condition over the pre-storm market value of the home. The costs of all repairs necessary to restore the home to its pre-storm condition include repairs already made and those still needed. If the ratio is 50% or greater, the home is classified as substantially damaged and NYC Building Code requires the home be made to comply with the flood zone regulations of BC Appendix G as though it were a new building.
Substantial Improvement Estimate	The substantial improvement comparison is a ratio of the costs of all work associated with a project over the pre-storm market value of the home. For the





NYC Houses: Feasibility Determination Report

purposes of this program, the “project” is repair of storm damage and includes unrelated work if it is to be performed during the same time period. This Feasibility Determination Report only includes a preliminary estimate of the substantial improvement calculation. The final calculation will be made after the final scope of work and cost of construction is determined at detailed scoping. If the ratio is 50% or greater, the home is classified as substantially improved and NYC Building Code requires the home be made to comply with the flood zone regulations of BC Appendix G as though it were a new building.

Technically Feasible	Yes if initial visual assessment of the property supports elevation being possible with the means and methods authorized by Build it Back program policies. A final feasibility determination will be made after engineering investigation at detailed scoping.
Year Built	The year the home was built according to the NYC Department of Finance.





NYC Houses: Feasibility Determination Report

C. Eligible Square Footage Determination

The Eligible SF was determined as the Field SF because the property contains no basement, as given by the sketch summary.

Eligible SF = 1470



EXHIBIT M
Whistleblower Protection Expansion Rider

WHISTLEBLOWER PROTECTION EXPANSION ACT RIDER

1. In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the New York City Administrative Code, respectively,
 - (a) Contractor shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this Contract to (i) the Commissioner of the Department of Investigation, (ii) a member of the New York City Council, the Public Advocate, or the Comptroller, or (iii) the City Chief Procurement Officer, ACCO, Agency head, or Commissioner.
 - (b) If any of Contractor's officers or employees believes that he or she has been the subject of an adverse personnel action in violation of subparagraph (a) of paragraph 1 of this rider, he or she shall be entitled to bring a cause of action against Contractor to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (i) an injunction to restrain continued retaliation, (ii) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (iii) reinstatement of full fringe benefits and seniority rights, (iv) payment of two times back pay, plus interest, and (v) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.
 - (c) Contractor shall post a notice provided by the City in a prominent and accessible place on any site where work pursuant to the Contract is performed that contains information about:
 - (i) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the Contract; and
 - (ii) the rights and remedies afforded to its employees under New York City Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the Contract.
 - (d) For the purposes of this rider, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.
 - (e) This rider is applicable to all of Contractor's subcontractors having subcontracts with a value in excess of \$100,000; accordingly, Contractor shall include this rider in all subcontracts with a value a value in excess of \$100,000.

2. Paragraph 1 is not applicable to this Contract if it is valued at \$100,000 or less. Subparagraphs (a), (b), (d), and (e) of paragraph 1 are not applicable to this Contract if it was solicited pursuant to a finding of an emergency. Subparagraph (c) of paragraph 1 is neither applicable to this Contract if it was solicited prior to October 18, 2012 nor if it is a renewal of a contract executed prior to October 18, 2012.

NOTICE TO BIDDERS, PROPOSERS, CONTRACTORS, AND RENEWAL CONTRACTORS

This contract includes a provision concerning the protection of employees for whistleblowing activity, pursuant to New York City Local Law Nos. 30-2012 and 33-2012, effective October 18, 2012 and September 18, 2012, respectively. The provisions apply to contracts with a value in excess of \$100,000.

Local Law No. 33-2012, the Whistleblower Protection Expansion Act ("WPEA"), prohibits a contractor or its subcontractor from taking an adverse personnel action against an employee or officer for whistleblower activity in connection with a City contract; requires that certain City contracts include a provision to that effect; and provides that a contractor or subcontractor may be subject to penalties and injunctive relief if a court finds that it retaliated in violation of the WPEA. The WPEA is codified at Section 12-113 of the New York City Administrative Code.

Local Law No. 30-2012 requires a contractor to prominently post information explaining how its employees can report allegations of fraud, false claims, criminality, or corruption in connection with a City contract to City officials and the rights and remedies afforded to employees for whistleblowing activity. Local Law No. 30-2012 is codified at Section 6-132 of the New York City Administrative Code.

EXHIBIT N
Schedule B: M/WBE Utilization Plan

Tax ID #: 11-3205660

APT E-
PIN #: 85015P0007

SCHEDULE B – MWBE Utilization Plan
Part I: MWBE Participation Goals

BROOKLYN OVERALL

Part I to be completed by contracting agency

Contract Overview

APT E- Pin # 85015P0007 FMS Project ID#: SANDHRO
 Project Title/ Agency PIN # CM/Design/Build Services for Hurricane Sandy Residential Community Recovery for the Boroughs of Queens, Brooklyn and the Staten Island / 8502015HR0011P-13P
 Bid/Proposal Response Date Friday, January 23rd, 2015
 Contracting Agency Department of Design and Construction
 Agency Address 30-30 Thomson Ave., 4th Fl. City Long Island City State NY Zip Code 11101
 Contact Person Ramon Rodriguez Title Deputy ACCO
 Telephone # (718) 391-1505 Email rodrigur@ddc.nyc.gov

Project Description (attach additional pages if necessary)

SANDHRO, CM/Design/Build Services for Hurricane Sandy Residential Community Recovery for the Boroughs of Queens, Brooklyn and the Staten Island.

M/WBE Participation Goals for Services

Enter the percentage amount for each group or for an unspecified goal. Please note that there are no goals for Asian Americans in Professional Services.

Prime Contract Industries:

- Professional Services: CM sub consultants performing CM work, Design sub consultants, and any speciality design sub –consultants (only City M/WBE certification may be used to meet goals except for the Asian category).
- Standard services: work performed by any contractors/subcontractors/sub-consultants may be used to meet the M/WBE goals. (All City certified M/WBEs may count towards the M/WBE goals).
- Construction: PQL contractors (all 8) and subcontractors to the PQL (all M/WBE City certifications will count towards the M/WBE goals).

Group	Percentage
Unspecified*	25%
or	
Black American	UNSPECIFIED
Hispanic American	UNSPECIFIED
Asian American	UNSPECIFIED EXCEPT PROFESSIONAL SERVICES
Women	UNSPECIFIED
Total Participation Goals	25% Line 1

***Note: For this procurement, individual ethnicity and gender goals are not specified.**

SCHEDULE B - Part II: M/WBE Participation Plan

Part II to be completed by the bidder/proposer.

Please note: For Non-M/WBE Prime Contractors who will NOT subcontract any services and will self-perform the entire contract, you must obtain a FULL waiver by completing the Waiver Application on pages 5 and 6 and timely submitting it to the contracting agency pursuant to the Notice to Prospective Contractors. Once a FULL WAIVER is granted, it must be included with your bid or proposal and you do not have to complete or submit this form with your bid or proposal.

Section I: Prime Contractor Contact Information			
Tax ID #	<u>11-3205660</u>	FMS Vendor ID #	
Business Name	<u>LiRo Program and Construction Management, PE P.C.</u>	Contact Person	<u>Michael Burton, PE</u>
Address	<u>3 Aerial Way, Syosset, NY 11791</u>		
Telephone #	<u>516-938-5476</u>	Email	<u>Burtonm@liro.com</u>

Section II: M/WBE Utilization Goal Calculation: Check the applicable box and complete subsection.

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS				
<input checked="" type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals.	Total Bid/Proposal Value	Agency Total Participation Goals (Line 1, Page 1)		Calculated M/WBE Participation Amount
Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	\$215,797,199 Note 1 <i>MB 4/24/15</i>	25% <i>MB 4/24/15</i>		\$59,949,304 <i>MB 4/24/15</i>
	\$302,500,000 Note 2	25%		\$302,500,00
	\$251,099,316 Note 3 <i>MB 4/24/15</i>	25% <i>MB 4/24/15</i>	=	\$62,774,829 \$356,449,309 <i>MB 4/24/15</i> Line 2
	\$518,297,216 <i>MB 4/24/15</i>	25% <i>MB 4/24/15</i>	X	

PRIME CONTRACTOR OBTAINED PARTIAL WAIVER APPROVAL: ADOPTING MODIFIED M/WBE PARTICIPATION GOALS

<input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Modified M/WBE Participation Goals.	Total Bid/Proposal Value	Adjusted Participation Goal (From Partial Waiver)		Calculated M/WBE Participation Amount
Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.				
	\$	X	=	\$ Line 3

~~Note 1 - all costs with the exception of construction-~~
~~Note 2 - all construction costs-~~
~~Note 3 - Total potential contract value if construction allowance is the same as the estimated construction costs DDC provided in Addendum-~~ *MB 4/24/15*

Section III: M/WBE Utilization Plan: How Proposer/Bidder Will Fulfill M/WBE Participation Goals. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. Check applicable box. The Proposer or Bidder will fulfill the M/WBE Participation Goals:

- As an M/WBE Prime Contractor that will self-perform and/or subcontract to other M/WBE firms a portion of the contract the value of which is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non-M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals. Please check all that apply to Prime Contractor:
 MBE WBE
- As a Qualified Joint Venture with an M/WBE partner, in which the value of the M/WBE partner's participation and/or the value of any work subcontracted to other M/WBE firms is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals.
- As a non M/WBE Prime Contractor that will enter into subcontracts with M/WBE firms the value of which is at least the amount located on Lines 2 or 3 above, as applicable.

Section IV: General Contract Information

What is the expected percentage of the total contract dollar value that you expect to award in subcontracts for services, regardless of M/WBE status? % ~~73~~ 74.5

74.5 4/24/15

Enter brief description of the type(s) and dollar value of subcontracts for all/any services you plan on subcontracting if awarded this contract. For each item, indicate whether the work is designated for participation by MBEs and/or WBEs and the time frame in which such work is scheduled to begin and end. Use additional sheets if necessary.

- 74.5 4/24/15* 1. ~~CDBG-Housing Consulting \$75,529,025 NTP to end of Contract, MWBE Participation~~
- 74.5 4/24/15* 2. ~~Construction \$302,500,000 NTP to end of Contract, MWBE Participation~~
- 3. _____
- 4. *Design Total \$21,750,000 NTP to 2 Years*
- 5. *MWBE \$5,100,000*
- 6. _____
- 7. *Design T&M Total \$1,042,250 NTP to 2 Years*
- 8. *MWBE \$260,500*
- 9. _____
- 10. *Construction Total \$1,499,282 NTP to end of*
- 11. *Mgmt. MWBE \$1,250,000 Contract*
- 12. _____
- 13. *Construction Total \$162,875,000 3 months to*
- 14. *MWBE \$56,164,329 end of Contract*
- 15. _____
- 16. _____
- 17. _____

Scopes of Subcontract Work

Section V: Vendor Certification and Required Affirmations

I hereby:

1) acknowledge my understanding of the M/WBE participation requirements as set forth herein and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and

the rules promulgated thereunder;
2) affirm that the information supplied in support of this M/WBE Utilization Plan is true and correct;
3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and
5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

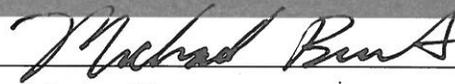
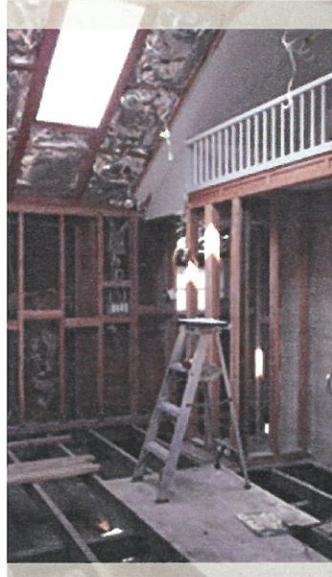
Signature		Date	January 30, 2015
Print Name	Michael Burton, PE	Title	Sr. Vice President & National Operations Manager

EXHIBIT O
Not Used



ORIGINAL



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

TECHNICAL PROPOSAL

**SANDHRO, CM/Design/Build for
Hurricane Sandy-Affected Residential
Community Recovery**

PIN: 8502015HR0011-13P

Borough of
Brooklyn



**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company



LiRo Program and Construction Management, PE P.C.

111 Broadway Suite 501 New York NY 10006 tel 212.563.0280 fax 212.563.1841

January 30, 2015

Jue Zhang
Professional Contracts Section
NYC Department of Design and Construction (DDC)
30-30 Thomson Avenue, 4th Floor
Long Island City, NY 11101

RE: SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery
PIN# 8502015HR0011-13P – Borough of Brooklyn

Dear Jue Zhang:

LiRo Program and Construction Management, PE P.C. (LiRo) is pleased to submit this proposal for the above project. We have assembled a team of professionals with a proven track record on successful large housing programs totaling over 20,000 homes. LiRo is a local firm with 700 employees, with many living and working in these Sandy impacted communities. The LiRo Team has been involved in over a dozen Sandy housing, community and infrastructure programs. Below are highlights of our qualifications and experience directly related to this program.

LiRo Team Experience

- Current Sandy housing experience in New York State and New Jersey as well as national disaster recovery experience totaling over \$20B, including 14 successful CDBG-DR housing programs.
- Completed over 850 sites utilizing the CM/Design/Build contract methodology.
- Completed more than 950 storm-related home designs and the elevation of 550 Sandy homes.

Core Management Team

- Our proposed Project Manager and Deputy Project Manager both have experience on similar projects including the NY Rising Sandy Housing Program. In addition they have more than \$4B of CDBG-DR experience including completing 2500 homes in less than two years. Their experience combined with that of our Construction Manager who has completed similar programs with over 8,000 homes provides HRO/DDC with an incomparable team that can achieve your goals.

Capabilities

- LiRo's ramp-up capabilities are familiar to DDC and other agencies based on our successful past performance on emergency and disaster response projects. We have worked with DDC on the 9/11 World Trade Center recovery; been awarded consecutive contracts from the NYC Housing Authority and School Construction Authority for CM and Emergency Response; ramped up to over 100 staff within 30 days for the Rapid Repairs Program; and delivered a team of over 600 staff in 27 days to respond to the State's Sandy housing recovery program.

LiRo is committed to delivering a successful program to HRO/DDC while ensuring that we maintain the highest level of compliance with local hiring and M/WBE goals.

Sincerely,

Luis M. Tormenta, PE
Vice Chairman & Chief Executive Officer
212-563-0280



Cover Letter

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SUMMARY

The LiRo Team understands that the New York City Department of Design and Construction (DDC) is seeking to substantially increase the Build it Back Program's design and construction capacity and significantly improve throughput and final completion of one- to four-family homes in the Rehabilitation, Elevation, and Reconstruction pathways. With over 15,000 applicants to the program, this procurement targets 7,725 applicants in Queens, Brooklyn and Staten Island with a goal to significantly ramp up production in 2015.

The LiRo Team brings unparalleled experience from 14 major CDBG-DR housing programs and over 150 Presidential disaster declarations. In addition, the total value of our team's storm recovery experience exceeds \$20B involving over 3.6 million housing units. Our proposal incorporates the many lessons learned from these past national housing programs as well as our current experience as the Master Construction Manager for the NY Rising State Housing Program. While the NY Rising program is structured differently, the implementation issues and desired outcomes are the same. The proposed LiRo program delivery methodology has been designed to successfully deliver a high quality, expedited and cost efficient program that conforms to HUD rules while maintaining a high level of homeowner satisfaction. The key elements that will contribute to LiRo's successful delivery of this program are described below.

TEAM STATISTICS

- Over \$20B in disaster/housing recovery programs
- More than 950 disaster housing designs including prototypes
- Involved with engineering, estimating and constructability review for more than 550 Sandy elevation projects
- Managed 14 similar expedited CDBG-DR housing recovery programs

Experience and Key Personnel – Our team members have personally managed programs that entailed all the same challenges as the NYC Sandy Program including the following accelerated programs: the South East Texas program with 754 homes completed in 14 months; City of Galveston Round 1 with 682 homes completed in 20 months including eligibility; SETRPC Round 2 with 653 homes completed in 28 months including eligibility; Lower Rio Grande with 751 homes completed in 28 months including eligibility.

"The LiRo Team met and exceeded our expectations on the Sandy Recovery program."

*-Richard Millet
First Deputy Commissioner
Nassau County Dept. of Public Works*

Locally, LiRo has been the Master Construction Manager for the Governor's NY Rising Sandy Housing Recovery Program serving over 19,000 applicants throughout New York. Our team has proven our ability and capacity to manage a large, multi-disciplinary team to produce high volume and quality products under extremely aggressive schedules – very similar to what is envisioned for the Build It Back Program. Our team's successes on Sandy housing programs include:

- NY Rising – 16,000 assessments completed and over \$340M disbursed to homeowners. Additionally, recent results from a January 15th survey indicated that 72% of respondents are designing or completed design on their homes and 60 % have started construction.
- NYC Rapid Repairs – ramped up to over 100 staff in 30 days, completed over 6,000 homes in 3 months
- NJ RREM – provided homeowner services, damage assessments, estimating, prototype home designs, and managed bid packages. Completed more than 500 architectural home designs including prototypical designs for total reconstructions.
NYC Housing Authority (NYCHA) Emergency Response and Long-Term Recovery – mobilized over 200 workers to restore services to return 80,000 residents to their homes in two weeks after the storm. LiRo’s Architectural Division is also currently designing mitigation measures for 7,385 housing units to withstand future storm events.
- NYS Community Reconstruction Program - \$100M planning effort for community resilience in Brooklyn and Long Island communities.

There are four unique challenges in a program of this type:

- Homeowner Satisfaction
- Aggressive Timeframes
- Regulatory Compliance (local and Federal)
- Technical Challenges

“...the partnership between LiRo and the state is the single biggest reason we have been so successful. Thanks for all your help and support.”

*- Seth Diamond, Former Director
Governor’s Office of Storm Recovery*

The individuals proposed for this assignment must understand that the success of these programs is not solely based on the delivery or solution to one of the challenges, but that it must be an **integrated holistic approach that balances the distinct complexities of each of the needs.**

All of the LiRo Team professionals that have been selected for this effort clearly understand these needs and have the local and national experience in responding to housing and emergency recovery programs that will allow for an immediate mobilization of the program without a “learning curve”.

We have chosen a combination of the best staff that New York City (NYC) has to offer with respect to local knowledge responding to housing and other NYC emergency recovery programs as well as the best national housing experts. They include:

Luis M. Tormenta, PE, Program Executive – Under Mr. Tormenta’s direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. His past CDBG funded emergency projects include the

9/11 World Trade Center and 13 recent Sandy response and recovery projects. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricanes Sandy and Irene as well as emergencies such as the Cromwell Recreation Center pier collapse and the Staten Island Ferry accident.

Michael Burton, PE, Project Executive, is a recognized industry leader who has managed some of the nation's largest public and private capital portfolios valued at over \$25B. He has managed programs for Katrina and has been involved with all of LiRo's Sandy recovery programs including NJRREM and NY Rising. Prior to Hurricane Sandy, Mike also managed the clean-up of the World Trade Center after 9/11 which is the only fully funded CDBG/FEMA program with no Federal audit findings. He managed that recovery while serving as the First Deputy Commissioner of DDC.

Brant Aidikoff, PE, CCM, Project Manager, a recognized leader in the NYC construction management community who is currently serving as a senior manager on the NY Rising program ensuring quality on the approximate 19,000 applications in program. His prior CDBG-DR recovery experience includes working for DDC in responding to the 9/11 World Trade Center attack where he was specifically requested by DDC to help in the \$700M infrastructure recovery and reconstruction efforts for the two years following the attacks. Based upon his performance working for DDC, Brant was then asked to serve as the Program Manager for the \$18B World Trade Center reconstruction effort for the Lower Manhattan Construction Command Center. Brant's most recent high-profile DDC project is the Times Square project where he is currently serving as a part-time Senior Advisor and reports on a weekly basis to DDC Associate Commissioner Tom Foley. We encourage you to check his reference.

Mark Howard, Deputy Program Manager, has managed housing programs valued at over \$1B for the State of Texas recovery after Hurricanes Ike (\$300M) and Dolly (\$700M). The CDBG-DR housing programs that he has been involved comprised of more than 20,000 homes. He is also a senior advisor to the NY Rising Housing Recovery Program. Mark helped design the program and has implemented the successful training programs for design professionals and contractors which greatly increased capacity and throughput. He also implemented the homeowner awareness public forums which greatly increased homeowner satisfaction and continues to promote homeowner understanding of the program as a senior manager working with the LiRo Homeowner Advisors who have answered more than 7,500 homeowner questions in the past year.

Chad Herndon, Construction Manager, is a housing recovery expert who has served in numerous roles working on over 8,000 homes for Hurricane Ike, Rita and Katrina in Texas and Mississippi. In addition, as construction manager on the NY Rising Program he helped develop the Program's standards and specifications, the 15,000 damage assessment

program and the construction inspection program. Most recently he managed the closeout program for NY Rising.

Faisal Choudhury, PE, Homeowner Advisors/Call Center Manager, has over \$2B of experience on both FEMA and CDBG recovery programs including: the New York Rising Housing Program where he is currently serving in a management role with Homeowner Advisors ensuring homeowner satisfaction as well as expediting throughput. He was also the LiRo Project Manager for inspections for the Rapid Repairs Program where he oversaw a workforce of 102 staff which were fully mobilized in less than 50 days. Inspections were conducted by his team on over 7,000 homes for Rapid Repairs. Prior to that assignment, he was a Project Manager implementing the Sandy Recovery program getting 80,000 residents back into repaired homes. While as a DDC employee, Fais was a project manager and quadrant leader at the World Trade Center 9/11 Recovery as well as the Deputy Program Director for the Corrections Program Unit.

Joanna Pestka, FAIA, Lead Design Manager, is an award-winning design manager and National Fellow of the American Institute of Architects. Joanna has residential experience and equally important, she has for the last 20 years managed portfolios of projects that in aggregate exceed more than a thousand projects valued at over a billion dollars. Her achievements are familiar to DDC, where she served an Assistant Commissioner for the Libraries, Transportation and Cultural program units with a portfolio of 250 projects valued at \$300M.

Thomas Anderson, PE, RA, Design Project Manager, is an architect and engineer with more than 35 years of experience directing the design and construction of residential, governmental, and commercial projects. He has extensive CDBG housing experience and is part of the NY Rising Sandy Housing Program as a Team Leader. He has also helped launch CDBG-DR Small Business and Multi-Family/Rental programs.

Michael Dorris, Sr., Project Controls Manager, has been responsible for the supervision of all phases of grant management and document control for federal grants including the \$1B grant for St. Bernard Parish government's Katrina recovery in Louisiana and more recently, as Homeowner Advisor on the State's NY Rising Housing Program and Operations Manager for the New Jersey Sandy Housing Recovery Program. His expertise includes utilizing databases to track trends, identification of issues and bringing the appropriate resources to remove the obstacles impeding progress to increase throughput on housing program.

Janice Haughton, Sandy Hiring Plan Implementation Manager, has served in recruitment and compliance roles on projects to meet CDBG and local hiring goals. On Sandy recovery projects, she managed the Local Referral Center in the Rockaways as part of the boardwalk reconstruction project, to recruit local residents and contractors and perform community outreach with local workforce groups, trade unions and community board members. Janice

also served as Compliance Advisor on the State's Disaster Recovery Inspections program for Sandy damaged homes in Nassau County.

Robert Baptiste, M/WBE Compliance Officer, has served on similar compliance roles for LiRo, most recently for the State's Housing Recovery Program. He is familiar with all the local and federal requirements for compliance on CDBG-DR programs and has participated in our community and industry outreach efforts, contractor and design professional training, and Section 3 outreach and training.

Joseph Massa, Technical Advisor, has extensive experience in CDBG housing programs including the NY Rising program where he is the Master Construction Manager for LiRo. He has been involved in more than a billion dollars of housing programs, including serving as a senior manager on the Rapid Repairs Program, and was the senior project manager responsible for more than \$370M of residential construction for the NYC Housing Authority.

Trang Bui, Start-Up/Hiring Plan Team, has been part of LiRo's disaster recovery management team and has served in start-up roles and embedded staff for NYC Rapid Repairs, NYC Housing Authority, and the State's NY Rising housing and community recovery programs. She was also part of DDC's 9/11 recovery team and had managed FEMA assessment teams for the Hurricane Katrina recovery in New Orleans. She has worked with NYC's non-profits and community based organizations from her experience at the Mayor's Office and the Department of Cultural Affairs and will leverage these relationships to assist in community outreach and maximizing local hires.

Jon Pantina, IT Manager, has over 17 years of experience in data management and IT systems for some of the most recognized companies in the nation. He is the system architect of the LiRo Recovery Manager software for the team performing work for the New York Rising Housing Recovery Program. He has worked as a developer, creating developing, and supporting various types of software, maintained company websites and intranets, and is familiar with a wide range of languages, technologies, databases, and web and app servers including those utilized by HRO's Case Management System.

Cara Lacey, Community Liaison, has extensive planning and outreach experience in both public and private sectors. She has advised clients including developers, architects, land owners, attorneys and on land use, zoning, policy, economic development and environmental regulations and issues. She has served as lead planner or project manager with teams on a wide range of projects including residential, coastal and rezoning efforts. Ms. Lacey has demonstrated her skills with facilitating neighborhood meetings and building relationships with neighborhoods, communities and residents as well as elected officials and legal teams. Cara was part of the planning team working on the State's NY Rising Community Reconstruction program in Brooklyn.

Alagie Sanyang, Safety Director, has extensive national and international construction safety experience. Alagie was most recently the Environment Health and Safety Director at Columbia University's multi-billion dollar Manhattanville development project. He holds an OSHA-500 and 501, and is an OSHA authorized trainer in both construction and general industry standards. He is a Board Certified Safety Professional CSP®, a Construction Health and Safety Technologist CHST®, a LEED AP, and holds a bachelor's degree in Occupational Safety and Health from the National Labor College and Master of Science in Construction Administration from Columbia University.

Technical Approach – As referenced in the Technical Approach section, we propose a three-phase plan to deliver results. Part of Phase I, Operational Planning will be program development which will occur in the first 30 days and includes the below.

In the first 30 days, LiRo will adapt standards that will result in uniform quality and efficiency and will expedite the program to include:

- Permit Document Standards
- Minimum Design Standards for Rehabilitations and updated unit price book
- Minimum Design Standard and customizable palette to expedite reconstruction
- Inspection Quality Assurance Standard to increase homeowners satisfaction
- Prototypical Reconstruction plans to standardize construction that allow sufficient choices to satisfy diverse homeowners' tastes

In addition to our Program Procedures Manuals, we will have a separate Project Close-Out Manual. This will be coordinated and linked into the CMS data management system to assure a complete file that will withstand scrutiny from any future audit including the HUD OIG.

Other key tasks for the **first 30 days** will include the following:

- Designer Team Assignments will be made in the first 30 days to allow an early start. Assignments will be made to large capacity firms to achieve volume and throughput, and smaller MWBE firms to allow maximum participation from these firms.
- Contractor Bids Packages will be completed and procurement of additional unit price. Contractors will start to allow early construction starts as bid packages are completed. Contractors and designer training will occur in the first 30 days to allow a rapid and uniform start-up.
- Quality Assurance/Quality Control Plans for both design and construction will be implemented in the first 30 days. We will utilize prior successful housing programs' QA/QC plans as our go-by and further customize them for this program. This will be a major focus of our team to ensure that homeowners will receive a high quality product.

As previously stated, our team's combined CDBG-DR housing recovery experience on 14 programs and Sandy lessons learned from the State program means there is no learning curve to ramp up for this program. Our proposed approach has been successfully tested and implemented on previous housing programs. Key elements that contribute to a successful recovery are identified below.

Our technical approach will fully detail a design and construction throughput strategy. By right-sizing our procurement design and construction forces and aligning these with our data management system, we will have the capacity as well as the system to identify issues that need additional focus. **CONTROL THE DATA AND YOU CONTROL THE PROGRAM.**

- Data Management – We understand that in addition to capacity, the data management system should be used as a tool for LiRo to work with the DDC/HRO program management team to analyze program needs, target geographic areas to maximize design and construction production and provide real time dashboard data easily extracted for any reporting metrics. ***Without access and a full grasp of the volumes of data associated with each applicant, making informed and impactful decisions is difficult.*** The LiRo Recovery Manager (LRM) software will facilitate this task as it has already been deployed on the State program and can be adapted to support HRO. It can be fully interfaced with HRO's CMS.

To maximize access to available data for a targeted geographic approach and promote speed of delivery, we have included Dewberry as part of our team given their involvement with Build It Back. By combining the functionalities from LiRo's LRM and Dewberry's system that is already conversant with CMS, our data management systems will be operational within 30 days and be integrated with CMS to the level that HRO allows. We can also provide pre-emptive borough-wide geospatial analysis of the registered properties in the program. We believe the immediate ability to communicate with CMS from our data systems combined with ready access to all of the applicants' data (authorized by HRO) will allow our team's start-up pace to be faster than any other competitor.

- Homeowner Services – Providing continuous improvements to homeowner services via homeowner advisors and supporting social service referrals has proven to be an asset in engaging homeowners in prior programs. By maintaining constant contact with the homeowners, we have increased their confidence in our team's ability to assist them through the recovery process. This is not a replacement for the current case workers, but rather a service provided by professionals who can help guide homeowners through the design and construction process.

No recovery program can reach its full potential without excellence in its services to the homeowners. Treating homeowners with respect is as important as providing accurate information so that they can fully understand the nuances of the housing program; the schedules that are forecasted; and the potential impacts these activities may have on their lives. A key LiRo strategy in achieving this level of service on the NY Rising Program is the integration of our Homeowner Advisors with the program's regular case management

workers. Our staff helps the homeowners with simple questions as well as complex contractor and design issues. They are on the frontlines, guiding and reassuring the homeowners and alleviating some of their fears by promptly addressing issues before they escalate.

One of the biggest obstacles to expedited construction on other housing programs is the homeowner's reluctance to relocate. Whether it is rooted in financial hardships or inability to find alternative living quarters, or the homeowner simply wants to remain in the home during construction. Our team has found that the chance for success is greater when unit pricing and bid alternates are allowed for the contractor to provide an apartment to the homeowner for the duration of construction. Benefits include reduced overall program costs (this is a HUD allowable activity); improved homeowner satisfaction; and better contractor production rates allowing improved throughput.

- Community Recovery – As important as individual recovery, we have found that where groups of homes are experiencing similar issues or are physically connected, a broader approach for design and resiliency must be taken. We have been successful where community buy-in is sought and achieved that in turn, yields a larger community plan but reserves enough individual homeowner choice in design and construction.

To encourage community buy-in, workshops will be held with the communities. The meetings will have illustrations of proposed elevations and reconstruction types and just as important we will listen to community concerns. Where pertinent the team will introduce collective strategies such as the simultaneous elevation of multiple homes or the implementation of collective infrastructure. The team has done this before in post-Katrina in New Orleans and post-Sandy in New Jersey and New York City.

- Hiring Plan and Compliance – With a history of working in the New York area for over 30 years, these neighborhoods are also our communities. As a result, our approach to Sandy recovery projects and hiring practices has consistently been aligned with DDC/HRO's goals outlined in this RFP. They include hiring locally and utilizing Sandy impacted residents where possible and maximizing M/WBE and Section 3 hiring opportunities.

Maximizing M/WBE, Section 3 and local hiring is taken seriously by LiRo as a key measure of success on our projects. We have significantly beaten goals on prior programs including the NYC School Construction Authority programs, where we had over 40% MWBE participation.

On Sandy programs, we exceeded the Section 3 goal and mentored an M/WBE firm that 18 months later, now has 10 employees including Section 3 staff on the NY Rising Housing Program. Another M/WBE firm and Sandy victim, was part of our embedded team of managers to assist NYCHA immediately after Sandy made landfall. Her firm continues to be part of our start-up team on Sandy recovery programs.

We pledge this ***commitment to continue efforts to hire Sandy victims as well as the M/WBE community that may need additional training or mentoring*** in learning the complexities of a CDBG-DR program.

Organizational Capability – The LiRo team is local. In addition to bringing the capacity of 700 local LiRo employees and speed of delivery of services to this program, many of LiRo’s staff and subconsultants live and work in the communities impacted by Sandy. We understand the challenges facing our colleagues, friends and neighbors. The LiRo Team’s past disaster recovery experience has been driven by more than just having sheer numbers of individuals from companies that are flown in from other locations – with varying degrees of experience and commitment – like many other firms have done with the Sandy recovery programs. These “storm chaser” companies have often delivered mixed results.

Our plan is to deliver our local management talent that have disaster related housing experience who are committed to helping *all* New Yorkers rebuild in an expedited time frame. This commitment is especially meaningful when working with Low/Moderate Income (LMI) applicants. On the State program, we are preparing to work on a program to focus additional assistance to this group of applicants with their recovery utilizing funds from the Social Services Block Grant program. HUD often measures the true success of these recovery programs by the level of engagement of those who require the most assistance in the program.

To supplement LiRo’s in-house architectural, engineering, environmental and construction professionals as well as ensure redundancy and a deep bench of qualified professionals, we have assembled two groups of companies for our resource pool.

The first group of companies is comprised of national housing experts that have an established track record in responding to more than 50 named storms involving over 3.6 million housing units.

H2Bravo are experts at designing and implementing CDBG-DR housing programs with experience on more than 14 housing programs – the majority of these completed in less than two years. They are also a subconsultant to LiRo on the NY Rising Program.

Worley Catastrophe Response has completed over 40,000 damage assessments/scoping documents for Sandy and another trusted LiRo subconsultant on the NY Rising Program.

Dewberry Engineers Inc. had helped perform the damage assessments for the Build it Back Program. Their knowledge of the program and access to their database, which is compatible with CMS, will enable a rapid ramp up with minimal learning curve.

3PL Consulting has responded to more than 20 federally declared disasters. LiRo is currently working with them on the Nassau County CDBG-DR Sandy Long-Term Recovery Program.

The second group of companies are locally based companies so that the majority of our team members’ staff are already based here. This will maximize our opportunities to employ individuals affected by Sandy as well as meeting the Section 3 and M/WBE goals of the program.

In consideration of maximizing participation of individuals that were impacted by the storm, we plan to utilize many of the **local residential architects located in Staten Island, Brooklyn and Queens**. The LiRo Architectural/Engineering Division will manage these local firms and the net effect will be **the employment of almost 100 design staff from storm impacted areas**. Capacity is achieved for throughput coupled with the local knowledge of the community.

Moreover, these local firms are better positioned to gain buy-in for neighborhoods where a holistic community solution is required. They are already working on Sandy affected houses in their respective boroughs and we intend to continue utilizing their local contacts with the Building Department's Borough Offices. Many of these firms have been working in their communities for 20 to 30 years and are trusted by the community and the regulatory authorities.

The LiRo Architectural Division will also train these architects on the standards required for this program. Previous experience has shown that training design professionals on the required standards is critical to streamlining reviews. On the current State program, we have trained over 80 architects and have seen significant improvements in the quality of their submissions.

LiRo has also spent the last two months discussing the program with a large group of subconsultants to provide the **required support services** including: expeditors, surveyors, geotechnical and boring companies, etc. We have this capacity for any one of the boroughs should we be selected.

Over the last three months, LiRo has been approached and also reached out to the **largest residential builders** on a national level and also in New York City. These firms have expressed interest and confidence in bidding to LiRo, having full understanding of our General Conditions and how we manage our projects. These conversations have focused on prior track record, capacity and personnel to be committed to the NYC program, bonding and insurance requirements. Based on these discussions, we have an initial comfort level that the throughput for any given borough can be achieved.

The LiRo Team recognizes the complexity of this assignment and our understanding leads us to delve beyond the design and construction issues for this program. We propose an option for DDC/HRO to consider that can potentially reduce costs and increase contractor capacity including the M/WBE participation in the program. This increased contractor capacity would reduce program delivery risk and speed the program by having more qualified contractors. The benefits mentioned above can be realized by implementing a Contractor Controlled Insurance Program (CCIP). In summary, LiRo would purchase a policy that would cover all subcontractors, consultants and the City and the policy would yield the following benefits:

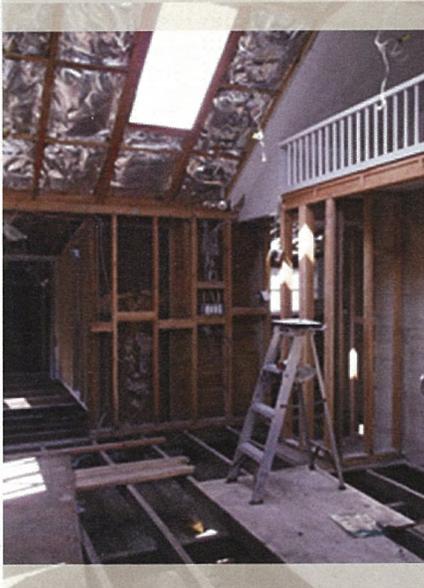
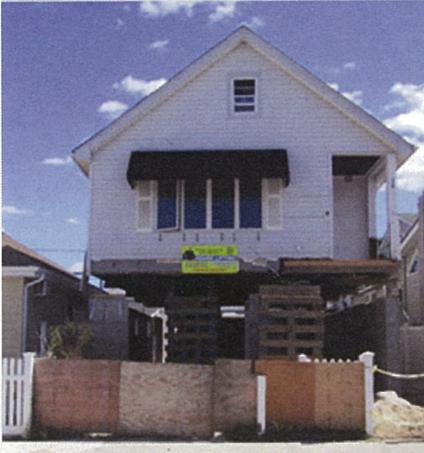
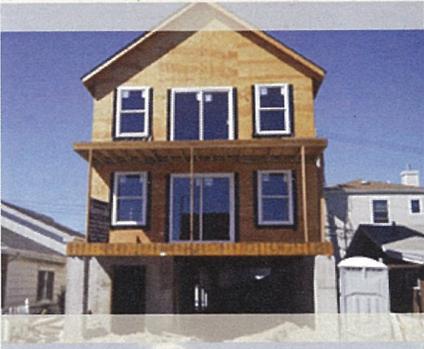
- Numerous M/WBE and small local contractors that typically could not obtain the policies and the required dollar limits of those policies required by NYC's pre-qualification language would be covered and could participate in the program.
- The limits of coverage would be greater and more than adequate to protect all parties and would lower or remove additional contractor bid contingencies.
- Many contractors have coverage exclusions in their current policies. This obstacle for contractors would be removed with the full CCIP.
- Buying a large CCIP policy would have the potential effect of lowering the overall cost of insurance for the program, allowing more funding to be used for direct repairs and reconstruction of homes.

These concepts can be further discussed during the presentation portion of the procurement process.

LiRo is confident that we will not only meet the City's needs but exceed them. Our confidence is based on the fact that ***we have the local resources***. Our team has previously achieved success on programs of similar size and scope, and we have proven successful performance record on delivering DDC assignments.

The full body of the remaining proposal expands on our Technical Approach and provides detailed descriptions of how each task identified in the RFP will be addressed. Full examples of items discussed such as rebuilding design strategies and IT systems are included in the Appendix.





**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company

1. Experience of Firm



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

Borough of
Brooklyn

1. EXPERIENCE OF FIRM AND KEY PERSONNEL

LiRo is one of the leading providers of disaster related services in New York State and New Jersey including assignments for more than 15 different city and state agencies and authorities. This work has included over \$5B of Sandy related work with assignments conducted at over 22,000 homes. In addition to being a leading provider of Sandy DR housing programs, we are also considered one of New York City's leading providers of Construction Management and Program Management services. This is reflected in our involvement with NYC's largest and most successful infrastructure programs including housing, bridge, transit, highways, parks, and healthcare. The scope of this work includes the fullest range of disaster recovery services: community resilience planning, project worksheets, policies, strategic guidance, information management systems, estimating, program management, design and construction management.

"LiRo has delivered beyond expectations on our Sandy Infrastructure program."

*-Shila Shah-Gavnoudias, Commissioner
Dept. of Public Works, Nassau County*

LiRo is particularly proud of our work assisting the Governor's Office of Storm Recovery (GOSR) with implementing the New York Rising Housing Recovery Program. LiRo has been the Master Construction Manager driving the progress of that program, completing more than 15,000 damage assessments, over 16,000 environmental surveys and clearances,

and distributing over \$340M in funds to homeowners to start or complete their home repairs, reconstruction, and elevation. In a recent survey, 72% of respondents indicated that they are designing or completed design on their homes and 60% have started construction. We are also the Master Construction Manager for the Multi-Family/Rentals and Small Business Recovery programs. Our team has worked with the State and homeowners to review all eligible scope of work to ensure HUD regulatory compliance while maximizing the available HUD CDBG-DR funding. The Multi-Family/Co-ops and Condos program is also part of the NY Rising Program.

LiRo is an established and well-respected firm with an extensive portfolio of DDC projects. Of particular importance and relevance to this program is our experience with DDC CM/Build and CM/Design/Build experience. LiRo has successfully performed more of these programs for both DDC, over 850 sites, and more residential properties for NYC Housing Authority using this form of contract than any other Construction Manager (CM). This experience is critical to the successful implementation of this program to enable DDC and NYC Housing Recovery Office (HRO) to have the confidence in the procurement and change order processes needed to deliver this scope of work.

Details of LiRo's role on the NY Rising Housing Recovery Program and our team's other comparable disaster and housing recovery programs as well as Sandy community recovery efforts are described below.

A. DISASTER/HOUSING RECOVERY EXPERIENCE

NY Rising Sandy Housing Recovery Program

Working for the Governor's Office of Storm Recovery (GOSR) under a contract with DASNY on this CDBG-DR funded Sandy housing recovery program, LiRo coordinated the efforts of more than 30 firms and over 500 professionals to complete over 5,600 initial inspections in 30 days – in time for GOSR to issue award letters to registered homeowners by the first Sandy anniversary. Our work continues with the implementation of the next phases of the program to enhance HCR's efforts to help homeowners return to their homes while maximizing reimbursements from HUD CDBG funds. These tasks include ongoing development of data management/IT systems, policies and procedures, the environmental program, and construction guidelines and final inspections checklists. The Multi-Family and Rental Programs were also recently launched and LiRo is also assisting GOSR with those efforts. Tasks and roles on this program includes:

- Program Design/Advisor
- Program and Project Management
- Daily, weekly, and monthly reports
- Website creation and data management
- Damage inspections
- Environmental surveys and clearances
- Quality management – QA/QC auditing
- Review/approval of scope changes and change orders
- RFI responses and tracking
- Submittal reviews
- Contract administration
- Contractor payment review and processing
- Customer service support
- Design Professional/Contractor prequalification
- Homeowner, Design Professional, Contractor outreach and training
- Cross-training between construction management and case management teams
- M/WBE, Section 3 outreach and compliance
- HUD Green Building standard compliance

Program Statistics:

- Over 19,000 applicants
- More than 15,000 damage assessments and AA/ECR completed
- 15,000+ environmental inspections completed
- More than \$340M disbursed to homeowners
- Nearly 11,000 checks sent
- Trained more than 50 contractors
- Trained over 80 design professionals on CDBG-DR design standards
- Approximately 7,000 clarifications/questions logged
- Ramp-up to 610 staff in 10 days, including 500+ Xactimate inspectors
- Completion of over 5,600 damage assessments and production of Allowable Activities (AA) and Estimated Cost of Repairs (ECR) reports in 30 days
- Peak daily inspections at 568
- Peak daily AA/ECR production at 389
- Over 8 million pages of documents logged in LiRo Recovery Manager (LRM)

New York City Rapid Repairs Program

The first of its kind, the \$604M Rapid Repairs Program was designed by the City of New York with federal support to repair homes damaged by Sandy. The program was designed to leverage and maximize government and private resources to help these single family homeowners hardest hit by the storm. LiRo served as the CM QA/QC consultant responsible for more than 7,000 single-family homes and 100% of the high-rise and multi-family programs. LiRo's tasks also included project controls for compliance with FEMA requirements for reimbursements, providing customer service representatives, closeout inspectors, and data management support. Tasks included:

- Project management
- Daily and weekly reports
- Project controls
- Home inspections and work order preparations
- Quality management – QA/QC auditing
- Contractor payment review and processing
- Customer service support

Program Statistics:

- Mobilized 100 construction inspectors in 30 days
- Peak construction at 200 homes per day
- Over 2,300 workers working under 10 contractors
- Restored heat, power and hot water to over 11,000 homes in under 100 days

NYC Build It Back Program, Pre-Construction Services for NYC Economic Development Corporation (EDC) – Performed by Dewberry a major LiRo Sub

The Federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, Dewberry is responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.

Work under this contract is subject to extreme staffing fluctuations. At some points in the timeline, work is slow awaiting decision-making and direction at the agency level. On short notice, we were able to ramp up resources to process hundreds of applications per day.

Program Statistics (as of January 20, 2015):

- 1,021 Construction Starts
- 335 Homes Fully Repaired
- 2,182 Reimbursement Checks Sent
- Peak production with over 150 staff and 6 subconsultants
- 11,000 Xactimate damage estimate inspections
- Nearly 10,000 Feasibility SD/SI pathway determinations
- Nearly 10,000 Tier II environmental reviews
- More than 40 wetlands delineations

State of New Jersey Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM)

LiRo served as a subconsultant on this \$650 million program to provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements.

LiRo was part of the team selected to be the Lead RREM Contractor to manage the implementation and operation of the Program. We were responsible for completing damage assessments, home designs; identify allowable activities for HUD CDBG-DR compliance; monitoring; and management of the homebuilder prequalification process to create a pool of homebuilders available to the homeowners.

Tasks included:

- Program design/advisor
- Program and project management
- Weekly and monthly reports
- Data, website management/project controls
- Damage inspections and preparation of work orders

- Prototype home designs
- Home raising design and Bid packaging for all types of repairs construction
- Contractor prequalification
- RFI responses and tracking
- Contract administration
- Contractor payment review and processing
- Customer service support
- Homeowner technical/construction support
- Design Professional, Contractor outreach and training
- MWBE, Section 3 outreach and compliance
- HUD Green Building standard compliance

Dewberry, LiRo's subconsultant proposed for this Build It Back assignment also worked on the RREM program. Dewberry provided turn-key design/permitting services as the preferred vendor to one of the State of New Jersey's program management firms leading the RREM Program. New Jersey changed the program in late 2013 to a Design Build program, and Dewberry's turn-key design services were provided to the State's preferred builders and resulted in providing services on over 350 homes to date. Dewberry provided land surveying, civil design, geotechnical investigation, foundation design (shallow and deep foundations), architectural design and land use and construction permitting services for homes to be rebuilt with program prototype designs and for existing homes that were required to be elevated to meet new FEMA BFEs.

State of Texas, Hurricane Ike/Dolly CDBG-DR Housing Program, Rounds 1 and 2

LiRo Team members provided the full spectrum of housing program management services for single- and multi-family housing to the Texas General Land Office (GLO) in support of the Hurricane Ike/Dolly CDBG-DR Housing Recovery Program, Rounds 1 and 2. We provided essential planning and policy development services in the pre-award cycle assisting the Texas GLO with the overall program development and compliance with CDBG-DR regulations and a Conciliation Agreement entered into with the Statewide Housing Advocates related to Fair Housing requirements and standards. Our team members have been instrumental in the program development, providing the strategic direction, plans, draft policies and products that the GLO adopted on a programmatic basis. Furthermore, the program management process developed by our team has been executed and proven to be successful throughout the state with the ability to tailor the program for regions of the state with unique issues or differences. These services resulted in the construction or rehabilitation of over 5,000 single- and multi-family housing units for the Hurricane Ike and Dolly CDBG-DR Program.

"With their wealth of experience in Disaster Recovery and leadership, H2Bravo provides an outstanding resolution for whatever your needs may be."

*-Connie A. Nicholson
Director, Community Services Division
County of Galveston, TX*

Program Statistics:

- Lower Rio Grande Valley, Round 2, \$124M - work within communities with the highest concentration of poverty in the U.S., 751 projects completed in 28 months, including eligibility
- City of Galveston, Round 2, \$104M - 259 projects completed in 28 months, including eligibility and work within historic districts
- Southeast Texas Regional Planning Commission, Round 1, \$95M and Round 2, \$190M - Round 2 completed 653 projects in 28 months, including eligibility

FEMA Hazard Mitigation Technical Assistance Program (HMTAP) New Jersey Substantial Damage Estimates

In the wake of Superstorm Sandy, Dewberry provided technical assistance to five communities in coastal New Jersey to help them make Substantial Damage Determinations. Dewberry's fourteen teams used FEMA's Substantial Damage Estimator Tool to perform inspections of 7,000 residential and non-residential structures in Ocean, Middlesex, Monmouth, and Cape May Counties. Inspectors evaluated the damage to each building using 12 general construction categories (e.g., plumbing, foundations, and appliances) and recorded the information in the field using Panasonic Toughbooks. Field data entry is a time and money savings that Dewberry has introduced to the process along with an innovative workload and route planning approach. The results of our evaluations were given to each community to be used as a basis for making substantial damage determinations.

Nassau County Sheltering and Temporary Essential Power (STEP) Program

The STEP Program matched contractors with homeowners to assess the damages to their homes and make the necessary emergency/temporary repairs so that these household can have safe power, heat and hot water to shelter in place while performing permanent repairs to their homes. LiRo started the registration process for the homeowners; managed the activities of the electrical, plumbing, and carpentry contractors related to assessments; and prepared work orders and scheduling of work at these homes. To meet the rigorous documentation that is required for this federally funded program, the LiRo team instituted invoicing policies and procedures for assessment and work order processing, and implemented a document control system that tracked and reported on over 10,000 physical files. Over 2,600 homes were assessed, approximately 1,500 environmental inspections were completed with nearly 700 resulting in clean-up/remediation.

"The LiRo Team met and exceeded our expectations on the Sandy Recovery Program."

*-Richard Millet, First Deputy Commissioner
Nassau County Dept. of Public Works*

Sheepshead Bay Courts Sandy Rebuilding Strategy

Since January of 2013, Pratt Center and Gans studio have worked with residents of the Sheepshead Bay courts to develop an integrated approach to rebuilding that includes housing, landscape and infrastructures. The goal is to reduce the impact of both catastrophic events and

the everyday vulnerabilities related to water management and sustainability that have affected the neighborhood for years and will increase in an age of climate change. The courts are residential blocks organized around interior mews that have both great charm and intrinsic exposure to water. Originally constructed in 1929 as summer cottages on former wetland, most have been winterized and many have been expanded. The construction of the Coney Island Sewage Treatment plan in 1971 greatly exacerbated the situation when it raised the street grid leaving the mews at their original elevations and as much as 4 feet below street level. Currently, the mews flood with every heavy rainfall and, as shareholders in the common property, the residents are responsible for the mews infrastructure and its repair.

Residents of the courts are ready to work together on a common plan that will leverage their individual investments. This is a longstanding community where many properties are occupied by the original owners. There are also some courts – such as Bogardus and Shale where a single resident owns as many as two dozen properties. The plan includes raising the houses in synchrony with the design flood elevation and thereby creating the opportunity to redesign the existing collective landscape, and to re-connect to the grid in a way that re-integrates them with services provided by the city. Recognizing that their homes are fragile and under-performing, many are eager to replace them with a net-zero prefabricated alternative.

Gans studio has visualized many potential futures for the residents as part of the community visioning process, including a scheme in which the mews itself is lifted to street level (2), and one in which the mews remains a low landscape feature with the houses accessed via a shared board walk (1). They have explored the possibility and method by which the houses would be raised separately over time with individual access and shared infrastructures could be installed at a later date (3). Finally, as a consequence of their collaboration with Jason Loiselle of Sherwood Engineering, they have begun to develop plans at the scale of the entire neighborhood that create sequences of smaller and larger wetlands in relation to a renewed shoreline.

Resiliency Designs for NYCHA Sandy Impacted Properties

LiRo is providing design services including resiliency designs for Sandy impacted developments totaling over 7,000 housing units. Valued at \$187M, LiRo is performing more Sandy recovery design work for NYCHA than any other design firm. The developments include high-rise and low-rise developments including Coney Island Houses in Brooklyn and six developments along the East River in Lower Manhattan and Harlem.

Oakwood Beach Buy Out Program

LiRo also served as a subconsultant for New York State's Oakwood Beach Buy Out Program. Our team provided project management, engineering support, and construction management for the demolition of the initial list of 184 homes (partially completed) in the low lying area of Oakwood Beach Staten Island. LiRo's tasks included damage inspection; confirmation of damage but safe for environmental inspection and subsequent demolition; assistance with DOB filings and SWPPP inspections.

FEMA Public Assistance Technical Assistance

As part of the NISTAC joint venture, providing post-disaster technical support and programmatic assistance to FEMA in all 10 FEMA regions. Scope of work involves responding to all types of natural and man-made disasters, including residential housing.

Foundation Design and Construction Management, Virginia

Mathews County Virginia is a coastal county adjacent to the west coast of the Chesapeake Bay. Property owners in the County have been severely impacted by hurricanes, nor'easters and severe repetitive flooding for the past two decades. The County initiated a flood mitigation project to elevate residences using FEMA Hazard Mitigation Grant Funds. An experienced design firm was sought with familiarity with FEMA grant programs to provide building evaluation measurements, flood elevation certificates, foundation load calculations and construction bid documents. Construction monitoring and troubleshooting was also necessary to ensure that "just in time" solutions to unanticipated challenges were provided.

"Keeping the program on budget without sacrificing quality is something LiRo has always been able to deliver."

*-Lou Mendes, Vice President
9/11 Memorial Foundation*

After gathering photographs and complete building and foundation measurements, a foundation system was designed appropriate to the site, flood and wind hazard and load requirements per ASCE-24-05 *Flood Resistant Design and Construction*. Dewberry supported the County's on-site Construction Pre-Bid Meeting where the project homes were visited by prospective contractors. During construction, Dewberry provided on-site consultation on several homes with significant structural damage and designed replacement floor joist systems. Final Elevation Certificates were issued that enabled the County Building Official to issue Certificates of Occupancy allowing the homeowners to move back into their homes with the confidence that they are now elevated a foot above Base Flood Elevation. Dewberry was awarded three additional Mathews County Task Orders to design foundation systems for additional residences in 2015.

COMMUNITY ENGAGEMENT/RECOVERY EXPERIENCE

The following examples demonstrate the LiRo Team's familiarity with working in the communities targeted in this RFP. LiRo and our non-profit partners have been in these neighborhoods since the early days after the storm and the local relationships will be an asset on the Program.

NY Rising Community Reconstruction Program

LiRo was part of the team working with communities in Brooklyn and Nassau County that suffered significant Sandy damage to plan for rebuilding efforts that will support stronger and more resilient communities to face future storms. The process involved working with designated committee members from each community to identify assets, their risks and vulnerabilities, and propose projects that will contribute to hardening and/or expanding these facilities to better meet the short- and long-term needs of the communities. The local plans were also envisioned to be integrated with regional plans and other projects and programs already planned for the area. Key elements of successful plans that the team need to consider for this CDBG-DR funded program

are: public engagement, needs and opportunities assessment for economic development and housing, strategies for investment and action, implementation schedule and optimizing and leveraging funding from various public and private sources. The program was on an aggressive 8-month schedule, with the conceptual plan completed in just eight weeks.

LiRo's subconsultants also work on this program in New York City and Long Island. Our team's New York City communities included:

- Coney Island
- Brighton Beach
- Manhattan Beach
- Seagate
- Gerritsen Beach
- Sheepshead Bay
- Howard Beach
- Broad Channel
- Sunset Cove
- Breezy Point
- The Rockaways
- Red Hook
- Lower Manhattan
- Southern Queens

Long Beach Boardwalk Reconstruction

Severe damage was sustained to the ramps, lighting, decking, and substructure of the iconic 2.2 mile long and 50 feet wide boardwalk on this south shore barrier island of Long Island. Removal and replacement was required prior to reconstruction of a more resilient structure. LiRo provided preliminary design schematics, decking alternatives, structural analysis of concrete piers; design (preparation of plans and specifications); construction management and construction inspection.

Working with a local non-profit and the City of Long Beach to engage residents in the rebuilding process, LiRo attended public meetings and assisted with presentation materials and provided technical assistance as needed in response to community concerns.

Having successfully completed Phase I of the project, LiRo is currently involved with Phase II to expand the amenities provided along the new boardwalk. Outreach efforts were made to residents for their input on the boardwalk concessions and bathrooms which are now being bid for construction. The process involved the distribution of surveys and three public meetings were held to provide forums for the community to break into groups and brainstorm ideas on their vision for the new boardwalk, i.e. what they would like to see on the boardwalk, what it should look like, etc. Responses were compiled and that information helped develop a consensus on the priorities as determined by the community.

"LiRo provided the City of Long Beach with professionals who could assist us with the Sandy recovery on many levels. Their capabilities included advising and developing project scopes that are eligible for federal funding (FEMA, HMGP, CDBG) in addition to their design, construction management, contract administration, and inspection services."

*- James LaCarrubba, Commissioner
Dept. of Public Works, City of Long Beach*

Sandy Neighborhood Design Help Desk

In response to Sandy impacted communities in Brooklyn, Queens and Staten Island where building typologies and infrastructure conditions create challenges to conventional solutions, Pratt Center developed and implemented the Sandy Neighborhood Design HelpDesk with Gans studio. This program brought architects, housing, mortgage, and insurance specialists, and City agency representatives together for a series of one-stop technical assistance centers in these boroughs to provide individualized assistance to homeowners and small businesses. This team also performed studies to advocate for a neighborhood-wide solution for the Sheepshead Bay bungalow court blocks.

Sandy Residential Clean-Up

Following Sandy's impact on communities in Brooklyn, Queens and Staten Island, construction industry professionals partnered with World Cares Center (WCC) to assist in large and small cleanup operations, and partner agencies requested that WCC provide their volunteers and workers with training on safe disaster response, recovery and rebuild preparations.

WCC worked with the families and communities hardest hit by Sandy, and currently has solid, established ties in these areas. The most devastating effect of the storm was the flooding of low-lying areas around the tri-state area, specifically the beach communities of Brooklyn, Queens, and Staten Island. WCC and partners provided services to the following communities listed by borough. WCC served local residents including apartment renters, homeowners, and NYCHA residents in:

Brooklyn – Red Hook, Coney Island, Gerritsen Beach, Canarsie, Flatlands and Sheepshead Bay. Populations served comprised of 10-22% elderly population, 30-34% disabled, 12-24% below poverty level individuals in these areas.

Queens – Far Rockaways, Southeastern Queens, Central Queens, and Southwest Queens. Populations served comprised of poverty level between 16-28%, 10-12% elderly and 29-34% disabled individuals in these areas.

Staten Island – East and South Shore including New Dorp, Oakwood, South and Midland Beach, Stapleton, St. George and Port Richmond. Populations served comprised of 13-15% elderly, 20-22% disabled individuals, and 6-10% individuals below poverty level.

In its work in these boroughs, WCC's managed workers and volunteers interacted daily with families who desperately needed the manpower to successfully gut homes that were flooded and sustained severe water damage. These volunteers and workers also possessed the expertise to safely suppress and remediate mold that could represent a grave health concern. There was no work more important following the storm than leveraging resources to allow families to move back into their homes and to live in a safe environment upon their return. WCC was highly successful in this regard, as the work was provided free to the homeowners, including low-income families and communities who might otherwise not have been able to afford expensive contractor services charged by private firms. LiRo intends to engage WCC as needed when working in these communities whether to recruit and train local hires, assist with move-in/move-out services during homeowner relocation or leverage their existing relationships with residents to promote community participation to find shared neighborhood design solutions.

B. KEY PERSONNEL

The Core Management Team that is being proposed for this assignment has been selected on the basis of a very strict set of criteria. The most important one being the requirement that each has experience in managing these types of programs. The team has been involved in over \$15B of federally declared disaster programs, including 14 major CDBG-DR housing programs. Lessons learned from these programs will be effectively implemented on the DDC/HRO program and will contribute to the expedited delivery of program goals.

Luis M. Tormenta, PE, Program Executive

Under Mr. Tormenta's direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. His past CDBG funded emergency projects include the 9/11 World Trade Center and 13 recent Sandy response and recovery projects. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricanes Sandy and Irene as well as emergencies such as the Cromwell Recreation Center pier collapse and the Staten Island Ferry accident.

Michael Burton, PE, Project Executive, is a recognized industry leader who has managed some of the nation's largest public and private capital portfolios valued at over \$25B. He has managed programs for Katrina and has been involved with all of LiRo's Sandy recovery programs including NJRREM and NY Rising. Prior to Hurricane Sandy, Mike also managed the clean-up of the World Trade Center after 9/11 which is the only fully funded CDBG/FEMA program with no Federal audit findings. He managed that recovery while serving as the First Deputy Commissioner of DDC.

Brant Aidikoff, PE, CCM, Project Manager, a recognized leader in the NYC construction management community who is currently serving as a senior manager on the NY Rising program ensuring quality on the approximate 19,000 applications in program. His prior CDBG-DR recovery experience includes working for DDC in responding to the 9/11 World Trade Center attack where he was specifically requested by DDC to help in the \$700M infrastructure recovery and reconstruction efforts for the two years following the attacks. Based upon his performance working for DDC, Brant was then asked to serve as the Program Manager for the \$18B World Trade Center reconstruction effort for the Lower Manhattan Construction Command Center.

Mark Howard, Deputy Program Manager, has managed housing programs valued at over \$1B for the State of Texas recovery after Hurricanes Ike (\$300M) and Dolly (\$700M). He is also a senior advisor to the NY Rising Housing Recovery Program. Mark helped design the program and has implemented the successful training programs for design professionals and contractors which greatly increased capacity and throughput. He also implemented the homeowner awareness public forums which greatly increased homeowner satisfaction and continues to promote homeowner understanding of the program as a senior manager working with the LiRo Homeowner Advisors who have answered more than 7,500 homeowner questions in the past year.

Chad Herndon, Construction Manager, is a housing recovery expert who has served in numerous roles working on over 8,000 homes for Hurricane Ike, Rita and Katrina in Texas and Mississippi. In addition, as construction manager on the NY Rising Program he helped develop the Program's standards and specifications, the 15,000 damage assessment program and the construction inspection program. Most recently he managed the closeout program for NY Rising.

Joanna Pestka, FAIA, Lead Design Manager, is an award-winning design manager and National Fellow of the American Institute of Architects. Joanna has residential experience and equally important, she has for the last 20 years managed portfolios of projects that in aggregate exceed more than a thousand projects valued at over a billion dollars. Her achievements are familiar to DDC, where she served an Assistant Commissioner for the Libraries, Transportation and Cultural program units with a portfolio of 250 projects valued at \$300M.

Thomas Anderson, PE, RA, Design Project Manager, is an architect and engineer with more than 35 years of experience directing the design and construction of residential, governmental, and commercial projects. He has extensive CDBG housing experience and is part of the NY Rising Sandy Housing Program as a Team Leader. He has also helped launch CDBG-DR Small Business and Multi-Family/Rental programs.

Michael Dorris, Sr., Project Controls Manager, has been responsible for the supervision of all phases of grant management and document control for federal grants including the \$1B grant for St. Bernard Parish government's Katrina recovery in Louisiana and more recently, as Homeowner Advisor on the State's NY Rising Housing Program and Operations Manager for the New Jersey Sandy Housing Recovery Program. His expertise includes utilizing databases to track trends, identification of issues and bringing the appropriate resources to remove the obstacles impeding progress to increase throughput on housing program.

Janice Haughton, Sandy Hiring Plan Implementation Manager, has served in recruitment and compliance roles on projects to meet CDBG and local hiring goals. On Sandy recovery projects, she managed the Local Referral Center in the Rockaways as part of the boardwalk reconstruction project, to recruit local residents and contractors and perform community outreach with local workforce groups, trade unions and community board members. Janice also served as Compliance Advisor on the State's Disaster Recovery Inspections program for Sandy damaged homes in Nassau County.

Robert Baptiste, M/WBE Compliance Officer, has served on similar compliance roles for LiRo, most recently for the State's Housing Recovery Program. He is familiar with all the local and federal requirements for compliance on CDBG-DR programs and has participated in our community and industry outreach efforts, contractor and design professional training, and Section 3 outreach and training.

Faisal Choudhury, PE, Homeowner Advisors/Call Center Manager, has over \$2B of experience on both FEMA and CDBG recovery programs including: the New York Rising Housing Program where he is currently serving in a management role with Homeowner Advisors ensuring homeowner satisfaction as well as expediting throughput. He was also the LiRo Project Manager for inspections for the Rapid Repairs Program where he oversaw a workforce of 102 staff which were fully mobilized in less than 50 days. Inspections were conducted by his team on over 7,000 homes for Rapid Repairs. Prior to that assignment, he was a Project Manager implementing the Sandy Recovery program getting 80,000 residents back into repaired homes. While as a DDC employee, Fais was a project manager and quadrant leader at the World Trade Center 9/11 Recovery as well as the Deputy Program Director for the Corrections Program Unit.

Joseph Massa, Technical Advisor, has extensive experience in CDBG housing programs including the NY Rising program where he is the Master Construction Manager for LiRo. He has been involved in more than a billion dollars of housing programs, including serving as a senior manager on the Rapid Repairs Program, and was the senior project manager responsible for more than \$370M of residential construction for the NYC Housing Authority.

Trang Bui, Start-Up/Hiring Plan Team, has been part of LiRo's disaster recovery management team and has served in start-up roles and embedded staff for NYC Rapid Repairs, NYC Housing Authority, and the State's NY Rising housing and community recovery programs. She was also part of DDC's 9/11 recovery team and had managed FEMA assessment teams for the Hurricane Katrina recovery in New Orleans. She has worked with NYC's non-profits and community based organizations from her experience at the Mayor's Office and the Department of Cultural Affairs and will leverage these relationships to assist in community outreach and maximizing local hires.

Jon Pantina, IT Manager, has over 17 years of experience in data management and IT systems for some of the most recognized companies in the nation. He is the system architect of the LiRo Recovery Manager software for the team performing work for the New York Rising Housing Recovery Program. He has worked as a developer, creating developing, and supporting various types of software, maintained company websites and intranets, and is familiar with a wide range of languages, technologies, databases, and web and app servers including those utilized by HRO's Case Management System.

Cara Lacey, Community Liaison, has extensive planning and outreach experience in both public and private sectors. She has advised clients including developers, architects, land owners, attorneys and on land use, zoning, policy, economic development and environmental regulations and issues. She has served as lead planner or project manager with teams on a wide range of projects including residential, coastal and rezoning efforts. Ms. Lacey has demonstrated her skills with facilitating neighborhood meetings and building relationships with neighborhoods, communities and residents as well as elected officials and legal teams. Cara was part of the planning team working on the State's NY Rising Community Reconstruction program in Brooklyn.

Alagie Sanyang, Safety Director, has extensive national and international construction safety experience. Alagie was most recently the Environment Health and Safety Director at Columbia University's multi-billion dollar Manhattanville development project. He holds an OSHA-500 and 501, and is an OSHA authorized trainer in both construction and general industry standards. He is a Board Certified Safety Professional CSP®, a Construction Health and Safety Technologist CHST®, a LEED AP, and holds a bachelor's degree in Occupational Safety and Health from the National Labor College and Master of Science in Construction Administration from Columbia University.

Resumes



The LiRo Team

Luis Tormenta, PE

Program Executive

Education

B.S., Civil Engineering, Manhattan
College

Licenses/Registrations

Professional Engineer, New York

PROFESSIONAL PROFILE

A highly accomplished leader in the region's design and construction industry, Mr. Tormenta has over 30 years of experience and has led many of New York City's complex construction projects and the administration of several public capital programs. Under Mr. Tormenta's direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. His past CDBG funded emergency projects include the 9/11 World Trade Center and 13 recent Sandy response and recovery projects. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricanes Sandy and Irene as well as emergencies such as the Cromwell Recreation Center pier collapse and the Staten Island Ferry accident.

EXPERIENCE

Emergency Response Management, Executive Manager - Under Mr. Tormenta's direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricane Sandy and Hurricane Irene. Some clients are listed below.

- NYC Health and Hospitals Corporation
- NYC Housing Authority
- NYC School Construction Authority
- Battery Park City Authority
- Dormitory Authority – State of New York
- NYC Economic Development Corporation
- NYC Department of Parks & Recreation
- Town of Oyster Bay
- Nassau County
- Suffolk County
- NYS Department of Transportation

Sandy Response

New York Rising Housing Recovery Program, Executive Manager - Senior Manager for the CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY on this CDBG-DR funded Sandy Housing Recovery Program, LiRo is assisting HCR in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days – in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

New York City Office of Management and Budget (OMB), Executive Manager - As part of the team coordinating the City's rebuilding efforts, LiRo is currently providing industry subject matter experts and specialists, project managers, engineers, architects and estimators. Our scope involves over 250 sites citywide including parks and waterfront sites that require damage inspections and assessments; certified A/E studies to identify damage, determine the required scope of repairs and/or calculate cost estimate for repairing/rebuilding damaged infrastructure; identification of hazard mitigation opportunities, preparing hazard mitigation proposals, and, if applicable, evaluating hazard mitigation proposals and A/E studies to identify hazard mitigation opportunities; and funding sources for these projects include FEMA Public Assistance, Hazard Mitigation Grant Programs and CDBG-DR.



The LiRo Team

Luis Tormenta, PE Program Executive

State of New Jersey - Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Executive Manager - This \$600 million program will provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements. LiRo was part of the team selected to be the Lead RREM Contractor to manage the implementation and operation of the Program. We were responsible for completing and managing the preparation of program policies and procedures; identify allowable activities for HUD CDBG-DR compliance; monitoring; and management of the homebuilder prequalification process to create a pool of homebuilders available to the homeowners.

New York City Rapid Repairs Program, Citywide, Executive Manager - The first of its kind, the \$604M Rapid Repairs Program is a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose properties were damaged by Sandy. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.

Lower Manhattan Infrastructure Recovery Coordinator, Project Executive - After the events of 9/11 in New York, LiRo was assigned to the coordination of the extensive amount of electric, telecommunications, steam, gas and subway work that was being performed 24/7 in the vicinity of the WTC. LiRo's responsibility had been expanded since July 2002 to include the coordination of all infrastructure work in Manhattan below Canal Street. LiRo coordinated construction activities in the region with all utilities, public agencies and private owners. (NYCDDC, \$150M)

New York City Housing Authority, CM/Build Requirements Contract, Project Principal - Under successive contracts, LiRo has been performing work on a task order basis for the largest public housing authority in North America since 2004. Properties of the New York City Housing Authority (NYCHA) total nearly 340 developments citywide with over 178,000 apartments. LiRo is providing CM/Build services for this \$280M construction program to rehabilitate and construct new facilities in the New York City region.

New York City Department of Design & Construction, Commissioner - Mr. Tormenta was appointed by Mayor Rudolph W. Giuliani to create and manage the "super construction agency" with an annual operating budget of over \$86M and a capital budget in excess of \$3B, representing over 1,200 projects and 1,400 employees. He was charged with the delivery of New York City's buildings and infrastructure capital programs, including facilities for city government and public functions, roadways, sewers, water mains and schools. He was also responsible for developing the organizational structure and operating methodology for the agency.



The LiRo Team

Michael Burton, PE

Project Executive

Education

B.S., Manhattan College

M.B.A., Fordham University

Ph.D., honoris causa, Manhattan College

Licenses/Registrations

Professional Engineer, New York

Awards

Engineering News-Record - Award of Excellence

New York Building Congress - George A. Fox Award for Public Service

American Council of Engineering Companies (ACEC) - President's Award

American Society of Civil Engineers - Construction Management Award

Boards/ Memberships

Member of Mayor Bloomberg's Construction Cost Panel

Board of Directors, NY Building Congress 2003 - 2008

Chairman, Public Buildings Committee, NY Building Congress, 2003 - 2007

Chairman, Infrastructure Committee, NY Building Congress, 2007 - 2008

PROFESSIONAL PROFILE

Mr. Burton is a recognized industry leader who has managed some of the nation's largest public and private capital program portfolios. He has served as Senior Vice President and National Operations Manager responsible for \$50B of design and construction work in aviation, bridge, highway, transit and infrastructure programs. As Executive Deputy Commissioner at the NYC Department of Design and Construction (DDC), he was responsible for the capital programs for the majority of New York City's agencies. At DDC, Mr. Burton was responsible for a capital construction portfolio of \$4.1B, consisting of over 900 building projects managed by 1,300 employees spanning the Giuliani and Bloomberg administrations. One of his significant public sector accomplishments was his management of the World Trade Center 9/11 Recovery, the largest peacetime mobilization of the design and construction industries in U.S. history, for which he received Engineering News-Record's Award of Excellence, the industry's highest award. The success of this effort was reflected in the City's receipt of 100% FEMA, CDBG and HUD reimbursement and their unprecedented decision of no final audit due to the diligent documentation undertaken by the City agencies. He is currently part of the LiRo team performing work for the New York Rising Housing Recovery Program for the NYS Homes and Community Renewal.

Mr. Burton's experience also includes numerous disaster and emergency response/recovery. In addition to his management of the World Trade Center 9/11 Recovery, he also led the Hurricane George response in the Dominican Republic while at DDC, as well as the remediation of structural damage at Yankee Stadium. For Hurricane Katrina, he directed a team for a national CM/PM firm that included recovery programs in Louisiana, Alabama, Mississippi, and Texas. For Hurricane Sandy, he was among the key advisors to NYCHA's Capital Planning Division in their initial response to assess and restore utilities to the most severely damaged developments and is also involved in the long-term Sandy recovery programs in New York and New Jersey funded by FEMA, HMGP, CDBG-DR and U.S. Army Corps of Engineers.

EXPERIENCE

The LiRo Group, Senior Vice President and National Operations Manager

Responsible for high-profile projects on the East Coast and West Coast including serving as Project Executive for the New York Public Library's \$300M renovation and addition, CUNY Baruch College's \$170M Field Building renovation, and SUNY Stony Brook's \$250M New Medical and Translational Research Facility.

Sandy Response

Mr. Burton has been leading LiRo's post-Sandy recovery efforts for our public sector clients. As the local leader providing construction management and owner's representation on Sandy CDBG recovery programs in the New York Metropolitan area, we have been advising clients on compliance issues for HUD CDBG-DR that encompasses compliance with state and federal requirements as well as quality assurance functions for each program. The following are some of the largest federal and local recovery programs in the region.

- **New York Rising Housing Recovery Program** Senior Manager for the CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY on this CDBG-DR funded Sandy Housing Recovery Program, LiRo is assisting HCR in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days – in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.



The LiRo Team

Michael Burton, PE

Project Executive

- **New York City Office of Management and Budget (OMB), Project Executive:** LiRo is part of the team providing management, accounting and technical expertise to OMB in support of its strategic management of claims development and administration related to FEMA's Public Assistance program. To date, LiRo has prepared, reviewed, revised and negotiated FEMA project worksheets for over 430 sites impacted by Sandy, accounting for the expenditures related to Sandy response by City agencies recouping over hundreds of millions for the City.
- **State of New Jersey - Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Project Executive:** LiRo was the subconsultant on this \$600 million program which will provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements.
- **New York City Rapid Repairs Program, Citywide, Project Executive:** The first of its kind, the \$604M Rapid Repairs Program is a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose properties were damaged by Sandy. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.

International Engineering and Construction Management Firm, Senior Vice President and National Operations Manager: Mr. Burton was responsible for the operations of a national 1,400-person construction division with a portfolio valued at more than \$50B of design and construction projects. Additionally, Mr. Burton managed the firm's New York engineering and architectural operations. Significant projects include: UCLA Westwood Replacement Hospital (\$1B), Harvard University Laboratory (\$1B), Harvard University Cultural Program (\$350M), McGill University Health Center (\$1.8B), Atlanta-Hartsfield Airport (\$6.7B), GSA Brooklyn Courthouse (\$750M), and Los Angeles Unified School District (\$1.5 billion).

New York City Department of Design & Construction, NY, Executive Deputy Commissioner - Mr. Burton was responsible for the day-to-day operations of agency that designs and builds the majority of New York City's public buildings, roads, water and sewer projects with annual budget exceeding \$1.1 billion in 2002. He managed a staff of 1,300 design and construction professionals who executed a portfolio of design and construction projects valued at over \$4.1 billion. He planned and implemented initiatives to execute Mayor Giuliani's mandate to create a more efficient capital construction program. Mr. Burton acted as project executive and on-site project manager for several high-profile emergency projects, including management of the World Trade Center Recovery, starting on 9/11. Infrastructure accomplishments resulted in 2,708-lane miles milled, 537 lane miles of roadway, 638 miles of water mains, 440 miles of reconstructed sewers, and 8,500 new sewer connections. Other significant projects include: Mayor/City Council Schools Program (\$644 million), Rikers Island Facilities (\$420 million) and Safe Streets Program. (\$177 million)



The LiRo Team

Brant Aidikoff, PE, CCM

Project Manager

Education

B.S., Engineering, Cornell University
M.S., Nuclear Engineering, Cornell University

Licenses/Registrations

Professional Engineer, New York
Professional Engineer, New Jersey
Certified Construction Manager,
New York

Certifications

OSHA 10 Certified

PROFESSIONAL PROFILE

As an engineer with more than 35 years of experience managing complex, large-scale programs including disaster recovery programs, Mr. Aidikoff is a recognized leader in the NYC construction management community. He is currently serving as a senior manager on the NY Rising Housing Program providing QA review of the program's processes and documentation to ensure CDBG-DR compliance; preparation for HUD visits and audits; and maximizing workflow and staffing efficiencies. His prior CDBG-DR recovery experience includes working for DDC in responding to the 9/11 World Trade Center attack where he was specifically requested by DDC to help in the \$700M infrastructure recovery and reconstruction efforts for the two years following the attacks. Based upon his performance working for DDC, Brant was then asked to serve as the Program Manager for the \$18B World Trade Center reconstruction effort for the Lower Manhattan Construction Command Center.

EXPERIENCE

New York Rising Programs, QA/QC - The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program is also part of this program.

- **New York Rising Small Business Recovery Program** - Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.
- **New York Rising Housing Recovery Program** - Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

Lower Manhattan Development Corporation, Lower Manhattan Construction Command Center, NY Program Coordinator - In addition to the weekly project status meetings that Mr. Aidikoff had been coordinating since 9/11, Mr. Aidikoff's responsibilities again expanded to include logistical coordination for both infrastructure and structures in Lower Manhattan. The LiRo team has developed state of the art program management tools that interface project schedules with geographical information systems so that construction impacts on roads and thoroughfares can be assessed. This was the first part of a massive logistical assessment that has analyzed steel, concrete, equipment and labor demand vs. supply in entire NYC metropolitan region. Meetings were held with City agencies and every major NYC construction organization. Task forces were formed to deal with the logistical issues that had been identified as a part of the assessment process. (\$18 billion)

Port Authority of New York & New Jersey, WTC Program Assessment, NY, Project Coordinator
In June 2008, the Port Authority requested that LiRo facilitate an assessment of the schedule, budget and challenges for the World Trade Center construction program. Mr. Aidikoff led a team of both LiRo employees and subconsultants that worked with Port Authority and other stakeholders. The report identified the key challenges confronting the project and then risked the program schedule and budget. The report was provided to the executive director of the Port Authority and was the basis of a report provided to Governor Patterson in July 2008.

New York City Department of Design & Construction, Lower Manhattan Infrastructure Recovery Coordinator, NY - After the events of 9/11, Mr. Aidikoff was tasked with the coordination of the intensive amount of electric, telecommunications, steam, gas and subway



The LiRo Team

Brant Aidikoff, PE, CCM

Project Manager

work that was happening around the clock in the vicinity of the World Trade Center. The responsibility was expanded after July 2002 to include all infrastructure work in Manhattan below Canal Street, involving two dozen projects going on simultaneously. Mr. Aidikoff held weekly meetings with the utilities companies, agencies and construction companies who had projects in the downtown area and later held an executive status meeting for city commissioners to provide an update of ongoing projects. (\$700 million)

New York City Department of Design & Construction, Reconstruction of Times Square, West 42nd Street to West 47th Street, NY, Program Coordinator - This four year project involves road reconstruction in Manhattan of Broadway and Seventh Avenue from 42nd Street to 47th Street. The Broadway portion of the project involves the construction of a pedestrian mall using concrete pavers on a bonded mortar base and large granite benches. In addition, the project includes water main, sewer, catch-basins and the installation of a subgrade special event electrical power and control system. The entire project is over private building vaults, New York City Transit Subway lines, and underground pedestrian walkways. This project required the completion of a substantial portion of the project in time for the New Year's Eve celebration at the end of 2013. This involved the resolution of design issues with the paver system, maintaining 24 hour access to businesses, coordination of daily broadcasts of Good Morning America, special events and movie shoots, accommodation of building renovations, and ensuring the safety of over 100,000 visitors per day. Work proceeded on a seven day double shift schedule, with twice weekly comprehensive detailed project meetings with CPM schedules updated and maintained by LiRo. Meeting attendees included the DDC, NYPD, NYC DOT, NYS DOT, and Times Square Alliance, building owners, MTA, Con Edison and Verizon. (\$46 million)

Previous Experience

New York City Department of Design & Construction, Remediation at 60 Sites for the NYCDDC, Soil and Groundwater Remediation, NY - Projects included the design and construction of remediation systems, which consisted of the installation of ground water and soil vapor extraction wells that are piped through a series of excavation trenches to multi-phase, soil vapor or pump and treat systems. The multi-phase systems included liquid ring pumps, phase separators, oil water separators, carbon filters, air strippers, transfer pumps, blowers and a host of sensors connected to a remote communication device for system monitoring. Bioremediation installations included geoprobe borings and the injection of a bioslurry with oxygen releasing compounds or a bio mix with active hydrocarbon digesting bacteria. (\$23 million)

New York City Department of Design & Construction, Petroleum Storage Tank Projects, NY

Mr. Aidikoff managed the design, replacement, upgrade and closure of above-ground and underground storage tanks at over 250 city sites. These projects required site investigation, design, pre-qualification of contractors, management of bid awards and coordination of construction with contractors. Tank sizes varied from 250 to 25,000 gallon tanks. Projects included asbestos abatement, fuel conversions from oil to gas and permits with the New York City Building Department, Fire Department, Department of Environmental Protection and New York City Department of Transportation. (\$37 million)



The LiRo Team

Mark Howard

Deputy Project Manager

Education

B.S., Sociology, Louisiana State University

Certifications

Licensed Construction Contractor

PROFESSIONAL PROFILE

Mr. Howard is an accomplished, decisive, and knowledgeable program manager with extensive experience in the development, management, and implementation of HUD CDBG disaster recovery housing programs. He has managed housing programs valued at over \$1B for the State of Texas recovery after Hurricanes Ike (\$300M) and Dolly (\$700M) and the Katrina recovery. Mark helped design the program and has implemented the successful training programs for design professionals and contractors which greatly increased capacity and throughput. Locally he has been involved with NJ and NYS GOSR Housing programs. He also implemented the homeowner awareness public forums which greatly increased homeowner satisfaction and continues to promote homeowner understanding of the program as a senior manager working with the LiRo Homeowner Advisors who have answered more than 7,500 homeowner questions in the past year. In addition to a diverse background in construction and program management, Mr. Howard also brings organizational leadership capabilities from his 27 years of military service. He has held senior and executive level positions in government agencies and private sector firms.

EXPERIENCE

New York Rising Programs, Program Advisor. The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program was recently launched and Mr. Howard was part of the team that developed and rolled out this program.

- **New York Rising Small Business Recovery Program**
Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.
- **New York Rising Housing Recovery Program**
Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

Hurricane Katrina CDBG-DR Recovery Program, Mississippi Gulf Coast - Mr. Howard was the Capture Manager, Technical Lead, and Program Manager for the MDA Hurricane Katrina Housing Recovery Program, responsible for the policy development, organizational leadership, and delivery of program management and support services for numerous housing programs with over \$700M in HUD CDBG-DR funding from Hurricane Katrina. Mr. Howard led the overall development of the program management policy and processes, technical aspects of eligibility and National Environmental Policy Act (NEPA) processing, construction program development and management, and technical assistance to the MDA and sub recipients. The programs delivered for the MDA include:

- Neighborhood Home Program, \$132M, 2010-2013
- Long-term Workforce Housing Program, \$350M, 2009-2010
- Alternative Housing Pilot Program, \$20M, 2009-2010
- Neighborhood Rental Restoration Project, \$107M, 2009-2010
- Small Rental Assistance Program, Rounds 1&2, \$104M, 2008-2010
- Elevation Grant Program, \$70M, 2008-2010

SETRPC Hurricane Ike Housing Recovery Program, Round 2, Southeast Texas - Mr. Howard was the Deputy Program Manager for a \$190M single and multifamily CDBG-DR housing recovery program from Hurricane Ike. Mr. Howard was responsible for the overall strategic planning,



The LiRo Team

Mark Howard

Deputy Project Manager

operational development, client interface, staff supervision, and program production for over 1200 single and multifamily housing units. Key actions included the program design, outreach, applicant intake and eligibility, environmental review, construction plans and construction management of the program. Mr. Howard was the organizational lead for over 150 program and production staff managing the program.

LRGVDC Hurricane Dolly Housing Recovery Program, Round 2, McAllen, Texas - Mr. Howard was the Deputy Program Manager for a \$124M single and multifamily CDBG-DR housing recovery program from Hurricane Dolly. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1000 single and multifamily housing units. Mr. Howard took an active role in developing and analyzing high poverty areas known as *Colonias* to assist the low to moderate income residents with the program. Key actions included the outreach, applicant intake and eligibility, environmental review, construction plans and construction management of the program. Mr. Howard was the capture manager and organizational lead for over 150 program and production staff.

City of Galveston Hurricane Ike Housing Recovery Program, Round 1, Galveston, Texas - Mr. Howard was the Deputy Program Manager for a \$167M single family CDBG-DR housing recovery program from Hurricane Ike. Mr. Howard developed key relationships with local advocates in the City to create a viable program in an environment that was adverse due to the languishing recovery timeline. Due to the sweeping reforms and actions taken by Mr. Howard and his team, the City's program was revitalized and put on a course for success. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1000 single housing units, many of which were take-over houses due to failed contractors. Key actions included the Assessment of the Program, Recovery Planning, outreach, applicant intake and eligibility, environmental review, construction plans and construction management of the program. Mr. Howard was the organizational lead for over 150 program and production staff.

SETRPC Hurricane Ike Housing Recovery Program, Round 1, Southeast Texas - Mr. Howard was the Deputy Program Manager for a \$195M single family CDBG-DR housing recovery program from Hurricane Ike. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1200 single and multifamily housing units. Key actions included the development of a construction management program that included contractor procurement, plans and specification development, inspections procedures, web based data management systems, staff training, contractor management, and overall production for the program. Mr. Howard was the organizational lead for the program and production staff, serving as the key leader and technical resource.



The LiRo Team

Joseph Massa

Technical Advisor

Education

B.S., Accounting, C.W. Post

Certifications

OSHA 10 Hour Safety
Standards for Construction

NYC DOB – Certificate of Training

PROFESSIONAL PROFILE

Mr. Massa has extensive experience in CDBG housing programs, currently serving as the Master Construction Manager on the NY Rising Housing Program that serves single- and multi-family, co-ops and condos, and small business recovery. He has been involved in more than a billion dollars of housing programs, including serving as a senior manager on the Rapid Repairs Program. He is also LiRo's Vice President for Compliance and has managed LiRo's NYCHA contracts for the past decade, responsible for more than \$370 million of residential construction, as well as ensuring Section 3 compliance and maximizing utilization of D/L/M/WBEs. His experience with Sandy housing recovery and extensive project and contract management experience on multiple on-call contracts with the NYC Housing Authority will be an asset to this proposed team.

EXPERIENCE

New York Rising Programs, Master Construction Manager - The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program was recently launched and Mr. Massa was part of the team that developed and rolled out this program.

- **New York Rising Small Business Recovery Program**

Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.

- **New York Rising Housing Recovery Program**

Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

New York City Housing Authority, Hurricane Sandy Response, Emergency Response Coordinator - In the immediate aftermath of Hurricane Sandy, LiRo assisted NYCHA in its response to assess the 250+ buildings in 32 developments that experienced the worse damage from the storm – the Rockaways in Queens, Coney Island in Brooklyn, and Lower Manhattan. LiRo's senior management with 9/11 and Hurricane Katrina experience, drafted an action plan with NYCHA's Capital Program and within 24 hours, mobilized New York City's largest electrical and mechanical contractors to participate in this joint Utility Restoration Assessment effort.

New York City, Rapid Repairs Program, Emergency Response Coordinator - Part of LiRo's contract for the \$550M Rapid Repairs Program, a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose properties were damaged by Sandy. Mr. Massa coordinated the deployment of LiRo's inspectors and home office resources to support the start-up team at two main field offices in the most impacted areas of New York City. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.

Nassau County STEP Program, Emergency Response Coordinator - Designed and implemented by LiRo to assist Nassau County's efforts to return homeowners to their properties damaged by Superstorm Sandy, the innovative Sheltering and Temporary Essential Power (STEP) Program matched contractors with homeowners to assess the damages to their homes and make the necessary emergency/temporary repairs so that these households can have safe power, heat and hot water to shelter in place while performing permanent repairs. Mr. Massa coordinated the deployment of LiRo's inspectors and home office resources to support the start-up team and



The LiRo Team

Joseph Massa

Technical Advisor

assisted with contract management of all the subcontractors.

New York City Housing Authority CM/Build Requirements Contract, Manager of Procurement/Subcontractor Services - Mr. Massa's responsibilities include managing the contractor prequalification process for NYCHA, over-seeing estimates, constructability review and schedule, Bid and Award, change order review and negotiation, preparing budgets, contracts and schedule management, RFP coordination, abatement coordination, construction oversight and closeout. Under this contract, LiRo is performing work on a task order basis. Currently, we are in the design or construction phases of roofing facade repair projects, boiler room upgrades and electrical system upgrades throughout New York City. These properties all require that LiRo perform pre-construction and construction phase services. LiRo is responsible for pre-qualifying prime contractors, bid administration for the projects and ultimately entering into contract with the lowest responsible prime contractor. (NYCHA, \$330M).

Dormitory Authority of the State of New York, HHC Emergency Power Generators, New York, NY, Assistant Project Manager - The scope of work for this contract consisted of demolition and reconstruction of outdated Emergency Power Systems at six hospital trauma centers and various other smaller hospital facilities located in the New York City area. The contract required LiRo to prepare cost estimates for the various types of work in the projects. Typical elements of work for these projects included: Emergency Generators, paralleling switchgear, remote radiators for generator cooling systems, power distribution panels, underground fuel oil storage systems and conduit & wire distribution to all associated equipment. (\$59 million)

New York City Economic Development Corporation, Yankee Stadium City Work, Manager of Procurement/Subcontractor Services - LiRo provided construction management services during the design and construction of the Yankee Stadium City Work Program. Major components of this program include a new waterfront park; two new ballfields; rehabilitation and renovation of a historic building to achieve LEED Gold certification; rehabilitation of the retaining wall and sidewalk widening near Yankee Stadium; and the installation of a new 20" water main and a 36" sewer main. The LiRo team was involved in coordinating the work for and under jurisdictions of multiple state and city agencies. Mr. Massa's responsibilities include managing the contractor prequalification process, preparing budget, contract and schedule management, close-out and construction start up coordination with LiRo staff and contractors. (\$85M)

Dormitory Authority of the State of New York, Fiterman Hall, NY - This project consisted of deconstruction of Fiterman Hall, contractor prequalification, and review of Bids. (\$20 million)

New York City School Construction Authority - Contractor prequalification, contract preparation and review. Managed Special SCA audit of Projects. (\$237M)



The LiRo Team

Chad Herndon

Lead Construction Manager

Education

BBA, Marketing, Northeast Louisiana
University

Certifications

OSHA 10 Certified

PROFESSIONAL PROFILE

Mr. Herndon is a Program Manager and has served in this capacity for infrastructure, HUD CDBG funded Programs and FEMA Public Assistance projects for the last 10 years. He is a housing recovery expert who has served in numerous roles working on over 8,000 homes for Hurricane Ike, Rita and Katrina in Texas and Mississippi. In addition, as construction manager on the NY Rising Program he helped develop the Program's standards and specifications, the 15,000 damage assessment program and the construction inspection program. Most recently he managed the closeout program for NY Rising. His dedication to his projects and leadership style is cultivated from more than 24 years of service as an Army Engineer Officer, bringing organizational management skills and the ability to form and train groups of people into production oriented teams. Mr. Herndon has managed numerous federal and state infrastructure construction projects from design through construction, and specializes in program management of HUD CDBG funded programs. He ensures that all of the aspects of the project plan are executed and that progress and compliance are properly, addressed, and communicated.

EXPERIENCE

Project Manager, South East Texas Regional Planning Commission, Hurricane Ike Housing Recovery Program Round 1 - Developed the overall design and construction program for 567 single family projects across 26 communities in three southeast Texas counties. The program management process included developing a project approach that included professional services to design and deliver the individual projects in an efficient manner with a focus on cost, schedule, and quality. Led a multi-disciplined team of planners, architects, construction managers, and finance specialists to deliver the program, complying with HUD, TDHCA, and local procurement requirements. His organizational management capability proved valuable as the program required the coordination and negotiation with numerous communities, stakeholders, and state level oversight agencies to comply with building code, windstorm, accessibility, and health code requirements. To date, the program delivered more than 200 of the most cost efficient, professionally designed, sustainable housing projects ever built under a post disaster CDBG housing program.

Lead Planner, Construction Management (CM) Planner, MDA, Neighborhood Home Program - Developed the overall program design for pre-construction and construction management of the \$132M CDBG-funded program. Developed the process and protocols for the assessment, scope development and cost estimation for the rehabilitation of more than 8,000 single-family housing units damaged by Hurricane Katrina. Led a multi-disciplined team of planners, construction managers, inspectors, and cost estimator to develop and deliver the program, complying with HUD, MDA, and local code requirements. His organizational management capability proved valuable as the program required the coordination and negotiation with numerous communities, across a nine-county area.

State of New York, New York Rising Housing Recovery Program Technical Advisor Services - Work as a consultant to the Master Construction Manager for the State-lead, HUD CDBG-DR Grant funded Housing Recovery Program. Have provided assistance with the design and implementation of all aspects of damage assessment, scope of work development, pricing and design for repair and reconstruction of single family housing projects. Develop policies, procedures, forms, documents, training materials and presentations for supported elements of the program design. Lead all outreach efforts to enlist Design Professionals and General Contractors for the program. Develop and present all training materials for information meetings and workshops. Assist with HUD Policy interpretation and compliance measures for the Construction Administration portion of the Program Design. Developed Housing Minimum Design Standards for Repair and Reconstruction projects that are funded with program dollars.



The LiRo Team

Chad Herndon

Lead Construction Manager

New Jersey Reconstruct, Rehabilitate, Elevate and Mitigation (RREM) Program Policy Design and Planning - Worked with the State of New Jersey Division of Community Affairs to assist with the early program design and implementation of the HUD CDBG-DR funded Housing Recovery Program. Specific areas of focus included protocols for initial damage assessments, environmental assessments, scope of repair work identification and pricing and supporting policies, procedures and forms. Also developed and presented pre-qualified construction contractor program training materials. Was responsible for leading the programmatic design and implementation of composite pricing for over 100 standardized home designs. Led the design team through the development of Minimum Housing Design Standards for Rehabilitation and Reconstruction for the program.

New York City Build It Back Program Programmatic Planning & Design and Policy Development - Worked with Housing Recovery Office staff to assist with the initial program design of the HUD CDBG-DR Grant funded Single Family Housing Recovery program. This included the development of preliminary Minimum Housing Repair Design Standards and Specifications, procedures for initial damage assessments, development of construction scopes of work, construction progress inspections and all other construction administration program functions. Continue to provide Technical Assistance as required for Design and Construction Administration related issues.

Project Manager/Client Manager Port of Lake Charles New Main Gate and Security Force Headquarters Building Project - Assigned as the Project Manager and Client Manager for the initial design study and full services design of construction documents and bid documents. The project was funded with a mix of Homeland Security Grants and matching of state funds. The project included the design of a new main gate entrance that was relocated on the facility to allow for more efficient traffic flows. The design also incorporated the most recent developments in Anti-terrorism and Force Protection features as well as other port facility features. The project program also included a Headquarters facility for the Port Authority Security Forces. The design was completed and bid within budget. The last phase of the project is nearing completion of construction.

Project Manager, Building Assessment and Design Services, Medical Center of Louisiana at New Orleans (Charity Hospital Complex), FEMA PA Program - Mr. Herndon was the Project Manager for a highly complex and very contentious disaster recovery project involving a major hospital complex in the City of New Orleans following Hurricane Katrina. Selected for his organizational and negotiating skills, Mr. Herndon led the project team which entails organizing and conducting a review of 23 Katrina-damaged buildings on a medical campus occupied by the Charity Hospital System Services totaling 2 million sf. The task of the team was to assess the storm-related damages which occurred at these facilities and reconcile them with the initial scope of damage assessments prepared by FEMA. Mr. Herndon was able to quickly mobilize teams of mechanical and electrical engineers together with architects to conduct detailed inspections of all 23 buildings and document findings of the storm related damages. This information was packaged into a scope of work and was used to determine an initial budget estimate for full storm recovery construction repair and replacement costs. These tasks were completed for all of the 2 million sf within 90 days. The research, detailed investigations, and documentation carried out by the project team culminated in a detailed cost estimates for FEMA reimbursements to complete storm recovery and represented one of the largest, single requests for FEMA participation in history with a final settlement of \$474M.



The LiRo Team

Joanna Pestka, FAIA

Lead Design Manager

Education

M.A., Architecture, Warsaw
University of Technology

Licenses/Registrations

Registered Architect, NY

Certifications

American Institute of Architects/AIA
New York Chapter- Chair Fellows
Committee

International Union of
Architects/UIA

American Library Association/ALA

Awards

American Institute of Architects-
National Fellowship

American Institute of Architects/NY
Chapter- Public Architect Award

PROFESSIONAL PROFILE

Ms. Pestka is a registered architect with nearly 40 years of experience. She is an award-winning design manager and National Fellow of the American Institute of Architects. She has extensive experience managing multiple capital project profiles for major clients, and equally important, she has for the last 20 years managed portfolios of projects that in aggregate exceed more than a thousand projects valued at over a billion dollars. Ms. Pestka has been responsible for managing the design process for many critical projects. Her achievements are familiar to DDC, where she served an Assistant Commissioner for the Libraries, Transportation and Cultural program units with a portfolio of 250 projects valued at \$300M.

EXPERIENCE

The New York Public Library, Capital Planning and Construction, New York, NY, Vice President for Capital Planning and Construction - Ms. Pestka managed a capital project portfolio of over 150 projects [\$300M] for 92 Research and Branch Libraries, working with a professional staff of 10. She oversaw the implementation of design and construction from initiation to project completion and occupancy, defined programmatic and physical building needs, and developed implementation strategies for funded projects. Ms. Pestka reported to the Real Estate Committee on critical projects progress and funding, and ensured alignment of capital planning with the library strategic plan. She worked closely with the Department of Design and Construction [DDC] on city funded projects and pass-throughs. She led the design process of all critical projects and thoroughly monitored their completion schedules and adherence to the budget. Ms. Pestka also oversaw and directed in-house design and construction of all privately funded projects. Major completed projects included: the SASB Facade Restoration (\$50M), a new Library Services Center (\$50M), Bronx Library Center (\$46M), and numerous library rehabilitation and new construction projects.

The City University of New York, Department of Design Construction and Management - New York, NY, Director - Ms. Pestka managed a billion dollar capital program of over 300 design and construction projects for 19 CUNY campuses, including major new construction as well as rehabilitation of existing facilities. She developed policies and procedures for the Department, and supervised a staff of 20 professionals (architects, engineers and contract officers). She reviewed and confirmed facility programmatic requirements and managed development of master plans in close cooperation with college representatives. Ms. Pestka managed and ensured progress of design and construction projects, monitored cost control, and advised in problem solving. She oversaw procurement of professional and contracting services, and worked closely with the Dormitory Authority on implementation of construction work, schedules and budgets. Ms. Pestka advised the Vice Chancellor and Chancellor on the Department's work and prepared presentations for review and approval of the Board of Trustees, State and City officials. She also oversaw major new construction projects, including: Baruch College Vertical Campus [\$354M] by KPF; West Quad Building at Brooklyn College (\$137M) by Viñoly; Academic Building at Medgar Evers College (\$235M) by Polshek; and John Jay College (\$587M) by SOM; Major rehabilitation projects included: City College Shepard Hall (\$110M) by Stein; Powdermaker Hall at Queens College (\$65M) by Mitchell/ Giurgola; and School of Architecture at the City College (\$86M) by Viñoly.

New York City Department of Design & Construction, Structures Division - Long Island City, NY, Assistant Commissioner - Ms. Pestka managed a \$300 million portfolio of over 250 Capital Projects in design and construction for Cultural Institutions and Libraries. She supervised professional staff of about 100 and provided guidance to Program Directors and participated in development of policies and procedures for the Division of Structures. Ms. Pestka served as an agency liaison with the Department of Cultural Affairs and maintained strong and effective relationship with client and regulatory agencies. She developed and implemented effective strategies in management of design and construction projects and realization of clients' goals. She ensured timely implementation of the Commitment Plan and project delivery, and served as a



The LiRo Team

Joanna Pestka, FAIA

Lead Design Manager

voting member on the Executive Consultant Selection Committee. Ms. Pestka prepared presentations and reports to Commissioners, client agencies and City officials. She represented the agency before government agencies having jurisdiction, the community and the private sector. The major projects that Ms. Pestka managed and oversaw included: New Flushing Library (\$24M) by Polshek; Expansion of the Studio Museum of Harlem (\$8M) by Rogers/ Marvel; Brooklyn Museum Entry Pavilion and Plaza (\$12M) by Polshek; Reconstruction of Haupt Conservatory (\$12M) by Beyer Blinder Belle; Expansion of the New York Hall of Science (\$25M) by Polshek; PS1 Museum: Contemporary Art Center/ MoMa (\$8M) by Fisher/ Prendergast; and American Museum of Natural History Rose Center for Earth and Space by Polshek.

New York City Department of General Services, Bureau of Building Design, NY, Deputy Assistant Commissioner - Ms. Pestka managed a 300 Capital Project portfolio for cultural institutions, libraries and transportation units valued at over \$500 million in construction cost. She provided guidance to Program Directors in management strategies and implementation of the Commitment Plan. Ms. Pestka monitored progress of design and construction projects, and advised senior management of staffing and resources needs. She served as a voting member on the Executive Consultant Selection Committee, and prepared presentations and reports to Commissioners, client agencies and City officials. Ms. Pestka represented the agency before government agencies, the community and the private sector.

Program Director - Ms. Pestka directed and managed the Cultural Institutions Program of over 120 Capital Projects and \$150 million budget for the primary client; the Department of Cultural Affairs. She evaluated client agency needs and advised in formulation of long-term goals and appropriate implementation strategies. Supervised development and administration of pass-through contracts for Cultural Institutions. Ms. Pestka managed design and construction delivery, advised and informed the Commissioner on progress and status of the Cultural Institutions program. She also coordinated funding needs and approvals for all projects with the Office of Management and Budget.

Assistant Program Director - Ms. Pestka assisted the Program Director in managing the Health and Cultural Institutions Units. She oversaw development of project programs, budgets and schedules, in coordination with client. She also developed contracts, participated in consultant selection, managed design process, contractor bidding and construction monitoring. Ms. Pestka assisted the Program Directors in training of project managers, and worked closely with staff advising in managing capital construction projects and problem solving.

Project Manager - Ms. Pestka managed design development and construction documents for capital construction projects in various public buildings. She worked with client agencies and managed review team of architects and engineers on numerous rehabilitation projects, from programming to occupancy.

Syska & Hennessy Inc. New York, NY, Designer - Ms. Pestka was responsible for lighting design for institutional and commercial buildings, as well as coordination with clients in development of designs within program and budget. She managed production of design development and working drawings.

Institute of Environmental Studies Architecture and Urban Planning - Warsaw, Poland, Designer - Ms. Pestka was responsible for urban planning and architectural design, including modernization and adaptive reuse for large-scale governmental projects. She prepared building and site development proposals, and feasibility studies.



The LiRo Team

Thomas Anderson, PE, RA

Design Project Manager

Education

B.Arch., Architecture, Southern California Institute of Architecture

B.S., Civil Engineering, Stanford University

Licenses/Registrations

Professional Engineer, New York

Professional Engineer, California

Registered Architect, Pennsylvania

Registered Architect, Washington, DC

Registered Architect, Virginia

Registered Architect, New York

Registered Architect, Connecticut

PROFESSIONAL PROFILE

Mr. Anderson is an architect and engineer with more than 35 years of experience directing the design and construction of residential, government, commercial, educational, and aviation facilities in the United States and abroad. He has extensive CDBG housing experience and is part of the NY Rising Sandy Housing Program as a Team Leader. He has also helped launch CDBG-DR Small Business and Multi-Family/Rental programs. A leader in both the architectural and engineering disciplines, he was selected as an expert in architecture and urban design by the United Nations, and has since supervised urban design for new towns and a capital city. With his unique multidisciplinary background, Mr. Anderson is skilled at effectively integrating diverse design teams and leading challenging projects to successful completion. He has provided executive oversight for a variety of large-scale projects including the design and construction of major adaptive reuse facilities; multimillion-dollar task-order contracts; and fast-track design-builds for high-security facilities, including blast-resistant design. Mr. Anderson taught Graduate Architecture and Urban Design courses for seven years and is currently writing a book on bridge design.

EXPERIENCE

New York Rising Programs, Team Leader - The CDBG-DR funded small business and housing recovery programs is administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family/co-ops and condos program is also being developed as part of this program.

- **New York Rising Housing Recovery Program – Team Leader**

Mr. Anderson was a Team Leader executing a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days – in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

- **New York Rising Small Business Recovery Program – Project Manager**

Mr. Anderson oversees damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.

New York State Office of General Services, Architectural/Engineering Services Term Contract, NY, Principal-in-Charge - Supervised the design of elevator upgrades for the New York State Office of General Services (NYSOGS) as part of an architectural/engineering services term contract. A significant portion of the upgrades focused on accommodating Americans with Disabilities Act (ADA) guidelines for larger elevator cabs within existing and historic buildings. Mr. Anderson also oversaw the reconfiguration of a central building core, and lobby and circulation spaces, as well as HVAC upgrades.

Columbia University, Architectural/Engineering On-Call Contract, NY, Principal-in-Charge -

Responsible for management of an architectural/engineering on-call contract with Columbia University in Manhattan. Mr. Anderson oversaw the condition assessment, a feasibility study, and design of renovations to Prentis Hall. He also provided oversight for a condition assessment and study for the upgrade and retrofit of Hogan Hall and Plant and Scrymser Pavilions, design of the gut rehabilitation of graduate student housing; design and construction phase services for Baker Field Tennis Center, design review for Lenfest Hall, and scope and condition assessment for a new facility on the Manhattanville Campus.

New York City School Construction Authority, CIP Task-Order Services, NY, Principal-in-Charge-

Oversaw five consecutive task-order contracts, with services including pre-design, design development, construction documents, and construction phase services, for the New York City



The LiRo Team

Thomas Anderson, PE, RA Design Project Manager

School Construction Authority (NYCSCA) Capital Improvement Plan (CIP). Mr. Anderson managed projects ranging from \$750,000 to \$35 million in construction cost. Projects included building conversions, façade replacement, and classroom and building upgrades.

MTA - Long Island Rail Road, Penn Station Vision Study, NY, Co-Principal-in-Charge - Provided design and management oversight to the project team to provide concept designs to re-organize the multiple levels and passageways of the existing LIRR waiting areas and track access to bring light and direct access from the street to the platform levels. This complicated study identified the existing platform alignments as the given departure point and completely re-oriented the waiting and access to the platforms to make them intuitively directional for the passengers.

New York City Department of Design & Construction, Queens Museum of Art Expansion, NY, Principal-in-Charge - Directed architectural design of a 137,000 sf project to double the exhibition space of the Queens Museum of Art in Corona, New York. The expansion gave the museum more visibility, and new gallery space improved educational functionality. The new space also includes a large public assembly area.

New York City School Construction Authority, Net-Zero Energy School Competition, NY, Principal-in-Charge - Managed the design process to produce a net-zero design for the New York City School Construction Authority (NYCSCA). The primary school, in Staten Island, New York was to serve as a prototype for future sustainable schools in the city. Net-zero facilities produce as much energy as they consume.

Port Authority of New York & New Jersey, 42nd Street Bus Terminal Condition Inspection and Renovation, NY, Principal-in-Charge - Oversaw the structural inspection and remedial design of columns, beams, and slabs for the 42nd Street Bus Terminal on the west side of Manhattan as part of a \$1 million on-call contract with the Port Authority of New York and New Jersey (PANYNJ). The terminal covers two full city blocks and is 10 stories in total, including three below-grade levels. The inspection included analysis of the North and South wings' steel-framed, cast-in-place concrete structural systems.

MTA - Metropolitan Transportation Authority, Smith and Ninth Street Station Upgrades, NY, Co-Principal-in-Charge - Managed architectural and engineering design of station upgrades to an 80-year-old elevated subway station. Mr. Anderson coordinated the design team and supervised the completion of concept through construction documents to rebuild the Metropolitan Transportation Authority station spanning the Gowanus Canal in Brooklyn, New York.

United States Army Corps of Engineers, United States Military Academy New Cadet Barracks, NY, Principal-in-Charge - Leading the planning for this 286,000 sf new barracks building at the United States Military Academy in West Point, New York. The \$200 million project for the U.S. Army Corps of Engineers (USACE) will house 650 cadets. Phase I includes a two-story basement to house mechanical equipment for the barracks as well as space to accommodate a future chiller plant to serve adjacent barracks buildings. Phase II will consist of a six-story barracks building including meeting and common rooms, bathrooms, and laundry facilities. The project has the added complication of being built into a solid rock hillside. Schedule is critical for this building because it will serve as partial swing space for the renovation of 10 other barracks.

United States Army Corps of Engineers, West Point Academy Prep School, NY, Principal-in-Charge - Directing a complex design-build multi-program facility with very tight construction deadlines, Mr. Anderson is serving as the main senior oversight with the contractor client and the U.S. Army Corps of Engineers (USACE) for the new United States Military Academy Prep School (USMAPS) at West Point, New York. The \$108 million, 250,000 sf project will house 225 cadets and includes classrooms, dining facilities, a full athletic facility comprised of training rooms, indoor basketball, and volleyball courts, medical, and locker facilities.



The LiRo Team

Faisal Choudhury, PE

Homeowner Advisors/Call Center Manager

Education

B.S., Mechanical Engineering, New York Institute of Technology, Old Westbury

Licenses/Registrations

Professional Engineer, New York

Certifications

OSHA 10 Certified

PROFESSIONAL PROFILE

Mr. Choudhury has over 25 years of project and program management experience in the public sector. He has over \$2B of experience on both FEMA and CDBG recovery programs including: the New York Rising Housing Program where he is currently serving in a management role with Homeowner Advisors ensuring homeowner satisfaction as well as expediting throughput. He was also the LiRo Project Manager for inspections for the Rapid Repairs Program where he oversaw a workforce of 102 staff which were fully mobilized in less than 50 days. Inspections were conducted by his team on over 7,000 homes for Rapid Repairs. Prior to that assignment, he was a Project Manager implementing the Sandy Recovery program getting 80,000 residents back into repaired homes. He has served in progressive managerial positions managing complex programs valued at over \$200 million. He was one of four project managers managing a quadrant for the 9/11 WTC Recovery. As Deputy Program Director and Project Director at DDC, and Deputy Chief of Capital Projects at DPR, he was responsible for a wide range of facilities projects for public buildings.

EXPERIENCE

New York Rising Programs, Project Manager - The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program was recently launched and Mr. Choudhury was part of the team that developed and rolled out this program.

- **New York Rising Small Business Recovery Program**
Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.
- **New York Rising Housing Recovery Program**
Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

New York City Rapid Repairs Program, Citywide, NY, Project Manager - LiRo performed construction management and quality assurance/ quality control for over 50% of this program to restore power and heat to a projected 40,000 homes. As the program evolved, it was divided into three divisions: Single Family Homes, High-Rise/Multi-Tenant Buildings, and a "Hot Shot" List of properties with special needs. With initial responsibilities to supervise six contractors and provide monitoring and inspection, quality assurance/quality control, and project controls for compliance with FEMA requirements for reimbursement, LiRo's operations grew to include providing customer service representatives, closeout inspectors, and data management and the number of contractors had increased to 10 for expanded work at properties in Broad Channel. LiRo's team was comprised of 102 personnel, with daily functions that included coordination of appointments, Right of Entry, registering new applicants to the program, and technical support. Extensive records management/photo documentation was integral to our operation for payment as well as the maintenance of a database for future FEMA audits. Many of the standard forms for documentation utilized by the RRP were formulated by LiRo.

Recreate New York Smart Home Program, NY, Project Manager - LiRo is providing Master Construction Management services on the first phase of this housing recovery effort. Working with DASNY, the New York State Office Home and Community Renewal (HCR), and the State's Executive Office, LiRo is coordinating the efforts of three construction management firms to complete home assessments for over 5,000 residences in Nassau and Suffolk Counties in Long



The LiRo Team

Faisal Choudhury, PE

Homeowner Advisors/Call Center Manager

Island and upstate communities affected by Sandy, Hurricane Irene and Tropical Storm Lee. When the initial assessments are completed, the next phase of the program that includes reconstruction, rehabilitation and elevation to all eligible residences, is estimated to be at \$787 million. LiRo is also assisting in developing the guidelines and standards of this next phase including addressing compliance and monitoring activities. (\$20 million)

New York City Housing Authority, Multi Site Boiler Replacement, NY, Project Manager - As part of an on-call requirements contract for NYCHA, LiRo provided construction management for boiler replacements at multiple locations.

New York City Housing Authority, Emergency Services, NY, Project Manager - LiRo's extensive portfolio of New York City agency work over the last two decades perfectly matches the NYC agencies that were most damaged by Hurricane Sandy including public housing, city hospitals, schools, parks, and other agencies. The true testament of the trust that our public sector clients have placed in our abilities was reflected in the more than dozen calls we received from various agencies to assist them with the Sandy emergency response. Some examples are below.

New York City Housing Authority (NYCHA) Utility Restoration Assessment

In the immediate aftermath of Superstorm Sandy, LiRo guided NYCHA in its response to assess the 200+ buildings in 32 developments that experienced the worse damage from the storm – the Rockaways in Queens, Coney Island in Brooklyn, and Lower Manhattan. Utilizing lessons learned from 9/11 and Hurricane Katrina, an action plan was drafted with NYCHA's Capital Program and within 24 hours, mobilized New York City's largest electrical and mechanical contractors to participate in this joint utility restoration assessment effort. The team was successful in restoring heat and power to 100,000 residents in less than two weeks. The team also advised NYCHA of the level of documentation required for FEMA reimbursements and assisted the agency in setting up their filing system as the program transitions from emergency/temporary work to permanent repairs.

New York City Housing Authority (NYCHA) – Superstorm Sandy Permanent Work

LiRo is currently assisting NYCHA with its efforts to restore/improve utility rooms damaged by Superstorm Sandy. The assignment at five properties in Manhattan involves 41 buildings at high-rise building complexes. LiRo's architectural practice is working with our Mechanical/Electrical/Plumbing Team to evaluate and formulate the best approach to rebuilding these facilities including providing NYCHA with hazard mitigation proposals.

New York City Department of Design & Construction, Structure Division, Police Unit, NY, Project Director/Project Manager - Mr. Choudhury was responsible for the management of the design and construction of capital projects police facilities. He managed the progress of work performed by Consultants, Construction Managers, and Project Managers and provided approvals and enforcement of the Architects' Bulletins required due to re-design, scope changes, field conditions, etc. during the course of the projects. As part of this portfolio, he managed 15 mechanical projects including boiler plants, chiller plants, mechanical equipment rooms, cooling towers, air handlers, chemical feed systems and pump stations.

New York City Department of Design & Construction, Structures Division, Corrections Unit, NY, Deputy Program Director - Mr. Choudhury was responsible for the management of new and renovation projects for correctional facilities. The scope of work for these projects are typically design and construction involving heating, ventilating and air conditioning, plumbing, and electrical work. He was involved with the close coordination of work by the consultants, contractors, client agencies, Project Directors, and Project Managers. Other tasks included management of the completion of projects in accordance with court ordered/court mandated deadlines, which included interim milestones; updates and briefing of the Program Director, Assistant Commissioner on all aspects of the projects; and evaluation of the performance of Project Directors, Project Managers, Construction Managers, Design Consultants, and contractors.



The LiRo Team

Michael Dorris, Sr., CPA

Project Controls Manager

Education

B.S., Accounting, University of North Dakota

Certifications

OSHA 10 Certified

PROFESSIONAL PROFILE

Mr. Dorris is a skilled financial, contracts and construction expert on CDBG-DR and FEMA funded programs. His housing disaster recovery experience includes the NYC Build it Back, NY Rising and New Jersey RREM Sandy housing recovery programs. His New York area and Hurricane Katrina experience includes programs totaling over \$2B. Mr. Dorris has also been responsible for the supervision of all phases of grant management and contract management for FEMA grants including the \$1B FEMA program for St. Bernard Parish Government in Louisiana. His expertise includes utilizing databases to track trends, identification of issues and bringing the appropriate resources to remove the obstacles impeding progress to increase throughput on housing program, working closely with residential construction experts to ensure HUD eligibility and proper scope alignment, project reconciliation of eligible funding and closeout with FEMA and the State. For these programs, he has served in roles managing disaster recovery contract compliance and reviewing consultant/contractor payments. Mr. Dorris also served as the Deputy Program Manager on the New Jersey RREM housing program and is the Deputy Program Manager for the NY Rising housing recovery program.

EXPERIENCE

New York Rising Recovery Program, New York State - The CDBG-DR funded housing and small business recovery programs is administered by the Governor's Office of Storm Recovery (GOSR) and contracted through the Dormitory Authority of the State of New York (DASNY). Serving as the prime consultant under contract with DASNY, LiRo is assisting GOSR in implementing this accelerated housing recovery and small business program. The Multi-Family/Rental Program is also being incorporated under this program. To date, over \$340M has been disbursed to homeowners.

New York Rising Housing Recovery Program - Executing a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 5,600 inspections in 30 days – in time for GOSR to issue award letters to registered homeowners by the first Sandy anniversary. The program is currently serving more than 19,000 applicants.

New York Rising Small Business Recovery Program - LiRo is performing damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants. infrastructure capital programs, including facilities for city government and public functions, roadways, sewers, water mains and schools. He was also responsible for developing the organizational structure and operating methodology for the agency.

As Deputy Program Manager, Mr. Dorris is working closely with the Master Construction Manager/Program Manager to assist GOSR with program policy, ongoing development and implementation of standardized procedures, deployment of staff to meet program priorities, management of subconsultants and invoice preparation and review. Other tasks have included preparation of subrecipient agreements and training of contractors, subconsultants and case management staff.

Mr. Dorris is also working with Residential Experts to resolve scope clarifications, scope changes and final site visits/closeouts. His experience on past disaster recovery programs is an asset in bringing lessons learned from issues related to construction as well as key items that will contribute to a close out process that will be timely and in compliance with CDBG-DR requirements.

New York City Build it Back Housing Recovery Program, New York - Mr. Dorris worked as a subconsultant to URS to move applicants in repair, repair with elevation, and rebuild pathways through the system to construction. Mr. Dorris worked with Housing Recovery Center managers to



The LiRo Team

Michael Dorris, Sr., CPA **Project Controls Manager**

streamline the applicant process at the center, and coordinated priorities from the client with the field operations to assist applicants in their application process.

New Jersey Department of Community Affairs, Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Trenton, New Jersey - Serving as Production Manager, Mr. Dorris was part of the RREM team providing program management, implementation and operation for the \$650M program that provides eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy.

National Disaster Recovery Firm, New Orleans, Louisiana - Mr. Dorris supervised all phases of grants management and contract management for a \$1B FEMA grant to St. Bernard Parish Government. He reviewed all billings for work contracted under this federal grant. The review was for compliance and reimbursement eligibility. Mr. Dorris managed all requests for reimbursement from the Governor's Office of Homeland Security and Emergency Preparedness. He worked closely with Project Managers to ensure eligibility and proper scope alignment as the projects progressed. Mr. Dorris reconciled each project as it was completed to ensure full reimbursement of all eligible funding. As projects were reconciled, worked closely with a closeout team to begin final closeout with FEMA and the State.

Environmental and Infrastructure Firm, Baton Rouge, Louisiana - Mr. Dorris worked on budget and scheduling for various projects, with extensive time on cost analysis. Mr. Dorris completed work on both federal and local government projects with revenues up to \$90M. In addition, he managed three levee projects under the jurisdiction of the U.S. Army Corps of Engineers and worked on hazardous mitigation projects for seven parishes to assist residents affected by Hurricane Katrina and Rita.

Environmental and Infrastructure Firm, Field Services Office, Louisiana - Mr. Dorris supervised operations of all disposal sites for St. Tammany Parish debris removal contract resulting from Hurricane Katrina. He supervised 20-25 field monitors, 3 crew leaders, and 4 supervisors in daily debris removal contract. He was responsible for final completion of all tickets resulting from debris removal operations. M. Dorris was instrumental in developing procedures for control of all data needed for billing and FEMA reimbursement. He also supervised removal of over 5,000 hazardous stumps from the Parish right of way. All tasks were completed long before the client anticipated deadline. Mr. Dorris also played a key role in scheduling and supervising the work to meet all FEMA guidelines to ensure 100% reimbursement.



The LiRo Team

Janice Haughton

Hiring Plan Manager

Education

BPS, Human Services, Metropolitan
College of New York

Certifications

OSHA 10 Certified

PROFESSIONAL PROFILE

Ms. Haughton has served in recruitment and compliance roles on projects to meet CDBG and local hiring goals. On Sandy recovery projects, she managed the Local Referral Center in the Rockaways as part of the boardwalk reconstruction project, to recruit local residents and contractors and perform community outreach with local workforce groups, trade unions and community board members. She also served as Compliance Advisor on the State's Disaster Recovery Inspections program for Sandy damaged homes in Nassau County.

As the Director of the Diversity Consulting Program, Mrs. Haughton brings with her comprehensive experience in the engineering and construction industries, with emphasis in program management, policy development, cultural sensitivity and communications. Mrs. Haughton has worked in various capacities and departments including compliance, marketing, operations, diversity and public affairs. A committed and resourceful Project Manager, Mrs. Haughton has the ability to prioritize work on several projects simultaneously in a fast-paced environment. She has strengths in the areas of envisioning and defining strategic direction for a business, enrolling senior management and peers across functions and regions, driving executional excellence, and being a catalyst for change.

Over the past two years, Mrs. Haughton has worked to decentralize and structural align McKissack's small business, workforce and community relations initiatives into a single integrated unit, informing project management, business development and operations. This central department provides oversight management and monitoring for all diversity compliance services, for McKissack projects. Mrs. Haughton has implemented new processes, procedures and reporting mechanisms to strategically build upon McKissack's expertise, experience and technical skills in diversity monitoring and reporting, which has proven instrumental in enhancing, fostering, and facilitating the firm's expansion.

EXPERIENCE

NY Rising Housing Recovery Program, New York, New York, Compliance Advisor - Mrs. Haughton is a part of the McKissack & McKissack team for both the GOSR and DASNY projects. McKissack is the lead partner in a Joint Venture, has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. McKissack is also the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. Both projects comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. Mrs. Haughton manages and advises project team consultants on program procedures and requirements for CDBG/Section 3 and M/W/BE compliance. She also encourages project consultants, to work in accordance with the construction management team to assess and forecast M/W/BE Utilization and Section 3 hiring potential for the project. Her key responsibilities as it pertains to consultation, includes: analyzing all reporting documentation and reports for diversity compliance; employment and contracting referral process for Section 3; methods to liaise with Trade Unions and Associations; potential partnerships with community based/job readiness/training organizations; community outreach events, seminars and open houses; key stakeholder engagement; and program reporting systems, procedures and measurement mechanisms.

New York City Economic Development Corporation, Rockaway Boardwalk Reconstruction, Queens, NY, M/W/LBE/CDBG (Community Development Block Grant) Oversight Manager - Mrs. Haughton serves as the M/W/LBE/CDBG (Community Development Block Grant) Oversight Manager for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. She is responsible for the HUD/CDBG Section 3 Workforce and Community Outreach



The LiRo Team

Janice Haughton

Hiring Plan Manager

Program, which seeks is to engage and assist qualified Section 3 Business Concerns and labor force professionals in providing contracting and employment opportunities in order to meet the participation goals set forth by the project and requirements for Section 3 compliance. Mrs. Haughton customized a geographic action plan and process for community involvement and enhancement of ongoing workforce development for the specific areas. She has developed contractual language for Section 3 compliance to be incorporated into all sub recipients agreements, for McKissack clients, to ensure contractor cooperation on this project. She has developed strategies and action plans to address the complex reporting and monitoring mechanisms required for CDBG/HUD reporting. Mrs. Haughton managed the Local Referral Center, located on the project site, which served as a recruiting center for employment applicants and prospective contractors. She lead the diversity team in outreach efforts to include all forms of advertising, event logistics and management, collateral materials, community board relations and partnerships and coordination with local workforce groups and trade unions, in order to maximize opportunities for potential employment, job training and contracting opportunities for Section 3 residents.

Columbia University, Manhattanville Campus Expansion, New York, NY, Manager of Small Business & Workforce Programs - Mrs. Haughton's key responsibilities include: establishing a list of M/W/LBE contractors who are eligible to bid and work on the project and updating and maintaining this list on an ongoing basis as the project progresses; developing and implementing an outreach program to solicit M/W/LBE firms who are qualified and interested in working on the project; attending pre-bid conferences to reinforce to bidders the M/W/LBE and workforce requirements in the bid documents and to detail the reporting and tracking methods to be implemented; participate in project team bid package review meetings to identify opportunities for M/W/LBE firms; assisting in developing policies as it pertains to M/W/LBE regulations; prescreen and provide procurement and prequalification assistance for M/W/LBE firms with CM team; referring M/W/LBE firms to prime contractors who are working on or bidding work on the project; maintaining copies of all credentials and certifications for all firms on the MWLBE list; tracking and managing M/W/LBE utilization plans; working closely with CM and Owner to develop and customize monthly M/W/LBE compliance reports for contracting and workforce; collaborates with CM accounting on contractor invoicing to ensure M/W/LBE contractual requirements met; performs reviews to ensure that all compliance documents are accurate; oversight for workforce compliance documentation and data reporting; works with McKissack's Office of Community Employment (OCE) on recruiting activities, laborforce referrals and database management; advises project team on issues related to compliance and good faith efforts.



The LiRo Team

Robert Baptiste

M/WBE Compliance Officer

Education

M.S., Civil Engineering/ Construction Management, Polytechnic University, New York, NY

B.S., Civil Engineering, Polytechnic University

Certifications

OSHA 30 Certified

LEED Green Associate

PROFESSIONAL PROFILE

Mr. Baptiste has over 12 years of experience in the construction industry. He has served on similar compliance roles, most recently for the State's Housing Recovery Program. He is familiar with all the local and federal requirements for compliance on CDBG-DR programs and has participated in our community and industry outreach efforts, contractor and design professional training, and Section 3 outreach and training. Mr. Baptiste has amassed a broad scope of both technical and practical experiences. Mr. Baptiste has attained both a Baccalaureate and Masters Degree in the field of Civil Engineering and has been afforded the opportunity to work in several areas such as: Transportation/Traffic Engineering, Inspections, General Contracting, and Construction Management. These experiences have fostered environments for learning, problem solving, and forecasting. He has learned several key components of a successful organization. These components include: communication, leadership, coordination, teamwork, strategic planning, and people skills. During the past 12 years his roles have included:

- Bid walk-through, bid analysis and scoping, cost estimating, claims mitigation, value engineering, and pre construction reviews
- Coordination of subcontractors of varying disciplines (civil, structural, electrical, architectural, etc). Coordinating and ensuring communication between the project team and contractors in an effort to minimize delays in the project and additional costs
- Managing the project budget, as well as, contractors' project schedules
- Managing labor crews and the timely completion of project schedules
- Reviewing Health and Safety Plans and ensuring proper safety precautions are being implemented during the construction life cycle

Having amassed both the technical and practical experiences in the field of Engineering and Construction, Mr. Baptiste combined that which he has learned with the skill sets of his partner to establish a Construction Management Company, Laland Baptiste, LLC. As an entrepreneur, his roles are diverse, effectively and efficiently managing the daily operations. These roles include functions such as: Making Financial Decision, Negotiating Contracts, Estimating Jobs, Proposal writing, Signing Business Accounts, Supervising Field Operations, and Construction Management. In addition, he continues to enhance his abilities and grow professionally from the teachings of mentoring Construction Management firms.

EXPERIENCE

NY Rising Housing Recovery Program, New York, NY, Principal - The NY Rising Housing Recovery Program is a multi-billion effort that includes several programs to help New Yorkers rebuild in the wake of Superstorm Sandy, Hurricane Irene or Tropical Storm Lee. The Program provides: Grants for repair and reconstruction of storm-damaged homes, Interim Mortgage Assistance (IMA) for homeowners displaced by the storm and incurring additional housing cost in addition to mortgage, purchases of homes in designated Buyout areas, and assistance for owners of rental property. As a Principal on the Program, Mr. Baptiste functions include: ensuring compliance with the State's Minority and Women owned business participation mandates as well as the Housing and Urban Development Section 3 requirements. Mr. Baptiste has also expanded his role to include assisting the Technical Advisor Team and Call Center Group in helping Homeowners through the rebuilding process.

Jacob Javits Center, New York, NY, Project Manager - This \$390 million dollar renovation project included the installation of a new 240,000 square-foot glass curtain wall to the construction of the largest green roof in the Northeast, the Javits Center has undergone a comprehensive, state-of-the-art renovation that has transformed the iconic facility into a world-class convention center. My role for this project included coordination of the structural steel trades as it relates to modifications and fabrication of existing and new space frame members. In addition, Mr. Baptiste coordinated the hoisting and scaffolding contractor in building a



The LiRo Team

Robert Baptiste

M/WBE Compliance Officer

temporary structure that will provide a working platform for other trades to work as well as maintain an operational convention center.

One World Trade Center, New York, NY, Project Manager - The \$3.8 billion, 104-story building, a joint venture between The Port Authority of New York and New Jersey and The Durst Organization, is designed to be the safest commercial structure in the world and the premier commercial business address in New York. Its structure is designed around a strong, redundant steel frame, consisting of beams and columns. Paired with a concrete-core shear wall, the redundant steel frame lends substantial rigidity and redundancy to the overall building structure while providing column-free interior spans for maximum flexibility. As a member of the World Trade Center Team Mr. Baptiste responsibilities included assisting the Chief Structural Engineer with coordination of activities related to the erection of structural steel. In addition to coordination, my responsibilities included claims mitigation, estimating Bulletins, and evaluation of change orders and cost proposal.

New Jersey Transit, Hoboken, NJ, Structural Inspector - This \$29.5 million dollar Historic Ferry Terminal project incorporated a three-phase program which consisted of the reactivation of five of the six ferry slips to active ferry operations and the provision of modern ferry docking facilities and passenger waiting and ticketing areas in the original street level Team Concourse. The sixth ferry slip was preserved for future use as a museum display of an original ferry slip. The scope for this project included: driving of steel piles, pile caps, pre-cast slabs, concrete piers, sheet piles, cast-in-place floor beams, dewatering, structural steel integrity inspection and modifications if required. Mr. Baptiste responsibilities during this project included the following: management of labor crews, inspections to verify the structural integrity of existing structures, and ensure compliance with contract documents

Port Authority of New York & New Jersey, Hoboken, NJ Assistant Project Manager - This multibillion-dollar security capital program was an effort to increase, upgrade, and implement existing and new security systems throughout the New York and New Jersey Port Authority facilities. The scope of these projects include, but are not limited to, infrastructure upgrade such as structural wall modifications, installation of rock anchor, concrete footings, precast grade beams, header beams and high early strength slabs. Mr. Baptiste responsibilities included: schedule update, contractor coordination, change order review, conduct project meetings, claims mitigation, evaluation of cost proposals, and coordination with design team and PANYNJ departments on day-to-day activities.

East River Plaza, New York, NY, Project Manager - East River Plaza is a \$300 million, multi-level 500,000 square foot retail project with an attached 1,250-space parking facility spanning 3 city blocks in Manhattan, NY. The project sits primarily on the former Washburn Wire factory site and consists of approximately 6 acres adjacent to the FDR Drive between 116th and 119th Streets in Upper Manhattan, New York. The scope of work included pile driving, installation of pile caps, mega footings, soil testing, foundations, slab on grade, waterproofing, installation of anchor bolts, and erection of structural steel. Mr. Baptiste responsibilities included coordination of activities related to the erection of structural steel as well as assisting the Senior Project Manager with the coordination of activities related to the foundation contractors.

Verizon Midtown Garage, New York, NY, Assistant Project Manager/Project Engineer - The \$38.5 million project was for the demolition and site remediation for the four-story Verizon Midtown Garage. The scope of the work included groundwater management, soil remediation, installation of rock anchors, mud slabs, tiebacks, bracing of adjacent building, waterproofing, foundations, structural steel, and a pre-cast façade. The garage is used for fuel-efficient gas burning equipment. In addition to the garage, the space included office space for the relocated Verizon's personnel. Mr. Baptiste responsibilities for this project included: submittal review and processing for the foundation, steel and curtain wall trades, change order review and negotiation.



The LiRo Team

Trang Bui

Start-Up/Hiring Plan Team

Education

Master of Public Administration,
Executive Program, Baruch College

Bachelor of Arts,
New York University

Monuments and Stone
Conservation, Institute of Fine Arts,
New York University

Appraisals in Fine and Decorative
Arts, New York University

Registrations/Certifications

OSHA 10-Hour Construction Safety

FEMA Public Assistance Operations
I & II

PROFESSIONAL PROFILE

Trang Bui's experience in the design and construction industry includes projects in the public, private, and non-profit sectors. As the Chief of Staff for the New York City Department of Design and Construction (DDC), she was part of the senior management initiating and implementing policies and programs for an agency with a construction portfolio of \$4.1B, consisting of over 900 building projects managed by 1,200 employees.

Her disaster recovery experience includes the 9/11 World Trade Center Cleanup where DDC was the lead agency, Hurricane Katrina, and Superstorm Sandy. Her responsibilities have included assistance with mobilization and coordination of assessment teams for housing recovery; start-up of management structure for disaster response; and preparation of FEMA assessment reports for reimbursement to state, local and city government agencies. She is currently part of the LiRo team performing work for the New York Rising Housing Recovery Program for the NYS Homes and Community Renewal.

Prior to joining DDC, she was a Special Assistant to the Director of the Mayor's Public Design Commission, responsible for planning monthly public hearings to review over 400 projects annually proposed by the City's 50+ departments, Business Improvement Districts (BIDs), nonprofits, and private property owners. She has also worked at the New York City Department of Cultural Affairs where she assisted social service, cultural and nonprofit organizations improve their services and capacities through matching existing resources and cultivating new donations to meet these needs.

EXPERIENCE

New York Rising Housing Recovery Program

Project Manager for Compliance for the CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY on this CDBG-DR funded Sandy Housing Recovery Program, LiRo is assisting the New York State Division of Homes and Community Renewal (HCR) in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

New York City Rapid Repairs Program, Citywide, Sandy Response

Ms. Bui provided Technical/Management Services on LiRo's contract for the \$550M Rapid Repairs Program - a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose properties were damaged by Sandy. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.

New York City Housing Authority (NYCHA), Citywide, Sandy Response

In the immediate aftermath of Superstorm Sandy, Ms. Bui was part of LiRo's Construction Management and NYCHA's in-house Capital Planning team's effort to restore utilities to 80,000 residents in 32 housing developments (200+ buildings) severely impacted in the wake of Hurricane Sandy. She assisted with mobilization and coordination for the deployment of assessment teams; start-up of daily reporting structure; and outlined documentation needs for future FEMA reimbursement.



The LiRo Team

Trang Bui

Start-Up/Hiring Plan Team

Nationwide Infrastructure Support Technical Assistance Consultants (NISTAC), Louisiana

As Deputy Public Assistance Coordinator, Ms. Bui was part of NISTAC's consultant team to assist with the Federal Emergency Management Agency's (FEMA) Public Assistance (PA) Grant Program for the recovery effort after Hurricane Katrina. Based in Baton Rouge for six months, supervised a team of 20 professionals including architects, engineers, estimators, and project officers to provide grant assistance to the Louisiana State University (LSU) health and research facilities and Tulane University laboratory and research programs. Projects assessed and grant assistance were prepared for the following:

- LSU Charity Hospital
- LSU University Hospital
- LSU Lion's Eye Center
- LSU Pediatric Emergency Facility
- University of Louisiana at Monroe – College of Pharmacy
- Tulane University – National Primate Research Center

Emergency scopes of work ranged from power plant and MEP repairs, to creation of temporary facilities and select hospital reconfigurations.

New York City Department of Design and Construction (DDC), Citywide

Chief of Staff of City agency responsible for design and construction of more than 1,200 projects valued at \$4.7 billion with 1,100 employees. Assisted with implementing mayoral directives, strategic planning and initiatives, prepared briefings to the Mayor, coordinated 9/11-related issues and industry outreach. Assisted with ongoing efforts to raise awareness and integrate universal and sustainable design based on the agency's publications of Universal Design New York with the Mayor's Office for People with Disabilities and the High Performance Building Guidelines. Established agency's Peer Review program bringing outside designers to provide independent design quality review of significant projects to ensure that alternatives have been explored and urban design issues are addressed and *DDCtalks*, a lecture program to supplement the agency's internal continuing education program to encourage sharing of research and practical knowledge from industry experts to DDC staff and all agency partners. As Director of Art Program, acted as liaison to the Public Design Commission and community groups for presentations of agency's structures and infrastructure projects. Responsible for agency publications, represented agency on selection panels and monitored progress of critical projects.

Office of the Mayor, Public Design Commission, Citywide

Special Assistant to the Director and Curator of mayoral agency mandated to review the aesthetic appropriateness of buildings, streetscapes, and landscape architectural proposals on City property, and charged with curatorial oversight of the City's public art collection. Planned and implemented mayoral initiatives to encourage quality public designs, such as Annual Excellence in Design Awards and public private partnerships like the Adopt-A-Monument and Mural Programs with the Municipal Art Society and the Central Park Conservancy. Oversaw monthly public hearings for review of design proposal and briefed 11-member Commission on critical issues. Monitored public art conservation projects in coordination with advisory committee of conservation professionals, and experts from cultural and academic institutions. Curated the Mayor's Tweed Gallery with shows that reflect the City's diverse population and working with community groups, nonprofit and nongovernmental organizations, and under-represented or at risk communities through the Mayor's Offices for Veterans' Affairs, Immigration, People with Disabilities, and Commission on Human Rights.



The LiRo Team

Jon Pantina

IT Manager

PROFESSIONAL PROFILE

Mr. Pantina has over 17 years' experience in data management and IT systems for some of the most recognized companies in the nation. His most recent assignment has been developing the system architecture and program design for the LiRo Recovery Manager (LRM) for the NY Rising Sandy Housing Recovery Program. LRM has been an enormous contributing factor in the success of LiRo's assignment with NY Rising serving as the central data warehouse that supplements the State's case management data system. His thorough understanding of the CDBG-DR requirements and program workflows led to his development of the LRM to provide additional functions for reporting on a wide range of applicant data and program production that was not easily accessible from the existing database. He also developed the electronic signing system for signing grant agreements and acceptance/rejections of clarification determinations to expedite the process to issue checks to homeowners and move their project into construction.

Mr. Pantina continues to refine and add functionalities to the LRM as the program evolves and progresses into the construction and closeout phases. Modules are added to the system as policies and procedures change and additional applicant, funding, and schedule data need to be tracked and reported. He works closely with the Governor's Office of Storm Recovery staff, the LiRo and case management teams to improve and design these changes.

Mr. Pantina is also involved in the Nassau County Sheltering and Temporary Essential Power (STEP) housing recovery program assisting with the next phase of environmental work for over 1,000 applicants. Additionally, he has succeeded in developing, creating and supporting various types of software, maintained company websites and intranets, and is familiar with a wide range of languages, technologies, databases, and web and app servers.

EXPERIENCE

NY Rising Housing Recovery Program, New York State - The CDBG-DR funded housing and small business recovery programs is administered by the Governor's Office of Storm Recovery (GOSR) and contracted through the Dormitory Authority of the State of New York (DASNY). Serving as the prime consultant under contract with DASNY, LiRo is assisting GOSR in implementing this accelerated housing recovery and small business program. The Multi-Family/Rental Program is also being incorporated under this program. To date, over \$340M has been disbursed to homeowners.

New York Rising Housing Recovery Program – Executing a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 5,600 inspections in 30 days – in time for GOSR to issue award letters to registered homeowners by the first Sandy anniversary. The program is currently serving more than 19,000 applicants.

New York Rising Small Business Recovery Program – LiRo is performing damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.

As Project Manager, he is assisting the team increase workflow efficiencies through automation of communications and quality reviews where possible using LRM and other workflow tools. This includes developing automated email communications with applicants when new program options are available; additional information; or grant agreements and clarifications are issued.

UBS, Connecticut - Mr. Pantina created, developed and supported software and financial models to automate common business needs through the use of MS Office 2003, 2010, VBA, Visual Basic, .Net and COM. He created, developed and supported company templates used for pitch books and presentations including design specifications and company branding. He served as



The LiRo Team

Jon Patina Project Advisor

first and second level Help Desk Support for software and user related issues. He maintained company Intranet sites utilizing Java, JSP, Java Script, XML, HTML; he provided setup, support and maintained Webtrends environment in a distributed server architecture including SQL Server database setup, custom reporting and scripting utilizing Perl, VB Script and REST Web Services.

Fidelity National Title, New York - Mr. Pantina created a development team for New York branches and was responsible for the output and assignment of projects for three developers. Tasks included:

- Created, developed and supported production systems and software to automate common business needs through the primary use of Visual Basic, COM, XML, .Net, VBA and Access
- Database administration, setting up, designing and maintaining SQL Servers/databases including architecture of multi-site replication between SQL Servers in each of New York offices
- Developed and maintained company Internet sites in a three tier structure utilizing primarily ASP, ASP.Net, VB/COM, X/HTML and Java Script as well as the initial design, branding, layout and navigational systems

Goldman Sachs, NY - Mr. Pantina created, developed and supported software and financial models to automate common business needs through the use of Visual Basic, COM, VBA, SQL. He also created, developed and supported company templates used for pitch books and presentations including initial design specifications and company branding and developed and maintained company intranet sites utilizing ASP, XML, HTML and Java.



The LiRo Team

Melissa Mangene

IT Project Manager

Education

MBA, Accounting
BA, Accounting/Business
Administration

PROFESSIONAL PROFILE

Ms. Mangene manages contracts leveraging automation for completing contract tasks and analysis for determining funding of individual recovery efforts. Melissa is currently supporting the Mayor's Office of Housing Recovery Operations as IT Manager and Quality Assurance Officer for the "Build it Back" Program responsible for design and implementation of systems used to manage and process data through all phases of the pre-construction program.

EXPERIENCE

Pre-Construction Services for NYC "Build It Back" Program, NYC Mayor's Office of Housing Recovery Operations, New York, NY. Senior Project Manager/Deputy Technical Advisor for Dewberry's contract to support the City of New York with Post-Sandy housing inspection, cost estimation for repair/resiliency, and environmental review for residential applications for US Housing and urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funds.

- Performed an evaluation of processes and provided process improvement solutions to meet expected production goals.
- Served as the client liaison for the operations team, translating client requirements into actionable results
- Redesigned the feasibility report template for use on the NYC build it back program for increased efficiency and end user understanding
- Managed the design, development and implementation of an integrated management system for processing inspection, environmental and feasibility determinations for NYC build it back program
- Developed it automation requirements for processing tier II site-specific environmental reviews using spatial analysis and stored procedures.
- Managed the design, development and implementation of an environmental management tracking system that facilitates the review and approval of tier ii reports across multiple organizations, including allowing for read only access for potential auditors and/or guest users.
- Troubleshoot system integration issues and work with HRO IT team to resolve

PaRR (Partnership for Response and Recovery). Served as Deputy Director, Contract Compliance Manager, and Project Accountant. PaRR, a joint venture partnership responsible for housing inspection and management support services for the Federal Emergency Management Agency. The rapid deployment of these services provides much needed assistance to the many victims displaced and impacted by disasters throughout the United States and its territories.

Deputy Director

- Managed the design and development of project purchasing system
- Managed all readiness and quality management system activities
- Managed accounting, purchasing, contracts, and inspection assigning groups
- Primary point of contact for FEMA inspections management on all issues related to contract and task order administration, and finance
- Responsible for initiating both internal and external audits and regular management review of the PaRR's QMS
- Actively monitors, tracks and reports on all preventive action, corrective action and continual improvement initiatives

Contract Compliance Manager

- Management representative for ISO 9001:2008 QMS system
- Led the development, implementation and certification of quality management system for ISO 9001:2008
- Led the development and implementation of ARC GIS tools for optimized inspection



The LiRo Team

Melissa Mangene

IT Project Manager

- assignments – increased inspection efficiency by 32 percent
- Team lead for Lean Six Sigma Process Improvement Project – resulted in 55 additional error checks for quality improvement.
- Implemented records control process
- Technical lead author for \$163 million proposal
- Implemented formal internal quality audit program
- Managed the implementation of root cause analysis for quality control resulting in increased effectiveness of corrective actions
- Managed 3D training design, development and implementation
- Authored all ISO 9001:2008 required documented procedures
- Developed QMS procedures for accounting and purchasing that were ISO9001:2008 compliant



The LiRo Team

Cara Lacey, AICP, LEED AP

Community Liaison

Education

M.S., Urban Planning, New York University

B.S., Landscape Architecture, University of Massachusetts

Relevant Experience

Residential

Commercial

Planning

Economic Development

PROFESSIONAL PROFILE

Ms. Lacey has extensive planning and community outreach experience in both the public and private sectors. She has advised clients including developers, architects, land owners, civil engineers, attorneys and other consultants on land use, zoning, policy, economic development and environmental regulations and issues. She has served as lead planner or project manager with teams on a wide range of projects including residential, coastal and rezoning efforts. Ms. Lacey has demonstrated her skills as a community liaison and outreach coordinator and facilitator by building relationships with neighborhoods, communities and residents as well as jurisdictional staff, elected officials and legal teams. She has successfully drafted unified development ordinance regulations, zoning and land use guidelines and policies across multiple jurisdictions and has worked with clients and the public to ensure that best management practices are utilized and are successfully implemented.

EXPERIENCE

Department of Environmental Protection Green Infrastructure Program, Brooklyn, NY Community Construction Liaison (CCL). Managing the community outreach program for the New York Department of Environmental Protection (NYDEP) and the New York City Economic Development Corporation (NYCEDC). The position requires working and communicating with the public, council members, community boards and other stakeholders in order to effectively and convey pertinent information regarding the Green Infrastructure Project. The position entails meeting with community members and tracking community outreach progress, phone calls and information. The CCL position requires continuous updates in the forms of GIS mapping and construction progress/community outreach progress memos to DEP and EDC. Scheduling and progress updates include providing contractor work schedules, preparing daily workforce schedules, administering and coordinating inspectors daily reports and working with contractors to meet labor and prevailing wages requirements.

New York Rising, Community Reconstruction Program, NY, Senior Planner. Managed and coordinated this bottom-up, community driven initiative that empowers localities severely impacted by Sandy, Hurricane Irene and Tropical Storm Lee to develop comprehensive and innovative local rebuilding plans that will be funded by the state and local governments. The final recommended municipal plans will also be coordinated with regional plans to maximize the impact of these community resiliency programs and leverage all available funding sources while remaining in compliance with HUD CDBG guidelines. A total number of 43 Community Reconstruction Zones (CRZ) were identified comprising of 102 communities.

LiRo is providing comprehensive urban planning, mitigation, resiliency, economic revitalization, and technical infrastructure and facilities subject matter expertise consulting services to the New York State Office of Homes and Community Renewal with direct coordination with the Department of State. LiRo was assigned six CRZs, with a combined allocation of \$105.8 million for some of the most severely impacted communities on the of the Coney Island and Long Beach barrier islands. The communities include:

- Coney Island, Seagate, Brighton Beach, Manhattan Beach
- Gerritson Beach, Sheepshead Bay
- City of Long Beach
- Lido Beach, Point Lookout
- Village of Atlantic Beach, East Atlantic Beach
- Barnum Island, Oceanside, Island Park, Harbor Isle

The John R. McAdams CompReal Estate Advisors, PA, Analyst. Managed and coordinated projects through the entitlement approval process in multiple jurisdictions and communities. Advised clients including developers, architects, land owners, civil engineers, attorneys and



The LiRo Team

Cara Lacey, AICP, LEED AP

Community Liaison

other consultants on land use, zoning, policy, economic development and environmental regulations and issues.

Highlights of Projects:

Agricultural Master Plan Management: Managed the implementation of the Agricultural Reserve, a 21,000 acre consisting of planned developments and preservation/conservation open space areas. Preserved farming and agriculture through the use of the transfer of development rights (TDR) program, planned unit developments (PUD) and traditional marketplace developments (TMD).

Cypress Creek, ESLA Land Use Amendment: Change the land use designation of a 598.76 acre parcel known as the Cypress Creek Natural Area from Rural Residential to Conservation. The site was purchased by Environmental Resource Management and is a tributary of the Loxahatchee River. Preserving the property assisted in restoration efforts for the Loxahatchee River as well as its significant species.

Ballentine Rezoning and Conditional Use Permit, Carrboro, NC: A 52.3 acre site including 96 residential units (60 single family and 36 townhomes). Retail and affordable housing were requested and approved to incorporate mixed uses and meet the Town Council vision.

Waterway Cove, Ocean Isle Beach, BC: A 205 unit new-urbanist beach community in Ocean Isle Beach. Site plan was designed to incorporate traditional homes, on small lots with garages in the rear off of alleys.

Holly Springs Towne Center, Holly Springs, NC: Rezoning, master plan and site plan approval for the mixed use center including residential and commercial/retail. Commercial area includes Phases 1 and 2 comprised of 374,334 and 170,000 gross leasable space.

Palm Beach County Planning Division, Long Range and Current Planning Section, Planner I & II
Facilitated and coordinated land use plan amendments through the approval process; worked toward sustainable solutions to rural and urban development in the Agricultural Reserve area of Palm Beach County through negotiations with land reservationists, farmers, developers and environmental groups. Other responsibilities included:

- Committee formed to design emergency management guidelines, policies and actions to ensure low-income residents could evacuate areas if a breach in dike occurred
- Presented projects to the Land Use Advisory Board and the Board of County Commissioners
- Acted as the Staff liaison to the Conservation Land Acquisition Committee
- Prepared privately initiated large-scale land use amendments including, preparation of staff reports and recommendations for approval or denial and presentations of amendments before the Board of County Commissioners
- Stressed sustainable and environmentally sound solutions to development to decrease environmental impacts and increase human security and social responsibility initiatives
- Administered the Transfer of Development Rights program to increase economic development in urban areas and preserve sensitive lands
- Consulted with interested parties, developers, agents, farmers and workers as well as the public to raise awareness of the allowable preservation and development options
- Tracked County, State, Federal and private purchases of preserve lands



The LiRo Team

Alagie Sanyang, CSP, CHST, LEED AP BD+C

Safety Director

Education

M.S., Construction Administration,
Columbia University

B.A., Occupational Safety and
Health, National Labor College

Licenses/Registrations

LEED AP BD+C

Certified Safety Professional (CSP)

Construction Health and Safety
Technologist (CHST)

FDNY Construction Site Fire Safety
Manager

NYCDOB 4 Hour Supported Scaffold
User Certificate

OSHA 500 Construction Trainer

OSHA General Industry Outreach
Trainer

PROFESSIONAL PROFILE

Mr. Sanyang is a construction safety executive with over 15 years of construction and construction safety management experience at corporate level. He has extensive national and international construction safety experience, which includes multi projects, educational, biotech/pharmaceutical, high rise, healthcare and residential construction with a multi-national construction management firm and as a safety consultant. Alagie was most recently the Environment Health and Safety Director at Columbia University's multi-billion dollar Manhattanville development project. Mr. Sanyang, author of "OSHA-10 Key in construction safety awareness" published by the American Society of Safety Engineers (ASSE) Journal, he was also awarded two Cal-OSHA Golden-gate awards for safety excellence and is a board Certified Safety Professional (CSP) with expatriate in construction safety, site inspections, insurance inspections, and OSHA outreach training for both construction and general industry standards. Responsibilities include:

- Lead the occupational safety, health and risk function for The LiRo Group and continue developing, implementing, and maintaining a world class safety culture.
- Develop, implement and manage LiRo's safety program, policies and procedures with the various business units
- Lead and direct safety department staff to successfully execute all safety initiatives.
- Ensure continual safety improvements and set annual objectives and targets. Monitor results and audit progress
- Ensure proper execution of workers' compensation programs.
- Serve as technical adviser to business unit heads and marketing department for safety and risk during bidding process
- Serve as technical adviser to the general consul for safety and risk on all new contracts
- Serve as a safety technical adviser/guidance to project teams during preconstruction, construction and project closeouts
- Visit each project at least once each quarter to review safety performance
- Chair LiRo Executive Safety Leadership Team
- Accompany LiRo senior leadership on site safety inspections
- Review all incident reports and close out
- Conduct a root cause analysis on all LiRo employee lost time incidents
- Attend project safety kickoff meetings
- Attend safety meeting as required by contract or client
- Inspect each major project at least once each quarter
- Accompany insurance carrier inspections
- Manage Corporate safety budget
- Periodically review contracts and projects to ensure safety requirements are met
- Update the CEO on corporate safety performance monthly

EXPERIENCE

Lend Lease Columbia University Manhattanville Development, NY, Environment Health & Safety Director - \$7 billion university extension/neighborhood development. The projects include the demolition of 44 buildings, Slurry wall foundation, drill shaft excavation, top down construction, street utility improvement, construction of 10 new buildings and maintenance of the New York City Transit train viaduct. Responsibilities on this multi-billion dollar development included:

- Lead and supervise team of 15 safety professionals
- Scope development for subcontractor contract
- Weekly executive progress reports to the owner



The LiRo Team

Alagie Sanyang, CSP, CHST, LEED AP BD+C

Safety Director

- Review owner's consultant's report
- Safety program development and implementation
- Lead Safety Lead Teams
- Staff and contractor training needs analysis and development
- Serve as a safety technical adviser/guidance to project teams during preconstruction, construction and project closeouts
- Site inspections
- Chair project Safety Lead Teams and Principals' council
- Manage project safety budget and safety incentive program
- Subcontractor/contractor prequalification, review and approve subcontractor safety program,
- Weekly, monthly and yearly safety corporate reporting
- Accident/incident investigations and root cause analysis
- OSHA 10 and 30 and other safety related trainer
- JHA development and review
- Lead the Owners Clean Construction strategies

(2010-2014, \$7 billion)

Lend Lease, CA, Health and Safety Manager/LEED Coordinator

Role and responsibilities with the Lend Lease Los Angeles office included:

- Serve as a safety technical adviser/guidance to project teams during preconstruction, construction and project closeouts
- Site inspections
- Supervise project safety teams (includes sub-contractor safety managers, coordinators and crew) on assigned projects
- Coordinate LEED certification process
- Chair project Safety Lead Teams and Principals' council
- Develop project safety program and updates
- Manage project safety budget and safety incentive program
- Subcontractor/contractor prequalification, review and approve subcontractor safety program
- Weekly, monthly and yearly safety corporate reporting
- Accident/incident investigations and root cause analysis
- OSHA 10 and 30 and other safety related trainer
- JHA development and review
- Foster relationship with regulatory authorities (OSHA, Cal-OSHA, AQMD, ASSE) and community outreach

(2007-2010)

Selected Project Experience

Thomas Jefferson School of Law, LEED Gold certification, San Diego, CA, Health and Safety Manager/LEED Certification Coordinator (2008-2010) - The project is an eight-story new law school. This type I building is designed with a three-level, below-grade structural concrete parking structure and central core system with a structural steel frame building tower surrounding the core. The building envelope is comprised of a glass curtain wall system with areas of metal panels and stone veneer. The 303,000 sf building consists of reception and retail spaces on the first floor, classrooms (some with stadium seating) on the second and third floors, library and high-density storage areas on the fourth and fifth floors and student/staff office spaces on the sixth and seventh floors. Amenities include exterior terraces and interior student/faculty lounges. (\$69 million)

Solair Wilshire, Los Angeles, CA, Health & Safety Manager (2007-2009) – This project was awarded the Cal-OSHA Golden-Gate award for safety excellence. A 186-unit condominium high-



The LiRo Team

Alagie Sanyang, CSP, CHST, LEED AP BD+C
Safety Director

rise. The 22-story, 780,000 sf project features two levels of subterranean retail parking, 50,000 sf of restaurant/retail space at the first two levels, four levels of above-grade resident parking, and a condominium amenities deck. Adorned in modern architecture with concrete and steel construction and featuring a glass wall exterior, the building's interiors include luxurious finishes and high-end appliances, floor-to-ceiling windows. In addition, the development includes a 40,000 sf retail center, and 10,000 sf of restaurant space. (\$120 million)

Summit on 6th, Los Angeles, CA, Health & Safety Manager (2007-2009) – This project was awarded Cal-OSHA Golden-Gate award for safety excellence. The project was an 11-story high-rise adaptive reuse project near downtown Los Angeles. The building was formerly an 11-story abandoned office building, which was converted into a 96-unit condominium over retail space. In addition, the project has three-levels of parking, two levels subterranean. (\$41 million)

Amgen Bldg. 94, Thousand Oaks, CA, Health & Safety Manager (2007-2008) - Office space and new hire training center tenant improvement project for a leading Biotech company (Amgen). (\$10 million)

Amgen Bldg. 80/81, Thousand Oaks, CA, Health & Safety Manager (2007-2008) - Office tenant improvement project for this leading Biotech company (Amgen). (\$9 million)



The LiRo Team

Lori Cochran

HRO Liaison

Education

MA, French

BA, Chemistry/Physics

PROFESSIONAL PROFILE

Lori Cochran has nearly 10 years of experience supporting Dewberry's corporate, architecture, and consulting groups. Previously as a Business Development Specialist, her activities spanned the full range of business development and marketing including market research, client meetings, strategy development, proposal preparation, and industry association events. Throughout her career, Lori has frequently facilitated meetings of project stakeholders to identify pressing needs and to build consensus around strategic direction. She is a particularly skilled critical thinker and project manager who understands both business decisions and communication strategies.

EXPERIENCE

NYC Build it Back Pre-Construction Services, Deputy Project Manager - Day-to-day project manager for the single vendor supporting all pre-construction activities for New York City's CDBG-DR funded residential housing recovery program following Hurricane Sandy. Pre-construction activities include field damage assessments of applicant properties, recommending a preliminary construction offering using a cost-based feasibility analysis, and completing the federally-mandated desktop environmental compliance review of proposed construction activities and pre-award customer activities. Responsible for the efficient performance and coordination of the three primary pre-construction tasks plus all other specialty assignments. Participated in policy formation and technical review meetings with NYC Housing Recovery Operations, Housing Preservation and Development, Office for Resiliency and Recovery staff. Interfaced daily with the custom NYC Case Management System built on a Microsoft Dynamics platform including the development of a data exchange with a custom SQL-server data management system built by Dewberry.

FEMA Housing Inspection Services Program Nationwide Contract Procurement, Marketing Coordinator/Graphic Designer - Supported the Partnership for Response and Recovery LLP pursuit of a new contract award. Support primarily focused on establishing and maintaining content production and review schedules; coordinating the design and revision of supporting graphics and figures; and providing the final graphic design and layout of all 5 proposal volumes. Worked with task leaders to capture and outline current operational process diagrams. Additionally provided as needed technical editing of proposal content.

State Farm Insurance Engineering Firm Qualification Submission, Strategic Pursuit Manager/Marketing Coordinator - Managed Dewberry's response to State Farm Insurance's standard Engineering Firm Qualification Questionnaire. Collaborated with every Dewberry division to create a coordinated and blended response capturing the firm's total capabilities to support the insurance industry following disaster events. Dewberry has received approximately 79 individual work requests from State Farm since completing qualification in January 2013.

GSA Nationwide Contract for Feasibility and Other Studies for PBS Courthouses and Federal Buildings, Pursuit Capture Manager - Led successful pursuit of a nationwide contract to prepare feasibility studies for GSA PBS Central Office as part of the prospectus-level project development and funding cycle. Formulated the team organization approach, including small business subcontracting strategy, in collaboration with the Dewberry Senior Principal/Client Manager to best provide the needed services nationwide. Outlined response approach for all evaluation criteria for both SF330 and interview presentation and drafted majority of proposal content.

Metropolitan Courthouse Renovation AIA/AJ Citation of Excellence, Submission Manager, 2009 - Coordinated submission of the renovation and modernization of Nashville, Tennessee's historic Metropolitan Courthouse to the AIA's Academy of Architecture for Justice Knowledge



The LiRo Team

Lori Cochran

HRO Liaison

Community's annual Justice Facilities Review publication. Worked with senior project designers to compile all project data and graphics to illustrate the extent of the building's renovation, highlighting the creativity of the new layout which resolved code deficiencies, provided modern security through circulation separations, and reclaimed abandoned space in the facility. The project was selected as one of a select few citation recipients in the 2009 edition.



C. SUBCONSULTANTS

LiRo has always worked as a blended team with our subconsultants, including M/WBE partners on all our public sector work. On Sandy recovery programs, we have been meeting the M/WBE goals as well as hiring local and Sandy victims, and training Section 3 workers. In fact, **two of the eight key positions designated by DDC/HRO mentioned above are filled by our M/WBE subconsultants, and 50% of subconsultants contacted for this assignment are M/WBE firms.** We are committed to achieving the design and construction goals as well as meeting the Sandy Hiring Plan, Section 3 and M/WBE goals with strategic use of subconsultants and local hires.

Core Design Team

Below are summaries of our design team members' approach and relevant experience. Most of these firms have existing relationships and all have come to this program with an open spirit of collaboration to deliver the best solutions for Sandy impacted homeowners and communities that are still waiting to literally rebuild their lives.

Some of these firms are already involved in the rebuilding process or working on solutions for future storms. They include Gans studio, Garrison Architects, H2M, Keri Kazel Architecture, and Heritage Architecture who are involved in New York City and New York State housing and community recovery programs.

LiRo believes these designers complement each other by bringing their own strengths to meet the very challenging design issues facing this program. Some of the key criteria that LiRo used to select these firms to help develop solutions are:

- Sandy and resiliency design experience
- Residential prototype design experience
- Community planning and design experience
- Single-family and multi-family design and development
- DDC and other NYC public sector experience
- Designs for HUD housing programs experience
- Capacity and past performance

Marvel Architects is dedicated to shaping public space, designing for institutional growth, and expanding economic and creative opportunities for a wide range of clients. Based in New York City, its **47 architects** and urban designers integrate the built and natural environments in every project—from infrastructure development and adaptive reuse to master planning, block building, park and waterfront design, as well as multi- and single-family housing. Experienced at tackling a variety of challenges with innovative design solutions, as well as transforming ordinary projects into remarkable ones, their process consistently uncovers essential qualities of sites and existing structures, and uses them to bring meaning to the new project through rigorous research and analysis.

Gans studio (WBE pending) is experienced in community based planning and urban design. With nearly 10 years in this field, first in New Orleans Post-Katrina working under a HUD grant and later

for ACORN housing in the development of five prototype homes for 350 vacant lots, Gans studio is currently a finalist in the New Orleans Housing Authority's Future Ground competition. Gans studio's ability to create design consensus depends on their skill at communicating complex design ideas in clear terms to multiple stakeholders. Working with Pratt Center, Gans studio has prepared studies for rebuilding in Sheepshead Bay in Brooklyn that was part of the focus by the award-winning NY Rising Community Reconstruction team for that area.

H2M is a full service A/E firm with **over 50 architects** to provide capacity to complete the scope of services needed for this assignment. H2M can provide a wide range of services including architectural design, environmental planning, building design, plumbing, mechanical, electrical, HVAC, structural, site/civil design, survey and wastewater management/sanitary design. H2M has already been involved in rehabilitation and elevation projects for Sandy impacted homes on Long Island.

Keri Kazel, Architecture (WBE pending) is currently working with homeowners impacted by Sandy. With over 80 homes in progress or completed, the firm will bring lessons learned in efficient designs for elevations and cost benefit analysis for pathway determinations.

Garrison Architects uses a pragmatic approach to design, finding the best means available to overcome the constraints of each project. They have used these constraints to innovate efficient and affordable design and building solutions. Their success is demonstrated in the winning design for NYC's Emergency Housing Prototype Competition and their prototype for affordable and rapidly deployable housing for the U.S. Customs and Border Control staff and their families. Both prototypes were built and occupied.

Heritage Architecture (MBE) has experience with HUD housing programs and was recently assigned homes in the Build it Back program through an existing contract with the SCA. The firm has already mobilized resources for this assignment and will bring added capacity to our team.

The full lists of our proposed subconsultants and potential pool of subconsultants are provided in Section 3 of this proposal.

Technical and Support Services

H2Bravo are experts in designing and implementing CDBG-DR housing programs with experience on more than 14 housing programs – the majority of these completed in less than two years. Their principals have managed over 8000 homes re-constructed and rehabilitated utilizing CDBG-DR funds including the \$190M single- and multi-family CDBG-DR housing recovery program for Hurricane Ike for over 1,200 single- and multi-family housing units; the \$124M single and multifamily CDBG-DR housing recovery program from Hurricane Dolly; and currently serve as advisors to the State's NY Rising Program and the City's Build It Back Program.

McKissack & McKissack (MBE) is one of the largest M/WBE companies in New York and is a frequent partner with LiRo on public sector projects. They are part of the LiRo's team on the NY Rising Program.

Hirani Engineering & Land Surveying (MBE) is already active on the Build it Back Program, providing architectural/engineering design, special inspections and surveying for homes that were determined to be substantially damaged by Sandy. Their knowledge of the Program will provide continuity and minimize learning curves in this area of the program.

BuiStudio (M/WBE) provides management and consulting services to the public, private, and nonprofit sectors including disaster recovery and management. Its owner, Trang Bui, has a long-term relationship with LiRo and is among the key members involved with LiRo's Sandy recovery efforts. She was a subconsultant to LiRo on the NYCHA Sandy response to restore power to 80,000 of its residents in two weeks; was part of the Start-Up Team for the Rapid Repairs Program; and served as a Project Manager for Compliance on the NY Rising Housing Recovery Program. For Hurricane Katrina, she managed a team of damage assessors to survey Louisiana State University's medical facilities and locally, she was the Chief of Staff for the NYC Department of Design and Construction, and was part of its 9/11 World Trade Recovery.

Laland Baptiste, LLC (MBE) is a certified minority owned construction management and consulting firm, providing innovative and professional services throughout all phases of the construction life cycle. The firm is currently providing M/WBE and Section 3 outreach and compliance services for LiRo on the NY Rising Housing Recovery Program.

Damage Assessments/Scope Development

Worley Catastrophe is a well-established industry leader in insurance claims handling known for its effective management of natural, weather related events including 40,000 damage assessments for Sandy. For the NY Rising Housing Program, Worley has performed over 10,000 Xactimate damage assessments, AA and ECR reports, and has worked closely with LiRo construction advisors to confirm damage, completed repairs, and CDBG-DR eligible mitigation measures as well as scope verification for homeowners requesting clarifications.

Dewberry Engineers Inc. is nationally recognized leader in the disaster response field with nearly four decades of recovery consulting experience, Dewberry had helped perform the damage assessments for the Build it Back program. Their knowledge of the program and access to their database, which is compatible with CMS, will enable a rapid ramp up with minimal learning curve.

D. SF 254/330 FORMS *including forms for key subconsultants follow.*



SF 254/SF330

1. LiRo Program and Construction Management, PE P.C.
2. H2Bravo
3. Dewberry Engineers Inc.
4. Worley Catastrophe Response
5. Marvel Architects, PLLC
6. H2M architects + engineers
7. Garrison Architects
8. Gans studio: Architecture PLLC
9. Keri Kazel Architecture
10. Rampulla Associates Architects, LLP
11. Ricardo Zurita Architecture & Planning, PC
12. Heritage Architecture, LLC
13. McKissack & McKissack
14. Hirani Engineering & Land Surveying, PC
15. Laland Baptiste LLC
16. Vanir Construction Management, Inc.



LiRo Program and Construction Management, PE P.C.



STANDARD
FORM (SF)
254

Architect-Engineer
and Related Services
Questionnaire

1. Firm Name/Business Address:



**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company

3 Aerial Way
Syosset, NY 11791

3. Date Prepared:

1/29/15

2. Year Present Firm
Established

1994

4. Specify type of ownership & check below, if
applicable.

Corporation

A. Small Business

B. Small Disadvantaged Business

C. Woman-Owned Business

5a. Submittal is for Parent Company Branch or Subsidiary Office

5a. Former Parent Company Name(s), if any, and Year(s) Established:

6. Names of not more than Two Principals to Contact: Title/Telephone

1) Luis M. Tormenta, P.E., CEO & Vice Chairman/516-938-5476

2) Michael Burton, P.E., Sr. Vice President/516-938-5476

7. Present Offices: City / State / Telephone / No. Personnel Each Office

7a. Total Personnel 672

LiRo Architects + Planners, P.C. / New York / NY / 212-563-0280 / 11

LiRo Engineers, Inc. / Syosset / NY / 516-938-5476 / 453

LiRo Program and Construction Management, PE P.C. / Syosset / NY / 516-938-5476 / 208

8. Personnel by Discipline: (list each person only once, by primary function.)

83	Administrative	6	Electrical Engineers	114	Resident Engineer	0	American Sign Language
15	Architects	32	Environmental Engineers	6	Scheduler	0	Archeologist
19	Asbestos Specialists	18	Geologists	2	Structural Engineers	0	Asbestos Managers
10	CADD Technician	1	GIS Specialist	0	Surveyors	0	Bengali Language
18	Civil Engineers	12	Industrial Hygienists	0	Acoustical Engineer	0	Biologist
109	Construction Inspectors	9	Mechanical Engineers	0	Additional Staff	0	Burmese Language
20	Construction Managers	81	Office Engineer	0	Aerial Photographer	0	Cartographer
13	Cost Engineer/Estimator	92	Project Manager	0	Aeronautical Engineer	0	Chemical Engineers

9. Summary of Professional Services Fees

Received: (Insert index number)

Last 5 Years (most recent year first)

	2014	2013	2012	2011	2010
Direct Federal contract work, including overseas	1	1	1	1	1
All other domestic work	8	8	8	8	8
All other foreign work*	1	1	1	1	1

Ranges of Professional Services Fees

INDEX

1. Less than \$100,000
2. \$100,000 to \$250,000
3. \$250,000 to \$500,000
4. \$500,000 to \$1 million
5. \$1 million to \$2 million
6. \$2 million to \$5 million
7. \$5 million to \$10 million
8. \$10 million or greater

* Firms interested in foreign work, but without such experience, check here: []

10. Profile [redacted]'s project Experience, Last 5 Years

Profile Code	Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 006	21	5,556	11) 032	6	56	21) 057	13	3,158
2) 008	9	1,614	12) 033	18	1,682	22) 058	12	2,055
3) 010	6	8,537	13) 035	14	9,517	23) 072	112	20,016
4) 011	52	89,636	14) 036	47	14,640	24) 076	18	13,182
5) 014	6	649	15) 039	24	11,908	25) 084	24	15,813
6) 017	90	7,725	16) 046	132	93,734	26) 088	108	49,276
7) 021	442	620	17) 047	6	5	27) 092	2	7,517
8) 023	15	10	18) 048	163	42,908	28) 096	14	12,187
9) 027	24	1,958	19) 050	239	80,251	29) 099	6	9,635
10) 029	176	114,293	20) 052	7	5,690	30) 109	28	74,316

11. Project Examples, Last 5 Years

Profile Code	"P," "C," "JV," or "E"	Project Name and Location	Owner Name & Address	Cost Of Work (in thousands)	Completion Date (Actual or Estimated)
021 050	P	1 Sandy New York Rising Housing Recovery Program	Dorritory Authority of the State of New York One Penn Plaza, 52nd Floor New York, NY 10119-0098	485,000	On-going
021 050	P	2 NYCHA Emergency Services - Sandy Various locations, NY	New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007	100,000	On-going
021 050	C	3 New Jersey Treasury NJ RREM Sub to URS Various locations, NJ	New Jersey Department of the Treasury Property Management and Construction PO Box 002 Trenton, NJ 08625-0002	650,000	2016
021 050	P	4 New York Rising Small Business Program New York	Dorritory Authority of the State of New York One Penn Plaza, 52nd Floor New York, NY 10119-0098	50,000	On-going
021 050	P	5 New York Rising Community Reconstruction Program New York	Dorritory Authority of the State of New York One Penn Plaza, 52nd Floor New York, NY 10119-0098	150,000	2014
021 050 502	P	6 NYCHA CM/Build Requirements, Contract 3 Various locations, NY	New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007	156,000	On-going
021 050 502	P	7 NYCHA CM as Agent IDIQ, Contract 4 Various locations, NY	New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007	95,000	On-going

501		8	NYCHA Sandy Mitigation Design Program New York	New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007	187,000	On-going
021 050	JV	9	Nassau County Sheltering and Temporary Essential Power (STEP) Countywide, Nassau County, NY	Nassau County Department of Public Works 1194 Prospect Avenue Westbury, NY 11590	12,000	On-going
021 050 502	P	10	NYCHA CM/Build Requirements, Contract 1 Various locations, NY	New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007	82,400	2007
021 110 199	P	11	NYCDEP Emergency Work (Rapid Repairs) New York, NY	New York City Dept. of Environmental Protection Bureau of Environmental Planning and Analysis 59-17 Junction Boulevard Flushing, NY 11373	640,000	2013
021 050	P	12	NYS Homes & Community Renewal Oakwood Beach Buyout Demolition (Moss Cape) Oakwood Beach Staten Island, NY	New York State Homes and Community Renewal 641 Lexington Avenue, 2nd Floor New York, NY 10022	450,000	2014
021 050 282	P	13	DASNY Environmental Recreate NY Smart Home Program New York, NY	Dormitory Authority of the State of New York One Penn Plaza, 52nd Floor New York, NY 10119-0098	4,804	2015
021	C	14	NYCOMB Office of Recovery and Resiliency Various locations, NY	NYC Office of Management & Budget 255 Greenwich Street, 8th Floor New York, NY 10007	3,000,000	2013
021 050 502	P	15	NYCHA CM/Build Requirements, Contract 2 Various locations, NY	New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007	92,700	2011
023 093 094	P	16	East Side Access Transportation Project New York, NY	MTA - Capital Construction Mr. Ronald Pezik (646) 252-6244	26,509	2015
021 023 033	P	17	No. 7 Subway Line Extension, Program and Construction Management New York, NY	MTA - New York City Transit 8 Broadway New York, NY 10004	17,690	2014
088 199 199A	P	18	City of Long Beach DPW Boardwalk Reconstruction Long Beach Boardwalk Long Beach, NY	City of Long Beach Department of Public Works 1 West Chester Street, City Hall, 5th Floor Long Beach, NY 11561	10,013	2013
021 088	P	19	NYCDPR Crescent Beach Emergency Berm Various Locations Staten Island, NY	New York City Department of Parks and Recreation Capital Projects, Olmsted Center Flushing Meadows-Corona Park Flushing, NY 11368	7,500	2013

021 029 502	P	20	NYCSCA Emergency Program 2004-2006 Various locations, NY	York City School Construction Authority 30 Thomson Avenue Long Island City, NY 11101	106,000	2006
021 029 502	P	21	NYCSCA Emergency Program 2006-2009 Various locations, NY	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, NY 11101	56,000	2009
021 029 502	P	22	NYCSCA Emergency Response Program 2009-2012 Various locations, NY	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, NY 11101	75,000	2012
010 021 048	C	23	New Family Intake Center/New Prevention Assistance & Temporary Housing (PATH) Facility East 151st Street, New York, NY	New York City Department of Design & Construction 30-30 Thomson Avenue, 4th Floor Long Island City, NY 11101	24,800	2008
021 099	JV	24	E. 91st St. Marine Transfer Station New York, NY	New York City Department of Design & Construction 30-30 Thomson Avenue, 4th Floor Long Island City, NY 11101	>400,000	On-going
021 042	P	25	NYC EDC Various Waterfront Projects Emergency Response Various locations, NY	New York City Economic Development Corporation 110 William Street, 6th Floor New York, NY 10038	12,000	2014
021 072 502	P	26	NYCDDC Construction Management On-Call New York, NY	New York City Department of Design & Construction 30-30 Thomson Avenue, 4th Floor Long Island City, NY 11101	50,000	2012
021 076 282	P	27	CM - Remediation and Monitoring of City-Owned Tanks New York, NY	New York City Department of Design & Construction 30-30 Thomson Avenue, 4th Floor Long Island City, NY 11101	26,830	2013
033 060 282	P	28	NYCDDC 2013 BEGS Boroughs of Manhattan, Bronx and Staten Island, NY	New York City Department of Design & Construction 30-30 Thomson Avenue, 4th Floor Long Island City, NY 11101	5,200	2015
072 282 E13	P	29	NYCDDC-Environmental Services for Various Projects Boroughs of Manhattan, Bronx and Staten Island, NY	New York City Department of Design & Construction 30-30 Thomson Avenue, 4th Floor Long Island City, NY 11101	10,360	2013

12. The foregoing is a statement of facts

Signature:



Typed Name and Title: Senior Vice President & National Operations Mgr.

Michael Burton, PE

Date:

January 29, 2015

H2Bravo



STANDARD FORM (SF) 254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:
Carrera Management Group, LLC dba H2Bravo
18723 Manchac Highlands Drive
Prairieville, LA 70769

2. Year Present Firm Established: **2011**

3. Date Prepared: **1/12/15**

4. Specify type of ownership and check below, if applicable: **LLC**

A. Small Business
 B. Small Disadvantaged Business
 C. Woman-owned Business

5a. Former Parent Company Name(s), if any, and Year(s) Established:

5. Name of Parent Company, if any:

1a. Submittal is for Parent Company Branch or Subsidiary Office

6. Names of not more than Two Principals to Contact: Title/Telephone

1) **Mark Howard, Managing Member, (225) 614-7961**

2) **Reid Bruce, Principal Program Manager, (601) 942-3019**

7. Present Offices: City / State / Telephone / No. Personnel Each Office

Prairieville / Louisiana / (225) 614-7961 / 5

7a. Total **5**

8. Personnel by Discipline: (List each person only once, by primary function.)

Discipline	20	14	20	13	20	12	19	11	19
Administrative									
Architects									
Chemical Engineers									
Civil Engineers									
Construction Inspectors									
Draftsmen									
Ecologists									
Economists									
Electrical Engineers									
Estimators									
Geologists									
Hydrologists									
Interior Designers									
Landscape Architects									
Mechanical Engineers									
Mining Engineers									
Oceanographers									
Planners: Urban/Regional									
Sanitary Engineers									
Soils Engineers									
Specification Writers									
Structural Engineers									
Surveyors									
Transportation Engineers									
Program Manager									
Construction Manager									

9. Summary of Professional Services Fees

Received: (Insert index number)	Last 5 Years (most recent year first)									
Direct Federal contract work, including overseas	20	14	20	13	20	12	19	11	19	
All other domestic work										
All other foreign work*										

Ranges of Professional Services Fees INDEX

- Less than \$100,000
- \$100,000 to \$250,000
- \$250,000 to \$500,000
- \$500,000 to \$1 million
- \$1 million to \$2 million
- \$2 million to \$5 million
- \$5 million to \$10 million
- \$10 million or greater

* Firms interested in foreign work, but without such experience, check here:

10. Profile of Firm's Project Experience, Last 5 Years					
Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1)	5	\$3,500	11)		
2)	2	\$2,500	12)		
3)			13)		
4)			14)		
5)			15)		
6)			16)		
7)			17)		
8)			18)		
9)			19)		
10)			20)		
			21)		
			22)		
			23)		
			24)		
			25)		
			26)		
			27)		
			28)		
			29)		
			30)		

11. Project Examples, Last 5 Years					
Profile Code	"P," "C," "JV," or "JE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual or Estimated)
050	P	¹ Galveston County Housing Recovery Program Compliance Monitoring	Galveston County 722 Moody Street, Galveston, TX 77550	\$300	8/2015 (E)
021	C	² NY Rising Housing Recovery Program	Governor's Office of Storm Recovery 25 Beaver Street, New York, NY 10004	\$1,200	2/2015 (E)
050	C	³ New York City Build It Back Program	NYC Housing Recovery Office 250 Broadway, New York, NY 10007	\$750	1/2016 (E)
021	C	⁴ Southeast Texas Regional Planning Commission - Housing Recovery	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	\$850	1/2015 (A)
021	C	⁵ City of Galveston Housing Recovery Program, Round 2	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	\$850	1/2015 (A)
021	C	⁶ Lower Rio Grande Valley Housing Recovery Program, Round 2	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	\$850	1/2015 (A)
021	C	⁷ City of Galveston Housing Recovery Program, Round 1	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	\$300	9/2014 (A)

Dewberry Engineers Inc.



STANDARD FORM (SF)

254

Architect-Engineer
Related Services for
Specific Project

1. Firm Name/Business Address:
Dewberry Engineers Inc.
31 Penn Plaza
132 W. 31st Street, Suite 301
212.685.0900



<http://www.dewberry.com>

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any:

The Dewberry Companies Inc.
(controlled by The Dewberry Companies LC)

5a. Former Parent Company Name(s), if any, and Year(s) Established:

Dewberry-Goodkind, Inc. - 2002 Goodkind & O'Dea, Inc. - 1973 Goodkind & O'Dea of New York, Inc. - 1969
Goodkind & O'Dea, Inc. (partnership) - 1952 A.E. Friedgen, Inc. - 1927

6. Names of Not More Than Two Principals to Contact: Title/ Telephone

1) Craig Johnson, PE, President 973.780.9294
2) Doug Frost, PE, Assistant Vice President 703.208.1744

2a. Year Present Firm Established:
2012

3. Date Prepared:
January 21, 2015

4. Specify type of ownership and check below, if applicable.
Corporation

- A. Small Business
 B. Small Disadvantaged Business
 C. Woman-owned Business

7. Present Offices: City / State / Telephone / No. Personnel Each Office

City / State	Telephone	No. Personnel	Headquarters	Total Personnel: 1,947
*Fairfax, VA	703.849.0100	669		
Atlanta, GA	678.530.0022	39	Elgin, IL	847.695.5840
Baltimore, MD	410.265.9500	52	Frederick, MD	301.663.3158
Bartow, FL	407.843.5120	1	Gainesville, VA	703.468.2211
Bloomfield, NJ	973.338.9100	136	Gaithersburg, MD	301.948.8300
Boston, MA	617.695.3400	53	Gulfpport, MS	228.265.9440
Carlisle, PA	717.240.0344	60	Jacksonville, FL	904.332.8601
Chapel Hill, NC	919.433.0075	32	Lanham, MD	301.731.5551
Charlotte, NC	704.509.9918	22	Leesburg, VA	703.771.8004
Dallas, TX	469.232.5200	10	Mount Laurel, NJ	856.802.0843
Danville, VA	434.797.4497	33	New Haven, CT	203.776.2277
DeLand, FL	386.785.0468	7	New Orleans, LA	504.524.8147
Denton, TX	940.735.3322	14	New York, NY	212.685.0900
Denver, CO	303.825.1802	31	Ocala, FL	352.291.4930
			Orlando, FL	407.514.2731
			Parsippany, NJ	973.739.9400
			Pensacola, FL	850.435.7424
			Peoria, IL	309.282.8000
			Philadelphia, PA	703.269.2294
			Phoenix, AZ	602.943.1585
			Pittsburgh, PA	715.961.5200
			Raleigh, NC	919.881.9939
			Richmond, VA	804.290.7957
			Sacramento, CA	916.928.2625
			Tampa, FL	813.225.1325
			Tulsa, OK	918.587.7283
			Virginia Beach, VA	757.355.5814

8. Personnel by Discipline: (list each person only once, by primary function.)

193	Administrative	11	Ecologist/Natural Resources	12	Interior Designers	7	Security Specialists
7	Archeologist	29	Economists/Financial Analysts	153	Land Surveyors	12	Soils Engineer
117	Architects	45	Electrical Engineers	22	Landscape Architects	140	Structural Engineers
78	CADD Technicians	106	Emergency Management	74	Mechanical Engineers	31	Technical/Specification
237	Civil Engineers	10	Environmental Engineers	11	Photogrammetrists	92	Transportation Engineers
9	Coastal Engineers	26	Environmental Specialists	28	Planners: Urban/Regional	112	Water Resources Engineers
38	Computer Specialists	59	Geographers	18	Program Analysts/Program	76	Water/Wastewater Engineers
116	Construction Inspectors	41	GIS Specialists	3	QA/QC Specialists		
11	Cost Engineers/Estimators	11	Geologists	12	Remote Sensing Specialists	1,947	Total

9. Summary of Professional Services Fees Received

Direct Federal contract work, including overseas
All other domestic work
All other foreign work

Last 5 Years (most recent year first)

Year	2013	2012	2011	2010	2009
INDEX	8	8	8	8	8
1. Less than \$100,000	8	8	8	8	8
2. \$100,000 to \$250,000	8	8	8	8	8
3. \$250,000 to \$500,000	4	4	4	4	3
4. \$500,000 to \$1 million	4	4	4	4	3

Ranges of Professional Services Fees

- INDEX
1. Less than \$100,000
2. \$100,000 to \$250,000
3. \$250,000 to \$500,000
4. \$500,000 to \$1 million
5. \$1 million to \$2 million
6. \$2 million to \$5 million
7. \$5 million to \$10 million
8. \$10 million or greater

Firms interested in foreign work, but without such experience, check here: []

10. Profile of Firm's project Experience, Last 5 Years

Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 006	61	2,977	11)	059	232	21)	101	152	21)	101	7,395
2) 011	516	92,694	12)	078	2,311	22)	102	4,139	22)	102	191,522
3) 015	200	1,092	13)	079	1,656	23)	104	142	23)	104	11,383
4) 017	259	6,384	14)	087	65	24)	106	47	24)	106	19,416
5) 021	405	106,327	15)	088	75	25)	107	651	25)	107	113,896
6) 033	281	25,273	16)	089	31	26)	109	13	26)	109	1,773
7) 039	133	20,590	17)	092	308	27)	114	744	27)	114	65,962
8) 042	12	147	18)	095	2	28)	115	777	28)	115	41,251
9) 046	164	90,642	19)	096	344	29)	117	27	29)	117	453
10) 051	15	424	20)	097	19						

11. Project Examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name & Address	Cost Of Work (in thousands)	Completion Date (Actual or Estimated)
023, 033, 050	P	1 Pre-Construction Services for NYCEDC "Build It Back" Relief Program. Federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.	New York City Economic Development Corporation New York, NY	\$12,037	2015 (est.)
021, 033, 050	P	2 GOSR CDBG-DR Construction Management Support Services – Environmental Assessments. The program is assisting approximately 10,000 residents in up to 34 counties in New York State, and will contribute to essential investments in community infrastructure and resources. The selected respondent(s) will be responsible for designing and implementing monitoring and compliance services for a variety of programs outlined in the NY State Action Plan.	New York Governor's Office of Storm Recovery New York, NY	\$1,000	2016 (est.)
050, 101, 102	C	3 New Jersey Reconstruction, Rehabilitation, Elevation and Mitigation Program. Dewberry provided turn-key design/permitting services as the preferred vendor to one of the State of New Jersey's program management firms leading the RREM Program for Block Grant Disaster Recovery for Super Storm Sandy damaged homes. NJ changed the program in late 2013 to a design-build program, and Dewberry's turn-key design services were provided to the State's preferred builders and resulted in providing services on over 350 homes to date. Dewberry provided land surveying, civil design, geotechnical investigation, foundation design (shallow and deep foundations), architectural design and land use and construction permitting services for homes to be rebuilt with program prototype designs and for existing homes that were required to be elevated to meet new FEMA BFEs.	New Jersey Department of Environmental Protection Trenton, NJ	\$1,200	2014
021, 050	P	4 Blue Acres Program Demolition Support. Demolition design and construction administration services for the NJDEP Blue Acres Acquisition Program. Blue Acres acquisition properties (including structures) are those that have been damaged by, or may be prone to incurring damage caused by, storms or storm-related flooding, or that may buffer or protect other lands from such damage, and are eligible for acquisition from willing sellers.	New Jersey Department of the Treasury, Division of Property Management and Construction Trenton, NJ	\$131	2017 (est.)
050	JV	5 FEMA Management and Performance of Housing Inspection. Dispatched specially trained inspectors to disaster sites across the country to assess disaster-damaged houses and determine eligibility for federal assistance. Field inspectors have responded to nearly 30 presidential disaster declarations from coast to coast.	Federal Emergency Management Agency Washington, DC	\$1,531	2013
050	JV	6 FEMA Public Assistance Technical Assistance Contract. As part of the NISTAC joint venture, providing post-disaster technical support and programmatic assistance to FEMA in all 10 FEMA regions. Scope of work involves responding to all types of natural and man-made disasters, including residential housing.	Federal Emergency Management Agency Washington, DC	\$43,347	2017 (est.)
033, 114, 097, 115	P	7 NYCDDC Green Infrastructure. Developing new green infrastructure systems as part of the New York City Department of Environmental Protection's (DEP) Green Infrastructure Plan, an initiative to reduce Combined Sewer Overflows (CSOs) and improve water quality. The green infrastructure will mostly consist of Right-of-Way Bioswales (ROWBs), or tree pits with native plants; curb cuts; and layers of permeable soil, sand, and gravel.	New York City Department of Design + Construction Long Island City, NY	\$5,000	2017 (est.)

033	P	8 New Jersey Environmental Field Assessment. Environmental and historic preservation (EHP) compliance reviews to satisfy compliance with post-Sandy CDBG-DR and FEMA funded programs.	New Jersey Department of Environmental Protection Trenton, NJ	\$124	2015 (est.)
046 056 062 102 104 107 111	P	9 Rosedale Area Reconstruction; Rosedale, Queens, NY. Preliminary and final design for the reconstruction of 19.5 miles of the Rosedale street system. Included 10,000 linear feet of storm sewers, drainage modification, traffic signal designs, street lighting, water mains, curbs and sidewalks, 304,000 square yards of asphalt surfacing and 50,900 cubic yards of concrete pavements base. Also provided construction inspection/management for installation and relocation of water mains, storm sewer construction on timber piles, construction of curbs, sidewalks, and installation of traffic control devices.	New York City Department of Design + Construction Long Island City, New York	49,000	2011
046 104 107 111	P	10 Reconstruction of Pelham Parkway; Bronx, NY. Final design and contract documents for the Pelham Parkway mainlines and two service roads from the Bronx River Parkway to the Hutchinson River Parkway. Includes roadway alignments and profiles, drainage, sewer rehabilitation, water mains, traffic signals, pavement markings, lighting, tree mitigation, wall reconstruction, M&PT and extensive coordination within City agencies and utility companies.	New York City Department of Design + Construction Long Island City, New York	42,600	2014
046 096 097 104 107 111 114 115	P	11 South Beach Area Final Design; Staten, NY. Final design services for the 19,600-LF reconstruction of local streets in the South Beach area of Staten Island, New York. Included total reconstruction of the project area streets including curbs, sidewalks, pavements, new storm and sanitary sewers, extensive water main replacement work, pavement markings, street lighting and preparation/coordination of maintenance and protection of traffic plans.	New York City Department of Design + Construction Long Island City, New York	60,000	2012
046 096 107 114 115	P	12 Reconstruction of Woodrow Road; Staten Island, NY. Provided engineering services for the preliminary design of improvements of Woodrow Road from Rossville Avenue to 500 feet north of Alexander Avenue in Staten Island. Services included a traffic study report and recommendations; schematic geometric design; pavement marking plans; an acquisition study; a preliminary sewer and street grades study; pavement design; an embankment protection study; and electronic archiving of documents.	New York City Department of Design + Construction Long Island City, New York	140 (fee)	2010
059 078 107	P	13 Willowhby Street Plaza; Brooklyn, NY. Roadway and traffic improvements for a new 998,000 SF retail development and parking facilities for 3,178 cars. Work includes new pavement, curbs, sidewalks, 6 new traffic signals, street lighting, pavement markings and signs. Includes contract documents; construction cost estimates; inspection services, construction support services; and resident engineering.	New York City Department of Design + Construction Long Island City, New York	2,190	2011
046 062 107 114 115	P	14 Downtown Brooklyn Traffic Calming; Brooklyn, NY. Engineering design services for the design of traffic calming measures to improve pedestrian safety at 100 intersections. Included corner neckdowns, bus bulb-outs, medians, high visibility pavement markings, street lighting, traffic signals, sidewalks, curbs, catch basins, sewers, water mains and street grades.	New York City Department of Design + Construction Long Island City, New York	3,000 (maximum/ 3 years)	2012
078, 104, 114	P	15 NYSOGS Oakwood Beach Flood Attenuation Feasibility Study. This feasibility study will: review NYCDEP Bluebelt plan, USACE coastal flood and storm damage reduction plan, and The Nature Conservancy's proposed plan; perform a feasibility study by incorporating TNC's proposed plan in combination with NYCDEP's and USACE's proposed plan to evaluate various combinations of natural and structural solutions; and develop a cost-effective conceptual plan to include constructing natural infrastructure only, rock revetment only, or a combination of natural infrastructure and rock revetment built either on government owned properties or on additional properties that could be acquired to protect Oakwood Beach area from coastal surge and provide stormwater retention in the watershed.	New York State Office of General Services Albany, NY	\$611	2014
010, 021, 032, 101	JV	16 DASNY Energy Performance. Facility energy improvements for the Dormitory Authority of the State of New York. Under the energy performance contract, the team is using a modified design-build construction platform to assess energy savings for various state-owned facilities, detail energy conservation measures, prepare drawings and specifications, and bid the work to prequalified contractors.	New York State Dormitory Authority 515 Broadway Albany, NY 12207	\$900	2016 (est.)
046 104 107 111 033 097 053 059	P	17 Springfield Gardens Area Reconstruction; Queens, NY. Final Design and contract documents for reconstruction of 13.5 miles of city streets. Included storm sewers, drainage modifications, traffic signals, lighting, utilities, water mains, curbs and sidewalks, composite pavement, and legal grade maps. Provided M&PT design, construction staging plans and construction phase services.	New York City Economic Development Corporation New York, New York	135,000	2014
088 111 043	P	18 City of New York/ Parks & Recreation Call-In; Various Locations, NY. Two-year contract and an additional two year renewal providing structural and civil engineering design services for facilities such as parks, playgrounds and park buildings that are in need of reconstruction and/or new construction.	City of New York Parks & Recreation Flushing, New York	2,000 (fee- maximum)	2009
104 111 114	P	19 Springfield Basin Drainage Plans; Queens, NY. Design services for the preparation of drainage plans for 7,300 acres. Preparation of sewer system inventory and evaluation report, field survey, elevations and utility plan. Preparation of preliminary and final drainage plans. Includes topographical maps; analyses of existing sewers, previously designed drainage plans and zoning requirements; designs for alternative trunk sewers and high-level storm sewer; evaluation of existing street and property elevations; capacity determination of existing trunk sewers, and plans and profile drawings.	New York City Department of Environmental Protection Flushing, New York	4,000 (fee)	2010
011 087 107	P	20 West 31st Street Bridge over Amtrak; New York, NY. Preliminary/final design of improvements to 50,800 LF of city streets. Including storm sewers, drainage modifications, traffic signals, lighting, utilities, water mains, curbs and sidewalks, composite pavement, and legal grade maps. Provided M&PT design, construction staging plans and construction phase services.	New York City Department of Transportation New York, New York	9,000	2013

011 087 107	P	20 West 31st Street Bridge over Amtrak; New York, NY. Preliminary/final design of improvements to 50,800 LF of city streets. Including storm sewers, drainage modifications, traffic signals, lighting, utilities, water mains, curbs and sidewalks, composite pavement, and legal grade maps. Provided M&PT design, construction staging plans and construction phase services.	New York City Department of Transportation New York, New York	9,000	2013
011 046 062 089 095	P	21 Rehabilitation of Seven Bridges over Cross Bronx Expressway; Bronx, NY. In-depth inspection and rehabilitation design, including deck evaluations, load ratings, condition survey, substandard features evaluation, asbestos abatement, M&PT, steel vulnerability and seismic considerations. Feasibility study performed for widening of the Expressway. An Interim repair contract was developed.	New York State Department of Transportation Albany, New York	26,000	2017
011 046 111	P	22 Verizon/Empire City Subway Company - Utility "Call In"; Citywide New York, NY. Preparation of designs for the support and protection of Verizon's underground and overhead telephone facilities that are impacted by City and State roadway infrastructure improvement projects.	Verizon/Empire City Subway Company Brooklyn, New York	500 (fee)	2012
011 089 102	P	23 Rehabilitation of 13 Bridges On or Spanning the Grand Central Parkway (GCP); Queens, NY. Structural condition inspection and rehabilitation design for 13 bridge structures on or spanning GCP between Clearview Expressway and Little Neck Parkway; topographic survey; deck evaluations; load ratings; inspection findings, preliminary cost estimate; contract documents and estimates and construction support services.	New York State Department of Transportation Region 11 Long Island City, New York	23,000	2008
108	P	24 Consolidated Edison Call-In 2010-2011; Various Locations, NY. Engineering services related to the City of New York capital infrastructure improvements on Con Edison facilities. Included temporary pedestrian bridge design, retaining wall design, conduit support design across a bridge, and design of load spreading systems to reduce crane loading over underground conduits.	Consolidated Edison Company of New York New York, New York	250 (fee-maximum)	2012
021	P	25 Construction Inspection of Concrete Pavement Restoration on the New England Thruway - Contract D213536, Various Locations, NY. Provided construction inspection support services along the northbound and southbound roadways of the New England Thruway, Milesposts NE 0.0 to NE 7.2. The project entailed 14 miles of partial depth concrete pavement spall repairs and full-depth concrete pavement slab replacement with the Super-Slab System.	New York State Thruway Authority Albany, New York	28,000	2009
046 062 011 078 107	C	26 Route 347 Improvements; Suffolk County, NY. Preliminary design services for the Route 347 Corridor from the Northern State Parkway to Route 25A, 15 miles. Included the development of an EIS; pavement reconstruction/widening, including elimination of non-standard features where cost-effective; addition of three new grade separations with full interchange ramps at critical existing at-grade intersections; and the upgrading of drainage, signalization and lighting.	New York State Department of Transportation Albany, New York	375,000	2010
011 089 107	P	27 Rehabilitation of 12 Bridges; New York, NY. Design, in-depth condition inspection and construction support for the rehabilitation of 12 citywide bridges that include steel beams with a concrete deck, concrete arch with brick facing, and concrete rigid frame. Includes a Bridge Reconstruction Project Report for each bridge, and preliminary design plans for rehabilitation/replacement.	New York City Department of Transportation New York, New York	6,881	2013
011 089 107	P	28 Rehabilitation of Ten Culvert Bridges; New York, NY. Engineering design and construction support for the rehabilitation of 10 culvert bridges. Types included stone arch, double and triple barrel, concrete box, and concrete pipe construction. Included in-depth condition inspection, bridge load rating, preparation of a Bridge Reconstruction Project Report for each culvert, and preliminary design plans for rehabilitation/replacement.	New York City Department of Transportation New York, New York	5,000	2013
028 033 046 053 079 092 097 104 107 114	JV	29 NYS Route 110 Reconstruction Prime Avenue to Youngs Hill Road; Huntington, NY. Providing preliminary design services (Phases I-IV) to evaluate feasible alternatives to roadway and significant drainage improvements. Determine the major factors responsible for flooding of Route 110 between New York Avenue and Mill Dam Road by analyzing the contributing watershed and existing storm drainage network; evaluating possible solutions to flooding; and recommending design alternatives to alleviate the flooding.	New York State Department of Transportation Albany, New York	18,000	2012
011 033 046 078 087 097 107	JV	30 Bruckner and Sheridan Expressways; Bronx, NY. Developing an Environmental Impact Statement and providing preliminary engineering for interchange improvements at the confluence of the Bruckner (I-287) and Sheridan (I-895) Expressways, in addition to access improvements to the Hunts Point peninsula. This 3-mile, 6-lane expressway handles approximately 115,000 vehicles per day, with additional traffic using the boulevard located beneath the elevated structure. A number of factors have continually slowed traffic and increased accidents, including poor geometrics on access ramps, intersections operating over capacity, and bridge decks in desperate need of repair, in addition to lack of direct access to the Hunts Point Peninsula.	New York State Department of Transportation Albany, New York	400,000	2013
12. The foregoing is a statement of facts					
Signature: 		Typed Name and Title: Douglas D. Frost, PE, Assistant Vice President			
		Date: January 2015			

Worley Catastrophe Response



STANDARD FORM (SF) 254
Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:

Worley Claims LLC and its Subsidiaries
303 Timber Creek
Hammond, La 70403

2. Year Present Firm Established

1976.

3. Date Prepared:

1/13/2015

4. Specify type of ownership and check below, if applicable.

- A. Small Business
 B. Small Disadvantaged Business
 C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5a. Former Parent Company Name(s), if any, and Year(s) Established:

Worley Aquiline Parent LLC 2014
Worley Claims Services LLC 2008

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1)
2)

7. Present Offices: City / State / Telephone / No. Personnel Each Office

Hammond / Louisiana / 888.887.8070

7a. Total Personnel **546**

8. Personnel by Discipline: (List each person only once, by primary function.)

2	Administrative	10	Electrical Engineers	_____	Oceanographers	_____
_____	Architects	_____	Estimators	_____	Planners: Urban/Regional	_____
_____	Chemical Engineers	_____	Geologist	_____	Sanitary Engineers	_____
_____	Civil Engineers	_____	Hydrologists	_____	Soils Engineers	_____
_____	Construction Inspectors	_____	Interior Designers	_____	Specification Writers	_____
_____	Draftsmen	_____	Landscape Architects	_____	Structural Engineers	_____
_____	Ecologists	_____	Mechanical Engineers	_____	Surveyors	_____
_____	Economists	_____	Mining Engineers	_____	Transportation Engineers	_____

9. Summary of Professional Services Fees

Received: (Insert index number)

19 08	19 08	19 08	19 08	19 08
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Ranges of Professional Services Fees INDEX

1. Less than \$100,000
2. \$100,000 to \$250,000
3. \$250,000 to 500,000
4. \$500,000 to \$1 million
5. \$1 million to \$2 million
6. \$2 million to \$5 million
7. \$5 million to \$10 million
8. \$10 million or greater

Direct Federal contract work, including overseas
All other domestic work
All other foreign work*

*Firms interested in foreign work, but without such experience, check here:

Profile of Firm's Project Experience, Last 5 Years

Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 201	5	20,000	11)			21)		
2) 202	1	300,000	12)			22)		
3)			13)			23)		
4)			14)			24)		
5)			15)			25)		
6)			16)			26)		
7)			17)			27)		
8)			18)			28)		
9)			19)			29)		
10)			20)			30)		

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual)
202	P	¹ BP Deepwater Horizon / Gulf Coast Claims Facility (GCCF)		\$300m	Aug 2012
201	JV	² Texas Housing Assistance Program / Galveston Housing Assistance Program		\$5m	2011
201	JV	³ Louisiana Road Home -- Homeowner Assistance Program/HMGP		\$10m	ongoing
201	JV	⁴ New York Rising Recovery Program		\$15m	ongoing
201	JV	⁵ New Jersey Sandy Recovery Division (NJ RREM)		\$5m	ongoing
		⁶			
		⁷			

Marvel Architects, PLLC



STANDARD FORM (SF)

254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:
Marvel Architects, PLLC
145 Hudson Street
New York, NY 10013

2. Year Present Firm Established
JULY 2013

3. Date Prepared:
01.01.2014

4. Specify type of ownership and check below, if applicable.

- A. Small Business
 B. Small Disadvantaged Business
 C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any:

5a. Former Parent Company Name(s), if any, and Year(s) Established:
1) Rogers Marvel Architects, 1992 2) Jonathan Jova Marvel Architect, 1990

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) Jonathan Marvel, Founding Principal 212.616.0420
2) Guido Hartray, Founding Partner 212.616.0420

7. Present Offices: City / State / Telephone / No. Personnel Each Office

New York, NY 212.616.0420

7a. Total Personnel 48

8. Personnel by Discipline: (List each person only once, by primary function.)

5	Administrative	_____	Electrical Engineers	_____	Oceanographers	_____
43	Architects	_____	Estimators	_____	Planners: Urban/Regional	_____
_____	Chemical Engineers	_____	Geologist	_____	Sanitary Engineers	_____
_____	Civil Engineers	_____	Hydrologists	_____	Soils Engineers	_____
_____	Construction Inspectors	_____	Interior Designers	_____	Specification Writers	_____
_____	Draftsmen	_____	Landscape Architects	_____	Structural Engineers	_____
_____	Ecologists	_____	Mechanical Engineers	_____	Surveyors	_____
_____	Economists	_____	Mining Engineers	_____	Transportation Engineers	_____

9. Summary of Professional Services Fees Received: (Insert index number)

Last 5 Years (most recent year first)	Ranges of Professional Services Fees INDEX				
	2014	2013	2012	2011	2010
19	19	19	19	19	19
NA	NA	NA	NA	NA	NA
7	4	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

Direct Federal contract work, including overseas
All other domestic work
All other foreign work *

*Firms interested in foreign work, but without such experience, check here:

Profile of Firm's Project Experience, Last 5 Years Marvel Architects was established in 2013. Any work completed as the previous partnership of Rogers Marvel Architects, will be noted.

Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 029 edu	5		11) 110 urban	2		21)		
2) 047 hist p	4		12) 041 gd	1		22)		
3) 049 hotel	2		13) 045 hirise	3		23)		
4) 050 housin	7		14) 008 theat	2		24)		
5) 055 int.de	2		15) 088 rec	2		25)		
6) 060 libmus	1		16) 089 rehab	10		26)		
7) 072 office	1		17)			27)		
8) 078 plan	5		18)			28)		
9) 079 plan	15		19)			29)		
10) 103 pool	1		20)			30)		

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "JE"	Project Name and Location	Owner Name and Address	Est. Construct Cost: Cost of Work (in thousands)	Completion Date (Actual)
050, 055, 049, 079,	P	1 PIERHOUSE AND 1 HOTEL Brooklyn, NY	Toll Brothers City Living [and Stanwood Capital Group] 75 Broad Street, Suite 2100 New York, NY 10004	\$250,000	Current
050, 110	P	2 STATE STREET 14+9 TOWNHOUSES Brooklyn, NY	HS Development Partners 1114 Avenue of the Americas New York, NY 10036	\$13,700 [14] \$10,000 [9]	2013
050	P	3 SACKETT UNION TOWNHOMES AND CONDOS Brooklyn, NY	Alchemy Properties 641 Lexington Avenue New York, NY 10022	\$40,000	2013
045, 050, 060, 079,	P	4 BROOKLYN PUBLIC LIBRARY, 1 CADMAN Brooklyn, NY	The Hudson Companies, Inc. 826 Broadway, 11th Floor NY, NY 10003	Private	Current
050	P	5 THIRD AND BOND RESIDENCES Brooklyn, NY	The Hudson Companies, Inc. 826 Broadway, 11th Floor NY, NY 10003	\$15,000	2010
047, 050, 055, 079	P	6 PRINCE STREET New York, NY	Hamlin Ventures 675 Third Avenue, 27th Floor New York, NY 10017	\$15,000	Current
079, 050	P	7 FAR ROC COMPETITION ENTRY Far Rockaway, Brooklyn, NY	New York City Department of Housing Preservation & Development, L+M Development Partners, The Bluestone Organization, Triangle Equities, Enterprise Community Partners AIA New York	\$NA	2013

050	P	8 WILLIAMSBURG MULTI-FAMILY RESIDENCE Brooklyn, NY	The Hudson Companies, Inc. 826 Broadway, 11th Floor New York, NY 10003	Private	Current
045, 050	P	9 FLATBUSH AVENUE RESIDENCE Brooklyn, NY	The Hudson Companies, Inc. 826 Broadway, 11th Floor New York, NY 10003	\$60,000	Current
050, 079, 045	P	10 MELROSE COMMONS New York, NY	WHEDco [AND Blue Sea Development Partnership] 50 East 168th Street Bronx, NY 10452	\$70,000	Current
088, 110	P	11 HOBOKEN BOATHOUSE Hoboken, NJ	City of Hoboken 94 Washington Street Hoboken, NJ 07030	\$7,000	Current
008, 047, 055, 079, 089	P	12 ST. ANN'S WAREHOUSE Brooklyn, NY	St. Ann's Warehouse 29 Jay St Brooklyn, NY 11201	\$18,000	Current
078, 110	P	13 GANSEVOORT STREETSCAPES New York, NY	*under a URS contract with the DDC 30-30 Thomson Avenue Long Island City, NY 11101	\$25,000	Current
047, 089, 072, 052, 079, 110	P	14 NEW LAB AT THE NAVY YARDS Brooklyn, NY	DBI / Macro Sea 1261 Broadway, 9th Floor New York, NY 10001	\$11,000	Current
088, 110	P	15 NAVAL HOSPITAL CEMETERY MEMORIAL LANDSCAPE Brooklyn, NY	Brooklyn Greenway Initiative 95 Kane Street Brooklyn, NY 11231	\$11,000	Current
029, 060,	P	16 SOUTH FORK NATURAL HISTORY MUSEUM Bridgehampton, NY	South For Museum of Natural History 377 Bridgehampton / Sag Harbor Turnpike P.O. Box 455	\$24,000	2005
088, 103, 110, 047, 089	P	17 MCCAREEN POOL AND BATHHOUSE Brooklyn, NY	New York City Department of Parks & Recreation - The Olmsted Center Flushing, NY 11368	\$43,000	2012
050	P	18 RED CREEK Southampton, NY	Levy Family Southampton, NY 11968	Private	2014
050, 079, 078,	P	19 GOWANUS GREEN PUBLIC SPACE AND RESIDENCE PLAN Brooklyn, NY	The Hudson Companies, Inc. 826 Broadway, 11th Floor New York, NY 10003	\$300,000 [unbuilt]	2012

055, 072, 089, 079,	P	20 AMERICAN PHYSICAL SOCIETY Ridge, NY	American Physical Society One Research Road Ridge, NY 11961	\$11,000	2014
008, 079, 072, 041	P	21 PLAYWRIGHTS HORIZONS PROGRAMMING STUDY New York, NY	Playwrights Horizons 416 W 42nd Street New York, NY 10036	\$NA	Current
089, 049, 050, 079, 047	P	22 HOTEL CHELSEA New York, NY	Chelsea Hotels 52 Seventh Avenue New York, NY 10018	Private	Current
089, 079, 049	P	23 HARVARD CLUB New York, NY	Harvard Club 35 W 44th Street New York, NY 10036	\$6,000	2014
029, 110	P	24 HENDERSON HOPKINS SCHOOL Baltimore, MD [as Rogers Marvel Architects]	East Baltimore Development Inc. 1731 East Chase Street Baltimore, MD 21213	\$35,000	2013
078, 110	P	25 HUDSON SQUARE URBAN INTERVENTION New York, NY	Hudson Square Connection [BID] 180 Varick St # 422 New York, NY 10014	\$50,000 but unbuilt	Current
029, 079, 089	P	26 SAINT ANN'S SCHOOL Brooklyn, NY	Saint Ann's School 129 Pierrepont St. Brooklyn, NY 11201	Private	Current
029, 008, 047, 079, 055, 089	P	27 NJIT, CENTRAL KING BUILDING Newark, NJ.	New Jersey Institute of Technology 323 Dr Martin Luther King Jr Blvd Newark, NJ 07102	\$63,000	Current
		28			
		29			
		30			
12. The foregoing is a statement of facts					
<i>Jonathan Marvel</i>			Typed Name and Title: Jonathan Marvel, Principal		
					Date: January 2015

H2M architects+ engineers



STANDARD FORM (SF)

254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:
H2M architects + engineers
 538 Broad Hollow Road, 4th Floor East
 Melville, New York 11747
Federal ID No. 11-2235604



2. Year Present Firm Established: 1933 3. Date Prepared: January 9, 2015

4. Specify type of ownership and check below, if applicable:
Private Corporation: Duns Number 05-499-2334

A. Small Business
 B. Small Disadvantaged Business
 C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any: N/A
 5a. Former Parent Company Name(s), if any, and Year(s) Established:
 H.G. Holzmacher, 1933; H.G. Holzmacher & Associates, 1966 Holzmacher, McLendon & Murrell, 1961; H2M Corp., 1972;
 Holzmacher, McLendon & Murrell, P.C., 1970
Present Name – H2M architects + engineers

6. Names of not more than Two Principals to Contact: Title/Telephone
Michale J. Bonacasa, AIA, (631) 756-8000, ext. 1315, email: mbonocasa@h2m.com

7. Present Offices: City/State/Telephone/No. Personnel Each Office

Melville, New York	631-756-8000	214
Albany, New York	518-621-7558	2
New City, New York	845-499-2264	2
White Plains, New York	914-304-4260	3
Parsippany, New Jersey	862-207-5900	30

Howell, New Jersey 914-304-4260 3

7a. Total Personnel 254

8. Personnel by Discipline: (List each person only once, by primary function.)

32 Administrative	13 Electrical Engineers	3 Planners: Urban/Regional	Engineering Technicians
53 Architects	Estimators	12 Sanitary Engineers	GIS Specialists
1 Chemical Engineers	1 Geologists	1 Specification Writers	Biologists
46 Civil Engineers	10 Hydrologists/Hydrogeologists	8 Structural Engineers	Chemists
21 Construction Inspectors	Interior Designers	4 Surveyors	Laboratory Assistants
5 Draftsmen/CADD Operators	2 Landscape Architects	Transportation Engineers	Laboratory Technicians
Ecologists	10 Mechanical Engineers	13 Environmental Engineers	Computer Programmers
Economists	Mining Engineers	16 Environmental Scientists	Word Processors
			254 TOTAL

9. Summary of Professional Services Fees

Received: (Insert index number)

Direct Federal contract work, including overseas	2013	2012	2011	2010	2009
All other domestic work	5	5	5	5	5
All other foreign work*	8	8	8	8	8
	0	0	0	0	0

* Firms interested in foreign work, but without such experience, check here: []

Ranges of Professional Services Fees INDEX

1.	Less than \$100,000
2.	\$100,000 to \$250,000
3.	\$250,000 to \$500,000
4.	\$500,000 to \$1 million
5.	\$1 million to \$2 million
6.	\$2 million to \$5 million
7.	\$5 million to \$10 million
8.	\$10 million or greater

10. Profile of Firm's Project Experience, Last 5 years										
Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Number of Projects	Total Gross Fees (in thousands)
1) 004	06	120	11) 052	14	250	21) 089	14	526		
2) 009	03	940	12) 054	23	750	22) 096	42	2967		
3) 013	09	130	13) 056	10	263	23) 101	99	1860		
4) 017	16	350	14) 061	60	300	24) 102	58	1393		
5) 021	80	5000	15) 072	19	502	25) 104	15	856		
6) 036	40	200	16) 076	15	290	26) 114	40	2787		
7) 039	03	270	17) 079	29	985	27) 115	75	7110		
8) 043	50	1100	18) 080	60	250	28) 117	10	410		
9) 046	25	991	19) 082	100	3000	29) 219	50	500		
10) 047	16	551	20) 088	10	406	30) 275	05	5000		

11. Project Examples, Last 5 years									
Profile Code	"P" "C" "JV" or "IE"	Project Name and Location	Owner Name and Address	*Completion Cost of Work (in thousands)	Date (Actual or Estimated)				
275, 082, 221, 115, 043, 273, 274, 266, 021, 089, 261, 054	P	1. Indefinite Delivery Contract for Architecture and Engineering Services at Postal Plant Facilities in New York City, Long Island, Lower Hudson, New Jersey	United States Postal Service Jersey City, New Jersey	NTE 2000/yr	2009-2014				
096, 275, 082, 046, 080, 015, 043, 036, 273, 039, 061, 062, 094, 009, 019, 023	P	2. Indefinite Delivery Contract for Architecture and Engineering Services at Postal Facilities throughout New York City and Long Island	United States Postal Service Jersey City, New Jersey	NTE 500/yr	2005-2009				
096, 275, 082, 046, 080, 015, 043, 036, 273, 021, 089, 101, 009, 019, 023	P	3. Term Contract for General Engineering and Environmental Services throughout New York State	New York State Office of General Service Albany, New York	500	2007-2014				
275, 015, 061, 062, 080, 273, 036, 043, 023, 089, 101, 005	P	4. Indefinite Delivery Contract for Various Architecture and Engineering Projects at Airport	New York Air National Guard Latham, New York	NTE 2000	2001-2008				
004, 075, 088, 039, 033, 043, 056, 021, 062, 096, 266, 076, 104, 114, 115	P	5. Indefinite Delivery Contract for General A/E and Environmental Services at Various Sites Throughout New York State	Dormitory Authority of New York State Albany, New York	NTE 2000	2010-2014				
004, 075, 088, 039, 033, 043, 056, 021, 062, 096, 266, 076, 104, 114, 115	P	6. Indefinite Delivery Contract, Citisearch - Renovations and New Construction for OPWDD for IRA Conversions	Dormitory Authority of New York State Albany, New York	500	2007-open				

021, 023, 043, 050, 055, 080, 101, 102, 111, 115, 117	P	7. Santos Residence, Oceanside NY Designed plans to raise house above base flood elevation with alterations after damage from Hurricane Sandy	Eloy Santos Oceanside, NY	300	2015
021, 023, 043, 050, 055, 080, 101, 102, 111, 115, 117	P	8. Warshaw Residence, Massapequa NY Designed new finishes due to Hurricane Sandy flooding, construct addition above base flood elevation.	Tom Warshaw Massapequa, NY	450	2015
021, 023, 043, 050, 055, 080, 101, 102, 111, 115, 117	P	9. Colletti Residence, Baldwin NY Designed plans to raise house above base flood elevation after damage sustained in Hurricane Sandy	Frank Colletti Baldwin, NY	250	2015
021, 023, 043, 050, 055, 080, 101, 102, 111, 115, 117	P	10. Boening Residence, Freeport NY Designed plans to raise house above base flood elevation with alterations after Hurricane Sandy damage	Pam Boening Freeport, NY	300	2015
021, 023, 043, 050, 055, 080, 101, 102, 111, 115, 117	P	11. Pascual Residence, Freeport NY Designed new house above base flood elevation after damage sustained during Hurricane Sandy	Joseph Pascual Freeport, NY	350	2014
021, 023, 043, 050, 055, 080, 101, 102, 111, 115, 117	P	12. Spindler Residence, Merrick NY Designed new interior finishes due to flooding from Hurricane Sandy. Minor alterations to house.	Adam Spindler Merrick NY	400	2014
088, 039, 023, 036, 273, 043, 061, 062, 080, 021, 089, 096, 103	P	13. Water Theme Park Design and Subsequent Expansions – Architecture and Engineering Services, Riverhead, NY	Splish Splash at Adventureland, Inc. Riverhead, New York	7345	Ongoing
088, 039, 023, 036, 273, 043, 061, 062, 080, 021, 089, 096, 103	P	14. Stony Brook Hotel (Hilton Garden Inn) Architecture and Engineering Services Including New Swimming Pool and Spa, Stony Brook, NY	Harbor Construction Management, LLC Port Jefferson, NY	732	2012
011, 021, 046, 056, 104, 107, 199	P	15. Construction Inspection Highway/Bridge Term Agreement in Nassau and Suffolk Counties, Region 10, New York	New York State Department of Transportation Hauppauge, New York	4000	2008-2012
079, 089, 088, 043, 080, 219	P	16. \$24 Million Bond for Facility Modernization Projects Throughout District	Hewlette-Woodmere Public School Woodmere, New York	24,000	2010
023,043, 061, 080, 089, 101, 102, 219, 273	P	17. Design and Construction Phase Services for a New Library including Sustainable Designs	Sayville Public Library Sayville, New York	12170	2009
050, 219	P	18. Installation of 25 Backup Generators at Various Sites Dormitory Authority State of New York	Various Sites, New York	700,000	2012

* The amount entered in the Cost of Work Column can include construction.

219, 096, 101	P	19. Bay Park STP Electrical Upgrades	Nassau County Department of Public Works Mineola, NY	18M	2014
057, 047, 015, 265, 101, 089, 023	P	20. Professional Planning and Environmental Services Term Agreement 2001-2004	Town of Hempstead, Department of Planning and Economic Development Hempstead, New York	2000	2001-2012
042, 056, 082, 102, 104	P	21. Valentine Beach Drainage Improvements Bayville, New York	Village of Bayville Bayville, New York	1200	2010
046, 056, 102, 104, 107	P	22. 1996-2000 Roadway Improvement Program Various Streets, Great Neck, NY	Inc. Village of Great Neck Great Neck, New York	4500	Ongoing
089, 115, 106, 219	P	23. Iron Filtration System for Wells 28A, 28B and 30, NY	Water Authority of Western Nassau County Elmont, New York	8.8 M	Ongoing
089, 115, 106	P	24. Volatile Organic Compounds (VOCs) Treatment System for Plant No.1, Farmingdale NY	South Farmingdale Water District Farmingdale, New York	9.0 M	2011
096, 101, 043, 273, 080, 062, 023, 051, 009	P	25. Continental Villas MBR Wastewater Treatment Facility, Locust Valley, New York	Nassau County Department of Public Works Mineola, New York	111	Ongoing
115, 114, 015, 219, 101, 097, 043, 273, 083, 080, 013, 051	P	26. Investigation/Remediation of Contaminated Soils at Bethpage Community Park, Bethpage, NY	Town of Oyster Bay Bethpage, New York	1000	Ongoing
046, 104	P	27. Halesite Drainage Improvements Construction Inspection	New York State Department of Transportation	18M	2015
052, 004, 015, 221	P	28. Asbestos Survey, Abatement Design and Project/Air Monitoring Services at Yankee Stadium and Bronx Terminal Market	New York City Economic Development Corporation New York, New York	112	2008
09, 114, 221	P	29. Groundwater Monitoring at Sonia Road and Blydenburgh Landfills	Town of Islip Islip, New York	26.8	Ongoing
033, 221, 266	P	30. Investigation and Remediation of Fuel Oil Spills at Multiple Sites	Allstate Insurance Co. Lake Success, New York	1000	Ongoing
048, 050, 023, 043 031, 015, 101, 102 094, 104, 219	P	31. Samaritan Village 32. Bronx, NY	Dormitory Authority of the State of New York	20M	2013-2015
12. The foregoing is a statement of facts					
 Signature:			Typed Name & Title: Michael J. Bonacasa, R.A., Vice President		
				Date: January 9, 2015	

Garrison Architects



STANDARD FORM (SF) 254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:

Garrison Architects
45 Main St Ste 1026
Brooklyn, NY 11201

2. Year Present Firm Established
1991

3. Date Prepared:
2014

4. Specify type of ownership and check below, if applicable.

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any:

5a. Former Parent Company Name(s), if any, and Year(s) Established:
Garrison Siegel Architects, 1993

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) James Garrison, Principal, 718 596 8300
- 2)

7. Present Offices: City / State / Telephone / No. Personnel Each Office

45 Main Street Suite 1026
Brooklyn, NY 11201
718 596 8300

7a. Total Personnel 12

8. Personnel by Discipline: (List each person only once, by primary function.)

Administrative	Electrical Engineers	Oceanographers
Architects	Estimators	Planners: Urban/Regional
Chemical Engineers	Geologist	Sanitary Engineers
Civil Engineers	Hydrologists	Soils Engineers
Construction Inspectors	Interior Designers	Specification Writers
Draftsmen	Landscape Architects	Structural Engineers
Ecologists	Mechanical Engineers	Surveyors
Economists	Mining Engineers	Transportation Engineers

9. Summary of Professional Services Fees Received: (Insert index number)

	Last 5 Years (most recent year first)				
	2014	2013	2012	2011	2010
Direct Federal contract work, including overseas	1	1	1	1	5
All other domestic work	5	5	5	5	3
All other foreign work*					1

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to 500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

*Firms interested in foreign work, but without such experience, check here:

Profile of Firm's Project Experience, Last 5 Years						
Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code
1) 008	1	437	11) 110	2	1,085	21)
2) 019	1	390	12) 117	3	629	22)
3) 029	1	580	13)			23)
4) 048	1	489	14)			24)
5) 050	12	3,030	15)			25)
6) 060	1	453	16)			26)
7) 069	6	2,883	17)			27)
8) 072	2	532	18)			28)
9) 079	2	1,084	19)			29)
10) 088	2	1,610	20)			30)

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual)
088	P	1 NYC Parks Beach Restoration Modules Queens, Staten Island, and Brooklyn, NY	Faith Rose, Design Liaison, NYCDDC 30-30 Thomson Ave Long Island City, NY 11101 718-391-1080	\$109,000	2013
050	P	2 NYC Emergency Housing Prototype Brooklyn, NY	Cynthia Barton New York City Office of Emergency Management 165 Cadman Plaza East Brooklyn, NY 11201	\$1,000	2014
110	P	3 Bedford-Stuyvesant Restoration Plaza, Brooklyn, NY	Dynest Sinckler Bedford-Stuyvesant Restoration Corp. 1368 Fulton Street Brooklyn, NY 11216-2600	\$8,000	2011
072	P	4 Border Patrol Station, Murietta, CA	Steve Baker General Services Administration 880 Front Street, Suite 4236 San Diego, CA 92101	\$13,000	2006
008	P	5 Irish Repertory Theater, New York, NY	Faith Rose, Design Liaison NYCDDC 30-30 Thomson Ave Long Island City, NY 11101	\$3,000	2011
048	P	6 Staten Island Animal Care Center Staten Island, NY	Moses Ros, Project Manager, Health Unit -NYCDDC 30-30 Thomson Ave, L.I.City, NY 718-391-1681	\$3,000	2015
050	P	7 US Consulate Residence Apia, Samoa	Kevin Spence, Overseas Bureau Office, Architect 1701 North Fort Meyer Drive Rosslyn, Virginia; 703-516-1801	\$2,200	2011

029	P	20 Child Care Center/Lehman College Bronx, NY	James Holtgreven, Project Manager Department of Design, Constr. & Management, City University of NY 646-758-7899	\$6,000	2014
110	P	21 Roberto Clemente Plaza Bronx, NY	Joe Sopiak, Project Manager DDC 30-30 Thomson Ave, L.I. City, NY 718-391-1240	\$4,000	2015
060	P	22 East Elmhurst Library Queens, NY	Faith Rose, Design Liason NYCDDC 30-30 Thomson Ave Long Island City, NY 11101 718-391-1080	\$3,000	2015
		23			
		24			
		25			
		26			
		27			
		28			
		29			
		30			

12. The foregoing is a statement of facts

_____ *James Garrison* _____
 TYPED NAME AND TITLE: _____
 Date: 1/20/2015



Gans studio: Architecture PLLC



STANDARD FORM (SF)

254

Architect-Engineer And Related Services Questionnaire

1. Firm Name/Business Address:
Gans studio: Architecture PLLC

2. Year Present Firm Established 2014 as a PLLC, 2004 as Gans studio

3. Date Prepared: 1.15.15

4. Specify type of ownership and check below, if applicable.

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

Name of Parent Company, if any: 5a. Former Parent Company Name(s), if any, and Year(s) Established:

Names of not more than Two Principals to Contact: Title/Telephone
1) Deborah Gans FAIA, Owner 718 237 3034

2) Present Offices: City / State / Telephone / No. Personnel Each Office

481 Van Brunt Street 718 237 3034
Brooklyn New York
11231

7a. Total Personnel 7

Personnel by Discipline: (List each person only once, by primary function.)

1_ Administrative	Electrical Engineers	Oceanographers
2_ Architects	Estimators	1_ Planners: Urban/Regional
Chemical Engineers	Geologists	Sanitary Engineers
Civil Engineers	Hydrologists	Soils Engineers
Construction Inspectors	Interior Designers	Specification Writers
3_ Draftsmen	Landscape Architects	Structural Engineers
Ecologists	Mechanical Engineers	Surveyors
Economists	Mining Engineers	Transportation Engineers

Summary of Professional Services Fees

Received: (Insert index number)

Last 5 Years (most recent year first)

Direct Federal contract work, including overseas	2014	2013	2012	2011	2010
All other domestic work	2	1	1	1	1
All other foreign work *	1	1	1	1	1

Ranges of Professional Services Fees INDEX

1. Less than \$100,000
2. \$100,000 to \$250,000
3. \$250,000 to \$500,000
4. \$500,000 to \$1 million
5. \$1 million to \$2 million
6. \$2 million to \$5 million
7. \$5 million to \$10 million
8. \$10 million or greater

*Firms interested in foreign work, but without such experience, check here:

Profile of Firm's Project Experience, Last 5 Years

Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 079	6	100	11)			21)		
2) 078	4	120	12)			22)		
3) 050	9	350	13)			23)		
4) 029	2	100	14)			24)		
5) 014	1	50	15)			25)		
6) 027	1	30	16)			26)		
			17)			27)		
			18)			28)		
			19)			29)		
			20)			30)		

Project Examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual Estimated)
078 079	C	1 Strategies for Vacant Lands New Orleans Louisiana	New Orleans Housing Authority 4100 Touro Street New Orleans	NA	2017
078 079	C	2 Interim Housing/Participatory Urban Planning	Regional Catastrophic Planning Group Regional Interaction Center 40 Worth Street 5th Floor NY 10013	NA	2015
078 079 050	C	3 Community Based Planning for Sheephead Bay	Pratt Center for Community Development 536 Myrtle Avenue Brooklyn NY 11205	10,000	2014
050	C	4 Addition and Renovation 201 Bergen Street Brooklyn	Sarah Crichton 201 Bergen St Brooklyn NY 11217	600	2015
050	P	5 House Renovation and Addition 874 Sterling Place, Brooklyn NY	Adam Friedman 874 Sterling Place Brooklyn NY 11236	400	2015
050	P	6 House Addition and Renovation 206 East 7 th St New York, NY	Kiki Smith 206 East 7 th Street New York New York 10003	500	2015
050	P	7 House Addition and Renovation 199 Bergen St Brooklyn, NY	Sasha Charidvarde 199 Bergen St Brooklyn NY 11217	400	2015

050 079	P	8	Interim Housing Study for Redhook Brooklyn	New York City Department of Emergency Management 165 Cadmen Plaza E Brooklyn NY 11201	NA	2014
050	P	9	Becker House 126 Old Quarry Road Woodstock New York	Ina Becker 126 Old Quarry Road, Woodstock, NY 12498	400	2012
050	P	10	Shechet Studio Residence 63 Old Wagon Road Woodstock New York	Arlene Shechet Old Wagon Road Woodstock New York 12498	650	2011
050 079 029	P	11	The Graham School Hastings-on-Hudson NY	Graham Windham Services and the Graham- Greenburgh School District The Graham School Hastings-on-Hudson New York	55,000	master plan 2011 construction NA
014	JV	12	Sanctuary Window for Eldridge Street Synagogue Eldridge Street New York	The Museum at Eldridge Street Eldridge Street Synagogue 12 Eldridge Street New York 10002	525	2010
050 078 079	JV	13	Five House Types for Post-Katrina Reconstruction New Orleans Louisiana	ACORN Housing no longer in business	350,000 not completed	2009 project terminated
029	P	14	Yoga Sutra 10 Walnut Street Philadelphia	David Kelman Next Capital Management	350	2009
		15				
		16				
		17				
		18				
		19				

Keri Kazel Architecture



STANDARD FORM (SF) 254
Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:

Keri Kazel Architecture
Mailing address: PO Box 169
Physical address: 2 Windemere Court
Speonk, New York 11972

2. Year Present Firm Established

2003.

3. Date Prepared:

1-8-2015

4. Specify type of ownership and check below, if applicable.

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any:

5a. Former Parent Company Name(s), if any, and Year(s) Established:

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) **Keri Kazel: Principal Architect 631-874-2925**
- 2) **Adam DeLumen: Senior Associate Architect 631-874-2925**

7. Present Offices: City / State / Telephone / No. Personnel Each Office

Speonk, New York, 631-874-2925, 6 Personnel

7a. Total Personnel **6**

8. Personnel by Discipline: (List each person only once, by primary function.)

1	Administrative	_____	Electrical Engineers	_____	Oceanographers	_____
2	Architects	_____	Estimators	_____	Planners: Urban/Regional	_____
	Chemical Engineers	_____	Geologist	_____	Sanitary Engineers	_____
	Civil Engineers	_____	Hydrologists	_____	Soils Engineers	_____
	Construction Inspectors	_____	Interior Designers	_____	Specification Writers	_____
3	Draftsmen	_____	Landscape Architects	_____	Structural Engineers	_____
	Ecologists	_____	Mechanical Engineers	_____	Surveyors	_____
	Economists	_____	Mining Engineers	_____	Transportation Engineers	_____

9. Summary of Professional Services Fees Received: (Insert index number)

Last 5 Years (most recent year first)

19 10	19 11	19 12	19 13	19 14
2	3	3	3	4
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Direct Federal contract work, including overseas
All other domestic work
All other foreign work*

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to 500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

*Firms interested in foreign work, but without such experience, check here:

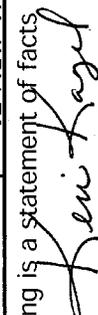
Profile of Firm's Project Experience, Last 5 Years

Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 014	3		11) 029	4		21)		
2) 017	5		12) 031	6		22)		
3) 021	3		13) 036	5		23)		
4) 039	10		14) 049	1		24)		
5) 050	160		15) 052	1		25)		
6) 055	15		16) 059	5		26)		
7) 079	10		17) 072	5		27)		
8) 103	2		18) 088	2		28)		
9) 113	3		19) 092	12		29)		
10) 117	200		20)			30)		

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual)
050	P	1 80 Sandy related lifts, renovations, reconstruction (more info upon request)			
092	P	2 12 Bulkhead Projects (more info upon request)			
021	P	3 Aponte Residence, East Moriches, NY (Architecture & Construction Management)	Javier Aponte 29 Valley Drive East Moriches, NY 11940		
039	P	4 Village Automotive, Setauket, NY (Addition & Legalization)	Richard DiMartino 61 North Country Road, Setauket, NY 11733		
050	P	5 Lynch Residence, Cold Spring Harbor, NY (Major Addition & Alteration)	John Lynch 17 Peabody Road Cold Spring Harbor, NY 11724		
055	P	6 Glaser Residence, Bellmore, NY (Major Addition, Alteration & Interior Design)	Noam Glaser 3100 Lee Place Bellmore, NY 11710		
079	P	7 United American Muslim Association Moriches, NY (Architecture & Site Planning)	Haci Kaya 63 Montauk Highway Moriches, New York 11955		

103	P	8 Driftwood Day Camp, Melville, NY (Commercial swimming Pools & Bath house)	WKRD Realty LLC 331 Mt. Misery Road	
113	P	9 Peragine Millwork, Speonk, NY (10,000 sf Millwork Shop)	Nickolas Peragine 2 Windemere Court Speonk, NY 11972	
117	P	10 Popescu Residence, Setauket, NY (DEC Site Plan & Addition)	Sorin Popescu 28 Conscience Circle Setauket, NY 11733	
014	P	11 Shirley Church of God (Major addition & facade remodel)	Keith Shaw 27 McGraw Street Shirley, NY 11967	
017	P	12 Tates Cookie Commissary (14,000 sf Commercial Warehouse Addition)	Zvi Friedmund 62 Pine Street, East Norwich, NY 11040	
088	P	13 Yaphank Fire Department (Outdoor Kitchen, Bathrooms and Pavilion)	Mike Hamilton 451 Main Street, Yaphank, NY 11980	
029	P	14 Colonial Youth Day Care (New York State approved Day Care Facility)	Colonial Youth & Family Services Lynda Zack 246 Montauk Highway	
049	P	15 Albatros West Motel, Montauk, NY (Alteration of 25 motel rooms & exterior balcony addition)	Sam Glass 20 South Elmwood Avenue, Montauk, NY 11955	
050	P	16 DiMarco Residence, Rockville Center, NY (Whole house alteration & addition)	Carlo DiMarco 108 Locust Ave. Rockville Center, NY 11570	
113	P	17 Floyd Harbor Self Storage, Shirley, NY (70,000 sf Self Storage Warehouse)	Tony Coraci William Floyd Parkway, Shirley, NY 11967	
048	P	18 Island Veterinary Hospital, Coram, NY (Addition & Alteration to Vet Hospital)	Chris Lunati 1850 Route 112, Coram, NY 11737	
072	P	19 Port Jefferson Day Spa, Pt. Jeff, Sta., NY (Addition & Alteration to Day Spa)	Jennifer Kirby 716 Route 112, Port Jeff Station, NY 11776	

072	P	20 Liberti Office Building, Shirley, NY (New Office Building)	John Liberti 1167 William Floyd Parkway.		
072	P	21 Rubio Premier Motors, Speonk, NY (Spray Booth Addition & Automotive Lifts)	Robert Rubio 69 Montauk Highway, Westhamnton. NY 11977		
050	P	22 Ozyilmaz Residence (addition & Alteration)	Marley Ozyilmaz 144 South Path, Calverton. NY 11933		
050	P	23 Silver Ridge Homes, Selden, NY (New Development Homes)	Sal Malguarena, 713 Main Street, Pt. Jeff,		
050	P	24 Otis Residence, Quogue, NY (Addition & Alteration)	Jane Otis Perriman Point, Quogue. NY 11959		
050	P	25 Picciano Residence, Medford, NY (Two Family Home)	Megan Picciano 29 Petty Lane Medford. NY 11763		
017	P	26 Lombardi's Pizza, Calverton, NY (Legalization & Existing Conditions)	Victor Lombardi 135 Middle Country Road Ridge. NY 11961		
027	P	27 Painters Resturant, Brookhaven, NY (Fire Restoration)	Steve Laird 416 South Country Road, Brookhaven. NY 11719		
072	P	28 Big Apple Plumbing, Sound Beach, NY (Fit-out, Architecture, & Site Plan)	Mike Edery 6 New York Avenue, Sound Beach. NY 11789		
050	P	29 Baez Residence, Rockville Centre, NY (Addition & Alteration)	Barbara and George Baez 37 Varick Court, Rockville Centre. NY 11570		
050	P	30 GDF Enterprises Ltd, Center Moriches, NY (2 New Waterfront Homes)	GDF Enterprises Ltd Gary Fierro 23 Basill Ln		
12. The foregoing is a statement of facts			Date: January 22, 2015		
 Typed Name and Title: Keri Kazel, Owner					

Rampulla Associates Architects, LLP



STANDARD FORM (SF)

254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:

Rampulla Associates Architects, llp
155 3rd Street
Staten Island, New York 10306

2. Year Present Firm Established

1972.

3. Date Prepared:

01/09/2015

4. Specify type of ownership and check below, if applicable.

A. Small Business

B. Small Disadvantaged Business

C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any:

N/A

5a. Former Parent Company Name(s), if any, and Year(s) Established:

N/A

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) **Leonard M. Rampulla, AIA - Owner/Architect - 718-987-1310**
- 2) **Philip L. Rampulla - Owner/Urban Planner - 718-987-1310**

7. Present Offices: City / State / Telephone / No. Personnel Each Office

- Staten Island, New York
- 718-987-1310

7a. Total Personnel 15

8. Personnel by Discipline: (List each person only once, by primary function.)

<u>3</u> Administrative	_____	Electrical Engineers	_____	Oceanographers	_____	<u>1</u> Expeditor
<u>3</u> Architects	_____	Estimators	<u>1</u>	Planners: Urban/Regional	_____	_____
_____	_____	Geologist	_____	Sanitary Engineers	_____	_____
_____	_____	Hydrologist	_____	Soils Engineers	_____	_____
_____	_____	Interior Designers	_____	Specification Writers	_____	_____
<u>5</u> Construction Inspectors	_____	Landscape Architects	<u>1</u>	Structural Engineers	_____	_____
_____	_____	Mechanical Engineers	_____	Surveyors	_____	_____
_____	_____	Mining Engineers	_____	Transportation Engineers	_____	_____
_____	_____	_____	_____	_____	_____	_____

9. Summary of Professional Services Fees

Received: (Insert index number)

Last 5 Years (most recent year first)

2013	2012	2011	2010	2009
<u>6</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>4</u>

Direct Federal contract work, including overseas

All other domestic work

All other foreign work *

* Firms interested in foreign work, but without such experience, check here:

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to 500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

Profile of Firm's Project Experience, Last 5 Years										
Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Total Gross Fees (in thousands)
1) 008	1		11) 059	10		21)			21)	
2) 017	5		12) 061	50		22)			22)	
3) 027	3		13) 062	40		23)			23)	
4) 029	1		14) 072	3		24)			24)	
5) 032	1		15) 098	1		25)			25)	
6) 039	1		16) 101	600		26)			26)	
7) 043	50		17) 103	4		27)			27)	
8) 050	400		18)			28)			28)	
9) 052	2		19)			29)			29)	
10) 055	10		20)			30)			30)	

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual)
017	P	1 South Shore Commons 2955 Veterans Road West Staten Island, New York 10309	Guido Passarelli, Passarelli Management, 2955 Veterans Rd, 2nd Fl, S.I., N.Y. 10309	30 mil	2013
017	P	2 Tottenville Square 7001 Amboy Road Staten Island, New York 10309	Stanley Werb, Rivercrest Realty, 8816 Six Forks Rd, Ste. 102, Raleigh, N.C. 27615	10 mil	2015
017	P	3 Woodrow Plaza 1243-1247 Woodrow Road Staten Island, New York 10309	Otto Savo, Woodrow Plaza, LLC, 15 Seguine Avenue, S.I., N.Y. 10309	15 mil	ongoing
017	P	4 Savo Shopping Center 2580-90-2602 Hylan Boulevard Staten Island, New York 10306	Sam Crispi, BNM, LLC, 5655 Amboy Rd, S.I., N.Y. 10309	22 mil	ongoing
017	P	5 Bloomfield (11 Acres) 245 Bricktown Way Staten Island, New York 10309	Jonathan Cohen, Bricktown Pass, LLC, 300 Robins Lane, Syosset, N.Y. 11791	32 mil	ongoing
050	P	6 The Tides @ Charleston Tides Lane/Arthur Kill Road Staten Island, New York 10309	Raymond Masucci, Antrovette, LLC, 101 Tyrellan Ave., S.I., N.Y. 10309	47.5 mil	2010
050	P	7 Lamberts Path Lamberts Lane Staten Island, New York 10314	Michael Varshisky, FARR Properties, 18 Hurlington Dr., Greenwich, Ct. 06831	20 mil	ongoing

072,079,015	P	8	Butler Manor Butler Boulevard Staten Island, New York 10307	John DiLorenzo, Page, LLC, 200 Princeton Ave., S.I., N.Y. 10306	25 mil	ongoing
072,079,015	P	9	Blackhorse Court Blackhorse Court/Richmond Road Staten Island, New York 10304	John Noce, Noce Construction, 3700 Richmond Avenue, S.I., N.Y. 10312	10 mil	ongoing
072,079,015	P	10	Utopia Court Utopia Court Staten Island, New York 10304	Thomas Costa, Blue Star Group, 445 Woodvale Ave., S.I., N.Y. 10309	20 mil	2001
072,079,015	P	11	Royal Crown Condominium Amboy Road/Richmond Road Staten Island, New York 10306	Robert Germano, 172 McClean Ave., S.I., N.Y. 10305	875,000	2007
072,079,015	P	12	Mixed-Use Building 4864 Arthur Kill Road Staten Island, New York 10309	Philip Mancuso Land * Development, 120 Nicolosi Dr., S.I., N.Y. 10309	2.5 mil	2012
072,079,015	P	13	Health Care Associates Medical Bldg 3333 Hylan Boulevard Staten Island, New York 10306	Paul Berkley, ORTHO Healthcare Realty, LLC, 3311 Hylan Blvd., S.I., N.Y. 10305	1.8 mil	2014
072,079,015	P	14	Dr. Knochenhauer Medical Building 237/245 Richmond Valley Road Staten Island, New York 10309	Eric Knochenhauer, 88 Bactin Road, Fair Haven, N.J. 07704/Bart Castellano, BC Realty, Inc. 2229 86th St., Bklyn., NY 11214	1.1 mil	ongoing
052	P	15	Industrial Park (J. Ferdinando) Johnson St./Industrial Lp./Arthur Kill Rd. Staten Island, New York 10309	Joseph Ferdinando, Richmond Plumbing & Heating Company, 318 Clove Rd, S.I., N.Y. 10310	14 mil	ongoing
103	P	16	YMCA 3939 Richmond Avenue Staten Island, New York 10312	YMCA of Greater New York, 333 Seventh Avenue, N.Y., N.Y. 10001	5 mil	2008
103	P	17	South Shore Swim Club 6736 Hylan Boulevard Staten Island, New York 10309	Debbie Onesto, South Shore Swim Club, 6736 Hylan Boulevard, S.I., N.Y. 10309	3 mil	ongoing BSA
117,201,202	P	18	All projects within office for approvals to construct including: CPC; DOB; DOT; DEC, LPC (State & Local); Special Permit; Zoning Variance, Waterfront			
		19				

Ricardo Zurita Architecture & Planning, PC



**STANDARD
FORM (SF)**

254

**Architect-Engineer
and Related Services
Questionnaire**

1. Firm Name/Business Address:

Ricardo Zurita Architecture & Planning, P.C.
15 East 40th Street, Suite 900
New York, NY 10016

**2. Year Present Firm
Established**

2002

3. Date Prepared:

01/12/2015

4. Specify type of ownership and check below, if applicable Professional Corporation

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5a. Former Parent Company Name(s), if any, and Year(s) Established:

N/A

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) Ricardo Zurita, Principal/212-685-2910, EXT. 11.
- 2)

7. Present Offices: City / State / Telephone / No. Personnel Each Office

Personnel

New York/NY/(212) 685-2910/No. Personnel 7

7a. Total

8. Personnel by Discipline: (List each person only once, by primary function.)

1 Administrative	Electrical Engineers	Oceanographers
6 Architects	Estimators	Planners: Urban/Regional
Chemical Engineers	Geologists	Sanitary Engineers
Civil Engineers	Hydrologists	Soils Engineers
Construction Inspectors	Interior Designers	Specification Writers
Draftsmen	Landscape Architects	Structural Engineers
Ecologists	Mechanical Engineers	Surveyors
Economists	Mining Engineers	Transportation Engineers

9. Summary of Professional Services Fees

Last 5 Years (most recent year first)

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to \$500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

Received: (Insert index number)

	20	14	20	13	20	12	19	11	19	10
Direct Federal contract work, including overseas										
All other domestic work	4		4		4		4		3	
All other foreign work*										

* Firms interested in foreign work, but without such experience, check here:

10. Profile of Firm's Project Experience, Last 5 Years									
Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code
1) 027	1	275	11) 102	1	76	21)			
2) 029	1	60	12) 031	4	488	22)			
3) 035	3	362	13) 110	1	10	23)			
4) 050	4	382	14)			24)			
5) 060	1	43	15)			25)			
6) 072	1	400	16)			26)			
7) 078	1	261	17)			27)			
8) 079	1	230	18)			28)			
9) 083	1	57	19)			29)			
10) 088	1	126	20)			30)			

11. Project Examples, Last 5 Years									
Profile Code	"P," "C," "JV," or "JE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual or Estimated)				
078	P	1 Randall's Island Master Plan Randall's Island, New York, NY	Aimee Boden Randall's Island Sports Foundation 24 West 61st Street New York, NY 10023	120,000	2012				
102	P	2 Coney Island Boardwalk Condition Analysis Coney Island, New York, NY	David Campbell Hunter Roberts Construction Group LLC 2 World Financial Center New York, NY 10281	N/A	2010				
008	P	3 Hudson Riverfront Performing Arts Center New Jersey, NY	Bruce Sherman Hudson Riverfront Performing Arts Center Inc. 1500 Harbor Boulevard, Weehawken, NJ 07086	N/A	2009				
050	P	4 Woodland Houses Rye Brook, NY	David Feinberg 126 East 56th Street New York, NY 10022	41,000	2014				
035	P	5 Gaelic Sports Center Randall's Island, New York, NY	Peter Moloney 1760 Second Avenue New York, NY 10128	30,000	2010				
035	P	6 Sportime Tennis Center Randall's Island, New York, NY	Ben Schlansky 275 Old Indian Head Road Kings Park, NY 11754	16,000	2009				
035	P	7 Lake Isle Tennis Center Eastchester, NY	Ben Schlansky 275 Old Indian Head Road Kings Park, NY 11754	5,030	2012				

027	P	8	Douglaslon Manor Renovations Douglaslon, NY	Ferriando Minchella Douglaslon Manor 63-20 Commonwealth Blvd. Douglaslon, NY 11363	5,500	2010
050	P	9	The Park at One Penn Plaza New York, NY	John Heil One Penn Plaza Suite 4425 New York, NY	2,240	2010
088	C	10	Electrical Substation Randall's Island, New York, NY	Aimee Boden, Executive Director Randall's Island Sports Foundation, Inc. 24 West 61st Street New York, NY 10023	2,000	2011
029	P	11	Greater Newark Charter School Newark, NJ	Karen Mirro-Drew Greater Newark Charter School 72 Central Avenue Newark, NJ 07102	4,100	2013
072	P	12	1775 Grand Concourse Renovations Bronx, NY	Elliott Ingberman Tribeca Associates 321 Greenwich Street New York, NY 10013	12,000	2014
202	P	13	Comfort Stations – Randall's Island Park Randall's Island, New York, NY	Aimee Boden, Executive Director Randall's Island Sports Foundation, Inc. 24 West 61st Street New York, NY 10023	3,000	2010
050	P	14	The Maritime Southampton, New York, NY	Peconic Bay Marina LLC 20 East 49th Street New York, NY 10017	N/A	2014
050	P	15	Look Residence Forest Hills, New York, NY	Danny Look 75-38 Kessel Street, Forest Hills, New York, NY	70,000	2013
050	P	16	Gajate-Prasad Residence Forest Hills, New York, NY	Will Gajate e Deepa Prasad 75-38 Kessel Street, Forest Hills, New York, NY	168,000	2014
		17				
		18				
		19				

Heritage Architecture, LLC



STANDARD FORM (SF)

254

Architect-Engineer
And Related Services
Questionnaire

1. Firm Name/Business Address:

Heritage Architecture, LLC
352 Evelyn St. Suite 2 Paramus, NJ 07652
12 W 37th St 4th Floor New York, NY 10018

2. Year Present Firm Established 1999

1/13/15

3. Date Prepared:

4. Specify type of ownership and check below, if applicable. **C- (WBE)**

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5. Name of Parent Company, if any:

N/A

5a. Former Parent Company Name(s), if any, and Year(s) Established:

N/A

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) Summer Alhamash, President – office 201-262-3800 x 302 mobile- 201-925-8332
- 2)

7. Present Offices: City / State / Telephone / No. Personnel Each Office

352 Evelyn St. Suite 2 Paramus, NJ 07652
12 W 37th St 4th Floor New York, NY 10018

7a. Total Personnel 15

8. Personnel by Discipline: (List each person only once, by primary function.)

2_ Administrative	Electrical Engineers	Oceanographers
8_ Architects	Estimators	Planners: Urban/Regional
Chemical Engineers	Geologists	Sanitary Engineers
Civil Engineers	Hydrologists	Soils Engineers
Construction Inspectors	1_ Interior Designers	Specification Writers
2_ Draftsmen	Landscaping Architects	2_ Structural Engineers
Ecologists	Mechanical Engineers	Surveyors
Economists	Mining Engineers	Transportation Engineers

9. Summary of Professional Services Fees Received: (Insert index number)

Last 5 Years (most recent year first)

	2013	2012	2011	20
Direct Federal contract work, including overseas	1	1	1	20
All other domestic work	4	4	4	
All other foreign work *				

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to \$500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

*Firms interested in foreign work, but without such experience, check here:

10. Profile of Firm's Project Experience, Last 5 Years

Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 015	10	\$36,825,000	11) 101	1	\$975,000	21)		
2) 020	3	\$4,950,000	12)			22)		
3) 032	3	\$4,950,000	13)			23)		
4) 043	7	\$30,250,000	14)			24)		
5) 047	1	\$975,000	15)			25)		
6) 050	4	\$1,9275,000	16)			26)		
7) 079	1	\$7,000,000	17)			27)		
8) 082	1	\$600,000	18)			28)		
9) 083	4	\$11,950,000	19)			29)		
10) 088	1	\$5,000,000	20)			30)		

11. Project Examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual or Estimated)
015, 043, 050, 055, 079, 089, 110, 117	P	1 AFFORDABLE HOUSING RENOVATION SPRUCE SPIRES & GARDEN SPIRES Newark, NJ	OMNI DEVELOPMENT, LLC 885 Second Avenue, 31st Floor New York, NY 10017	\$40,000,000 (Construction Cost)	2015 (ESTIMATED)
015, 043, 050, 055,	P	2. NEW SUSTAINABLE CONSTRUCTION COMMUNITY BUILDING MILLENNIUM WAY - Newark, NJ	NEWARK HOUSING AUTHORITY 500 Broad Street Newark, NJ 07102	\$1,300,000 (Construction Cost)	2011-2012
015, 043, 047, 050, 055, 101, 110, 117	P	3. ROOF & STRUCTURAL REPAIRS NEW ROCHELLE MUNICIPAL HOUSING AUTHORITY PROPERTIES - New Rochelle, NY	NEW ROCHELLE MUNICIPAL HOUSING AUTHORITY 361 Main Street, New Rochelle, NY 10801	\$975,000 (Construction Cost)	2015 (ESTIMATED)
015, 043, 050, 055, 079, 089, 110, 117	P	4.PNA INSPECTIONS BEC NEW COMMUNITIES SCATTERED SITES Brooklyn, NY	BEC NEW COMMUNITIES 67 Hanson Place Brooklyn, NY 11217	\$68,000	2014 - Assessment 2015 - Construction
015, 050, 088	P	5. NEW CONSTRUCTION - PARK/RECREATIONAL FACILITY DESIGN HAYES PARK EAST - Newark, NJ	CITY OF NEWARK 920 Broad Street, Newark, NJ 07102	\$5,000,000 (Construction Cost)	2015 (ESTIMATED)
015, 043, 050, 079, 055	C	6. ADMINISTRATION BUILDING REHABILITATION - SANDY RECOVERY PROJECT - Passaic Valley Sewerage Commission - Newark, NJ	HATCH MOTT MACDONALD NY, INC. 545 Washington Boulevard Jersey City, NJ 07310	\$7,000,000 (Construction Cost)	2014
015, 050, 055	P	7. LOBBY & OFFICE ALTERATION & RENOVATION - STEPHEN CRANE BUILDING - Newark, NJ	NEWARK HOUSING AUTHORITY 500 Broad Street Newark, NJ 07102	\$600,000 (Construction Cost)	2012

015, 043, 050, 055	P	8. APARTMENT REHABILITATION – MULTIPLE SITES– Newark, NJ	NEWARK HOUSING AUTHORITY 500 Broad Street Newark, NJ 07102	\$15,000,000 (Construction Cost)	2012
015, 020, 032, 043, 047, 050, 055	C	9. SYSTEM UPGRADE & ENERGY CONSERVATION MEASURES (ECM) – VA FEDERAL OFFICE BUILDING - Newark, NJ	GENERAL SERVICES ADMINISTRATION 201 Varick Street, New York, NY 10014	\$1,000,000 (Construction Cost)	2011
015, 020, 032, 043, 047, 050, 055, 082	C	10. BUILDING ENGINEERING REPORT Lautenberg Federal Bldg. - Newark, NJ US Post Office & Courthouse Bldg., Newark, NJ	GENERAL SERVICES ADMINISTRATION 201 Varick Street, New York, NY 10014	\$600,000	2011
015, 043, 050, 055, 079, 089, 110, 117	P	11. NEW SUSTAINABLE CONSTRUCTION - COMMUNITY BUILDING - MILLENIUM WAY HOUSING DEVELOPMENT - Newark, NJ	NEWARK HOUSING AUTHORITY 500 Broad Street Newark, NJ 07102	\$1,300,000 (Construction Cost)	2010-2012
015, 043, 050, 055, 079, 089, 110, 117	P	12. NYCHA FAÇADE INSPECTIONS SCATTERED SITES New York, NY	New York City Housing Authority (NYCHA) 90 Church Street, New York, NY	\$30,000,000 (Construction Cost)	2010-ongoing
		14			
		15			
		16			
12. The foregoing is a statement of facts					
Signature: 			Date: 1/21/15		
Typed Name and Title: SUMMER ALHAMASH					



McKissack & McKissack



ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (City and State) CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery – DDC Build It Back, New York, NY		
2. PUBLIC NOTICE DATE December 12, 2014	3. SOLICITATION OR PROJECT NUMBER 8502015HR0011-13P	

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE David Kane, PE, AICP - Chief Operating Officer		
5. NAME OF FIRM McKissack & McKissack		
6. TELEPHONE NUMBER (212) 349-6500	7. FAX NUMBER (212) 760-4259	8. E-MAIL ADDRESS dkane@mckissack.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

(Check)	PRIME J-V PARTNER SUBCON- TRACTOR			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	a.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	McKissack & McKissack <input type="checkbox"/> CHECK IF BRANCH OFFICE	1001 Avenue of the Americas 20 th Floor New York, NY 10018
b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 <input type="checkbox"/> CHECK IF BRANCH OFFICE		
c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 <input type="checkbox"/> CHECK IF BRANCH OFFICE		
d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 <input type="checkbox"/> CHECK IF BRANCH OFFICE		
e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 <input type="checkbox"/> CHECK IF BRANCH OFFICE		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Russell Imbrenda	13. ROLE IN THIS CONTRACT Project Principal	14. YEARS EXPERIENCE	
		a. TOTAL 41	b. WITH CURRENT FIRM 6
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Mechanical Engineering, Syracuse University		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Licensed Professional Engineer, in New York, New Jersey, Washington D.C., Member of the Institute of Electrical and Electronic Engineers, Member of the Construction Management Association of American (CMAA)			

19. RELEVANT PROJECTS			
	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	Ongoing	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm As Project Executive, Mr. Imbrenda leads the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.		
b.	DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	2014	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm As Project Executive, Mr. Imbrenda leads the McKissack team, the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. The McKissack + MBP Joint Venture is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 50 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
c.	SUCF Construction Management Term Agreement, New York, NY	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Imbrenda serves as Project Executive for the SUCF CM Term Agreement, which provides design and construction services for SUNY's South Region, which includes New Paltz, Purchase, Maritime, Optometry, Brooklyn HSC, Old Westbury, Farmingdale, Stony Brook, and the Levin Institute. The projects will involve providing construction management services during pre-construction, construction and/or close-out phases of various projects.		
c.	NYS OGS On Call Construction Management Services, Downstate NY	2012	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Imbrenda serves as Project Executive for McKissack, as the lead partner in a Joint Venture, that has been selected by the NYS OGS to provide construction management services for various projects in New York's downstate region on a task order basis. The initial contract value is \$10,000,000 over a three-year term with two 1-year optional renewals. Preconstruction services under this contract include: design and constructability review, scope and bid package reviews, cost estimating, and scheduling. Construction services include project management, superintendent services, inspection, scheduling, estimating, project safety, claims analysis, administrative, information technology and affirmative action monitoring and compliance service.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Albert Odjidja	13. ROLE IN THIS CONTRACT Senior Project Manager	14. YEARS EXPERIENCE a. TOTAL 24 b. WITH CURRENT FIRM 9	
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, Architecture and Urban Planning, University of Maryland	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) OSHA 40-Hour Site Safety Certificate, CAD Certification, BIM Certification, Construction Management Association of America (CMAA)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
GOSR CDBG Property Management/Damage Assessments, Staten Island, Nassau and Suffolk Counties	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Senior Project Manager, Mr. Odjidja leads the McKissack team awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties. This effort required the immediate mobilization of McKissack staff and of private damage assessors plus the bid and award of dozens of construction/property maintenance contracts with the goal of completing all work in an accelerated 5 month schedule.		
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. As Senior Project Manager, Mr. Odjidja leads the McKissack team, the lead partner in a Joint Venture, performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. The McKissack + MBP Joint Venture is responsible for 1/3 of the home inspections in western Nassau County. The effort required the immediate mobilization of more than 150 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
Henry J. Carter Specialty Hospital & Skilled Nursing Facility, New York, NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Odjidja served as Project Administrator for the renovation project comprised of a new 16,000 sq. ft. state-of-the-art learning commons and information center. The new library will provide students and faculty with much needed space for reading, studying and collaborating. McKissack's scope of work included the following items of work: demolition; drywall; carpentry; millwork glazing; finishes and MEP systems upgrades.		
DASNY Medgar Evers College, Brooklyn, NY	PROFESSIONAL SERVICES 2009	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm d. As Project Manager, Mr. Odjidja was responsible for managing pre-construction activities; soliciting and collecting pre-construction documents; managing the bid and award of 24 prime construction contracts; managing the CM project field staff including MEP, architectural and structural disciplines; coordinating daily construction activities; and monitoring and updating project schedules. He assessed and negotiated change orders; evaluated claims among multiple contractors; monitored quality control including the issuance of written directives stopping work in areas of non-compliance; reviewed contractors' request for payment and solicited and assembled closeout documents.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Eze Iheme	13. ROLE IN THIS CONTRACT Senior Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 32	b. WITH CURRENT FIRM 9
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> BS, Engineering, University of Houston		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> American Society of Civil Engineers, Construction Management Association of America			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR CDBG Property Management/Damage Assessments, Staten Island, Nassau and Suffolk Counties, NY	2014	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Project Manager, Mr. Iheme is a key member of the McKissack team awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties. This effort required the immediate mobilization of McKissack staff and of private damage assessors plus the bid and award of dozens of construction/property maintenance contracts with the goal of completing all work in an accelerated 5 month schedule.		
SUNY College of Optometry, New York, NY	2014	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Iheme served as Project Manager for the rehabilitation of research floors 16 & 17 and the electrical services at the State University of New York (SUNY) College of Optometry. The project involves a partial renovation of the 16th & 17th floors at SUNY Optometry to upgrade the college's animal holding and procedure rooms associated with research, and a comprehensive renovation of the building's primary electrical systems including services switches, switchgear transformers and emergency generation systems.		
Harlem Hospital New Patient Pavilion, New York, NY	2012	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Iheme served as Project Manager for the next phase of the Harlem Hospital Modernization. The New Patient Pavilion, or the Ronald H. Brown Pavilion, will be a 150,000 sq. ft. addition to the Harlem Hospital Center and will include a new Emergency Department, state-of-the-art critical care and diagnostic units, and new, fully equipped operating rooms. The modernization will connect the existing Martin Luther King, Jr. Pavilion and the new Ronald H. Brown Pavilion, parking garage and EMS Stations, creating one large healthcare complex for the Harlem community.		
Harlem Hospital Major Modernization Project - Phases 1, 2 & 4 New York, NY	2012	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm d. Project Manager for the phased demolition of five buildings: EMS facility, the Outpatient Department (OPD), Old Nurses Residence (ONR), New Nurses Residence (NNR) and the Women's Pavilion (WP). Of particular challenge is the volume of demolition in a community surrounded by an active hospital, EMS operation, elementary school; vibrant residential and commercial neighborhood and ongoing construction in an adjacent subway station. The hospital remained operational throughout the demolition and construction phases. Also included as part of the project is the \$4 million relocation and restoration of nine Harlem Hospital Center Murals created under the Works Progress Administration (WPA) Federal Art Project. For this assignment, Mr. Iheme provided management of hazardous material abatement, provision of work and egress access, demolition, structural repairs and coordination with Harlem Hospital for safe removal to storage. Mr. Iheme provided construction management supervision and support for the restoration of the Martin Luther King (MLK) Pavilion and construction of other connections providing a unified health-care complex that has seven buildings over two blocks. Work on the new pavilion and the MLK building constitute \$225 million of the overall project cost. Those spaces house a new emergency department, operating rooms, diagnostic and treatment services, a critical-care suite, and a radiology center. In addition, the project also calls for the renovation of an inpatient bed tower, erection of a new \$10 million garage for hospital staff and visitors, and a new \$4.6 million Emergency Medical Services garage for the New York City Fire Department.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
 (Complete one Section E for each key person.)

12. NAME Tim Scanlan	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 39	b. WITH CURRENT FIRM 4

15. FIRM NAME AND LOCATION (City and State)
McKissack & McKissack, New York, NY

16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Civil Engineering, New England College	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
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18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Project Manager, Mr. Scanlan is a part of the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.		
SUNY College at Purchase, Exterior Rehabilitations Project New York, NY	2014	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Scanlan served as Project Manager for the exterior rehabilitations of the dining hall and physical education buildings at SUNY Purchase College. Responsible for project budget, schedule, and managing day-to-day tasks of construction staff including trade coordination, submittal process, and coordination of the design team. The scope of work for the 2 projects included replacement of roofs with durable new construction exceeding energy code minimums; reconstruction, repair, repointing, and cleaning of masonry and supporting elements; replacement of doors, windows, curtainwall, storefront, atrium, clerestory, and skylights with new high performance units and systems; reconstruction and repairs to surrounding site work including plazas and paths and building foundations to improve water-tightness and user safety; abatement of hazardous materials; select mechanical and lighting upgrades; and additional work items intended to improve integrity of building envelope, efficiency, usability, health and safety.		
Bridgeport School District's Wilbur Cross Elementary School, Bridgeport, CT	2010	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Scanlan served as Project Manager for the \$6.5 million renovation and alteration project at Wilbur Cross Elementary School. The scope of work included asbestos abatement, code compliance, energy conservation, alterations for educational program needs, ceiling replacements, lighting upgrades and a new sprinkler system. Upgrades to the school included HVAC systems, surveillance/security, telephone, public address, phone and plumbing systems. All windows and doors were replaced, a new bus loop was constructed and the parking lot was expanded to accommodate 15-20 more spaces.		
Marin Garfield Firehouse, Bridgeport, CT	2010	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm d. Project Manager for the \$2.3 million new firehouse in Bridgeport, CT. The project included new masonry, roofing windows and storefront.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Richard Sekkor	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 5	b. WITH CURRENT FIRM 2

15. FIRM NAME AND LOCATION *(City and State)*

McKissack & McKissack, New York, NY

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Construction Management & Safety, North Carolina Agricultural and Technical State University

Associate of Applied Sciences in Architectural Engineering Technology, Alfred State College, SUNY College of Technology

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

OSHA 30-Hr Construction Safety Certification, CPR Certification, Level 1 Firestop Instructional Training Certification, BIM (REVIT) Certification 2012, Construction Project Management, Pace University Continuing Education 3/2014, LEED Accreditation, U.S. Green Building Council

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i> GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Check if project performed with current firm

a. As Project Manager, Mr. Sekkor is a part of the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.

(1) TITLE AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Check if project performed with current firm

Serving as Office Engineer, Mr. Sekkor is responsible for the following:

- Preparing complete, accurate and timely submittal logs for construction projects based on project drawings and specifications.
- Accountable for receiving approved submittals from Architect or Engineer and notifying the Project Superintendent of potential schedule impact
- Assisted the Project Manager by preparing all necessary back up relating to change requests.
- Responsible for timely completion of all required project close-out documents per contract.
- Distribute contract documents to subcontractors, including drawings, specifications, and general conditions.
- Responsible for scheduling all required construction meetings with required personnel, subcontractors, architects and owners.
- Accurate and complete meeting minutes and distribute timely
- b. Attend Owner/Architect pre-bid, project and closeout meetings
- Solicit subcontractors and suppliers for proposal prior to proposal submission time
- Prepared correspondence with Owner, Architect, Engineers, Subcontractors, Suppliers, etc. Examples of referenced correspondence include, but not confined to the following items: Schedule of Values, project schedule, memos, request for information, transmittals and submittals.
- Submit building permit application, follow-up on review progress and receive upon approval.
- During Construction Phase, proactively manage project to achieve quality, schedule, budget and safety. Utilize and maintain tools: schedule and document management to track and record project performance.
- Maintain customer (Owner, Architect, Engineer, Subcontractor, and Supplier) relations and conduct project meetings. Ensure prompt payment from Owner and payment to Subcontractor and Suppliers occurs according to percentage complete timely upon receipt from Owner.
- Document quality and progress of each Subcontractor and Suppliers. Update Subcontractors and Suppliers of any changes to the plans, specifications and/or schedule.
- Inform management of productivity, costs, quality control, document management and processing of applications for payment. Notify management of any issues that arise which affects quality, budget, progress and safety.
- Monitor staffing needs, evaluate performance, addressed employee relation issues as warranted for staff.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Helen Alladin	13. ROLE IN THIS CONTRACT Call Center Manager	14. YEARS EXPERIENCE	
		a. TOTAL 21	b. WITH CURRENT FIRM 1.5
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> N/A		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Train the Trainer, Colorado Springs, CO (Management Certification), Customer and Human Relations, New Canaan, CT (Intensive four-day seminar)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	Ongoing	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. Ms. Alladin serves as Call Center Manager for the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.		
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm b. Ms. Alladin served as a Project Administrator and Document Control on the McKissack team performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 200 inspectors and support personnel to assist in assessing damage and providing estimates to facilitate the release of needed funding to homeowners for home repair or replacement.		
The General Theological Seminary, New York, NY	2012	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Director of Campus Services, Ms. Alladin administered campus-wide housing for faculty, students, and rental units. She also managed space reservations and oversaw cleaning and maintenance grounds and gardens. Ms. Alladin was also responsible for maintaining and scheduling requirements for Campus Service employees, porters, and handymen. She also coordinated and managed all outside seminary events, nationwide, as well as met with contractors for reonovations, construction, and overall maintenance of the plant and recommended cost saving applications to improve physical plant. As Events Coordinator/Special Projects Manager, Ms. Alladin managed all aspects of seminaries participation in General Convention (triennial national church meeting), including hotel reservations for staff of 12, dinner for 250, and all transportation needs. She also coordinated programs for the College of Bishops twice yearly and Church Development Institute (outside programs hosted by seminary). Ms. Alladin also coordinated Science & Theology program for worldwide attendees, including travel, hotel accommodations, honorariums for participation, meals and all other special requests. She also prepared all invoices for billing and supplies. As Administrative Assitant, Ms. Alladin had the following responsibilities: assisted in reorganizing the office under the new director; created filing system for gift acknowledgements; contacted prospective donor interests; managed postage accounts for the regular donor appeal and negotiated all contracts for departmental hospitality services; and supervised database par-time staff.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Sean Dawson	13. ROLE IN THIS CONTRACT Assistant Project Manager/ Field Inspector	14. YEARS EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 9
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) B.S. Construction Management, Polytechnic University,		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	2013		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm			
a. Ms. Alladin served as a Project Administrator and Document Control on the McKissack team performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 200 inspectors and support personnel to assist in assessing damage and providing estimates to facilitate the release of needed funding to homeowners for home repair or replacement.			
Medgar Evers College, School of Business, Brooklyn, NY	2013		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm			
b. Project Office Assistant for Medgar Evers's new \$40 million School of Business. The project is a collaboration between CUNY and DASNY, and is being managed by a joint venture between McKissack and Turner Construction. The new 40,000 sq. ft. three-story building houses the School of Business and the administrative offices for Student Affairs. Mr. Dawson's responsibilities on the project entail the preparing activity schedules reviewing consultant proposals for various elements including scope of work, staffing charts, labor cost charts and cost estimates and checking for inconsistencies and errors. He is also responsible for researching and helping to resolve design and construction issues, and for the review of design documents, change orders, payment requisitions and contracts.			
Thomas C. Burger Interior Design, New York, NY	2010		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm			
c. Served as Interior Design Intern performing a variety of functions including the presentation of design concepts for selected clients. Performed furniture and finishes selections under the supervision of Senior Designers. Created design layouts in AutoCad 2004.			
Benjamin Banneker Academy, New York, NY	2010		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm			
d. Served as Attendance Team Leader responsible for advising students on methods to improve their grades. Responsible for meeting with parents to discuss their children's academic progress. Performed various administrative tasks including data entry, filing, and coordinating office activities.			
Regional Building Commitee, New York, NY	2010		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm			
a. Served as Drafter and Architect's Assistant. Duties included creating Kingdom Halls for Jehovah Witnesses within New York State. Also made recommendations regarding the use of available space for Kingdom Hall layouts. Responsible for editing drawings on AutoCad according to instructions from engineers and architects.			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Janice Haughton	13. ROLE IN THIS CONTRACT MWLBE Director	14. YEARS EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> BPS, Human Services, Metropolitan College of New York		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> OSHA Certified – 10 hr.			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
a.	NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm As Compliance Advisor, Mrs. Haughton is a part of the McKissack & McKissack team for both the GOSR and DASNY projects. McKissack is the lead partner in a Joint Venture, has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. McKissack is also the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. Both projects comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. Mrs. Haughton manages and advises project team consultants on program procedures and requirements for CDBG/Section 3 and M/W/BE compliance. She also encourages project consultants, to work in accordance with the construction management team to assess and forecast M/W/BE Utilization and Section 3 hiring potential for the project. Her key responsibilities as it pertains to consultation, includes: analyzing all reporting documentation and reports for diversity compliance; employment and contracting referral process for Section 3; methods to liaise with Trade Unions and Associations; potential partnerships with community based/job readiness/training organizations; community outreach events, seminars and open houses; key stakeholder engagement; and program reporting systems, procedures and measurement mechanisms.		
b.	NYC EDC Rockaway Boardwalk Reconstruction, Queens, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Mrs. Haughton serves as the M/W/LBE/CDBG (Community Development Block Grant) Oversight Manager for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. She is responsible for the HUD/CDBG Section 3 Workforce and Community Outreach Program, which seeks is to engage and assist qualified Section 3 Business Concerns and labor force professionals in providing contracting and employment opportunities in order to meet the participation goals set forth by the project and requirements for Section 3 compliance. Mrs. Haughton customized a geographic action plan and process for community involvement and enhancement of ongoing workforce development for the specific areas. She has developed contractual language for Section 3 compliance to be incorporated into all sub recipients agreements, for McKissack clients, to ensure contractor cooperation on this project. She has developed strategies and action plans to address the complex reporting and monitoring mechanisms required for CDBG/HUD reporting. Mrs. Haughton managed the Local Referral Center, located on the project site, which served as a recruiting center for employment applicants and prospective contractors. She lead the diversity team in outreach efforts to include all forms of advertising, event logistics and management, collateral materials, community board relations and partnerships and coordination with local workforce groups and trade unions, in order to maximize opportunities for potential employment, job training and contracting opportunities for Section 3 residents.		
c.	Columbia University, Manhattanville Campus Expansion, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Serving as Manager of Small Business & Workforce Programs for McKissack & McKissack, Mrs. Haughton's key responsibilities include: establishing a list of M/W/LBE contractors who are eligible to bid and work on the project and updating and maintaining this list on an ongoing basis as the project progresses; developing and implementing an outreach program to solicit M/W/LBE firms who are qualified and interested in working on the project; attending pre-bid conferences to reinforce to bidders the M/W/LBE and workforce requirements in the bid documents and to detail the reporting and tracking methods to be implemented; participate in project team bid package review meetings to identify opportunities for M/W/LBE firms; assisting in developing policies as it pertains to M/W/LBE regulations; prescreen and provide procurement and prequalification assistance for M/W/LBE firms with CM team; referring M/W/LBE firms to prime contractors who are working on or bidding work on the project; maintaining copies of all credentials and certifications for all firms on the MWLBE list; tracking and managing M/W/LBE utilization plans; working closely with CM and Owner to develop and customize monthly M/W/LBE compliance reports for contracting and workforce; collaborates with CM accounting on contractor invoicing to ensure M/W/LBE contractual requirements met; performs reviews to ensure that all compliance documents are accurate; oversight for workforce compliance documentation and data reporting; works with McKissack's Office of Community Employment (OCE) on recruiting activities, laborforce referrals and database management; advises project team on issues related to compliance and good faith efforts.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Jennifer Fraticelli	13. ROLE IN THIS CONTRACT MWLBE Coordinator	14. YEARS EXPERIENCE	
		a. TOTAL 6	b. WITH CURRENT FIRM 1.5
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> College of Mount St. Vincent, Coursework in Education & Psychology Albright College, Coursework in Education & Psychology	17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>		
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. As Compliance Coordinator, Ms. Fraticelli is a part of the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. Ms. Fraticelli advises the project team consultants on program procedures and requirements for CDBG/Section 3 and M/W/BE compliance. Her key responsibilities as it pertains to coordination, includes: analyzing all reporting documentation and reports for diversity compliance; employment and contracting referral process for Section 3; methods to liaise with Trade Unions and Associations; potential partnerships with community based/job readiness/training organizations; community outreach events, seminars and open houses; key stakeholder engagement; and program reporting systems, procedures and measurement mechanisms.		
NYC EDC Rockaway Boardwalk Reconstruction, Queens, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
b. Ms. Fraticelli serves as the M/W/LBE/CDBG (Community Development Block Grant) Manager for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. She is responsible for the HUD/CDBG Section 3 Workforce and Community Outreach Program, which seeks is to engage and assist qualified Section 3 Business Concerns and labor force professionals in providing contracting and employment opportunities in order to meet the participation goals set forth by the project and requirements for Section 3 compliance. Ms. Fraticelli tracks, monitors and reports on all Section 3 goals for the project. She manages all Section 3 Resident and Section 3 Business Concerns compliance documentation, in addition she analyzes and prepares certified payroll reports to ensure hiring goals are on target. She participates in client and internal meetings to educate the project team on M/W/LBE and Section 3 requirements and reporting documentation. She also participates in all pre-scope, pre-construction, and kick-off meetings to reinforce contractor compliance. Ms. Fraticelli coordinates with all contractors on Section 3 efforts, managing job announcements, Section 3 referrals and activity on the project employment website. She also provides sourcing, referrals and verification for M/W/LBE firms and manages all good faith efforts for the project. In addition, she maintains and provides community outreach, per Section 3 requirements and maintains outreach vehicles such as the community phone and project email address. Ms. Fraticelli also provides management support for the applicant database.		
AECOM, New York, NY	PROFESSIONAL SERVICES N/A	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
c. Ms. Fraticelli served as Project Coordinator for the Rikers Island Cogeneration Project and was responsible for generating monthly construction reports, managing and tracking submittals and requests for information (RFI), assisting with coordinating change orders, special inspections, and work permits. She maintained submissions of CPM schedules, safety reports and construction updates for the project, and coordinated and drafted the former and current design changes for submission to the general contractor, the Department of Buildings, and the Fire Department of NY. Ms. Fraticelli served as Project Coordinator for the New York Power Authority (NYPA) contract and was responsible for reviewing, recording and processing vendor invoices for contract compliance on approximately 20 projects, and recorded meeting minutes and handled ad-hoc administrative assignments for the NYPA Southeast Energy Savings Program for projects currently in procurement, design, construction and closeout phases. She also administered the NYPA Minority/Women owned Business Enterprise (M/WBE) Program spending and reported the percentages to the client, ensuring the goals were met. She also assisted with preparing, tracking and opening bid packages with approved vendors throughout procurement and assisted AECOM's business development team, as well as upper management, with preparing responses to requests for proposals (RFP). She created and managed a document control system using the International Standards Organization (ISO). Ms. Fraticelli managed and maintained Microsoft Sharepoint websites, for the Rikers Island Cogeneration Project and the Owls Head Waste Water Treatment Plant Project.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Khalilah Hyde-Peyrefitte	13. ROLE IN THIS CONTRACT Project Coordinator	14. YEARS EXPERIENCE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">a. TOTAL</td> <td style="width:50%;">b. WITH CURRENT FIRM</td> </tr> <tr> <td align="center">3</td> <td align="center">1</td> </tr> </table>		a. TOTAL	b. WITH CURRENT FIRM	3	1
a. TOTAL	b. WITH CURRENT FIRM						
3	1						
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY							
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, Economics, Syracuse University BS, Biotechnology, Syracuse University AA, Liberal Arts, Early College, Bard High School		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)					
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)							

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Columbia University, Manhattanville Campus Expansion, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As M/W/LBE Program Assistant, Ms. Hyde-Peyrefitte: gathers and tracks all M/W/LBE workforce data and documentation; examines M/W/LBE workforce documents, records and forms for accuracy, completeness and conformance, and follows up with contractors as needed; prepares and tracks certified payroll using both Skire, Textura and Columbia's proprietary software; retrieves, verifies and tracks certification expiration dates for M/W/LBE contractors; maintains client's SharePoint website and internal project directories with certification updates and renewals; serves as a resource for procurement working with Database Administrator to customize lists for specific trade bid packages; attends events and interacts with the community and sponsors; attends and provides support for pre-bid conferences, meetings, industry workshops and seminars; fields, logs and tracks inquiries from small businesses and workforce candidates; works with McKissack's Office of Community Employment (OCE) to track and log workforce applicants; assists with creation and modification of presentations, spreadsheets, memos, agendas and other various materials and correspondence for meetings; provides administrative support including filing, photocopying, faxing, imaging files, word processing, and archiving; and assists with typing and preparation of complimentary correspondence and e-blasts.		
NYC EDC Rockaway Boardwalk, Far Rockaway, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Ms. Hyde-Peyrefitte provided Technical and Administrative support for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. The project site encompasses 4.7 miles of shoreline with the development of new elevated boardwalks and protective measures and the installation of new boardwalks and support structure, ramps and stairs. Ms. Hyde-Peyrefitte staffed the Local Referral Center, maintaining the applicant employment database, including vetting candidate referrals, all follow-up and correspondence with applicants and contractors via phone and email. In her role, Ms. Hyde-Peyrefitte also supported the team with Section 3 Resident and Section 3 Business Concerns compliance documentation and activities. She also assisted in the website development for the project webpage and developed collateral materials including employment applications, sign-in sheets, flyers, handouts, advertisements, etc. in support of job fairs, workshops, and community meetings. Her responsibilities also included to: interaction with community groups, partner organizations and contractors for employment placements; engagement with local workforce resources i.e. NYCHA, etc.		
Ministry of Economic Development, Belmopan City, Belize	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Working with the Director of National Authorizing Office as an Economics Intern, Ms. Hyde drafted and negotiated contracts; reviewed, compiled and analyzed economic data; researched current economic issues and trends; organized and participated in presentations; performed administrative tasks including scheduling meetings; and provided excellent customer service in person and via telephone. Ms. Hyde worked with teams responsible for assisting businesses in under-served communities through mentorship and other capacity building mechanisms. She helped implement a small business capacity development program; conducted outreach; and provided guidance by connecting disadvantaged businesses to appropriate support programs including training resources, business development and marketing tools and financial assistance.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Kevin Hall	13. ROLE IN THIS CONTRACT Database Administrator	14. YEARS EXPERIENCE	
		a. TOTAL 2	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> BA, Marketing, Berkley College		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i> OSHA 10-Hour Certificate	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Columbia University, Manhattanville Campus Expansion, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. As the Database Administrator for the Columbia Manhattanville Expansion Project, Mr. Hall works with McKissack's Office of Community Employment (OCE) to track and log workforce applicants; gather and file workforce data and documentation, including employment applications, professionals credentials and certifications. Mr. Hall is responsible for managing and updating McKissack's internal vendor and applicant databases. Serving as a resource for procurement and labor force needs, he develops and distributes customized referral lists for specific trades; participates in contractor meetings; supports events and interacts with the community and key stakeholders; fields, logs and tracks inquiries from small businesses and workforce candidates. He also provides administrative and technical support including: basic IT/website support, filing, photocopying, imaging files, word processing and archiving. In addition, he assists with the preparation and delivery of complimentary correspondence and e-blasts.		
NYC EDC Rockaway Boardwalk, Far Rockaway, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
b. Mr. Hall provided Technical and Administrative support for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. The project site encompasses 4.7 miles of shoreline with the development of new elevated boardwalks and protective measures and the installation of new boardwalks and support structure, ramps and stairs. Mr. Hall staffed the Local Referral Center, maintaining the applicant employment database, including vetting candidate referrals, all follow-up and correspondence with applicants and contractors via phone and email. In his role, Mr. Hall also supported the team with Section 3 Resident and Section 3 Business Concerns compliance documentation and activities. He also assisted in the website development for the project webpage and developed collateral materials including employment applications, sign-in sheets, flyers, handouts, advertisements, etc. in support of job fairs, workshops, and community meetings. His responsibilities also included to: interaction with community groups, partner organizations and contractors for employment placements; engagement with local workforce resources i.e. NYCHA, etc.		
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
c. Mr. Hall served as Call Center Supervisor/Database Administrator for the NY Rising Community Development Block Grant/Disaster Recovery Inspection project. McKissack was the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprised the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 150 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes. Mr. Hall supervised a team of call center representatives directly and directed their activities for the call center targets and goals. He also surveyed homeowners and reviewed property specifications to solidify residence square footage in order to assess reimbursements. His responsibilities included; implementing, reviewing and improving all call center policies, and procedures; hiring, training and supervising call center employees; tracking call volume; reporting discrepancies and areas of improvement. Mr. Hall processed all orders for technical equipment and software and coordinated with IT vendors for project related trouble-shooting, in addition to maintaining equipment inventories.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Sean Killeen, PMP	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 5
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science, Business Administration, SUNY Buffalo – School of Management		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Project Manager Certificate, Baruch College - School of Continuing & Professional Studies, Project Management Professional, Project Management Institute, Microsoft Office User Specialist, (MOUS)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Call Center Manager, Mr. Killeen is responsible for supporting call center and functions relative to the project and provides support to the client and in resolving homeowner requests. The McKissack team performed Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 7,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 245 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
McKissack & McKissack, New York, NY	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Killeen served as Proposal Manger and was responsible for managing and coordinating proposal preparation process for public and private sector clients. Analyzed project scopes and solicitation requirements and prepared submission plans to include components, schedules and responsibilities. Coordinated the development and maintenance of information databases (resumes, project profiles, graphics). Coordinated processes as required on both sponsored and non-sponsored projects, ensuring the timely delivery of a comprehensive document that fully complies with the client's requirements. Performed detailed writing, editing and formatting of customized marketing and business development materials. Interacted with internal and external team members to analyze information and develop submission components. Maintained qualifications information (team member resumes, project experience profiles). Managed the design, development, implementation and maintenance of the firm's corporate website.		
Landmark Development, Inc., Long Island, NY	2009	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Served as Assistant Project Manager for various construction projects throughout Long Island, NY.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Moji Alawode	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 12	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Institute for Integrative Nutrition, New York, NY Bachelors of Arts, Literature/Liberal Arts, Sarah Lawrence College		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Health Coach Certification	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Call Center Representative, Ms. Alawode-El was responsible for supporting call center and functions relative to the project and provides support to the client and in resolving homeowner requests. The McKissack team performed Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 7,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 245 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
Harlem Amenities Concierge, New York, NY	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm b. As the owner and founder of the concierge service, Ms. Alawode-EL has created a net effect for her clients a stress-free and increased productivity program. She aimed for busy New York professionals who seek a work life balance and improve on time management. She has sourced, vetted and hired service providers and other vendors to support her clients.		
Raison Pure, New York, NY	2009	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. As an Account Manager, Ms. Alawode-El managed and coordinated art directors, structural designers and strategic teams to source outside vendors, manufacturers and freelancers as needed. She led the team in presenting work to clients, senior agency members and other key stakeholders. She also created and secured client approval on timelines, budget and billing schedule for each phase of work.		
Select NY, New York, NY	2006	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm d. Ms. Alawode-El served as a Account Executive at Select NY. Her responsibilities included maintaining the relationship between agency and the clients in France, Spain, and The United States. She was the primary liaison between Select NY's Paris office and the New York - based creative team. Her clients were Coty USA (Jennifer Lopez, Nautica, Joop, Chopard and Davidoff fragrances), Amway and Move Collective.		
Baron & Baron, Inc., New York, NY	2003	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm d. As the Assistant Account Executive, Ms. Alawode-El managed the daily relationship between clients and agency. She assisted in negotiation contracts rates with photographers and other outside vendors. She also organized packaging department records; including requesting and maintaining archives of completed projects.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
 (Complete one Section E for each key person.)

12. NAME Tracey Wooten	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 8	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Hunter Business School, Medical Office Administration/Business & Medical Terminology		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm As Call Center Manager, Mr. Killeen is responsible for supporting call center and functions relative to the project and provides support to the client and in resolving homeowner requests. The McKissack team performed Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 7,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 245 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
b.	Long Island Power Authority, New York, NY	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm As the Administrative Assistant, Ms. Wooten provided executive administrative support to the Vice President of Environmental Affairs, as well as served as a liaison between all impacted department to ensure proper communication. She also planned and coordinated special events, travel arrangements, corporate agenda and itineraries. She maintained the Vice President's calendar		
c.	Luxottica Group, Port Washington, NY	2012	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Ms. Wooten served as the Luxury Brand Coordinator for the Luxottica Group. In this position she gained knowledge of the AS400 and saturation for the West Coast. She was also responsible for presentations, and corresponded with 100 reps daily in regards to distribution, as well as distributed weekly reports.		
d.	Magill Staffing, Levittown, NY	2010	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm As receptionist, Ms. Wooten provided administrative tasks, i.e. answered phones, pulled files, arranged travel, and created presentations.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Sean Hurwitz	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 6	b. WITH CURRENT FIRM 1.5
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> BA, English, Hofstra University		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input checked="" type="checkbox"/> Check if project performed with current firm </div>		
a. Mr. Hurwitz served as call center representative and program assistant on the McKissack NY Rising Team. His responsibilities included; intaking and reviewing calls to the center; training of new call center employees; tracking call volume; reporting discrepancies and areas of improvement. Mr. Hurwitz processed orders for technical equipment and software and coordinated with IT vendors for project related trouble-shooting, in addition to maintaining equipment inventories.		
Hofstra University Student Computing Services, Hempstead, NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input type="checkbox"/> Check if project performed with current firm </div>		
b. Served as Project Leader responsible for compiling, drafting, editing and reviewing articles, instructions and scripts for distributed literature, assorted web pages, and instructional/informational videos. He worked with guest writers to organize and edit information and assisted in formatting an informational documents in printed and digital formats. As Student Assistant, he provided customer service in the university computer lab used by campus students and staff members. He responded to computer and software users needs by accessing necessary resources for end users and answered calls from students seeking technical assistance or information. Provided high quality and efficient services.		
Hofstra University Resident Safety Representative, Hempstead, NY	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input type="checkbox"/> Check if project performed with current firm </div>		
c. Served as Supervisor/Team Leader responsible for organization and supervision of a team of fourteen security representatives stationed in various on-campus Residence Halls. He also trained new and returning employees on University Security policies and regulations.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Michael Ramirez	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 5	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> AA, Liberal Arts - Nassau Community College, Psychology Major - Hofstra University Related Courses: General Psychology, Psychopathology, Personality Theory, Developmental Psychology, Sociology, Social Psychology, Industrial Psychology, and Behavior Modification.	17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>		
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
a.	NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Ramirez served as call center representative and program assistant on the McKissack NY Rising Team. His responsibilities included; intaking and reviewing calls to the center; training of new call center employees; tracking call volume; reporting discrepancies and areas of improvement. Mr. Hurwitz processed orders for technical equipment and software and coordinated with IT vendors for project related trouble-shooting, in addition to maintaining equipment inventories.		
b.	Victoria's Secret, Rego Park, NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm As Customer Service Representative, Mr. Ramirez is responsible for stock room organization and assisting the sales team and customers with all their needs.		
c.	Acu Plus Screen Printing & Embroidery, Hicksville, NY	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm As Screen Reclaimer & Screen Manager, Mr. Ramirez was responsible for consistent inventory of screens and outputting artwork for use by the company's printers. In this role, he gained knowledge of the use of both the automatic and manual presses.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Chantry Gray	13. ROLE IN THIS CONTRACT Call Center Coordinator	14. YEARS EXPERIENCE	
		a. TOTAL 20	b. WITH CURRENT FIRM 4
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Arts in Business Administration, DeVry University (expected 2015)		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
DASNY HUD Required CDBG Disaster Recovery Inspections, New York, NY	Ongoing		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>a. Ms. Gray serves as a Call Center Coordinator on the McKissack team performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 200 inspectors and support personnel to assist in assessing damage and providing estimates to facilitate the release of needed funding to homeowners for home repair or replacement.</p>			
Standard & Poor's Financial Services LLC, New York, NY	N/A		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm</p> <p>b. Ms. Gray served as Senior Customer Service Representative responsible for contacting customers for support document requests regarding general ledger and other module entries. She researched and resolved client discrepancies within a timely manner, controlled expense accounts, capital budgets, and inventory purchases, and controlled budgeting, financial reporting, inventory cost, cash management, business plan development, financial analysis, and capital expenditures. Ms. Gray administered various accounting functions, including billing, accounts receivable, bank reconciliation, job costing, contracts, lien releases, customer service and financial statements, accurately processed and invoiced orders to customers, and analyzed operational reports for substantial gains and methods to more efficiently utilize resources. She maintained long-term leadership in the market segment, identified and developed comprehensive business alliances and provided client and non-client support for Standard & Poor's products processing.</p>			
New York City Department of Environmental Protection, Croton Water Tunnel Treatment Plan, NY	N/A		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm</p> <p>c. Ms. Gray served as Account Representative where she was the critical negotiator between engineering, manufacturing, and management to balance workflow, product order fulfillment, inventory control, and vendor relationships. Her Customer Service Representative duties included accepting credit card and loan applications, opening and closing accounts, cross-selling and consultative sales of financial products, and maintaining up-to-date knowledge of banking services and product. She researched and resolved account discrepancies, provided high level of customer service for all banking transactions, and directed branch operations, increased office income, controlled losses and fraud, audited compliance regulations, and organized monthly reporting activity. Ms. Gray administered various accounting functions, including billing, payroll, accounts receivable, bank reconciliation, job costing, contracts, lien releases, customer service and financial statements, and was responsible for financial functions of the corporation including consolidations, general accounting, credit, collections, and monthly reports.</p>			
Memorial Sloan-Kettering Cancer Center, New York, NY	N/A		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm</p> <p>c. Ms. Gray served as a Visiting Volunteer providing training and assistance for new visiting volunteers, visited patients and their family members, and provided books or magazines and on occasion read to them. She assisted the patients with their motor skills in the recreational room, assisted patients with their transport and informational needs and assisted patient with their activities for daily living.</p>			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Steven Allen	13. ROLE IN THIS CONTRACT Director of Preconstruction	14. YEARS EXPERIENCE	
		a. TOTAL 32	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) AS, Construction Engineering, State University of New York at Farmingdale		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
USTA National Tennis Center, Flushing Meadows, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. Mr. Allen serves as Director of Preconstruction on the McKissack team providing preconstruction and construction management services in support of the USTA National Tennis Center's major modernization program. The proposed projects will improve the USTA NTC's site plan, circulation, visitor amenities, landscaping, and will include construction of a new stadium to replace the existing Louis Armstrong Stadium in the same location and a new Grandstand Stadium in the southwest corner of the NTC site. The modernization plan also calls for improvements to Arthur Ashe Stadium and include a new operable roof. The proposed projects also include modifications to tournament courts and ancillary buildings, the construction of a new parking garage, new road access and pedestrian enhancements.		
School of the Arts, Nash Building Renovation, Columbia University, New York, NY	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
b. Mr. Allen serves as Director of Preconstruction on the McKissack team selected to provide Design/Build General Contracting services for the interior fit-out of approximately 11,200 sq. ft. on the 5th floor of the Nash Building located at 3280 Broadway Columbia's Manhattanville campus.		
Pupin Theory Center, Columbia University, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
c. Mr. Allen serves as Director of Preconstruction on the Pupin Theory Center project. McKissack is acting as General Contractor for the renovation project that will provide critical space for the interaction and collaboration of faculty, students, and guests and will create the environment necessary to attract top talent in the field to Columbia's Physics Department. This project will eventually encompass the entire 8th and 9th floors of Pupin Hall, located on Columbia University's Morningside Campus. The current phase will construct shared private offices along with a spacious lounge and pantry on the 8th floor, with a sculptural open staircase connecting to the 9th floor. The 9th floor construction will provide shared private offices and several "interactive" spaces for meetings, informal gatherings and spontaneous collaboration. In addition, mechanical spaces housing electrical and I/T services will be upgraded on each floor.		
Kel-Mar Designs, Inc., New York, NY	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
d. Mr. Allen served as Project Manager for a general contracting firm managing day-to-day operations including purchasing for two (2) projects: a 50,000 SF charter school project consisting of side addition, build-over and renovation including structural and foundation reinforcing; and a new 11,500 SF emergency medical services station with a two-story masonry and glass structure and a green roof.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Brendan Boylan	13. ROLE IN THIS CONTRACT Estimator	14. YEARS EXPERIENCE	
		a. TOTAL 30	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Building Management & Technology, University of Liverpool Electrical and Electronic Engineering, University of Ulster, Jordanstown		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
USTA National Tennis Center, Flushing Meadows, NY	Ongoing		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>a. Mr. Boylan serves as Preconstruction Manager and Project Cost Estimator on the McKissack team providing preconstruction and construction management services in support of the USTA National Tennis Center's major modernization program. The proposed plans will improve the USTA NTC's site plan, circulation, visitor amenities, landscaping, and will include construction of a new stadium to replace the existing Louis Armstrong Stadium in the same location and a new Grandstand Stadium in the southwest corner of the NTC site. The modernization plan also calls for improvements to Arthur Ashe Stadium and include a new operable roof.</p> <p>The proposed projects also include modifications to tournament courts and ancillary buildings, the construction of a new parking garage, new road access and pedestrian enhancements.</p>			
Pupin Theory Center, Columbia University, New York, NY	Ongoing		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>b. Mr. Boylan serves as Preconstruction Manager on the Pupin Theory Center project. McKissack is acting as General Contractor for the renovation project that will provide critical space for the interaction and collaboration of faculty, students, and guests and will create the environment necessary to attract top talent in the field to Columbia's Physics Department.</p> <p>This project will eventually encompass the entire 8th and 9th floors of Pupin Hall, located on Columbia University's Morningside Campus. The current phase will construct shared private offices along with a spacious lounge and pantry on the 8th floor, with a sculptural open staircase connecting to the 9th floor. The 9th floor construction will provide shared private offices and several "interactive" spaces for meetings, informal gatherings and spontaneous collaboration. In addition, mechanical spaces housing electrical and I/T services will be upgraded on each floor.</p>			
School of the Arts, Nash Building Renovation, Columbia University, New York, NY	2014		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm</p> <p>c. Mr. Boylan served as Preconstruction Manager for the development of Columbia's new Nash School of the Arts. The project is comprised of approximately 8,500 sq. ft. of existing unfinished retail space on the ground floor of the School of Social Work (SSW) building located at 1255 Amsterdam Avenue for use as a Center for Design & Global Development. The renovated space will include an auditorium, research library and offices. The entire project is budgeted at \$6.5 million.</p>			
SUNY College at Purchase, Center for Integrated Teaching and Learning Building New York, NY	2014		
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm</p> <p>c. Mr. Boylan served as Preconstruction Manager during the initial phase for two new buildings on the western end of the SUNY Purchase plaza. One building is the Center for Integrated Teaching and Learning (CITL), a 3-story, 49,000 sq. ft. structure that will include spaces for traditional and hands-on instruction, technical interaction, and presentation training in theatre. The second building is the Entry Pavilion, a 2-story, 12,000 sq. ft. structure, which will serve as the new main gateway into campus and has admissions, a cabaret/lobby event space and a main seating stair that is adjacent to a main outdoor stair up to the plaza. Both new buildings have renovation components on the concourse level of the plaza.</p>			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Peter Johnson	13. ROLE IN THIS CONTRACT Project Accountant	14. YEARS EXPERIENCE	
		a. TOTAL 12	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, Accounting, Baruch College		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Hurricane Sandy Recovery, HUD Required CDBG Property Management / Damage Assessments, New York, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. Mr. Johnson serves as Project Accountant for McKissack's storm recovery project for the Governor's Office of Storm Recovery. His project accounting responsibilities include reviewing timesheets submitted by staff and sub-consultants, tracking labor costs and other project related expenses. He is responsible for preparing billing invoices, tracking costs, and verifying charge rates are in accordance with contract terms and processing invoices for payment specific to the project.		
Loss Management Systems, New York, NY	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm b. Mr. Johnson served as Project Manager for the Hurricane Sandy Water Remediation project. He was responsible for managing cost budget to allocate overall cost estimate to subcontractor tasks, produced project status reports, managed the contractor and staff and resolved day-to-day issues, and was responsible for assigned clerk and prioritization of work scope. Mr. Johnson also monitored and provided an equipment analysis of all machinery on job, and monitored and provided and analysis on all inspections. Mr. Johnson served as Project Accountant and was responsible for preparing monthly AIA billing for projects, calculated labor, overhead and material cost, and assisted in the preparation of the monthly financial statements. He conducted general ledger analysis, tied in sub ledgers to general ledger and made adjusted entries, made journal entries, help maintained WIP schedule, and interacted with project managers, supported with maintained budget. Mr. Johnson maintained and ensured job cost reports are recorded accurately, reviewed all subcontractors invoices, cost coded and approved all change orders, and set up new clients, jobs, subcontractors and vendors in the timberline accounting software. He prepared daily cash flow analysis/budget forecasts, reconciled bank statements, oversaw payroll, account analysis, weekly payroll /941 quarterly taxes, and compiled various reports for management usage. Mr. Johnson prepared Amortization/Equipment/Vehicle schedules.		
IBEX Corporation, New York, NY		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Mr. Johnson served as Senior Project Accountant and was responsible for preparing monthly AIA billings for projects, calculated labor, overhead and material cost. He assisted in the preparation of the monthly financial statements, conducted general ledger analysis, tied in sub ledgers to general ledger and made adjusted entries, and prepared journal entries, recognized revenue for the period, maintained WIP schedule. Mr. Johnson interacted with project managers, supported with maintained budget, maintained and ensured job cost reports are recorded accurately, and reviewed all sub contractors invoices, cost coded and approved all change orders. He was also responsible for accounting setups for new clients, jobs, subcontractors and vendors. Mr. Johnson recorded and posted all accounts payable and receivable, issued conditional waivers, and final waivers to closeout jobs.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Brian Lyons	13. ROLE IN THIS CONTRACT Project Executive	14. YEARS EXPERIENCE	
		a. TOTAL 37	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Mechanical Engineering, United States Coast Guard Engineering School		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Project Executive, Mr. Lyons leads the McKissack team in performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort required the immediate mobilization of more than 250 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.			
Pupin Theory Center, Columbia University, New York, NY	Ongoing		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Brian serves as Project Executive on the Pupin Theory Center project. McKissack is acting as General Contractor for the renovation project that will provide critical space for the interaction and collaboration of faculty, students, and guests and will create the environment necessary to attract top talent in the field to Columbia's Physics Department. This project will eventually encompass the entire 8th and 9th floors of Pupin Hall, located on Columbia University's Morningside Campus. The current phase will construct shared private offices along with a spacious lounge and pantry on the 8th floor, with a sculptural open staircase connecting to the 9th floor. The 9th floor construction will provide shared private offices and several "interactive" spaces for meetings, informal gatherings and spontaneous collaboration. In addition, mechanical spaces housing electrical and I/T services will be upgraded on each floor.			
Columbia University, Manhattanville Campus Expansion, New York, NY	Ongoing		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Lyons serves as McKissack's Project Executive for the Manhattanville Expansion Project. MsKissack is providing construction management services for the preparation, approval processes and construction of the first phase of Columbia's expansion in the Manhattanville section of West Harlem.			
Wexler Library Renovation, Hunter College, New York, NY	2013		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Lyons is served as Project Executive for the 16,000 sq. ft. renovation project comprised of a new state-of-the-art information center and learning commons. The new library provides students and faculty with needed space for reading, studying and collaborating. The project scope includes: demolition; drywall; carpentry; millwork glazing; finishes and MEP systems upgrades.			
School of the Arts, Nash Building Renovation, Columbia University, New York, NY	2014		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Lyons serves as Project Executive on the McKissack team selected to provide Design/Build General Contracting services for the interior fit-out of approximately 11,200 sq. ft. on the 5th floor of the Nash Building located at 3280 Broadway Columbia's Manhattanville campus.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

21. TITLE AND LOCATION <i>(City and State)</i>	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR Construction Management Support	Ongoing	Ongoing

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Governor's Office of Storm Recovery	Melvin Galloway	(212) 480-3569

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack is providing Construction Management Support Services across a broad range of CDBG-DR funded programs managed by the New York Governor's Office of Storm Recovery (GOSR). These programs are aimed at the long-term recovery of communities impacted by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. GOSR's programs will assist approximately 10,000 residents in up to 34 counties in New York State, and will contribute to essential investments in community infrastructure and resources. McKissack is responsible for the design and implementation of monitoring and compliance services for a variety of programs outlined in the New York State Action Plan, including HUD Section 3 compliance.



McKissack is managing the demolition assessment of all damaged structures including scheduling, coordination, monitoring, reporting and resolution of issues. We will provide property management and site maintenance services, as required. McKissack is also responsible for technical and demolition specifications and developing and managing a mobilization and demobilization plan.

McKissack will also serve as GOSR's on-site project management representative for the completion of construction projects. We will assist and work with the GOSR and the CPMO to perform Value Engineering Analysis and Constructability Reviews of the design and contract documents to identify saving opportunities, discrepancies and variances prior to bid of Work. We will develop detailed final cost estimates for each project and validate against established Program budget. McKissack will work with the GOSR and the CPMO to develop bidding strategies and re-align budget overruns as may be needed.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	McKissack & McKissack	New York, NY	Construction Management, Home Inspections & Damage Assessments, Demolition Project Level Design & Construction
b.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

2

21. TITLE AND LOCATION *(City and State)*

HUD Required CDBG Property Management / Damage Assessments, Staten Island, Suffolk County & Nassau County, NY

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION (if applicable)

Ongoing

Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Governor's Office of Storm Recovery

b. POINT OF CONTACT NAME

Melvin Galloway

c. POINT OF CONTACT TELEPHONE NUMBER

(212) 480-3569

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack & McKissack, as the lead partner in a Joint Venture, has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.



This effort required the immediate mobilization of McKissack staff and of private damage assessors plus the bid and award of dozens of construction/property maintenance contracts with the goal of completing all work in an accelerated 5 month schedule.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	McKissack & McKissack	New York, NY	Multi-Family Home Damage Assessments Property Maintenance Demolition Tenant Relocations

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

21. TITLE AND LOCATION *(City and State)*

NY Rising CDBG Disaster Recovery Home Inspections

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION (if applicable)

2014

2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Dormitory Authority of the State of New York

b. POINT OF CONTACT NAME

Michael Clay

c. POINT OF CONTACT TELEPHONE NUMBER

(212) 273-5146

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack & McKissack, as the lead partner in a Joint Venture, has been awarded a significant contract by the Dormitory Authority State of New York (DASNY) to perform Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The requirement is to complete approximately 5,000 home assessments and ECR's/Work Write-Ups. The Joint Venture is responsible for 1/3 of inspections in western Nassau County.

This effort required the immediate mobilization of more than 250 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	McKissack & McKissack	New York, NY	Disaster Recovery Home Inspections & Estimates

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

4

21. TITLE AND LOCATION <i>(City and State)</i>	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
NYC EDC Rockaway Boardwalk Reconstruction – Hurricane Sandy Recovery	Ongoing	Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
New York City Economic Development Corporation (NYCEDC)	Christopher Cestone, PE	917-438-4576

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. The scope of the project includes:

- New resilient boardwalks/protective measures to withstand future storms.
- New boardwalks 3 feet higher than and designed to H-20 loading capacity.
- Removal of sections of original timber boardwalks, ramps and stairs with new structurally rated concrete components to allow public access, maintenance and emergency vehicle access to safely travel the boardwalks where existing substructures can be reused.



- Utilization of substantial existing structures that have withstood Storm Sandy and removal of selected sections of structures to create islands or areas distinctively different from conventional and surviving boardwalk structures.
- New oases area on the north side of the boardwalks.
- New park furniture, plumbing and electrical fixtures, and railings.
- New LED solar and conventional lighting.
- New recreation features, concession opportunities and improvements to pedestrian and bicycle access.

The Project Site will begin with approximately 5.5 miles of shoreline in the Rockaways and will have an initial 5-year duration.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME McKissack & McKissack	(2) FIRM LOCATION <i>(City and State)</i> New York, NY	(3) ROLE Construction Management Services
b.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL
(From Section E, Block 12)

27. ROLE IN THIS CONTRACT
(From Section E, Block 13)

28. EXAMPLE PROJECTS LISTED IN SECTION F
(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)

		1	2	3	4
Brian Lyons	Project Executive			X	
Russell Imbrenda	Project Director			X	
Albert Odjida	Senior Project Manager		X	X	
Eze Iheme	Senior Project Manager		X		
Richard Sekkor	Project Manager			X	
Tim Scanlan	Project Manager				
Sean Dawson	Assistant Project Manager/ Field Inspector				
Steven Allen	Director of Preconstruction				
Brendan Boylan	Estimator				
Peter Johnson	Project Accountant			X	
Janice Haughton	Director, MWLBE			X	X
Jennifer Fraticelli	MWLBE Coordinator			X	X
Khalilah Hyde-Peyrefitte	Project Coordinator				X
Kevin Hall	Database Administrator			X	X
Helen Alladin	Call Center Manager			X	
Sean Killeen	Call Center Representative			X	
Moji Alawode	Call Center Representative		X		
Tracey Wooten	Call Center Representative				
Sean Hurwitz	Call Center Representative			X	
Michael Ramirez	Call Center Representative			X	
Chantry Gray	Call Center Representative			X	

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	GOSR Construction Management Support	6	
2	HUD Required CDBG Property Management / Damage Assessments, Staten Island, Suffolk County & Nassau County, NY	7	
3	NY Rising CDBG Disaster Recovery Home Inspections	8	
4	NYC EDC Rockaway Boardwalk Reconstruction – Hurricane Sandy Recovery	9	
5		10	

ARCHITECT ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME The McKissack Group, Inc., dba McKissack & McKissack			3. YEAR ESTABLISHED 1905	4. DUNS NUMBER 05-349-3156
2b. STREET 1001 Avenue of the Americas, 20 th Floor			5. OWNERSHIP	
2c. CITY New York	2d. STATE NY	2e. ZIP CODE 10018	a. TYPE Corporation	
6a. POINT OF CONTACT NAME AND TITLE Alma Smith, Vice President of Business Development			b. SMALL BUSINESS STATUS Certified MWBE	
6b. TELEPHONE NUMBER (212) 649-6500	6c. E-MAIL ADDRESS asmith@mckissack.com		7. NAME OF FIRM (If block 2a is a branch office)	
8a. FORMER FIRM NAME(S) (If any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	15		A06	Airport; Terminals and Hangars; Freight Handling	5
06	Architects	6		C13	Construction Management	8
08	CADD Technician	5		D04	Design-Build	3
12	Civil Engineer	11		E02	Educational Facilities; Classrooms	5
15	Construction Inspector	13		F02	Field Houses; Gyms; Stadiums	3
16	Construction Manager	17		G02	Garages; Vehicle Maintenance Facilities; Parking Decks	3
18	Cost Engineer/Estimator	7		H09	Hospital & Medical Facilities	5
21	Electrical Engineer	7		J01	Judicial and Courtroom Facilities	3
24	Environmental Engineer	5		P03	Pipelines (Cross-Country - Liquid & Gas)	5
27	Foundation/Geotech Engineer	5		P07	Prisons & Correctional Facilities	1
42	Mechanical Engineer	6		R03	Railroad; Rapid Transit	4
	Project Manager	18		R04	Recreation Facilities (Parks, Marinas, Etc.)	2
50	Risk Assessor	3		R06	Rehabilitation (Buildings; Structures; Facilities)	8
53	Scheduler	5				
54	Security Specialist	1				
56	Specifications Writer	3				
57	Structural Engineer	9				
58	Technician/Analyst	4				
60	Transportation Engineer	5				
61	Value Engineer	1				
	Other Employees	12				
Total		158				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER			
a. Federal Work	4	1. Less than \$100,000.	6. \$2 million to less than \$5 million		
b. Non-Federal Work	8	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million		
c. Total Work	8	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million		
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million		
		5. \$1 million to less than \$2 million	10. \$50 million or greater		

12. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

SIGNATURE 	b. DATE 01/20/15
c. NAME AND TITLE Alma J. Smith, Vice President of Business Development	

Hirani Engineering & Land Surveying, PC



STANDARD FORM (SF)

254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:

Hirani Engineering & Land Surveying, P.C.
30 Jericho Executive Plaza, Suite 200C
Jericho, NY 11753

2. Year Present Firm Established **1999**

3. Date Prepared: **1/9/15**

4. Specify type of ownership and check below, if applicable
Professional Corporation

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5a. Former Parent Company Name(s), if any, and Year(s) Established:

Hirani Engineering, P.C., 1991

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) Bruce Mawhirter, PE, LEED-AP, Vice President, Engineering, 516-248-1010
- 2) Jitendra Hirani, PE, President, 516-248-1010

7. Present Offices: City / State / Telephone / No. Personnel Each Office
Personnel 78

7a. Total

8. Personnel by Discipline: (List each person only once, by primary function.)

13	Administrative	1	Electrical Engineers	Oceanographers	5	Safety/Occupational Health
3	Architects		Estimators	Planners: Urban/Regional		
	Chemical Engineers		Geologists	Sanitary Engineers		
5	Civil Engineers		Hydrologists	Soils Engineers		
29	Construction Inspectors		Interior Designers	1 Specification Writers		
4	Draftsmen		Landscape Architects	5 Structural Engineers		
	Ecologists		Mechanical Engineers	12 Surveyors		
	Economists		Mining Engineers	Transportation Engineers		

9. Summary of Professional Services Fees

Last 5 Years (most recent year first)

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to \$500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

Received: (Insert index number)

20	14	20	13	20	12	19	2011	19	2010

Direct Federal contract work, including overseas
All other domestic work
All other foreign work*

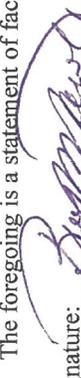
* Firms interested in foreign work, but without such experience, check here:

10. Profile of Firm's Project Experience, Last 5 Years											
Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1)	001	2	1,000	11)	046	102	10,238	21)	097	13	200
2)	006	13	4,167	12)	048	22	327	22)	101	293	4,571
3)	011	31	7,588	13)	050	164	963	23)	102	300	25,896
4)	015	13	97	14)	056	8	277	24)	107	43	4,703
5)	017	33	328	15)	079	29	1,381	25)	109	10	1,871
6)	021	41	9,134	16)	087	25	996	26)	111	25	518
7)	023	9	406	17)	088	20	10,288	27)	199	27	6,979
8)	029	288	7,511	18)	089	35	3,095	28)	201	88	1,173
9)	033	13	500	19)	093	119	9,262	29)	202	5	23,282
10)	039	19	355	20)	096	21	992	30)	203	12	624

11. Project Examples, Last 5 Years

Profile Code	"P," "C," "JV," or "JE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual or Estimated)
050 089 101	C	1 NYC Build It Back Various Locations in Brooklyn, Queens and SI New York, NY	NYC Economic Development Corporation 110 William Street New York, NY 10038	752 Fees	2017
029 101	C	2 NYSCA Storm Damage Assessment PS15 PS254 PS288 Various locations in NYC	NYC School Construction Authority 30-30 Thomson Avenue Long Island City, NY 11101	400	2013
088 102	P	3 Fire Island Stabilization Project - Survey and Mapping Community of Point O'Woods Fire Island, NY	Suffolk County Department of Public Works 335 Yaphank Avenue Yaphank, NY 11980-9744	205 Fee	2015
087 102	C	4 NYCT - Sandy Related Mitigation Various NYC Locations	NYCTA 345 Madison Ave New York, NY 10017	25 Fee	2014
017 021	C	5 Construction Management Services at Various NYSOGS Facilities - Downstate Various NYS Facilities	NYS Office of General Services 35th Floor, Corning Tower Empire State Plaza Albany, NY 12242	120 Fee	2013
089 102	C	6 Jacob Ritis Park Site Management and Debris Processing - Hurricane Sandy Debris Removal Jacob Ritis Park 2-59 Beach Channel Drive	U.S. Army Corps of Engineers - NY District 26 Federal Plaza CEN-CT New York, NY 10278	5 Fee	2013
021	C	7 Management Plan in Relation to Tree Removal Various Locations, Nassau County	Nassau County Department of Public Works 1194 Prospect Avenue Westbury, NY 11590	150 Fee	2013

050 089 101	C	8	Vladeck Houses New York, NY	NYC Housing Authority 250 Broadway 27th Floor New York, NY 10007	6,000	2009
043 050	C	9	NYCHA Emergency Boiler Project Various Locations in NYC	NYC Housing Authority 250 Broadway 27th Floor New York, NY 10007	10 Fee	2014
042 201	C	10	Boat Marina Repairs Due to Damage by Sandy 801 State Route 36 Leonard, NJ 07737	U.S. NAVAL WEAPONS STATION EARLE (U.S. NAVY), North Division Contracts Office 201 Highway 34 South Bldg C-23 Colts Neck, NJ 07722-5025	16 Fee	2014
050 089 101	P	11	Storm Damage Assessments - Gerritsen Beach Area and Civil Engineering Services - Storm Damage Assessment at Various Residential Properties, Nassau & Suffolk Counties	Various Private Owners	15 Fee	2012
050 102	C	12	Ralph Avenue Housing Rehabilitation Brooklyn, NY	NYC Housing Authority 250 Broadway 27th Floor New York, NY 10007	5 Fee	2007
046	C	13	On-Call Engineering/Architectural Services Various Locations, NY	NYS Office of General Services Corning Tower 39th Floor Albany, NY 12242	27 (Free)	2011
046 107	P	14	Term Agreement for Civil Engineering Services Town of Oyster Bay, NY	Town of Oyster Bay Dept. of Public Works 150 Miller Place Syosset, NY 11791	2,000 Fee	2009
039 201 202	C	15	Miscellaneous Repairs at the Battery Parking Garage 70 Greenwich Street New York, NY 10003	MTA Bridges and Tunnels 2 Broadway 22nd Floor New York, NY 10004-2207	57 Fee	2013
101	P	16	Parking Garage Structure at A. D'Amato U.S. Court House 170 Federal Plaza Central Islip, NY 11722	General Services Administration GSA, Public Building Services 170 Federal Plaza, Rm. 170 Central Islip, NY 11722	105 Fee	2010
201	C	17	Condition Survey of Parking Garages Bldgs. 41 & 317 at JFK International Airport, JFK Airport Jamaica, NY	Port Authority of New York & New Jersey 225 Park Avenue South 9th floor New York, NY 10003	24 Fee	2013
039 201	C	18	Condition Survey of 4 Parking Garages Bldgs. 30, 36, 29 & 34; Green, Blue, Yellow and Red Garages JFK International Airport Jamaica, NY	Port Authority of New York & New Jersey Bldg. #14, 3rd Floor JFK International Airport Jamaica, NY 11430	54 Fee	2014
029 046 056	C	19	New Child Care Center at SUNY Farmingdale Farmingdale, NY	State University Construction Fund 353 Broadway Albany, NY 12246	2,648	2012

015 017	C	20	Resort World Casino at Aqueduct 110-00 Rockaway Blvd. Ozone Park, NY	NYS Office of General Services Corning Tower 39th Floor Albany, NY 12242	88 Fee	2010
029 046 069	C	21	New York City College of Technology Voorhees Hall 186 Jay Street Brooklyn, NY 11201 United States	NYS Dormitory Authority 515 Broadway Albany, NY 12207-2964	377	2013
101	C	22	Hutch Metro Center Towers 1250 Waters Place Bronx, NY	NYC Dept. of Design and Construction 30-30 Thomson Avenue Third Floor Long Island City, NY 11101	6 Fee	2009
033 046	C	23	Bryant Avenue Complex White Plains, NY	NYS Dormitory Authority 515 Broadway Albany, NY 12207-2964	500	2009
102	P	24	On-Call Topographic & Utility Surveys All Boroughs of NYC, NY	NYC School Construction Authority 30-30 Thomson Avenue Long Island City, NY 11101	1,000 Fee	2010
006	P	25	On Call Agreement for Land Surveying Services 2010-2012 Various Locations, NY & NJ	Port Authority of New York & New Jersey One Madison Avenue, 7th Floor New York, NY 10010	250 On Call	2012
046 102	P	26	TASS-Agreement for Survey Services-Region 11 Bronx, Kings, New York Queens & Richmond Counties	NYS Dept. of Transportation - Region 11 One Hunters Point Plaza 47-40 21 Street 8th Floor Long Island City, NY 11101	728	2013
006 021 023	P	27	Call-In Contract for Construction Management Services during 2007 2008 and 2009 Various Locations NY & NJ	Port Authority of New York & New Jersey Port Authority Technical Center 241 Erie Street Jersey City, NJ 07310	3,500	2009
050 101 102	C	28	Roof Surveys at over 100 NYCHA Facilities at Various Locations throughout NYC	NYC Housing Authority 250 Broadway 27th Floor New York, NY 10007	100 Fee	2014
014 050 101	C	29	Union Baptist Church 438 Main Street New Rochelle, NY 10801	HCO Incorporated 3921 North Meridian Street Suite 100 Indianapolis, IN 46208	53 Fee	2014
014 096 104	C	30	New Jerusalem Church Doctor's Path Riverhead, NY	Todd O'Connell Architects, PC 1200 Veterans Memorial Hwy. Hauppauge, NY 11788	30 Fee	2014
12. The foregoing is a statement of facts				Date:		1/9/2015
Signature: 			Typed Name and Title:			Bruce R. Mawhirter, PE, LEED-AP, Vice President, Engineering

Laland Baptiste, LLC



STANDARD FORM (SF)

254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:
Laland Baptiste LLC
8513 Coventry Road
Brooklyn, New York 11236

2. Year Present Firm Established **2008**

3. Date Prepared: **01.13.2015**

4. Specify type of ownership and check below, if applicable
Limited Liability Company

- A. Small Business
- B. Small Disadvantaged Business
- C. Woman-owned Business

1a. Submittal is for Parent Company Branch or Subsidiary Office

5a. Former Parent Company Name(s), if any, and Year(s) Established:

6. Names of not more than Two Principals to Contact: Title/Telephone
 1) **Robert Baptiste, Chief Operating Officer 718.629.2477**
 2) **Schillivia Laland, President 718.629.2477**

7. Present Offices: City / State / Telephone / No. Personnel Each Office
 Personnel **3**

8513 Coventry Road
Brooklyn, New York 11236

7a. Total

8. Personnel by Discipline: (List each person only once, by primary function.)

1	Administrative	Electrical Engineers	Oceanographers
	Architects	Estimators	Planners: Urban/Regional
	Chemical Engineers	Geologists	Sanitary Engineers
	Civil Engineers	Hydrologists	Soils Engineers
	Construction Inspectors	Interior Designers	Specification Writers
	Draftsmen	Landscape Architects	Structural Engineers
	Ecologists	Mechanical Engineers	Surveyors
	Economists	Mining Engineers	Transportation Engineers

2. **Site Representative/Inspector** 3. **Technical Adviser** 4. **Office Engineer** 5. **Bookkeeper** 6. **Analyst**

9. Summary of Professional Services Fees

Ranges of Professional Services Fees

Received: (Insert index number)	Last 5 Years (most recent year first)					INDEX
	20	14	20	13	20	
Direct Federal contract work, including overseas	5		3		19	1. Less than \$100,000
All other domestic work	3		1			2. \$100,000 to \$250,000
All other foreign work*						3. \$250,000 to \$500,000
						4. \$500,000 to \$1 million
						5. \$1 million to \$2 million
						6. \$2 million to \$5 million
						7. \$5 million to \$10 million
						8. \$10 million or greater

* Firms interested in foreign work, but without such experience, check here:

10. Profile of Firm's Project Experience, Last 5 Years					
Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 021	5	\$1,982,870,940.00	11)		
2)			12)		
3)			13)		
4)			14)		
5)			15)		
6)			16)		
7)			17)		
8)			18)		
9)			19)		
10)			20)		
			21)		
			22)		
			23)		
			24)		
			25)		
			26)		
			27)		
			28)		
			29)		
			30)		

11. Project Examples, Last 5 Years

Profile Code	"P," "C," "IV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual or Estimated)
021		1 NY Rising Housing Recovery Program	HCR/DASNY	1,374,110,940.00	Ongoing
		2			
		3			
		4			
		5			
		6			
		7			

Vanir Construction Management, Inc.



STANDARD FORM (SF) 254
Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:
Vanir Construction Management, Inc.
111 Broadway, Suite 501
New York, NY 10006

2. Year Present Firm Established
1980

3. Date Prepared:
1/5/2015

1a. Submittal is for Parent Company Branch or Subsidiary Office

4. Specify type of ownership and check below, if applicable.
A. Small Business
B. Small Disadvantaged Business
C. Woman-owned Business

5. Name of Parent Company, if any: _____
5a. Former Parent Company Name(s), if any, and Year(s) Established: _____

6. Names of not more than Two Principals to Contact: Title/Telephone
1) **John Kuprenas, President / 213-923-2515**
2) **Robert Flory, Chief Operating Officer / 510-867-4560**

7. Present Offices: City / State / Telephone / No. Personnel Each Office
_____ 7a. Total Personnel **366**

See attached.

8. Personnel by Discipline: (List each person only once, by primary function.)

63	Administrative	1	Electrical Engineers	1	Oceanographers	2	Computer Programmer
32	Architects	12	Estimators	1	Planners: Urban/Regional	95	Construction Manager
23	Chemical Engineers		Geologist		Sanitary Engineers	84	Project Manager
3	Civil Engineers		Hydrologists		Soils Engineers	2	Technician/Analyst
	Construction Inspectors		Interior Designers		Specification Writers	2	Craft Workers
	Draftsmen		Landscape Architects		Structural Engineers	5	MIS Technician
	Ecologists	1	Mechanical Engineers		Surveyors	34	Project Director
	Economists		Mining Engineers		Transportation Engineers	6	Schedulers

9. Summary of Professional Services Fees

Received: (Insert index number)	19	19	19	19
Direct Federal contract work, including overseas				
All other domestic work				
All other foreign work*				

Ranges of Professional Services Fees INDEX
 1. Less than \$100,000
 2. \$100,000 to \$250,000
 3. \$250,000 to 500,000
 4. \$500,000 to \$1 million
 5. \$1 million to \$2 million
 6. \$2 million to \$5 million
 7. \$5 million to \$10 million
 8. \$10 million or greater

*Firms interested in foreign work, but without such experience, check here:

Profile of Firm's Project Experience, Last 5 Years

Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 006	6	\$ 10,239	11)			21)		
2) 021	235	\$ 30,1337	12)			22)		
3) 029	181	\$ 196,763	13)			23)		
4) 042	2	\$ 4,442	14)			24)		
5) 048	85	\$ 86,233	15)			25)		
6) 050	7	\$ 1,407	16)			26)		
7) 054	20	\$ 8,336	17)			27)		
8) 057	12	\$ 5,023	18)			28)		
9) 072	22	\$ 13, 874	19)			29)		
10) 084	124	\$ 79,884	20)			30)		

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual)
006	P	¹ Los Angeles World Airports - Staff Augmentation; Los Angeles, California	Los Angeles World Airports Debbie Bowers 7301 World Way West FL Los Angeles, CA 90045	\$65,625	Ongoing
021	P	² Los Angeles County - Internal Services Department - PM/CM and Support Services for JOC. Energy and Sustainability	Los Angeles County - Internal Services Department Tim Braden, General Manager 1100	\$180,000	Ongoing
029	P	³ Dillard University - Hurricane Isaac Damage Assessment; New Orleans, Louisiana	Dillard University, Keith McKendall, Assistant Vice President Facilities Management 2601 Gentilly Boulevard	N/A	9/1/2012
029	P	⁴ Dillard University - Direct Cost Administration / Program Management; New Orleans, Louisiana	Dillard University, Keith McKendall, Assistant Vice President Facilities Management 2601 Gentilly Boulevard	\$70,000	2/18/2014
042	P	⁵ Port of Long Beach - Ship to Shore Power Retrofit; Long Beach, California	Port of Long Beach Suzanne C. Plezia, Acting Director of Construction Management 925 Harbor Plaza Lane	\$45,000	3/1/2014
048	P	⁶ US Veterans Affairs - Palo Alto Health Care System; Palo Alto, California	US Department of Veterans Affairs-Palo Alto Health Care System Stephen McGrath, Chief Technical Design.	\$60,000	Ongoing
050	P	⁷ KBK Enterprises - BW Cooper Housing Development; New Orleans, Louisiana	N/A	\$106,500	Ongoing

054	P	8 Mercer Island - Sewer Lake Line and Pump Station No. 4 Replacement Project; Mercer Island, Washington	City of Mercer Island Anne Tonella-Howe	\$19,222	1/31/2011
057	P	9 AOC - Delano / Porterville / Los Banos Courthouses; Delano, Porterville, Los Banos, California	Judicial Council of California -AOC-OCCM Kim Davis, Manager 2424 Ventura Street, Room 226 Fresno, CA	\$70,000	2012
072	P	10 WeWork Tenant Improvements - Phase I & Phase II; San Francisco, California	WeWork Golden Gate LLC, Jon Czarnick, Project Manager 156 2nd Street San Francisco, CA 94105	\$11,270	2/1/2014
084	P	11 CDCR - Facility Planning, Construction and Management; Statewide, California	California Department of Corrections and Rehabilitation Deborah Hysen, Chief Deputy Secretary for Facility Planning	\$2,037,591	Ongoing
		12			
		13			
		14			
		15			
		16			
		17			
		18			
		19			

VANIR OFFICES

USA

CALIFORNIA

Corporate Office

4540 Duckhorn Drive, Suite 300
Sacramento, CA 95834
P (916) 575-8888
F (916) 575-8887
No. of Personnel: 116

1000 Broadway, Suite 475
Oakland, CA 94607
P (510) 663-1800
F (510) 663-1881
No. of Personnel: 26

455 Market Street, Suite 1870
San Francisco, CA 94105-2420
P (415) 284-9050
F (415) 284-9056
No. of Personnel: 30

2444 Main Street, Suite 130
Fresno, CA 93721
P (559) 496-0536
F (559) 860-0173
No. of Personnel: 2

735 Tank Farm, Suite 185
San Luis Obispo, CA 93401
P (805) 541-1425
F (805) 541-1940
No. of Personnel: 11

4 North Second Street, Suite 570
San Jose, CA 95113
P (408) 467-9800
F (408) 467-9808
No. of Personnel: 2

600 Wilshire Blvd, Suite 870
Los Angeles, CA 90017
P (213) 627-7371
F (213) 683-9710
No. of Personnel: 76

10 Corporate Park, Suite 130
Irvine, CA 92606
P (949) 724-1983
F (949) 724-9304
No. of Personnel: 14

290 North D Street, Suite 900
San Bernardino, CA 92401-1703
P (909) 384-1785
F (909) 381-7534
No. of Personnel: 11

701 B Street, Suite 1120
San Diego, CA 92101-8103
P (619) 233-0161
F (619) 233-0163
No. of Personnel: 14

1650 Oregon Street, Suite 215
Redding, CA 96001
P (530) 244-3360
F (530) 244-2771
No. of Personnel: 2

ARIZONA

1640 South Stapley Drive, Suite 245
Mesa, AZ 85204
P (480) 921-0333
F (480) 921-0327
No. of Personnel: 9

COLORADO

Tuscany Plaza
6312 S. Fiddlers Green Circle, Suite 250E
Greenwood Village, CO 80111
P (303)-831-4600
F (303)-861-1874
No. of Personnel: 7

ILLINOIS

230 West Monroe, 3rd Floor, Suite 340
Chicago, IL 60606
(312) 374-6100
No. of Personnel: 2

LOUISIANA

909 Poydras Street, Suite 1175
New Orleans, LA 70112
P (504) 596-2036
F (504) 596-2243
No. of Personnel: 10

NEVADA

Hughes Center 1
3960 Howard Hughes Parkway
Suite 500
Las Vegas, NV 89109
P (702) 990-3610
F (702) 990-3501
No. of Personnel: 1

NEW YORK

111 Broadway, Suite 501
New York, NY 10006
(888) 912-1201
No. of Personnel: 1

TEXAS

1250 Capital of Texas Hwy, South
Building III, Suite 400
Austin, TX 78746
P (512) 329-2176
F (512) 329-2588
No. of Personnel: 2

20333 State Highway 249, Suite 200
Houston, TX 77070
P (281) 378-8073
F (281) 370-6504
No. of Personnel: 6

1452 Hughes Road, Suite 200
Grapevine, TX 76051
P (817) 873-5052
No. of Personnel: 2

VIRGINIA

9100 Arboretum Parkway, Suite 285
Richmond, VA 23236
P (804) 560-4295
F (804) 560-4296
No. of Personnel: 7

WASHINGTON

10900 NE 8th Street, Suite 1486
Bellevue, WA 98004-4454
P (425) 577-0095
F (425) 451-8971
No. of Personnel: 10

INTERNATIONAL**JEDDAH**

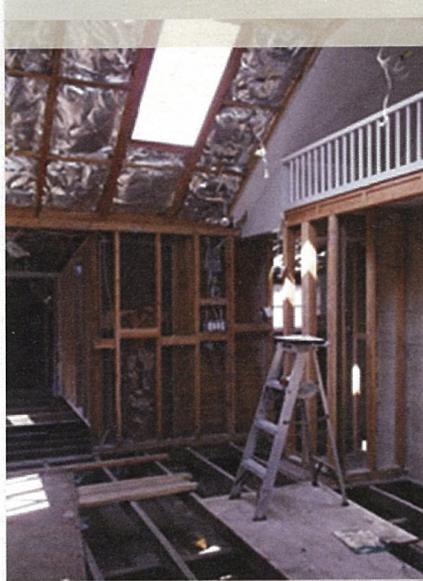
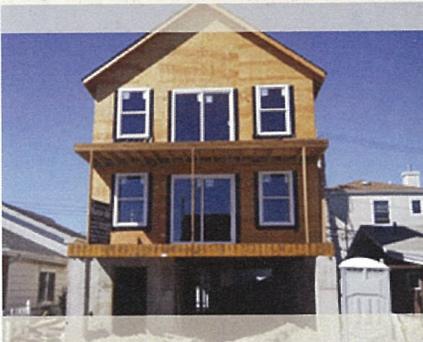
Vanir CM c/o King Faisal Specialist
Hospital / Al-Rawdah Compound
Villa No. 8
PO Box 126735
Jeddah 21352
Kingdom of Saudi Arabia
P +011 966 2 665 1772
F +011 966 2 664 2520
No. of Personnel: 3

DAMMAM

Vanir CM c/o King Fahad Specialist Hospital -
Dammam
P.O. Box 15215
Dammam 31444
Kingdom of Saudi Arabia
P +011 966 3 843 1111
No. of Personnel: 1

ABU DHABI

Al Kharbash Tower, Office #704
P.O. Box 75789
Sheikh Zayed Road
Dubai, UAE
P +011 971 4 3278766
F +011 971 4 327 8763
No. of Personnel: 1



**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company

2. Technical Approach (Methodology)



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

Borough of
Brooklyn

Technical Approach

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2. TECHNICAL APPROACH (METHODOLOGY)

A. PROJECT UNDERSTANDING

The LiRo Team understands that DDC is seeking to substantially increase the Build It Back Program's design and construction capacity through this procurement to serve one- to four-family homes in the rehabilitation, elevation and reconstruction pathways. With over 15,000 applicants in the program, this procurement targets 7,725 applicants in Queens, Brooklyn and Staten Island to be completed under this five year assignment. A rapid ramp up in 2015 is anticipated by our design and construction management team to work with the City's eight lists of Prequalified Construction Contractor. LiRo has assembled a team of construction managers, technical/homeowner advisors, designers, procurement specialists and community based organizations that have been involved with Sandy housing recovery and national CDBG-DR housing programs to meet this challenge. Our team has a proven record on Sandy housing recovery programs in New York and New Jersey that requires managing, designing and constructing multiple concurrent projects at high volumes while coordinating with case management teams for the highest level of homeowner satisfaction.

B. TECHNICAL APPROACH (METHODOLOGY)

The following technical approach and methodology is based on fourteen successfully completed housing recovery programs including Hurricane Ike's CDBG-DR program in Southeast Texas where the program was designed, tested, and implemented completing over 2000 rehabilitation and reconstruction projects most of these program homes were completed in less than 24 months. This approach and methodology constitutes a proven approach for preparation of tasks, products, procedures, deliverables, and the staffing density for the development of a well-organized, production based approach to scattered site construction projects. This project approach is scalable and can be modified to accommodate a throughput that is only limited by the ability of New York City's regulatory agencies' ability to review plans, issue permit approval, and the capacity and quality of the City's prequalified construction contractor pool.

Some highlights of this Texas program includes:

- **South East Texas Regional Planning Commission (SETRPC)**
 - 754 projects completed in 14 months
 - <5% Change Orders
- **City of Galveston Round 1 Recovery Program**
 - Took over failed program
 - Recovered and completed 682 projects in 20 months, including eligibility
- **Concurrent Programs**
 - SETRPC Round 2 – Completed 653 projects in 28 months, including eligibility
 - Lower Rio Grande Valley Development Council - 751 projects completed in 28 months, including eligibility
 - City of Galveston Round 2 - 259 projects completed in 28 months, including eligibility
 - Over 6,000 pay applications processed
 - All eligibility reviews completed in 9 months

The following overview of the successful program development, requirements, ramp up and training of staff and implementation of the production process can be adapted for the New York City Build It Back Program. The approach to the program is organized into three phases:

Phase 1: Operational Planning

Phase 2: Pilot Program (Simultaneous to Program roll-out to expedite results)

Phase 3: Full Implementation

The approach, staffing plan and schedule for the Sample Project presented in the RFP follows this overview and the Program Tasks are at the end of this section.

Phase 1: Operational Planning

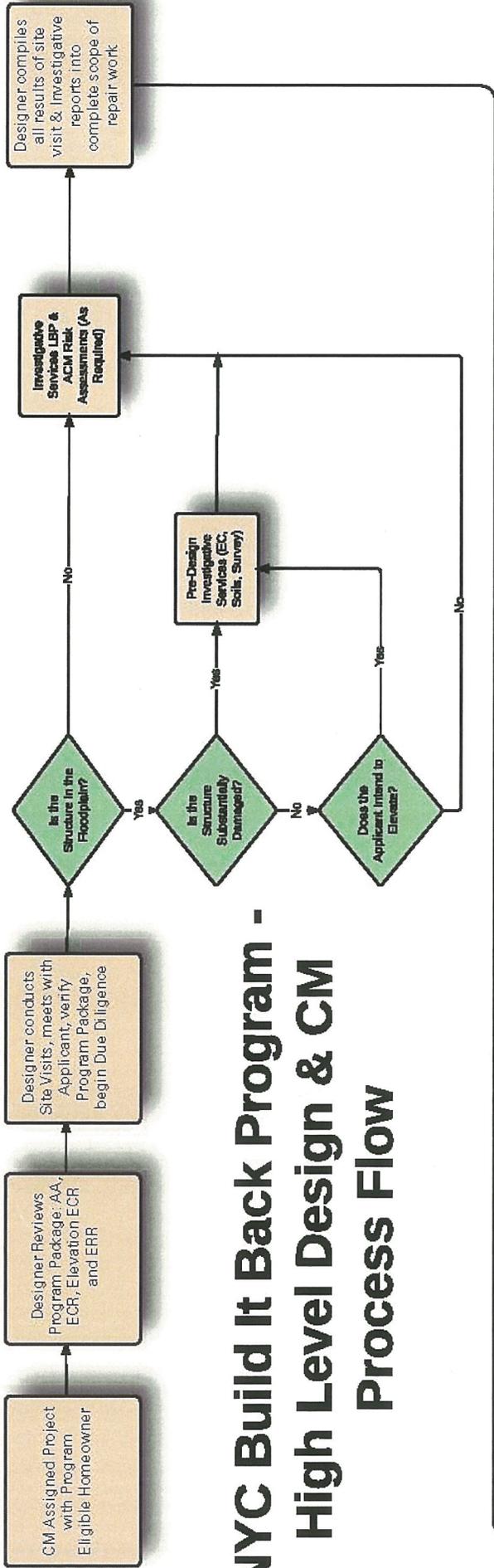
This phase will develop all the necessary design and construction policies, procedures, forms, and systems to create an Operational Plan to be implemented by the project team. The Plan provides a systematic approach that takes into account the scattered site nature of the program, coupled with the unpredictable nature of type of construction (repair, elevation, or reconstruction) and

develop a Production Building Process that can be effectively implemented and tracked to produce a quality product for each homeowner.

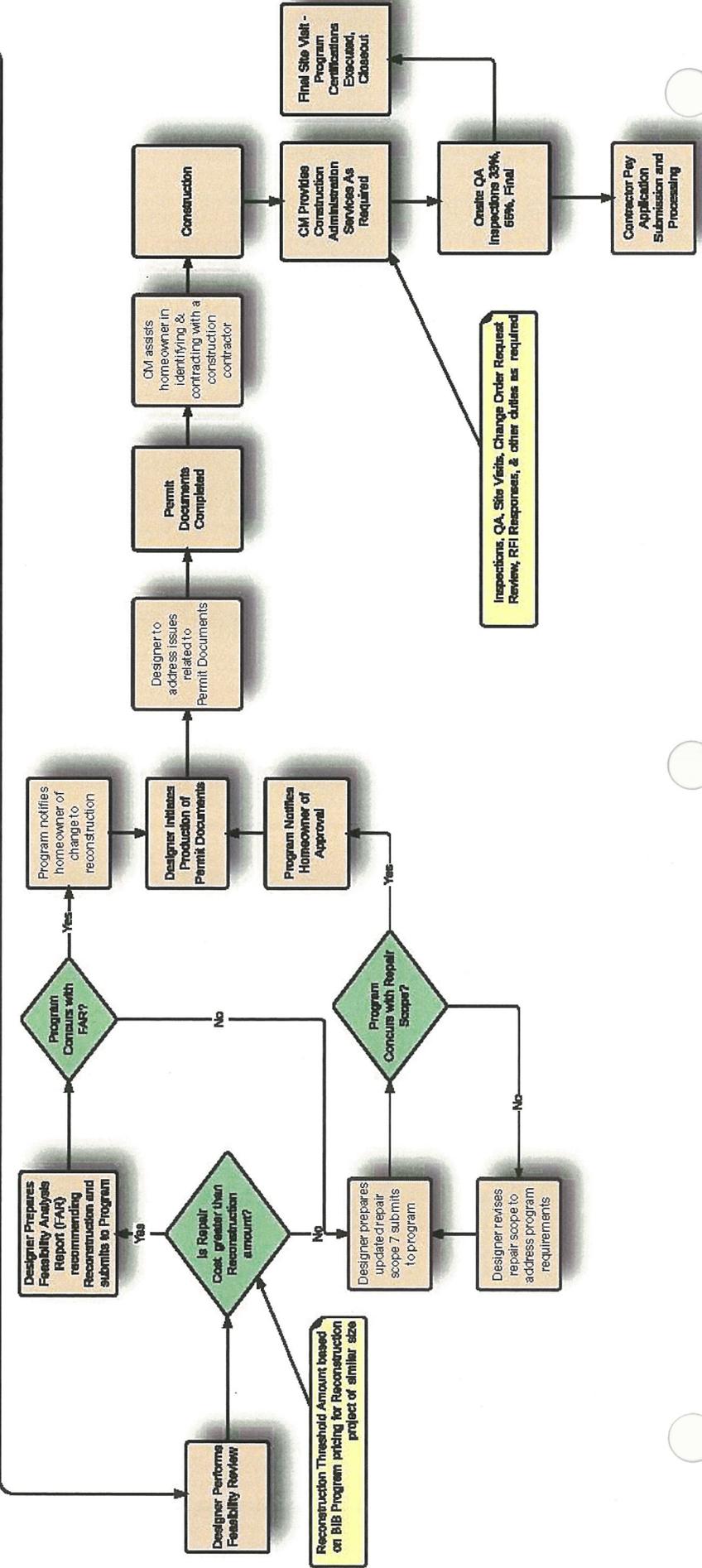
Operational Planning has multiple concurrent tasks, with In Progress Reviews (IPRs) scheduled bi-weekly to track the scope and progress of each task. The Operational Plan is developed with respect to the NYC BIB Program Guidelines as a formalized approach to the design, construction, and construction management of the housing recovery projects. The desired endstate of the Operational Planning Process is to have a cohesive plan that is well prepared, trained to the project implementation team, and rehearsed to ensure all Team Leads and functional area managers are prepared for implementation.

Key Tasks for Operational Planning include:

1. **Development of a Design and Construction Process Flow.** The illustration on the following page is an example of a high-level process flow previously used and tested (revised for NYC) on a CDBG-DR housing recovery program. The process flow is essential in its design as it provides a systematic approach for the project team to follow and closely tracked by the program data management system. The process flow is the overall vision and road map for the project team and applicants a “Road Map” to follow from Eligibility Complete through Closeout.



NYC Build It Back Program - High Level Design & CM Process Flow



2. **Policies and Procedures Manual (P&P).** The development of a P&P for the design and construction process is also critical as it addresses how the program will operate and is focused on a much larger audience than the BIB Program Guidelines address. Through the P&P, the program management team – pre-design investigative services providers, design professionals, contractors, construction inspectors, controlled inspection staff and DOB staff – all key participants in the success of the program, will have a clear understanding of their roles and responsibilities in the process. The P&P will be further broken down into training seminars for design professionals and contractors in order to enhance their understanding of their scope, program requirements and expectations for their portion of the process. These detailed training seminars have expedited the requests and reviews of clarifications and scope changes from designers on the State’s housing program.

LiRo has *trained over 120 design professionals and contractors* on the NY Rising Program. This practice has contributed to more uniform and consistent products throughout the design, construction and closeout process.
3. **Standardized Program Forms Development.** To build efficiency and produce a consistent quality product every time, each functional area represented on the Organizational Chart will need standardized program forms that support the program management and construction effort. Each form developed will have specific purpose, and serve to enhance the CDBG-DR Compliance requirements as the applicant’s file is assembled in the data management system. Sample forms used successfully from previous programs will be altered and adopted.
4. **Database Management System.** Housing recovery programs are data intensive, requiring extensive tracking and easy access and reporting functions to monitor and maintain HUD compliance. Our team proposes the development of a comprehensive, web-based, and decision driven data management system that corresponds directly with the Design and Construction Process Flow and provides auto-generated notifications to Team Leaders when a project enters their queue for action. The data management system also serves as the repository for all project related information, and only when each required deliverable is entered into the system and checked by a manager is it allowed to continue through the process.

The data management system should also provide for the inclusion of other data components, including requesting and documenting the results of Construction Quality Assurance (QA) Inspections. Construction QA Inspections capture data in the field utilizing a custom iPad App, gathering proof of code inspections, pictures of the work, inspection pass/fail status, deficiencies based on quality standards, Failed Inspection Reports denoting reason for failure and required corrective action, and inspection approval/authorization for contractor pay applications. All of this data is captured remotely and uploaded wirelessly to the data management system and printable at field locations so the reports can be provided to the contractors.

The data management system will also support the request and processing of contractor pay applications, where the contractor will submit an invoice for payment based on the contract payment schedule, pair it with the Passed Inspection Report, and submit it to the DDC for payment.

To expedite the interface between LiRo's data management system, LiRo Recovery Manager (LRM), with HRO's CMS system, we have asked Dewberry to join our team. Under Dewberry's current contract for BIB, a user-friendly cloud-based project management system was developed that allows users to input, upload, download, manage, search, track, and exchange large amounts of project specific data. Additionally this system includes several HRO interfaces which allows BIB staff to access data and approve reports online via a simple web portal.

Building on the current Dewberry Data Management System (DDMS), we will work with HRO IT to establish additional data exchanges for the DDC contract and follow the process below for processing data between the HRO/LiRo team.

- Assignments to the LiRo team will be pushed into DDMS via a newly established data exchange where we will match assignments to completed initial Inspections, Feasibility Reports and Signed Off Tier II reports which will serve as an extra QC step prior to scheduling the design consultation to ensure that applicants aren't scheduled for design consultation that have missing documents.
- Assignments will be vetted against a bulk GIS database used to identify technical issues related to construction (i.e. setbacks, street width, lot size, wetlands, etc) grouping them for review and resolution by the HRO technical review committee. This will allow the LiRo team in conjunction with HRO to make decisions that impact groupings of applicants characterized by similar technical issues thereby increasing the throughput of applicants in the program.
- Once we have run the analysis and identified the groupings, we will schedule the design consultation prioritizing those applications that have no apparent technical difficulties related to construction. Our goal is to speed the simple rehabilitation projects (a majority of the homes) through to construction.
- For the design consultation, we will then push original inspection data to Xactanalysis via an additional data exchange for assignment to the design consultation team who will use the initial inspection data as a baseline for the design consultation, and edit line items as needed to provide the scope of work for construction.
- Complete Design consultation/update inspection data with revisions from design consultation will then be sent back via data exchange and stored in our Design Consultation database.
- Once uploaded, our team will analyze the results of the design consultation and reports resulting in a greater than 10% dollar value change from inspection to design

consultation will be further scrutinized as will any DC reports which result in a pathway flip.

- Once reports are reviewed and values and scope confirmed, the LiRo team will upload completed reports into Dewberry's Design Consultation Tracking System (DCTS). This system, built to mimic the DewberryEMTS system currently in place on the Build It Back Program will allow HRO to review draft Design Consultation packages and provide comments via a web interface.
- Once design consultation documents are reviewed and approved by HRO, the approved Design Consultation packages and corresponding data elements will be pushed to HRO.
- Once TPA is signed, job order is pushed to DDMS to start construction.
- As part of DDMS-DC, our team will build a custom portal for the construction contractors to provide notification of readiness for mid-point/final inspections. This data can be pushed automatically to HRO via a data exchange or can be incorporated into the DCTS with access provided to HRO for monitoring and scheduling of mid-point and final inspections.
- Upon completion of the mid-point and final inspections, our team will receive an updated exchange of data with a copy of the inspection report and corresponding data results. The final inspection results being received will be the trigger for final invoicing of completed projects.

5. **Development of Minimum Standards.** In order to standardize document production for the design team, the LiRo team will provide a minimum level of HUD compliant finishes for construction, and create an inspection QA program, the development of the following documents is necessary to achieve a production building process:
- a. Permit Document Standards – Standards for design professionals to comply with as it relates to the development of design documents, including number of sheets, title block, references, document contents, layout, and keynoting as per the Program and Department of Buildings (DOB) requirements.
 - b. Minimum Design Standards (Reconstruction) – Identifies applicable codes, standards, levels of finishes, and performance specifications that are eligible for Program compensation.
 - c. Minimum Rehab Standards (including Elevation) – Similar to reconstruction standards, but for rehabilitation projects, identifies applicable codes, standards, levels of finishes and performance specifications.
 - d. Inspection Quality Assurance Standards – Performance specifications, inspection items, inspection and photo log procedures, and the development of specifications for fault codes and remedies for failed inspections.

The design team will use these documents to develop the Permit Documents for each home, provide the level of finishes for the applicant to understand what the program pays for, specify what is built during construction activities, and provide HUD with a document to prove

compliance with their requirements. The permit documents will also support the contract scope of work with the construction contractor and provide a reference for QA inspectors when conducting progress inspections.

We understand that HRO has prepared a Minimum Construction Specifications document and we will incorporate it into our planning process.

- 6. Prototypical Reconstruction Plans/Pattern Book Development.** One of the key successes in previous projects was the development of prototypical plans and specifications providing a variety of housing types and choices to applicants qualifying for reconstruction. Providing standard floorplans and facades has long been a technique of production building, and offers the applicant some choice in size, configuration, and finishes, but not to the level of a custom built home. We have learned that while applicant choice is important in the program, too many choices become a barrier to progress.

We feel that developing a palette of prototypical house plans for a variety of bedrooms and sizes with the ability to choose an exterior finish provides the right balance of choice coupled with standardization. Past programs have had 2-, 3- and 4-bedroom, and 1-, 2- and 3-bath models available, dependent on family size, which could easily be reversed as necessary to fit on a lot. All floorplans featured Universal Design, met Visitability requirements, and were retrofitted as necessary to accommodate any Special Needs equipment including grab bars, handicap bathtub, and zero step roll in showers. Standardization also provides a key benefit for cost reasonableness testing to comply with HUD requirements.

Upon DDC and HRO approval, we can continue using some of the existing program's standards or develop new prototypes for the targeted neighborhoods. We believe for attached homes and areas with small bungalows and small lots, a new design approach for these neighborhoods can help expedite the design and construction by geographic areas. *This is discussed in detail as part of the Project Sample and the RFP Program Tasks' Design Scoping section.*

- 7. Standardized Rehabilitation Scoping Report and Permit Level Package.** Rehabilitation plans may be far more simplified than reconstruction plans depending on the requirements of the DOB. Rehabilitation projects may vary from minor repairs up to and including elevation projects that constitute a Substantial Improvement, requiring full compliance with all building codes and standards. Supporting the program provided storm damage assessment/scoping report, the documents recommended for minor rehabilitation projects include a base floorplans, exterior elevations, a narrative of scope items including quantities and units of measure, key wall sections, keynotes, and connections on the base floorplans with call outs, and any supporting investigative documents. These standard items are assembled into a Permit Level design package and placed into a queue in preparation for an Invitation For Bid (IFB) described below.

8. **Code, Zoning, Lot and Parcel Study.** In order to prepare the Design Team for an efficient design production process, the project team will develop a matrix of the required building codes, local zoning requirements, and an analysis of lot sizes and parcels on a neighborhood basis to develop a quick reference for the designers. Being that the NYC Boroughs are under a unified building code, application of the code is simplified, however different neighborhoods will have varying setbacks and building lines on lots as well as zoning requirements. Knowing where the perspective project is located, applying the various codes and requirements, and identifying the need for variances greatly reduces the design time required and allows the design team to anticipate downstream impacts.

The Lot and Parcel Study relates to and supports the development of standardized plans for reconstruction and provides a guideline for placement of stairs, landing, and other access requirements for rehabilitation projects. By researching the lot and parcel sizes in the communities where the storm damage occurred, the design team is able to develop standardized floorplans for reconstruction based on the buildable area on the lot or parcel when considering building lines and setbacks. The design team will utilize GIS resources and parcel data to prepare the analysis and generate the needed data. In our experience the lot and parcel study can generate a variety of floorplans or standardized layouts for access, some CDBG-DR programs have had the standardized layouts cover the majority of the reconstruction scenarios. The balance would require some sort of customized design solutions.

9. **Designer Team Assignments.** The LiRo team plans to perform a geospatial analysis of all applicants in the awarded borough immediately upon contract award. This analysis will allow the team to create targeted design teams focused on known challenges in the borough, such as attached homes with various program pathways, properties without street access, and properties on septic with wetland impacts. To the greatest extent possible, by pre-emptively analyzing the known design challenges in a geospatial framework and assigning our architecture and engineering experts to specific design classes, we plan to develop solutions that can be standardized and efficiently applied to all applicants having certain property features and constraints. We will also use this pre-emptive analysis to recommend applicants to HRO for case management or pre-construction expediting in order to achieve a full neighborhood solution where they are most needed and appropriate.

As specific groups of applications are assigned to the LIRO Team, they will again be processed through the geospatial analysis in order to be routed to the design group assigned for the specific property features and pathway. If the analysis is not able to assign the property to one of the pre-established design classes, it will be reviewed to determine if a policy clarification is required from HRO. Policy clarifications will be sought for first-time/unique permit requirements, grandfathering allowances, etc. In cases where there are no new clarifications required but the combination of site features is especially unique, a specialized design solution will be explored. We will use these cases as opportunities to continuously review and refine our initial geospatial categories and standardized solutions.

10. Insurance. Typically, each general contractor and subcontractor obtains their own insurance policies from a provider of their choosing making the project owner indirectly responsible for paying for administration overhead at numerous separate insurance brokers and insurance companies. Alternatively, the Contractor could establish a Contractor-Controlled Insurance Program (CCIP) which would provide insurance coverage (general liability and workers' compensation) for all general contractors and subcontractors on the project insuring them for all third-party and employee injuries arising out of work at any project site. The benefits of a CCIP are many and include the following:

- a. Ensures that the proper type of policies are in place that are broad, affords the right coverage and eliminates potential gaps in coverage due to lapsed policies;
- b. Allows for a larger, more diverse pool of participating general and subcontractors in the program as purchasing and maintaining the proper insurance limits would not need to be part of the prequalification process;
- c. Would provide more competitive pricing by general contractors as insurance costs would not be factored into overhead costs;
- d. Allows for the consolidation of the claims handling function which would add value by applying a more sophisticated, coordinated claims handling process. Improved loss experience can also be achieved through aggressive and thorough investigation and claims settlement under a CCIP;
- e. Would facilitate the use of a small number of law firms and better control of the expenses of litigation. There would be no subrogation (i.e., claims by one carrier against another), as all contractors are insured under the same policy;
- f. Would allow for a consistent message from a PR standpoint and maintain the focus on the project and assistance to the necessary parties.
- g. Claims that arise out of the operations at a project site during construction are covered under a CCIP as well as claims related to completed operations for a specified period (typically 6 years).

11. Contractor Procurement and Training. The procurement of construction contractors is a key task to support the program effort. As the design team prepares plans for construction in a production-oriented manner, the need for contractor capacity will rapidly become apparent. We understand that a Request for Qualifications (RFQ) has been issued in a format that the construction contractor can demonstrate their experience, capability, capacity, and financial stability. Pricing from the procured contractor group is performed later in the process; hence the Program should be most interested in the contractor's qualifications, taking pricing out of the equation. Some recommended review/selection criteria for the RFQ include:

- a. Ability to Perform in NYC

- b. Insurance Limits Specified by DDC
- c. Residential Construction Experience (CDBG-DR experience or scattered site construction experience desirable)
- d. Bonding Capacity
- e. Financial Stability (Cash on Hand)
- f. Size of Firm
- g. Years in business
- h. Quality Control Plan
- i. Customer Service Plan

LiRo has conducted **procurements for thousands of sites as part of the Design/CM Build Program** for DDC's Underground Storage Tanks Program.

Once the Pre-Qualified List (PQL) of construction contractors has been procured, the Program needs to provide training on the policies, procedures, and program requirements for the

The LiRo team has conducted contractor training seminars for more than 7 HUD funded housing programs.

contractors to follow during the course of implementation. We will conduct training as needed for the eight PQLs to provide each contractor group insight into how the program will function; what the duties and responsibilities are of each party; how projects are assigned or bid; construction management requirements; how to request inspections; and pay application submission. The contractors are provided a workshop binder with all the required forms, procedures, and program information for reference throughout the project.

12. Contract/Uniform General Conditions Development. In conjunction with DDC, our approach to contracting with the construction contractor includes using a proven methodology and tested contract documents used on previous DDC programs and adapted to the NYC BIB requirements. The contract package consists of 3 documents, a Base Contract with all of the terms and conditions, a Task Order for each specific site, and Uniform General Conditions (UGC) that covers all aspects of the work and contract administration. The Base Contract is executed by the CM and the Construction Contractor for the entire program, the Task Order is specific to each project site is executed by the Project Owner, Construction Contractor, and the Individual Applicant, and the UGCs bind all the documents together under a unified approach and authority. We are also experts at conducting the procurements utilizing the proper DDC language and procedures that is critical in a CM/Design/Build program.

We have found this process much more efficient, resulting in reduced administrative time, less complicated to program applicants, more attractive to construction contractors as it reduces their administrative burden. We are open to other contracting mechanisms but have found these documents and process, considering the range of techniques we have utilized, to be the best and most effective solution for CDBG-DR programs.

13. Approach to Pricing Methodology. Pricing for both rehabilitation and reconstruction projects is a major compliance and oversight issue for HUD. There are various techniques to comply with cost reasonableness and ensure the program, HUD, and the applicants are receiving a fair price for what is being constructed. Each of the following pricing methods has been successfully used on other CDBG-DR programs both individually and collectively.

- a. Invitation for Bid (IFB)
- b. Standard Pricing for Rehabs using Xactimate
- c. Composite Pricing for Recons
- d. Schedule of Unit Costs for Site Conditions

The IFB Process consists of the development of packages of reconstruction or rehabilitation projects, including full sets of Permit Documents that are put out for bid to the pre-qualified contractor group as a Best Value approach to the bid proposal. Contractors are allowed to bid

LiRo's experience has shown that ***the program will be best served by having multiple project delivery vehicles including Unit Price Contracts and Invitations for Bids.*** These options will expedite production and home completions.

on projects and are awarded based on their capacity (amount they can bond and float based on cash on hand), schedule, quality, and price. The initial IFB group establishes the baseline for the selection criteria, and provides the first look into the ability for construction contractor's performance metrics. Subsequent IFB packages are advertised bi-weekly, with the volume of each package dependent on the number of Permit Document packages ready for bid by the IFB cut-off date. Contractors are allowed to receive awards up to their maximum bonding and financial capacity, and then have to complete projects within the specified

construction duration to be eligible to bid on the next group.

Xactimate Pricing is among HUD compliant mechanisms for establishing cost reasonableness. A successful method we have used previously is an assignment approach to the pre-qualified contractor group based on standardized pricing developed in a nationally known damage assessment and cost estimating software, Xactimate. Xactimate, which is being used currently by the NYC BIB program for storm damage assessments and repair estimates, can be customized and formatted to be used as the program pricing for rehabilitation projects. Xactimate derives its cost index from multiple sources, including market conditions, and is updated monthly to account for market fluctuations. Line items for scopes of work are priced in Xactimate and compiled into an Assignment Package, which is then initially provided to the contractor group based on their capacity. Contractors then bid a multiplier of these items. It has been our experience that contractors have demonstrated a willingness to bid to LiRo on this basis and we believe we can significantly expand the JOCs contractor capacity by having LiRo bid and hold these contracts. After contracts are awarded, contractor performance metrics are then utilized for assigning future work. Suggested metrics for inviting contractors from the PQL for bidding future projects include capacity (financial and bonding), speed (how

quickly the contractor completes projects), and quality (number of failed QA inspections compared to total inspections). These assignment criteria are tracked internally by our data management system and provide incentive and rewards to contractors that follow the program guidelines and build a quality product quickly.

Composite Pricing is the process of taking all of the standardized floorplans and bidding them out to the contractor pool to develop a single, composite price for each floorplan. Floorplans are broken down into a pricing document for bid based on the 16 Division format, and pricing is solicited from the contractor group, tabulated, and the mean of all pricing is calculated into a composite price for each floor plan.

The **Schedule of Unit Values** utilizes certain units of measure for the type of work, (SF for flatwork, LF for utility lines, CY for demolition, etc.) and pricing is derived for each unit of measure utilizing the same tabulation and mean calculation technique. Pairing the composite pricing with the Schedule of Unit Values, may account for the site-specific conditions that vary from one project to another.

When a project is assigned to a construction contractor, the Composite Price for the floorplan is a fixed cost. To establish the pricing for the varying conditions, a joint site visit with the contractor and the construction management team is conducted to measure and determine the quantities for the Schedule of Unit Values. These two prices, the Composite Price and the final Schedule of Unit Values are added together to create the contract amount.

Each of these costing methods are viable and do not require extensive planning up front to develop the costs and assignment system, or time during the course of the project to bid each individual structure. Both methods can be successfully implemented depending on the desire of the DDC.

Phase 2: Pilot Program

After approval by DDC of Phase 1, the program management staff onboarding begins in earnest - with the organization, training, and testing of the program management plan, procedures, and coordination of service and construction contractors. The management team will plan and conduct a series of tabletop rehearsals, taking applicant files and running them through the full process to note the key tasks, handoff points, coordination, and compliance documentation required by each functional area and cross referenced with the data management system. This provides our team the ability to quickly comprehend the process, and formulate a training plan for the continued knowledge transfer among the team members.

A risk mitigation measure successfully employed by LiRo on previous programs has been ***pilot testing programs in parallel to procurements to improve the process while maintaining an aggressive schedule.***

Once the processes are confirmed, we suggest the development and implementation of a pilot program, taking approximately 30-50 program applicants that have completed eligibility and environmental review through a test phase to confirm the program management plan before full scale implementation begins. The pilot program is not a full-scale beginning to end implementation of the pilot group, but rather a forward looking representative sample that can be initiated approximately 30 days before full-scale implementation occurs. From past experience we have found that performing a pilot program before initiating full-scale implementation allows for the resolution of many of the technical or programmatic issues before they become a barrier to progress. This process minimizes mistakes and ultimately results in faster and better mid-term and long-term results.

Phase 3: Implementation

The efforts in the previous phases culminate in a focus on production through an assembly line system through each program function area. Communication and coordination of each functional area is key, supported by the data management system and the auto notification processes built into the management plan.

1. **Transfer of Eligible Applicant.** When HRO has completed eligibility and environmental review of an applicant, including eligibility to receive an award, we suggest the applicant's case file be transferred to the design and construction management team through a Data Transfer Protocol or other electronic means into our data management system. The case file should include all administrative and assessment documentation from HRO related to the applicant's damaged dwelling, including at a minimum:

- a. Administrative Data, Address, and Contact Information
- b. Substantial Damage Determinations
- c. Storm Damage Assessments
- d. Lead Based Paint and Asbestos Risk Assessments
- e. Environmental Review Record
- f. Feasibility Analysis
- g. Assigned Construction Pathway
- h. Special Needs Requirements

The data management team will accept the transfer of data and documents, conduct QA, and input into the data management system.

A Homeowner Advisor will contact the applicant provide his status and schedule a review meeting in preparation for initiating the design process.

The LiRo Recovery Manager (LRM) software is already performing a similar task for the NY Rising Program. LRM is compatible with the client's case management system, capable of exchanging data between the two systems, automating correspondence and queries and alerts to appropriate parties within the program and project management teams.

2. **Pre-Design Investigative Services.** Depending on the nature of the construction pathway, different pre-design investigative services may have to be ordered for each individual project. Minor rehabilitations may forego many of the services as they are unnecessary. Substantially

Damaged dwellings will likely require all of the investigations, and reconstruction projects will require all except Lead Based Paint assessments. These services provide the necessary information, assist the design team with the Due Diligence process, and support the permit application to the Department of Buildings (DOB). The Pre-Design Investigative Services Team will contact the applicant to inform him on the Pre-Design Investigative Services ordered and to expect contact from service providers to set up appointments. These services include:

- a. Land Survey
- b. Initial Elevation Certificate
- c. Soils Analysis and Report
- d. LBP Risk Assessment
- e. ACM Risk Assessment
- f. Review of the Environmental Review Record

Each of resulting products or reports will undergo an internal QA review to ensure the service provider is adhering to the program scope of work and the information provided is correct. When all required reports are received, the Pre-Design Investigative Services Team will package the reports in the data management system for a manager review, approval, and notification to the Design Team there is a package ready for design.

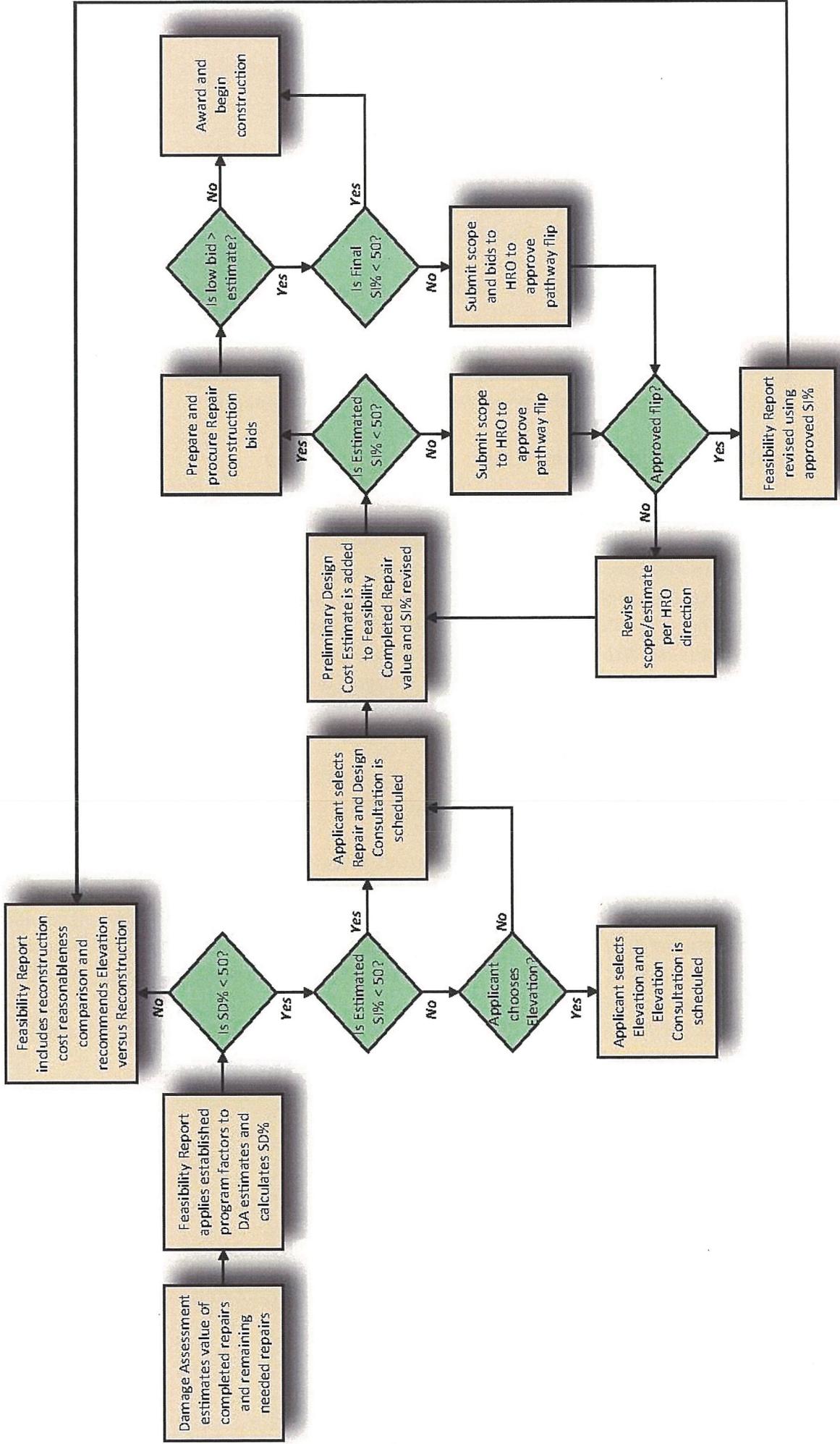
3. **Design.** Upon receipt of the Pre-Design Investigative Services Reports and the applicant's information from HRO, the Design Team will initiate Due Diligence by reviewing the entire package and setting up a site visit with the applicant. Depending on the nature of the project and the construction pathway, the design professional will conduct an assessment of the dwelling validating Program identified storm damage scope items; assess any scope items missed during the initial assessment; identify code related scope; and the review the feasibility of elevation or possibly reconstruction. Design documents may take one of three possible pathways:
 - a. Minor Repairs/Rehabilitation
 - b. Substantial Damage with Elevation Required
 - c. Full Reconstruction

Documents for each category will require a different level of effort as determined by the initial coordination with DOB and the Document Standards developed during Operational Planning. For Substantially Damaged dwellings, at a minimum, a Feasibility Analysis will be conducted to determine the most cost-effective solution to repair the storm damage and achieve code compliance. In some cases this may require "flipping" the Substantially Damaged dwelling from rehabilitation and elevation to full reconstruction.

NYC DOB requires separate calculations of substantial damage (SD) and substantial improvement (SI). SD follows FEMA's requirements and is the cost to repair the home to its pre-storm condition compared to the pre-storm value of the structure. SI for the Build it Back program combines the estimated costs of repairs completed at the time of the Damage Assessment with the final actual construction costs to complete repairs, excluding costs

allowed by FEMA regulations. If either SD or the Final scoped and bid SI are determined to be greater than 50%, the project must comply with Appendix G of the NYC Building Code with respect to elevation. As a result, consistency in scoped repair items and construction cost estimates to bids received is especially important to avoid pathway flips and subsequent project delays. The costs estimated in the damage assessment and feasibility report are fixed with respect to fluctuations in the construction bidding market that may be experienced in the procurement of construction services through this contract. The following graphic illustrates the Repair/Elevation Pathway options.

Repair/Elevation Pathway Flowchart



After Due Diligence is completed and a schematic level set of drawings are prepared, the Design Team will schedule a meeting with the applicant to review the work on his project and discuss options, if any. This meeting is known as Benefit Selection as it provides the applicant the opportunity to review the schematic level drawings, ask questions and discuss options and decide if he would like to proceed with the program recommended pathway. This is normally conducted before a full set of Permit Documents is prepared to minimize costs on a construction pathway option that an applicant does not want or is not feasible. The applicant has the opportunity to agree or may withdraw from the program at this time in favor of pursuing other recovery options. Once approval is received from the applicant, the Design Team will proceed with the preparation of Permit Documents.

Design Process for Rehabilitation

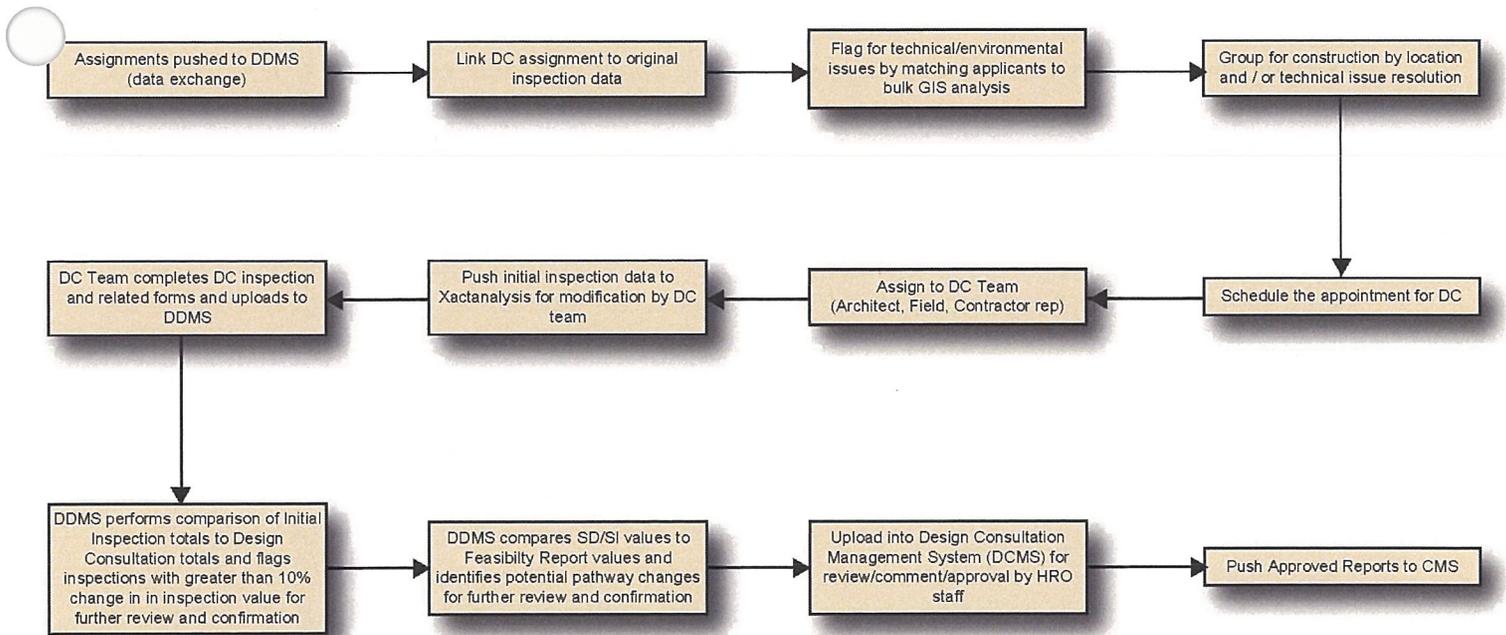
The LiRo team will have a rapid ramp up for Rehabilitation projects since we propose to build upon systems and data that are already in place. This is possible through leveraging our team members' extensive knowledge of BIB processes and existing electronic information collected during the Pre-Construction damage assessments. With immediate access to this information, we believe the pool of rehabilitation homes can be quickly moved to the next phase of final design, through HRO approval and Tri-Party Agreements, and into construction. We envision utilizing the electronic Xactimate files prepared during the initial damage assessments and updating them during a follow-up Final Design Consultation visit. Assessor accompanied by an architect and construction contractor will visit the applicant's home and collect the following information:

- a. Update the initial DAR adjusting for completed work since our initial visit.
- b. Prepare higher level internal and external room dimension layout and supplemental photographs.
- c. Verify constructability and design issues associated with home rehabilitation with contractor representative and architect and adjust the Xactimate estimate as necessary to reflect contractor and architect concerns, add-ons, and deletions and any special needs.
- d. Determine lead based paint (LBP) and asbestos (ACM) design and final clearance considerations, life safety issues, and obvious code compliance issues and DOB permit challenges if any.
- e. Assist the architect with the collection of final homeowner selections and color palette. This would include but not be limited to components like:
 - i. Appliances
 - ii. Flooring
 - iii. Cabinets
 - iv. Countertops
 - v. Lighting/Ceiling fans
 - vi. Fixtures (kitchen, bath, living area)
 - vii. Doors/Windows
 - viii. Roofing/Siding

- f. Determine relocation details to aid the homeowner with estimating on-site/offsite storage needs and packing and moving supplies.
- g. Discuss the “Next Steps” process with the owner.
- h. Upload the completed Design Consultation documents to the design center for processing and transformation into a final design package.
- i. Update the Database and CMS with required applicant status changes.
- j. Homes requiring “elevation” will be pre-determined and include additional field team members such as an engineer and specialty contractor experienced in house lifting and foundation engineering.

Once received into the LiRo design central office, the field DC documents/work will be Quality Control (QC) reviewed and assembled into a “Final Design” package identifying all required permits, and code compliance issues. Properties requiring special/atypical needs will be batched together for weekly discussions with and resolution by HRO. The diagram below illustrates how data will be managed in the Design Phase.

Rehabilitation Design Process



4. **Permitting, Bidding, Assignment and Contracting.** Once a set of Permit Documents has been completed and approved by the applicant, the program management team will initiate the permitting process and the process of allocating projects to the pre-qualified construction contractor group. Depending on the outcome of DDC's approval of the methodology, projects will either be bid through an IFB process, or assigned to a JOC contractor based on the criteria stated above.

At this stage, the project's price will be determined and the Contract and Finance Team will set up a Contract Signing Meeting for the applicant, contractor, and the construction management team to review and execute the contract documents. The meeting will cover all aspects of the contract, duties and responsibilities of all the parties, and answer any questions. Once executed, the contract will be set up in the contracting system.

Depending on the level of review by the DOB, clarifications or changes to the Permit Documents may be required before the contract is signed.

5. **Approach to Applicant Upgrades (If Allowed by HRO).** The cost of upgrades to the type and quality of construction materials are fully paid for by the applicant, and should be given cautious consideration for the impacts that upgrades could have on the scope, schedule, and financial viability of a project. In our experience, allowing upgrades during construction can cause major conflicts with Program requirements and approved scopes of work, especially when private arrangements are made between applicants and contractors. For example, upgrades like adding additional square footage or elevating a dwelling higher than needed, would create environmental, zoning, and code compliance issues. These scenarios often stall the project while a third party has to provide a solution for the path forward. We will work with the DDC/HRO and regulatory authorities having jurisdiction to resolve these issues.

Our suggestion for handling applicant upgrades is to develop a list of items eligible for upgrades and limit what may be upgraded during the BIB construction process, require the upgrades to be paid for up front, outside of the BIB contract conditions, and any items beyond that defined list would be added after the BIB program has completed the storm recovery scope of work.

6. **Pre-Construction Conference.** Once contracts are signed and set up in the contracts system, we recommend a Pre-Construction Conference with the applicant, contractor, and construction manager onsite to review the project, duties and responsibilities of each party, schedule, and answer any questions. The construction manager may issue the Notice to Proceed (NTP) to the contractor, which starts the construction schedule, when the following three NTP criteria are met:
- a. Building Permit Is Issued
 - b. Applicant Has Vacated the Dwelling
 - c. Utilities Have Been Disconnected

We have found these three basic criteria to be the most effective indication that a project is ready to proceed to construction. Depending on the construction pathway, the applicant may not have to vacate the dwelling or disconnect utilities, as in the case of minor rehabilitation. As a matter of principle, our team fully investigate the benefits and possibilities of vacating the dwelling due to the environmental and/or construction hazards during construction. In addition, cost and schedule benefits if the homeowner vacates are also examined.

7. **Construction Quality Assurance and Progress Inspections.** Over the course of the project, the construction management team will conduct a series of Quality Assurance Inspections. The inspections are specified at certain intervals to ensure the project is progressing on schedule; code inspections have been conducted; the materials and finishes specified in the Permit Documents are of the appropriate quality and installed correctly with good workmanship; jobsite conditions are safe and free of hazards; and the contractor has met the milestone to submit a pay application. Contractors are provided access to a data portal in the data management system to request inspections electronically. Failed inspections are provided a Failed Inspection Report with fault codes indicating what item(s) was not compliant and a time period to correct the fault. We suggest QA Inspections be conducted at the following intervals:
- a. Repair or Rehabilitation Inspections (including elevation)
 - i. Foundation
 - ii. 50%
 - iii. Final
 - b. Reconstruction Inspections
 - i. Foundation
 - ii. 33%
 - iii. 66%
 - iv. Final
8. **Change Orders and Field Change Notifications.** During the course of construction, changes to the scope of work during unforeseen conditions or to the fit and finish of construction materials are common. In order to keep the number and cost of change orders under control, tight constraints need to be in place through a process of change order development, review, submission, and approval. Change Orders are those changes that result in a positive change to the project cost. On occasion, issues will also arise on a project requiring changes that do not result in a positive change in project cost (negative cost changes and zero cost changes). A Field Change Notification (FCN) is used to document these changes. Both Change Orders and FCN's are initiated by the contractor on a program-approved form and processed through the Construction Management Team and reviewed by the Design Team to determine if the change request and cost are appropriate. A site visit by a City inspector should be required for NYC to also confirm the scope.

9. Contractor Pay Applications. Following the successful completion of program Quality Assurance and Progress Inspections, contractors are authorized to submit a pay application for a progress payment towards the value of the contract. The following forms, at a minimum, are required for submission, reviewed, and approved by the construction management team, and forwarded to the DDC for payment:

- a. Contractor Invoice
- b. Program Required Forms
- c. Lien Waiver
- d. Certifications

10. Project Closeout. Upon completion of construction, the CM team will work with the applicant to closeout the project by collecting documentation for the data management system and for compliance reviews.

Minimum closeout documentation for verification of completion and compliance with HUD requirements include:

- a. Certificate of Occupancy from the local jurisdiction
- b. Final Elevation Certificate (if in 100 Year Floodplain)
- c. Designer Certifications
- d. Contractor Certifications
- e. Other Program Required Closeout Documents



Sample Project

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C. SAMPLE PROJECT

The approach below is based on the RFP's Sample Project comprising of a bundle of 1,450 residential buildings in Staten Island in the following pathways:

- Rehabilitation – 1,000 homes
- Elevation – 400 homes
- Reconstruction – 50 detached homes, 20% operating on a standalone septic system

Operational Planning: Sample Project

The LiRo team members' experience working on large projects in New York City, Sandy CDBG-DR housing programs and more than 14 disaster recovery projects throughout the United States brings an approach to this sample bundle of homes that will provide for expedited, comprehensive and high level of homeowner support services to complete these homes. LiRo proposes a proven approach that attacks the problem on a geographic basis with respect to procurement, design and construction but also addresses problem solving on a typological basis which results in faster resolution of thematic program issues. Upon assignment, LiRo would first analyze the bundle of 1,450 residential buildings utilizing GIS data to determine the locations of the projects within Staten Island. LiRo would then create defined project areas that would be based upon factors such as:

- The districts of Staten Island's City Council members, neighborhoods and other localized community subdivisions
- The areas represented by rebuilding alliances, community groups and boards
- Clusters of similar construction types (year of construction, type of materials used, construction styles including attached and semi-attached homes)
- Clusters of similar damage and construction types (clusters of destroyed homes, areas with severe damage due to inland flooding, areas of low elevation requiring elevation)
- The number of projects in a given area

Once the project areas are defined, LiRo would provide HRO and DDC with a report defining the project areas and the methodology used for approval. LiRo would anticipate approximately 10 project areas for the sample project, with each project area containing 150 projects of varying types. LiRo would seek guidance from HRO and DDC in determining the ordering of the projects. Utilizing this geographic approach will yield the following advantages:

- Geographically designated areas will likely have similar permitting issues, lot size/line and construction challenges that can be more effectively attacked as a group rather than individually.
- Distributing projects geographically allows for cohesive community engagement, community buy-in and true community-based planning for housing recovery.
- Construction management, design and construction contractor/subcontractor resources can be clustered together within a neighborhood to reduce cost and increase efficiency.
- If broad-sweeping regulatory decisions (such as with zoning) are required, these results can be applied to the community in a global fashion.

- NYC regulatory agencies can anticipate and dedicate resources to areas during construction to perform construction inspections.
- The LiRo team will be able to demonstrate substantial progress on a block, if not a neighborhood scale rather than seemingly random and at scattered, single sites. The visual impact of the accelerated and measurable recovery in these neighborhoods will assist the City in demonstrating the Program's progress and commitment to recovery to other applicants and the public.

During the planning phase, LiRo will review the DDC Pre-Qualified List of construction contractors. Construction procurement will be based upon a detailed analysis of the types of contractors needed and the volume of contracts that are expected. We will constantly evaluate the PQL pool of contractors to determine the bid list for future awards. Past history has shown that even good large contractors can exceed their limits – we want to avoid these scenarios. Ultimately, our goal is to have the best contractor resources at our disposal and the flexibility to eliminate non-performing or underperforming resources without jeopardizing the project's schedule or cost. LiRo understands that DDC will be prequalifying contractors and LiRo will obtain a minimum of three bids per package. LiRo will strategically implement a program that will balance engaging larger NYC and national residential contractors for speed and capacity AND bid smaller packages to maximize local, small, and women/minority business participation. LiRo proposes to use the following factors in deciding which contractors will bid on which packages; with packages ranging from a few homes to as large as 50 homes:

- Residential Construction Experience - experience with residential repairs, elevations and reconstructions
- Speed - the ability of a contractor to complete projects rapidly and their network of trades and subcontractors which are available to them exclusively
- Experienced Superintendents - the number of superintendents they have on staff will largely determine the number of projects that can be performed simultaneously
- Flexibility - contractors must be willing to provide cost-effective solutions (no- or low-cost) to move projects forward in exchange for additional volume and rapid payment
- Financial Health - the ability of the contractor to purchase materials and pay trades and subcontractors in sufficient volume while awaiting payment

In addition to procuring contractors through Invitation for Bid for lump sum Design/Bid/Build strategy, the LiRo team will also utilize a modified unit price methodology similar to but different from HRO's current JOCs contractor program. The LiRo team has had discussions with numerous contractors that are willing to bid unit prices with the contracts being held by LiRo. This will result in conditions that will generate more contractors than the current program; more trades people to deliver the work yielding more capacity; and bid prices that will be fair to NYC and also the contractor. Additionally, we will also have small, local and M/WBE contractor bidding pools that will compete for smaller packages of work similar to what LiRo has done on the NYC School Construction Authority's Mentor Program. Only through this methodology will the M/WBE firms

and locally based firms in the Sandy impacted area receive the appropriate opportunities to bid on this Sandy recovery work.

A key component of maximizing the results for unit priced work is matching the unit price book to incorporate as many items as possible including items that have historically been the drivers of contractor production. It is recognized nationally on other disaster programs that having an unoccupied home during construction is not only safer, but the home could be rebuilt faster and at reduced costs without the homeowner occupation.

LiRo has seen that relocating people out of their homes can have significant schedule benefits. As homeowner relocation is an allowable HUD reimbursable cost, LiRo is proposing that this activity be part of the contractor's bid price (as an alternate) regardless of whether it was a unit price home or a design/bid/build home. History has shown that when contractors can identify furnished apartments in close proximity to the homeowner's existing neighborhood, the homeowner will quickly engage in the rebuilding process. The homeowner's willingness to temporarily relocate coupled with the contractor's ability for faster daily construction production is a successful formula for the homeowner, contractor and taxpayer.

Pilot Program: Sample Project

Key to the success of this project is the ability for the project team to visualize the goal, understand what needs to be accomplished, describe to their staff the tasks and method, and effectively direct the implementation of the work. All of the planning and program design effort will need to culminate in the ability for LiRo leadership and staff to communicate project status and utilize data to make key decisions on work force planning and throughput. Rehearsing the process to create understanding of the process and the progression of flow through the program requirements provides the project team the ability to create a routine and build momentum on the program. We have successfully utilized "tabletop" exercises with all of the key leadership and managers utilizing mock applications. A trained facilitator with experience in CDBG-DR programs and housing recovery projects specifically will be engaged to lead this exercise. Tabletop exercises provides the project team the ability to see the process implemented in real time – hearing and observing what is occurring with the application upstream from their scope of work, and downstream after the section has completed their portion of the work. Creating this situational awareness of how a particular group fits into the overall program plan and how the performance of one section impacts other sections downstream, provides insight and understanding of where they need to hone their skills to provide a quality product. The end goal of the tabletop exercise is to have a trained leadership team with nuanced understanding the program as well as a full grasp of the process requirements. They will have a list of key points of coordination in the process and potential choke points requiring action to diffuse any conflicts and maintain process flow for design throughput and construction production.

Before the program is moved into full-scale implementation, the initiation of a Pilot Program just prior to the main program will ensure the process flow, policies, and procedures are finalized.

Accomplishing this will require the first 30-50 applicants from varying geographic areas to progress through each phase of the process approximately four weeks ahead of the main program implementation. The Pilot Program provides the project team the final quality assurance check to ensure the program is cohesive, procedures are correct, and program staff is effectively trained. Furthermore, the Pilot also provides the ability to ensure all documents are captured and catalogued in a format for audit to ensure program compliance requirements are addressed. As the Pilot is completed and applicants move into construction, the flow becomes normalized and program staff settle into a production routine that becomes the engine for accelerated implementation.

Implementation: Sample Project

Upon designating the project areas, LiRo will perform a detailed analysis to identify project types, common problems and the resources that will be necessary to address the homes within the project area. Our philosophy is that each project area is a standalone project which will have a dedicated project manager and support team that will be committed to the area until completion. LiRo intends to start multiple project areas simultaneously and will determine the appropriate number of project areas which will be activated in parallel based upon available design and construction resources and direction from City staff.

LiRo will then begin engaging individual homeowners and the community at large by hosting project area meetings. At these meetings, LiRo will present the project plan for the area that will include data about the projects in the area, possible design solutions for construction projects (example reconstruction designs, example elevation designs, etc.) and information about this Build It Back/DDC process. LiRo will also ensure that community leaders and individual homeowners understand what to expect during design and construction in order to adequately manage expectations and to minimize issues during implementation. Most importantly, the LiRo staff will solicit feedback from the community so that we can understand issues such as the communities' overall vision for recovery, chronic drainage problems, construction concerns and issues as mundane as determining "which streets are busy" so that we do not inadvertently inconvenience residents during construction.

Concurrently, the LiRo team will begin coordinating with regulatory agencies to ensure that permits are rapidly issued and that any difficulties encountered during the planning phase are addressed proactively. If, for instance, LiRo detects that a large number of homes will likely require that zoning regulations be waived or modified, LiRo intends to begin this process as early as possible in a strategic and batched approach rather than repeatedly filing approvals for individual homes.

LiRo will begin to staff up Homeowner Advisors and a Community Liaison as part of this process.

Contractor Capacity: Sample Project

Through the use of unit price contractors and Design/Bid/Build contractors, we anticipate utilizing approximately 30 contractors to accomplish this work. Similar to the NY Rising Program, we will provide a formal training program to contractors so that program requirements and expectations on performance and documentation. On past housing programs, our team members have crafted efficient programs where individual contractors were able to achieve production efficiency to allow completion of hundreds of homes in a year. A few examples of what these programs accomplished are:

- SouthEast Texas – completed 754 homes in 14 months including eligibility.
- City of Galveston – completed 682 homes in 20 months including eligibility.
- Lower Rio Grande – 751 homes completed in 28 months including eligibility.

As mentioned, along with the larger contractors achieving the throughput needed for this program, is the need to be inclusive of the local communities' contractors and MWBE firms. For this second group of contractors, we will offer additional training, mentoring and outreach to enable their participation and successful performance in the program.

The planning phase is also the prime opportunity to perform initial due diligence on design so that the LiRo team will be able to more efficiently perform design tasks during implementation. Tasks include:

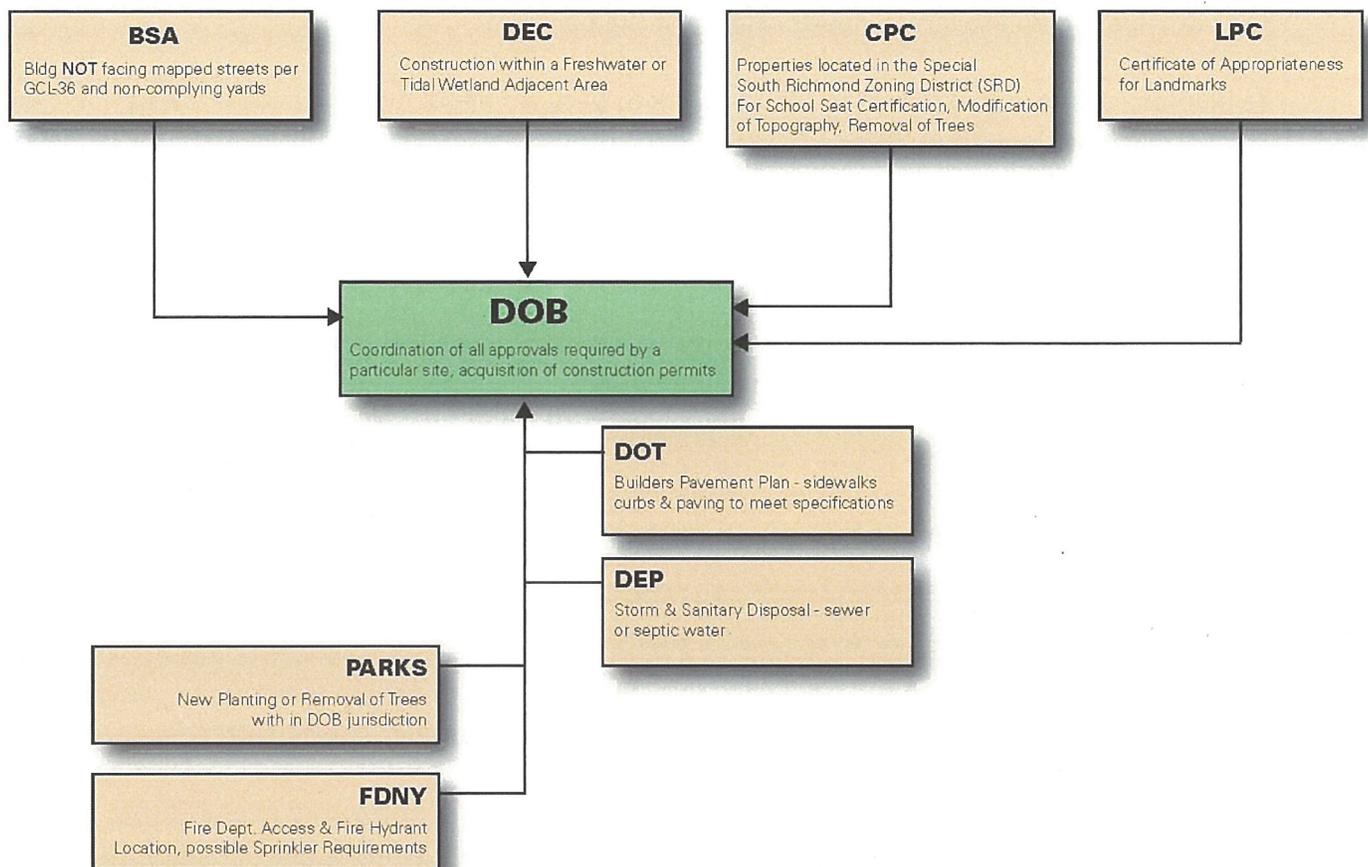
- Studying housing typologies and designs which are present in the community
- Engaging with homeowners and community leaders to identify desirable design elements
- Developing detailed minimum and maximum specifications by project type
- Refining program pricing to facilitate the assignment of projects to contractors and eliminate bidding to the greatest extent possible
- Developing common design elements for larger projects such as elevations and reconstructions
- Performing soil testing to determine the types and depths of pilings for elevation projects
- Performing lot studies to determine buildable areas for elevation and reconstruction projects

The end goal of the design phase is to deliver a master plan and master specifications book for use during the design of each home. This will allow for solutions to be repeated while allowing for homeowner choice of individualized design elements to minimize the "cookie-cutter" appearance.

Assigning work to designers will be similar to the construction contractors in that there will be geographic as well as capacity considerations given to which homes get assigned to which architects/engineers. The LiRo team has already trained over 80 architects and engineers on the NY Rising Program and virtually all of these architects want to be involved with the LiRo team on this assignment. Prior to and during the procurement for this RFP, LiRo talked with more than 20 additional A/E's to categorize capacity, throughput, geographic affinity and where the architects

can best and most readily navigate the regulatory environment. This is critical to jump starting the design process for groups of homes that have not started design. While this concept is simple it has often been ignored on prior storm related recoveries. For this Staten Island Sample Project, the LiRo team will assign work to many of the architects that are already performing work on scores of homes on Staten Island and know the Staten Island building department employees on a first name basis. This same group of architects also know many of the streets that are below the flood plain; unmapped streets, set back issue areas and standalone septic issues. The LiRo team will approach many of these issues topically and have a lead architect/champion dealing with the appropriate agency and bundle these items to improve efficiency and effectiveness and allow for a streamlined building department approval. The following demonstrates an example of the potential regulatory reviews that may be required.

NYC Regulatory Approval Process



Knowing the architects/engineers and training them on the standards and regulations is critical to the success of the program. When this is combined with “right-sizing” architects to capacity, it will

expedite the program throughput and enhance homeowner satisfaction. Below are the LiRo guidelines of how we would match A/E capacity to the volume of work.

Design Throughput Strategy: Sample Project

To meet the program goals, design throughput must be maximized to increase the rate of homes that can be bid. To achieve this, the right number of architects with the resume, training and willingness to commit to the program must be engaged. LiRo has already assembled what we believe to be the right team of designers for success on this program.

LiRo has already assembled what we believe to be ***the right team of designers for success*** on this program.

Based on the Sample Project provided in the RFP, the project will be comprised of 1,000 homes under the rehabilitation pathway, 400 homes under the elevation pathway and 50 homes under the reconstruction pathway. The expectation is for each team of firms to develop 9-10 projects/month under the rehabilitation pathway, 5 projects/month under the elevation pathway and 1-2 projects/month under the reconstruction pathway.

Based on these estimates, the required numbers of firms would be: 6 firms for rehabilitation, 5 firms for elevation and 2 firms for reconstruction.

	Number of firms	Homes per month	Number of homes	Completion
Rehabilitation	6	55	1000	18 months
Elevation	5	23	400	17 months
Reconstruction	2	2.5	50	20 month

In order to maximize the efficiency of the work, each firm would work on only one type of pathway.

We anticipate that the 1,450 homes of the Sample Project could be accomplished in 20 months (subject to eligibility, homeowner approval and regulatory approvals) as shown in the schedule below.



Month	Rehabilitation			Elevation			Reconstruction		
	Number of firms	Homes /month/firm	Total Homes	Number of firms	Homes /month/firm	Total Homes	Number of firms	Homes /month/firm	Total Homes
1	6	9	54	5	4	20	2	1.25	2.5
2	6	9	54	5	4	20	2	1.25	2.5
3	6	9	54	5	4	20	2	1.25	2.5
4	6	9	54	5	4	20	2	1.25	2.5
5	6	9	54	5	4	20	2	1.25	2.5
6	6	9	54	5	5	25	2	1.25	2.5
7	6	9	54	5	5	25	2	1.25	2.5
8	6	9	54	5	5	25	2	1.25	2.5
9	6	9.5	57	5	5	25	2	1.25	2.5
10	6	9.5	57	5	5	25	2	1.25	2.5
11	6	9.5	57	5	5	25	2	1.25	2.5
12	6	9.5	57	5	5	25	2	1.25	2.5
13	6	9.5	57	5	5	25	2	1.25	2.5
14	6	9.5	57	5	5	25	2	1.25	2.5
15	6	9.5	57	5	5	25	2	1.25	2.5
16	6	9.5	57	5	5	25	2	1.25	2.5
17	6	9.5	56	5	5	25	2	1.25	2.5
18	6	9.5	56				2	1.25	2.5
19							2	1.25	2.5
20							2	1.25	2.5
Homes			1000			400			50

Accomplishing this would require approximately 160 design professionals working extended hours. Since the design solution is scalable and the program could utilize 13 architectural firms – that would commit a minimum of 12 design professionals for each firm. We would, however, aim to maximize the use of locally based M/WÆ firms and therefore would likely hire numerous firms to handle a smaller portfolio of work. Again, like our approach to contractor utilization, to balance meeting the hiring plan commitment with schedule commitment, we would also engage larger firms so that our core team of architects never exceeds 25 architectural firms.

We have also performed the same capacity right-sizing for expeditors, engineers, surveyors and title search companies. We can present those optimized resources in detail should we be selected for an interview.

Procurement

Achieving capacity to deliver the schedule results that HRO/DDC requires can only be done by marrying the design professionals and contractors to a procurement process that they understand and accept. Many of the business entities necessary to deliver this program; both large national residential builders and small local contractors and architects are not used to the NYC procurement processes or prequalification requirements. The LiRo team has bid more contracts at 850 sites under DDC’s CM/Build and CM/Design program, **more than any other CM**. Attracting and educating the contracting community to this form of contract is something we continue to do well

and we have learned that having staff that are knowledgeable about the process and the reason why the NYC required forms, documents and bidding procedures are needed results in a higher number of qualified bidders. This will enhance production capacity of the program, improve throughput, reduce bid prices and raise quality by having better bidders. The alternate of not having enough bidders or not following the DDC bid process and having rejected bids is not acceptable.

To achieve the above results and have a team of 20+ architects and 25+ contractors will require a predefined procurement process that is approved by DDC. We have successfully performed these tasks many times before with DDC and can begin this process in the early weeks of this assignment. The procurement would be handled by a team of three individuals who have served in these roles for DDC and all policies and procedures will be approved by our General Counsel to assure the highest level of integrity.

Design and Construction Rehabilitation Pathway

LiRo is aware that there are a large number of non-substantially damaged homes which neither require elevation nor reconstruction. LiRo will “fast-track” these rehabilitation projects through our process to immediately establish scopes of work and begin the permitting process. LiRo would propose using an assignment process for these projects where LiRo develops a detailed scope of work, fixed unit price that are bid with a multiplier and construction schedule for the project. The project can then be assigned to contractors using an objective assignment system which is based upon past performance, homeowner satisfaction, inspection failure rates and contractor capacity. This will allow for the rapid deployment of resources and quick project completions while ensuring that the project meets all federally established cost-reasonableness requirements.

Elevation of Fully Attached Homes

Attached homes will require coordination with multiple third parties, including the owner of the neighboring structure and permitting officials. For each attached home, LiRo will first engage with the homeowner to discuss next steps and ensure that the homeowner has a full understanding of the project’s scale. LiRo will then perform initial design work to determine the impact to neighboring structures and to develop an array of options for the project. Once the most effective option is identified, LiRo will also engage with neighboring owners to begin the process of obtaining project approval. This may include strategies such as:

- Offering elevation to the neighbor if it is required to elevate the applicant’s unit
- Determining if the first floor can be vacated to add an additional floor
- Engaging with LiRo’s legal team to review party-wall agreements with the architect/engineer to determine the homeowner’s rights and responsibilities
- Seeking elevation waivers if appropriate
- Determining if it is more appropriate to demolish and reconstruct the home based upon the engineering and legal restrictions on elevation

Finding a Collective Design Pathway facilitates the solutions for fully attached structures because the homeowners of an entire row of houses can envision their future block together. Shared concerns and problems created by homeowners on different pathways within the row can be addressed in this context. Working with a community based organization, the design team can present design options for the various pathways in the context of attached structures in the framework of a collective workshop. In the event that a proposed collective solution for a row of attached structures meets with community support but exceeds the parameters of the standard pathways, the team will seek the DDC/HRO approval to be considered as an innovative urban design approach and as a separate design proposal for Unique Resilient Developments for Community Cohesion as per Task C.2 of the RFP. *This is further discussed in the RFP Program Tasks section.*

Elevation of Semi-Attached Homes

The initial team review of the damage assessment documents plays a key role for semi-attached houses because of the difficulty presented if one of the properties is eligible for elevation and reconstruction. If the homes remain in different pathways, then we will facilitate a discussion between homeowners. Design alternatives for elevation, such as the reconfiguration of the house with an additional story, will be considered. These homes can then rejoin a standard pathway.

Elevation of Detached Homes

LiRo team members are already involved in providing design and engineering solutions for the elevation of detached homes in the New York City and New York State programs. Lessons learned from the projects completed or in progress will be shared on this assignment to provide consistent, compliant, and cost-effective designs. Some of the design and engineering solutions reviewed by our team have resulted in the State issuing Maximum Design Guidelines for foundations.

As the project has progressed there have been discussions on how to lower the new foundation costs. One method, suggested by one of the architect/engineer teams is to do away with the pile cap, which is not necessary when there is only one pile per location. The head of the pile is cast into the reinforced concrete grade beam which then spans between piles. The grade beam can be designed to structurally cover varying span lengths while maintaining its concrete size by varying the reinforcing. The bottom of the grade beam is at frost level (required by the municipalities) and a stem wall is placed on top of the grade beam to get to one foot above outside grade. Piers and walls can be constructed up to the new floor support system. By not requiring solid concrete walls from grade beam to bottom of floor joist and elimination of the pile caps, savings on construction costs are achieved.

We understand that there is a similar concern on the City's program to decrease the number of piles and making the foundation more efficient. Originally limited by beam span, Hirani, one of our subconsultants on this assignment is exploring the option to strengthen the beams to increase spans and thereby reducing the number of piles and piers. Other options being considered include

using microllam or concrete beams that would further lengthen the spans, and combination pile caps that would be able to handle the more concentrated loads.

We believe the advantage of communications between active members on the State and City programs will maximize the benefits to DDC/HRO as we work on streamlining design and production for this assignment.

Unpermitted Homes/No Certificate of Occupancy or Equivalent/Non-Conforming Lots

Homes that are unpermitted or do not have a Certificate of Occupancy or equivalent, as well as homes with inadequate setbacks are another challenge. We believe DOB/Zoning are only allowing the maintenance of pre-existing non-conformance that can be documented as pre-existing via a Certificate of Occupancy or the 1965 Sanborn maps. To elevate these homes now will require a great deal of legalization effort before any elevation of the structure can proceed. If the program only allows a reconstruction of the square footage that can be documented as having been legally approved before the storm, the homeowner may experience significant issues with proceeding in this pathway. Our team will work with DDC/HRO and regulatory agencies to find an acceptable solution that would facilitate completion of Sandy impacted homes while preserving the integrity of existing DOB/Zoning regulations.

Unmapped Streets/Non-Conforming Lots

Unmapped and narrow streets represent some unique challenges which we will address. One construction challenge is access for construction equipment. Often these streets are not actually streets and in addition may be privately owned and require neighborhood outreach to access the subject property. Special considerations may need to be made for sprinkling the homes if access to fire vehicles is not feasible. BSA approval will be required for these homes.

Homes with setback issues will need to apply to the BSA for non-conformance, etc. In many of these cases, another review of the data may be required to determine if a pathway flip could be more time and cost effective.

Reconstructed Homes

Homes on standalone septic systems are also an outlier and will need to be coordinated with DEP to see if public sewer exists within 200 feet. If yes, then a connection will be required. Alternative solutions if this is not possible will entail coordination with DEP/DOB to have existing septic approved for reconnection. We can work with HRO to see if additional discussions with DOB/DEP could be successful for getting an existing septic system approved for reconnection. All of the above will require SD 1 and 2 filing.

Homes in the above Elevation and Reconstruction pathways will require a high-level of effort and attention. In addition, many of these homes will have a schedule that will be heavily dependent upon regulatory approvals, homeowner financial resources, homeowner timely decision and commitment to a pathway and for multi-units – homeowner association approvals or legal

arrangements between attached properties. The LiRo Team will have experts to assist homeowners and DDC/HRO in all these areas.

A sample project schedule and staffing plan follows.

Preliminary Schedules

Elevated and Reconstructed homes schedules are heavily dependent on regulatory approvals, homeowner financial resources, homeowner timely decision and commitment to a pathway and for multi-units – homeowner association approvals or legal arrangements between attached properties. The LiRo Team has the experts to assist in all these areas.

The chart below have accompanying schedules and staffing plans that provide details on how we will meet the production milestones.

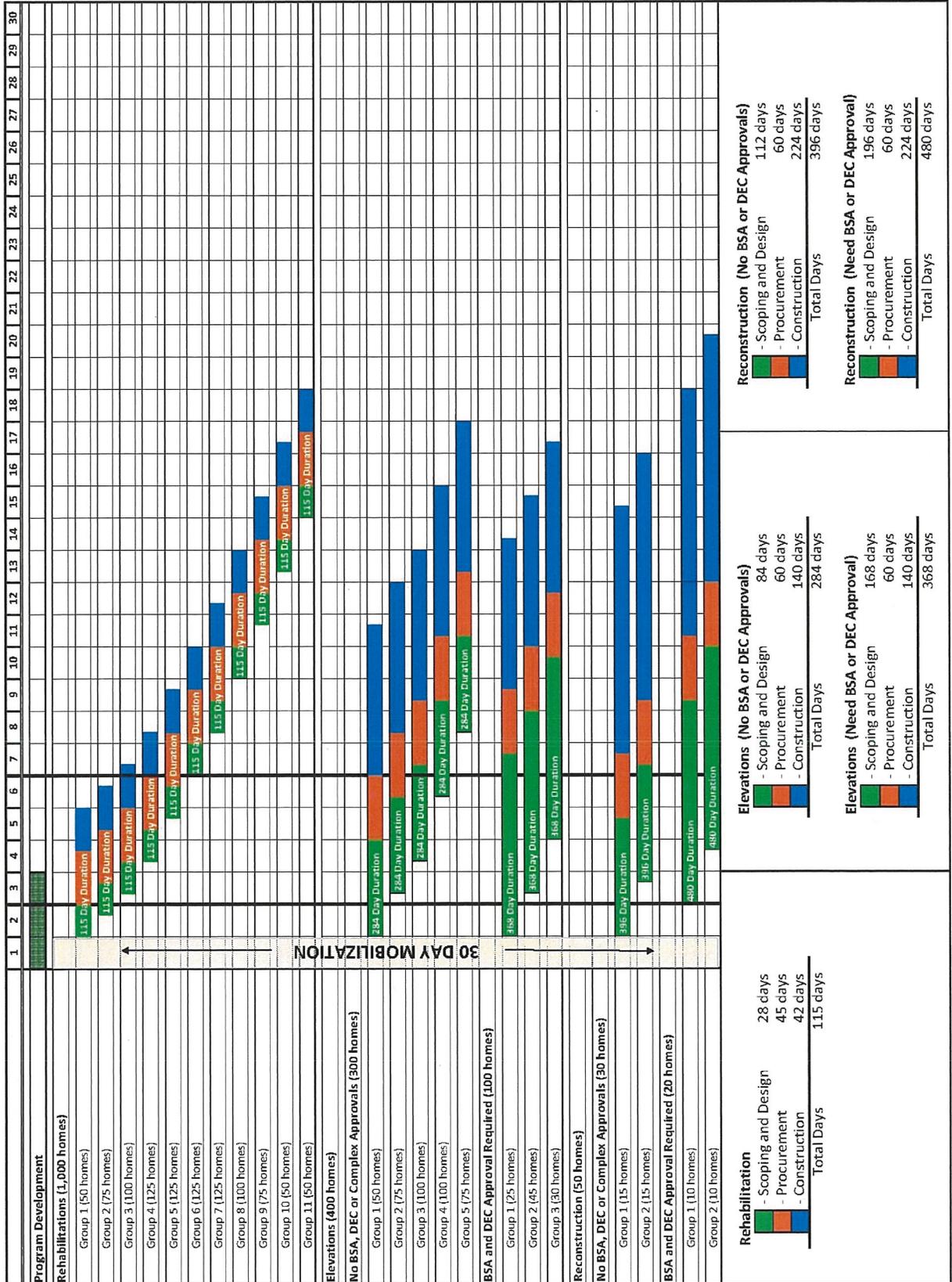
Theoretical Milestone Dates for Sample Project

<i>July 1, 2015 Milestone</i>	Rehabilitation	Elevation	Reconstruction
Design Starts	125	75	25
Design Completions	50	15*	0
Construction Starts	20*	2*	0
Construction Completions	0	0	0
<i>October 29, 2015 Milestone</i>			
Design Starts	600	325	25
Design Completions	475	200	10
Construction Starts	350	50	5*
Construction Completions	200	15*	0

* *Accelerated Schedules*



**Project Sample Schedule
(1,450 Homes)**





Staffing Plan for Sample Project (1450 Homes in Staten Island)					
Core Management Team Titles	Year 1	Year 2	Year 3	Year 4	Year 5
	FTE's Per Year				
Program Executive	N/A	N/A	N/A	N/A	N/A
Project Executive	N/A	N/A	N/A	N/A	N/A
Project Manager	1	1	1	1	1
Deputy Project Manager	1	1	1	1	1
Project Controls Manager	1	1	1	1	1
Project Controls Staff	1	2	2	2	1
MWBE Compliance Officer	1	1	1	1	1
MWBE Staff	1	2	2	2	1
Hiring Plan Manager	1	1	1	1	1
Lead Design Manager	1	1	1	1	1
Architects / Engineers Managers	3	5	5	5	2.5
Homeowner Advisor Manager	1	1	1	1	1
Advisor	3	5	5	5	2.5
Construction Manager	3	5	5	5	2.5
CM Staff	4	8	8	8	4
Pre Design Services Manager (Borings, Surveys)	1	1	1	1	1
Environmental Manager	1	1	1	1	0.5
Environmental	1	2	2	2	1
QA / Cost Control / Estimators	3	5	5	5	2.5
QA/QC	1	2	2	2	1
Safety	1	2	2	2	1
IT/ Data Analyst	2	3	3	3	1.5
Procurement Manager	1	1	1	1	1
Procurement Staff	2	3	3	3	2
Finance Manager	1	1	1	1	1
Finance Staff	1	2	2	2	1
Office Engineers	2	4	4	4	2
Administrative Staff	2	4	4	4	2
Community Liason	1	2	2	2	1
Scope / Claims Manager	1	2	2	2	1
TOTALS:	43	69	69	69	40

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D. RFP PROGRAM TASKS

Responding to the tasks outlined in the RFP, the following describes how LiRo plans to execute each task and selected lessons learned from similar housing recovery programs that our team brings to the Build It Back effort.

1. Construction Management

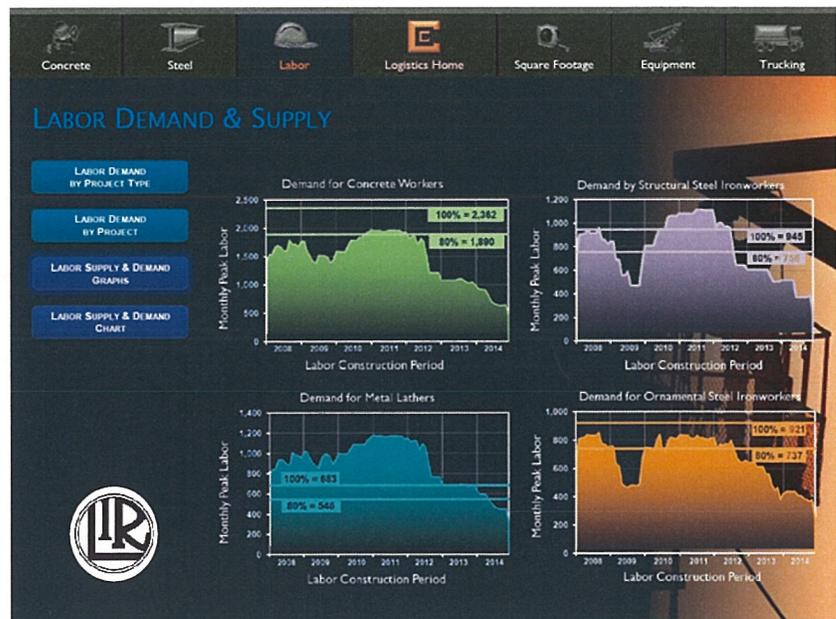
Task A.1 Construction Management

By any standard the HRO's Build-it-Back CM, Design, Build program is unique in both its size and scope. LiRo estimates that in order to meet the scope and schedule for the Build-it-Back program at all times: more than 160 Homes will need to be in design and more than 255 homes will need to be in construction. In order to achieve these goals in a cost effective and expeditious manner, LiRo will set up an overall programmatic structure that provides direction and control to individual project organizations.

Tracking Issues to Resolution

LiRo has extensive experience in mega-program management. Big programs have big challenges that are not resolved easily or quickly unless the right team is proactive in issue resolution. LiRo understands that successful program management depends on:

- Proactively identifying potential challenges before they can have serious impacts on project implementation.
- Identifying the root cause issues that are hindering resolution
- Identifying all potential pathways to resolution
- Identifying the parties that need to be engaged to respond.
- Communicating effectively with community stakeholders, business leaders, government officials, political leaders the potential impacts of the issue, and their role in resolution.
- Resolutely following up on commitments and action items until the issue is finally resolved.



Issue Management Experience

On housing disaster recovery programs, it is critical that issues are logged, categorized and prioritized for resolution. The LiRo team has found on other programs that recurring issues can be addressed globally by providing policy guidance or clarifications. Where these decisions have program budgetary consequences, market research, trend analysis of existing program data, industry practices and past CDBG-DR decisions are examined as part of the program management team's decision process.

Early in these programs, we have conducted twice weekly meetings to address questions and interpretations of existing program policy. Decisions from each meeting is captured including background documents to support the decision and then updates are distributed to both case management and construction management teams. We also established an internal knowledge base accessed via a program intranet that is available to all authorized project team members. This web-based tool provides current program policies and procedures updates, frequently asked questions as well as links and downloads of program documents. *Details of this intranet site is in Appendix B.*

Management and Coordination of Subconsultants, Contractors and Subcontractors Design Management

Due to the large number of homes to be designed many architect/engineering (A/E) firms will need to be engaged. While each firm may have their own nuanced approach to a particular design challenge, it will be necessary to ensure that all designs are:

- Compliant with relevant codes and design guidelines
- Compliant with program funding requirements
- Constructible given the limitation of site logistics
- Constructible given the availability of materials, equipment and contractors
- Supportive of CM needs by clearly detailing required submittals, inspections, and permits
- Consistent in drawing details and specifications
- Proven to provide the homeowner with long-term satisfaction

LiRo, using its own in-house architecture and engineering staff will work with DDC/HRO and DOB staff to establish program standards that will be used to both develop and review project designs. These standards will be informed by the local experience in terms of both cost and construction success on projects completed and underway.

The goal of this effort will be to establish best practices and ensure that they are implemented throughout the project. Design issues will be identified in a manner consistent across entire program. As necessary, training programs will be held for the architects, (as LiRo has done in the NY Rising Program) to ensure they are familiar with program requirements and parameters. To date we have trained over 80 design professionals on the State's program requirements.

The responsibilities of the A/E firms will be established to ensure that they understand their role during design and construction in terms of:

- Pre-Design – site investigation, environmental document review, preparation of design documents, filing applications with DOB
- Construction – submittal reviews, responding to contractor requests for information (RFI),
- Closeout – DOB sign-offs when required

Construction (Sub)Contractor Management

If you can only manage what you can measure, then it is essential that the program be tracked in a manner that provides data that is timely, meaningful and actionable. Every contract will have durations identified for both acceleration awards and liquidated damages. LiRo will make recommendations on subcontract liquidated damages and has extensive experience performing this task for DDC.

The concern with this acceleration and liquidated damages contract language is that contractors are able to claim delays are outside of their control or the owner's responsibility and therefore are able to claim acceleration awards or avoid liquidated damages despite extensive delays on the completion of the work. To avoid this situation their needs to be programmatic tracking of contractor performance on a real time basis, with detailed attention to the number of workers showing up at the job site. Non-performance needs to be addressed quickly to determine if the delays are legitimate. Delays may result in the dismissal of the contractor and/or removal of the contractor from the prequalified bidders list.

Contractors are held responsible for their subcontractors. To the extent that there are required submittals for hiring plans, MWBE certifications, safety plans, DOB filings etc., these documents will be managed by LiRo to document successful MWBE and Section 3 plans.

Homeowner Communication

LiRo's experience on the Long Island NY Rising program call center has informed as to how critical it is to maintain open lines of communication with the homeowners. For the homeowner's these projects will impact an integral part of their lives for many years to come. Their concerns are real and there must be means in place for these concerns to be addressed and resolved. It is essential that the homeowners understand prior to the construction the expected duration, work hours, the scope of work, the contractor's responsibility for damage restoration, and the contractor's responsibilities for maintenance and warranty. This will be put in writing and given to the homeowner prior to the start of construction. A package of close out documents will be provided at the end of construction.

Because the homeowners do not have privity of contract, they cannot request or direct changes that will change the cost and scope of the contract. For these items, the homeowner's primary contact will be with the LiRo inspector which should be onsite at least some portion of each day

when the contractor is present. The inspector will be able to provide answers as to the schedule and phasing of the work.

Manage and Monitor Project Compliance with MWÆ Participation

HRO/DDC program goals of MWÆ utilization, local employment, and Section 3 must be clearly understood by the contractors. LiRo has extensive experience tracking MWÆ goals on our other DDC contracts, has made us aware that this is a complex effort requiring an extensive good faith effort prior to the contract award and consistent ongoing implementation. It is not something that can be fixed or addressed at the end of the contract. The contractor will need to provide weekly utilization documents that will be checked periodically at the job site by the LiRo inspector. In addition all invoices will need to have documents certified by the owner indicating the status of employment goals. Issues with non-performance either by individual contractors or programmatically will be discussed with HRO/DDC and corrected.

Perform Quality Assurance and Quality Control Checks

LiRo will provide a full time quality manager experienced in the implementation of Quality Management Systems in accordance with various ISO standards. It should be highlighted that the Quality Management System being proposed for HRO/DDC is the same system that LiRo uses to run itself. This isn't what we sell this is what we do. The Quality Management System is a four level approach that ensures that quality is well-defined, executed, inspected, and evaluated for improvement. The four levels are:

HRO/DDC Project Quality Policy Manual – Document that defines the organization's goals, the legal and funding framework for its operation and a commitment to quality. It contains the HRO/DDC organization and assigns responsibilities for delivery and project controls. Quality Assurance is defined as an independent activity that reports directly to the individual having executive responsibility for HRO/DDC.

HRO/DDC Project Quality Standards – The Quality standards define how the organization goals are delivered in a manner that is consistent with the applicable regulations and funding requirements. Metrics to be tracked and reported are identified. Included are standards for Internal Audit, Reporting and Management Review.



HRO/DDC Project Procedure Manual – Organizations (LiRo, Designers, Environmental, Contractors, Expeditors, etc.) responsible for program delivery need to have project specific procedures. These procedures detail all of their program deliverables and how their organization ensures HRO/DDC Quality Standards and reporting requirements are met. Included are procedures for Safety, Integrity, and Qualification of Personnel. These documents are signed off by a corporate officer and reviewed by the HRO/DDC Quality Manager to ensure consistency across the program. This Procedure Manual is the basis of the audits that will be performed.

Data Tracking and Audit of Contract Deliverables

The Quality Management System will generate progress and cost data from within HRO/DDC and individual contractors that will get rolled up into a weekly and monthly reports that will measure progress against the program schedule and budgets.

Audits will be conducted routinely to evaluate compliance with approved procedures. Issues of significant concern will be reported immediately. Issues involving integrity or conflict of interest will be reported to HRO/DDC management for referral to the NYC Department of Investigation for corrective action.

Monitor Safety and Security Compliance

Site safety for the contractor's employees rests with the contractor. LiRo will ensure that the contractor provides the legally required job hazard analysis and site safety plan, prepared by a safety professional, prior to the start of construction. The plan will also detail required notifications in the event of an incident at the site.

LiRo will also make periodic checks to ensure that contractor employees have received safety training and personal protective equipment (PPE) identified in the site safety plan. It is LiRo's policy that a LiRo employee may direct a contractor to stop work if there is an immediate safety hazard identified. Subcontractors will need to have their own safety plan or sign onto and abide by the Prime Contractors safety plan. Visitors to the site will need to be accommodated in accordance with the contractor's Safety Plan.

Abatement of asbestos or lead paint will require licensed workers and special procedures compliant with all state and local regulations. Third party inspectors with environmental training will be assigned to the site while these removal activities are underway.

LiRo inspectors will have 10 hour OSHA training and have suitable PPEs identified by LiRo's project specific safety plan for our own employees.

To the extent that some of the homes may be occupied by adults and children during rehabilitation construction, a special risk is involved with exposure to dust, debris, and power tools. In addition water and utilities may need to be curtailed. LiRo will work with HRO to determine what options there are to provide alternative living arrangements, i.e. put an allowance

for hotel accommodations into the construction contract. Alternatively LiRo will work with the contractor to isolate portions of the home under construction.

Document Management and Records Retention

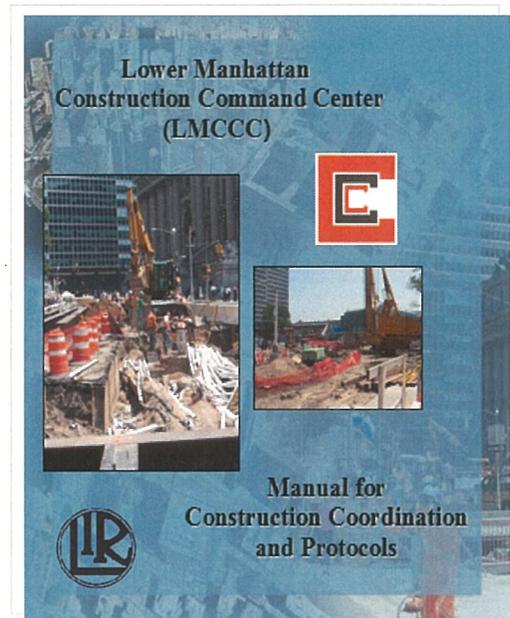
A project filing system structure will be developed to ensure that documents for each home and project are scanned and retrievable. In addition to scanned documents hard copies of contracts and other signed documents are maintained separately.

All HRO/DDC project design documents and records of inspections on for at least six (6) years and shall make such records available to HRO/DDC and permitting agencies upon request. Design documents include drawings, calculations, specifications, estimates, submittal reviews, and field reports. Inspection related documents maintained include: permit filings, inspection reports, field logs, test results, laboratory reports, equipment calibration records, photographs, notes, noted deficiencies and dates of cures of such deficiencies. Inspection reports are scanned and filed in project files for review. They may be used by design professionals for sealing and signing project reports and affidavits for permitting agencies. The Project Executive is responsible for determining the completion date of the project, notifying Corporate General Counsel of project completion and making sure the documents are in a form suitable for storage.

Ensure Compliance with Applicable City, State and Federal Regulations

The HRO/DDC Build-it-Back program has to work within two regulatory environments: The standard NYC construction regulations and the regulatory framework being stipulated as part of the funding requirements of the Community Development Block Grant programs. Both of these regulations need to be clearly communicated to program participants to ensure that all requirements are adhered to and equally importantly, that proper documentation demonstrating adherence are developed and filed for agency review.

During program initiation, training sessions will be held for designers, construction managers, expeditors, and others to ensure conformance. Since it can be expected that these regulations will be subject to modification and interpretation there needs to be a method of transmitting and memorializing updates. Key changes are transmitted electronically to stakeholders. In addition LiRo has developed in the past and will develop for this HRO/DDC program a Manual of Construction Protocols that will be maintained and updated online. This document will identify all the current regulations, documentation and reporting requirements. This document is also a helpful tool for personnel joining the project after the initial training has been completed.



Task A.2 Implementation Plan

The LiRo Team's experience in implementing CDBG-DR funded disaster recovery housing programs in New York State, Texas and Mississippi has yielded a key lesson learned: the success of the program hinges upon effective operational planning coupled with a comprehensive data management system. On a program of this scale, the successful Construction Manager is the firm that can effectively mobilize the adequate capacity of A/E and construction firms that can design and build while complying with HUD regulations.

There are two critical components that must be considered when creating the Implementation Plan requested by HRO. First, the plan must be tailored to each individual community and it must involve the community to ensure local buy-in. Second, the plan must be "fact based" insofar as it must balance systemization and standardization with understanding that each home is an individual project with unique challenges. Ultimately, the LiRo Team intends to systematically work through the assigned Borough in an organized and efficient manner in order to capitalize upon economies of scale, speed construction and reduce overall construction cost.

Development of the Implementation Framework

The LiRo Team will begin the operational planning phase of its involvement by capitalizing upon its experience in other disasters by creating a process-based framework for implementing multiple construction projects within the assigned Borough. This framework is essentially a "toolkit" which will dictate the factors that must be considered in evaluating an individual repair or reconstruction project and the construction solutions that may be utilized. The implementation framework will define the steps necessary to address factors such as complex zoning issues, seeking wetlands permits, addressing open permits or violations, coordinating with outside agencies or addressing design and construction challenges.

For example, if the Borough has a large number of reconstruction projects, a possible solution to address those projects is the creation of standardized plans and specifications for reconstruction which will allow for rapid permitting approval and the warehousing of common materials while preserving homeowner choice and ensuring that there is design variation. Similarly, if there are multiple elevation projects in a concentrated area, the LiRo Team will work to identify efficiencies such as a master soil study plan (subject to DOB approval) which allows for soil boring to take place on multiple lots at the same time or timing construction projects so that elevation contractors can take advantage of economies of scale by performing several projects at once.

Project Implementation Based Upon Community Engagement

The second task that will be undertaken by the LiRo Team after selection is to divide the assigned Borough typologically based upon factors such as the type of housing stock present in a given area, project similarity, geography, local political leadership and other community factors. In order to better understand the local factors that must be considered, the LiRo Team will work with HRO's Borough Directors and field staff to develop preliminary project areas. For example, a project area may be defined by a grouping or cluster of attached homes which present similar zoning,

permitting and construction challenges. Similarly, a project area may be defined by a neighborhood with strong local leadership that wishes to rebuild collectively.

After each project area is defined and approved by HRO, the LiRo Team will assign a project manager and project staff to the project area. The project team will then host a community meeting in the project area in partnership with HRO staff, Borough Directors and local elected officials to provide an overview of the construction approach and to gather critical data such as community goals, homeowner concerns and unique factors which may impact construction projects. The project team will also work to educate homeowners with the goal of achieving both community and homeowner buy-in and to bring the local community into the planning process to achieve more effective results.

Balancing Systemization With Unique Individual Projects

The LiRo Team understands that many of the projects it will be assigned are the most difficult types of residential construction projects to complete. These include complex elevation projects, the elevation or reconstruction of attached homes, homes which are located on small or nonconforming lots and homes which present complex environmental issues such as compliance with Section 106. After each project area has been defined, the LiRo Team will develop an individualized plan to systematically complete the projects within the defined project area. These individual plans will be based upon the construction typology present in the area, but they will also integrate the community feedback received during the community engagement meeting. This plan will also take into account factors such as local architecture, ongoing community reconstruction projects and factors that impact logistics such as traffic congestion, materials storage space and noise. The goal of the individual project plan will be to provide for efficient construction that dovetail's with the community's goals while minimizing the negative impact to the neighborhood.

After each project area has been defined, ***the LiRo Team will develop an individualized plan to systematically complete the projects*** within the defined project area.

While the individual project area plan is being drafted, the LiRo team will also transmit a list of applications to the HRO case management team that will identify the order which projects will be initiated in the project area. This will provide target goals for the completion of eligibility reviews so that all preliminary work is completed before project initiation. This will also allow the case management team to identify priority applications that may not have completed the eligibility process so that construction starts in the project area will not be delayed. The process of identifying and timing project initiation will also allow the project area team to coordinate with Build It Back's Job Order Contractors (JOCs) and Choose Your Own Contractors (CYOCs).

While the LiRo team intends to systematize the process of working through a project area to a high degree, the team's experience in rebuilding in other communities has led to a critical lesson learned: Each individual applicant must be satisfied with his construction solution. To that end, it will be the goal of each Design Consultant to provide a compliant construction solution that also

meets the homeowner's desires. An applicant's home is likely to be their largest single financial investment in addition to the strong emotional connection that must be considered during the design process.

Finally, the LiRo team will develop a design and construction schedule for each individual project area. This schedule will identify the order that projects will be initiated and will be based upon factors such as whether homeowners are currently displaced from their homes, the type of construction which will be undertaken, design and permitting timeframes and other critical path factors.

Each applicant must be satisfied with his construction solution.

Homeowner Coordination Plan

By dividing the Borough into individual project areas, the LiRo team will be able to maintain constant communication with individual homeowners while working in the project area. This will include providing written materials in advance of design so that individual homeowners will be prepared to meet with their Design Consultant. This will also include providing scheduling for appointments, homeowner education regarding the construction process and advanced notice that construction will begin so that homeowners are able to secure alternative housing well in advance of the issuance of a notice to commence construction.

Task A.3 Project Office(s)

LiRo will establish project offices as needed near HRO as well as in the region(s) assigned to us. Similar to the Rapid Repairs and the New York Rising housing programs, LiRo's field offices were established in close proximity to the impacted neighborhoods in the Rockaways, Floyd Bennett Field in Queens and Brooklyn respectively, and in Mineola for the State's program. Additionally, we have been flexible in embedding our staff at local recovery centers to assist case management staff and provide greater access to technical assistance for the affected homeowners.

Task A.4 Program and Project Reporting, Compliance Reporting and Meetings

The LiRo team will report to DDC bi-weekly, monthly, and in real-time, to record, track and manage the projects assigned under this contract. We will provide real-time reporting and ongoing communications, and in concert with DDC and HRO establish performance metrics based on key milestones, which will provide you with the requisite information to evaluate and accurately assess overall program performance. Reports will be provided in a format and reporting structure established by DDC and HRO.

We will use, incorporate, enhance and expand on the CMS system developed and utilized by HRO as needed. Reporting will be timely and transparent, and information updates will be in real-time. We intend to utilize our existing LiRo Recovery Manager (LRM) system as an interfaced supplemental module to HRO's existing CMS. We can provide information in formats as needed by DDC and HRO including dashboards that will communicate efficiently and effectively in visual, numerical and narrative formats. We also intend to integrate reporting with GIS mapping updates.

Of paramount importance is a clear and timely data reporting, flow of communications and documents, and compliant record keeping protocols. LiRo's established protocols, systems and procedures for disaster recovery programs will ensure compliant reporting, record keeping and document control with DDC and HUD requirements.

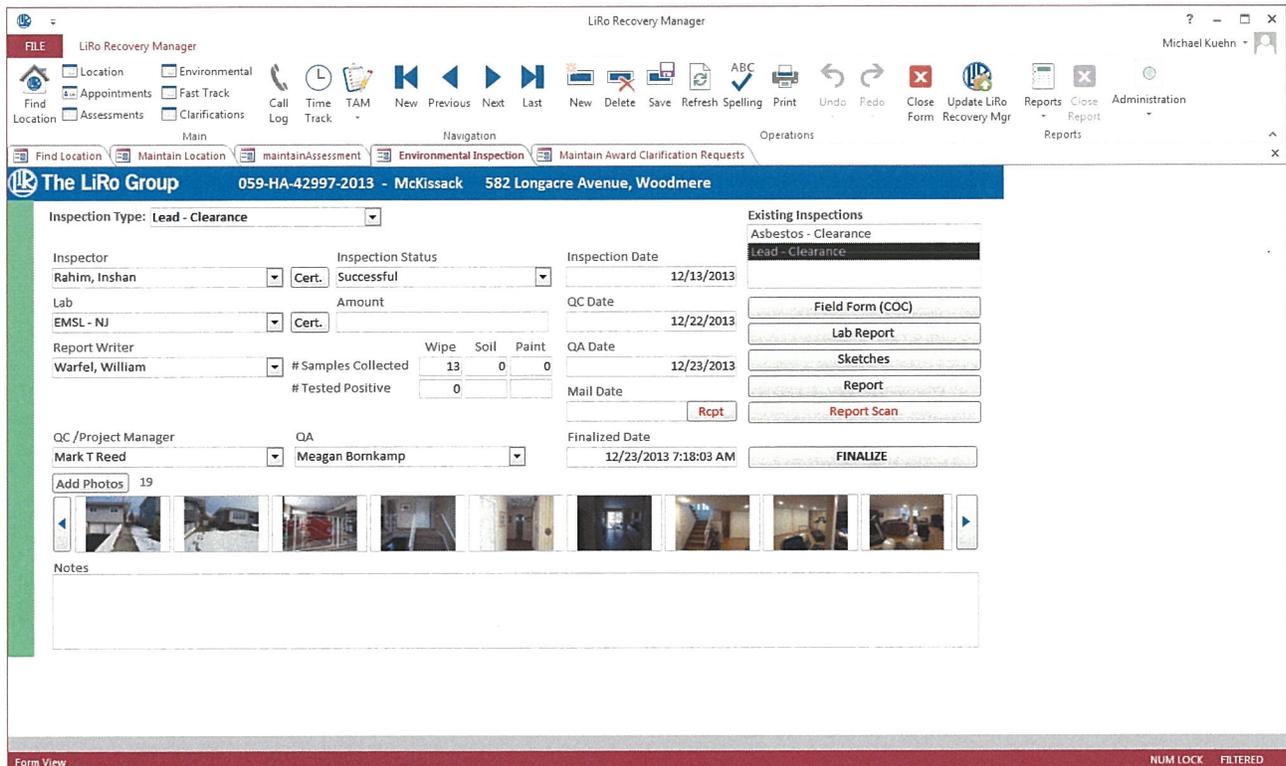
We will prepare monthly reports that highlight performance, measure progress and identify issues requiring further attention or decisions, and utilize a tracking system to manage assignments and resolution of outstanding issues, actions, information and decisions. LiRo will prepare and distribute meeting minutes within prescribed times to record chronological data and critical activities, issues, follow-ups and responsibilities.

LiRo Recovery Manager (LRM) Software

LiRo Recovery Manager (LRM) is a tested and proven web based project management tool for New York disaster recovery. LRM is currently being used to track progress on over 19,000 applicants as part of the State's NY Rising Program. Due to the unique requirements of the NY Rising Housing Recovery Program, the decision was made to develop a custom solution, rather than attempt to carry out extensive modifications to an already existing system. LRM was tailored to meet the needs of the NY Rising Housing Recovery effort. From the start of development, LRM was designed to work with and extend the capabilities of already deployed systems, and to ensure that all information would ultimately be loaded into this system of record. By following existing systems' document and data naming conventions, and developing custom integration routines, all final documents and data contained within LRM are automatically loaded into existing systems on a regular basis.

A key feature of LRM is that it can be customized to integrate with existing recovery data systems and scaled to the specific needs, goals and performance metrics of each recovery program. Modules are added to track additional data as LiRo's tasks expand. Its proven functionalities include:

- Data management and problem-solving tool
- Dashboard and reporting tool for macro view of program
- Access to granular view of each project/applicant status
- Automation of queries, tickler files, and other action items and reminders
- Ability to interface with existing data systems for efficient data transfers and updates



The screenshot displays the LiRo Recovery Manager software interface. The main window shows an inspection form for 'Lead - Clearance' at the location '059-HA-42997-2013 - McKissack, 582 Longacre Avenue, Woodmere'. The form includes fields for Inspector (Rahim, Inshan), Lab (EMSL - NJ), Report Writer (Warfel, William), and QC/Project Manager (Mark T Reed). It also shows inspection status (Successful), date (12/13/2013), and various test results for Wipe, Soil, and Paint. A photo gallery at the bottom shows 19 images of the inspection site. The interface includes a menu bar, navigation tabs, and a toolbar with various icons for file operations and navigation.

Integrated environmental assessment and clearance tracking module.

Task A.5 IT Database Administration

The LiRo team is prepared to work with the existing HRO Case Management System (CMS) as well as supplement it with our own data management system, LiRo Recovery Manager (LRM), described above. Additionally, we will also have access to our team member's existing database, Dewberry Data Management System (DDMS). Dewberry's system has been tracking applicant assessment and geospatial data on the Build It Back Program over the past year. We believe that the combined resources of these two systems can enhance the extraction and analysis of applicant data that will improve reporting functions and present snapshots of areas of concern or allow the HRO to better target geographic areas to close out applicants. The functionalities and past performance of each system is described below.

Task A.6 Compliance with Sandy Recovery Hiring Plan

LiRo is committed to meeting the program goals for this assignment including the 25% for M/WÆ, 20% for local hires, and Section 3 compliance. We are currently meeting the M/WÆ and Section 3 goals on the State program and plan to use similar outreach efforts to meet DDC's goals. In New York City, we are already working closely with NYC Housing Authority to recruit and hire local residents on our existing CM contract and intend to leverage those relationships for this program. Additionally, we plan to engage the following partners to increase outreach and use existing programs from the City including Workforce 1 resources to provide not just jobs but career

pathways for Sandy victims. LiRo actively posts available positions at schools in the communities where we work throughout the five boroughs in addition to programs that are related to Construction Management, Design, and Engineering. Some of these institutions include:

- CUNY Hunter College
- CUNY York College
- CUNY Brooklyn College
- CUNY City College
- NY Institute of Technology
- Cooper Union
- Pratt Institute
- New York University
- St. John's University
- Fordham University
- The New School

We actively update this list of colleges and universities and are currently reviewing the list of programs that are offering Emergency/Disaster Response and Management programs to add to our recruitment for this disaster recovery program. For any student, especially those living in Sandy damaged communities, we envision an internship program that would allow them to work part-time during the school year, full-time during the summer, and hopefully stay with the program if they are nearing graduation. These opportunities will allow the students to experience first-hand any of the design and construction-related tasks available to them in the course of employment with LiRo. LiRo's CEO, management staff and subconsultants also teach or guest lecture at these institutions and will also utilize these relationships as part of our recruitment efforts.

We have also engaged community-based organizations including World Cares Center (WCC) and Pratt Center to assist in our outreach to the Sandy impacted communities. WCC have worked with a consortium of non-profits as part of the Sandy recovery process. They have trained local residents to assist with the cleanup effort and have hired Non-Traditional Employment for Women (NEW) graduates to serve as team leaders in the rebuilding effort. WCC have also expanded outreach to engage apprentice unions and trade schools.

Pratt Center for Community Development has been working in Sandy damaged neighborhoods in Brooklyn as part of the community rebuilding process. They have engaged community-based organizations, local small businesses and policymakers. We intend to leverage these relationships not just as part of the community engagement for homeowners, but as opportunities to recruit and hire local residents as part of the process.

Task A.7 Homeowner Services

The LiRo Program Management Team proposes to provide a comprehensive, quality, and decision based interface with program applicants utilizing our expertise in design and construction management processes coupled with knowledge and ability of our Construction Technical Advisors. Through our experience with the Texas and NY Rising housing recovery programs, we understand the importance of providing service to the

Constant communication between LiRo's Homeowner Advisors and the homeowners helps speed the Program results and **increases homeowner confidence in the Program.**

homeowner to ensure they receive the right information, understand the program processes, and feel they are fairly treated during the course of their contact with the program. Our customer service plan hinges on the experience and ability of our in house Technical Advisors that have been

The LiRo Team's recovery plan provides ***a detailed road map for the homeowner to clearly navigate the process and promotes client satisfaction*** with the Program.

trained on housing recovery programs and processes globally, and corresponds with homeowners on a routine basis. We currently have more than 25 Homeowner Advisors on the NY Rising Program and this team has been one of our keys to success. When developing our approach and methodology to managing this BIB Program effort, key tasks including a detailed transfer of knowledge of the program history, guidelines, policies and procedures to our Homeowner Advisor Team is paramount to ensuring homeowners receive the right information. While homeowners will have numerous site specific questions that broad policies don't necessarily address, having a cadre of dynamic Technical Advisors with the ability to understand, analyze, and resolve technical

issues, as well as advocate for the homeowner throughout the process provides the level of service expected in housing recovery programs. Timely response to applicants is key to customer service, and direct liaison with the HRO Customer Call Center will be imperative to ensure homeowners are correctly routed to their Technical Advisor for assistance. Depending on the nature of the question or issue, Technical Advisor effort may consist of phone conversations, in person review meetings, and onsite visits with homeowners design professionals. Each of these levels of contact increase the level of the homeowner's and Technical Advisor's involvement, and focus on the complexity of the decision making required.

The LiRo Team's quality plan focuses on controlling the design and construction process so that the outcome is predictable. Having a detailed process flow with milestones provides the homeowner with a "Road Map" for the program, allowing interface with applicants at key nodes during the process to keep them informed, on track, and aware of any decisions that need to be made. Providing for the ability for homeowners to have choice in the process, but providing some project level controls, allows our Technical Advisors to keep the homeowner moving through design and construction. To further optimize our quality plan, performance analysis of our Technical Advisors is conducted through a multi-tiered approach of initial training and knowledge transfer, tabletop exercises and role-playing, performance analysis, and process improvement. Establishing and maintaining positive homeowner relations begins with a quality plan, and providing homeowners with a comprehensive process with key milestones, keeping informed on where they are in that process through routine updates, and producing outcomes on a reasonable timeline all assist in maintaining that relationship.

For many families, housing recovery is only one of many facets needed to recover from the storm. Those needs can extend far beyond the scope of the BIB Program, but certainly can have an impact on the homeowner's ability to make decisions about housing design and construction.

Engagement of other community based organizations with expertise including non-profits, social services, and local governments can provide the assistance and guidance for other needs beyond the scope of housing recovery. Close coordination with a network of other organizations seeking their input and assistance with challenging homeowner conditions will certainly assist the BIB Program with moving them through the recovery process and address other needs that may be barriers to recovery.

Our basic outline plan for Homeowner Services includes:

1. Establish liaison with HRO Call Center;
2. Receipt of Program Eligible Applicant from HRO;
3. Initial Pathway confirmation and assignment to Technical Advisor;
4. Technical Advisor contact homeowner:
 - a. Confirm contact information;
 - b. Schedule initial meeting to review pathway and design process;
 - c. Provide Road Map for program requirements;
 - d. Answer any initial questions;
5. Classification and Resolution of Homeowner Issues:
 - a. Classify issue into category;
 - b. Contact Subject Matter Expert for discussion / resolution;
 - c. Communication of resolution;
 - d. Outsourcing to other Community Organizations for Assistance;
6. Routine contact for program update:
 - a. Email updates when applicant's design process reaches milestones;
 - b. Review meetings at key points in the design process;
 - c. Contractor Bid, Assignment and Pre-Construction Meeting;
 - d. Onsite Progress / Quality Assurance Inspections;
7. Final Closeout Inspection
 - a. Program Compliance Review;
 - b. Punch List;
 - c. Warranty.

Relocation Coordination and Services

Relocation of homeowners during the construction process on complex projects will be key to maintaining a project's schedule and momentum. DDC/HRO can decide on the level of involvement that our team may have during this process. At a minimum, we can offer coordination services with case management staff to provide a schedule that would minimize disruption to homeowners should relocation be required. In a proactive role, we can assist DDC/HRO in developing a model where relocation services is priced into the contractor's scope so that these services and responsibilities are coordinated under one entity.

Move-In/Move-Out Assistance

Supplementing existing HRO processes with case management, LiRo can engage World Cares Center (WCC) to assist with relocation support. WCC brings together the smaller non-profits into a cohesive force, a collective group that already has solid, existing relationships within the impacted communities covered under this RFP. WCC acts as the administrative arm of the consortium, which aims to assist with soft-services, to expedite the contractor and subcontractor needs and make all tasks, including homeowner liaison, run more smoothly. WCC can potentially build upon the strengths of the local consortium partners to effectively engage the homeowners and assist with move-in/move-out tasks. WCC works within the impacted communities and this is yet one more opportunity to train and employ local residents as part of the recovery process.

Relocation of homeowners means ***work can proceed unimpeded in an unoccupied dwelling. This is critical to accelerate progress and throughput.*** LiRo would propose a methodology to promote and include temporary homeowner relocation as part of the construction process.

2. SCOPING AND DESIGN SERVICES

Task B.1 Develop Scope of Work, Provide Design Solutions, and Determine Final Pathway and Services During Construction

Our proposed approach to conducting design consultations under this program will begin with the same preparation and design consultation process for each pathway, with the goal being to approach each site visit holistically and strategically to collect all pertinent existing site condition information that will be required throughout the remainder of the process. Each home will move through a series of clearly defined phases, with emphasis being placed on moving homes quickly from one phase to the next.

The approach outlined below seeks to improve upon some of the challenges experienced under the current configuration of the Build It Back program, in order to further expedite homes into construction. The primary change proposed is to centralize staff resources in-house, including design, structural, and MEP engineering services in order to ensure that all information necessary for scope finalization is readily available.

Preparation

Prior to each site visit a Senior Architectural Designer and a Junior Architectural Designer will review all preliminary documentation available in order to familiarize themselves with the property and any conditions which may affect the scope of work. This will include the Feasibility Report, Damage Assessment, Tier II, all available environmental reports, all available DOB information (including the Certificate of Occupancy and any open violations or permits), available DOF information, and zoning regulations, as applicable.

Design Consultation

During the site visit, the two architectural designers will verify site conditions and storm damaged elements of the home, take field measurements, prepare schematic floor plans, and collect photo documentation of the home. The Senior Architectural Designer will work closely with the homeowner to review damage throughout the home, assist in selecting finishes, and discuss options for relocating mechanical units and electric panels to above the design flood elevation, assisting homeowners in capitalizing on the resilient and cost-saving benefits of the program.

Scope Development

Following the design consultation, the Senior Architectural Designer will develop an initial scope of work that is compliant with Build It Back program standards. We propose that this scope of work serve as a basis for all subsequent work, including structural engineering work and any necessary additional environmental testing on site.

GIS mapping will be used to **cluster site visits for scope development to improve productivity.**

At the time that the initial scope is developed, the Senior Architectural Designer will seek in house structural engineering support as needed. Once engaged, the structural engineer will perform a preliminary desktop review of any structural conditions that require attention and, if necessary will perform a detailed site inspection and provide recommendations for remediating structural conditions and/or hazards. The engineers will work from and build upon the plans developed during the design consultation for clarity and consistency of deliverables. In order to ensure efficiency in scheduling site visits and promptness in receiving structural deliverables, site visits will be clustered by geographic region wherever possible so that multiple reviews may take place on one trip.

Once all structural and environmental information is received by the Senior Architectural Designer, he or she will finalize the scope of work with the contractor, incorporating all pertinent information received and following all necessary regulatory guidelines.

Every effort will be made at this stage for **cost verification to minimize future “flip” to another pathway** in later design phases.

Quality Control Review

Once the preliminary scope of work is finalized, the scope and all reports received will be reviewed by the quality control team. This team will include the Project Manager and/or Project Architect, who will ensure compliance with Build It Back program standards, compliance with zoning, building code, and all other regulatory requirements, and overall consistency and quality in approach.

Specific Design Requirements

Rehabilitation Scope Finalization, Pathway Review/Cost Reasonableness Analysis

At this point in the process, the three pathways begin to diverge. For homes in the rehabilitation pathway, once the Senior Architectural Designer receives the quality control findings, he or she will finalize the scope of work and seek final sign off by the contractor. At this time, he or she will review the substantial improvement percentage and determine if the remaining work to be performed will move the home about 50% substantially improved, into the elevation or reconstruction pathway. This will take all applicable exclusions into account, as well as cost-effectiveness moving forward. Homes moving above 50% will move into Phase 06. If the home remains below 50%, the Junior Architectural Designer will engage the homeowner for construction agreement signing. This would mark the end of the design phase of a home in the Rehabilitation Pathway.

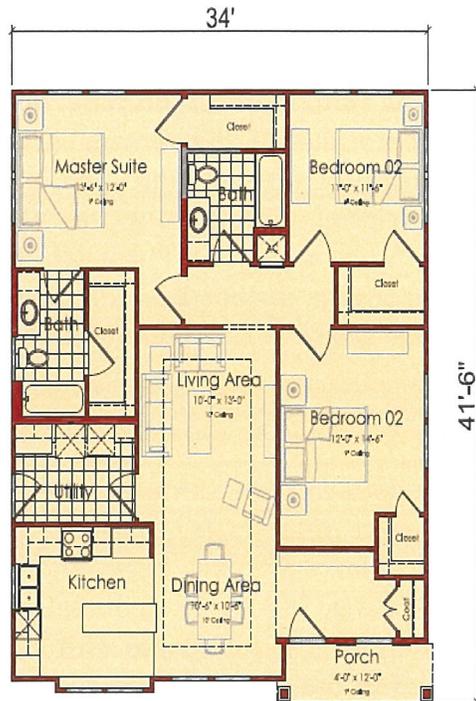
Elevation and Reconstruction Design Development

If the home starts out in the elevation or reconstruction pathway or is shifted to the elevation or reconstruction pathway following pathway review/cost reasonable analysis, the Senior Architectural Designer, assisted by additional design team staff, will begin the process of developing the final design strategy and package for the home. The Senior Architectural Designer will order a site survey as necessary, perform zoning analysis, and coordinate with all regulatory agencies as required to ensure that the home is elevated to the proper height above the design flood elevation and meets all applicable codes. The Senior Architectural Designer will then conduct an initial meeting with the homeowner, in which he or she will present a series of typology-specific pre-designed housing options for the homeowner to choose from (discussed in greater detail below). Once the homeowner selects the typology-specific strategy for their home (for example, traditional vs. modern), the Senior Architectural Designer will then present the homeowner with a program-approved material palette of interior finishes to choose from. The homeowner's choices at this time will form the foundation for all site-specific subsequent design work to take place. Additionally, this order of operations ensures that the design team will have all critical selections at hand prior to developing the construction drawing set.

Pre-Designed Housing Options: Addressing Design Challenges

In order to expedite the design development process for the homes in the elevation and reconstruction pathways, our proposal includes an initial phase of comprehensive design development at the beginning of the new program in which a series of strategies are defined for each of the building types under the new program. Special attention will be paid to cost-saving and scalable measures and to resolving the challenges associated with elevating storm-damaged structures that have materialized throughout the recovery process thus far, including how attached and semi-attached homes can be cost-effectively elevated. Throughout this phase, reference will be made to work previously done by New York City's Department of City Planning and other relevant bodies, as applicable.

Out of this initial design phase, our team will produce a series of options for each housing typology



1385 SF

3 BR/2 BA



Style A



Style B



the neighborhood are elevated. Providing homeowners with visuals of what their new home will look like and with samples of interior finishes will go a long way in terms of helping homeowners feel secure in their selections and in feeling safe and empowered by the construction process.

for homeowners to choose from, in the form of schematic floor plans, elevations, and renderings. In addition to compliance with local codes and constructability, these options will take a number of critical components into account, including but not limited to neighborhood and historical context, local vernacular elements and materials, ability to maintain a strong connection to the street level, local climate, future resiliency measures, and homeowner appeal. Cost-saving measures will be built in across each of the designs; for example, kitchens and bathrooms will have similar layouts wherever possible. Standard elements for the homes will function as a “kit of parts”, allowing the program to take advantage of pre-fabrication wherever possible and thus the cost-saving benefits associated with the fabrication of a larger volume of identical elements. This method of pre-designing will save time during the construction document phase for each home, allowing the architectural team to pull from a standard set schematic drawings and details.

In addition to saving time and money, this strategy will also serve the critical function of assisting homeowners through the selection process. Our experience has shown that, as a result of the stress and turmoil that homeowners experience in post-disaster scenarios, making decisions at this scale can be very taxing and difficult. Homeowners tend to have a number of important concerns, such as what their home will look like and if they will relate to the design, how the new design will impact their insurance and the long-term value of their home, how safe their new home will be both in terms of everyday functionality and of functionality during future storm scenarios, and how they will impact and be impacted by their neighbors as homes in

Through our previous work with homeowner engagement and community outreach, we have seen that taking the time to provide these services early in the design process provides a number of longer-term benefits, including reducing the number of homeowner concerns over the lifetime of the project, reducing the amount of re-design needed, and streamlining the construction process overall.

Resilient Design Measures

A critical aspect of the pre-design and design development phase will be ensuring that homes proceeding into the elevation and reconstruction pathways are built to a high standard of resiliency and are able to withstand future storm surge. Our architectural staff is well-versed in storm-resilient and passive-survivability construction strategies, as well as in a number of relevant guidelines, including FEMA, HUD, HPD, LEED, and Enterprise Green Community guidelines. In addition to elevating homes to design flood elevations, the following measures, among others, will be taken into consideration and incorporated into the design process wherever possible under program guidelines:

- Design for storm wind loads, including structural continuity from the roof to the foundation to counteract uplift
- Protection of the home from wind-borne and water-borne debris impact
- Careful selection and assembly of building materials (including rain screen assemblies and moisture barrier systems) in order to withstand strong winds, wind-driven rain, and coastal moisture conditions
- Relocation of all critical equipment above the design flood elevation and providing disconnects for service elements that have the potential to come in contact with water
- Providing proper tie down of all elements that have the potential to become dislodged during a storm event
- Use of sewer back-flow valves
- Ensuring proper and effective site drainage

Incorporating these and other storm and climate change resilient measures into the design of the homes will assist in curtailing future cycles of periodic displacement for homeowners, especially in New York City's more vulnerable communities.

Special Projects: Unique Resilient Developments for Community Cohesion

There are certain challenged contexts that make it imperative to consider design strategies at a scale larger than the single property and at a scope larger than the house. For example, to elevate a single bungalow without



Study for elevation of bungalows in Stanton Court, Brooklyn

street access on a tight non-conforming lot as found on the courts of Sheepshead Bay is extremely difficult and cost prohibitive, whereas a collective strategy makes elevation or reconstruction possible at reasonable cost and can deliver collateral benefits such as accessible access to the raised homes from the street and aesthetic and urban cohesion. The collective approach would also provide the opportunity to improve the inadequate drainage infrastructure that causes periodic flooding and thereby produce a safer and resilient community. In sum, resilient development requires an integrated approach to the house, its lot, and larger scales of social and physical infrastructure from the block to the neighborhood.

The key to implementation of such development is the cohesion or buy-in by homeowners through a well-structured community engagement process that incorporates local knowledge and input from the beginning. In some cases, where homeowners lack the organization by which to make collective decisions, the development of community leadership is part of that engagement process. Through our team's work in Sheepshead Bay over that past three years, working with residents to simultaneously develop leadership capacity and a unique resilient vision for the neighborhood, we know that buy-in is possible and results in a vision of quality. Through our involvement in the Sandy Help Desk, Zone A and other resiliency forums we know that communities from Canarsie to Cedar Grove face similar challenges and could benefit from this methodology. *Examples of initial studies and recommendations are included in Appendix A.*

CommunityEngagement

The resiliency of the City to future events depends on our ability to keep homeowners in the elevation and reconstruction tracks of Build it Back. These choices are often fraught for homeowners who cannot envision the changes to their property and to their neighborhood and do not fully understand the consequences to their flood insurance and mortgage if they opt out. It is the experience of our team, who have participated in the Sandy Help Desks, the New York Rising Community process, and Build it Back



that targeted and concise community outreach helps homeowners understand the issues well enough to make informed decisions, come to some consensus with their neighbors as to a resilient approach to their local context, and to stay with the program in larger numbers. The influence of neighbors to inform and spur each other into action will help maximize the number of applicants who remain engaged with the Build It Back program.

The influence of *neighbors to inform and spur each other into action* will help maximize the number of applicants who remain engaged with the Build It Back program.

Anecdotal experience of our team in the contrasting neighborhoods of Canarsie and Sheepshead Bay

illustrates the benefits of engagement. In Canarsie, where there has been extremely limited community engagement, residents attending the Help Desks uniformly rejected the option to elevate because they did not visualize how their ground floor apartments could be replaced by roof top addition and how their tenants would access them, while in Sheepshead where the community engagement and visioning process had been stronger a concentration of homeowners on several blocks are on the elevation tract.

More detailed descriptions of community engagement are found in our descriptions by damage category in the RFP Program Tasks section, but the general principles of approach are as follows.

Whole Community Engagement. We will offer some level of community engagement for all properties depending on their degree of damage and also the need and potential for collective solution beyond the individual property. We will group sites according to geographic proximity rather than their degree of damage or even their position in the pipeline of Build It Back for this reason. This neighborhood approach will also give us the ability to direct contiguous properties not in the program to other resources, such as the Center for New York City Neighborhoods, that can be coordinated with our efforts

Helping homeowners visualize how their communities will change and the speed of recovery is critical in the process of gaining community buy-in for neighborhoods targeted in this program.

Initial Community Visioning Workshop. To encourage community buy-in, we will hold an initial workshop in each neighborhood for all homeowners, regardless of their damage category to re-introduce the program and to hear community concerns. This meeting will include illustrations of proposed elevation and reconstruction types keyed to their context so that homeowners can

visualize their future and provide feedback early in the process. Where pertinent, the team will introduce collective strategies such as the simultaneous elevation of multiple homes or the implementation of collective infrastructure.

Two Paths. After this initial whole community workshop, homeowners will take either one of two paths. Those unaffected by larger community strategies will then continue along the standard tracks outlined for rehabilitation, elevation and reconstruction. Those who could benefit from collective design solutions will participate in a series of three additional workshops: the first to discuss conceptual solutions, the second to review solutions that have been vetted by other controlling authorities such as DCP and DEP, and the final one to come to a consensus as to the path forward. These homes can then also rejoin the standard track outlined in the RFP as the shared design strategies allow.

The LiRo team will *leverage our existing relationships with local/non-profit partners* in our community outreach efforts.

Local Partners. In addition to the efforts of our team, including Pratt Center, upon receiving a tranche of properties organized by geographic proximity, we will

identify any local partners such as Astella in Coney Island, who have the capacity to support this community engagement process and who have had experience with the local population and rebuilding efforts. Local partners will be particularly key in the ability to organize residents of properties who could benefit from a collective approach and to establish their liaison with the larger team.

The benefits of our community approach that initially engages all homeowners in the Build It Back program are:

- Stabilization of program numbers as homeowners understand flood insurance and resiliency at the scale of the neighborhood
- Economies of scale as contractors proceed through adjacent similar houses and potentially elevate or build at a scale beyond the individual property
- Increased Resiliency at the scale of neighborhood through greater numbers of Build it Back participants and potential collective water management infrastructures
- Increased local workforce participation from our neighborhood community organization partners and local pool of the subcontractors that they can bring to the larger team.

Other partners that our team have either worked with in these communities or will be engaging for this assignment include:

- Pratt Center
- World Cares Center
- Zone A
- Astella
- Samaritan's Purse
- Nontraditional Employment for Women

Final Design/Construction Drawings

Once the design development phase is completed and the homeowner has made his or her selections, the Senior Architectural Designer will begin the process of converting the design

Experience has shown that ***proactive communication with homeowners lead to expedited sign-offs*** on final design documents.

drawing set into a construction drawing set with all relevant and required drawings. During this process, the Senior Architectural Designer will work with the Project Manager/Project Architect and collaborate with the Structural and MEP Engineers as necessary to finalize and coordinate all drawings for filing with the Department of Buildings. Cost-saving measures for the program and homeowner will also be taken into account at this phase

of the project. For example, simple details will be designed wherever possible in order to allow for ease of assembly and lower labor costs during construction. Materials and detailing that will not require extensive maintenance over time, as well as materials and detailing that will contribute to water and energy savings will also be employed wherever possible in order to reduce monthly and annual costs for homeowners.

Once the contract document set is finalized, the Senior Architectural Designer will meet with the contractor(s) to review the construction package. He or she will also schedule a meeting with the homeowner to review the design and construction approach in detail. Once the contractor, homeowner, and the Housing Recovery Office sign off on the drawing set, it will be filed with the Department of Buildings by the team's expeditor.

Task B.2 Preparation of Construction Bid Documents

LiRo has extensive expertise and experience with DDC's CM/Build contract, CM/Build contracts of other NYC agencies, and with design build delivery. We understand their requirements and processes and how they are perceived by the construction community.

LiRo has conducted more successful CM/Build and CM/Design/Build procurements using our approved DDC process than any other Construction Manager. We have completed work on more than 850 sites since 1995.

Established Bid Process

LiRo has a pre-established standardized bid process that has been utilized for thousands of DDC construction sites

LiRo understands that the bidding process and contract documents need to conform with applicable processes established by DDC. This understanding will **accelerate the bidding process and minimize delays.**

whereby pre-bid meetings are conducted, RFIs received, logged and processed. We have standardized contract templates. LiRo also has a standardized and secure bid process wherein bids are received at the agency rather than field operations level to ensure the propriety of the process whereby the opening and recording of bid pricing is taken out of the hands of day-to-day project team staff, and is performed by designated senior management and agency personnel under a set of established protocols.

There are a number of other considerations regarding our approach to the preparation of bid documents, including the items listed below.

Contractor Outreach, Interest and Capability

LiRo can assist and supplement DDC's efforts to establish and maintain a highly responsive and productive list of prequalified contractors who are well-versed in multi-site, expedited construction, and who have the financial and supervisory capability to advance the program. Having a very strong prequalified lists (PQLs) of excellent contractors for DDC program is absolutely essential. As one of the largest public sector Program and Construction Management firms in the NYC metropolitan region, LiRo has excellent, trusted long-term working relationships and extensive experience with the NYC contracting community. In addition to our extensive list of pre-qualified trade contractors, we are prepared via additional outreach to assist DDC's efforts to establish and maintain highly productive lists (PQLs).

LiRo's "Firm But Fair" philosophy results in **an above average participation rate for bids by quality contractors.**

We believe that an important preface to the bid process itself is a very proactive outreach to potential bidders to advise early on “what’s coming out.” This process generates additional interest will be generated in the PQLs and outside construction community, fuels competition be and results in and increased number of competitive bids. An outreach conference should include address the following items at a minimum:

- a. Notification of upcoming major projects
- b. Description of the program and projects
- c. Discuss issues impacting projects
- d. Schedules, anticipated milestones and completion dates
- e. Contractors’ input and recommendations

Grouping of Projects

LiRo will group assigned projects for bid purposes based on a number of considerations, and our evaluations and assessments, developed in coordination with DDC, including:

- PQLs Contractor’s Capability and Availability
- 8 PQLs for General Construction, Electrical, Plumbing and Mechanical Contractors, established based on project size/cost
- Project size range and trade requirements
- Contractor Community Interest and Outreach Response
- Geographic Location and Neighborhood
- Pathway, ie Rehabilitation, Elevation, Reconstruction
- Type and Nature of Residential Facility, ie Single, Family, Attached, Multi-family, etc.
- Regulatory Pathway and Approvals
- Optimized Materials Acquisition
- MWBE and also in consideration of
- Established Prioritized Areas, if any

LiRo has already been ***approached by the majority of large capacity residential builders*** that are recognized for both speed and quality construction on storm-damaged homes.

Our approach will provide DDC and the Housing Community Recovery Program with the procurement of capable PQL contractors with sufficient technical and financial capability and resources to successfully execute their project load, and also with additional programmatic capacity to address additional work if so required.

LiRo’s design reviews ***focus on conformance with HUD, NYC and NYS standards***. On the NY Rising Program we have created, written and implemented standards for elevation and design and have trained over 80 design professionals on these standards.

Pre-Construction Design Review, Code Compliance and Constructability

We believe that during the development of the bid documents it is highly advantageous to implement a disciplined, collegial, project design and code compliance review, and constructability program early in projects when the opportunity for positive impact is greater than in later stages. To ensure that the bids are complete and

comprehensive it is also critical the “front-end” of the bid documents; general and specific requirements sections be fully thought through and clearly address the conditions that are to be addressed, and the coordination and schedule of the individual projects. Specific items required for this HUD funded program include:

- Setbacks
- Building lines
- Utility locations
- Local utility replacement requirements
- Appurtenant structure locations
- Variance requirements
- Zoning requirements
- Code compliance
- HUD CPD Green Retrofit Checklist
- Special Needs considerations
- Floodplain elevations
- Height restrictions
- Fire separation
- Wind retrofitting requirements

Specific examples of our focus will be on program design standards that deliver HUD compliant designs at reasonable costs, including:

- Foundation design standards
- Disaster resistant materials
- Universal Design
- Special Needs equipment options
- Composite (standardized) pricing
- Cost and schedule containment for upgrades

Value Engineering

LiRo is a strong proponent of Value Engineering, and, we fully understand that Value Engineering (VE) must take into account the continuous longevity and usage along with required pay back terms over the project life. For the NY Rising Program, we have implemented “Maximum Design Standards” to avoid having costly design solutions or “over-designed” homes. This results in

LiRo has a ***dedicated team of design review staff*** on the NY Rising Program that efficiently instruct designers and review designs for “Maximum Design Standards”. This practice has resulted in ***significant savings for the NY State program.***

better bids and minimizes questions during HUD audits. Specific examples include reduced pile and beam spans; acceptable reuse of existing foundations; and uniform adoption of standard grade finishes.

3. CONSTRUCTION

LiRo has constructed over \$1B of CM Build projects for New York City. LiRo’s senior managers were among the first City officials to widely use this project delivery method on public projects, and are therefore quite familiar with the process of design, design review, packaging of sites, preparation of bid documents, prequalification of bidders, pre-bid conferences, award recommendations, project kick off, notice to proceed, project inspection, submittal management, change order management, safety inspection, non-conformance resolution, training, permit closeout, maintenance and warranty.

Task C.1 Construction Procurement

The HRO program is unique in both its size and scope. The project will involve the issuance of approximately 50-100 construction contracts for work at over one thousand private property sites. LiRo will have a contract management/legal team focused on the procurement process to ensure it satisfies DDC format, addresses all program requirements, provides for satisfactory outcomes, and protects the interests of DDC and the homeowners.

Contract Provisions

LiRo has standard contract language that conforms to DDC public project requirements. However, given that this project involves private property of third party homeowners, involves numerous smaller contractors, is not prevailing wage, involves Project Labor Agreements, and has other unique aspects, there are contract language issues that need to be addressed.

Task C.2 Services During Construction

As mentioned in our approach, the construction phase starts after the following three NTP criteria are met:

1. Building Permit Is Issued
2. Applicant Has Vacated the Dwelling
3. Utilities Have Been Disconnected

As construction progresses, our team of construction managers, homeowner advisors and inspectors are fully engaged to monitor contractor performance, project schedule and budget, and provide any guidance or issue resolution to homeowners as needed. Due to the aggressive schedule and accelerated construction pace on this program, we recognize that proactive management of each home construction is required to provide every opportunity to remain on schedule and on budget. Daily, weekly, or monthly production metrics will be provided at DDC/HRO's direction. Some of the services and items to be tracked in performance metrics include the following:

- QA and safety inspections
- Contractor performance monitoring / reporting
- Progress monitoring
- Upgrades documentation and tracking (eliminate "deals" made on the side with contractors)
- InterimEC
- Change orders
- Field change notifications
- RFIs
- Draw request processing
- Financial controls
- Lien waivers
- Issues resolution
- Variance Coordination
- Section 106 coordination
- Environmental LBP and ACM inspection verification
- Special Needs compliance
- Address homeowner questions/ concerns
- Monitor and prevent fraud

Post-Construction

On past and existing programs, our team of Homeowner Advisors prepare the homeowners for the end of construction at their first meeting on their project. To ensure that homeowners receive their payments, diligent documentation and tracking of allowable activities must be explained to each homeowner so that there are no surprises at the end of construction when they are expecting a final release of funds. To this end, our team have developed homeowner and contractor guidelines and checklists for each stage of the project so that these requirements are clearly noted. LiRo has worked directly with homeowners and case management staff to reach out to applicants who are nearing or have completed construction to engage them in this process.

We understand that while the homeowners are satisfied at the end of construction to being back in their newly repaired or reconstructed home, the work of the construction and case management team is not yet done. Our responsibilities are fulfilled when an applicant's file is reviewed for HUD compliance and closed by the appropriate HRO staff.

Closeout

Upon completion of construction, the CM team will work with the applicant to closeout the project by collecting documentation to be entered into the data management system and for compliance reviews. Minimum closeout documentation for verification of completion and compliance with HUD requirements include:

- f. Certificate of Occupancy from the local jurisdiction
- g. Final Elevation Certificate (if in 100 Year Floodplain)
- h. Designer Certifications
- i. Contractor Certifications
- j. Other Program Required Closeout Documents

Monitoring and Warranty Period

Every housing project constructed under the BIB program is subject to a warranty guarantee. Warranties for newly constructed houses are subject to NY State Law 777 that provides warranty for all construction components and systems on a 1, 2, and 6-year regimen. Repair and rehabilitation projects are subject to a one year materials and workmanship warranty. The LiRo team will track the completion of each project and the date the warranty period begins. Applicants are directed to contact the contractor directly for any warranty related issues, and if the contractor is non-responsive after three attempts, the applicant should contact the LiRo team through our call center who will then rectify the situation with the contractor.

The construction contractors will also be required to purchase a Third Party Warranty from a NY State authorized warranty provider as an additional measure to ensure compliance with the warranty requirements. A warranty can be acquired for both new and rehabilitation construction. The contractor will provide the applicant the necessary warranty documentation and contact information for how to access the warranty during the final site visit.

4. EMERGENCY REPAIRS

Task D. Emergency Repair Services

Emergency Repair Services in connection with the DDC CM/Design/Build Program for Hurricane Sandy-Affected Residential Community Recovery presents certain critical challenges and requirements, the most readily apparent include:

- Availability of a pool of responsive contractors
- 24-hour/7-days-a-week availability of CM/D/B resources, contractors, and immediate response capability.
- Time is always of the essence, budgeting, pricing, contractor mobilization and repairs will be highly expedited.
- Repair work must be performed in conformance with the project requirements in the most professional, timely, qualitative, safe and cost effective manner.
- Cost, budget, time forecasting and reporting must be accurate and keep pace with highly expedited repairs.
- Closeout must be planned for at project initiation and diligently followed through to completion.
- Safety and security of homeowners, the public, and repair workers is absolutely paramount

LiRo's understanding of ***emergency response is extensive and includes more than \$1B of emergency work*** for repairs on 7,000 Sandy damaged homes and returning 80,000 residents to their multi-family units.

LiRo truly understands that the DDC emergency repair services to be provided could be a critical determinant of the program's success. Emergencies must be managed quickly to protect life and property as well as maintain the public trust. LiRo is a proven provider of emergency or urgent response services working under close public scrutiny. After Sandy made landfall in New York City, LiRo was contacted by over a dozen of our public sector clients in the area to assist with the immediate storm response.

We have a well proven set of emergency response protocols, track record, approach, and management methodology demonstrated in the successful completion of over \$300M of highly critical Emergency response work for Sandy Response and Recovery, and over \$400M of School Construction Authority CM Emergency Response Program work during the last 10 years in a safe, qualitative, highly expedited and professional manner. The HRO Emergency Repairs Program requires a high level of management dependability and accountability, coupled with a QA/QC based approach that continually seeks performance enhancements and ensures availability of CM/D/B and contractor resources. All parties involved must be able to meet the following criteria: rapid deployment of resources, possess a strong safety record, adhere to budget and schedule, provide timely updates and issue dependable forecasts and reports. LiRo will keep DDC continually informed in real-time regarding emergency repairs status, including costs and schedules.

Availability and Response

The most critically important issue for DDC is the after standard work hours 24-hour/7-days-a-week on-call accessibility, availability and immediate response of highly qualified CM/D/B personnel, consultants and contractors on immediate or short notice, and their ability to expedite repair work on an expedited 24-hour/7-days-a-week basis.

Emergency Resources Center

LiRo will establish a 24-hour/7-days-a-week emergency call center staffed by technical advisors and managers authorized to mobilize contractors and crew on an emergency response basis. A protocol will be established to determine the validity of the request, whether or not it pertains to pending work and/or work in progress under this program, and required timeframes for response. Valid requests for emergency repairs will be immediately submitted to designated DDC managers for authorization. LiRo's emergency response managers will be equipped with the list of contractors engaged on the work, PQL lists of appropriate contractors for emergency work, and also, as may be required, with a list of supplemental emergency response contractors, maintenance crews and utilities resources, in the event that the project's contractor is either unable to respond or is un-responsive. It is essential that each and every request for emergency repairs be handled professionally, compassionately and responsively.

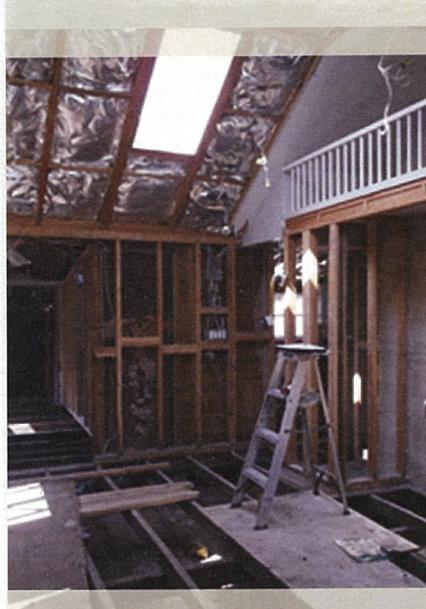
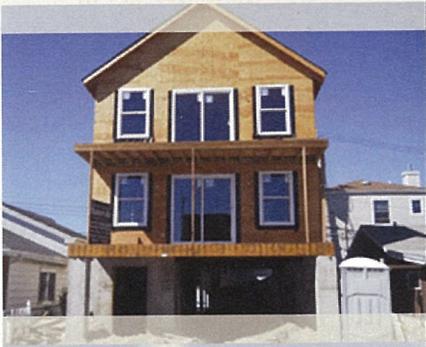
Assessment and Mobilization

LiRo will maintain and provide DDC with a real time report on emergency repairs requested, pending determination, progress and completion. We will immediately dispatch resources to assess the validity and scope of the requested repairs. Findings will be immediately coordinated with DDC program managers and case management leads. The DDC manager(s) shall review, and provide direction, approval, rejection and/or modification, and a work order prior to repair commencement which shall begin within no later than 24 hours. For homes not yet awarded to a PQL contractor LiRo will solicit bids for the same scope of work from a minimum of three prequalified contractors and return, evaluate and submit the bids for award and approval. Note that ***LiRo's typical on-site emergency response time with a list of prequalified, pre-contracted contractors is within 2-4 hours of notification.***

Contractors and Supplemental Emergency Resources

Contractor procurements, bid information and agreements will clearly include the requirements and obligation for emergency response and rates for same. Per the RFP, emergency response shall be handled as change orders.





**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company

3. Organizational Capability



**NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION**

Borough of
Brooklyn

3. ORGANIZATIONAL CAPABILITY

The LiRo Team’s capabilities for this assignment are intentionally focused on providing excess capacity to ensure that team performance and throughput will exceed the requirements outlined in the RFP. The LiRo Team was assembled months before the RFP was issued and our aim was concentrated on the same fundamental keys to success that are mentioned in the RFP: rapid ramp up ability with the capacity to design and build high volumes of concurrent homes. In addition, we knew we needed a team that had worked successfully together on other expedited CDBG-DR housing recovery programs. Key aspects of our team’s capabilities and past history of working together are demonstrated below.

A Proven and Integrated Team

While some companies can boast of having a good performance record and staff with the right resumes, that is not sufficient here considering the nature of this program and the speed at which it must be implemented. The successful team needs to have a track record of working effectively together from Notice to Proceed to getting homeowners back into their re-built

homes at an unprecedented pace. To achieve this goal, our team was assembled with personnel that not only had CDBG housing experience, but with a successful history of working together on prior recovery programs. The core team represented on the organization chart is comprised of 27 individuals – 17 have worked together as a successful team on CDBG housing programs. Even more team members have worked together on non-housing programs.

Moreover, LiRo has always worked as a blended team with our subconsultants, including M/WBE partners on all our public sector work. On Sandy recovery programs, we have been meeting the M/WBE goals as well as hiring local and Sandy victims, and training Section 3 workers.

The staff provided on the organizational chart reflects a broad cross section of our subconsultants at all levels in the organization. In fact, **two of the eight key positions designated by DDC/HRO are filled by our M/WBE subconsultants, and 50% of subconsultants contacted for this assignment are M/WBE firms.** Similar to our staff having worked together, our major M/WBE partners have worked with us on other CDBG housing programs. We are committed to meeting the Sandy Hiring Plan, Section 3 and M/WBE goals for this program.

Housing Recovery Experience

The team has been involved in over \$20B of disaster programs, including 14 major CDBG-DR housing programs and more than 250 Presidential declared disasters. Lessons learned from these programs will be effectively implemented on the DDC/HRO program and will contribute to the expedited delivery of program goals. In addition, our Project Manager, Deputy Project Manager and Construction Manager have managed several similar projects equal in scope and complexity that involved managing design and construction of multiple concurrent projects in a fast-paced

“The leadership, attention to detail, and quality of staff have always enabled LiRo to meet its commitments.”

*-Anne Papageorge, Former Vice President
Lower Manhattan Development Corporation*

environment. Several of their housing programs were identical programs requiring thousands of homes to be designed and completed in less than 24 months, and some involved large-scale community mitigation projects involving over 1,000 properties.

NYC Project/Construction Management Capability

The LiRo Team is known for its portfolio of successful complex projects where clients have trusted LiRo's ability to overcome obstacles and reach the owners' desired outcome. Our projects and experience have included:

- World Trade Center 9/11 Recovery, \$550M
- Master Construction Manager for NY State's Sandy Housing Recovery, \$485M
- NYC's largest transit program, the \$10B East Side Access Program
- The country's largest Design/Build Bridge Program, the \$4B Tappan Zee Bridge Project
- Over \$1B of projects for the NYC School Construction Authority, including expedited/emergency assignments
- More NYCHA residential housing experience than any other Construction Manager, over \$370M
- More NYCHA Sandy Residential Architectural assignments than any other design firm, including resiliency designs for developments with more than 7,000 housing units, valued at \$187M
- NYC Rapid Repairs inspections consultant for NYC on over 7,500 homes, \$640M
- More CM/Build experience for NYC agencies than any other Construction Manager
- More CM/Design/Build experience for NYC agencies than any other firm, including over 850 sites throughout the five boroughs
- Program Manager for the Lower Manhattan Construction Command Center \$18B Post-9/11 World Trade Center Redevelopment. Our proposed Project Manager coordinated the Redevelopment, the \$550M 9/11 WTC recovery and he alone has more than \$4B of CDBG-DR project management experience.

Design Capability

The LiRo Team is comprised of over 300 architects to achieve DDC/HRO's goals. In addition to quantitatively having the resources, it is also **important to have the right and skilled resources**. Our Team's architects have worked on residential prototypical designs and community resiliency for over 1,000 disaster and economic recovery programs.



LiRo team member's study for elevating Sheepshead Bay bungalows post-Sandy

They include:

- Studies for elevating bungalows in Sheepshead Bay at Stanton Court after Sandy
- Completing more than 400 Sandy home designs including prototypical designs for reconstructions to obtain the required speed of implementation.
- Providing prototype single- and two-family designs for over 350 properties in low-lying bungalow communities in New Orleans after Hurricane Katrina
- Designs for 23 townhouses for an urban renewal site – ***the first full block of new townhomes in Brooklyn in over a century***
- Affordable and rapidly deployable prototype housing for the General Services Administration’s Design Excellence Program



23 new townhouses designed by LiRo team members for an urban renewal site – the first full block of new town houses in Brooklyn in over 100 years.

While the design and construction challenges presented on this program would be daunting for a less qualified team, we believe our team of local designers have the spirit and drive to find solutions that can satisfy these uniquely New York neighborhoods. We view this assignment as an opportunity to transform a tragedy into a positive change for these individuals and communities. Successful cohesive neighborhood design solutions will not only reshape and redefine a community for years to come, they can also become the model for the future disaster recoveries.

The commitment and talent of these firms are reflected in the fact that some of them are already involved in the Sandy rebuilding process in these very same neighborhoods or working on solutions for

future storms. Their qualifications were presented in the [Experience Section](#) of this proposal.

Just as important as our Team’s design capabilities is our ability to train other designers on CDBG-DR housing design standards. We have trained more than 80 architectural firms for the State’s Sandy Housing Program. Similarly, we plan to engage and train ***local residential architects from Brooklyn, Queens and Staten Island who possess the best local knowledge***, relationships with the local community and the Building Department Borough offices.

The LiRo team has also been involved with the engineering of over 550 elevated homes as part of the State’s housing program including value engineering, cost estimating and development of design standards. The design standards that we developed were for both optional and required elevations. Having this knowledge allows us to start immediately on the NYC program with very little learning curve on engineering issues related to the Elevation pathways. Lessons learned on this issue are discussed in the Sample Project.

Data Management Capabilities

LiRo has a robust data management system currently being used for the NY State Program. The LiRo Recovery Manager (LRM) software can easily be used for this scope of work to effectively track and manage the program. It is a system that will be compatible with HRO's existing CMS but can also be adapted to add modules for tracking of any project management and applicant activities that may be needed. Also understanding that CMS is currently tracking a vast amount of applicant case management data that would be helpful to integrate into the construction phase, we have added Dewberry to our team to allow a faster integration between the current CMS system and our system. Leveraging existing functioning data systems that can communicate with one another with a GIS and construction project management focus will make our ramp up significantly faster than others without this familiarity and capacity.

Ramp-Up Capabilities

LiRo's ability to surge and provide the right personnel quickly to achieve a client's goals has been proven time and time again in the past decade. These assignments have ranged from disaster response for the 9/11 World Trade Center attacks and Hurricane Irene, to emergency responses for the Staten Island Ferry crash and the Cromwell Recreation Center Pier collapse. LiRo's consecutive on-call CM Emergency Response contracts with the NYC School Construction Authority is another successful measure of our rapid ramp-up and response capabilities.

A true testimonial of our clients' trust in our capabilities was demonstrated after Sandy made landfall. LiRo was asked by our clients to respond to 13 separate recovery programs. Some of these ramp up capabilities include:

- Nassau County STEP Program (Nassau County's version of Rapid Repairs) – Over 2,600 damage assessments in 60 days and 700 homes with completed construction in 90 days
- NY Rising Sandy Housing program – 617 staff mobilized in 30 days, completed 5,600 damage assessments and issued 4,394 award letters within 60 days of Notice to Proceed
- NYC Rapid Repairs – Over 100 staff ramped up in 45 days to conduct 7,000 home inspections in 90 days
- NYC School Construction Authority Sandy Response – \$49M of construction completed at 40 schools which were all re-opened within 90 days
- NYC Housing Authority Sandy Recovery – Mobilization within 48 hours after Sandy enabled 80,000 residents to re-occupy their homes within two weeks. More than 200 workers were part of this effort

A. ORGANIZATIONAL CHART

The following high level organizational chart shows the key personnel specified in the RFP as well as the other experts and advisors in CDBG-DR housing, construction management, residential design and construction, and property law. We believe this combination of expertise will allow our team to provide DDC/HRO with comprehensive services for program management, environmental, legal, customer service needs in addition to capacity for high volume of design and construction production. With this complement of professionals, familiar with local rules and regulations for residential design and construction, our team will be able to work with DDC/HRO to address a wide range of issues that may be blocking progress on the approximate 7,700 homes targeted in this program. When broadly addressed, issues resolved in one borough can be shared and applied to the others. The team with the most experience and capacity will set the pace of production as well as pave the way for others who may be delayed by regulatory or design obstacles.

LiRo intends to be the team to set a sustainable pace for this recovery with realistic goals and replicable and scalable production solutions that will rapidly ramp up as the project progresses. A brief summary of our key personnel's past experience follows the organizational chart and their full resumes follow this section.

A list of our subconsultants and their SF255 and SF330 forms are also included at the end of this section.

Key Personnel and Core Staff

Luis M. Tormenta, PE, Program Executive – Under Mr. Tormenta’s direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. His past CDBG funded emergency projects include the 9/11 World Trade Center and 13 recent Sandy response and recovery projects. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricanes Sandy and Irene as well as emergencies such as the Cromwell Recreation Center pier collapse and the Staten Island Ferry accident.

Michael Burton, PE, Project Executive, is a recognized industry leader who has managed some of the nation’s largest public and private capital portfolios valued at over \$25B. He has managed programs for Katrina and has been involved with all of LiRo’s Sandy recovery programs including NJRREM and NY Rising. Prior to Hurricane Sandy, Mike also managed the clean-up of the World Trade Center after 9/11 which is the only fully funded CDBG/FEMA program with no Federal audit findings. He managed that recovery while serving as the First Deputy Commissioner of DDC.

Brant Aidikoff, PE, CCM, Project Manager, a recognized leader in the NYC construction management community who is currently serving as a senior manager on the NY Rising program ensuring quality on the approximate 19,000 applications in program. His prior CDBG-DR recovery experience includes working for DDC in responding to the 9/11 World Trade Center attack where he was specifically requested by DDC to help in the \$700M infrastructure recovery and reconstruction efforts for the two years following the attacks. Based upon his performance working for DDC, Brant was then asked to serve as the Program Manager for the \$18B World Trade Center reconstruction effort for the Lower Manhattan Construction Command Center.

Mark Howard, Deputy Program Manager, has managed housing programs valued at over \$1B for the State of Texas recovery after Hurricanes Ike (\$300M) and Dolly (\$700M). He is also a senior advisor to the NY Rising Housing Recovery Program. Mark helped design the program and has implemented the successful training programs for design professionals and contractors which greatly increased capacity and throughput. He also implemented the homeowner awareness public forums which greatly increased homeowner satisfaction and continues to promote homeowner understanding of the program as a senior manager working with the LiRo Homeowner Advisors who have answered more than 7,500 homeowner questions in the past year.

Chad Herndon, Construction Manager, is a housing recovery expert who has served in numerous roles working on over 8,000 homes for Hurricane Ike, Rita and Katrina in Texas and Mississippi. In addition, as construction manager on the NY Rising Program he helped develop the Program’s standards and specifications, the 15,000 damage assessment program and the construction inspection program. Most recently he managed the closeout program for NY Rising.

Joanna Pestka, FAIA, Lead Design Manager, is an award-winning design manager and National Fellow of the American Institute of Architects. Joanna has residential experience and equally important, she has for the last 20 years managed portfolios of projects that in aggregate exceed more than a thousand projects valued at over a billion dollars. Her achievements are familiar to DDC, where she served an Assistant Commissioner for the Libraries, Transportation and Cultural program units with a portfolio of 250 projects valued at \$300M.

Thomas Anderson, PE, RA, Design Project Manager, is an architect and engineer with more than 35 years of experience directing the design and construction of residential, governmental, and commercial projects. He has extensive CDBG housing experience and is part of the NY Rising Sandy Housing Program as a Team Leader. He has also helped launch CDBG-DR Small Business and Multi-Family/Rental programs.

Michael Dorris, Sr., Project Controls Manager, has been responsible for the supervision of all phases of grant management and document control for federal grants including the \$1B grant for St. Bernard Parish government's Katrina recovery in Louisiana and more recently, as Homeowner Advisor on the State's NY Rising Housing Program and Operations Manager for the New Jersey Sandy Housing Recovery Program. His expertise includes utilizing databases to track trends, identification of issues and bringing the appropriate resources to remove the obstacles impeding progress to increase throughput on housing program.

Janice Haughton, Sandy Hiring Plan Implementation Manager, has served in recruitment and compliance roles on projects to meet CDBG and local hiring goals. On Sandy recovery projects, she managed the Local Referral Center in the Rockaways as part of the boardwalk reconstruction project, to recruit local residents and contractors and perform community outreach with local workforce groups, trade unions and community board members. Janice also served as Compliance Advisor on the State's Disaster Recovery Inspections program for Sandy damaged homes in Nassau County.

Robert Baptiste, M/WBE Compliance Officer, has served on similar compliance roles for LiRo, most recently for the State's Housing Recovery Program. He is familiar with all the local and federal requirements for compliance on CDBG-DR programs and has participated in our community and industry outreach efforts, contractor and design professional training, and Section 3 outreach and training.

Faisal Choudhury, PE, Homeowner Advisors/Call Center Manager, has over \$2B of experience on both FEMA and CDBG recovery programs including: the New York Rising Housing Program where he is currently serving in a management role with Homeowner Advisors ensuring homeowner satisfaction as well as expediting throughput. He was also the LiRo Project Manager for inspections for the Rapid Repairs Program where he oversaw a workforce of 102 staff which were fully mobilized in less than 50 days. Inspections were conducted by his team on over 7,000 homes for Rapid Repairs. Prior to that assignment, he was a Project Manager implementing the Sandy

Recovery program getting 80,000 residents back into repaired homes. While as a DDC employee, Fais was a project manager and quadrant leader at the World Trade Center 9/11 Recovery as well as the Deputy Program Director for the Corrections Program Unit.

Joseph Massa, Technical Advisor, has extensive experience in CDBG housing programs including the NY Rising program where he is the Master Construction Manager for LiRo. He has been involved in more than a billion dollars of housing programs, including serving as a senior manager on the Rapid Repairs Program, and was the senior project manager responsible for more than \$370M of residential construction for the NYC Housing Authority.

Trang Bui, Start-Up/Hiring Plan Team, has been part of LiRo's disaster recovery management team and has served in start-up roles and embedded staff for NYC Rapid Repairs, NYC Housing Authority, and the State's NY Rising housing and community recovery programs. She was also part of DDC's 9/11 recovery team and had managed FEMA assessment teams for the Hurricane Katrina recovery in New Orleans. She has worked with NYC's non-profits and community based organizations from her experience at the Mayor's Office and the Department of Cultural Affairs and will leverage these relationships to assist in community outreach and maximizing local hires.

Jon Pantina, IT Manager, has over 17 years of experience in data management and IT systems for some of the most recognized companies in the nation. He is the system architect of the LiRo Recovery Manager software for the team performing work for the New York Rising Housing Recovery Program. He has worked as a developer, creating developing, and supporting various types of software, maintained company websites and intranets, and is familiar with a wide range of languages, technologies, databases, and web and app servers including those utilized by HRO's Case Management System.

Cara Lacey, Community Liaison, has extensive planning and outreach experience in both public and private sectors. She has advised clients including developers, architects, land owners, attorneys and on land use, zoning, policy, economic development and environmental regulations and issues. She has served as lead planner or project manager with teams on a wide range of projects including residential, coastal and rezoning efforts. Ms. Lacey has demonstrated her skills with facilitating neighborhood meetings and building relationships with neighborhoods, communities and residents as well as elected officials and legal teams. Cara was part of the planning team working on the State's NY Rising Community Reconstruction program in Brooklyn.

Alagie Sanyang, Safety Director, has extensive national and international construction safety experience. Alagie was most recently the Environment Health and Safety Director at Columbia University's multi-billion dollar Manhattanville development project. He holds an OSHA-500 and 501, and is an OSHA authorized trainer in both construction and general industry standards. He is a Board Certified Safety Professional CSP®, a Construction Health and Safety Technologist CHST®, a LEED AP, and holds a bachelor's degree in Occupational Safety and Health from the National Labor College and Master of Science in Construction Administration from Columbia University.

The following table demonstrates that our proposed Key Personnel meet or exceed the requirements set forth in the RFP.

RFP – Key Personnel Experience Requirements		
Title	Requirement: Years of Experience	LiRo Team Credentials
Program Executive	10	30+
Project Executive	10	30+
Project Manager	10	30+
Lead Design Manager	7	30+
Design Project Manager	5	30+
Project Controls Manager	10-15	30+
Sandy Hiring Implementation Manager	5	10
MWBE Compliance Officer	5	10

B. SUBCONSULTANTS

Given the capacity required for this Build It Back effort, we are proposing an *initial team of key subconsultants* that have extensive experience with Build It Back, Sandy housing recovery programs and 14 national housing program, DDC and New York City residential experience. The composition of the LiRo team reflects our understanding of the importance to maintain the continuity of the current program while adding new capacity and innovations to enhance and expedite the delivery of the 7,700 homes for this assignment.

We intend to leverage the knowledge and lessons learned from the consultants currently working on the program to the new team members as part of the start-up program. As this information is analyzed, our program and technical advisors with experience on other Sandy recovery programs will also work with HRO to identify areas where processes can be streamlined; share solutions to obstacles that have historically impeded homeowners' movement from design to construction; calculate realistic schedules and staffing needed to meet each borough's design and construction goals; and focus attention on third party resources/cooperation that will be needed to deliver the program.

Additional resources can be added as the program evolves, and we are actively managing a current list of firms who can potentially supplement our resources. Some of them are listed below.

DESIGNERS		
RZAPS (MBE)		
Heritage Architects (MBE)		
Aarris Atepa Architects (M/WBE)		
Gans Studio (WBE pending)		
Keri Kazel Architects (WBE pending)		
Beyhan Karahan (WBE)		
Rampulla Associates		
Marvel Architects		
Garrison Architects		
H2M		
Victorio Associates		
Studio 16		
Suben Dougherty		
Lipton Architects		
M/WBEs		
McKissack	Compliance, Inspections	M/WBE
BuiStudio	Start-Up, Hiring Plan	M/WBE
Hirani	Engineering, Surveying	MBE
Laland Baptiste	MWBE/Section 3 Compliance	MBE
Lawler Environmental	Homeowner Services	WBE
Vanir	Construction Management	WBE

SPECIALTIES		
H2Bravo	Project Delivery	
Kevin Hamby	Program Advisor/Compliance	
Worley Catastrophe Response	Rehabilitation Scope Development	
Dewberry	Rehabilitation Scope Development	
Perez	Rehabilitation Scope Development	M/WBE
KM Associates	Expeditors	
William Vitacco Associates	Expeditors	
M Paul Friedberg	Expeditors	
GZA GeoEnvironmental	Geotechnical	
Mueser Rutledge	Geotechnical	
Rogers Surveying	Surveying	
Montrose Surveying Co.	Surveying	
WSP Charles Sells	Surveying	
George Schell Engineering	MEP	
Goldman Copeland Associates	MEP	
Wesler-Cohen Associates	MEP	
Dagher Engineering	Mechanical	
MJELS Engineering	Site/Civil	WBE
Sherwood Design Engineers	Civil, green infrastructure	
Dunne and Markis Engineers	Structural	
Zee Structural Engineering	Structural Systems	
Ysrael A. Seinuk	Structural	MBE
Munoz Engineering	Engineering	MBE
Haider Engineering	Engineering	MBE
CES Consulting	Environmental	WBE
EPM, Inc.	Environmental	WBE
Matthews Nielsen	Landscape Architecture	WBE
Towns and Gardens	Landscape Arch/Garden Design	
COMMUNITY BASED ORGANIZATIONS		
Pratt Center	Community Outreach, Local Hiring	
World Cares Center	Outreach, Training, Move In/Out	
Zone A	Community Outreach	

In addition to the firms mentioned above, we have also reached out to and have been approached by firms who are interested in joining our team for this assignment. They include M/WBE and local firms impacted by Sandy, as well as small businesses that are looking for mentoring. **LiRo is committed to meeting the M/WBE, local hiring, and Section 3 requirements of this program.**

Our project management teams are actively engaged with our directors of Human Resources and M/WBE Programs to maximize local hiring opportunities on all of our Sandy assignments. Our lists of prequalified and new subconsultants are updated regularly and our staff proactively recruit new firms at industry events and local outreach efforts.

C. PRODUCTION SCHEDULE

Based on the number of professionals available on our team, our anticipated rate of production per the RFP for the July 1, 2015 and October 29, 2015 milestones are below for each borough, assuming a May 1, 2015 contract start date. Without knowing the particulars of the homes in the Elevation and Reconstruction pathways (attached or detached), the following are estimates. To accelerate completions of both design and construction, a geospatial analysis will be conducted. The analysis will focus on three issues:

- Geographic groupings of similarly damaged homes
- Known design and construction challenges borough wide
- Applicant eligibility status by geographic region

Geospatial Analysis

These analysis will allow the team to create targeted design teams focused on known challenges in the borough, such as attached homes with various program pathways, properties without street access, and properties on septic with wetland impacts. To the greatest extent possible, by pre-emptively analyzing the known design challenges in a geospatial framework and assigning our architecture and engineering experts to specific design classes, the LiRo Team plans to develop solutions that can be standardized and efficiently applied to all applicants having certain property features and constraints. We will also use this pre-emptive analysis to recommend applicants to HRO for case management or pre-construction expediting in order to achieve a full neighborhood solution where most needed and appropriate.

Utilizing a geographic approach will yield the following advantages:

- Geographically designated areas will likely have similar permitting problems, lot size/line problems and construction problems that can be more effectively attacked *en masse* rather than individually.
- Distributing projects geographically will allow for cohesive community engagement, community buy-in and true community-based housing recovery.
- Construction management, design and construction contractor/subcontractor resources can be clustered together within a neighborhood to reduce cost and increase efficiency.
- If broad-sweeping regulatory decisions (such as with zoning) are required, such decisions can be made on a community basis in a global fashion.

Applicant Eligibility Status

Once projects and neighborhood priorities are approved by DDC/HRO, LiRo will work with the case management team to identify any homeowners in these areas whose applications are lagging behind those of their neighbors. By engaging the maximum number of homeowners into the design and construction process in a relentless and targeted effort, DDC/HRO and the CM team will have a greater chance of meeting the aggressive schedules set forth for this program.

Preliminary Schedules

Elevated and Reconstructed homes schedules are heavily dependent on regulatory approvals, homeowner financial resources, homeowner timely decision and commitment to a pathway and for multi-units – homeowner association approvals or legal arrangements between attached

properties. The LiRo Team has the experts to assist in all these areas. The chart below have accompanying schedules and staffing plans that provide details on how we will meet the production milestones.

<i>July 1, 2015 Milestone</i>	Rehabilitation	Elevation	Reconstruction
Design Starts	200	90	25
Design Completions	75	20*	0
Construction Starts	40*	4*	0
Construction Completions	0	0	0
<i>October 29, 2015 Milestone</i>			
Design Starts	700	350	25
Design Completions	650	250	10
Construction Starts	400	70	5*
Construction Completions	250	15*	0

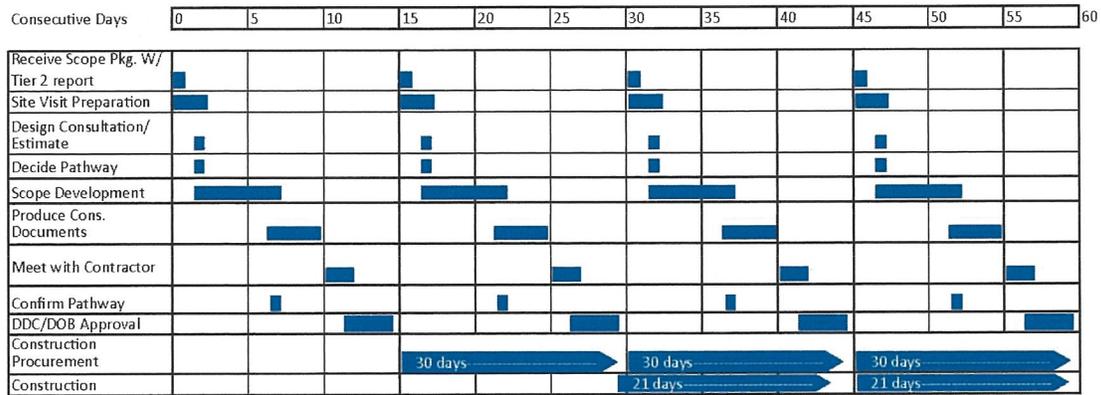
* Accelerated Schedules

Design Schedules

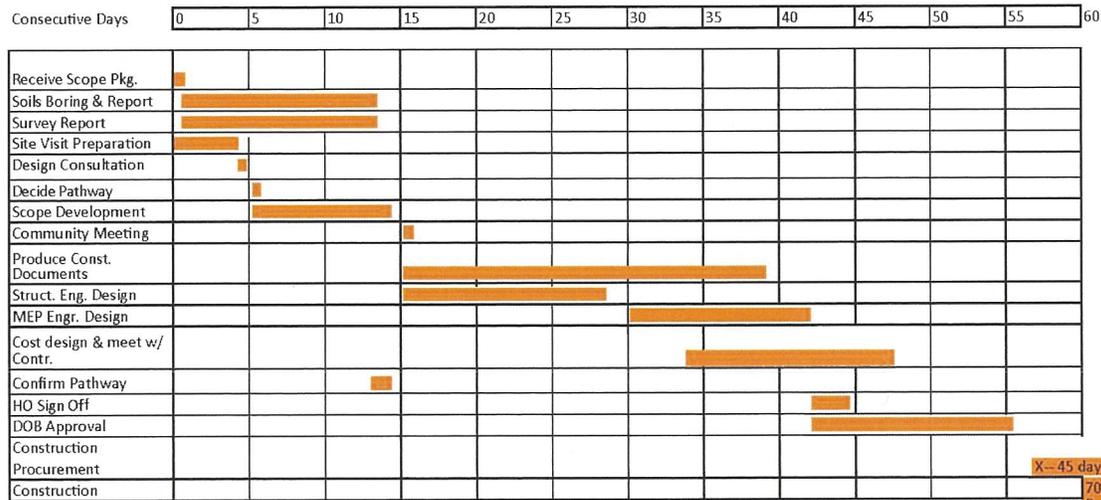
The schedules that follow cover work flow for project assignments in the three categories, Rehabilitation, Elevation and Reconstruction. It is important to note these schedules are for houses that can move through the process without delays due to environmental, Bureau of Standards and Appeals, DOT, Community Board, Fire Department, DEP and other regulatory agencies. Each of those agency approvals will take additional time. LiRo has experts available to handle each of these constraints. Each of the schedules shows a normal two week turn around for NYC DOB. They also are based on a constrained set of design choices for the homeowner to expedite the production process. Please also note the schedules show the number of days needed to design one project. Depending of the throughput from HRO/DDC of eligible applicants, further overlap and simultaneous starts from a new design team will allow multiple projects to run in parallel. Please also see attached chart showing organizational capability for numbers of expected projects. This chart shows multiple teams working simultaneously, producing many rehabilitation projects and many elevation and reconstruction projects. A rolling effect with simplified design packages will allow acceleration of elevation and reconstruction projects.

Work Flow Schedule 60 Days

Rehabilitation 60 Days



Elevation 60 Days



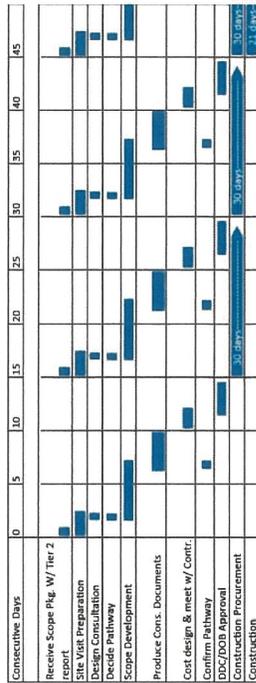
Reconstruction 60 Days



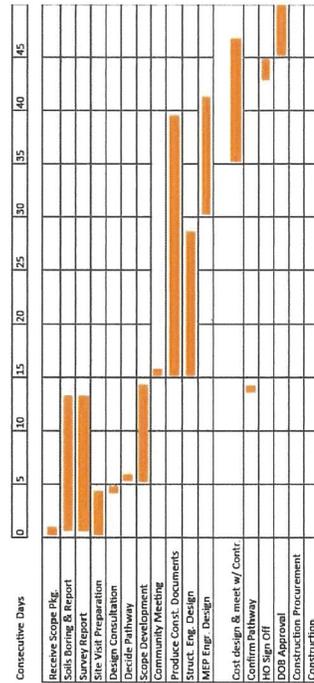


Work Flow Schedule 180 Days

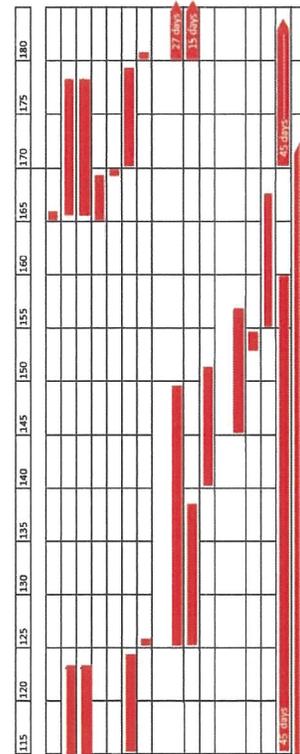
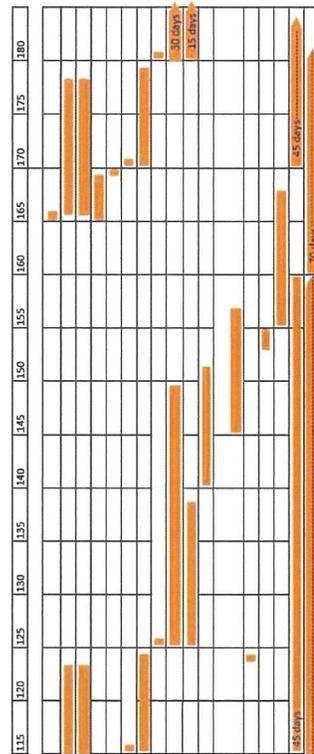
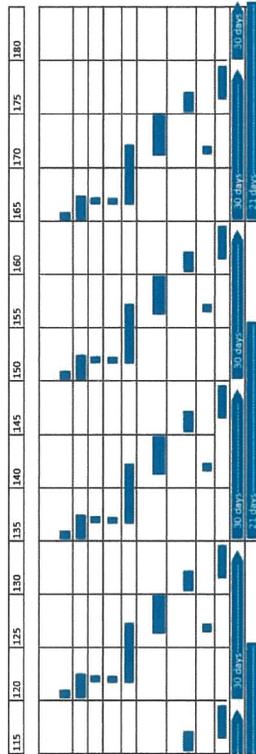
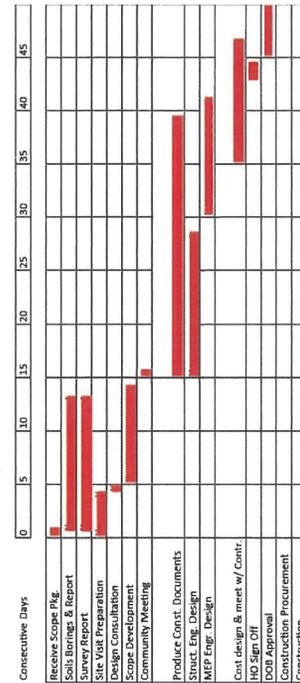
Rehabilitation 180 Days



Elevation 180 Days



Reconstruction 180 Days



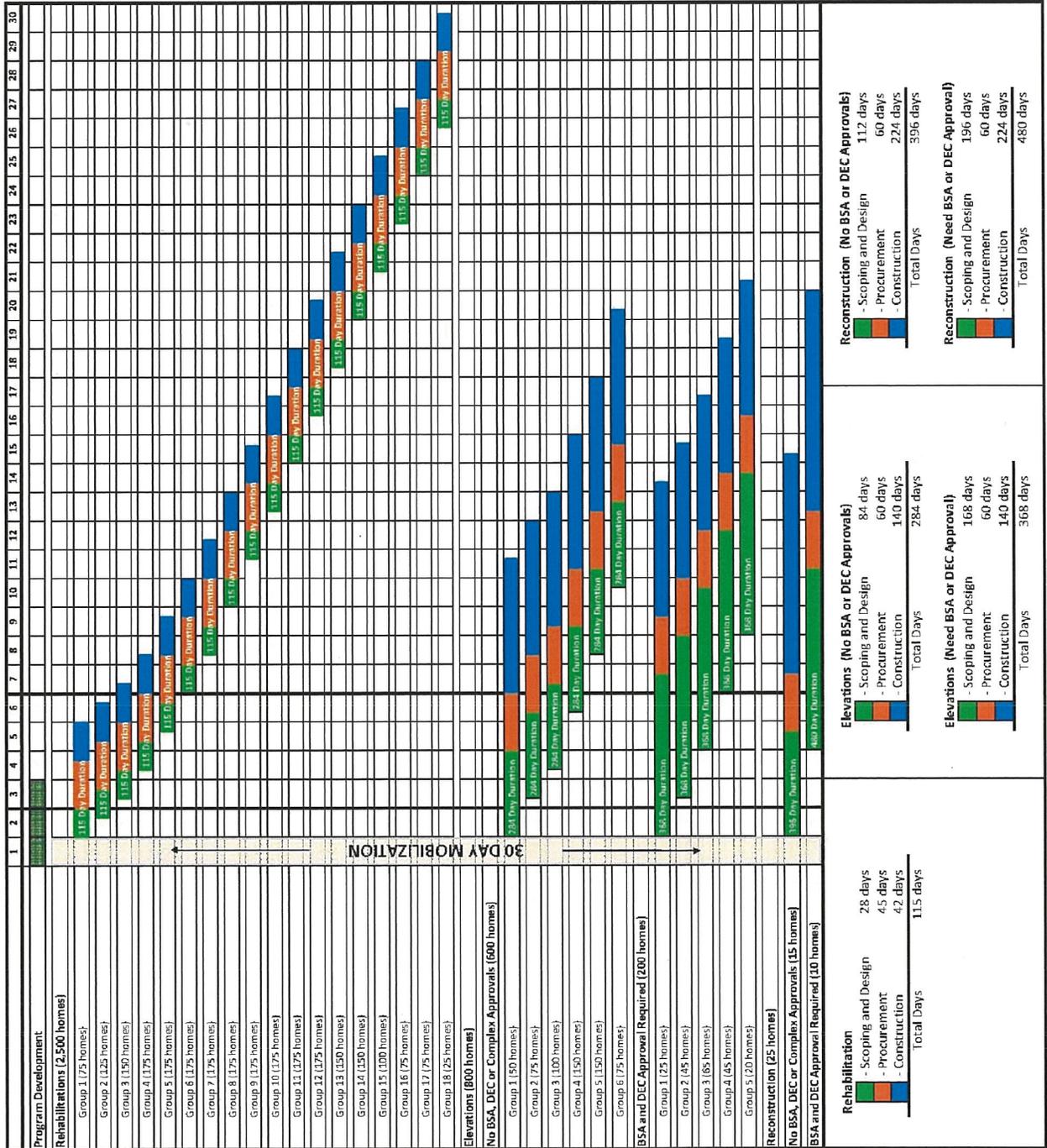
Days 50 - 110 removed to fit page size requirements





Presented below is the project schedule for Brooklyn.

Project Schedule - Brooklyn
(3,325 Homes)



Staffing Plan

The chart shows our staffing plan for Brooklyn. Year 1 and Year 5 reflect a ramp-up and ramp-down for team staffing.

Staffing Plan for Brooklyn

Core Management Team Titles	Year 1	Year 2	Year 3	Year 4	Year 5
	FTE's Per Year				
Program Executive	N/A	N/A	N/A	N/A	N/A
Project Executive	N/A	N/A	N/A	N/A	N/A
Project Manager	1	1	1	1	0.5
Deputy Project Manager	1	1	1	1	0.5
Project Controls Manager	1	1	1	1	0.5
Project Controls Staff	1	3	3	3	1.5
MWBE Compliance Officer	1	1	1	1	0.5
MWBE Staff	1	3	3	3	1.5
Hiring Plan Manager	1	1	1	1	0.5
Lead Design Manager	1	1	1	1	0.5
Architects / Engineers Managers	5	7	7	7	5
Homeowner Advisor Manager	1	1	1	1	0.5
Advisor	5	8	8	8	6
Construction Manager	3	5	5	5	2.5
CM Staff	9	14	14	14	9
Pre Design Services Manager (Borings, Surveys)	1	2	2	2	1
Environmental Manager	1	1	1	1	0.5
Environmental	2	4	4	4	2
QA / Cost Control / Estimators	8	11	11	11	7.5
QA/QC	1	2	2	2	1
Safety	2	3	3	3	1.5
IT/ Data Analyst	3	5	5	5	2.5
Procurement Manager	1	1	1	1	0.5
Procurement Staff	2	4	4	4	2
Finance Manager	1	1	1	1	0.5
Finance Staff	2	3	3	3	1.5
Office Engineers	3	6	6	6	3
Administrative Staff	3	6	6	6	3
Community Liason	1	3	3	3	1
Scope / Claims Manager	2	3	3	3	1.5
TOTALS:	64	102	102	102	58

D. SF 255/330 FORMS including forms for key subconsultants follow.

SF 255/SF330

1. LiRo Program and Construction Management, PE P.C.
2. H2Bravo
3. Dewberry Engineers Inc.
4. Worley Catastrophe Response
5. Marvel Architects, PLLC
6. H2M architects + engineers
7. Garrison Architects
8. Gans studio: Architecture PLLC
9. Keri Kazel Architecture
10. Rampulla Associates Architects, LLP
11. Ricardo Zurita Architecture & Planning, PC
12. Heritage Architecture, LLC
13. McKissack & McKissack
14. Hirani Engineering & Land Surveying, PC
15. Laland Baptiste LLC
16. Vanir Construction Management, Inc.



LiRo Program and Construction Management, PE P.C.



STANDARD FORM (SF) 255
Architect-Engineer and Related Services Questionnaire for Specific Project

1. Project Name/Location for which Firm Is Filing:
CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery

2a. Commerce Business Daily Announcement Date, if any:

2b. Agency Identification Number, if any:

PIN: 8502015HR0011-13P

3. Firm (or Joint-Venture) Name & Address



LiRo Program and Construction Management, PE P.C.
A LiRo Group Company

3 Aerial Way
Syosset, NY 11791

3a. Name, Title & Telephone Number of Principal to Contact

Luis M. Tormenta, P.E., CEO & Vice Chairman/516-938-5476
Michael Burton, P.E., Sr. Vice President/516-938-5476

3b. Address of office to perform work, if different from item 3

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and In-house personnel on line (B).

(A) 0	(B) 83	Administrative	(A) 0	(B) 6	Electrical Engineers	(A) 0	(B) 114	Resident Engineer	(A) 0	(B) 0	American Sign
(A) 0	(B) 15	Architects	(A) 0	(B) 32	Environmental Engineers	(A) 0	(B) 6	Scheduler	(A) 0	(B) 0	Archeologist
(A) 0	(B) 19	Asbestos Specialists	(A) 0	(B) 18	Geologists	(A) 0	(B) 2	Structural Engineers	(A) 0	(B) 0	Asbestos Managers
(A) 0	(B) 10	CADD Technician	(A) 0	(B) 1	GIS Specialist	(A) 0	(B) 0	Surveyors	(A) 0	(B) 0	Bengali Language
(A) 0	(B) 18	Civil Engineers	(A) 0	(B) 12	Industrial Hygienists	(A) 0	(B) 0	Acoustical Engineer	(A) 0	(B) 0	Biologist
(A) 0	(B) 11	Construction Inspectors	(A) 0	(B) 9	Mechanical Engineers	(A) 0	(B) 0	Additional Staff	(A) 0	(B) 0	Burmese Language
(A) 0	(B) 20	Construction Managers	(A) 0	(B) 81	Office Engineer	(A) 0	(B) 0	Aerial Photoanalyzer	(A) 0	(B) 0	Cartographer
(A) 0	(B) 13	Cost	(A) 0	(B) 92	Project Manager	(A) 0	(B) 0	Aeronautical Engineer	(A) 0	(B) 672	Total Personnel

5. If submittal is by JOINT-VENTURE list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: Attach SF 254 for each if not on file with Procuring Office.)

5a. Has this Joint-Venture previously worked together? [] Yes [] No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked With Prime before (Yes or No)
<p>1) H2Bravo 18723 Manchac Highlands Drive Prairieville, LA 70769</p>	<p>Project Delivery</p>	<p>Yes</p>
<p>2) Dewberry Engineers Inc. 31 Penn Plaza 132 West 31st Street, Suite301 New York, NY 10001</p>	<p>Rehabilitation Scope Development</p>	<p>Yes</p>
<p>3) Worley Catastrophe Response Post Office Box 249 Hammond, LA 70404</p>	<p>Rehabilitation Scope Development</p>	<p>Yes</p>
<p>4) Marvel Architects, PLLC 145 Hudson Street New York, NY 10013</p>	<p>Design Services</p>	<p>No</p>
<p>5) H2M architects + engineers 538 Broad Hollow Road, 4th Floor East Melville, NY 11747</p>	<p>Design Services</p>	<p>Yes</p>
<p>6) Garrison Architects 45 Main Street, Suite 1026 Brooklyn, NY 11201</p>	<p>Design Services</p>	<p>No</p>
<p>7) Gans studio: Architecture PLLC 481 Van Brunt Street Brooklyn, NY 11231</p>	<p>Design Services</p>	<p>No</p>
<p>8) Keri Kazel Architecture 2 Windmere Court Speonk, NY 11972</p>	<p>Design Services</p>	<p>No</p>

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked With Prime before (Yes or No)
9) Rampulla Associates Architects, LLP 155 3rd Street Staten Island, NY 10306	Design Services	No
10) Ricardo Zurita Architecture & Planning, PC 15 East 40th Street, Suite 900 New York, NY 10016	Design Services	No
11) Heritage Architecture, LLC 352 Evelyn Street, Suite 2, Paramus, NJ 07652 12 West 37th Street, 4th Floor, New York, NY 10018	Design Services	No
12) McKissack & McKissack 1001 Avenue of the Americas, 20th Floor New York, NY 10018	Compliance, Inspections	Yes
13) Hirani Engineering & Land Surveying, PC 30 Jericho Executive Plaza, Suite 200C Jericho, NY 11753	Engineering, Surveying	Yes
14) Laland Baptiste LLC 8513 Coventry Road Brooklyn, NY 11236	MWBE/Section3 Compliance	Yes
15) Vanir Construction Management, Inc. 111 Broadway, Suite 501 New York, NY 10006	Construction Management	Yes
16)		

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Luis M. Tormenta, P.E., CEO and Vice Chairman</p> <p>b. Project Assignment: Program Executive</p> <p>c. Name of Firm with which associated: LiRo Program and Construction Management, PE P.C.</p> <p>d. Years experience: With This Firm <u>14</u> With Other Firms <u>20</u></p> <p>e. Education: Degree(s)/Year/Specialization B.S./1982/Civil Engineering</p> <p>f. Active Registration: Year first Registered/Discipline 1987/Professional Engineer, NY</p> <p>g. Other Experience and Qualifications relevant to the proposed project: A highly accomplished leader in the region's design and construction industry, Mr. Tormenta has over 30 years of experience and has led many of New York City's complex construction projects and the administration of several public capital programs. Under Mr. Tormenta's direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. His past CDBG funded emergency projects include the 9/11 World Trade Center and 13 recent Sandy response and recovery projects. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricanes Sandy and Irene as well as emergencies such as the Cromwell Recreation Center pier collapse and the Staten Island Ferry accident.</p>	<p>citywide including parks and waterfront sites that require:</p> <ul style="list-style-type: none"> • Damage inspections and assessments • Certified A/E studies to identify damage, determine the required scope of repairs and/or calculate cost estimate for repairing/rebuilding damaged infrastructure • Identification of hazard mitigation opportunities, preparing hazard mitigation proposals, and, if applicable, evaluating hazard mitigation proposals and A/E studies to identify hazard mitigation opportunities • Funding sources for these projects include FEMA Public Assistance, Hazard Mitigation Grant Programs and CDBG-DR. <p>State of New Jersey - Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Executive Manager: This \$600 million program will provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements. LiRo was part of the team selected to be the Lead RREM Contractor to manage the implementation and operation of the Program. We were responsible for completing and managing the preparation of program policies and procedures; identify allowable activities for HUD CDBG-DR compliance; monitoring; and management of the homebuilder prequalification process to create a pool of homebuilders available to the homeowners.</p> <p>New York City Rapid Repairs Program, Citywide, Executive Manager: The first of its kind, the \$604M Rapid Repairs Program is a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose properties were damaged by Sandy. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.</p> <p>Lower Manhattan Infrastructure Recovery Coordinator, Project Executive: After the events of 9/11 in New York, LiRo was assigned to the coordination of the extensive amount of electric, telecommunications, steam, gas and subway work that was being performed 24/7 in the vicinity of the WTC. LiRo's responsibility had been expanded since July 2002 to include the coordination of all infrastructure work in Manhattan below Canal Street. LiRo coordinated construction activities in the region with all utilities, public agencies and private owners. (NYCDDC, \$150M)</p> <p>New York City Housing Authority, CM/Build Requirements Contract, Project Principal: Under successive contracts, LiRo has been performing work on a task order basis for the largest public housing authority in North America since 2004. Properties of the New York City Housing Authority (NYCHA) total nearly 340 developments citywide with over 178,000 apartments. LiRo is providing CM/Build services for this \$280M construction program to rehabilitate and construct new facilities in the New York City region.</p> <p>Commissioner NYC Department of Design and Construction (NYCDDC): Mr. Tormenta was appointed by Mayor Rudolph W. Giuliani to create and manage the "super construction agency" with an annual operating budget of over \$86M and a capital budget in excess of \$3B, representing over 1,200 projects and 1,400 employees. He was charged with the delivery of New York City's buildings and infrastructure capital programs, including facilities for city government and public functions, roadways, sewers, water mains and schools. He was also responsible for developing the organizational structure and operating methodology for the agency.</p>
<p>Emergency Response Management, Executive Manager Under Mr. Tormenta's direction, LiRo has provided expertise in emergency management and reconstruction with consistent, effective, and immediate response. LiRo has performed assessments, estimates, temporary and permanent repairs for a wide range of city, state and county clients, for Hurricane Sandy and Hurricane Irene. Some clients are listed below.</p> <ul style="list-style-type: none"> • NYC Health and Hospitals Corporation • NYC Housing Authority • NYC School Construction Authority • Battery Park City Authority • Dormitory Authority - State of New York • NYC Economic Development Corporation • NYC Department of Parks & Recreation • Town of Oyster Bay • Nassau County • Suffolk County • NYS Department of Transportation 	<p>Sandy Response New York Rising Housing Recovery Program, Executive Manager: Senior Manager for the CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY on this CDBG-DR funded Sandy Housing Recovery Program, LiRo is assisting HCR in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days - in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.</p> <p>New York City Office of Management and Budget (OMB), Executive Manager: As part of the team coordinating the City's rebuilding efforts, LiRo is currently providing industry subject matter experts and specialists, project managers, engineers, architects and estimators. Our scope involves over 250 sites</p>

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
 Michael Burton, P.E., Senior Vice President and National Operations Manager

b. Project Assignment:
 Project Executive

c. Name of Firm with which associated:
 LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm 6 With Other Firms 23

e. Education: Degree(s)/Year/Specialization
 Ph.D./honoris causa/Manhattan College
 M.B.A./Fordham University
 B.S./Manhattan College

f. Active Registration: Year first Registered/Discipline
 1989/Professional Engineer, NY

g. Other Experience and Qualifications relevant to the proposed project:
 Mr. Burton is a recognized industry leader who has managed some of the nation's largest public and private capital program portfolios. He has served as Senior Vice President and National Operations Manager responsible for \$50B of design and construction work in aviation, bridge, highway, transit and infrastructure programs. As Executive Deputy Commissioner at the NYC Department of Design and Construction (DDC), he was responsible for the capital programs for the majority of New York City's agencies. At DDC, Mr. Burton was responsible for a capital construction portfolio of \$4.1B, consisting of over 900 building projects managed by 1,300 employees spanning the Giuliani and Bloomberg administrations. One of his significant public sector accomplishments was his management of the World Trade Center 9/11 Recovery, the largest peacetime mobilization of the design and construction industries in U.S. history, for which he received Engineering News-Record's Award of Excellence, the industry's highest award. The success of this effort was reflected in the City's receipt of 100% FEMA, CDBG and HUD reimbursement and their unprecedented decision of no final audit due to the diligent documentation undertaken by the City agencies. He is currently part of the LiRo team performing work for the New York Rising Housing Recovery Program for the NYS Homes and Community Renewal.

Mr. Burton's experience also includes numerous disaster and emergency response/recovery. In addition to his management of the World Trade Center 9/11 Recovery, he also led the Hurricane George response in the Dominican Republic while at DDC, as well as the remediation of structural damage at Yankee Stadium. For Hurricane Katrina, he directed a team for a national CM/PM firm that included recovery programs in Louisiana, Alabama, Mississippi, and Texas. For Hurricane Sandy, he was among the key advisors to NYCHA's Capital Planning Division in their initial response to assess and restore utilities to the most severely damaged developments and is also involved in the long-term Sandy recovery programs in New York and New Jersey funded by FEMA, HMGP, CDBG-DR and U.S. Army Corps of Engineers.

The LiRo Group, Senior Vice President and National Operations Manager: Responsible for high-profile projects on the East Coast and West Coast including serving as Project Executive for the New York Public Library's \$300M renovation and addition, CUNY Baruch College's \$170M Field Building renovation, and SUNY Stony Brook's \$250M New Medical and Translational Research Facility.

Sandy Response: Mr. Burton has been leading LiRo's post-Sandy recovery efforts for our public sector clients. As the local leader providing construction management and owner's representation on Sandy CDBG recovery programs in the New York Metropolitan area, we have been advising clients on compliance issues for HUD CDBG-DR that encompasses compliance with state and federal requirements as well as quality assurance functions for each program. The following are some of the largest federal and local recovery programs in the region.

New York Rising Housing Recovery Program: Senior Manager for the CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY on this CDBG-DR funded Sandy Housing Recovery Program, LiRo is assisting HCR in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days – in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

New York City Office of Management and Budget (OMB), Project Executive: LiRo is part of the team providing management, accounting and technical expertise to OMB in support of its strategic management of claims development and administration related to FEMA's Public Assistance program. To date, LiRo has prepared, reviewed, revised and negotiated FEMA project worksheets for over 430 sites impacted by Sandy, accounting for the expenditures related to Sandy response by City agencies recouping over hundreds of millions for the City.

State of New Jersey - Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Project Executive: LiRo was the subconsultant on this \$600 million program which will provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements.

New York City Rapid Repairs Program, Citywide, Project Executive: The first of its kind, the \$604M Rapid Repairs Program is a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose properties were damaged by Sandy. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.

Previous Experience

International Engineering and Construction Management Firm, Senior Vice President and National Operations Manager: Mr. Burton was responsible for the operations of a national 1,400-person construction division with a portfolio valued at more than \$50B of design and construction projects. Additionally, Mr. Burton managed the firm's New York engineering and architectural operations. Significant projects include: UCLA Westwood Replacement Hospital (\$1B), Harvard University Laboratory (\$1B), Harvard University Cultural Program (\$350M), McGill University Health Center (\$1.8B), Atlanta-Hartsfield Airport (\$6.7B), GSA Brooklyn Courthouse (\$750M), and Los Angeles Unified School District (\$1.5B).

Executive Deputy Commissioner, New York City Department of Design and Construction: Responsible for the day-to-day operations of agency that designs and builds the majority of New York City's public buildings, roads, water and sewer projects with annual budget exceeding \$1.1B in 2002. Managed a staff of 1,300 design and construction professionals who executed a portfolio of design and construction projects valued at over \$4.1B. Planned and implemented initiatives to execute Mayor Giuliani's mandate to create a more efficient capital construction program. Acted as project executive and on-site project manager for several high-profile emergency projects, including management of the World Trade Center Recovery, starting on 9/11 (\$550M). Other significant projects include: Mayor/City Council Schools Program (\$644M), Rikers Island Facilities (\$420M) and Safe Streets Program (\$177M). Infrastructure accomplishments resulted in 2,708 lane miles milled, 537 lane miles of roadway, 638 miles of water mains, 440 miles of reconstructed sewers, and 8,500 new sewer connections (\$1.6B).

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
 Brant Aidikoff, P.E., CCM, Vice President

b. Project Assignment:
 Project Manager

c. Name of Firm with which associated:
 LIRO Program and Construction Management, PE P.C.

d. Years experience: With This Firm 19 With Other Firms 16

e. Education: Degree(s)/Year/Specialization
 M.S./1976/Engineering
 B.S./1975/Engineering

f. Active Registration: Year first Registered/Discipline
 1996/Professional Engineer, NY
 2011/Professional Engineer, NJ

g. Other Experience and Qualifications relevant to the proposed project:
 As an engineer with more than 35 years of experience managing complex, large-scale programs including disaster recovery programs, Mr. Aidikoff is a recognized leader in the NYC construction management community. He is currently serving as a senior manager on the NY Rising Housing Program providing QA review of the program's processes and documentation to ensure CDBG-DR compliance; preparation for HUD visits and audits; and maximizing workflow and staffing efficiencies. His prior CDBG-DR recovery experience includes working for DDC in responding to the 9/11 World Trade Center attack where he was specifically requested by DDC to help in the \$700M infrastructure recovery and reconstruction efforts for the two years following the attacks. Based upon his performance working for DDC, Brant was then asked to serve as the Program Manager for the \$18B World Trade Center reconstruction effort for the Lower Manhattan Construction Command Center.

New York Rising Programs, QAI/QC - The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LIRO is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program is also part of this program.

- New York Rising Small Business Recovery Program
- Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.
- New York Rising Housing Recovery Program
- Executing a rapid mobilization plan, LIRO coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

Lower Manhattan Development Corporation, Lower Manhattan Construction Command Center, NY Program Coordinator-In October 2005, Mr. Aidikoff continued his role in Lower Manhattan as the Program Coordinator, leading the LIRO team, at the LMCCC. In addition to the weekly project status meetings that Mr. Aidikoff had been coordinating since 9/11, Mr. Aidikoff's responsibilities again expanded to include logistical coordination for both infrastructure and structures in Lower Manhattan. The LIRO team has developed state of the art program management tools that interface project schedules with geographical information systems so that construction impacts on roads and thoroughfares can be assessed. This was the first part of a massive logistical assessment that has analyzed steel, concrete, equipment and labor demand vs. supply in entire NYC metropolitan region. Meetings were held with City agencies and every major NYC construction

organization. Task forces were formed to deal with the logistical issues that had been identified as a part of the assessment process. (\$9 million)

Port Authority of New York & New Jersey, WTC Program Assessment, NY, Project Coordinator
 In June 2008, the Port Authority requested that LIRO facilitate an assessment of the schedule, budget and challenges for the World Trade Center construction program. Mr. Aidikoff led a team of both LIRO employees and subconsultants that worked with Port Authority and other stakeholders. The report identified the key challenges confronting the project and then risked the program schedule and budget. The report was provided to the executive director of the Port Authority and was the basis of a report provided to Governor Patterson in July 2008. (\$240,000)

New York City Department of Design & Construction, Lower Manhattan Infrastructure Recovery Coordinator, NY-After the events of 9/11, Mr. Aidikoff was tasked with the coordination of the intensive amount of electric, telecommunications, steam, gas and subway work that was happening around the clock in the vicinity of the World Trade Center. The responsibility was expanded after July 2002 to include all infrastructure work in Manhattan below Canal Street, involving two dozen projects going on simultaneously. Mr. Aidikoff held weekly meetings with the utilities companies, agencies and construction companies who had projects in the downtown area and later held an executive status meeting for city commissioners to provide an update of ongoing projects. (\$9 million)

New York City Department of Design & Construction, WTC Infrastructure Recovery Coordinator, NY-For this project, Mr. Aidikoff coordinated the infrastructure recovery of utilities throughout the WTC vicinity, including the reconstruction of West Street (Rector and Chambers) and Liberty (West and Liberty). After 9/11, Mr. Aidikoff also worked with NYCOEM in providing the Bank of New York with information concerning the utility reconstruction in the vicinity. Mr. Aidikoff focused on the Vesey Street alignment and the construction phasing for the WTC 7 vicinity, where a new Con Edison substation was built. Mr. Aidikoff held weekly meetings with the utilities companies, agencies and construction companies who had projects in the downtown area. In addition, he provided a weekly status report of infrastructure activities for city and FEMA personnel. This report provided a funding tracking chart that detailed the funding source for the city's sewer and water main projects in the downtown area.

New York City School Construction Authority - Contractor prequalification, contract preparation and review, Managed Special SCA audit of Projects. (\$237M)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Mark Howard</p>	<p>MDA and subrecipients. The programs delivered for the MDA include:</p> <ul style="list-style-type: none"> • Neighborhood Home Program, \$132M, 2010-2013 • Long-term Workforce Housing Program, \$350M, 2009-2010 • Alternative Housing Pilot Program, \$20M, 2009-2010 • Neighborhood Rental Restoration Project, \$107M, 2009-2010 • Small Rental Assistance Program, Rounds 1&2, \$104M, 2008-2010 <ul style="list-style-type: none"> • Elevation Grant Program, \$70M, 2008-2010
<p>b. Project Assignment: Deputy Project Manager</p>	<p>SETRPC Hurricane Ike Housing Recovery Program, Round 2, Southeast Texas</p> <p>Mr. Howard was the Deputy Program Manager for a \$190M single and multifamily CDBG-DR housing recovery program from Hurricane Ike. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1200 single and multifamily housing units. Key actions included the program design, outreach, applicant intake and eligibility, environmental review, construction plans and construction management of the program. Mr. Howard was the organizational lead for over 150 program and production staff managing the program.</p>
<p>c. Name of Firm with which associated: Carrera Management Group, LLC dba H2Bravo</p>	<p>LRGVC Hurricane Dolly Housing Recovery Program, Round 2, McAllen, Texas</p> <p>Mr. Howard was the Deputy Program Manager for a \$124M single and multifamily CDBG-DR housing recovery program from Hurricane Dolly. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1000 single and multifamily housing units. Mr. Howard took an active role in developing and analyzing high poverty areas known as <i>Colonias</i> to assist the low to moderate income residents with the program. Key actions included the outreach, applicant intake and eligibility, environmental review, construction plans and construction management of the program. Mr. Howard was the capture manager and organizational lead for over 150 program and production staff.</p>
<p>d. Years experience: With This Firm 3 With Other Firms 22</p>	<p>City of Galveston Hurricane Ike Housing Recovery Program, Round 1, Galveston, Texas</p> <p>Mr. Howard was the Deputy Program Manager for a \$167M single family CDBG-DR housing recovery program from Hurricane Ike. Mr. Howard developed key relationships with local advocates in the City to create a viable program in an environment that was adverse due to the languishing recovery timeline. Due to the sweeping reforms and actions taken by Mr. Howard and his team, the City's program was revitalized and put on a course for success. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1000 single housing units, many of which were take-over houses due to failed contractors. Key actions included the Assessment of the Program, Recovery Planning, outreach, applicant intake and eligibility, environmental review, construction plans and construction management of the program. Mr. Howard was the organizational lead for over 150 program and production staff.</p>
<p>e. Education: Degree(s)/Year/Specialization B.S./1991/Sociology</p>	<p>SETRPC Hurricane Ike Housing Recovery Program, Round 1, Southeast Texas</p> <p>Mr. Howard was the Deputy Program Manager for a \$195M single family CDBG-DR housing recovery program from Hurricane Ike. Mr. Howard was responsible for the overall strategic planning, operational development, client interface, staff supervision, and program production for over 1200 single and multifamily housing units. Key actions included the development of a construction management program that included contractor procurement, plans and specification development, inspections procedures, web based data management systems, staff training, contractor management, and overall production for the program. Mr. Howard was the organizational lead for the program and production staff, serving as the key leader and technical resource.</p>
<p>f. Active Registration: Year first Registered/Discipline</p>	<p>None</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>Mr. Howard is an accomplished, decisive, and knowledgeable program manager with extensive experience in the development, management, and implementation of HUD CDBG disaster recovery housing programs. He has managed housing programs valued at over \$1B for the State of Texas recovery after Hurricanes Ike (\$300M) and Dolly (\$700M) and the Katrina recovery. Mark helped design the program and has implemented the successful training programs for design professionals and contractors which greatly increased capacity and throughput. Locally he has been involved with NJ and NYS GOSR Housing programs. He also implemented the homeowner awareness public forums which greatly increased homeowner satisfaction and continues to promote homeowner understanding of the program as a senior manager working with the LIRO Homeowner Advisors who have answered more than 7,500 homeowner questions in the past year. In addition to a diverse background in construction and program management, Mr. Howard also brings organizational leadership capabilities from his 27 years of military service. He has held senior and executive level positions in government agencies and private sector firms.</p>
<p>New York Rising Programs, Program Advisor. The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LIRO is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program was recently launched and Mr. Howard was part of the team that developed and rolled out this program.</p>	<p>None</p>
<ul style="list-style-type: none"> • New York Rising Small Business Recovery Program 	<p>Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.</p>
<ul style="list-style-type: none"> • New York Rising Housing Recovery Program 	<p>Executed a rapid mobilization plan, LIRO coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days-in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.</p>
<p>Hurricane Katrina CDBG-DR Recovery Program, Mississippi Gulf Coast</p>	<p>Mr. Howard was the Capture Manager, Technical Lead, and Program Manager for the MDA Hurricane Katrina Housing Recovery Program, responsible for the policy development, organizational leadership, and delivery of program management and support services for numerous housing programs with over \$700M in HUD CDBG-DR funding from Hurricane Katrina. Mr. Howard led the overall development of the program management policy and processes, technical aspects of eligibility and National Environmental Policy Act (NEPA) processing, construction program development and management, and technical assistance to the</p>

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

properties were damaged by Sandy. Mr. Massa coordinated the deployment of LiRo's inspectors and home office resources to support the start-up team at two main field offices in the most impacted areas of New York City. The program is designed to leverage and maximize government and private resources to help these single- and multi-family homeowners hardest hit by the storm. A high-rise program was also included in this housing recovery effort.

Nassau County STEP Program, Emergency Response Coordinator. Designed and implemented by LiRo to assist Nassau County's efforts to return homeowners to their properties damaged by Superstorm Sandy, the innovative Sheltering and Temporary Essential Power (STEP) Program matched contractors with homeowners to assess the damages to their homes and make the necessary emergency/temporary repairs so that these households can have safe power, heat and hot water to shelter in place while performing permanent repairs. Mr. Massa coordinated the deployment of LiRo's inspectors and home office resources to support the start-up team and assisted with contract management of all the subcontractors.

NYC Housing Authority CM/Build Requirements Contract, Manager of Procurement/Subcontractor Services. Mr. Massa's responsibilities include managing the contractor prequalification process for NYCHA, over-seeing estimates, constructability review and schedule, Bid and Award, change order review and negotiation, preparing budgets, contracts and schedule management, RFP coordination, abatement coordination, construction oversight and closeout. Under this contract, LiRo is performing work on a task order basis. Currently, we are in the design or construction phases of roofing facade repair projects, boiler room upgrades and electrical system upgrades throughout New York City. These properties all require that LiRo perform pre-construction and construction phase services. LiRo is responsible for pre-qualifying prime contractors, bid administration for the projects and ultimately entering into contract with the lowest responsible prime contractor. (NYCHA, \$330M).

Dormitory Authority of the State of New York, HHC Emergency Power Generators, New York, NY, Assistant Project Manager. The scope of work for this contract consisted of demolition and reconstruction of outdated Emergency Power Systems at six hospital trauma centers and various other smaller hospital facilities located in the New York City area. The contract required LiRo to prepare cost estimates for the various types of work in the projects. Typical elements of work for these projects included: Emergency Generators, paralleling switchgear, remote radiators for generator cooling systems, power distribution panels, underground fuel oil storage systems and conduit & wire distribution to all associated equipment. (\$59 million)

NYC Economic Development Corporation, Yankee Stadium City Work, Manager of Procurement/Subcontractor Services. LiRo provided construction management services during the design and construction of the Yankee Stadium City Work Program. Major components of this program include a new waterfront park; two new ballfields; rehabilitation and renovation of a historic building to achieve LEED Gold certification; rehabilitation of the retaining wall and sidewalk widening near Yankee Stadium; and the installation of a new 20" water main and a 36" sewer main. The LiRo team was involved in coordinating the work for and under jurisdictions of multiple state and city agencies. Mr. Massa's responsibilities include managing the contractor prequalification process, preparing budget, contract and schedule management, close-out and construction start up coordination with LiRo staff and contractors. (\$85M)

Dormitory Authority of the State of New York Fiterman Hall, NY
This project consisted of deconstruction of Fiterman Hall, contractor prequalification, and review of Bids. (\$20 million)

a. Name & Title:

Joseph Massa, Vice President

b. Project Assignment:

Technical Advisor

c. Name of Firm with which associated:

LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm 10 With Other Firms 20

e. Education: Degree(s)/Year/Specialization

B.S./1983/Accounting

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Massa has extensive experience in CDBG housing programs, currently serving as the Master Construction Manager on the NY Rising Housing Program that serves single-and multi-family, co-ops and condos, and small business recovery. He has been involved in more than a billion dollars of housing programs, including serving as a senior manager on the Rapid Repairs Program. He is also LiRo's Vice President for Compliance and has managed LiRo's NYCHA contracts for the past decade, responsible for more than \$370 million of residential construction, as well as ensuring Section 3 compliance and maximizing utilization of D/L/M/WBEs. His experience with Sandy housing recovery and extensive project and contract management experience on multiple on-call contracts with the NYC Housing Authority will be an asset to this proposed team.

New York Rising Programs, Master Construction Manager. The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family program was recently launched and Mr. Massa was part of the team that developed and rolled out this program.

- **New York Rising Small Business Recovery Program**
Oversee damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.
- **New York Rising Housing Recovery Program**
Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days—in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

NYC Housing Authority, Hurricane Sandy Response, Emergency Response Coordinator. In the immediate aftermath of Hurricane Sandy, LiRo assisted NYCHA in its response to assess the 250+ buildings in 32 developments that experienced the worse damage from the storm – the Rockaways in Queens, Coney Island in Brooklyn, and Lower Manhattan. LiRo's senior management with 9/11 and Hurricane Katrina experience, drafted an action plan with NYCHA's Capital Program and within 24 hours, mobilized New York City's largest electrical and mechanical contractors to participate in this joint Utility Restoration Assessment effort.

NYC Rapid Repairs Program, Emergency Response Coordinator. Part of LiRo's contract for the \$550M Rapid Repairs Program, a partnership between the Federal Emergency Management Agency (FEMA) and the City of New York to restore temporary power, heat, and hot water to individual homeowners whose

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
 Chad Herndon, Program Manager

b. Project Assignment:
 Lead Construction Manager

c. Name of Firm with which associated:
 Carrera Management Group, LLC dba H2Bravo

d. Years experience: With This Firm 2 With Other Firms 20

e. Education: Degree(s)/Year/Specialization
 BBA/1995/Marketing

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Herndon is a Program Manager and has served in this capacity for infrastructure, HUD CDBG funded Programs and FEMA Public Assistance projects for the last 10 years. He is a housing recovery expert who has served in numerous roles working on over 8,000 homes for Hurricane Ike, Rita and Katrina in Texas and Mississippi. In addition, as construction manager on the NY Rising Program he helped develop the Program's standards and specifications, the 15,000 damage assessment program and the construction inspection program. Most recently he managed the closeout program for NY Rising. His dedication to his projects and leadership style is cultivated from more than 24 years of service as an Army Engineer Officer, bringing organizational management skills and the ability to form and train groups of people into production oriented teams. Mr. Herndon has managed numerous federal and state infrastructure construction projects from design through construction, and specializes in program management of HUD CDBG funded programs. He ensures that all of the aspects of the project plan are executed and that progress and compliance are properly, addressed, and communicated.

Project Manager, South East Texas Regional Planning Commission, Hurricane Ike Housing Recovery Program Round 1 - Developed the overall design and construction program for 567 single family projects across 26 communities in three southeast Texas counties. The program management process included developing a project approach that included professional services to design and deliver the individual projects in an efficient manner with a focus on cost, schedule, and quality. Led a multi-disciplined team of planners, architects, construction managers, and finance specialists to deliver the program, complying with HUD, TDHCA, and local procurement requirements. His organizational management capability proved valuable as the program required the coordination and negotiation with numerous communities, stakeholders, and state level oversight agencies to comply with building code, windstorm, accessibility, and health code requirements. To date, the program delivered more than 200 of the most cost efficient, professionally designed, sustainable housing projects ever built under a post disaster CDBG housing program.

Lead Planner, Construction Management (CM) Planner, MDA, Neighborhood Home Program
 - Developed the overall program design for pre-construction and construction management of the

\$132M CDBG-funded program. Developed the process and protocols for the assessment, scope development and cost estimation for the rehabilitation of more than 8,000 single-family housing units damaged by Hurricane Katrina. Led a multi-disciplined team of planners, construction managers, inspectors, and cost estimator to develop and deliver the program, complying with HUD, MDA, and local code requirements. His organizational management capability proved valuable as the program required the coordination and negotiation with numerous communities, across a nine-county area.

State of New York, New York Rising Housing Recovery Program Technical Advisor Services - Work as a consultant to the Master Construction Manager for the State-lead, HUD CDBG-DR Grant funded Housing Recovery Program. Have provided assistance with the design and implementation of all aspects of damage assessment, scope of work development, pricing and design for repair and reconstruction of single family housing projects. Develop policies, procedures, forms, documents, training materials and presentations for supported elements of the program design. Lead all outreach efforts to enlist Design Professionals and General Contractors for the program. Develop and present all training materials for information meetings and workshops. Assist with HUD Policy interpretation and compliance measures for the Construction Administration portion of the Program Design. Developed Housing Minimum Design Standards for Repair and Reconstruction projects that are funded with program dollars.

New Jersey Reconstruct, Rehabilitate, Elevate and Mitigation (RREM) Program Policy Design and Planning - Worked with the State of New Jersey Division of Community Affairs to assist with the early program design and implementation of the HUD CDBG-DR funded Housing Recovery Program. Specific areas of focus included protocols for initial damage assessments, environmental assessments, scope of repair work identification and pricing and supporting policies, procedures and forms. Also developed and presented pre-qualified construction contractor program training materials. Was responsible for leading the programmatic design and implementation of composite pricing for over 100 standardized home designs. Led the design team through the development of Minimum Housing Design Standards for Rehabilitation and Reconstruction for the program.

New York City Build It Back Program Programmatic Planning & Design and Policy Development - Worked with Housing Recovery Office staff to assist with the initial program design of the HUD CDBG-DR Grant funded Single Family Housing Recovery program. This included the development of preliminary Minimum Housing Repair Design Standards and Specifications, procedures for initial damage assessments, development of construction scopes of work, construction progress inspections and all other construction administration program functions. Continue to provide Technical Assistance as required for Design and Construction Administration related issues.

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
Joanna M. Pestka, FAIA

b. Project Assignment:
Lead Design Manager

c. Name of Firm with which associated:
LiRo Program and Construction Management, PE PC

d. Years experience: With This Firm N/A With Other Firms 39

e. Education: Degree(s)/Year/Specialization
M.A./Architecture

f. Active Registration: Year first Registered/Discipline
Registered Architect, NY

g. Other Experience and Qualifications relevant to the proposed project:
Ms. Pestka is a registered architect with nearly 40 years of experience. She is an award-winning design manager and National Fellow of the American Institute of Architects. She has extensive experience managing multiple capital project profiles for major clients, and equally important, she has for the last 20 years managed portfolios of projects that in aggregate exceed more than a thousand projects valued at over a billion dollars. Ms. Pestka has been responsible for managing the design process for many critical projects. Her achievements are familiar to DDC, where she served an Assistant Commissioner for the Libraries, Transportation and Cultural program units with a portfolio of 250 projects valued at \$300M.

The New York Public Library [NYPL] Capital Planning and Construction, New York, NY, Vice President for Capital Planning and Construction
Ms. Pestka managed a capital project portfolio of over 150 projects [\$300M] for 92 Research and Branch Libraries, working with a professional staff of 10. She oversaw the implementation of design and construction from initiation to project completion and occupancy, defined programmatic and physical building needs, and developed implementation strategies for funded projects. Ms. Pestka reported to the Real Estate Committee on critical projects progress and funding, and ensured alignment of capital planning with the library strategic plan. She worked closely with the Department of Design and Construction [DDC] on city funded projects and pass-throughs. She led the design process of all critical projects and thoroughly monitored their completion schedules and adherence to the budget. Ms. Pestka also oversaw and directed in-house design and construction of all privately funded projects. Major completed projects included: the SASB Facade Restoration [\$50M], a new Library Services Center [\$50M], Bronx Library Center [\$46M], and numerous library rehabilitation and new construction projects.

NYC Department of Design + Construction [DDC] Structures Division - Long Island City, NY, Assistant Commissioner
Ms. Pestka managed a \$300 million portfolio of over 250 Capital Projects in design and construction for Cultural Institutions and Libraries. She supervised professional staff of about 100 and provided guidance to Program Directors and participated in development of policies and procedures for the Division of Structures. Ms. Pestka served as an agency liaison with the Department of Cultural Affairs and maintained strong and effective relationship with client and regulatory agencies. She developed and implemented effective strategies in management of design and construction projects and realization of clients' goals. She ensured timely implementation of the Commitment Plan and project delivery, and served as a voting member on the Executive Consultant Selection Committee. Ms. Pestka prepared presentations and reports to Commissioners, client agencies and City officials. She represented the agency before government agencies having jurisdiction, the community and the private sector. The major projects that Ms. Pestka managed and oversight included: New Flushing Library [\$24M] by Polshek; Expansion of the Studio Museum of Harlem [\$8M] by Rogers/Marvej; Brooklyn Museum Entry Pavilion and Plaza [\$12M] by Polshek; Reconstruction of Haupt Conservatory [\$12M] by Beyer Blinder Belle; Expansion of the New York Hall of Science [\$25M] by Polshek; PS1 Museum: Contemporary Art Center/MoMa [\$8M] by Fisher/Prendergast; and American Museum of Natural History Rose Center for Earth and Space by Polshek.

NYC Department of General Services [DGS] Bureau of Building Desig, New York, NY Deputy Assistant Commissioner
Ms. Pestka managed a 300 Capital Project portfolio for cultural institutions, libraries and transportation units valued at over \$500 million in construction cost. She provided guidance to Program Directors in management strategies and implementation of the Commitment Plan. Ms. Pestka monitored progress of design and construction projects, and advised senior management of staffing and resources needs. She served as a voting member on the Executive Consultant Selection Committee, and prepared presentations and reports to Commissioners, client agencies and City officials. Ms. Pestka represented the agency before government agencies, the community and the private sector.

Program Director- Ms. Pestka directed and managed the Cultural Institutions Program of over 120 Capital Projects and \$150 million budget for the primary client; the Department of Cultural Affairs. She evaluated client agency needs and advised in formulation of long-term goals and appropriate implementation strategies. Supervised development and administration of pass-through contracts for Cultural Institutions. Ms. Pestka managed design and construction delivery, advised and informed the Commissioner on progress and status of the Cultural Institutions program. She also coordinated funding needs and approvals for all projects with the Office of Management and Budget.

The City University of New York [CUNY] Department of Design Construction and Management- New York, NY, Director
Ms. Pestka managed a billion dollar capital program of over 300 design and construction projects for 19 CUNY campuses, including major new construction as well as rehabilitation of existing facilities. She developed policies and procedures for the Department, and supervised a staff of 20 professionals (architects, engineers and contract officers). She reviewed and confirmed facility programmatic requirements and managed development of master plans in close cooperation with college representatives. Ms. Pestka managed and ensured progress of design and construction projects, monitored cost control, and advised in problem solving. She oversaw procurement of professional and contracting services, and worked closely with the Dormitory Authority on implementation of construction work, schedules and budgets. Ms. Pestka advised the Vice Chancellor and Chancellor on the Department's work and prepared presentations for review and approval of the Board of Trustees, State and City officials. She also oversaw major new construction projects, including: Baruch College Vertical Campus [\$354M] by KPF; West Quad Building at Brooklyn College [\$137M] by Viñoly;

Assistant Program Director- Ms. Pestka assisted the Program Director in managing the Health and Cultural Institutions Units. She oversaw development of project programs, budgets and schedules, in coordination with client. She also developed contracts, participated in consultant selection, managed design process, contractor bidding and construction monitoring. Ms. Pestka assisted the Program Directors in training of project managers, and worked closely with staff advising in managing capital construction projects and problem solving.

Project Manager- Ms. Pestka managed design development and construction documents for capital construction projects in various public buildings. She worked with client agencies and managed review team of architects and engineers on numerous rehabilitation projects, from programming to occupancy.

Academic Building at Medgar Evers College [\$235M] by Polshek; and John Jay College [\$587M] by SOM; Major rehabilitation projects included: City College Shepard Hall [110M] by Stein; Powdermaker Hall at Queens College [\$65M] by Mitchell/ Giurgola; and School of Architecture at the City College [\$86M] by Viñoly.

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Thomas Anderson, P.E., RA, Senior Project Manager</p> <p>b. Project Assignment: Deputy Project Manager, Design</p> <p>c. Name of Firm with which associated: LiRo Program and Construction Management, PE P.C.</p> <p>d. Years experience: With This Firm 1 With Other Firms 35</p> <p>e. Education: Degree(s)/Year/Specialization B.Arch/1979/Architecture B.S./1973/Civil Engineering</p> <p>f. Active Registration: Year first Registered/Discipline 2000/Professional Engineer, NY 1984/Registered Architect, NY 2002/Registered Architect, PA 2001/ Registered Architect, DC 2014/Registered Architect, CT</p>	<p>within existing and historic buildings. Mr. Anderson also oversaw the reconfiguration of a central building core, and lobby and circulation spaces, as well as HVAC upgrades.</p> <p>Columbia University, Architectural/Engineering On-Call Contract, NY, Principal-in-Charge - Responsible for management of an architectural/engineering on-call contract with Columbia University in Manhattan. Mr. Anderson oversaw the condition assessment, a feasibility study, and design of renovations to Prentiss Hall. He also provided oversight for a condition assessment and study for the upgrade and retrofit of Hogan Hall and Plant and Scrymser Pavilions, design of the gut rehabilitation of graduate student housing; design and construction phase services for Baker Field Tennis Center, design review for Lenfest Hall, and scope and condition assessment for a new facility on the Manhattanville Campus.</p> <p>New York City School Construction Authority, CIP Task-Order Services, NY, Principal-in-Charge- Oversaw five consecutive task-order contracts, with services including pre-design, design development, construction documents, and construction phase services, for the New York City School Construction Authority (NYCSCA) Capital Improvement Plan (CIP). Mr. Anderson managed projects ranging from \$750,000 to \$35 million in construction cost. Projects included building conversions, façade replacement, and classroom and building upgrades.</p> <p>MTA - Long Island Rail Road, Penn Station Vision Study, NY, Co-Principal-in-Charge - Provided design and management oversight to the project team to provide concept designs to re-organize multiple levels and passageways of the existing LIRR waiting areas and track access to bring light and direct access from the street to the platform levels. This complicated study identified the existing platform alignments as the given departure point and completely re-oriented the waiting and access to the platforms to make them intuitively directional for the passengers.</p> <p>New York City Department of Design & Construction, Queens Museum of Art Expansion, NY, Principal-in-Charge - Directed architectural design of a 137,000 sf New York City Department of Design and Construction (NYCDDC) project to double the exhibition space of the Queens Museum of Art in Corona, New York. The expansion gave the museum more visibility, and new gallery space improved educational functionality. The new space also includes a large public assembly area.</p> <p>New York City School Construction Authority, Net-Zero Energy School Competition, NY, Principal-in-Charge - Managed the design process to produce a net-zero design for the NYCSCA. The primary school, in Staten Island, New York was to serve as a prototype for future sustainable schools in the city. Net-zero facilities produce as much energy as they consume.</p> <p>Port Authority of New York & New Jersey, 42nd Street Bus Terminal Condition Inspection and Renovation, NY, Principal-in-Charge - Oversaw the structural inspection and remedial design of columns, beams, and slabs for the 42nd Street Bus Terminal on the west side of Manhattan as part of a \$1 million on-call contract with the Port Authority of New York and New Jersey (PANYNJ). The terminal covers two full city blocks and is 10 stories in total, including three below-grade levels. The inspection included analysis of the North and South wings' steel-framed, cast-in-place concrete structural systems.</p> <p>MTA - Metropolitan Transportation Authority, Smith and Ninth Street Station Upgrades, NY, Co-Principal-in-Charge - Managed architectural and engineering design of station upgrades to an 80-year-old elevated subway station. Mr. Anderson coordinated the design team and supervised the completion of concept through construction documents to rebuild the Metropolitan Transportation Authority station spanning the Gowanus Canal in Brooklyn, New York.</p> <p>United States Army Corps of Engineers, United States Military Academy New Cadet Barracks, NY, Principal-in-Charge - Leading the planning for this 286,000 sf new barracks building at the United States Military Academy in West Point, New York. The \$200 million project for the U.S. Army Corps of Engineers (USACE) will house 650 cadets.</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Anderson is an architect and engineer with more than 35 years of experience directing the design and construction of residential, government, commercial, educational, and aviation facilities in the United States and abroad. He has extensive CDBG housing experience and is part of the NY Rising Sandy Housing Program as a Team Leader. He has also helped launch CDBG-DR Small Business and Multi-Family/Rental programs. A leader in both the architectural and engineering disciplines, he was selected as an expert in architecture and urban design by the United Nations, and has since supervised urban design for new towns and a capital city. With his unique multidisciplinary background, Mr. Anderson is skilled at effectively integrating diverse design teams and leading challenging projects to successful completion. He has provided executive oversight for a variety of large-scale projects including the design and construction of major adaptive reuse facilities; multimillion-dollar task-order contracts; and fast-track design-builds for high-security facilities, including blast-resistant design. Mr. Anderson taught Graduate Architecture and Urban Design courses for seven years and is currently writing a book on bridge design.</p> <p>New York Rising Programs, Team Leader - The CDBG-DR funded small business and housing recovery programs is administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family/co-ops and condos program is also being developed as part of this program.</p> <p>• New York Rising Housing Recovery Program – Team Leader Mr. Anderson was a Team Leader executing a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days – in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.</p> <p>• New York Rising Small Business Recovery Program – Project Manager Mr. Anderson oversees damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.</p>	<p>New York State Office of General Services, Architectural/Engineering Services Term Contract, NY, Principal-in-Charge - Supervised the design of elevator upgrades for the New York State Office of General Services (NYSOGS) as part of an architectural/engineering services term contract. A significant portion of the upgrades focused on accommodating Americans with Disabilities Act (ADA) guidelines for larger elevator cabs</p>

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
Faisal Choudhury, PE

b. Project Assignment:
Homeowner Advisors/Call Center Manager

c. Name of Firm with which associated:
LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm 3 With Other Firms 25

e. Education: Degree(s)/Year/Specialization
BS/1998/Mechanical Engineering

f. Active Registration: Year first Registered/Discipline
1998/Professional Engineer

g. Other Experience and Qualifications relevant to the proposed project:
Mr. Anderson is an architect and engineer with more than 35 years of experience directing the design and construction of residential, government, commercial, educational, and aviation facilities in the United States and abroad. He has extensive CDBG housing experience and is part of the NY Rising Sandy Housing Program as a Team Leader. He has also helped launch CDBG-DR Small Business and Multi-Family/Rental programs. A leader in both the architectural and engineering disciplines, he was selected as an expert in architecture and urban design by the United Nations, and has since supervised urban design for new towns and a capital city. With his unique multidisciplinary background, Mr. Anderson is skilled at effectively integrating diverse design teams and leading challenging projects to successful completion. He has provided executive oversight for a variety of large-scale projects including the design and construction of major adaptive reuse facilities; multimillion-dollar task-order contracts; and fast-track design-builds for high-security facilities, including blast-resistant design. Mr. Anderson taught Graduate Architecture and Urban Design courses for seven years and is currently writing a book on bridge design.

New York City Department of Environmental Protection, New York City Rapid Repairs Program, Citywide, NY, Project Manager - LiRo performed construction management and quality assurance/quality control for over 50% of this program to restore power and heat to a projected 40,000 homes. As the program evolved, it was divided into three divisions: Single Family Homes, High-Rise/Multi-Tenant Buildings, and a "Hot Spot" List of properties with special needs. With initial responsibilities to supervise six contractors and provide monitoring and inspection, quality assurance/quality control, and project controls for compliance with FEMA requirements for reimbursement, LiRo's operations grew to include providing customer service representatives, closeout inspectors, and data management and the number of contractors had increased to 10 for expanded work at properties in Broad Channel. LiRo's team was comprised of 102 personnel, with daily functions that included coordination of appointments, Right of Entry, registering new applicants to the program, and technical support. Extensive records management/photo documentation was integral to our operation for payment as well as the maintenance of a database for future FEMA audits. Many of the standard forms for documentation utilized by the RRP were formulated by LiRo.

Dormitory Authority of the State of New York, Recreate New York Smart Home Program, NY, Project Manager - LiRo is providing Master Construction Management services on the first phase of this housing recovery effort. Working with DASNY, the New York State Office Home and Community Renewal (HCR), and the State's Executive Office, LiRo is coordinating the efforts of three construction management firms to complete home assessments for over 5,000 residences in Nassau and Suffolk Counties in Long Island and upstate communities affected by Sandy, Hurricane Irene and Tropical Storm Lee. When the initial assessments are completed, the next phase of the program that includes reconstruction, rehabilitation and elevation to all eligible residences, is estimated to be at \$787 million. LiRo is also assisting in developing the guidelines and

standards of this next phase including addressing compliance and monitoring activities. (\$20 million)

New York City Housing Authority, Multi Site Boiler Replacement, NY, Project Manager - As part of an on-call requirements contract for NYCHA, LiRo provided construction management for boiler replacements at multiple locations.

New York City Housing Authority, Emergency Services, NY, Project Manager - LiRo's extensive portfolio of New York City agency work over the last two decades perfectly matches the NYC agencies that were most damaged by Hurricane Sandy including public housing, city hospitals, schools, parks, and other agencies. The true testament of the trust that our public sector clients have placed in our abilities was reflected in the more than dozen calls we received from various agencies to assist them with the Sandy emergency response. Some examples are below.

New York City Housing Authority (NYCHA) Utility Restoration Assessment - In the immediate aftermath of Superstorm Sandy, LiRo guided NYCHA in its response to assess the 200+ buildings in 32 developments that experienced the worse damage from the storm -- the Rockaways in Queens, Coney Island in Brooklyn, and Lower Manhattan. Utilizing lessons learned from 9/11 and Hurricane Katrina, an action plan was drafted with NYCHA's Capital Program and within 24 hours, mobilized New York City's largest electrical and mechanical contractors to participate in this joint utility restoration assessment effort. The team was successful in restoring heat and power to 100,000 residents in less than two weeks. The team also advised NYCHA of the level of documentation required for FEMA reimbursements and assisted the agency in setting up their filing system as the program transitions from emergency/temporary work to permanent repairs.

New York City Housing Authority (NYCHA) - Superstorm Sandy Permanent Work - LiRo is currently assisting NYCHA with its efforts to restore/improve utility rooms damaged by Superstorm Sandy. The assignment at five properties in Manhattan involves 41 buildings at high-rise building complexes. LiRo's architectural practice is working with our Mechanical/Electrical/Plumbing Team to evaluate and formulate the best approach to rebuilding these facilities including providing NYCHA with hazard mitigation proposals.

New York City Department of Design & Construction, Structure Division, Police Unit, NY, Project Director/Project Manager - Mr. Choudhury was responsible for the management of the design and construction of capital projects police facilities. He managed the progress of work performed by Consultants, Construction Managers, and Project Managers and provided approvals and enforcement of the Architects' Bulletins required due to re-design, scope changes, field conditions, etc. during the course of the projects. As part of this portfolio, he managed 15 mechanical projects including boiler plants, chiller plants, mechanical equipment rooms, cooling towers, air handlers, chemical feed systems and pump stations.

New York City Department of Design & Construction, Structures Division, Corrections Unit, NY, Deputy Program Director - Mr. Choudhury was responsible for the management of new and renovation projects for correctional facilities. The scope of work for these projects are typically design and construction involving heating, ventilating and air conditioning, plumbing, and electrical work. He was involved with the close coordination of work by the consultants, contractors, client agencies, Project Directors, and Project Managers. Other tasks included management of the completion of projects in accordance with court ordered/court mandated deadlines, which included interim milestones; updates and briefing of the Program Director, Assistant Commissioner on all aspects of the projects; and evaluation of the performance of Project Directors, Project Managers, Construction Managers, Design Consultants, and contractors.

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Michael Dorris, Sr., CPA, Project Manager</p>	<p>contractors, subconsultants and case management staff.</p>
<p>b. Project Assignment: Project Controls Manager</p>	<p>Mr. Dorris is also working with Residential Experts to resolve scope clarifications, scope changes and final site visits/closeouts. His experience on past disaster recovery programs is an asset in bringing lessons learned from issues related to construction as well as key items that will contribute to a close out process that will be timely and in compliance with CDBG-DR requirements.</p>
<p>c. Name of Firm with which associated: LiRo Program and Construction Management, PE P.C.</p>	<p>New York City Build it Back Housing Recovery Program, New York Mr. Dorris worked as a subconsultant to URS to move applicants in repair, repair with elevation, and rebuild pathways through the system to construction. Mr Dorris worked with Housing Recovery Center managers to streamline the applicant process at the center, and coordinated priorities from the client with the field operations to assist applicants in their application process.</p>
<p>d. Years experience: With This Firm 1_ With Other Firms 20</p>	<p>New Jersey Department of Community Affairs, Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Trenton, New Jersey Serving as Production Manager, Mr. Dorris was part of the RREM team providing program management, implementation and operation for the \$650M program that provides eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy.</p>
<p>e. Education: Degree(s)/Year/Specialization B.S./Accounting</p>	<p>National Disaster Recovery Firm, New Orleans, Louisiana Mr. Dorris supervised all phases of grants management and contract management for a \$1B FEMA grant to St. Bernard Parish Government. He reviewed all billings for work contracted under this federal grant. The review was for compliance and reimbursement eligibility. Mr. Dorris managed all requests for reimbursement from the Governor's Office of Homeland Security and Emergency Preparedness. He worked closely with Project Managers to ensure eligibility and proper scope alignment as the projects progressed. Mr. Dorris reconciled each project as it was completed to ensure full reimbursement of all eligible funding. As projects were reconciled, worked closely with a closeout team to begin final/closeout with FEMA and the State.</p>
<p>f. Active Registration: Year first Registered/Discipline</p>	<p>Environmental and Infrastructure Firm, Baton Rouge, Louisiana Mr. Dorris worked on budget and scheduling for various projects, with extensive time on cost analysis. Mr. Dorris completed work on both federal and local government projects with revenues up to \$90M. In addition, he managed three levee projects under the jurisdiction of the U.S. Army Corps of Engineers and worked on hazardous mitigation projects for seven parishes to assist residents affected by Hurricane Katrina and Rita.</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>Environmental and Infrastructure Firm, Field Services Office, Louisiana Mr. Dorris supervised operations of all disposal sites for St. Tammany Parish debris removal contract resulting from Hurricane Katrina. He supervised 20-25 field monitors, 3 crew leaders, and 4 supervisors in daily debris removal/contract. He was responsible for final completion of all tickets resulting from debris removal operations. M. Dorris was instrumental in developing procedures for control of all data needed for billing and FEMA reimbursement. He also supervised removal of over 5,000 hazardous stumps from the Parish right of way. All tasks were completed long before the client anticipated deadline. Mr. Dorris also played a key role in scheduling and supervising the work to meet all FEMA guidelines to ensure 100% reimbursement.</p>
<p>h. Other Experience and Qualifications relevant to the proposed project:</p>	<p>New York Rising Housing Recovery Program, New York State The CDBG-DR funded housing and small business recovery programs is administered by the Governor's Office of Storm Recovery (GOSR) and contracted through the Dormitory Authority of the State of New York (DASNY). Serving as the prime consultant under contract with DASNY, LiRo is assisting GOSR in implementing this accelerated housing recovery and small business program. The Multi-Family/Rental Program is also being incorporated under this program. To date, over \$340M has been disbursed to homeowners.</p>
<p>i. Other Experience and Qualifications relevant to the proposed project:</p>	<p>New York Rising Housing Recovery Program - Executing a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 5,600 inspections in 30 days - in time for GOSR to issue award letters to registered homeowners by the first Sandy anniversary. The program is currently serving more than 19,000 applicants.</p>
<p>j. Other Experience and Qualifications relevant to the proposed project:</p>	<p>New York Rising Small Business Recovery Program - LiRo is performing damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants, infrastructure capital programs, including facilities for city government and public functions, roadways, sewers, water mains and schools. He was also responsible for developing the organizational structure and operating methodology for the agency.</p>
<p>k. Other Experience and Qualifications relevant to the proposed project:</p>	<p>As Deputy Program Manager, Mr. Dorris is working closely with the Master Construction Manager/Program Manager to assist GOSR with program policy, ongoing development and implementation of standardized procedures, deployment of staff to meet program priorities, management of subconsultants and invoice preparation and review. Other tasks have included preparation of subrecipient agreements and training of</p>

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Alessandra M. Sumowicz, Esq.</p>	<p>monthly requisitions; negotiated all change orders; prepared and reviewed all submittals to HUD and DASNY for payments. She was responsible for reporting on each capital project, budget, schedule and hospital facility maintenance progress each month to the President and the Board of Trustees. She performed daily on-site supervision of all construction sites to assure construction schedules were maintained and Hospital functions were not disrupted. She strictly enforced the GCs adherence to all "standards," such as OSHA, JACHO, DEC, Fire Safety, Environmental Safety and other measures to ensure compliance with such matters as: cleanliness, filtration, ventilation, safety precautions and all other protocols established for the protection of the patients and staff. Along with a safety officer who did daily rounds and reported to Ms. Sumowicz, she monitored and inspected safety and compliance with all rules and regulations from the City, State and Federal levels. She was also responsible for the Hospital's Facilities and Engineering Department requiring the oversight of 90 in-house, union workers, numerous facilities both on and off campus, biomed, PMs, etc. requiring a great deal of code compliance and risk assessment. She instituted and implemented a process and procedure for a full hospital shutdown, involving the cooperation of every department in the hospital - a complex process to establish in a functioning Level 1 Trauma Center. She successfully completed numerous regulatory inspections for compliance in all areas of the Hospital and its' satellite facilities, including overall reaccreditation with JACHO (SDOH, EPA, OSHA). Ms. Sumowicz was responsible for managing the Hospital's real estate portfolio, and handling the sale of a large portion of said properties.</p>
<p>b. Project Assignment: Procurement</p>	<p>City of New York, Various Positions During Mayor Rudolf Giuliani's Two Terms Office of the Mayor, Director, Office of Environmental Coordination</p> <p>Ms. Sumowicz was contacted by City Hall to manage the Office that coordinated all environmental review activities for NYC and advised NYC agencies on all substantive and procedural environmental review matters. She represented NYC in projects involving City, State and Federal environmental reviews and requirements. She coordinated NYC's brownfields and superfund redevelopment efforts and administered EPA brownfields redevelopment grant involved with review of new brownfield legislation. Ms. Sumowicz served as liaison between Mayor's Office and NYC Department of Environmental Protection, and coordinated and issued the timely update of the City Environmental Quality Review Technical Manual, 2nd Ed. Ms. Sumowicz advised the Mayor of the City of New York on environmental policy and energy related matters. She also promoted the implementation of sustainable development and renewable energy technologies.</p>
<p>c. Name of Firm with which associated: Consultant</p>	<p>Dept. of Environmental Protection, Bureau of Legal Affairs, Assistant Counsel</p> <p>Ms. Sumowicz represented the City of New York in compliance negotiations with State and Federal compliance agencies in a variety of environmental areas. She managed the Consent Degrees entered into by the NYC and the Federal and State Governments regulatory agencies regarding any non-compliant sewage treatment plant serving NYC to assure secondary treatment. She was directly involved with all schematic, design and construction job meetings regarding the renovation and redesign of the Newtown Creek Sewage Treatment Plant and the construction/reconstruction required to bring Newtown Creek up to secondary treatment. She was involved with the construction of Newtown Creek's renovation and upgrade. Ms. Sumowicz coordinated and wrote DEP's comments and positions on proposed State and Federal environmental rules and regulations. Ms. Sumowicz developed and implemented enforcement procedures for new environmental laws, regulations and policies. She drafted and negotiated water supply agreements, procurement contracts, consent decrees and other agreements.</p>
<p>d. Years experience: With This Firm 3 With Other Firms 17</p>	<p>Dept. of Citywide Administrative Services, Division of Real Estate Services, Executive Director of Strategic Planning, Project Manager, Special Negotiator and Strategic Planner</p> <p>Ms. Sumowicz represented New York City in negotiations for the acquisition and leasing of commercial real estate for City Agencies' needs, and evaluated City agencies' leased and owned real estate portfolios. She managed large-scale real estate initiatives.</p>
<p>e. Education: Degree(s)/Year/Specialization J.D./1993/Law B.A./1990/English</p>	<p>Freelance Arbitrator/Mediator, Little Neck, New York</p> <p>Currently practicing law in the fields of construction, real estate and environmental issues. - Trained in Alternative Dispute Resolution; Arbitrate and Mediate complex construction cases. - Real estate closings of commercial and residential properties.</p>
<p>f. Active Registration: Year first Registered/Discipline</p>	<p>Hofstra University, Hempstead, New York, Director of Campus Planning, Design and Construction</p> <p>Ms. Sumowicz managed all major capital construction projects for the University from inception of a concept through one year after substantial completion. The initial steps included: drafting RFP for Architect selection process; contract drafting and negotiating; budget projections; schedule development; funding approval, all phases of design; incorporation of all involved parties, especially end users in design process; and management of expectations. She reviewed construction drawings for coordination purposes, drafted bid documents for General Contractor's (GC) lump sum bids, handled all aspects of bidding process, evaluation and analysis in GC selection or any necessary consultant; drafted and negotiated each contract with GC and consultants. Ms. Sumowicz was responsible for overall on-site construction oversight, schedule maintenance. She oversaw GC's everyday progress, work force, work quality, site safety and risk assessment, with on-site decision-making authority; attended job meetings; managed capital budgets daily; negotiated change orders, managed controlled inspections and assured compliance with drawings and specification. She was the liaison with regulatory agencies to discuss project drawings, schedules, acquire permits, inspections, approvals, final sign off, road closures and temporary and final Certificates of Occupancy or Completion, variances and other necessary approvals. Ms. Sumowicz negotiated and managed union issues on a regular basis.</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>St. Barnabas Hospital, Bronx, New York Assistant Vice President for Capital Projects and Director of Engineering and Facility Management</p> <p>St. Barnabas Hospital is a Level 1 Regional Trauma Center and teaching hospital with 458 acute care beds, a Nursing Home, over a million square feet of campus and variety of buildings, with both on and off-site satellite facilities. Ms. Sumowicz managed and coordinated over \$150 million dollars worth of capital construction projects, including but not limited to: a new four-story addition, (including 5 brand new state-of-the-art operating rooms); a pedestrian bridge over Third Avenue connecting to the hospital's two ambulatory care facilities directly across the Avenue from each other; expanded the Emergency Department and Pediatric Emergency Department and waiting areas (while in full-operation); installed two state-of-the-art Cardiac Catheterization Suites; MRI Suites; an Interventional Radiology Suite; parking facilities; a Hemo-Dialysis Center; a campus-wide infrastructure upgrade; as well as build-out of all collateral swing space necessary to accommodate the domino effect of relocation departments for the new construction.</p> <p>She also managed the financial and budgetary aspects of the construction projects from Federally funded (DASNY) mortgages with HUD oversight, grants and donations; reviewed and approved General Contractor's</p>

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
Robert Baptiste, Hiring Plan Manager

b. Project Assignment:
Hiring Plan Manager

c. Name of Firm with which associated:
Lalande Baptiste LLC

d. Years experience: With This Firm & With Other Firms &

e. Education: Degree(s)/Year/Specialization
M.S./Civil Engineering/Construction Management
B.S./Civil Engineering

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:
Mr. Baptiste has over 12 years of experience in the construction industry. He has served on similar compliance roles, most recently for the State's Housing Recovery Program. He is familiar with all the local and federal requirements for compliance on CDBG-DR programs and has participated in our community and industry outreach efforts, contractor and design professional training, and Section 3 outreach and training. Mr. Baptiste has amassed a broad scope of both technical and practical experiences. Mr. Baptiste has attained both a Baccalaureate and Masters Degree in the field of Civil Engineering and has been afforded the opportunity to work in several areas such as: Transportation/Traffic Engineering, inspections, General Contracting, and Construction Management. These experiences have fostered environments for learning, problem solving, and forecasting. He has learned several key components of a successful organization. These components include: communication, leadership, coordination, teamwork, strategic planning, and people skills. During the past 12 years his roles have included:

- Bid walk-through, bid analysis and scoping, cost estimating, claims mitigation, value engineering, and pre construction reviews
- Coordination of subcontractors of varying disciplines (civil, structural, electrical, architectural, etc.)
- Coordinating and ensuring communication between the project team and contractors in an effort to minimize delays in the project and additional costs
- Managing the project budget, as well as, contractors' project schedules
- Managing labor crews and the timely completion of project schedules
- Reviewing Health and Safety Plans and ensuring proper safety precautions are being implemented during the construction life cycle

Having amassed both the technical and practical experiences in the field of Engineering and Construction, Mr. Baptiste combined that which he has learned with the skill sets of his partner to establish a Construction Management Company, Laland Baptiste, LLC. As an entrepreneur, his roles are diverse, effectively and efficiently managing the daily operations. These roles include functions such as: Making Financial Decision, Negotiating Contracts, Estimating Jobs, Proposal writing, Signing Business Accounts, Supervising Field Operations, and Construction Management. In addition, he continues to enhance his abilities and grow professionally from the teachings of mentoring Construction Management firms.

NY Rising Housing Recovery Program, New York, NY, Principal - The NY Rising Housing Recovery Program is a multi-billion effort that includes several programs to help New Yorkers rebuild in the wake of Superstorm Sandy, Hurricane Irene or Tropical Storm Lee. The Program provides: Grants for repair and reconstruction of storm-damaged homes, Interim Mortgage Assistance (IMA) for homeowners displaced by the storm and incurring additional housing cost in addition to mortgage, purchases of homes in designated Buyout areas, and assistance for owners of rental property. As a Principal on the Program, Mr. Baptiste functions

include: ensuring compliance with the State's Minority and Women owned business participation mandates as well as the Housing and Urban Development Section 3 requirements. Mr. Baptiste has also expanded his role to include assisting the Technical Advisor Team and Call Center Group in helping Homeowners through the rebuilding process.

Jacob Javits Center, New York, NY, Project Manager - This \$390 million dollar renovation project included the installation of a new 240,000 sf glass curtain wall to the construction of the largest green roof in the Northeast, the Javits Center has undergone a comprehensive, state-of-the-art renovation that has transformed the iconic facility into a world-class convention center. My role for this project included coordination of the structural steel trades as it relates to modifications and fabrication of existing and new space frame members. In addition, Mr. Baptiste coordinated the hoisting and scaffolding contractor in building a temporary structure that will provide a working platform for other trades to work as well as maintain an operational convention center.

One World Trade Center, New York, NY, Project Manager - The \$3.8 billion, 104-story building, a joint venture between The Port Authority of New York and New Jersey and The Durst Organization, is designed to be the safest commercial structure in the world and the premier commercial business address in New York. Its structure is designed around a strong, redundant steel frame, consisting of beams and columns. Paired with a concrete-core shear wall, the redundant steel frame lends substantial rigidity and redundancy to the overall building structure while providing column-free interior spans for maximum flexibility. As a member of the World Trade Center Team Mr. Baptiste responsibilities included assisting the Chief Structural Engineer with coordination of activities related to the erection of structural steel. In addition to coordination, my responsibilities included claims mitigation, estimating Bulletins, and evaluation of change orders and cost proposal.

New Jersey Transit, Hoboken, NJ, Structural Inspector - This \$29.5 million dollar Historic Ferry Terminal project incorporated a three-phase program which consisted of the reactivation of five of the six ferry slips to active ferry operations and the provision of modern ferry docking facilities and passenger waiting and ticketing areas in the original street level Team Concourse. The sixth ferry slip was preserved for future use as a museum display of an original ferry slip. The scope for this project included: driving of steel piles, pile caps, pre-cast slabs, concrete piers, sheet piles, cast-in-place floor beams, dewatering, structural steel integrity inspection and modifications if required. Mr. Baptiste responsibilities during this project included the following: management of labor crews, inspections to verify the structural integrity of existing structures, and ensure compliance with contract documents

Port Authority of New York & New Jersey, Hoboken, NJ Assistant Project Manager - This multibillion-dollar security capital program was an effort to increase, upgrade, and implement existing and new security systems throughout the New York and New Jersey Port Authority facilities. The scope of these projects include, but are not limited to, infrastructure upgrade such as structural wall modifications, installation of rock anchor, concrete footings, precast grade beams, header beams and high early strength slabs. Mr. Baptiste responsibilities included: schedule update, contractor coordination, change order review, conduct project meetings, claims mitigation, evaluation of cost proposals, and coordination with design team and PANYNJ departments on day-to-day activities.

East River Plaza, New York, NY, Project Manager - East River Plaza is a \$300 million, multi-level, 500,000 sf retail project with an attached 1,250-space parking facility spanning 3 city blocks in Manhattan, NY. The project sits primarily on the former Washburn Wire factory site and consists of approximately 6 acres adjacent to the FDR Drive between 16th and 19th Streets in Upper Manhattan, New York. The scope of work included pile driving, installation of pile caps, mega footings, soil testing, foundations, slab on grade, waterproofing, installation of anchor bolts, and erection of structural steel. Mr. Baptiste responsibilities included coordination of activities related to the erection of structural steel as well as assisting the Senior Project Manager with the coordination of activities related to the foundation contractors.

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Jon Pantina, Project Manager</p>	<p>New York Rising Small Business Recovery Program – LiRo is performing damage assessments, reports, and quality review to support the State’s process of issuing payments to over 450 business applicants.</p>
<p>b. Project Assignment: IT/Data Manager</p>	<p>As Project Manager, he is assisting the team increase workflow efficiencies through automation of communications and quality reviews where possible using LRM and other workflow tools. This includes developing automated email communications with applicants when new program options are available; additional information; or grant agreements and clarifications as issued.</p>
<p>c. Name of Firm with which associated: LiRo Program and Construction Management, PE P.C.</p>	<p>UBS, Connecticut</p>
<p>d. Years experience: With This Firm_ With Other Firms <u>16</u></p>	<p>Mr. Pantina created, developed and supported software and financial models to automate common business needs through the use of MS Office 2003, 2010, VBA, Visual Basic, .Net and COM. He created, developed and supported company templates used for pitch books and presentations including design specifications and company branding. He served as first and second level Help Desk Support for software and user related issues. He maintained company intranet sites utilizing Java, JSP, Java Script, XML, HTML; he provided setup, support and maintained Web trends environment in a distributed server architecture including SQL Server database setup, custom reporting and scripting utilizing Perl, VB Script and REST Web Services.</p>
<p>e. Education: Degree(s)/Year/Specialization</p>	<p>Fidelity National Title, New York</p> <p>Mr. Pantina created a development team for New York branches and was responsible for the output and assignment of projects for three developers. Tasks included:</p> <ul style="list-style-type: none"> • Created, developed and supported production systems and software to automate common business needs through the primary use of Visual Basic, COM, XML, .Net, VBA and Access. • Database administration, setting up, designing and maintaining SQL Servers/databases including architecture of multi-site replication between SQL Servers in each of New York offices. • Developed and maintained company internet sites in a three tier structure utilizing primarily ASP, ASP.Net, VB/COM, X/HTML and Java Script as well as the initial design, branding, layout and navigational systems.
<p>f. Active Registration: Year first Registered/Discipline</p>	<p>Goldman Sachs, New York</p> <p>Mr. Pantina created, developed and supported software and financial models to automate common business needs through the use of Visual Basic, COM, VBA, SQL. He also created, developed and supported company templates used for pitch books and presentations including initial design specifications and company branding and developed and maintained company intranet sites utilizing ASP, XML, HTML and Java.</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>Mr. Pantina has over 17 years’ experience in data management and IT systems for some of the most recognized companies in the nation. His most recent assignment has been developing the system architecture and program design for the LiRo Recovery Manager (LRM) for the NY Rising Sandy Housing Recovery Program. LRM has been an enormous contributing factor in the success of LiRo’s assignment with NY Rising serving as the central data warehouse that supplements the State’s case management data system. His thorough understanding of the CDBG-DR requirements and program workflows led to his development of the LRM to provide additional functions for reporting on a wide range of applicant data and program production that was not easily accessible from the existing database. He also developed the electronic signing system for signing grant agreements and acceptance/rejections of clarification determinations to expedite the process to issue checks to homeowners and move their project into construction.</p>
<p>h. Other Experience and Qualifications relevant to the proposed project:</p>	<p>Mr. Pantina continues to refine and add functionalities to the LRM as the program evolves and progresses into the construction and closeout phases. Modules are added to the system as policies and procedures change and additional applicant, funding, and schedule data need to be tracked and reported. He works closely with the Governor’s Office of Storm Recovery staff, the LiRo and case management teams to improve and design these changes.</p>
<p>i. Other Experience and Qualifications relevant to the proposed project:</p>	<p>Mr. Pantina is also involved in the Nassau County Sheltering and Temporary Essential Power (STEP) housing recovery program assisting with the next phase of environmental work for over 1,000 applicants. Additionally, he has succeeded in developing, creating and supporting various types of software, maintained company websites and intranets, and is familiar with a wide range of languages, technologies, databases, and web and app servers.</p>
<p>j. Other Experience and Qualifications relevant to the proposed project:</p>	<p>New York Rising Recovery Program, New York State</p> <p>The CDBG-DR funded housing and small business recovery programs is administered by the Governor’s Office of Storm Recovery (GOSR) and contracted through the Dormitory Authority of the State of New York (DASNY). Serving as the prime consultant under contract with DASNY, LiRo is assisting GOSR in implementing this accelerated housing recovery and small business program. The Multi-Family/Rental Program is also being incorporated under this program. To date, over \$340M has been disbursed to homeowners.</p>
<p>k. Other Experience and Qualifications relevant to the proposed project:</p>	<p>New York Rising Housing Recovery Program – Executing a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 5,600 inspections in 30 days – in time for GOSR to issue award letters to registered homeowners by the first Sandy anniversary. The program is currently serving more than 19,000 applicants.</p>

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
Alagie Sanyang, CSP, CHST, LEED AP BD+C, Director – Corporate Safety

b. Project Assignment:
Safety Director

c. Name of Firm with which associated:
LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm <1 With Other Firms 15

e. Education: Degree(s)/Year/Specialization
MS/Construction Administration
BA/Occupational Safety and Health

f. Active Registration: Year first Registered/Discipline
Construction Health and Safety Technician
Certified Safety Professional
OSHA 500 Construction Trainer
OSHA General Industry Outreach Trainer
NYCDOB 4 Hour Supported Scaffold User Certificate
LEED AP BD+C

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Sanyang is a construction safety executive with over 15 years of construction and construction safety management experience at corporate level. He has extensive national and international construction safety experience, which includes multi projects, educational, biotech/pharmaceutical, high rise, healthcare and residential construction with a multi-national construction management firm and as a safety consultant. Alagie was most recently the Environment Health and Safety Director at Columbia University's multi-billion dollar Manhattanville development project. Mr. Sanyang, author of "OSHA-10 Key in construction safety awareness" published by the American Society of Safety Engineers (ASSE) Journal, he was also awarded two Cal-OSHA Golden-gate awards for safety excellence and is a board Certified Safety Professional (CSP) with expatriate in construction safety, site inspections, insurance inspections, and OSHA outreach training for both construction and general industry standards. Responsibilities include:

- Lead the occupational safety, health and risk function for The LiRo Group and continue developing, implementing, and maintaining a world class safety culture.
- Develop, implement and manage LiRo's safety program, policies and procedures with the various business units
- Lead and direct safety department staff to successfully execute all safety initiatives.
- Ensure continual safety improvements and set annual objectives and targets. Monitor results and audit progress
- Ensure proper execution of workers' compensation programs.
- Serve as technical adviser to business unit heads and marketing department for safety and risk during bidding process
- Serve as technical adviser to the general consul for safety and risk on all new contracts
- Serve as a safety technical adviser/guidance to project teams during preconstruction, construction and project closeouts
- Visit each project at least once each quarter to review safety performance
- Chair LiRo Executive Safety Leadership Team
- Accompany LiRo senior leadership on site safety inspections
- Review all incident reports and close out
- Conduct a root cause analysis on all LiRo employee lost time incidents
- Attend project safety kickoff meetings

- Attend safety meeting as required by contract or client
- Inspect each major project at least once each quarter
- Accompany insurance carrier inspections
- Manage Corporate safety budget
- Periodically review contracts and projects to ensure safety requirements are met
- Update the CEO on corporate safety performance monthly

Columbia University Manhattanville Development, NY, Environment Health & Safety Director - \$7 billion university extension/neighborhood development. The projects include the demolition of 44 buildings, Slurry wall foundation, drill shaft excavation, top down construction, street utility improvement, construction of 10 new buildings and maintenance of the New York City Transit train viaduct. Responsibilities on this multi-billion dollar development included:

- Lead and supervise team of 15 safety professionals
- Scope development for subcontractor contract
- Weekly executive progress reports to the owner
- Review owner's consultant's report
- Safety program development and implementation
- Lead Safety Lead Teams
- Staff and contractor training needs analysis and development
- Serve as a safety technical adviser/guidance to project teams during preconstruction, construction and project closeouts
- Site inspections
- Chair project Safety Lead Teams and Principals' council
- Manage project safety budget and safety incentive program
- Subcontractor/contractor prequalification, review and approve subcontractor safety program, Weekly, monthly and yearly safety corporate reporting
- Accident/incident investigations and root cause analysis
- OSHA 10 and 30 and other safety related trainer
- JHA development and review
- Lead the Owners Clean Construction strategies

Lend Lease, CA, Health and Safety Manager/LEED Coordinator (2007-2010) - Role and responsibilities with the Lend Lease Los Angeles office included:

- Serve as a safety technical adviser/guidance to project teams during preconstruction, construction and project closeouts
- Site inspections
- Supervise project safety teams (includes sub-contractor safety managers, coordinators and crew) on assigned projects
- Coordinate LEED certification process
- Chair project Safety Lead Teams and Principals' council
- Develop project safety program and updates
- Manage project safety budget and safety incentive program
- Subcontractor/contractor prequalification, review and approve subcontractor safety program
- Weekly, monthly and yearly safety corporate reporting
- Accident/incident investigations and root cause analysis
- OSHA 10 and 30 and other safety related trainer
- JHA development and review
- Foster relationship with regulatory authorities (OSHA, Cal-OSHA, AQMD, ASSE) and community outreach

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
 Frank Pfister, Resident Engineer

b. Project Assignment:
 QA/QC

c. Name of Firm with which associated:
 LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm 4 With Other Firms 30

e. Education: Degree(s)/Year/Specialization
 A.A.S./1980/Automotive Technology
 B.A./1985/Mechanical Technology

f. Active Registration: Year first Registered/Discipline
 1997/Professional Engineer, NY

g. Other Experience and Qualifications relevant to the proposed project:
 Mr. Pfister is a Professional Engineer with 30 years of experience, 25 years in the planning, project management and engineering of transit projects related to fleet procurements, maintenance facilities, yard operations and service planning. Over the years he has demonstrated strong communications with clients and his team along with exceptional leadership and team building skills, as well as a broad knowledge of engineering, manufacturing and quality assurance.

Dormitory Authority of the State of New York, Recreate New York Smart Home Program, NY, QA/QC Manager - LiRo is providing Master Construction Management services on the first phase of this housing recovery effort. Working with DASNy, the New York State Office Home and Community Renewal (HCR), and the State's Executive Office, LiRo is coordinating the efforts of three construction management firms to complete home assessments for over 5,000 residences in Nassau and Suffolk Counties in Long Island and upstate communities affected by Sandy, Hurricane Irene and Tropical Storm Lee. When the initial assessments are completed, the next phase of the program that includes reconstruction, rehabilitation and elevation to all eligible residences, is estimated to be at \$787 million. LiRo is also assisting in developing the guidelines and standards of this next phase including addressing compliance and monitoring activities. (\$20 million)

MTA - New York City Transit, No. 7 Line Subway Line Extension Program and Construction Management Services, NY, Quality Assurance Representative - Mr. Pfister participates as a key core member of a Construction Management Team involved in the extension of the No. 7 Subway Line. This project includes the heavy construction and finishing of a passenger station, four ventilation buildings and two miles of tunnel with track for connection to the existing subway operation. He manages the implementation of Quality Programs for the Construction Management Team and six construction contractors. He also conducts Quality Audits, Develop/Review Quality Programs and Work Plans.

Mr. Pfister provides technical support and training to the Construction Management Team servicing multiple contracts and several construction sites. He participates in the resolution of quality findings, technical concerns and contract clarifications to facilitate the progress of the Project. Lastly, he conducts quality surveillances and audits of the Construction Management Team's inspectors and Contractor's Quality activities.

MTA - Long Island Rail Road, Shops and Yard Strategies, NY, Director of Fleet, Shops and Yard Strategies - Mr. Pfister managed a staff of four involved in program development of projects related to the procurement and maintenance of fleet, construction and tooling of maintenance facilities and construction and reconfiguration of storage yards. He developed and presented strategies and justifications to the Federal Transportation Administration (FTA), Metropolitan Transportation Authority (MTA), community organizations and LIRR senior management to secure funding of projects. In addition, he direct the LIRR's management of a joint agency consultant contract (with Metro North Railroad) to develop the specification for electric railcar procurement; evaluated and recommended revenue service alternatives related to alternative yard operations, infrastructure improvements and service reductions; and corresponded regularly with senior management and direct multi-department operational and financial analyses as assigned.

MTA - Long Island Rail Road, Strategic Investments, NY, Corporate Quality Director - Mr. Pfister directed the quality assurance and control activities of a staff of 15 Corporate Quality Department employees responsible for planning and verifying implementation of quality activities for a five year Capital Program. These Capital Program projects consist of environmental and operational studies, design and construction projects for facilities, railroad infrastructure and rolling stock. He provided regular updates to auditing and oversight agencies on the status and information on projects and corporate operations and increased quality awareness corporately through the training and motivating of staff to have greater involvement in projects and facilitate the implementation of revised procurement documents, corporate policies and departmental procedures. Mr. Pfister implemented a vendor improvement program and database established around ISO requirements. Mr. Pfister directed the quality control activities of a satellite inspection lab that identified, inspected and tracked high risk incoming material. (\$2.6 billion)

MTA - Long Island Rail Road, Shops and Yard Strategies, NY, Strategic Investments Director - Mr. Pfister directed a staff of two involved in the development of maintenance facility and storage yard projects for Capital Programs. He provided strategic direction, operations support, coordination of Railroad resources and public outreach assistance for the consultant contract to produce an Environmental Impact Study (EIS) for a new Port Jefferson Branch electric train storage yard. Mr. Pfister directed the Railroad's preliminary EIS for a new Main Line Branch electric storage yard. This included an operational analysis to identify the study area, identification of preliminary sites and specification for development of the EIS. He provided strategic direction and leadership from design through beneficial use of three terminal storage yard reconfiguration projects. (\$20 million)

MTA - Long Island Rail Road, Capital Strategies and Planning, Strategic Investments, NY, Manager - Mr. Pfister identified the requirements and implemented the Railroad's first consultant study to produce a comprehensive preventive maintenance program for the railcar fleet and compose a strategy to transition the 975,000 sf maintenance facility to support the new workflow. He conducted presentations internally and to outside agencies on the transition to a scheduled maintenance program. He directed the development of specifications, performed oversight of the design and construction for numerous maintenance facilities and material handling projects that support fleet operations. He developed the Corporate Fleet Strategy that identified the 20 year plan for the procurement and maintenance of the revenue service fleet of railcars. Finally, Mr. Pfister developed and managed transition programs to support the procurement of over 800 electric railcars while maintaining daily service with a mixed fleet of incompatible equipment.

MTA - New York City Transit, No. 7 Line Subway Line Extension Program and Construction Management Services, NY, Quality Assurance Representative - Mr. Pfister participates as a key core member of a Construction Management Team involved in the extension of the No. 7 Subway Line. This project includes the heavy construction and finishing of a passenger station, four ventilation buildings and two miles of tunnel with track for connection to the existing subway operation. He manages the implementation of Quality Programs for the Construction Management Team and six construction contractors. He also conducts Quality Audits, Develop/Review Quality Programs and Work Plans.

Mr. Pfister provides technical support and training to the Construction Management Team servicing multiple contracts and several construction sites. He participates in the resolution of quality findings, technical concerns and contract clarifications to facilitate the progress of the Project. Lastly, he conducts quality surveillances and audits of the Construction Management Team's inspectors and Contractor's Quality activities.

New York City's Number 7 Subway Line, known as the Flushing Line, is the system's busiest, linking Queens to Times Square. The new 7,000 ft long tunnel stretches west and south from Times Square to the Jacob J. Javits Convention Center on West 34th Street and 11th Avenue. (\$2.3 billion)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

<p>a. Name & Title: Michael Baranello, P.E., Assistant Project Manager</p>	<ul style="list-style-type: none"> • Cost Estimating • Value Engineering • Scheduling • Bidding • Change Order Negotiation • Contract Document Interpretation • Shop Drawing Review and Comment • Construction Administration • Preparation and Distribution of Meeting Minutes • Quality Control and Controlled Inspection Adherence • Coordination of Code Required Inspections by SCDHS and SCDPW/Sanitation • Payment Review and Approval • Supervise and Manage Site Inspection Staff for Quality Assurance • Construction Coordination • Project Labor Agreement Administration • Development and Coordination of Architect's and User Group's Punchlists
<p>b. Project Assignment: PreDesign</p>	
<p>c. Name of Firm with which associated: LiRo Program and Construction Management, PE P.C.</p>	
<p>d. Years experience: With This Firm 6 With Other Firms 21</p>	
<p>e. Education: Degree(s)/Year/Specialization B.S./1988/Construction Engineering Technology</p>	
<p>f. Active Registration: Year first Registered/Discipline 2007/Professional Engineer, NY</p>	

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Baranello has over 30 years of successful project management experience in commercial construction with projects ranging in value from under \$1 million to \$1 billion. He has a proven track record of leadership and working within a project team structure as a team player. He has led the LiRo's inspection teams on the Nassau County STEP Program and is currently part of the team performing work for DASNY on the Recreate NY Smart Home Program.

DASNY Recreate New York Smart Home Program, Assistant Project Manager

LiRo is providing Master Construction Management services on the first phase of this housing recovery effort. Working with DASNY, the New York State Office Home and Community Renewal (HCR), and the State's Executive Office, LiRo is coordinating the efforts of three construction management firms to complete home assessments for over 5,000 residences in Nassau and Suffolk Counties in Long Island and upstate communities affected by Sandy, Hurricane Irene and Tropical Storm Lee. When the initial assessments are completed, the next phase of the program that includes reconstruction, rehabilitation and elevation to all eligible residences, is estimated to be at \$78M. LiRo is also assisting in developing the guidelines and standards of this next phase including addressing compliance and monitoring activities.

Nassau County STEP Program, Various Locations, Nassau County, NY, Construction Manager

Part of Nassau County's efforts to return homeowners to their properties damaged by Hurricane Sandy, the Sheltering and Temporary Essential Power (STEP) Program matches contractors with homeowners to assess the damage to the home and make the necessary emergency/temporary repairs so these households can have safe power, heat and hot water and to shelter in place for the winter. LiRo is assisting the County with the registration process for the homeowners; managing the activities of the electrical, plumbing, and carpentry contractors related to assessments, preparation of work orders, and scheduling of work at these homes; and providing inspectors to monitor and verify the contractors' work. LiRo is also assisting with the rigorous documentation that is required for this FEMA funded program.

Suffolk County Department of Public Works, Yaphank Jail Facility, NY, Assistant Project Manager
Construction of a 350,000 sf addition to the existing facility and the renovation of the existing structure. The project provided housing for 865 inmates as well as infrastructure and support facilities necessary for the proper processing, care and feeding of the inmate population. Included in the project were staff, administrative, health care and support facilities, state-of-the-art security systems, and provisions for a second phase of construction that provide the county with efficient and cost effective inmate management and staffing. This multi-phase project involved interface with designers, Sheriff's Department, and Department of Health Services. Construction management services include:

- Constructability Review
- Contract Document Review

In accordance with milestones imposed by the NYS Commission of Corrections, LiRo divided the project into several bid packages as a means of expediting construction, facilitating competitive bids and minimizing costs. Early packages included fabrication and installation of pre-cast cells, site clearing and foundations. All work is being conducted within the confines of a secure site. Included in the contract documents was a Project Labor Agreement (PLA) developed and negotiated by LiRo for all work performed on the project site. LiRo's knowledge and understanding of local trade labor conditions and requirements greatly facilitated the development and implementation of the PLA. (\$165 million)

URS Corp., United States Army Corps of Engineers, Project Engineer

Mr. Baranello was responsible for assisting the US Army Corps of Engineers' Senior Construction Manager and Resident Engineer with the overall construction management of a 1.27 million sf, hospital complex including the QA/QC process, scheduling, change orders, correspondence and permits. Represent client at meetings with contractor, Ft. Belvoir DPW, Designers and other stakeholders. (\$800 million)

Suffolk County DPW, Civil Court Addition and Renovation, Riverhead, NY

Mr. Baranello managed all aspects of the construction process, budgets and schedules; tracked and negotiated change order requests; approved prime contractor monthly payments; ensured prime contractor Requests for Information were answered by architect/engineer in a timely manner in order to maintain project schedule; Quality Assurance inspections of work in place; ensured coordination of prime contractors' work. (\$35 million)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
James Gaspari, Associate Vice President

b. Project Assignment:
Scope/Claims Management

c. Name of Firm with which associated:
LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm 20 With Other Firms 1

e. Education: Degree(s)/Year/Specialization
J.D./2000
B.S./1993/Mechanical Engineering

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:
Mr. Gaspari brings experience on more than \$700 million in construction projects, including more than \$200 million in educational facilities. He has extensive experience building higher educational projects in occupied campus environments. He recently completed the CUNY School of Architecture, a 136,000 sf academic building with labs built on an occupied campus with 17,000 students and faculty. Mr. Gaspari has also built several other higher education projects, including a 95,000 sf facility and a 70,000 sf facility for Nassau Community College. These projects were built on an active campus with 21,000 students. Mr. Gaspari knows the intricacies of working around students in a safe, effective manner that minimizes disruption to the campus while finishing the project within budget.

Brooklyn Botanic Garden, New Visitor Center and Entrance, Project Manager - LiRo provided construction management services for the construction of the Brooklyn Botanic Garden's new Visitor Center and Entrance. The Center is the Garden's first "green" building, designed for LEED Silver certification, and features an exhibit for ecologically-sound design. To enhance the visitors' experience, this project provides an innovative new model for how botanic gardens can both welcome and engage visitors. New plantings and a large entry plaza replaced the Garden's previous, undersized parking-lot entrance. It includes two pavilions joined by indoor and outdoor spaces and overhung by a green roof. The Visitor Center houses a new garden store, visible from within the Garden and with new street-side connections to Washington Avenue; an orientation room for tours and classes; a visitor-information desk; a new event space; a refreshment bar and restrooms.

Dormitory Authority of the State of New York, The Bernard and Anne Spitzer School of Architecture at The College of the City University of New York, NY, Project Manager - LiRo provided construction management services for the demolition and reconstruction of a 136,000 sf building into the new Bernard and Anne Spitzer School of Architecture building. The building frame is structural concrete, and still remains. The balance of the building was demolished and rebuilt, including facade, interior and mechanical, electrical and plumbing systems. Prior to demolition, space was provided for the current occupants. These occupants were permanently relocated within the campus. This required the renovation of various locations. The first phase of the project required the construction of new space to facilitate the relocation of the existing occupants of the "Y" Building. At a cost of approximately \$8 million, new spaces were constructed within several buildings located throughout the City College campus to accommodate the "Y" building occupants and in many instances swing spaces were utilized to temporarily house the various College personnel prior to their final move. The renovated building houses the School of Architecture. As such, space was allocated for a studio, model shop, classrooms, library, faculty offices and other necessary amenities. (\$60 million)

CUNY Kupferberg Center for the Arts Renovation, CM Build Services, Deputy Project Manager - The LiRo team is providing construction and post construction phase services for the Queens College Renovation of the Kupferberg Center for the Arts, a complex and multi-faceted project. The project includes a series of renovations and improvements to three performing arts facilities, the Golden Auditorium, the Goldstein Theater and the Lefrak Concert Hall, to the gateway staircase leading to the Kupferberg Center for the Arts from the parking areas below along Horace Harding Expressway South, the construction of a new plaza connecting the three facilities, and renovations to the Godwin-Ternbach Museum.

NYC Department of Design & Construction, Brooklyn House of Detention for Men, Base Building Renovation, NY, Project Manager - The project was the addition to and renovation of the existing maximum security BKDC facility. The project included site and landscaping work, asbestos abatement, the removal and relocation of existing temporary modular buildings, the demolition of existing partitions, stairs, floor slabs and exterior walls, the construction of 16,669 sf of new building area and remodeling of 22,765 sf of existing building area. This work took place on the cellar, first and second floor levels. In addition, the project included renovation of shower rooms on floors three through 10, waterproofing and repair of an existing tunnel, and reconstruction of existing windows at the 10th floor. Work was performed in six separate phases, each of which included demolition of existing facilities, asbestos abatement, construction of new facilities, relocation of existing furniture, equipment, associated power/signal feeds and hook-ups, etc. to provide a fully operational new area. Construction and maintenance of temporary security partitions was included in the work of each phase. (\$16 million)

NYC Department of Design & Construction, Brooklyn House of Detention for Men, Fire, Life, Safety Improvements, NY, Project Manager - Work included the installation of a new emergency generator to supplement the existing generator. General construction work included the modification of interior partitions to bring them in compliance with current code criteria. In addition to the partition renovations, existing doors were replaced with fire-rated door assemblies. A new smoke purge system was installed to meet new code requirements. As part of the smoke purge system new motorized damper assemblies were installed in the existing ducts and interlocked into a new smoke purge control system. The contract work also included the upgrading of the existing sprinkler system and associated control devices. (\$2 million)

NYC Department of Design & Construction, Second Means of Egress at Brooklyn House of Detention for Men, NY, Resident Engineer - LiRo provided construction management services under a CM/Build requirement contract for the second means of egress stairs and interior auxiliary stairs to comply with New York City code. The new egress stair towers are 11-stories high and had to be constructed within a courtyard bounded by buildings and masonry security walls. (\$5 million)

NYC Department of Design & Construction, Program Management Services for New Emergency Medical Service Stations, NY, Resident Engineer - LiRo provided services for the design and construction of new EMS stations to speed ambulance response times. The project included 30 sites across New York City, for which LiRo provided pre-construction services which included review of design documents and cost estimating of drawings. This was a complex, multi-site, multi-million dollar project subject to Wicks Law. Coordination of multiple prime contractors across the sites and providing QA/QC inspections at out of state fabrication plants was necessary throughout construction (\$29 million).

NYC Department of Design & Construction, System Wide Kitchen Renovation Program, NY, Inspector - This program required that kitchen facilities, feeding lines and supporting services at 15 correctional facilities throughout Rikers Island, Queens, Brooklyn, Manhattan and the Bronx be upgraded in accordance with a court-mandated schedule while maintaining DOC operations, feeding schedules and food quality during construction. Mr. Gaspari performed inspections of kitchen equipment to ensure compliance with the project specifications. (\$50 million)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

- Construction services include:
- Foundations
 - Drywall and painting
 - Carpentry
 - Electrical
 - Plumbing

- a. **Name & Title:**
John M. Gonzalez, Project Manager
- b. **Project Assignment:**
Deputy Project Manager, Construction
- c. **Name of Firm with which associated:**
LIRO Program and Construction Management, PE P.C.
- d. **Years experience: With This Firm 1_ With Other Firms 20**
- e. **Education: Degree(s)/Year/Specialization**
B.A./Economics
- f. **Active Registration: Year first Registered/Discipline**

g. Other Experience and Qualifications relevant to the proposed project:
Mr. Gonzalez has over 20 years of experience in residential construction including disaster related housing programs. Serving as Team Leader for Construction Advisors on the NY Rising Housing Program, he is an expert in local building codes and zoning regulations, skilled in achieving compliance with all local and state agencies, and is a veteran of sustainable design and construction projects. His project scopes have ranged from \$15,000 - \$350,000 including public housing projects through suburban green housing and development programs in Westchester County for federally funded homes under the Division of Housing and Community Development.

As a member of the Chappaqua Fire Department, he has been part of emergency response teams including recovery work coordination with utilities, the NYS Department of Environmental Conservation, and the U.S. Environmental Protection Agency involving hazardous material containment.

New York Rising Programs, Team Leader
The CDBG-DR funded housing and small business recovery programs are administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LIRO is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. Executing a rapid mobilization plan, LIRO coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days - in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary. To date, the program is serving over 19,000 applicants with over \$300M in checks issued for reimbursement or construction.

Mr. Gonzalez is leading the team of Construction Advisors that are providing clarifications with scope and program requirements to move projects into construction. The Construction Advisors are embedded at recovery centers, are available to call center operators and were part of communities meetings to meet individually and in-person with applicants to address their unique construction and scoping issues.

Beacon Home & Properties, Chappaqua, NY, Owner
Managed all aspects of general contracting business specializing in residential home improvements. Oversaw administration, budgeting, planning, and supervision of employees and subcontractors. Responsibilities and services provided include:

- Estimates
- Plan reviews and take-offs
- Materials and equipment coordination
- Subcontractor coordination
- Permits

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
 Craig Orlando, Chief Inspector

b. Project Assignment:
 Deputy Project Manager, Production

c. Name of Firm with which associated:
 LIRO Program and Construction Management, PE P.C.

d. Years experience: With This Firm 1_ With Other Firms 2

e. Education: Degree(s)/Year/Specialization
 B.S./1992/Business Administration

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:
 Mr. Orlando has more than 25 years of construction management and consultant experience with expertise in directing large-scale, multimillion-dollar commercial projects. He was part of the NY Rising and NJ Sandy housing recovery programs. He is familiar with the rigorous effort and vigilance required to maintain homeowners and contractors on track to build momentum to progress from grant award to construction completion.

New York Rising Housing Recovery Program, Contract Analyst
 Contract Analyst for the initial phase of the CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LIRO is assisting HCR in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LIRO coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days – in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

New Jersey Department of Community Affairs, Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), Chief Inspector
 Part of NJRREM team providing program management, implementation and operation for the \$600 million program will provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements.

Dormitory Authority of the State of New York, John Jay College Haaren Hall Back, NY
 As part of LIRO's On-Call Contract with DASNY, LIRO is performing Construction Management for HVAC upgrades and renovations for John Jay College. (\$20 million, 2013-2015)

Previous Experience

Point Building Services LLC, NY, Owner/Project Manager (2010-2012)

Plan and direct project operations for a company that specializes in commercial and residential restoration and rehabilitation projects. Manage all phases of the construction process from startup through completion. Develop projects plans and strategies to maximize efficiency. Provide leadership to crew members and subcontractors. Liaise with architects and engineers. Work collaboratively with project management team and manage the sourcing process to ensure the timely completion of projects.

Manage Requests for Proposals (RFPs) from initial drafting through evaluation. Perform vendor selection including due diligence, bid leveling, bidder reviews, and bidder interviews. Minimize expenses by developing effective procurement strategies. Negotiate with vendors through all project phases from design through construction. Work with Legal and compliance to execute contracts.

Provide recommendations to senior management and work with attorneys to execute contracts. Work with midsize to large financial institutions/banks on projects. Familiar with sourcing strategies such as Ariba Sourcing. Fed Bid and other company systems. Consistently delivered projects on time, within budget, and in accordance with the highest quality standards. Managed crews of up to 40 people on projects ranging between \$350,000 and \$8 million.

Representative Projects

Ocean gate Apartments, NY: Facade restoration, waterproofing, and balcony rescue for three 16-story buildings (\$7 million budget and crew of 30).

Lands End II, NY: Rehabilitation of two 28-story buildings (\$1.4 million budget and crew of 20)

Arlington Terrace, NY: Facade restoration, waterproofing, and balcony rehabilitation/rescue for four 14-story buildings (\$3 million budget)

Spring Creek Towers, NY: Parking garage restoration (5 garages, \$1.3 million budget)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

- a. **Name & Title:**
James Ahrens, PE, Vice President
- b. **Project Assignment:**
Construction Team Leader
- c. **Name of Firm with which associated:**
LiRo Program and Construction Management, PE P.C.
- d. **Years experience: With This Firm 25 ,With Other Firms 17**
- e. **Education: Degree(s)/Year/Specialization**
MS/1976/Graduate Studies
BS/1973/Structural Engineering
- f. **Active Registration: Year first Registered/Discipline**
2014/Professional Engineer
- g. **Other Experience and Qualifications relevant to the proposed project:**
Mr. Ahrens has been providing engineering design and construction management services for over 35 years. He is currently Vice President in our Construction Management Division and has been providing Program and Project Management Services to our clients. Mr. Ahrens has served as Project Executive and Project Manager for a wide variety of civil/structural projects related to municipal buildings, community centers, correctional facilities, bus depots, airport terminals and taxiways, parking facilities, golf courses, and power generation plants, as well as highways, roadways, bridges, sewer and water main replacement, pump stations, pipelines and petroleum storage tanks. His experience also includes construction of "green" sustainable buildings for municipal clients. His responsibilities require development of Project-specific Procedure Manuals, coordination, organization and supervision of all CM services including, estimating, scheduling, field inspection, reporting, project closeout, and conflict resolution.
- Mr. Ahrens' attention to QA/QC and Project Safety requirements for all projects under his purview has been developed over the past 35 years due to his involvement as Project Executive and Quality Control Manager for heavy construction projects both in nuclear power and municipal arenas. This work required the enforcement of rules specified in the Code of Federal Regulations and included all OSHA requirements. He is OSHA-certified and holds a NYC Site Safety Manager license. He is well versed in the safety requirements of the NYC Building Code, specifically Article 19 related to the protection of the public and property.
- New York Rising Housing Recovery Program** - CDBG-DR funded housing recovery program administered by NYS Office of Homes and Community Renewal (HCR) and contracted with the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY on this CDBG-DR funded Sandy Housing Recovery Program, LiRo is assisting HCR in implementing this accelerated housing recovery program. Executing a rapid mobilization plan, LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days - in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.
- New York State Office of General Services, Building Construction Inspection & Safety Management Services, Correctional Facilities - Lower Hudson Valley Region, Project Manager** - This Term Agreement [2011-2014] for NYSOGS D&C involves Construction Management Services during the design and construction phases of projects. Typical assignments have been related to:
 - Building Exterior Rehabilitation
 - MEP Upgrades and Installations
 - Roofing Replacements
 - Fire Alarm Upgrades & Installations

- Emergency Work related to Hurricane Sandy - Seawall Repair/Replacement; repair/replacement of damaged buildings; tree removals; Gabion Wall reconstruction
- Correctional Facility Cell Repairs

Work sites have included Sing Sing CF, Bedford Hills CF, Eastern CF, Camp Smith, Sullivan CF, Green Haven CF, State Armory - Yonkers, Parker Training Academy - Red Hook, Bear Mt. State Park, Harriman State Park, Nyack Beach State Park. (\$1M, 2011-2015)

Metropolitan Transportation Authority/NYCT, On-Call Contract for Five Bus Depots, NY, Project Manager - This project involved renovation of roofing and ventilation systems at two NYCT Bus Depots. In addition, the Queens Bus Depot also required the raising/jacking of over 16,000 sf of roof to provide additional clearance for bus maintenance operations. The major challenge associated with these projects was to perform the renovations in facilities that operate 24/7. The projects included parking lots at JFK and Baisley Park Bus Depot (\$10.6 million); new roof and ventilation system for the Maintenance Building at the Eastchester Bus Depot (\$2.8 million); new roof and ventilation system at LaGuardia Bus Depot (\$7.9 million); new roof and ventilation system at Far Rockaway Bus Depot (\$6.6 million); and a new roof and ventilation system at Baisley Park Bus Depot (\$6.6 million).

New York State Office of General Services, Construction Management Services for Various Projects at Sing Sing Correctional Facility - Ossining, NY - Assistant Project Executive - LiRo was selected as Construction Manager to act as advisor to OGS on this \$2.5m Contract at Sing Sing CF. Mr. Ahrens assisted in staffing the contract, organizing the field site, and developing the Project-specific Procedures Manual so that field inspection services could ensure construction compliance to project documents and relevant codes. He also coordinated the CM Services related to constructability reviews, scheduling, estimating, affirmative action monitoring, and CO management, and was directly involved in dispute resolutions as well as monthly cost projections. Typical projects at Sing Sing have involved Heating System Replacements, Observation Cell Upgrade, Bridge Replacement over Metro North, Gallery Fencing Replacement, Chapel Ceiling & Roof Replacement, HVAC & Electrical Systems Restoration, Fire Hydrant Deficiency Repair, Roof Replacements for Admin Bldg., Bldgs. 19 & 29, Exterior Building Rehabilitation, and Transformer Replacement. (\$2.5 million, 2013-2016)

Islip Resource Recovery Agency - MacArthur Resource Recovery Facility, Project Manager - Construction management and engineering support services related to the \$15 million Plant Upgrade Project at the MacArthur Resource Recovery Facility to comply with the new USEPA Emissions Guidelines. Work included installation of new scrubbers, construction of Lime Prep Building, Compressor Building, Electrical Distribution Building, and all associated equipment and appurtenances within these structures. Work also included replacement of the Forced Draft Fans, Induced Draft Fans, and Reverse Air Fans. New phase includes roadway design for access to plant back end. (\$15 million)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
Christopher Guiseppone, Project Manager

b. Project Assignment:
Construction Team Leader

c. Name of Firm with which associated:
LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm & With Other Firms 15

e. Education: Degree(s)/Year/Specialization

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:
Mr. Guiseppone has worked in the construction industry for over 25 years and is familiar with virtually all aspects of the trade. In his current position, he is responsible for supervising multiple facade restoration structural repairs to parapets shelf angles, structural beams and expansion joints masonry and modernization projects simultaneously. He has worked with notable agencies throughout his career including the Board of Education, the School Construction Authority, the Department of Design and Construction and the New York City Housing Authority.

As a Superintendent, Mr. Guiseppone is responsible for supervising field construction and organizing, planning and scheduling projects to ensure work is completed on a timely basis, within budget and to the quality specified. He coordinates various subcontractors and architects and engineers to ensure that project adheres to details, specifications and timing requirements. Mr. Guiseppone also ensures compliance with comprehensive project safety and security programs that are in accordance with OSHA regulations. Mr. Guiseppone is currently part of the team performing work for DASNY on the Recreate NY Smart Home Program.

New York City Housing Authority, CM/Build Requirements Contract, NY, Superintendent - LiRo is performing work on a task order basis including renovating and/or constructing several community centers throughout New York City. Work includes new construction of a community center, various renovations and upgrades, and infrastructure renovations including electrical, HVAC, and plumbing. These properties all require that LiRo perform preconstruction and construction phase services LiRo is responsible for prequalifying potential construction contractors, bidding the work and ultimately entering into contract with the construction contractors. These projects require careful coordination with community residents so interruptions of utilities, housing access, etc. are kept to an absolute minimum.

New York City Housing Authority, Throggs Neck Housing Facade Restoration and Strauss Houses Brickwork & Roof Repairs, NY, Superintendent - LiRo is performing work on a task order basis including this brickwork and roof repair project for this NYCHA development.

New York City Health & Hospitals Corporation, Kings County Hospital Center A/B/C Buildings Renovation, NY, Superintendent - LiRo provided Construction Management Services for the pre-construction and construction phases of the exterior envelope renovation of Building A, B, & C at the Kings County Hospital Center. The renovation work included parapet wall replacement, complete flat roof replacement, masonry pointing at all facades, masonry cleaning at all facades, rehabilitation of existing ornamental stone and wrought iron fencing and the removal and replacement of all existing terracotta roof tiles. (\$25 million)

Previous Experience

Kay Waterproofing, New York, NY, Project Manager - Supervised multiple construction projects simultaneously from inception through completion within established time frame and within design and construction budgets; responsible for planning, organizing and controlling projects; responsible for conducting quality inspections of facades and roof; supervising sub-contractors and staff; preparing cost estimates; responsible for creating and updating project schedules; compiling and submitting of billing statements; preparing building condition surveys and reports; conducting leak investigations and water tests; preparation and submission of RFIs and change orders; liaising with architects, engineers, clients; coordinating personnel placement and project scheduling; procuring materials and adhering to safety guidelines; responsible for compliance of site safety as well as inspections of rigging and various types of scaffolding and hoists. (2006-2008)

McKissack Joint Venture, New York, NY, NYC School Construction Authority Emergency and Mentor Programs, Project Manager/Project Superintendent - Supervised multiple projects simultaneously; supervised all phases of construction; assigned, managed maintained, scheduled, coordinated and monitored the start, finalizing and closing of various NYCSCA projects in both the Mentor and Emergency programs. Mr. Guiseppone ensured projects were completed on time and within budget. He coordinated with NYCSCA project officers and safety officers; scheduled and coordinated the inspection process; liaised with architects and engineers to ensure that projects adhered to details, specifications and timing requirements; reviewed blueprints and construction documents; coordinated with contractors on construction issues; resolved technical questions on site; prepared and processed RFIs; prepared reports as required; provided quality control/ quality assurance recommendations and implemented plans; participated in weekly foreman, progress and superintendent meetings; managed and maintained OSHA safety and housekeeping procedures; responsible for reviewing billing and certified payroll; reviewed and processed change orders. (2004-2006)

New York State Department of Parks, Recreation, Historic Preservation, Riverbank State Park, NY, Superintendent - LiRo provided the coordination of roofing and HVAC equipment replacement atop four flat roof buildings at the Riverbank State Park campus. Major work included demolition and removal of existing membrane roofing and ballast totaling approximately 92,000 sf and replacement with a new built up roofing system, selective removal and repair of interior ceilings to accommodate new duct work, removal and replacement roof mounted HVAC units and associated duct work, electrical and plumbing work in support of the new HVAC units. (\$0.5 million)

7. Brief resume of key persons, specialists and individual consultants anticipated for this project.

a. Name & Title:
Charles Malicki, Assistant Office Engineer

b. Project Assignment:
Call Center

c. Name of Firm with which associated:
LiRo Program and Construction Management, PE P.C.

d. Years experience: With This Firm 2_With Other Firms 0

e. Education: Degree(s)/Year/Specialization
B.A./2009/Communications

f. Active Registration: Year first Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Malicki has been intimately involved in the LiRo's post Sandy recovery efforts including the New York Rising Programs, Nassau County STEP Program, the New Jersey Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM), and has assisted with the closeout process for the New York City Rapid Repairs Program. He is currently part of the team performing work for DASNY on the Recreate NY Smart Home Program.

New York Rising Programs, Document Controls - The CDBG-DR funded small business and housing recovery programs is administered by NYS Office of Homes and Community Renewal (HCR) and contracted through the Dormitory Authority of the State of New York. Serving as the prime consultant under contract with DASNY, LiRo is assisting HCR and the Governor's Office of Storm Recovery in implementing this accelerated housing recovery and small business program. The multi-family/co-ops and condos program is also being developed as part of this program.

- **New York Rising Housing Recovery Program - Document Controls** - Execution of a rapid mobilization plan to support the damage assessment effort. LiRo coordinated the efforts of more than a dozen consultants and over 500 inspectors to complete 4,984 inspections in 30 days - in time for HCR to issue award letters to registered homeowners by the first Sandy anniversary.

- **New York Rising Small Business Recovery Program - Document Controls** - Damage assessments, reports, and quality review to support the State's process of issuing payments to over 450 business applicants.

Nassau County Department of Public Works, Sheltering and Temporary Essential Power (STEP) Program, NY, Document Control Analyst - As a part of Nassau County's efforts to return homeowners to their properties damaged by Superstorm Sandy, the Sheltering and Temporary Essential Power (STEP) Program matched contractors with homeowners to assess the damage to the home and make the necessary emergency/temporary repairs so these households could have safe power, heat, and hot water. Responsibilities included:

- Assisted with quality control of the rigorous documentation that is required for this FEMA funded program
- Assisted in the creation of a master database for the management of the bidding process for electrical, plumbing and carpentry contractors, corresponding invoicing for assessment and work order processing and the implementation of a documentation control system that tracks and reports on over 10,000 physical files
- Assisted with invoice processing; physical and electronic document control; closeout file form and format; and data integrity

- Assisted in quality assurance review that examined important aspects of the Program for conformance with all local, state and federal guidelines to ensure and maximize funding reimbursement opportunities

- Assisted with the creation of a call center and establishing social media presence

- Assisted with homeowner registration

- Assisted with coordination of the activities of the electrical, plumbing, and carpentry contractors related to assessments, preparation of work orders, and scheduling of work at these homes; and providing inspectors to monitor and verify the contractors' work

Nassau County Department of Public Works, Interior and Exterior Environmental Cleanup Program, NY, Analyst - As a part of Nassau County's efforts to provide interior and exterior environmental cleanup after Superstorm Sandy. Tasks included:

- Assisted in the development of a Quality Control Plan for assessments, work order generation and tracking - including new software for mapping
- Designed and distributed educational pamphlets
- Assisted with development of templates for site assessment, survey of the projects, project closeout
- Assisted in invoice processing; physical and electronic document control; closeout file form and format; and maintaining data integrity.
- Inspected contractors work
- Assisted in quality assurance review that examined important aspects of the Program for conformance with all local, state and federal guidelines to ensure and maximize funding reimbursement opportunities

New Jersey Department of Community Affairs, Reconstruction, Rehabilitation, Elevation and Mitigation Program (RREM) - Part of NJRREM team providing program management, implementation and operation. Duties included:

- Screening of prospective hires
- Developing training materials
- Assisting with inspector training

New York City Rapid Repairs Program, Citywide, Sandy Response, NY, Analyst - Part of the team that provided QA/QC services for the residential single- and multi-family housing recovery program designed to restore power and heat to homes in New York City's neighborhood that were most impacted by Sandy.

Previous Experience

News 12 Long Island, NY, Freelance Photographer

Worked with reporters using both DVC Pro and XD cameras, edited stories using linear and non-linear systems, performed duties in high stress situations and extreme weather conditions, conducted interviews with high ranking officials and celebrities, assisted reporters and producers in the writing and producing of stories. (2009-2013)

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work For which Firm was/is Responsible

New York Rising Housing Recovery Program New York	Master construction manager responsible for implementing housing recovery program	Dormitory Authority of the State of New York 1 Penn Plaza, 52 nd Floor New York, NY 10119-0098 Ronald Gecsed, (518) 257-3000	On-going	\$480,000	\$480,000
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Working for the Governor's Office of Storm Recovery (GOSR) under a contract with DASNY on this CDBG-DR funded Sandy housing recovery program, LiRo coordinated the efforts of more than 30 firms and over 500 professionals to complete over 5,600 initial inspections in 30 days – in time for GOSR to issue award letters to registered homeowners by the first Sandy anniversary. In recent surveys, responses indicate that 70% of homeowners have started design and 60% have started construction. This program has been innovative and allowed more than \$340M in checks to be issued to more than 6,807 applicants thru March 2014. Our work continues with the implementation of the next phases of the program to enhance HCR's efforts to help homeowners return to their homes while maximizing reimbursements from HUD CDBG funds. These tasks include ongoing development of data management/IT systems, policies and procedures, the environmental program, and construction guidelines and final inspections checklists. The Multi-Family and Rental Programs were also recently launched and LiRo is also assisting GOSR with those efforts. Tasks and roles on this program includes:

- Program Design/Advisor
- Program and Project Management
- Daily, weekly, and monthly reports
- Website creation and data management
- Damage inspections
- Environmental surveys and clearances
- Quality management – QA/QC auditing
- Review/approval of scope changes and change orders
- RFI responses and tracking
- Submittal reviews
- Contract administration
- Contractor payment review and processing
- Customer service support
- Design Professional/Contractor prequalification
- Homeowner, Design Professional, Contractor outreach and training
- Cross-training between construction management and case management teams
- M/WBE, Section 3 outreach and compliance
- HUD Green Building standard compliance

Program Statistics:

- Over 19,000 applicants
- More than 15,000 damage assessments and AA/ECR completed
- 15,000+ environmental inspections completed
- More than \$340M disbursed to homeowners
- Nearly 11,000 checks sent
- Trained more than 50 contractors
- Trained over 80 design professionals on CDBG-DR design standards
- Approximately 7,000 clarifications/questions logged
- Ramp-up to 610 staff in 10 days, including 500+ Xactimate inspectors
- Completion of over 5,600 damage assessments and production of Allowable Activities (AA) and Estimated Cost of Repairs (ECR) reports in 30 days
- Peak daily inspections at 568
- Peak daily AA/ECR production at 389

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For which Firm was/is Responsible
<p>NYCDEP Emergency Work (Rapid Repairs) New York, NY</p>	<p>Construction management and Quality assurance/quality control</p>	<p>New York City Dept. of Environmental Protection, Bureau of Environmental Planning and Analysis 59-17 Junction Boulevard Flushing, NY 11373 Michael Kenny, (917) 939-6963</p>	<p>2013</p>	<p>\$500,000</p>	<p>\$6,350</p>

The first of its kind, the \$604M Rapid Repairs Program was designed by the City of New York with federal support to repair homes damaged by Sandy. The program was designed to leverage and maximize government and private resources to help these single family homeowners hardest hit by the storm. LiRo served as the CM QA/QC consultant responsible for more than 7,000 single-family homes and 100% of the high-rise and multi-family programs. LiRo's tasks also included project controls for compliance with FEMA requirements for reimbursements, providing customer service representatives, closeout inspectors, and data management support. Tasks included:

- Project management
- Daily and weekly reports
- Project controls
- Home inspections and work order preparations
- Quality management – QA/QC auditing
- Contractor payment review and processing
- Customer service support



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work For which Firm was/is Responsible

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	Entire Project	Work For which Firm was/is Responsible
NYCHA Emergency Services – Sandy Various locations, NY	Program management office (PMO) services	New York City Housing Authority 90 Church Street, 12 th Floor New York, NY 10007 Ray Ribeiro, (212) 306-8685	On-going	\$100,000	\$5,601

The LiRo team initially responded to the Sandy crisis by providing program management and construction management services to enable 80,000 residents to reoccupy their homes. This accelerated program was accomplished in two weeks. Subsequent work includes obtaining federal funding, resiliency design and construction management of interim projects prior to permanent design and contractor solicitations.

The LiRo team is providing program management office (PMO) services to NYCHA to execute its Hurricane Sandy construction activities at affected housing developments. NYCHA is leveraging available federal funds with insurance settlements and other resources to efficiently rehabilitate housing units and various building systems with hazard mitigation and resiliency measures. On this program CB&I is advising the PMO's construction management team to oversee the Tier II Environmental Review of proposed construction activities at 35 major housing developments located in the floodplain where electrical, mechanical, and backup power systems will be elevated. LiRo's environmental group is performing testing and remediation work while our architectural group is assisting NYCHA with its mitigation and resiliency designs for a portion of these 35 developments.

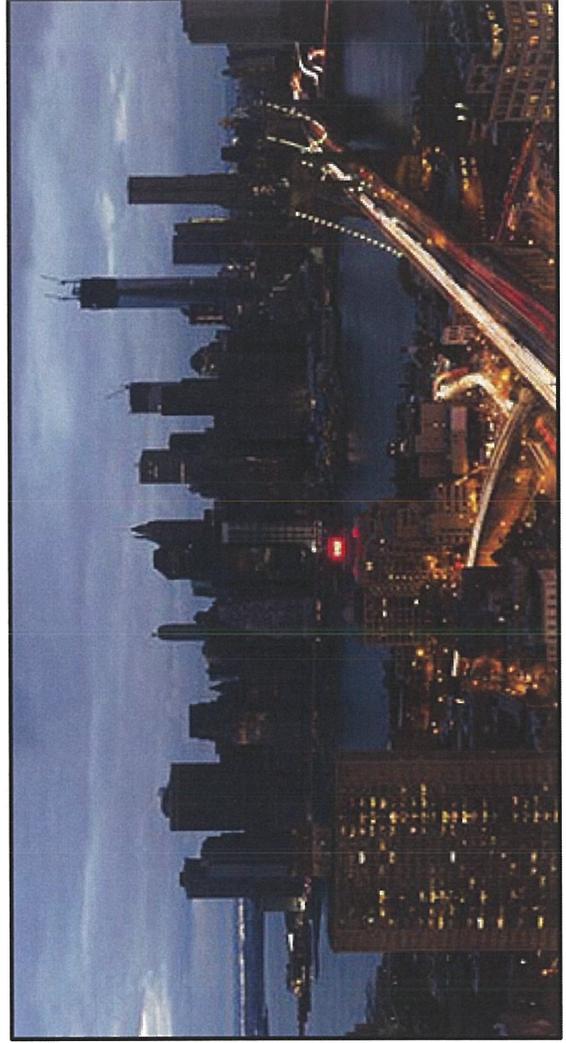


8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For which Firm was/is Responsible
<p>NYCHA Sandy Mitigation Design Program Various locations, New York</p>	<p>Architectural, engineering and construction management services</p>	<p>New York City Housing Authority 90 Church Street, 12th Floor New York, NY 10007 Ray Ribeiro, (212) 306-8685</p>	<p>On-going</p>	<p>\$187,000</p>	<p>\$187,000</p>

Providing architectural, engineering and construction management resiliency measures initiated after Hurricane Sandy. These resiliency measures will storm proof more than 7,400 housing units.

Team members are currently providing project management services in implementing the recovery and obtaining FEMA and CDBG Funds. Our team of 13 staff members are currently applying for community disaster recovery loans, developing processes and procedures for CDBG Funds and the Hazard Mitigation Program applications as part of the recovery process including relevant documents to support FEMA PA, 404 and 406 Mitigation and closeouts of Hurricane Irene and Superstorm Sandy. LiRo team member 3PL is also functioning in a leadership role in the coordination of pertinent report information required for reimbursement by the Federal Highway Administration's Emergency Relief Program, and other agencies such as HUD and EPA, for disaster recovery efforts by County staff. Additionally, we are providing responses for FEMA reimbursements, as directed by the County. Initial Project Worksheet (PW) development for all Categories A through G is also being conducted by our team.



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work For which Firm was/is Responsible
NYS Homes & Community Renewal Oakwood Beach Buyout Demolition (Moss Cape) Oakwood Beach, Staten Island, NY	Project management, engineering support, and construction management	New York State Homes and Community Renewal 641 Lexington Avenue, 2 nd Floor New York, NY 10022 Anthony Trujillo, (212) 939-6700	2014	\$450	\$450

LiRo served as a subconsultant for New York State's Oakwood Beach Buy Out Program. Our team provided project management, engineering support, and construction management for the demolition of the initial list of 184 homes (partially completed) in the low lying area of Oakwood Beach Staten Island. LiRo's tasks included damage inspection; confirmation of damage but safe for environmental inspection and subsequent demolition; assistance with DOB filings and SWPPP inspections.



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For which Firm was/is Responsible
Nassau County Sheltering and Temporary Essential Power (STEP) Countywide, Nassau County, NY	Program management services	Nassau County Department of Public Works 1194 Prospect Avenue Westbury, NY 11590 Rich Millet, (516) 571-9604	On-going	\$12,000	\$12,000

The STEP Program matched contractors with homeowners to assess the damages to their homes and make the necessary emergency/temporary repairs so that these household can have safe power, heat and hot water to shelter in place while performing permanent repairs to their homes. LiRo started the registration process for the homeowners; managed the activities of the electrical, plumbing, and carpentry contractors related to assessments; and prepared work orders and scheduling of work at these homes. To meet the rigorous documentation that is required for this federally funded program, the LiRo team instituted invoicing policies and procedures for assessment and work order processing, and implemented a document control system that tracked and reported on over 10,000 physical files. Over 2,600 homes were assessed, approximately 1,500 environmental inspections were completed with nearly 700 resulting in clean-up/remediation.



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

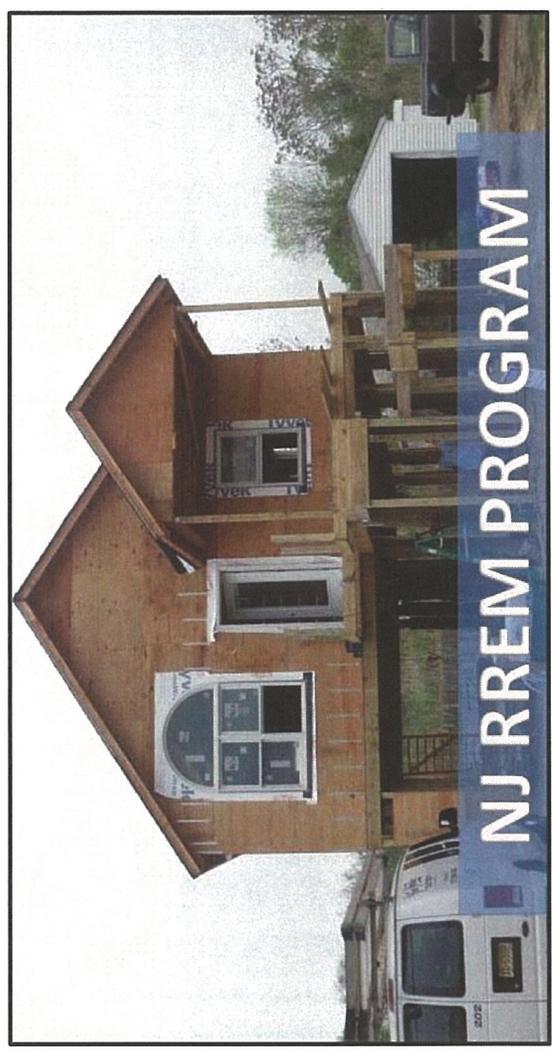
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For which Firm was/is Responsible

New Jersey Treasury NJ RREM Sub to URS Various locations, NJ	Program management and implementation	New Jersey Department of Treasury Division of Property Management and Construction PO Box 002 Trenton, NJ 08625 Dale Lehman (URS), (301) 820-3132	2016 (E)	\$600,000	\$2,759
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LiRo served as a subconsultant on this \$600 million program will provide eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Superstorm Sandy. Additionally, the program will help homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds will be reserved for low-to-moderate-income households in accordance with federal requirements.

LiRo was part of the team selected to be the Lead RREM Contractor to manage the implementation and operation of the Program. We were responsible for completing damage assessments, home designs; identify allowable activities for HUD CDBG-DR compliance; monitoring; and management of the homebuilder prequalification process to create a pool of homebuilders available to the homeowners.

- Tasks included:
- Program design/advisor
 - Program and project management
 - Weekly and monthly reports
 - Data, website management/project controls
 - Damage inspections and preparation of work orders
 - Prototype home designs
 - Home raising design and Bid packaging for all types of repairs construction
 - Contractor prequalification
 - RFI responses and tracking
 - Contract administration
 - Contractor payment review and processing
 - Customer service support
 - Homeowner technical/construction support
 - Design Professional, Contractor outreach and training
 - MWBE, Section 3 outreach and compliance
 - HUD Green Building standard compliance



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For which Firm was/is Responsible
DASNY Recreate NY Smart Home Program New York, NY	Construction management services	Dormitory Authority of the State of New York 1 Penn Plaza, 52 nd Floor New York, NY 10119-0098 Ronald Gecsed, (518) 257-3317	2013	\$20,000	\$15,377

LiRo is providing construction management services for the DASNY Recreate NY Smart Home Program for housing property. This project involves the rehabilitation, reimbursement, elevation and reconstruction of single family homes through the NYS Community Development Block Grant.

Working with DASNY, the New York State Office Home and Community Renewal (HCR), and the State's Executive Office, LiRo is coordinating the efforts of three construction management firms to complete home assessments for over 5,000 residences in Nassau and Suffolk Counties in Long Island and upstate communities affected by Sandy, Hurricane Irene and Tropical Storm Lee.

LiRo's HUD CDBG-DR experts have been advising the key stakeholders on issues related to program design, allowable activities, and compliance with HUD and DASNY guidelines to maximize benefits to the homeowners and minimize risks to the State. When the initial assessments are completed, the next phase of the program that includes reconstruction, rehabilitation and elevation to all eligible residences, is estimated to be at \$787 million. LiRo is also assisting in developing the guidelines and standards of this next phase including addressing compliance and monitoring activities.

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
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<p>New York Rising GOSR Community Reconstruction Program New York, NY</p>	<p>Disaster recovery</p>	<p>NY Rising Governor's Office of Storm Recovery 25 Beaver Street New York, NY Zachary Richner, (646) 410-3042</p>	<p>On-going</p>	<p>\$100,00</p>	<p>\$100,00</p>
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LiRo is part of the team working with communities in Brooklyn and Nassau County that suffered significant Sandy damage to plan for rebuilding efforts that will support stronger and more resilient communities to face future storms. The process involves working with designated committee members from each community to identify assets, their risks and vulnerabilities, and propose projects that will contribute to hardening and/or expanding these facilities to better meet the short- and long-term needs of the communities. The local plans are also envisioned to be integrated with regional plans and other projects and programs already planned for the area. Key elements of successful plans that the team need to consider for this CDBG-DR funded program are: public engagement, needs and opportunities assessment for economic development and housing, strategies for investment and action, implementation schedule and optimizing and leveraging funding from various public and private sources. The program is on an aggressive 8-month schedule, with the conceptual plan completed in just eight weeks. The communities include:

- Nassau County
- Atlantic Beach
- East Atlantic Beach
- Long Beach
- Lido Beach
- Point Lookout
- Island Park
- Barnum Island
- Brooklyn
- Barnum Island
- Coney Island
- Brighton Beach
- Manhattan Beach
- Seagate
- Gerritsen Beach
- Sheepshead Bay



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

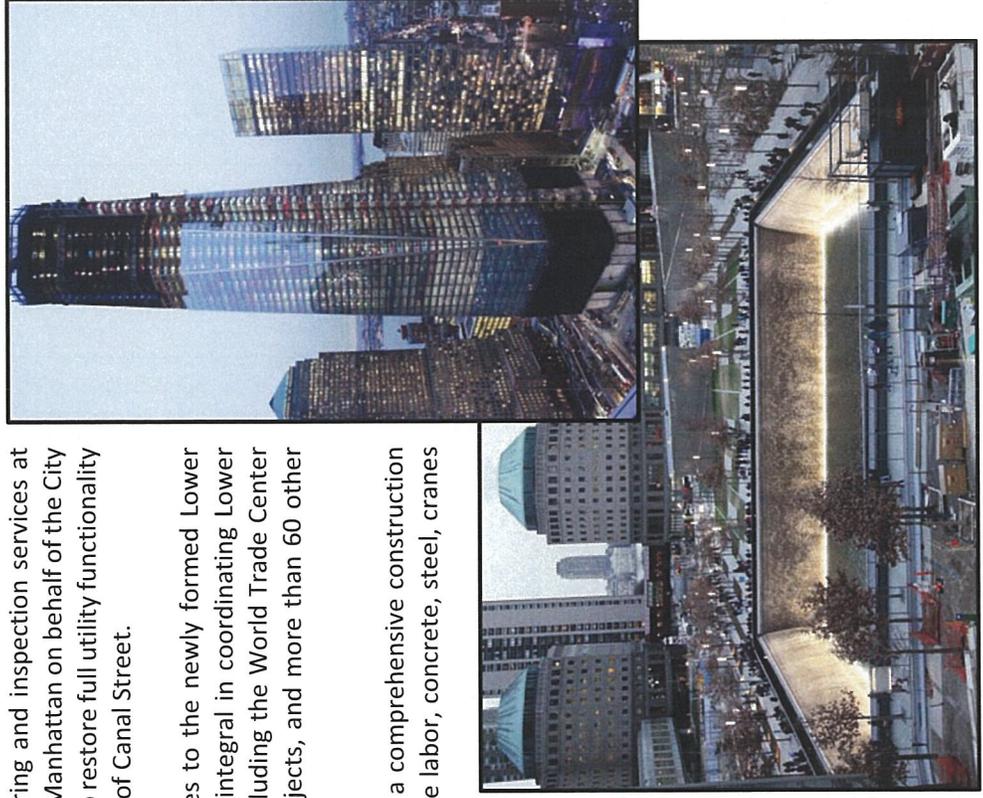
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For which Firm was/is Responsible
<p>LMCCC Program Coordination Services New York, NY</p>	<p>Program coordination</p>	<p>Lower Manhattan Development Corporation 1 Liberty Plaza, 20th Floor New York, NY 10006 Joseph Simenic, (212) 442-4350</p>	<p>2012</p>	<p>\$15,000,000</p>	<p>\$11,261</p>

In the immediate aftermath of September 11, 2001, the LiRo Group provided engineering and inspection services at "Ground Zero." LiRo then assumed infrastructure-coordination responsibilities for Lower Manhattan on behalf of the City of New York. This effort coordinated the reinstallation of critical power and phone ducts to restore full utility functionality to Lower Manhattan. LiRo's role was soon expanded to coordinate all construction south of Canal Street.

In October 2005, the LiRo team was selected to provide Program Coordination services to the newly formed Lower Manhattan Construction Command Center (LMCCC). Since then, LiRo's work has been integral in coordinating Lower Manhattan construction projects that are collectively worth more than \$15 billion -- including the World Trade Center site, South Ferry Subway Station, Fulton Transit Center, major street infrastructure projects, and more than 60 other public and private projects.

For the LMCCC, the LiRo team has customized many supporting technologies, including a comprehensive construction supply-and-demand model that evaluates and identifies ongoing, key challenges for trade labor, concrete, steel, cranes and trucking. LiRo also developed a Lower Manhattan Traffic Model, numerous construction databases, designed an innovative "4D" interactive web map, produced more than 100 reports and presentations, and provided detailed engineering analyses for the agency.

As part of its daily function for the LMCCC, the LiRo team provides expertise in traffic and pedestrian modeling, geographic information systems, scheduling, risk analysis and modeling, database management and integration, logistics, and Intelligent Traffic Systems -- all of which support the unprecedented amount of rebuilding projects taking place in downtown New York.



9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name & Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible
N/A					

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

LiRo Program and Construction Management, PE P.C. (LiRo) is pleased to submit this proposal for SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery project. We have assembled a team of personnel with a proven track record on successful housing programs totaling over 20,000 homes. The LiRo Team has been involved in Sandy housing recovery since the immediate days after the storm made landfall. Our team has also worked in the communities in Brooklyn, Queens and Staten Island identified in the RFP on housing and community reconstruction programs and continues to maintain local relationships in these areas with community based organizations as part of the rebuilding process.

LiRo is a local firm with 700 employees, with many living and working in these Sandy impacted communities. We have been involved in over a dozen Sandy housing, community, and infrastructure recovery programs. With over 30 years of working in New York City, we have established strong relationships with regulatory agencies and local organizations that will play important roles in this program's schedule. We will leverage our local knowledge and these relationships to find the best solutions and provide momentum for this aggressive program schedule.

A summary of the LiRo Team's qualifications to help deliver a successful program for the DDC and the Housing Recovery Office (HRO) are presented below.

Experience

- The LiRo Team brings **current Sandy housing experience in New York State and New Jersey as well as national disaster recovery experience** totaling over \$20B, and lessons learned from 14 successful CDBG-DR housing programs, similar in scope to this assignment. LiRo is also the Master Construction Manager on the NY Rising Housing Recovery Program and will bring this program our lessons learned from our local and previous national programs.
- LiRo has **completed both design and construction on over 850 sites utilizing the NYC CM/Design/Build contract**, more than any other Construction Manager.
- LiRo and our subconsultants have **delivered award-winning design and construction projects for DDC**. The LiRo Team has also completed more than 950 storm-related home designs including reconstruction prototypes as well as been involved with the engineering of more than 550 Sandy home elevations.

Core Management Team

- Our proposed **Project Manager, Brant Aidikoff, PE**, and **Deputy Project Manager, Mark Howard both have experience on similar projects including the NY Rising Sandy Housing Program**. Brant's experience also includes more than \$4B of CDBG projects including serving as Coordinator for the \$15B Lower Manhattan Redevelopment program and a Senior Project Manager on the 9/11 World Trade Center recovery. Both are senior managers with extensive experience **managing and coordinating large, complex and concurrent projects in a fast-paced environment**. Mark has managed several CDBG-DR housing programs in Texas that were virtually identical to this project – completing more than 2,500 homes in less than two years. For Sandy recovery, Mark has also served as a program advisor to the New Jersey state housing recovery program.

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

- LiRo's proposed **Lead Design Manager, Joanna Pestka, FAIA and Construction Manager, Chad Herndon are proven leaders in their respective roles**. Joanna has managed over \$1B of projects for concurrent and multi-site programs – first at DDC as the Assistant Commissioner for the Libraries and Cultural Unit, and recently as the Vice President for Capital Planning and Construction for the New York Public Library, most notably leading the \$350M 42nd Street Main Branch expansion. Chad has served as a Production Manager on the Texas housing programs, driving throughput and construction production and holding contractors accountable for their performance. Collectively, he has been involved with CDBG-DR housing programs with more than 8,000 homes. For Sandy housing recovery, Chad has guided the NY Rising program on the construction process, developed construction guidelines, trained contractors and expedited both design and construction progress.
- The core staff supporting these individuals have **all worked on New York Sandy housing programs**, with 75% of them having existing or past successful working relationships on complex programs. These proven relationships are an asset on accelerated programs such as this one. To achieve the maximum goals in the first six months will require a fully integrated team that starts on Day One.

Technical Approach (Methodology)

- LiRo's proposed methodology is **based on the successfully completed programs of similar scope** mentioned above. This approach offers the basic framework that will be adapted to the unique requirements and **rigors of designing and building in New York City – a LiRo core strength**.
- The **comprehensive approach to all areas of homeowner services** is rooted in our understanding of the challenges that still face homeowners after more than two years after the storm. Our staff knows this personally because some of these homeowners are our colleagues, friends and family. Our team of Homeowner Advisors working on the State's program experiences this interaction every day in the course of their work assisting homeowners through the design and construction process. They also coordinate non-construction needs with the case management team that often impact the homeowner's ability to start, continue or complete their home projects.
- Our **broad and inclusive approach for recovery** is also formulated to assist more than just homeowners, but to **benefit the entire impacted community**. Our strategy for maximizing M/WBE opportunities and partnering with community based organizations to recruit and train local residents will help us achieve the M/WBE, Section 3 and local hiring goals for this program. To reinforce this commitment, **25% of our proposed key senior staff are from our trusted M/WBE partners** that we have worked with on other Sandy housing programs.

Capabilities

- LiRo's ramp-up capabilities are familiar to DDC and other agencies based on our **successful past performance on emergency and disaster response projects**. The ability to quickly mobilize the right local staff will be the key to achieving early success after a Notice to Proceed is issued – we have done this before. We have worked with DDC on the 9/11 World Trade Center recovery; been awarded consecutive contracts from the NYC Housing Authority and School Construction Authority for CM and Emergency Response; ramped up to over **100 staff within 30 days** for the Rapid Repairs Program; and delivered a team of over **600 professionals in 27 days** to respond to the State's Sandy housing recovery program.

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

- The LiRo Team's **design capacity is comprised of over 850 local professionals**, and includes more than 250 architects. Design staff will be supported by established consultants that we have previously worked with to provide expediting, pre-design (surveys, borings, etc.) services and other specialty disciplines.
- LiRo's **existing local relationships with the design and contracting communities** brings added benefits to this program. Our proposed Project Manager knows the local construction community – having particularly strong ties to industry leaders and organizations, these groups have expressed their willingness to assist with industry outreach to maximize contractor bidding results. LiRo's senior management team has already engaged with local as well as national high volume residential builders to gauge their interest and capacity to meet this Program's goals. The responses have been positive and we have encouraged these contractors and L/M/WBE to participate in DDC's PQL process.

Additional information on how our team's proposed data management systems, one of which has already been proven to successfully interface with HRO's Case Management System, is fully described in the RFP Program Tasks section of this proposal.

11. The foregoing is a statement of facts.

Signature:



Michael Burton, PE
Typed Name and Title: Senior Vice President & National Operations Manager

Date:

January 29, 2015



H2Bravo



STANDARD FORM (SF) 255

Architect-Engineer and Related Services Questionnaire for Specific Project

1. Project Name/Location for which Firm is Filing:
 CM/Design/Build for Hurricane Sandy - Affected Residential Community Recovery

2a. *Commerce Business* Daily Announcement Date, if any:

2b. Agency Identification Number, if any:

8502015HR0011-13P

3. Firm (or Joint-Venture) Name and Address:

Carrera Management Group, LLC dba H2Bravo
 18723 Manchac Highlands Drive, Prairieville, rLA 70769

3a. Name, Title and Telephone Number of Principal to Contact:

Mark A. Howard, Managing Member
 (225) 614-7961

3b. Address of office to perform work, if different from Item 3:

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) ___ (B) ___	Administrative	(A) ___ (B) ___	Electrical Engineers	(A) ___ (B) ___	Oceanographers	(A) 2 ___ (B) 3 ___	Program Manager
(A) ___ (B) ___	Architects	(A) ___ (B) ___	Estimators	(A) ___ (B) ___	Planners: Urban/Regional	(A) 2 ___ (B) 2 ___	Const. Manager
(A) ___ (B) ___	Chemical Engineers	(A) ___ (B) ___	Geologists	(A) ___ (B) ___	Sanitary Engineers	(A) ___ (B) ___	
(A) ___ (B) ___	Civil Engineers	(A) ___ (B) ___	Hydrologists	(A) ___ (B) ___	Soil Engineers	(A) ___ (B) ___	
(A) ___ (B) ___	Construction Inspectors	(A) ___ (B) ___	Interior Designers	(A) ___ (B) ___	Specification Writers	(A) ___ (B) ___	
(A) ___ (B) ___	Draftsmen	(A) ___ (B) ___	Landscape Architects	(A) ___ (B) ___	Structural Engineers	(A) ___ (B) ___	
(A) ___ (B) ___	Ecologists	(A) ___ (B) ___	Mechanical Engineers	(A) ___ (B) ___	Surveyors	(A) ___ (B) ___	
(A) ___ (B) ___	Economists	(A) ___ (B) ___	Mining Engineers	(A) ___ (B) ___	Transportation Engineers	(A) 4 ___ (B) 5 ___	Total Personnel

5. If submittal is by JOINT-VENTURE, list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office.)

5a. Has this Joint - Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name and Address	Specialty	Worked with Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: Chad Herndon, Program Manager</p>	<p>a. Name and Title: Mark Howard, Program Manager and Managing Member</p>
<p>b. Project Assignment: Construction Management</p>	<p>b. Project Assignment: Technical Advisor</p>
<p>c. Name of Firm with which associated: Carrera Management Group, LLC dba H2Bravo</p>	<p>c. Name of Firm with which associated: Carrera Management Group, LLC dba H2Bravo</p>
<p>d. Years experience: With This Firm <u>2</u>..... With Other Firms <u>20</u></p>	<p>d. Years experience: With This Firm <u>3</u>..... With Other Firms <u>22</u></p>
<p>e. Education: Degree(s)/Year/Specialization BBA/Marketing/1995</p>	<p>e. Education: Degree(s)/Year/Specialization BA/Sociology/1991/Louisiana State University</p>
<p>f. Active Registration: Year First Registered/Discipline None</p>	<p>f. Active Registration: Year First Registered/Discipline None</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Herndon is an experienced Project Manager and serves in this capacity for HUD CDBG-Disaster Recovery funded housing and infrastructure recovery programs. His dedication to his projects and leadership style is cultivated from more than 24 years of service as a Army Officer, bringing organizational management skills and the ability to form and train groups of people into production oriented teams. Mr. Herndon has managed numerous federal disaster recovery housing projects from intake through construction, and specializes in program management of HUD CDBG-DR funded programs. He ensures that all of the aspects of the project plan are executed and that progress and compliance are properly addressed, and communicated. Mr. Herndon has demonstrated his ability to translate action plans, policy and program guidelines into an efficient program management process resulting in the delivery of the product on time and in budget. With a construction background, leadership skills, and the ability to motivate project teams to accomplish complicated projects, he delivers quality products for his clients.</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Howard is an accomplished, decisive, and knowledgeable program manager with extensive experience in the development, management, and implementation of HUD CDBG disaster recovery housing programs. Mr. Howard has significant CDBG-DR program experience including project development, construction management and project implementation with an emphasis on technical program knowledge, leading, and managing project teams. In addition to a diverse background in program management, Mr. Howard also brings organizational leadership capabilities from his 29 years of military service. Mr. Howard has held senior and executive level positions in government agencies and private sector firms focused on long term and post disaster housing recovery planning and implementation.</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: Reid Bruce, JD</p> <p>b. Project Assignment: Compliance Advisor</p> <p>c. Name of Firm with which associated: Carrera Management Group, LLC dba H2Bravo</p> <p>d. Years experience: With This Firm ² With Other Firms ¹⁶</p> <p>e. Education: Degree(s)/Year/Specialization Juris Doctor / 2002 / Insurance and Construction Fraud Litigation BA / Anthropology / 1999</p> <p>f. Active Registration: Year First Registered/Discipline 2003 / Law License / Mississippi</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Bruce has over 11 years of project management experience with HUD CDBG disaster recovery programs, specializing in developing and leading teams in policy development, management processes, program compliance, and fraud prevention. He is a seasoned Project Manager capable of delivering the scope, schedule, and budget for HUD CDBG projects including client interface, program design, environmental management, construction process development, compliance with HUD rules and regulations, project coordination with government entities, and improving communication between stakeholders. Mr. Bruce began working in the CDBG disaster recovery program management and compliance field after his family on the Gulf Coast was significantly impacted by Hurricane Katrina. Prior to Hurricane Katrina, he practiced law and specialized in complex housing, insurance, and construction fraud litigation.</p>	<p>a. Name and Title Paul Roberts</p> <p>b. Project Assignment: Construction Manager</p> <p>c. Name of Firm with which associated: Carrera Management Group, LLC dba H2Bravo</p> <p>d. Years experience: With This Firm ¹ With Other Firms ²²</p> <p>e. Education: Degree(s)/Year/Specialization BS / General Studies / Louisiana State University</p> <p>f. Active Registration: Year First Registered/Discipline Licensed Contractor, Real Estate Broker, Insurance Claims Adjuster</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Roberts is a program and construction management professional with over 23 years in management, finance, estimating, inspections, and quality assurance. He has worked on the implementation of several key HUD CDBG disaster recovery housing programs in Mississippi, Louisiana, Texas, New Jersey, and New York. Mr. Roberts is a key contributor in applicant interface, process development, leading, training, and managing large scale efforts dealing with program applicants, compliance requirements, damage assessments, and quality assurance reviews.</p>
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8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address and Project Manager's Name and Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) Galveston County Housing	Prime Contractor, Program Management, Compliance	Galveston County 722 Moody Street, Galveston, TX 77550	8/2015 (E)	\$300	\$300
(2) NY Rising Housing Recovery Program	Subcontractor, Program and Construction Management	Governor's Office of Storm Recovery 25 Beaver Street, New York, NY 10004	2/2015 (E)	\$784,000	\$1,200
(3) New York City Build It Back Program	Subcontractor, Program Design, Policy and Procedure Development,	NYC Housing Recovery Office 250 Broadway, New York, NY 10007	1/2016 (E)	\$300,000	\$750
(4) Southeast Texas Regional Planning Commission - Housing Recover	Subcontractor, Program and Construction Management	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	1/2015 (A)	\$190,000	\$850
(5) City of Galveston Housing Recovery Program, Round 2	Subcontractor, Program and Construction Management	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	1/2015 (A)	\$120,000	\$850
(6) Lower Rio Grande Valley Housing Recovery Program, Round 2	Subcontractor, Program and Construction Management	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	1/2015 (A)	\$125,000	\$850
(7) City of Galveston Housing Recovery Program, Round 1	Subcontractor, Program and Construction Management	Texas General Land Office 1700 N. Congress, Suite 935, Austin TX 78711	9/2014 (A)	\$168,000	\$300
(8)					
(9)					
(10)					

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name and Phone Number	d. Percent Complete	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Is Responsible
None					

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

Hurricane Ike / Dolly CDBG-DR Housing Program, Rounds 1 and 2, State of Texas - Our project team provided the full spectrum of housing program management services for single and multifamily housing to the Texas General Land Office in support of the Hurricane Ike / Dolly CDBG-DR Housing Recovery Program, Rounds 1 and 2. We provided essential planning and policy development services in the pre-award cycle assisting the Texas GLO with the overall program development and compliance with CDBG-DR regulations and a Conciliation Agreement the Texas GLO entered into with the Statewide Housing Advocates related to Fair Housing requirements and standards. Our team has been instrumental in the program development and providing the strategic direction, plans, policies, and products that the GLO adopted on a programmatic basis. Furthermore, the program management process developed by our team has been executed and proven to be successful throughout the state with the ability to tailor the program for regions of the state with unique issues or differences. These services will result in the construction or rehabilitation of over 5000 single and multifamily housing units for the Hurricane Ike and Dolly CDBG-DR Program.

New Jersey Reconstruction, Rehabilitation, Elevation, and Mitigation Program (RREM), State of New Jersey - This \$600 million program provided eligible homeowners up to \$150,000 in grant funds to aid the reconstruction, rehabilitation, elevation and mitigation of primary homes damaged by Hurricane Sandy. Additionally, the program helped homeowners with the construction process by developing repair specifications, identifying qualified builders to do the construction work, and ensuring the quality of the work completed. Seventy percent of the funds are reserved for low-to-moderate income households in accordance with federal requirements. H2Bravo was part of the team selected to be the Lead RREM Contractor to manage the implementation and operation of the Program. We were responsible for completing and managing the preparation of program policies and procedures; identifying allowable activities for HUD CDBG-DR compliance; monitoring; and management of the homebuilder pre-qualification process to create a pool of homebuilders available to the homeowners.

Hurricane Katrina CDBG-DR Housing Program, State of Mississippi - As part of the \$5.4B funding allocation from CDBG-DR for Hurricane Katrina damages, our program management team was contracted by the Mississippi Development Authority (MDA) to provide a variety of planning, case management, environmental, and program and construction management services for the Housing Recovery Program along the Mississippi Gulf Coast. H2Bravo, partnered with two other firms, provided these services for 8 separate CDBG-DR programs. Individual program descriptions include: Elevation Grant Program (EGP), \$46.5M Program Funding - The Elevation Grant Program (EGP) was a HUD CDBG-DR funded program to provide grants to homeowners to defray the costs of elevating their homes above the base flood elevation in high hazard areas. EGP awards were classified as additional assistance available to homeowners who received assistance from the separate repair program, the Homeowners Assistance Program (HAP), and were required to elevate because of changes in federal flood maps. A total of 3,266 applications were processed and construction completed representing \$46.5M in grant funding.

Neighborhood Rental Restoration Program (NRRP), \$41M Program Funding - The MDA contracted a program management team to provide services, including application intake, applications processing, eligibility reviews, title reviews, environmental and project management services in support of the Neighborhood Rental Restoration Program (NRRP) for Southern Mississippi residents that were impacted by Hurricane Katrina. Applicants who repair, rehabilitate or reconstruct damaged properties and agree to follow MDA's rental rules can receive forgivable loans as incentives. More than \$41M was disbursed to 900 applicants in a two-year period.

Neighborhood Home Program, \$132M Program Funding - Our project team provided program management and construction management for the MDA consisting of application processing, eligibility, damage assessments, environmental, and construction management services in support of the Neighborhood Home Program (NHP) for Mississippi residents that were impacted by Hurricane Katrina and have unmet housing recovery needs. The goal of the NHP is to repair, rehabilitate, and reconstruct Hurricane Katrina-damaged homes owned by low to moderate income families who have been unable, through other means, to return their homes to an acceptable level of habitation. This includes homeowners in nine counties including Hancock, Harrison, Jackson, Pearl River, Stone, George, Lamar, Forrest, and Jones counties.

11. The foregoing is a statement of facts.

Date:



Mark A. Howard, Managing Member

Type Name and Title:

January 24, 2015

Signature:



Dewberry Engineers Inc.



STANDARD FORM (SF)

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Architect-Engineer
And Related Services
Questionnaire for
Specific Project

1. Project Name/Location for which Firm is Filing:
Consultant Services for Design Construction and Construction Management Services
CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery

New York City Department of Design and Construction
New York, NY

2a. Commerce Business
Daily Announcement
Date, if any:
N/A

2b. Agency Identification
Number, if any:
PIN: 8502015HR0011-13P

3. Firm (or Joint Venture) Name & Address:



Dewberry Engineers Inc.
31 Penn Plaza
132 West 31st Street
Suite 301
New York, NY 10001

3a. Name, Title & Telephone Number of Principal to Contact:

Douglas D. Frost, PE
Assistant Vice President
703.208.1744

3b. Address of office to perform work, if different from item 3:

4. Personnel by Discipline (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) 6	(B) 193	Administrative	(A) _____	(B) _____	45	Electrical Engineers Emergency Mgt.	(A) _____	(B) _____	11	Photogrammetrists Urban/Regional	(A) _____	(B) _____	76	Water/Wastewater Engineers
(A) 7	(B) 117	Archeologist	(A) _____	(B) _____	106	Spec	(A) _____	(B) _____	28	Planners:	(A) _____	(B) _____		
(A) 78	(B) 237	CADD Technicians	(A) 1	(B) 10	Environmental Engrs	(A) _____	(B) _____	4	18	Program Analysts/Mgrs.	(A) _____	(B) _____		
(A) 9	(B) 38	Civil Engineers	(A) _____	(B) _____	26	Environmental Spec.	(A) _____	(B) _____	3	QA/QC Specialists	(A) _____	(B) _____		
(A) 116	(B) 11	Coastal Engineers	(A) 1	(B) 41	Geographers	(A) _____	(B) _____	2	12	Remote Sensing Spec.	(A) _____	(B) _____		
(A) 117	(B) 11	Computer Specialists	(A) _____	(B) _____	11	Geologists	(A) _____	(B) _____	7	Security Specialists	(A) _____	(B) _____		
(A) 118	(B) 11	Construction	(A) _____	(B) _____	12	Interior Designers	(A) _____	(B) _____	140	Soils Engineers	(A) _____	(B) _____		
(A) 119	(B) 11	Inspectors	(A) _____	(B) _____	153	Land Surveyors	(A) _____	(B) _____	31	Structural Engineers	(A) _____	(B) _____		
(A) 120	(B) 11	Cost Eng./	(A) _____	(B) _____	22	Landscape Architects Mechanical	(A) _____	(B) _____	92	Technical/Spec Writers	(A) _____	(B) _____		
(A) 121	(B) 11	Estimators	(A) _____	(B) _____	74	Engineers	(A) _____	(B) _____	112	Transportation Engineers Water Resources	(A) _____	(B) _____		
(A) 122	(B) 11	Ecologists/ Specialists/ Economists/ Analysts	(A) _____	(B) _____			(A) _____	(B) _____			(A) 40	(B) 1,947	Total Personnel	

a. If submittal is by JOINT-VENTURE list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm:
(Attach SF 254 for each if not on file with Procuring Office.)

This is not a Joint Venture

5a. Has this Joint-Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside Key Consultants/Associates anticipated for this (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime Before (Yes or No)
N/A		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: John Boulé II, PE Senior Vice President</p>	<p>Special Initiative for Rebuilding and Resiliency (SIRR), New York City Office of Long-Term Planning and Sustainability, New York, NY. Project Director for preparation of a coastal protection plan. Planned and coordinated a citywide strategy and community-level interventions to significantly reduce damage from severe Sandy-like future storms and climate change, which was published in the City's SIRR report, <i>A Stronger, More Resilient New York</i>. The team designed, sited, modeled and analyzed the performance of hard and soft coastal protection measures under multiple storm and sea level rise scenarios.</p>
<p>b. Project Assignment: Quality Manager</p>	<p>New York Rising Community Reconstruction Program. Senior Project Director for an integrated engineering and planning team developing community-driven and implementable resiliency action plans. The team focused on 10 communities in NYC including several in Queens, Brooklyn, Lower Manhattan, and the Bronx, providing expert advice and consulting services to community leadership about grey and green Infrastructure solutions that will reduce flood risk to their communities.</p>
<p>c. Name of Firm with which associated:  Dewberry</p>	<p>Ocean Parkway/Robert Moses Causeway Emergency Repairs, New York State Department of Transportation, Long Island, NY. Project Manager for fast-track engineering and design services for repairs to a section of Ocean Parkway and the Robert Moses Causeway traffic circle that were severely damaged during Superstorm Sandy as well as restoration of sand dunes and shoreline areas that were washed away by the storm surge. Led the team that provided civil, highway, geotechnical and coastal engineering and produced designs in just three weeks and prepared permit applications to NYSDEC and USACE. The emergency design and contract bid phase took less than a month to complete; the construction was completed ahead of schedule and under budget.</p>
<p>d. Years of experience: With This Firm: 1 With Other Firms: 28</p>	<p>South Ferry Station Recovery, MTA New York City Transit, New York, NY, Senior Project Manager. Superstorm Sandy's storm surge flooded much of the South Ferry Subway Station. Water entered the station via station entrances, ventilation and utility penetrations, and presumably from the northern tunnel and the Old South Ferry Station. As part of the rehabilitation effort, the team was retained to perform an assessment and develop design documents for rehabilitation of the station; study and design measures for resiliency and flood protection from future storm events; and study and develop solutions to address the leakage problems that the Station and adjacent Tunnel Section have experienced since their construction.</p>
<p>e. Education: Degree(s) / Year / Specialization MS/2009/Resourcing National Strategy; MA/2001/National Security and Strategic Studies; MS/1995/Structural Engineering; BS/1986/Civil Engineering</p>	<p>Superstorm Sandy Recovery Task Orders, MTA New York City Transit (NYCT), New York, NY. Senior Project Manager for over a dozen Sandy restoration and mitigation feasibility studies and design projects at NYCT subway stations, rail yards, and subway tunnels throughout the City to increase transit system's resiliency. Representative projects include Montague, Clark and Canarsie Tubes, Brooklyn; St. George and Clifton Rail Yards, Staten Island; and South Ferry Station, Manhattan.</p>
<p>f. Active Registration: Year First Registered / Discipline 1996/Professional Engineer</p>	<p>Board Award for Continuous Excellence.</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: John Boulé is Senior Vice President and Branch Manager of our New York City office, in charge of statewide administrative and technical functions. His distinguished career includes the creation of a regional recovery and resiliency program in response to Superstorm Sandy that spanned over twenty local, state, and federal clients including NYCT, LIRR, NYCEDC, HUD, NJDOT, USACE, NYSDEC, and ConnDOT. The program executed more than 50 projects with an estimated contract value of over \$50 million. John served from 2009 to 2012 as commander of the New York District of the U.S. Army Corps of Engineers. In this role, he was responsible for the Corps' water resource development, navigation and regulatory activities on Long Island and in northeastern New Jersey, eastern and south-central New York State, and parts of Vermont, Massachusetts, and Connecticut. The New York district is also responsible for the design and construction of Army and Air Force installations in New Jersey, New York, and Greenland. As commander, he was responsible for the award and management of 1,000 contracts with an average annual value of over \$1 billion. In 2012 John received the New York Federal Executive Board Award for Continuous Excellence.</p>	<p>Superstorm Sandy Recovery Task Orders, MTA New York City Transit (NYCT), New York, NY. Senior Project Manager for over a dozen Sandy restoration and mitigation feasibility studies and design projects at NYCT subway stations, rail yards, and subway tunnels throughout the City to increase transit system's resiliency. Representative projects include Montague, Clark and Canarsie Tubes, Brooklyn; St. George and Clifton Rail Yards, Staten Island; and South Ferry Station, Manhattan.</p>



7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

a. Name & Title:

Douglas Frost, PE
Assistant Vice President

b. Project Assignment:

Deputy Program Manager

c. Name of Firm with which associated:



d. Years of experience: With This Firm: 16 With Other Firms: 16

e. Education: Degree(s) / Year / Specialization

MS/1983/Civil Engineering
BSCE/1981/Civil Engineering

f. Active Registration: Year First Registered / Discipline
Professional Engineer: VA, MD, WV, NY, PA

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Frost has spent his entire **32 year career leading teams in the delivery of inspection, engineering, construction, and scientific- related professional services.** Throughout his career, Mr. Frost has executed and managed quality demanding services that involve the application of materials tests, taking of precision measurements, design drawings, specifications, and cost estimates. He has experience in developing, administering and executing Quality Assurance Surveillance Plans (QASPs) and adhering to ISO 9002 quality standards at all organizational levels from data collection activities and laboratory/pilot program testing and analysis, through design engineering, to large-scale project management. Working closely with the project team, Mr. Frost established the protocol and reviews the standard operating procedures (SOPs) required to meet contract specifications. Using a peer review process and a formal system of field and office SOPs, QA Forms, and checklists, he ensured that quality is incorporated into projects from beginning to end so they can be delivered on time and within budget.

NYC Build it Back Pre-Construction Services, Project Manager, 2013-2015.
Since July 2013 Mr. Frost has been the Project Manager for the NYC Build it Back Pre-Construction Services Contract. Mr. Frost leads a multi-disciplined team of professionals in the delivery of Super storm SANDY home inspection damage estimates using the Xactimate software platform, NEPA environmental compliance, HUD lead based paint and asbestos reporting, and Engineering reviews for determination of substantial damage and substantial improvement determinations. Using his engineering background combined with his extensive technology background and years of process improvement experience he directed the automation and IT system development of a comprehensive field data

collection system and project tracking system which is currently tracking more than 1 million records on the BiB program in a cloud based paperless environment. Frost has worked in partnership with NYC HRO to prioritize work streams and deliver more than 11,000 single family damage assessments and nearly an equal number of Feasibility Reports and Tier 2 environmental reviews. Mr. Frost also oversees similar services for more than 1000 Multi-Family units impacted by the SANDY event. Frost is an accomplished seasoned professional project/program manager who:

- Works closely with HRO to make sure production goals are achieved and provides options/solutions to overcome unique applicant/property conditions
- Manages key staff to insure team is delivering client focused quality deliverables
- Understands information access and data transparency are critical for HRO to track production and report progress back to OMB and the Mayor's office.
- Has an ability to breakdown complex processes into executable automated tasks which leads to increased production, fewer errors and faster turnaround time.

Housing Inspection Services Contract, FEMA, Managing Director 2005-2013

Immediately Prior to his work on NYC BIB, Frost completed an eight-year assignment directing **Dewberry's Housing Inspection Services** contract for FEMA. During his tenure as managing director, Mr. Frost used his engineering and planning background to re-engineer and automate many time consuming legacy processes and procedures. His leadership and innovation brought to the Partnership for Response and Recovery (PaRR) program new efficiencies, improved quality, and reduced labor costs. Under his direction, the Housing Inspection program, through an aggressive Quality Management System (QMS), achieved ISO 9001:2008 Certification.

Project Director/Member of Board of Managers, FEMA, Housing Inspection Services Contract, Nationwide, 2003 - 2013

- Doubled PaRR's contract production from 7,500 inspections to more than 15,000 per day during the response to Hurricane Katrina.
 - Initiated development and directed implementation of Rapid Assigning
 - Process for Inspection Distribution (RAPID) that advances Automated
 - Inspection Assignment (AIA) into automated GIS based inspection assignment process capable of distributing 15,000 inspections every 4 hours.
 - Implemented high-tech warehouse RFID solution to GOE asset tracking/inventory management and automated field KIOSK for automated check-in, creation of badging, and equipment issue/return.
- Instrumental in advancing technology solutions to improve PaRR's capabilities to meet growing program requirements include the use of a tablet-based quality controlled inspection software program, and web-based virtual inspection training program.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Lori Cochran Deputy Project Manager</p> <p>b. Project Assignment: HRO Liaison</p> <p>c. Name of Firm with which associated:  Dewberry</p> <p>d. Years of experience: With This Firm: 8 With Other Firms: 2</p> <p>e. Education: Degree(s) / Year / Specialization MA/2002/French BA/2000/Chemistry/Physics/Romance Languages</p> <p>f. Active Registration: Year First Registered / Discipline n/a</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Lori Cochran has nearly 10 years of experience supporting Dewberry's corporate, architecture, and consulting groups. Previously as a Business Development Specialist, her activities spanned the full range of business development and marketing including market research, client meetings, strategy development, proposal preparation, and industry association events. Throughout her career, Lori has frequently facilitated meetings of project stakeholders to identify pressing needs and to build consensus around strategic direction. She is a particularly skilled critical thinker and project manager who understands both business decisions and communication strategies.</p> <p>NYC Build it Back Pre-Construction Services, Deputy Project Manager, 2013-2015. Day-to-day project manager for the single vendor supporting all pre-construction activities for New York City's CDBG-DR funded residential housing recovery program following Hurricane Sandy. Pre-construction activities include field damage assessments of applicant properties, recommending a preliminary construction offering using a cost-based feasibility analysis, and completing the federally-mandated desktop environmental compliance review of proposed construction activities and pre-award customer activities. Responsible for the efficient performance and coordination of the three primary pre-construction tasks plus all other specialty assignments. Participated in policy formation and technical review meetings with NYC Housing Recovery Operations, Housing Preservation and Development, Office for Resiliency and Recovery staff. Interfaced daily with the custom NYC Case Management System built on a Microsoft Dynamics platform</p>	<p>including the development of a data exchange with a custom SQL-server data management system built by Dewberry.</p> <p>FEMA Housing Inspection Services Program Nationwide Contract Procurement, Marketing Coordinator/Graphic Designer, 2012-2013. Supported the Partnership for Response and Recovery LLP pursuit of a new contract award. Support primarily focused on establishing and maintaining content production and review schedules; coordinating the design and revision of supporting graphics and figures; and providing the final graphic design and layout of all 5 proposal volumes. Worked with task leaders to capture and outline current operational process diagrams. Additionally provided as needed technical editing of proposal content.</p> <p>State Farm Insurance Engineering Firm Qualification Submission, Strategic Pursuit Manager/Marketing Coordinator, 2012. Managed Dewberry's response to State Farm Insurance's standard Engineering Firm Qualification Questionnaire. Collaborated with every Dewberry division to create a coordinated and blended response capturing the firm's total capabilities to support the insurance industry following disaster events. Dewberry has received approximately 79 individual work requests from State Farm since completing qualification in January 2013.</p> <p>GSA Nationwide Contract for Feasibility and Other Studies for PBS Courthouses and Federal Buildings, Pursuit Capture Manager, 2009. Led successful pursuit of a nationwide contract to prepare feasibility studies for GSA PBS Central Office as part of the prospectus-level project development and funding cycle. Formulated the team organization approach, including small business subcontracting strategy, in collaboration with the Dewberry Senior Principal/Client Manager to best provide the needed services nationwide. Outlined response approach for all evaluation criteria for both SF330 and interview presentation and drafted majority of proposal content.</p> <p>Metropolitan Courthouse Renovation AIA/AAJ Citation of Excellence, Submission Manager, 2009. Coordinated submission of the renovation and modernization of Nashville, Tennessee's historic Metropolitan Courthouse to the AIA's Academy of Architecture for Justice Knowledge Community's annual Justice Facilities Review publication. Worked with senior project designers to compile all project data and graphics to illustrate the extent of the building's renovation, highlighting the creativity of the new layout which resolved code deficiencies, provided modern security through circulation separations, and reclaimed abandoned space in the facility. The project was selected as one of a select few citation recipients in the 2009 edition.</p>
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7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

a. Name & Title:

Melissa Mangene
Associate

b. Project Assignment:
IT Project Manager

c. Name of Firm with which associated:



d. Years of experience: With This Firm: **8** With Other Firms: **n/a**

e. Education: Degree(s) / Year / Specialization

MBA/2011/Accounting
BA/2007/Accounting/Business Administration

f. Active Registration: Year First Registered / Discipline
n/a

g. Other Experience and Qualifications relevant to the proposed project:

Melissa manages contracts leveraging automation for completing contract tasks and analysis for determining funding of individual recovery efforts. Melissa is currently supporting the Mayor's Office of Housing Recovery Operations as IT Manager and Quality Assurance Officer for the "Build it Back" Program responsible for design and implementation of systems used to manage and process data through all phases of the pre-construction program.

Pre-Construction Services for NYC "Build It Back" Program, NYC Mayor's Office of Housing Recovery Operations, New York, NY. Senior Project Manager/Deputy Technical Advisor for Dewberry's contract to support the City of New York with Post-Sandy housing inspection, cost estimation for repair/resiliency, and environmental review for residential applications for US Housing and urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funds.

- Performed an evaluation of processes and provided process improvement solutions to meet expected production goals.
- Served as the client liaison for the operations team, translating client requirements into actionable results
- Redesigned the feasibility report template for use on the NYC build it back program for increased efficiency and end user understanding
- Managed the design, development and implementation of in integrated management system for processing inspection, environmental and feasibility determinations for NYC build it back program
- Developed it automation requirements for processing tier II site-specific environmental reviews using spatial analysis and stored procedures.

- Managed the design, development and implementation of an environmental management tracking system that facilitates the review and approval of tier ii reports across multiple organizations, including allowing for read only access for potential auditors and/or guest users.
- Troubleshoot system integration issues and work with HRO IT team to resolve

PaRR (Partnership for Response and Recovery). Served as Deputy Director, Contract Compliance Manager, and Project Accountant. PaRR, a joint venture partnership responsible for housing inspection and management support services for the Federal Emergency Management Agency. The rapid deployment of these services provides much needed assistance to the many victims displaced and impacted by disasters throughout the United States and its territories.

Deputy Director

- Managed the design and development of project purchasing system
- Managed all readiness and quality management system activities
- Managed accounting, purchasing, contracts, and inspection assigning groups
- Primary point of contact for FEMA inspections management on all issues related to contract and task order administration, and finance
- Responsible for initiating both internal and external audits and regular management review of the PARR's QMS
- Actively monitors, tracks and reports on all preventive action, corrective action and continual improvement initiatives

Contract Compliance Manager

- Management representative for ISO 9001:2008 QMS system
- Led the development, implementation and certification of quality management system for ISO 9001:2008
- Led the development and implementation of ARC GIS tools for optimized inspection assignments – increased inspection efficiency by 32 percent
- Team lead for Lean Six Sigma Process Improvement Project – resulted in 55 additional error checks for quality improvement.
- Implemented records control process
- Technical lead author for \$163 million proposal
- Implemented formal internal quality audit program
- Managed the implementation of root cause analysis for quality control resulting in increased effectiveness of corrective actions
- Managed 3D training design, development and implementation
- Authored all ISO 9001:2008 required documented procedures
- Developed QMS procedures for accounting and purchasing that were ISO9001:2008 compliant

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Charles Aly Project Manager Field Activities</p>	<p>b. Project Assignment Inspection Manager</p>	<p>c. Name of Firm with which associated: </p>	<p>d. Years of experience: With This Firm: 8 With Other Firms: 12</p>	<p>e. Education: UNCA-1974</p>	<p>f. Active Registration: Year First Registered / Discipline n/a</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Aly has more than 20 years of experience in the disaster response and emergency management business and served as an emergency manager and fire chief prior to working as a contractor supporting FEMA's Housing Inspection Services Contract. Mr. Aly served as Dewberry's project manager from 2006-2009 on the Louisiana Road Home Recovery Project. He is currently managing post Sandy assessment teams for NYC's Build It Back Program, where he provides oversight, training, and quality control for 50 Dewberry assessors completing 10,000 single and multi-family inspections in 5 months. Data was used to develop cost estimates, review feasibility, and address NEPA/NHP requirements under HUD funding.</p>	<p>Housing Inspection Services Contract, FEMA, Recruiter, Trainer, Field Coordinator, Inspector. Trained more than 1,300 inspectors to conduct damage assessments and prepare cost estimates of damaged housing on 10 disasters since Katrina. Provided Recruiting/ Training/Field Coordination and Quality After Action Management support. Served as an initial/appeal inspector, quality control inspector, and team leader and participated in the supervisor review and ride-along program for various disasters. Served as instructor for 66 Mock Inspection Classes to more than 1,300 inspectors since 2010.</p>
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Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY, Project Manager
Assessments for Single and Multifamily Inspections managed up to 110 Home Assessors, Manager of Brooklyn Office and Staff, Manager of sub contractors for HUD Lead Risk Assessments, and Asbestos Risk Assessments in both Single and Multifamily Programs, Supervised Customer Service Callers for setting and confirming appointments, Supervised Quality Control for all Field Related Assignments, Managed reporting requirements for documents and data needed to comply with project requirements. Pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Charles Sparks Assigning Supervisor</p>	<p>b. Project Assignment: Data /Reporting Specialist</p>	<p>c. Name of Firm with which associated:  Dewberry</p>	<p>d. Years of experience: With This Firm: 23 With Other Firms: n/a</p>	<p>e. Education: Degree(s) / Year / Specialization Coursework/1985/Computer Programming</p>	<p>f. Active Registration: Year First Registered / Discipline n/a</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Sparks has spent more than two decades using IT and GIS to support post-disaster inspections, debris removal and monitoring. He is currently supporting post-Hurricane Sandy clean up for the state of New Jersey and recently served as Assignment Supervisor in support of FEMA's Housing Inspection Services Contract, where he oversaw the daily operations of the assigning department including the management of schedules, delegating assigning tasks to team members, making assignments, coordinating assigning related issues and communicating between management and the disaster field manager. FEMA Management and Performance of Housing Inspection Services in Disaster Areas, Federal Emergency Management Agency, Nationwide, Assigning Supervisor. Dispatches specially trained inspectors to disaster sites across the country to assess disaster-damaged houses and determine eligibility for federal assistance. Field inspectors have responded to nearly 30 presidential disaster declarations from coast to coast following floods, tornadoes, snow and ice storms, earthquakes, and hurricanes. Post-Sandy Atlantic Seaboard Mapping, National Oceanic & Atmospheric Administration, Multiple Locations, GIS Analyst. Dewberry was selected as the prime contractor for the collection and processing of topobathymetric LiDAR and digital camera imagery data for the NOAA National Geodetic Survey (NGS) Remote Sensing Division Coastal Mapping Program. These data will be used by NOAA NGS to enable accurate and consistent measurement of the national shoreline and provide a seamless topobathymetric data product for various applications within the entire coastal community. The shoreline is defined as the land water interface at a specific tidal datum.</p>
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Topobathymetric LiDAR is employed as an accurate, efficient way to collect data for generation of a Digital Elevation Model (DEM), which is in turn used to extract vectors for generating the tidal datum shoreline of interest. NOAA's Coastal Mapping Program provides a regularly-updated and consistent national shoreline to define America's marine territorial limits and manage coastal resources. This shoreline is applied to nautical charts and is considered authoritative when determining the official shoreline for the United States.

As part of this task, Dewberry will provide LiDAR and digital camera imagery data acquisition and processing to support the Coastal Mapping Program, for accurate and consistent shoreline following the landfall of Hurricane Sandy. Data collected through this effort will also be used to support additional mapping, charting, geodesy services, and marine debris surveys for coastal states impacted by Hurricane Sandy. (\$9.74M)

Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY, Data Analyst. for pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.

Project Management Contract for Superstorm Sandy Waterway Debris Removal, New Jersey Department of Environmental Protection, Statewide, NJ, Data/GIS Analyst. Superstorm Sandy of October, 2012 caused severe and widespread damages across the State of New Jersey, resulting in an extensive amount of debris to be deposited in the State's waterways and coastal areas. The responsibility for the cleanup and removal of this debris material has been given to the New Jersey Department of Environmental Protection (NJDEP). The activities associated with the cleanup and debris removal are eligible, reimbursable costs under the Federal Emergency Management Agency (FEMA) Public Assistance program. Dewberry supported NJDEP in planning and managing a state level, regionally organized contract to remove and monitor debris from waterways, while maximizing FEMA reimbursement. This contract was done under an accelerated schedule, with a critical path to open beaches and navigable waterways by June 1, 2013.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

- Develop software in accordance with agreed design with consideration for usability, software quality and future maintenance.
 - Developed webpages using ASP.NET as per the business requirements
 - Extensively involved in Export and Import utilities to move data between different databases.
 - Created SSIS packages for transferring data from various data sources like MS Access, Excel, text, csv files
 - Created complex reports by linking data from multiple sources, using functionalities like Combined Queries, Slice and Dice, Drill Down, Master Detail, etc. Used Stored Procedure Data Provider for frequently running tasks.
 - Developed Java Scripts as per the project requirements in extracting data
 - Worked on Crystal Reports to develop various customized reports.
- Dewberry is providing pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.

<p>a. Name & Title: Mohan Rupa Madireddy Geospatial Developer</p>	
<p>b. Project Assignment: Programmer</p>	
<p>c. Name of Firm with which associated: </p>	
<p>d. Years of experience: With This Firm: 2 With Other Firms: 2</p>	
<p>e. Education: Degree(s) / Year / Specialization MS/2002/Computer Science BS/2000/Computer Science</p>	
<p>f. Active Registration: Year First Registered / Discipline n/a</p>	
<p>g. Other Experience and Qualifications relevant to the proposed project: Mrs. Madireddy is a software professional with four years of IT experience. She is fluent in SQL and thorough in all forms of queries viz. joins, sub-queries, group by clause analytical extensions, a wide array of built-in functions, DML, transaction control, and DDL. She has thorough knowledge of Oracle architecture and is proficient in analysis of backend programming requirements. She specializes in designed stored procedures, functions, packages, triggers, and object types.</p>	
<p>Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY.</p>	
<ul style="list-style-type: none"> • Involved in database structures including Table, Views, Functions, Triggers, and Stored Procedure as per business requirements. • Created Stored Procedures, Functions and Triggers in SQL SERVER environment • Developed and modified triggers, packages, functions and stored procedures for data conversions and stored procedures to create database objects dynamically based on user inputs. • Build and maintain SQL scripts and complex queries for data analysis and extraction. • Wrote SQL, PLSQL, SQL*Plus programs required to retrieve data using cursors and exception handling. • Involved in periodic meetings to discuss the progress and system functionalities. • Conducted Unit testing and Functionality of the modules. 	

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Son Luu Senior Systems Programmer</p> <p>b. Project Assignment: Senior Web Programmer</p> <p>c. Name of Firm with which associated:  Dewberry</p>	<p>a. Name & Title: Bert Marcel Emergency Management Specialist</p> <p>b. Project Assignment: Deputy Field Manager</p> <p>c. Name of Firm with which associated:  Dewberry</p>
<p>d. Years of experience: With This Firm: 1 With Other Firms: 28</p> <p>e. Education: Degree(s) / Year / Specialization BS/1982/Electrical Engineering</p> <p>f. Active Registration: Year First Registered / Discipline n/a</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Luu is an IT professional with 29 years of experience in application software design, testing, and implementation, including over 28 years in object-oriented development and telecom applications. He has designed and implemented custom network software and Internet applications using C#, C++, java, object-oriented languages for laptop/desktop, and smartphones under Microsoft .NET, RedHat Linux, and Symbian environments.</p> <p>Data Enhancements for NODC, National Oceanic & Atmospheric Administration, Software Programmer to develop new web pages. Dewberry is developing tailored web page applications using JavaScript and HTML for accessing data via various NODC web services. These applications will be a maximum of 5 single page applications and will exploit web services, applications, and various data services being run at NODC. Dewberry will investigate best practices for similar environmental data services when developing prototype solutions which can include mapping interfaces. A final report will be presented to NODC regarding an evaluation of the Software Independent Archiving of Relational Databases (SIARD) format for NOAA geospatial relational databases.</p> <p>Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY, Webpage Development and Enhancement for pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.</p>	<p>d. Years of experience: With This Firm: 4 With Other Firms: 14</p> <p>e. Education: Degree(s) / Year / Specialization B.Arch./1996/Architecture</p> <p>f. Active Registration: Year First Registered / Discipline 2012/Architecture (LA #7877)</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Marcel has over 10 years of experience in disaster relief contract work for various federal, state, and local government agencies including performing over 10,000 disaster and quality control assessments, supervising over 60,000 assessments and training and supervising over 100 assessors, reviewers, and office and IT personnel. Specializes in creative and technical thinking required to get new projects off the ground. Prior CBDG-DR roles include almost four years as the Field Manager for Dewberry in New York City's Build It Back Relief Program and Louisiana's Road Home Program.</p> <p>Mr. Marcel spent seven years working in various architecture firms with experience in all aspects of delivery including schematic design, design development, construction documents, bidding and construction administration.</p> <p>Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY, Construction Engineer for pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Timothy Mossburg Senior Database Administrator Programmer Analyst</p> <p>b. Project Assignment: Database Administrator</p>	<p>Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY, Senior Database Administrator for pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.</p> <p>Project Management Contract for Superstorm Sandy Waterway Debris Removal, New Jersey Department of Environmental Protection, Statewide, NJ, Senior Database Administrator. Superstorm Sandy of October, 2012 caused severe and widespread damages across the State of New Jersey, resulting in an extensive amount of debris to be deposited in the State's waterways and coastal areas. The responsibility for the cleanup and removal of this debris material has been given to the New Jersey Department of Environmental Protection (NJDEP). The activities associated with the cleanup and debris removal are eligible, reimbursable costs under the Federal Emergency Management Agency (FEMA) Public Assistance program. Dewberry supported NJDEP in planning and managing a state level, regionally organized contract to remove and monitor debris from waterways, while maximizing FEMA reimbursement. This contract was done under an accelerated schedule, with a critical path to open beaches and navigable waterways by June 1, 2013.</p>
<p>c. Name of Firm with which associated: </p>	<p>Data Enhancements for NODC, National Oceanic & Atmospheric Administration, Senior Database Administrator. Dewberry is developing tailored web page applications using JavaScript and HTML for accessing data via various NODC web services. These applications will be a maximum of 5 single page applications and will exploit web services, applications, and various data services being run at NODC. Dewberry will investigate best practices for similar environmental data services when developing prototype solutions which can include mapping interfaces. A final report will be presented to NODC regarding an evaluation of the Software Independent Archiving of Relational Databases (SIARD) format for NOAA geospatial relational databases.</p>
<p>d. Years of experience: With This Firm: 9 With Other Firms: 23</p> <p>e. Education: Degree(s) / Year / Specialization BS/1995/Computer Programming and Information Systems BA/1980/Sociology</p> <p>f. Active Registration: Year First Registered / Discipline n/a</p>	<p>FEMA Management and Performance of Housing Inspection Services in Disaster Areas, Senior Database Administrator/Programmer Analyst/Security Manager. Dispatches specially trained inspectors to disaster sites across the country to assess disaster-damaged houses and determine eligibility for federal assistance. Field inspectors have responded to nearly 30 presidential disaster declarations from coast to coast following floods, tornadoes, snow and ice storms, earthquakes, and hurricanes.</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

a. Name & Title:

Joe Burgess
Staff Geographer

b. Project Assignment:

Mapping/GIS Specialist

c. Name of Firm with which associated:



d. Years of experience: With This Firm: **8** With Other Firms: **n/a**

e. Education: Degree(s) / Year / Specialization

MS/2007/Geography
BS/2004/Geography

f. Active Registration: Year First Registered / Discipline
n/a

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Burgess has over 8 years of experience with GIS and environmental mapping at Dewberry where he has prepared flood maps and reports, participated in discovery processes, and worked with Risk MAP datasets, which require data research and gathering information from hazard mitigation plans. As a graduate student at the University of Tennessee, Mr. Burgess studied climate change in remote areas of Costa Rica. He also has experience teaching and training others in GIS.

NYSDEC/NYSOGS Lake Ontario Discovery, Co-wrote and created maps for discovery reports. Dewberry provided assistance in the Discovery process in accordance with the specifications outlined in detail in the Federal Emergency Management Agency (FEMA) Guidelines and Specifications for Flood Hazard Mapping Partners (Guidelines) and all Procedure Memoranda effective as of the date of this proposal. We have also incorporated pertinent aspects of the Great Lakes Coastal Flood Study (GLCFS) initiated by FEMA.

Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY, Managed GIS data and created environmental maps. Dewberry provided pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster

Recovery (CDBG-DR) funds, including both single- and multi-family residences. For each application, we are responsible for damage inspections, estimating cost to complete rehabilitation, and conducting environmental reviews.

FEMA Risk MAP Production & Technical Services (PTS), Federal Emergency Management Agency, Nationwide, Assisted in the various aspects of FEMA's flood hazard mapping program. One of the largest flood mapping programs in the US, providing program management, production and technical services to include flood insurance studies, DFIRM and LOMC production, coastal/riverine H&H; hazard risk assessment and mitigation production, outreach, and post-preliminary processing and evaluation services. Developed award winning "GeoFIRM" to support engineering, GIS, and DFIRM mapping.

FEMA PTS FY13 Region II Task Order #90 Great Lakes Discovery, Co-Wrote and created maps for discovery reports. Discovery will be conducted for HUC-8 watersheds (within NY only) that touch Lake Erie and intersect with Erie or Chautauqua Counties, New York. RAMP will plan to have one meeting per watershed in Chautauqua and Erie Counties on Lake Erie for a total of four meetings.

Meteorological Services, Colorado Water Conservation Board, Assisted in the creation of daily flood bulletin as well as mapping products. This 5-year project provides daily flood threat bulletins and twice weekly long-range outlooks for weather and precipitation across the State of Colorado. This work involves the coordination of a team of 6 meteorologists and geospatial analysts tasked with the development of publication of forecasts through a web-base portal that makes extensive use of email and Twitter for community outreach.

NJDEP Term Contract TC-007, New Jersey Department of the Treasury, Division of Property Management and Construction, Multiple Locations, NJ, Assisted in the creation of hazard mitigation mapping products. Dewberry is providing engineering and GIS mapping services to the New Jersey Department of Environmental Protection through the New Jersey Department of Treasury.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Joe Klein III, PE Program Manager</p>	<p>review and comparison of electrical codes and standards as part of engineering feasibility reviews for electrical system retrofits in Iowa.</p> <p>Conducted technical feasibility and cost evaluation for elevating seven homes along the Housatonic River, Shelton, CT. Project was found feasible and the proposed costs reasonable for six on the homes. The seventh home was a week-end residence with indications of significant structural issues. The proposed construction cost proposal was found to include a cost to cover the risk of additional damage that might occur during the elevation. As the risk was identified, and potential cost impact included in the budget, the project was found to be feasible, and the cost reasonable.</p> <p>Technical Assistance Research Contract (TARC), FEMA, Subject Matter Expert.</p> <p>Mr. Klein was responsible for the development of an updated inventory of jurisdictions adopting hazard resistant building codes after the 2004 hurricane seasons. He evaluated changes required at the local enforcement level to implement the new design and construction requirements in the local design and construction community. In addition, Mr. Klein was also responsible for technical review of the geotechnical design criteria and review of prototype foundations developed for inclusion in FEMA 85 Protecting Manufactured Homes from Floods and Other Hazard.</p> <p>FEMA-4031-DR-NY, Tropical Storm Lee, Federal Emergency Management Agency.</p> <p>Project Cost Lead. Provided project cost estimate to restore infrastructure assets damaged by severe flooding. Facilities included roads, bridges, water and wastewater systems, slopes, public buildings, and public parks. Responsibilities included conducting damage assessments to develop quantitative scopes of work, as well as means and methods of construction issues that would impact construction cost. Conducted training briefings for Project Officers on issues of general construction cost estimating and the FEMA Cost Estimating Format program.</p> <p>Metropolitan Washington Council of Government Damage Assessment Plan:</p> <p>Technical lead in development of post disaster damage assessment plan for the District of Columbia. Plan includes overarching processes and procedures for managing damage assessments to achieve accurate data needed to support response and recovery decisions. In addition to the master plan, detail operational plans are included for 15 Task Force Assessment Teams organized by infrastructure asset category.</p>
<p>b. Project Assignment: Geotechnical Subject Matter Expert</p>	
<p>c. Name of Firm with which associated:  Dewberry</p>	
<p>d. Years of experience: With This Firm: 12 With Other Firms: 32</p>	
<p>e. Education: Degree(s) / Year / Specialization MS/2006/Emergency and Disaster Management MS/1973/Civil Engineering BS/1969/Civil Engineering</p>	
<p>f. Active Registration: Year First Registered / Discipline 1973/Professional Engineer: VA, DC, MD, SC, CO, AL</p>	
<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Klein has extensive involvement in emergency management consulting for state and municipal clients, as well as FEMA Disaster and Mitigation Program contracts. This has included hundreds of reviews of Post-Disaster Mitigation and Hazard Mitigation Assistance applications. Previously, he accumulated over 30 years of experience as Engineer-in-Charge of geotechnical investigations for infrastructure projects in the US and abroad. Mr. Klein is responsible for developing and validating enhancement to the FEMA Cost Estimating Format used to estimate construction cost associated with restoration of disaster damaged infrastructure. He is a FEMA certified Cost Estimating Format lead trainer.</p>	
<p>Pre-Construction Services Related to Hurricane Sandy Relief Programs (Build it Back), New York City Economic Development Corporation (NYCEDC), Technical Lead.</p> <p>Developed conceptual designs for new foundation systems for houses being elevated, and developed a template for estimating costs to elevate houses based on the geometry of the house and the required elevation height. The \$38M contract providing Pre-Construction inspection, mitigation concepts, feasibility review, cost estimating, and EHP Compliance services to NYC Build It Back Program which involved 10,000 individual and 900 multi-family properties eligible for assistance under HUD's CDBG DR Program.</p> <p>Hazard Mitigation Technical Assistance Program (HMTAP), Federal Emergency Management Agency (FEMA). Engineering Feasibility Technical Lead for Dewberry's 5-year FEMA contract. Mr. Klein conducted engineering feasibility reviews for hundreds of projects for HMA grant programs including for the Hazard Mitigation Grant Program (HMGP) in Texas and Iowa. He also conducted a comprehensive</p>	

a. Name & Title:

James Boudreau Jr, EIT
Geotechnical Engineer

b. Project Assignment:
Geotechnical Engineer

c. Name of Firm with which associated:



d. Years of experience: With This Firm: **2** With Other Firms: **2**

e. Education: Degree(s) / Year / Specialization
BS / 2011 / Civil Engineering

f. Active Registration: Year First Registered / Discipline
2011 / ACI Concrete Field Testing Technician, Grade 1 / NJ

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Boudreau is a geotechnical engineer who coordinated and performed geotechnical explorations using various methods including standard penetration testing, cone penetration testing and test pit advancement. He is responsible for document preparation pertaining to geotechnical exploration and design, including preparation of proposals, test boring logs, test pit logs, and geotechnical reports. He has performed analysis and design of foundations and earth retaining structures using pertinent engineering concepts and numerous computer analysis programs.

Reconstruction, Rehabilitation, Elevation and Mitigation (RREM) Program for CDBG-DR, Various Locations, NJ. Geotechnical Engineer for geotechnical soil boring and preparation of a geotechnical report presenting foundation recommendations and design parameters for the RREM Program for Superstorm Sandy damaged homes. The State of NJ changed the program in late 2013 to a design-build program; whereas, Dewberry's turnkey design services were provided to the State's preferred builders on over 350 homes to date. Dewberry provided land surveying, civil design, geotechnical investigation, foundation design (shallow and deep foundations), architectural design and land use and construction permitting services for homes to be rebuilt with program prototype designs and for existing homes that were required to be elevated to meet new FEMA base flood elevations.

NYCDDC Green Infrastructure, New York City Department of Design + Construction, Queens, NY. Geotechnical Engineer for new green infrastructure systems as part of the New York City Department of Environmental Protection's Green Infrastructure Plan, an initiative to reduce Combined Sewer Overflows and improve water quality. The green infrastructure will mostly consist of Right-of-Way Bioswales, or tree pits with native plants; curb cuts; and layers of permeable soil, sand, and gravel.

NYCDDC Installation of Storm and Sanitary Sewers in 20th Avenue Area and Water Main Replacement in College Point Area (SE-807), New York City Department of Design + Construction, Queens, NY. Geotechnical Engineer for engineering services to design separate storm and sanitary sewer systems in Queens in accordance with the New York City Department of Environmental Protection's new drainage plan.

Preliminary Design Services for Green Infrastructure Work for Newtown Creek DEP Priority CSO Tributary Area (NCQ-077), New York City Department of Design + Construction, Multiple Locations, NY. Geotechnical Engineer for the design of right-of-way green infrastructure including right-of-way bioswales and stormwater greenstreets within New York City Department of Environmental Protection's Priority CSO tributary areas. The green infrastructure will help manage the first one inch of rainfall runoff before it discharges into combined sewers that have been identified to reach capacity and overflow into New York City's water bodies during rainfall events.

DASNY Term Agreement for Energy Performance Professional Services, New York State Dormitory Authority, Various Locations, NY. Geotechnical Engineer for engineering services with the Dormitory Authority of the State of New York for DASNY clients. This is a \$2-million maximum two-year contract with an option for an additional two years.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Eugene Schwarzrock, PE Assistant Department Manager - Geotechnical</p> <p>b. Project Assignment: Senior Geotechnical Engineer</p>	<p>permitting services for homes to be rebuilt with program prototype designs and for existing homes that were required to be elevated to meet new FEMA base flood elevations.</p>
<p>c. Name of Firm with which associated: </p>	<p>NYCDDC Requirements Contract for Engineering Design and Related Services #HWDKR02, New York City Department of Design + Construction, Brooklyn and Staten Island, NY. Geotechnical Engineer for engineering design services on a task-order basis for a three-year period. Work includes preliminary design services, final design services and additional professional services in connection with NYCDDC's capital improvement projects for roadways, pedestrian bridges and retaining walls.</p>
<p>d. Years of experience: With This Firm: 20 With Other Firms: 6</p> <p>e. Education: Degree(s) / Year / Specialization MSCE / 1997 / Civil Engineering BS / 1990 / Forest Engineering</p>	<p>NYCDDC Green Infrastructure, New York City Department of Design + Construction, Queens, NY. Geotechnical Engineer for new green infrastructure systems as part of the New York City Department of Environmental Protection's Green Infrastructure Plan, an initiative to reduce Combined Sewer Overflows and improve water quality. The green infrastructure will mostly consist of Right-of-Way Bioswales, or tree pits with native plants; curb cuts; and layers of permeable soil, sand, and gravel.</p>
<p>f. Active Registration: Year First Registered / Discipline 1999 / Professional Engineer / NY, NJ, CT, PA, GA, VA, MA, FL, MD, NC</p>	<p>NYCDDC Installation of Storm and Sanitary Sewers in 20th Avenue Area and Water Main Replacement in College Point Area (SE-807), New York City Department of Design + Construction, Queens, NY. Geotechnical Engineer. Responsible for engineering services to design separate storm and sanitary sewer systems in Queens in accordance with the New York City Department of Environmental Protection's new drainage plan.</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: As a Senior Geotechnical Engineer, Mr. Schwarzrock is responsible for design and supervision of subsurface investigations, and geotechnical design and analysis related to buildings and highway construction. Specific experience includes design and analysis of shallow and deep foundations for buildings and highway and railroad bridges, various types of retaining structures, concrete, steel and timber piles, pedestrian bridges, cellular antennae tower foundations, stabilization of embankment fills over compressible deposits, design of super lightweight embankments using geofabric, slope stability analysis with and without geotextile reinforcement, driven and drilled pile foundations, and drilled shafts. He is also involved in review of geotechnical aspects of construction such as wave equation evaluation, settlement data analysis, temporary sheeting design review, PDA and load test evaluation, and constructibility reviews.</p>	<p>Preliminary Design Services for Green Infrastructure Work for Newtown Creek DEP Priority CSO Tributary Area (NCQ-077), New York City Department of Design + Construction, Multiple Locations, NY. Geotechnical Engineer for design of right-of-way green infrastructure including right-of-way bioswales and stormwater greenstreets within New York City Department of Environmental Protection's Priority CSO tributary areas. The green infrastructure will help manage the first 1" of rainfall runoff before it discharges into combined sewers that have been identified to reach capacity and overflow into New York City's water bodies during rainfall events.</p>
<p>Reconstruction, Rehabilitation, Elevation and Mitigation (RREM) Program for CDBG-DR, Various Locations, NJ. Geotechnical Engineer for geotechnical soil boring and preparation of a geotechnical report presenting foundation recommendations and design parameters for the RREM Program for Superstorm Sandy damaged homes. The State of NJ changed the program in late 2013 to a design-build program; whereas, Dewberry's turnkey design services were provided to the State's preferred builders over 350 homes to date. Dewberry provided land surveying, civil design, geotechnical investigation, foundation design (shallow and deep foundations), architectural design and land use and construction</p>	<p>Reconstruction, Rehabilitation, Elevation and Mitigation (RREM) Program for CDBG-DR, Various Locations, NJ. Geotechnical Engineer for geotechnical soil boring and preparation of a geotechnical report presenting foundation recommendations and design parameters for the RREM Program for Superstorm Sandy damaged homes. The State of NJ changed the program in late 2013 to a design-build program; whereas, Dewberry's turnkey design services were provided to the State's preferred builders over 350 homes to date. Dewberry provided land surveying, civil design, geotechnical investigation, foundation design (shallow and deep foundations), architectural design and land use and construction</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project:

<p>a. Name & Title: Sarah Pedicini Staff Engineer</p>	<p>FEMA Hazard Mitigation Technical Assistance Program (HMTAP) TO 14-J-0003, Losses Avoided Study. Civil Engineer for a loss avoidance study (LAS), based on rigorous and defensible methodologies justifying past and future mitigation expenditures. Conducting analyses to identify data gaps and working with FEMA and other stakeholders to collect data needed to fill gaps. Based on data collection, will identify best practices and other cost effective strategies to reduce future damages and losses. These practices and strategies are intended to focus on regulatory measures rather than specific structural and non-structural physical mitigation measures associated with more traditional loss avoidance studies. Will co-author the LAS findings report.</p>
<p>b. Project Assignment: Coordination/Admin</p>	<p>Colorado HMGP, AMEC. Environmental Engineer responsible for data collection and preparation of Environmental and Historic Preservation (EHP) documents for sixteen HMGP applications for three different subapplicants. Dewberry is providing technical and coaching assistance to assigned Colorado communities (Denver, Colorado Springs, Jamestown, Evans and Longmont) to complete FEMA Hazard Mitigation Grant Program applications. The work includes project site visits, facilitation of complete application packages (Scope of Work, Project Alternatives, Budgets, Schedule, Maintenance Plan, Maps and Attachments, Assurances and other required application elements) and participation in administrative activities such as multiple weekly conference calls, Quality Checks on applications and progress reporting. The HMGP projects include acquisition, infrastructure retrofit, soil stabilization, generators, elevation, and minor flood reduction.</p>
<p>c. Name of Firm with which associated: </p>	<p>VDOT STOC Tunnels ERP Ex Prog, Facilitator. A series of 8 discussion based exercise scenarios will be developed under this task order to include scenarios for hurricane, earthquake, fire, motor vehicle accident, improvised explosive device (IED), vessel running aground, winter weather, and flooding within a tunnel. The first of the discussion based exercises will involve personnel and emergency response stakeholders from the East River Mountain Tunnel and the Big Walker Mountain Tunnel, both located on Interstate 77 in VDOT Region 1. The first exercise will be held early in Calendar Year (CY) 2014 as a proof of concept and will utilize VDOT's Fiscal Year (FY) 2014 funding. The exercise will focus on validating the Tunnels' ERPs, discussing any planning gaps or additional planning needs, as well as strengthening the working relationships between VDOT and Tunnels' ERP stakeholders in the region.</p>
<p>d. Years of experience: With This Firm: 1 With Other Firms: n/a</p>	<p>MS/2014/Environmental Engineering BS/2011/Engineering Sciences</p>
<p>e. Education: Degree(s) / Year / Specialization MS/2014/Environmental Engineering BS/2011/Engineering Sciences</p>	<p>Active Registration: Year First Registered / Discipline Engineer-in-Training</p>
<p>f. Other Experience and Qualifications relevant to the proposed project: Ms. Pedicini has assisted on a variety of projects for Dewberry including cost-benefit application reviews and environmental condition analysis. As an environmental engineer, Ms. Pedicini also has experience in utility asset management, data collection and management, and research and development of project reports.</p>	<p>Pre-Construction Services for "Build It Back" Relief Program, New York City Economic Development Corporation, New York City, NY. Project Coordinator for pre-construction services related to the NYC Build it Back program, a federally funded City program to assist homeowners, landlords, and tenants whose homes were impacted by Hurricane Sandy. The City received more than 20,000 applications for Community Development Block Grant-Disaster Recovery (CDBG-DR) funds, including both single- and multi-family residences. As project coordinator, responsible for organization and data management of appraisals; overseeing of quality control assignments for manual data entry, coordination of weekly meeting agendas and minutes with client, and assisting the deputy project manager.</p>
<p>g. Hurricane Sandy HMCE Tool, PMO Partnership JV LLC, Project Engineer.</p>	<p>Responsible for reviewing applications submitted by transit agencies requesting funds for resilience projects in response to damages suffered by Superstorm Sandy. Conducted HMCE reviews for each application and made recommendations regarding the cost-effectiveness of each proposed project. As appropriate, completed alternate cost-effectiveness analyses to include additional considerations found in grant application but not included in analyses submitted by applicants.</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work For Which Firm Was/Is Responsible
(1) Pre-Construction Services for "Build it Back" Relief Program New York City	Prime Contractor	New York City Economic Development Corporation Joe Christo 110 William St., 6 th Floor New York, NY 10038 212.615.8039 Project Manager: Doug Frost 703.208.1744	2015 (est.)	\$38,171	\$30,000

Dewberry is supporting the Mayor's Office of Housing Recovery Operations (HRO) in partnership with NYCEDC with pre-construction services related to the NYC "Build it Back" program. NYC "Build it Back" is a federally funded City program to assist homeowners, landlords, and tenants in the five boroughs whose homes were impacted by Hurricane Sandy. The program is funded by U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) funds. The City received more than 20,000 applications, including both single- and multi-family residences.

For each application, we are responsible for:

- inspecting residences to assess the level of damage incurred;
 - estimating cost to complete rehabilitation (including the development and implementation of appropriate strategies to address resiliency or mitigate environmental concerns); and
 - conducting environmental review to clear the projects for the use of federal funds.
- Many of the structures require asbestos and lead inspections to be performed by qualified NYCDEP Asbestos Investigators and USEPA Lead Risk Assessors. Samples collected during inspections are delivered to an accredited laboratory retained directly by Dewberry.

The Program's success will be defined by efficiently making awards to applicants and completing construction while maximizing the impact of available funding. We developed and refined a process flow to support accurate inspections and cost estimates, as well as thorough environmental review that complies with the long roster of environmental acts and regulations required for federally funded projects. Environmental review is required for historic preservation, floodplain and coastal zones, wetlands, endangered species, air quality, noise, hazardous materials and waste, and environmental justice, among other categories.

PROBLEMS & SOLUTIONS

Coordinating the expectations of various stakeholders. While funding details and deliverables were still being developed at the federal level, the City needed to get the program in place to respond to the needs of residents quickly and efficiently. Leveraging our knowledge of federal and local environmental regulations, as well as practical insight on how to get things accomplished in NYC, Dewberry professionals worked with the HRO, HUD, New York City Department of Housing Preservation and Development, NYC Housing Authority, and a multi-agency stakeholder group to develop this unprecedented program.

Our proactive methods enabled us to define expectations and shape a process to deliver on those expectations. We are using the power of cloud-based and GIS-based data management to streamline inspection, cost estimating, feasibility pathway determinations, and environmental reviews and facilitate processing the large volume of applications and data.



Our unique partnership with NYC HRO has earned Dewberry the reputation as a trusted partner. We have been commended on our flexibility and resourcefulness and received many accolades from applicant homeowners for our professionalism.

Responding to fluctuating workloads. Work under this contract is subject to extreme staffing fluctuations. At some points in the timeline, work is slow awaiting decision-making and direction at the agency level. On short notice, we were able to ramp up resources to process hundreds of applications per day. During our peak production month Dewberry had over 150 staff and six sub consultant firms working to "Build It Back."

Post Event Assessments

Inspectors, armed with the latest technology installed on field tablets, completed a comprehensive 200+-item damage assessment checklist to establish the damage baseline and collect the information needed for engineering feasibility and environmental/historic compliance reviews. Primary information collected included building structure/ electrical/plumbing/HVAC damage; evidence of lead, asbestos, and mold. Dewberry utilized 50 inspectors to achieve a maximum daily production rate of 150 inspections per day.

NEPA/Historic Compliance Reviews

Dewberry Environmental, Floodplain and Cultural/Historic Resource specialists conducted an automated map and database screening of environmental impacts associated with each structure and land parcel in order to complete "no impact" site-specific Tier II environmental reviews. The site-specific review includes assessing the environmental compliance of pre-award activities already completed to authorize reimbursement payments as well as review of proposed future project scope to complete rehabilitation or reconstruction. Build it Back is the first CDBG-DR program to include reimbursement for pre-award activities using federal funds and environmental review. Dewberry coordinated directly with NYS Department of Environmental Conservation (DEC) to digitize existing spill data and review Project Manager files to fully assess potential hazardous waste impacts to residential projects. Dewberry also coordinated with HRO, NYC Housing Preservation and Development, and NYS DEC on a program-specific general permit and procedures for construction in regulated wetland adjacent areas. Individual FONSI and/or Phase II ESA/Subsurface investigations will be conducted as needed.

Feasibility Reviews

Using the results of the field assessment, Dewberry determines whether a property was substantially damaged as defined by NFIP and the NYC Department of Buildings (DOB). The feasibility review also includes an initial estimate of the substantial improvement calculation required by NYC DOB. This estimate includes allowances for identified hazardous material abatement and relocation of the structure's primary mechanical utilities to improve resiliency to flooding. All properties found to be substantially damaged or estimated to be substantially improved undergo a cost reasonableness analysis comparing elevation to demolition and reconstruction. Dewberry engineers, mitigation experts, and construction specialists coordinated with HRO to develop a series of standard foundation conceptual designs and associated cost models based on FEMA publication 550. As part of the cost reasonableness analysis, Dewberry also reviews projects for anticipated compliance requirements associated with the NYC Fire Code and electrical section of the Building Code. Cost



RECOVERY PROGRESS AS OF JANUARY 12, 2015



1013

**CONSTRUCTION
STARTS**



325

**HOMES FULLY
REPAIRED**



2162

**REIMBURSEMENT
CHECKS SENT OUT**

models are based on the above grade area of the structure; the structure dimensions and existing foundation; the total number of existing living units and number of stories above grade; and the flood zone, base flood elevation, and modeled ground elevation. Special engineering studies will be conducted as needed.

Regulations Knowledge

Dewberry professionals leveraged our knowledge of federal regulations and design and construction experience to support HRO in refining the development and implementation of this unprecedented program. We consulted on the format and content of program deliverables to promote acceptance by HUD as well as other City and State agencies involved in the program. We also offered recommendations on the overall process flow to improve program efficiency and applicant experience.



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For Which Firm Was/Is Responsible
(2) FEMA Hazard Mitigation Technical Assistance Program (HMTAP) New Jersey Substantial Damage Estimates New Jersey	Prime Contractor	Federal Emergency Management Agency Freda McDonald, Contracting Officer 500 C St., SW Washington, DC 20472 202.646.3076 Project Manager: Jane Frantz 703.849.0473	2013	\$2,051.96	\$2,051.96

In the wake of Superstorm Sandy, Dewberry provided technical assistance to five communities in coastal New Jersey to help them make Substantial Damage Determinations. Dewberry's fourteen teams used FEMA's Substantial Damage Estimator Tool to perform inspections of 7,000 residential and non-residential structures in Ocean, Middlesex, Monmouth, and Cape May Counties. Inspectors evaluated the damage to each building using 12 general construction categories (e.g., plumbing, foundations, and appliances) and recorded the information in the field using Panasonic Toughbooks. Field data entry is a time and money savings that Dewberry has introduced to the process along with an innovative workload and route planning approach. The results of our evaluations were given to each community to be used as a basis for making substantial damage determinations.



8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work For Which Firm Was/Is Responsible
(3) Reconstruction, Rehabilitation, Elevation and Mitigation Program New Jersey	Subcontractor	New Jersey Department of Environmental Protection 401 East State St. P.O. Box 402 Trenton, NJ 08625 Project Manager: Evan Hill 856.780.3633	2015 (est.)	\$1,100,000	\$1,200

October 2013 to January 2014 - Dewberry provided turn-key design and permitting services as the preferred vendor to one of the State of New Jersey's program management firms leading the Reconstruction, Rehabilitation, Elevation and Mitigation (RREM) Program for Block Grant Disaster Recovery for Super Storm Sandy damaged homes. The State of NJ changed the program in late 2013 to a design-build program; whereas, Dewberry's turn-key design services were provided to the State's preferred builders and resulted in providing services on over 350 homes to date. Dewberry provided land surveying, civil design, geotechnical investigation, foundation design (shallow and deep foundations), architectural design and land use and construction permitting services for homes to be rebuilt with program prototype designs and for existing homes that were required to be elevated to meet new FEMA base flood elevations.

Dewberry's scope of services for a typical project included the following:

- Land Survey of property and existing conditions.
- Completion of an initial elevation certificate.
- Zoning and environmental constraints analysis, including preparation of plot plans and grading/drainage designs.
- Structural assessment of existing foundation support system and structure.
- Geotechnical soil boring and preparation of a geotechnical report presenting foundation recommendations and design parameters.
- Foundation design incorporating shallow spread footings/CMU block walls, driven timber piles or helical piers.
- Structural design services associated with repairs of flood damaged flooring systems and walls.
- Architectural design services included the modification of State approved prototype home designs to fit on individual building lots or as per builder and homeowner revisions.

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	Work For Which Firm Was/Is Responsible
(4) FEMA Management and Performance of Housing Inspection Services in Disaster Areas <i>Nationwide</i>	Joint Venture Managing Partner (Partnership for Response & Recovery)	Federal Emergency Management Agency Nancy Costello, Contracting Officer 500 C St. SW Washington, DC 20472 202.646.4373 Project Manager: Melissa Mangene 703.208.1748	2011	\$388,000	\$300,000

Dewberry, as the managing partner of a Joint Venture Partnership for Response & Recovery (PaRR), has been providing field inspection and program management services to the Department of Homeland Security's (DHS's) FEMA's Housing Inspection Services (HIS) program for the past ten years, under two-separate contracts: Contract #1 (2001 – 2006) and Contract #2 (2006 – 2011). The HIS is the core component of DHS/FEMA's Individual Assistance (IA) program which provides housing assistance to disaster victims to enable them to perform essential repairs to their dwellings. Inspections are performed on all types of dwellings, including high-rise apartments, condos, detached single family homes, and non-conventional dwellings anywhere in the United States. PaRR's response model draws on a nationwide network of more than 4,500 independent contractors, who are knowledgeable in construction issues and oriented to follow DHS/FEMA protocols and programs. This creates flexibility to provide whatever level of support DHS/FEMA needs. Our contractors can travel virtually anywhere on short notice, and stay in the field for extended periods.

Over the duration of the contract, PaRR field personnel have responded to more than 150 Presidential disaster declarations. Inspection services are often provided on multiple declarations simultaneously throughout the nation following floods, tornadoes, snow and ice storms, earthquakes, fires and hurricanes. PaRR conducts from 150,000 to over 1.3 M inspections annually in places as diverse as Miami's "Little Haiti" district and American Samoa. Field personnel are often deployed within a few hours of declaration. Deployment operations include the distribution of field computers and supporting hardware and the establishment of a field office within the disaster area. In 2005 and 2008, PaRR had a combined workforce of over 2,200 (inspectors and RI agents) in the field at one time. Maximum production volumes in excess of 10,000 to 15,000 inspections per day were achieved for sustained periods.

Remote Sensing Technologies

Following the 2005 Hurricane season PaRR initiated the research and development of a Remote Sensing Inspections (RSI) process to explore the use of remote sensing to aid in identifying coastal homes destroyed by hurricane force winds and surge forces. The implementation of a remote sensing process would aid the (IA) program by:

- Providing information on the most devastated areas quickly so DHS/FEMA could direct IA money to the most deserving/neediest applicants in the shortest time-frame possible;
- Ensuring the RSI results are highly accurate, and that appropriate confidence levels are communicated to DHS/FEMA; and
- Reducing the costs of inspections by eliminating/reducing the need for in-house inspections of the areas with the most catastrophic damage.

In order to achieve these goals, PaRR utilized historical hurricane data to develop a two-phased process that is both efficient and accurate at identifying severely damaged homes following a natural disaster. This analysis is based on historical hurricane data that is mostly GIS and Remote Sensing-based. This process included the development of various models for prediction and analysis. The process will remain fluid and will likely change over time to account for technology enhancements and unique disaster scenarios.

Real Time Information Dissemination During Disasters.

A critical component of the HIS is the immediate and accurate sharing of inspection information between DHS/FEMA project monitors, PaRR inspection coordinators, and the inspectors. PaRR has developed a Web-based management information system to manage all aspects of this contract including an automated call-out system—IVR—that is tied into the

deployment module, which enables rapid deployment of thousands of inspectors with minimal effort. In addition, PaRR created <<http://www.parrinspections.com/>><http://www.parrinspections.com/>, an online data warehouse to manage the inspection process and optimize production and quality requirements. It also provides the DHS/ FEMA monitors and inspection coordinators with direct and immediate management information, such as the number of inspectors deployed for each disaster, availability of inspectors, and results of quality control inspections. PaRR has partnered with DHS/FEMA to institute improvements in the data sharing and processing features of these IT components.

Stockpiling Government Equipment

PaRR maintains a warehouse of Government owned equipment in a state of immediate readiness. PaRR's warehouse operation employs a radio frequency identification (RFID) asset management system that tracks over 65,000 unique components. A shipping and distribution relationship with many national shipping carriers allows PaRR to distribute the needed equipment to anywhere in the CONUS within 24 hours. The RFID system also allows PaRR to distribute and retrieve the equipment rapidly and with extremely high visibility. Redundancy is provided through bar-code oriented backup contingency tracking. PaRR manages over 5000 laptop hard drives and regularly updates their drive images with the latest software upgrades, anti-virus updates, and encryption platform through high speed, high volume hard-drive cloning equipment. Version control is managed and drives are color coded for revision history purposes.

Readiness Training

Disaster preparedness is a key component in PaRR's ability to respond rapidly to often unpredictable natural and man-made disasters. Maintaining a ready-workforce to handle all sized disasters is only possible through the use of automated and exercised procedures and processes. Resource management challenges are addressed through project management initiatives, including notification of deployment, training and scheduling for instructors, and technological streamlining of inspections. Through the extensive use of our website, <<http://www.parrinspections.com/>><http://www.parrinspections.com/>, PaRR is dedicated to helping field personnel be more effective in the field, even when they are not on assignment. The website is a versatile tool, providing project data files, an inspector deployment system, and a communication system.

Perhaps the most valuable feature of the website is its sophisticated interactive training tools. PaRR developed an eLearning library with 88 customized courses designed to train nearly 6,000 users, including inspectors, surge staff, QC and team leaders. To date 4,528 users have completed the Big Picture Curriculum. The PaRR e-learning training system captures inspectors' scores and completion status to accurately update the training history of inspectors. In addition, an inspector is able to view any of the courses as many times as they would like, providing a valuable resource in the field and before deployment, to refresh their skills.

Paperless Transmission of Information

PaRR works with DHS/FEMA in an integrated data sharing system in which nearly all transactions are paperless. DHS/FEMA accepts applications from disaster victims and issues inspection assignments to PaRR electronically. PaRR receives the electronic files and optimizes their distribution within the disaster area, then assigns them electronically to an inspector's government issued hand-held computer. The field personnel enter all inspection data digitally and transmit inspection results back to DHS/FEMA and PaRR. Following a quality control review the inspections are released to DHS/FEMA for final approval/processing.

One of the key components of our automated inspector deployment capability is the Cisco IVR (interactive voice recognition) system supported through IP-telephony. Using Dewberry's advanced GIS capabilities and expertise PaRR has developed a GIS based inspection assignment and tracking program that uses computer processing power to optimize the inspection workload by minimizing the travel distance of our inspector as they move from inspection to inspection.

Assignments

- a. Wildfires, California. In 2007, the California wildfires "caused one of the largest evacuations in U.S. history." PaRR responded when called by providing a response team of over 500 staff specifically tasked with going into the shelters and ensuring that individuals staying in shelters were able to register for assistance. Coincident with the registration intake response, PaRR provided housing inspections for this event.
- b. Hurricanes Gustav and Ike, Texas, Louisiana, Alabama, and Mississippi. In September 2008, PaRR deployed field personnel to assist applicants whose homes were damaged. Hurricanes Ike and Gustav. As part of this response PaRR deployed over 1,800 inspectors completing over 350,000 inspections. In addition to PaRR's inspection response,

PaRR also provided over 500 additional registration intake support personnel to support DHS/FEMA's registration intake activities. PaRR not only provided registration intake support in the shelters, but also provided staff to augment DHS/FEMA's registration intake and helpline call center staff.

- c. Flooding, Georgia. In 2009, PaRR was called to respond to massive flooding in Georgia. As part of this disaster response, PaRR was able to use its proprietary GIS software to maximize inspection assignments and response time. PaRR's immediate response to this event enabled DHS/FEMA to and provided assistance to 12,000 victims by the end of the second week. PaRR's efforts allowed DHS/FEMA to respond rapidly and according to the current DHS/FEMA Director Craig Fugate, issue "the first disaster assistance payments the day after the declaration"
- d. Flooding, Tennessee. In 2010, PaRR was called in to provide inspection support when the workload exceeded the capabilities of the primary inspection response contractor to manage within the time constraints that DHS/FEMA requires. PaRR deployed 180 inspectors, completing over 20,000 inspections, with all inspections averaging a turnaround time of less than 3 days. This rapid response was accomplished through the use of PaRR's proprietary GIS software that allowed for the rapid shift of inspection resources as the inspection workload shifted to different affected areas within the state.

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work For Which Firm Was/Is Responsible
(5) Foundation Design and Construction Management Mathews County, VA	Prime Contractor	Mathews County, VA John Shaw Director of Planning & Zoning 50 Brickbat Road, Suite 208 P.O. Box 839 Mathews, VA 23109 Project Manager: David Maxwell 804.205.3342	Ongoing	\$48.175	\$48.175

Purpose: Mathews County Virginia is a coastal county adjacent to the west coast of the Chesapeake Bay. Property owners in the County have been severely impacted by hurricanes, nor'easters and severe repetitive flooding for the past two decades. The County initiated a flood mitigation project to elevate residences using FEMA Hazard Mitigation Grant Funds. An experienced design firm was sought with familiarity with FEMA grant programs to provide building evaluation measurements, flood elevation certificates, foundation load calculations and construction bid documents. Construction monitoring and troubleshooting was also necessary to ensure that "just in time" solutions to unanticipated challenges were provided.

Approach: The team, which included grant manager Community Planning Partners, Inc., met onsite with homeowners to discuss the building's flood damage history and to gain insights into construction history, building modifications and to clarify what the FEMA HMGP program would support. After gathering photographs and complete building and foundation measurements, a foundation system was designed appropriate to the site, flood and wind hazard and load requirements per ASCE-24-05 *Flood Resistant Design and Construction*. Once load calculations were finished, construction bid documents featuring CAD foundation drawings, material specifications and notes were signed and sealed by the licensed professional senior structural engineer who led the team and delivered to the County for bid.

Accomplishments: Dewberry supported the County's on-site Construction Pre-Bid Meeting where the project homes were visited by prospective contractors. During construction, Dewberry provided on-site consultation on several homes with significant structural damage and designed replacement floor joist systems. Final Elevation Certificates were issued that enabled the County Building Official to issue Certificates of Occupancy allowing the homeowners to move back into their homes with the confidence that they are now elevated a foot above Base Flood Elevation. Dewberry was awarded three additional Mathews County Task Orders to design foundation systems for an additional 35 residences during 2015.



9. All work by firms or joint-venture members currently being performed directly for Federal Agencies

a. Project Name & Location	b. Nature of Firm's Responsibility	a. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost	
				Entire Project	Work For Which Firm Was/Is Responsible
<p>AE Contract No. DJBP0200000000002 Task Order Contract for A/E Services Federal Bureau of Prison Northeast Region</p>	<p>ID/IQ contract for general architectural and engineering services</p>	<p>U.S. Department of Justice Federal Bureau of Prisons Regional Contracting Office Federal Prison Camp P.O. Box 1000 Montgomery, PA 17752-9718 <i>Robert Kruskie, Contracting Officer</i> 570.547.0963 x6193</p>	<p>10%</p>	<p>\$625 (fee)</p>	<p>\$625 (fee)</p>
<p>Contract No. FA2835-11-D-0006 Title 2 Energy Reduction Hanscom Air Force Base</p>	<p>A/E services for various civil minor construction, repair, maintenance and alterations projects at Hanscom Air Force Base and/or surrounding federal entities that are the responsibility of the 66th Civil Engineering Squadron and Hanscom AFB</p>	<p>U.S. Air Force, Hanscom 20 Schilling Circle Building 1205 Hanscom AFB, MA 01931 <i>Paul M. Cincotta, Contracting Officer</i> 781.377.4441</p>	<p>3%</p>	<p>\$20,500</p>	<p>\$344 (fee)</p>

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

Dewberry is the sole contractor for HRO Pre- Construction Services under the Build-it-Back (BiB) program

- Housing inspectors completed over 11,000 home inspections
- Engineering staff completed 9,500 Feasibility reports which determine the homeowner pathway
- Environmental staff completed over 9,500 Tier II environmental compliance reports and understands the permitting and reporting requirements
- Developed and implemented a cloud based data management system that interfaces with the HRO CMS IT system and exchanges data near real time
- The Dewberry Data Management System contains all the damage and repair line items for every inspected home including estimated materials quantities and repair costs
- Maintain a complete database of asbestos and lead based paint testing results for every inspected home in the program
- Assisted HRO with the development of the BiB Standard Operating Procedures (SOPs)
- Developed an automated GIS-based comprehensive property information screening system that utilized citywide DOB, DEC, SHPO, LPC, FEMA, USFW, and other agency data sets to determine property compliance against program standards.
- Coordinated and administered over 13,000 inspection scheduling calls with homeowners
- Our Program Managers are a trusted resource to HRO and developed unique expertise with the HRO CMS IT data management platform based on Microsoft Dynamics
- Developed the preliminary design cost model for elevating existing homes located in the FEMA and DEC designated floodplain
- Worked closely with HRO to develop a compliant Quality Management Plan (QMP)

Program Management Highlights

- Practical and current working experience with BiB Minimum Program Standards
 - Especially identification of qualifying repairs versus non-qualifying deferred maintenance
- Recognized by HRO as a seasoned advisor with respect to environmental, HUD CDBG-DR grant, NFIP, and NYC building code compliance
- Fully conversant in the entire spectrum of applicant choice offerings, applicable criteria, and current program triggers for applicant communication and outreach
- Participant in ongoing coordination between HRO and DOB for submission and permit filing requirements
- Have over 50 highly experienced housing inspectors and 15 quality control support staff with intimate knowledge of the inspection and repair data obtained
- We understand the unique challenges associated with lot restrictions and special design constraints for atypical lot configurations and areas where public utilities are limited or non-existent

Information Technology Highlights

- Designed multiple working data information exchanges with over 50,000 transactions to date with third party vendors as well as client systems
- Created automated online document management system streamlining HRO/ OMB approvals with third party audit capabilities
- Considered a trusted partner by HRO IT management and staff
- SME in CMS data mining and process flow within Microsoft Dynamics platform
- Designed, developed and maintained system for receiving, classifying, and retrieving field inspection data and documents
- Designed, developed and maintained system for processing Tier II environmental reports using bulk geospatial analysis and field collected data to auto-populate 75% of report data
- Integrated electronic signatures and sealing of documents
- Built customized management reports for both internal and client management teams
- Built automated workflows and monitoring tools that move applicants through the pre-construction process at key intervals
- Developed document/report submission and quality control system for lead and asbestos vendors
- Cloud based system necessary for program expansion needs
- System architecture allows for separate work streams and access restrictions
- IT Manager with deep knowledge of HRO systems and processes that impact key data points
- Program Management Staff with institutional knowledge of policy decisions and impacts to downstream vendors
- Developed training documents for both Dewberry and HRO staff on use of Dewberry Data Management System as well as HRO's CMS system
- Developed custom management reports for monitoring program production goals

a. The foregoing is a statement of facts.



Signature: Douglas D. Frost, PE, Assistant Vice President

Date:
January 21, 2015



Worley Catastrophe Response



6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1) n/a		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:

John Goforth
Program Manager

a. Name & Title:

Steve Rieffel
Field Manager

b. Project Assignment:

Damage Assessment Management

b. Project Assignment:

c. Name of Firm with which associated:

Worley Catastrophe Response

c. Name of Firm with which associated:

Worley Catastrophe Response

d. Years experience: With this Firm 19 With Other Firms _____

d. Years experience: With this Firm 16 With Other Firms _____

e. Education: Degree(s)/Year/Specialization

Bachelor Science, UT Tyler, 1991

e. Education: Degree(s)/Year/Specialization

f. Active Registration: Year First Registered/Discipline

f. Active Registration: Year First Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:

25 years experience damage assessments via insurance and disaster recovery. 23 years experience Xactimate software. 17 years experience managing insurance related and disaster recovery programs.

g. Other Experience and Qualifications relevant to the proposed project:

16 years experience damage assessments via insurance and disaster recovery programs. 16 years experience Xactimate software. 10 years experience managing insurance related disaster recovery programs.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: Kurt Perque Damage Assessor</p>	<p>a. Name & Title: Scott Blankenship Damage Assessor</p>
<p>b. Project Assignment: Damage Assessments and contract resolution</p>	<p>b. Project Assignment: Damage assessments and contract resolution</p>
<p>c. Name of Firm with which associated: Worley Catastrophe Response</p>	<p>c. Name of Firm with which associated: Worley Catastrophe Response</p>
<p>d. Years experience: With this Firm 5 With Other Firms</p>	<p>d. Years experience: With this Firm 4 With Other Firms</p>
<p>e. Education: Degree(s)/Year/Specialization Business Degree Nichols State University</p>	<p>e. Education: Degree(s)/Year/Specialization Architecture and Technical Drafting University of Texas San Antonio</p>
<p>f. Active Registration: Year First Registered/Discipline</p>	<p>f. Active Registration: Year First Registered/Discipline</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: 5 years experience in the insurance and disaster recovery industries. Proficient in Xactimate software.</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr Blankenship is Haag roofing certified as well as Donan Engineering certification for asphalt roofing. Mr Blankenship has 4 years experience in the insurance and disaster recovery industry. Mr Blankenship has over 10 years experience in engineering construction management. He has served as construction project manager on several occasions.</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) BP Deepwater Horizon / Gulf Coast Claims Facility (GCCF)	Worley provided prime case management for the distribution of more than \$6.3 billion	Charlie Bilbe, 303 Timber Creek, Hammond, LA 70403, 985.542.2364	2012		
(2) Texas Housing Assistance Program / Galveston Housing Assistance Program	Worley was engaged as a subcontractor (data management, project management) in two	Derrick Stensrud, 303 Timber Creek, Hammond, LA 70403, 985.542.2364	2011		
(3) Louisiana Road Home - Homeowner Assistance Program/HWGP	Through the Road Home - Homeowner Assistance Program, a HUD CDBG-DR funded program, approximately 130,000	Derrick Stensrud, 303 Timber Creek, Hammond, LA 70403, 985.542.2364	Portions ongoing		
(4) New York Rising Recovery Program	Worley provided the initial damage assessments for over 13,000 residential properties	John Goforth, 303 Timber Creek, Hammond, LA 70403, 985.542.2364	Ongoing		
(5) New Jersey Sandy Recovery Division (NJ RREM)	Worley provided the initial phase inspection and file management for the distribution of more	Garry Amburgy, 303 Timber Creek, Hammond, LA 70403, 985.542.2364	Ongoing		
(6)					
(7)					
(8)					
(9)					
(10)					

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

Cols. NOT divided like item 8 a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible
n/a					

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

For over 30 years, Worley has been involved in every major disaster either as a contractor for insurance services through multiple insurance companies, or through federal grant programs for disaster recovery. From damage assessments to software design, Worley has provided our clients with thousands of qualified professionals throughout the years. All of our damage assessors have completed Xactimate training and have met the minimum requirements to obtain the Xactimate certification. Each damage assessor deployed to a disaster recovery grant program will have gone through our extensive training program as well.

11. The foregoing is a statement of facts to the best of my information and belief.
Signature: T. Temple

Typed Name and Title: Tim Temple, EVP

Date:

1.29.15



Marvel Architects, PLLC



6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: Joanthan Marvel, FAIA, Principal</p>	<p>a. Name & Title: Scott Demel, AIA, LEED BD+C, Director of Operations</p>
<p>b. Project Assignment: Principal-in-charge</p>	<p>b. Project Assignment: Project Architect</p>
<p>c. Name of Firm with which associated: Marvel Architects</p>	<p>c. Name of Firm with which associated: Marvel Architects</p>
<p>d. Years experience: With this Firm 1 With Other Firms 26</p>	<p>d. Years experience: With this Firm 1 With Other Firms 19</p>
<p>e. Education: Degree(s)/Year/Specialization Harvard University, Graduate School of Design, Masters in Architecture, 1986 Dartmouth College, Bachelor of Arts, Major in Visual Studies/Geography, 1982</p>	<p>e. Education: Degree(s)/Year/Specialization Columbia University, Graduate School of Architecture, Planning & Preservation Master of Science, Historic Preservation 1996 Texas Tech University, College of Architecture, Bachelor of Architecture, cum laude 1994</p>
<p>f. Active Registration: Year First Registered/Discipline Registered Architect: New York, New Jersey, Puerto Rico, Oklahoma, and Maryland NCARB Fellow, AIA</p>	<p>f. Active Registration: Year First Registered/Discipline Registered Architect, New York Stewardson Keefe LeBrun Travel Grant 1999 National Art and Design Competition for Street Trees, Third Place, 1998</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Pierhouse and 1 Hotel at Brooklyn Bridge Park, Brooklyn NY The Pierhouse at Brooklyn Bridge Park development complex will include a 200-room Starwood Hotel and 109-unit condo residence in Brooklyn Heights. Our design innovation responds to the facing park, the urban fabric as well as new FEMA regulations following Superstorm Sandy. Other relevant projects: State Street 14 + 9 Townhouses, Brooklyn, NY Gowanus Green Public Space and Residences Plan, Brooklyn, NY Williamsburg Multi-Family Housing, Brooklyn, NY Meatpacking District Streetscape, New York, NY MTA Flood Mitigation: Street Furniture and Urban Plan, Queens, NY Governors Island Park and Public Space Masterplan, New York, NY Brooklyn Public Library and Residences, 1 Clinton, Brooklyn, NY Flatbush Avenue Residential Building, Brooklyn, NY Third and Bond, Brooklyn, NY Prince Street, New York, NY Mill Pond Park (Bronx Terminal Market Waterfront Park), Bronx, NY</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Relevant projects: 32 Prince Street, New York, NY Chelsea Hotel, New York, NY State Street 14 + 9 Townhouses, Brooklyn, NY Gansevoort Streetscapes, New York, NY Pratt Institute School of Architecture, Brooklyn, NY Pratt Institute Main Library Restoration, Brooklyn, NY St Ann's Warehouse at the Tobacco Warehouse, Brooklyn, NY New Lab at the Brooklyn Navy Yard, Brooklyn, NY Battery Park City Streetscapes, New York, NY McCarren Pool and Community Center, Brooklyn, NY</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) PIERHOUSE AND 1 HOTEL Brooklyn, NY	Architect	Toll Brothers City Living [and Starwood Capital Group] 75 Broad Street, Suite 2100 New York, NY 10004	Current	\$250,000	\$25,000
(2) STATE STREET 14+9 TOWNHOUSES Brooklyn, NY	Architect	HS Development Partners 1114 Avenue of the Americas New York, NY 10036	2006 [14] 2013 [9]	\$13,700 [14] \$10,000 [9]	\$1370 [14] \$1000 [9]
(3) SACKETT UNION TOWNHOMES AND CONDOS Brooklyn, NY	Architect	Alchemy Properties 641 Lexington Avenue New York, NY 10022	2013	\$40,000	\$4000
(4) BROOKLYN PUBLIC LIBRARY, 1 CADMAN Brooklyn, NY	Architect	The Hudson Companies, Inc. 826 Broadway, 11th Floor NY, NY 10003	Current	Private	Private
(5) THIRD AND BOND RESIDENCES Brooklyn, NY	Architect	The Hudson Companies, Inc. 826 Broadway, 11th Floor NY, NY 10003	2010	\$15,000	\$1500
(6) HOBOKEN BOATHOUSE Hoboken, NJ	Architect	City of Hoboken 94 Washington Street Hoboken, NJ 07030	Current	\$7,000	\$700
(7) FAR ROC COMPETITION ENTRY Far Rockaway, Brooklyn, NY	Architect	New York City Department of Housing Preservation & Development, L+M Development Partners, The Bluestone *under a URS contract with the NYC DDC 30-30 Thomson Avenue Long Island City, NY 11101	2013	\$NA	\$NA
(8) GANSEVOORT STREETS CAPES New York, NY	Architect	The Hudson Companies, Inc. 826 Broadway, 11th Floor New York, NY 10003	Current	\$25,000	\$2500
(9) GOWANUS GREEN PUBLIC SPACE AND RESIDENCE PLAN Brooklyn, NY	Architect	The Hudson Companies, Inc. 826 Broadway, 11th Floor New York, NY 10003	2012	\$300,000 [unbuilt]	\$NA
(10) WILLIAMSBURG MULTI-FAMILY RESIDENCE Brooklyn, NY	Architect	The Hudson Companies, Inc. 826 Broadway, 11th Floor New York, NY 10003	Current	Private	Private

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

Cols. NOT divided like item 8 a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

Marvel Architects is dedicated to shaping public space, designing for institutional growth, and expanding economic and creative opportunities for a wide range of clients. Based in New York City, our architects and urban designers integrate the built and natural environments in every project—from infrastructure development and adaptive reuse to master planning, block building, park and waterfront design, as well as multi- and single-family housing. We apply the same meticulous attention to detail to all scales and forms, with the resulting projects and spaces earning our reputation for sensitive and thoughtful design.

Our strength comes from working with a diversity of clients. We have successfully completed projects for mixed-use developers, iconic retail brands, galleries and museums, public and private educational institutions, and city agencies. We have earned a national reputation for designing at the intersection of public and private space, from security bollards on Wall Street to a 600,000SF hotel/condo situated in Brooklyn Bridge Park. Rather than specializing in a "look" or typology, our process consistently uncovers essential qualities of sites and existing structures, and uses them to bring meaning to the new project through rigorous research and analysis.

Our 47-person multi-disciplinary studio collaborates throughout the design and construction process to meet our clients' economic and occupancy requirements, be it to efficiently address an immediate need or develop a long-term phasing and development plan. We are experienced at tackling a variety of challenges with innovative design solutions, as well as transforming ordinary projects into remarkable ones. After more than twenty years working in New York City and across the country, our team has pioneered an entrepreneurial approach to architecture and place-making that has been recognized by more than 60 design and industry awards from peer and client groups.

11. The foregoing is a statement of facts.

Signature: Joanthan Marvel

Typed Name and Title: Joanthan Marvel, Principal

Date: January 5, 2014

H2M architects+ engineers



STANDARD FORM (SF)

255

Architect-Engineer
Related Services
for Specific
Project

1. Project Name/Location for which Firm is Filing:

**SANDHRO, CM/Design/Build for Hurricane Sandy-
Affected Residential Community Recovery,
Boroughs of Queens, Brooklyn and Staten Island**

2a. New York State Contract Reporter Announcement Date, if any:
N/A

2b. Agency Identification Number, if any:
PIN:
8502015HR0011P-13P

3. Firm (or Joint-Venture) Name & Address

H2M architects + engineers
538 Broad Hollow Road, 4th Floor East
Melville, New York 11747

3a. Name, Title & Telephone Number of Principal to Contact
Michael J. Bonacasa, AIA, Vice President
(631) 756-8000, extension 1315, mbonacasa@h2m.com

3b. Address of office to perform work, if different from Item 3

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and In-house personnel on line (B). *Line (A) indicates the approximate number of in-house personnel to be utilized. This number can change depending on the project scope.

(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
3	32	Administrative	13	Electrical Engineers	3	Planners: Urban/Regional	3	Engineering Technicians	1
	53	Architects		Estimators	12	Sanitary Engineers	12	GIS Specialists	1
	1	Chemical Engineers	1	Geologists	1	Specification Writers	1	Biologists	
	46	Civil Engineers	10	Hydrologists/Hydrogeologists	8	Structural Engineers	8	Chemists	
1	21	Construction Inspectors		Interior Designers	4	Surveyors	4	Laboratory Assistants	
	5	Draftsmen/CADD Operators	2	Landscape Architects		Transportation Engineers		Laboratory Technicians	
		Ecologists	10	Mechanical Engineers	13	Environmental Engineers	13	Computer Programmers	2
		Economists		Mining Engineers	16	Environmental Scientists	16	Word Processors	
									254
									TOTAL PERSONNEL

5. If submittal is by JOINT-VENTURE list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office>)

5a. Has this Joint-Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultant/Associates anticipated for this project. (Attach SF 254 for Consultants/Associates listed, if not already on files with Contracting Office).		
Name and Address	Specialty	Worked with Prime before (Yes or No)
1) It is H2M's policy to subcontract to MBE/WBE/DBE firms whenever possible. Should additional sub-consultant services be required, H2M will utilize federal, state and local pre-approved MBE/WBE/DBEs		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		

7. Brief resumes of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Michael J. Bonacasa, AIA, Vice President
b. Project Assignment:	Principal-In-Charge
c. Name of Firm with which associated:	H2M
d. Years experience:	With This Firm: 8 With Other Firms: 16
e. Education:	B-Arch/1991/Architecture
f. Degree/Year/Specialization:	Registered Architect: NY, NJ, CT
g. Other Experience and Qualifications relevant to the proposed project:	

Mr. Bonacasa has 24 years of design and construction experience, specializing in residential and commercial design. He is responsible for directing the architects and project coordinators for all phases of private sector architectural projects from design through construction administration. Mr. Bonacasa's clients include high end private homeowners, general contractors, private developers, and municipalities.

Storm related experience:

- Responsibilities for the storm damaged houses range from doing a field observation and writing reports, designing new basement slabs and foundations to resist uplift and water penetration, designing new pile foundation support systems to raising houses above the FEMA base flood elevations.

- Santos Residence – Oceanside NY
- Warshaw Residence – Massapequa NY
- Lasky Residence – Plainview NY
- Proman Residence – Oceanside NY
- Colletti Residence – Baldwin NY
- Boening Residence – Freeport NY
- Pascual Residence – Freeport NY
- Kleiman Residence – Bellmore NY
- Montella Residence – Oceanside NY
- Spindler Residence – Merrick NY

- Design of a replacement bathroom building to replace existing damaged bathroom building for the town of Hempstead Department of Parks and Recreation. Building will be constructed on a pile supported foundation and elevated in accordance with the FEMA VE zone and NYS Building Construction Code requirements.

- Design of a new elevated office building for the Town of Hempstead Department of Sanitation to replace the prior office building damaged by Hurricane Sandy.

- Assisted the Town of Hempstead Building Department with building inspections for structures that were damaged by Hurricane Sandy to determine their structural stability.
- Retained by several building and home owners to design repairs for structures damaged by Hurricane Sandy.
- Structural consultant for the Town of Hempstead and the Inc. Village of Rockville Centre.

Selected project experience:

- Village of Freeport – Designed new two-story mixed use Harbor Master's Quarters at Sea Breeze Park.
- New 6,000 square foot Baumbliit Building, Bellmore, NY.
- Grove Street Housing, Multiple family nine units.
- Richman Group – 250 unit apartment houses, Yonkers, NY.
- Richman Group – LEED Certified 49 unit apartment house, Yonkers, NY.
- Engel Burman Properties - 53 homes, West Hempstead, NY.
- New La Piazza restaurant, Melville, NY.
- Additions and alterations to Jimmy Hays Steakhouse, Island Park, NY.
- Philips International - New 5,000 square foot building, Bellmore, NY.
- Additions and alterations to the Roslyn County Club, 300 person banquet hall.
- Hilton Garden Inn, 135 rooms, Stony Brook, NY.
- New 5,000 square foot retail building, My Four Realty, Baldwin, NY.
- Family Dollar - Queens Village, Brookhaven, East Northport, NY
- 7000 square foot Pitek residence.
- 6,000 square foot Marinoff residence, Muttontown, NY.
- 10,000 square foot Abramson residence, Merrick, NY.
- 5,000 square foot Bandukra residence, Oceanside, NY.

Prior to H2M, Mr. Bonacasa was the principal and president of Michael J. Bonacasa Architect, P.C. This firm, which specialized in residential, commercial and multiple family dwellings, contracted over 800 projects since 2001.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Robert E. Ikes, III, R.A., LEED AP
b. Project Assignment:	Senior Project Architect
c. Name of Firm with which associated:	H2M
d. Years experience:	With This Firm: 11 With Other Firms: 8
e. Education:	B.Arch./1998
f. Active Registration:	RA: NY/03
g. Other Experience and Qualifications relevant to the proposed project:	LEED Accredited Professional, USGBC (2009)

Mr. Ikes manages and facilitates all phases of architectural and design projects from initial studies through construction administration with the focus being on the commercial, retail and residential projects of the private sector. His responsibilities include preliminary design, construction document preparation, budgeting, scheduling, planning, drawing review and construction administration.

Storm related experience:

- Rehabilitation of the Merrick Transfer Station for the Town of Hempstead Department of Sanitation in Merrick to remediate damage sustained by Super Storm Sandy. Rehabilitation addressed the roofing system, all building utility systems, interior office program and finishes throughout their facility.
- Development of a flood mitigation plan for a multi-story housing complex in Jersey City for Corner Property Management that includes retaining walls, flood proof doors and flood gates to redirect rising storm water away from building.
- Provided in-field regularly scheduled site inspections throughout the rehabilitation work schedule to a condominium complex on the oceanfront in Long Beach. The rehabilitation work included repair/replacement of exterior building finishes, door assemblies, roofing systems and exterior decks to address Sandy storm damage. This service provided Long Beach Oceanfront Inc. (condominium association) and Barrier Beach Management a high level of quality assurance.

Selected project experience:

- Village of Freeport – Design new two-story mixed use Harbor Master’s Quarters at Sea Breeze Park.

- Design and development of new facilities for non-profit organizations such as United Cerebral Palsy of Greater Suffolk and the Pederson-Krag Center which includes the intermediate care facilities and community residences for children and adolescents.
- Design and development of various retail projects that include interior alterations for a fortune 500 company throughout Manhattan, Brooklyn, Bronx, Staten Island and Long Island.
- Working with franchisees to design and construct new restaurant type stores throughout Rockland County, Manhattan, Brooklyn, Bronx, Staten Island and Long Island.
- New 26,000 square foot two-story professional office building design and development in Smithtown for a private client’s professional practice.
- Design and development of a new “Margaritaville theme” restroom and entrance pavilion for the Splish Splash Water Park in Riverhead.
- Working for the Diocese of Rockville Centre to generate the construction documents and specifications to modernize two elevator cars and associated machine rooms at the Holy Trinity Diocesan High School in Hicksville.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Lawrence M. Feeley, Jr. R.A. Senior Architect
b. Project Assignment:	H2M
c. Name of Firm with which associated:	With This Firm: 1 With Other Firms: 37
d. Years experience:	BS/1975/Architectural Technology
e. Education: Degree/Year/Specialization	Registered Architect/1982
f. Active Registration: Year First Registered/Discipline	
g. Other Experience and Qualifications relevant to the proposed project:	

Mr. Feeley is Senior Architect and Quality Control Manager with over 36 years of experience in the areas of design, production, management, quality control, specification writing and construction administration. His responsibilities include the development of eSpec base for the three architectural studios at H2M, providing support in estimating and construction document reviews and maintaining relationships with prior clients.

Selected project experience:

- Lake Grove Housing Complex specification review.
- Melville BAPS Temple specification.
- New York State Office of General Services – review of construction documents for the Rockland Psychiatric Center.
- Long Island Maritime Museum – design of entry doors. Project was part of a Historic restoration funded by the Dormitory Authority of the State of New York.

Storm related experience:

- Design for the rehabilitation of the Oak Beach Life saving station, now a community center, damaged by hurricane Sandy. Building will be relocated and raised in accordance with flood plain and New York State Building Code requirements. Interior and exterior reconstruction includes restoration of historical features of the original lifesaving station.
- Design of a replacement bathroom building to replace existing damaged bathroom building for the town of Hempstead Department of Parks and Recreation. Building will be constructed on a pile supported foundation and elevated in accordance with the FEMA VE zone and NYS Building Construction Code requirements.
- Design of a new elevated office building for the Town of Hempstead Department of Sanitation to replace the prior office building damaged by Hurricane Sandy.
- Sanitation to replace the prior office building damaged by Hurricane Sandy. Design of improvements to three residential units which were damaged by Hurricane Sandy. The work included relocation of mechanical systems, foundation and structural repairs, siding replacements, ACM abatement, interior finish repairs and exterior pavement replacements. The units are under the ownership of Circulo de Hispanidad.
- Specification for the replacement of the floating dock systems for five boating clubs located in Canarsie, NY

- Three building excavation and estimates for the Town of Hempstead Conservation and Waterways to assist the Town in obtaining FEMA funding for repairs required to mitigate damages caused by Hurricane Sandy.

Prior to H2M:

- New Village Hall Complex – Adaptation of a 50 acre former air national guard facility to provide a Village complex including Village hall, DPW, police, community pool and recreational facilities.
- Amityville Village Hall - a new three story facility designed for the Village of Amityville including Village hall, police and archival storage. The building received LEED Gold certification.
- Levy Park maintenance building including vehicular storage bays, maintenance repair garage, equipment storage and staff lockers, meeting/lunch room and exterior material storage areas for the town of Ramapo at Levy Park.
- Tuckahoe Village Hall – Adaptive re-use of a former parochial school for the Village of Tuckahoe including Village hall, police and a third floor tenant rental facilities.
- Eastern Long Island Hospital, Greenport, NY – design of ambulatory surgery wing, emergency entrance, cardiology suite and psychiatric ward addition.
- Suffolk County Department of Park and Recreation – design of maintenance facilities at Montauk Park, Cedar Point Park, Timberpoint Golf Course and Ronkonkoma Park.
- New York State Office of General Services – design of Firearms Training Center for Department of Homeland Security.
- Nassau County Fire Training Academy – design of various training and support buildings.
- Bethpage State Park – clubhouse locker room and office rehabilitations, and addition of an elevator for the 2002 U.S. Open.
- Field investigations and research on historical details for the rehabilitation of Village House for the Oyster ponds Historic Society, Cove Island Barn for the City of Stamford, and other historic projects.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Edward P. Stattel, Jr. Project Coordinator
b. Project Assignment:	H2M
c. Name of Firm with which associated:	With This Firm: 8 With Other Firms: 5 B.Arch/2007/Architecture
d. Years experience:	
e. Education: Degree/Year/Specialization	
f. Active Registration: Year First Registered/Discipline	
g. Other Experience and Qualifications relevant to the proposed project:	

Mr. Stattel's responsibilities include coordinating projects from start to finish, managing younger staff, performing on-site inspections. He is also responsible for project financial success, preparing proposals and project budgets. Mr. Stattel's tasks include field work (measuring, site inspection, etc.), drafting and preparing drawings for all phases of design and construction, designing all phases of work from preliminary schemes to final product. He is experienced in both residential and commercial and multi-family construction and assists with managing responsibilities for certain projects.

Storm related experience: Responsibilities for the storm damaged houses range from doing a field observation and writing reports, designing new basement slabs and foundations to resist uplift and water penetration, designing new pile foundation support systems to raising houses above the FEMA base flood elevations.

- Santos Residence – Oceanside NY
- Warshaw Residence – Massapequa NY
- Lasky Residence – Plainview NY
- Proman Residence – Oceanside NY
- Colletti Residence – Baldwin NY
- Boening Residence – Freeport NY
- Pascual Residence – Freeport NY
- Kleiman Residence – Bellmore NY
- Montella Residence – Oceanside NY
- Spindler Residence – Merrick NY

Selected project experience:

- New five story office building in Hauppauge for Colin Development.
- New BAPS Temple in Melville.
- Experienced with fire and storm repair rehabilitation.
- Experienced in performing building assessment reports and projection of need reports.
- Antioch Baptist Church - Expansion and renovation of existing church in Hempstead, NY.
- Hotel Suites of Port Washington - Expansion and renovation of existing building, in Port Washington to convert existing space to four story hotel.
- La Piazza restaurant located in Melville, NY.
- Meadows at West Hempstead - 53 new home development in West Hempstead, NY.
- Grant Park Development - Multiple multi-family buildings located in Yonkers, NY.
- Various commercial projects, retail stores, restaurants, car dealerships, etc. throughout Long Island.

7. Brief resumes of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Michael W. McKeown, P. E.
b. Project Assignment:	Department Manager – Structural Engineering
c. Name of Firm with which associated:	H2M
d. Years experience:	With This Firm: 23 With Other Firms: 17
e. Education:	BS/1983/Civil Engineering
f. Active Registration:	PE: 1985/NY
Year First Registered/Discipline	

g. Other Experience and Qualifications relevant to the proposed project:

Mr. McKeown directs the structural analysis and design of industrial, municipal, commercial, potable water, sanitary structures, high-rise curtain wall systems, low-rise building structures, wastewater treatment plants, water supply tanks, bridge, culverts and special use structures. Projects include analysis and design of concrete slabs, grade beams and pile foundations, deep reinforced concrete foundations and mat foundations. Structural systems include moment and resisting frame, vertical load carrying frames of steel, concrete and/or masonry construction.

Storm related experience:

- Responsibilities for the storm damaged houses range from doing a field observation and writing reports, designing new basement slabs and foundations to resist uplift and water penetration, designing new pile foundation support systems to raising houses above the FEMA base flood elevations.
- Santos Residence – Oceanside NY
- Warsaw Residence – Massapequa NY
- Lasky Residence – Plainview NY
- Proman Residence – Oceanside NY
- Colletti Residence – Baldwin NY
- Boening Residence – Freeport NY
- Pascual Residence – Freeport NY

Selected project experience:

- Structural analysis and design of reinforce concrete process tanks for the Town of Oyster Bay, Town of Huntington, Port Jefferson Sewage Treatment Plant and Gabreski Airport Wastewater Treatment Plant for Suffolk County DPW, Riverhead Sewer District.
- Structural analysis and design of steel bulkheads and loading docks for the Village of Ocean Beach and for the Town of Brookhaven at Cherry Grove, NY. Marine bulkhead design for the Village of Greenport, Village of Ocean Beach.

- Existing condition survey of the stone façade of the Hempstead House located at Sands Point, NY for the Nassau County Department of Public Works. The Hempstead House is a three story structure, circa 1910, clad in granite rubble stone ornately carved limestone in a traditional gothic style. The existing condition survey included the preparation of a report and design of remedial anchorage for areas requiring emergency repair, along with preparation of construction documents for a future staged repair budgeted at \$3.9 million.
- Structural analysis and design of numerous new building structures, including a new three story with basement firehouse for Jericho Fire District; new three story fire house for the Mamaroneck Fire Department; three story addition to the Headquarters Building for the Hicksville Fire District; new two story firehouses for the Hicksville, East Farmingdale, and Plainview Fire Districts and Stamford, CT Fire Department. Engineering tasks include the Code analysis of the proposed structure, structural analysis and design of the structural elements, preparation of construction documents, and verification of Code compliance with Special Inspection requirements of the applicable building codes.
- Structural analysis and design of numerous reinforced concrete retaining walls for various structures including twenty plus feet high walls for Port Jefferson Sewage Treatment Plant and Hauppauge Sewage Treatment Plant for Suffolk County DPW.
- Structural analysis and design of new building structures for various school districts, including two story classroom additions for Kings Park and Mt. Sinai School Districts; new media center and library Northeast Elementary School, Stamford, CT; new class room additions for the Mt. Sinai School District; and main entrance lobbies, cafeteria additions, and locker room additions for Kings Park and Hewlett Woodmere School Districts.
- Structural analysis and design of reinforce concrete process tanks for the Town of Oyster Bay, Town of Huntington, and Inc. Village of Patchogue Sewer Districts, Pt. Jefferson Sewage Treatment Plant and Gabreski Airport Wastewater Treatment Plant for Suffolk County DPW, Riverhead Sewer District.
- United States Postal Service: structural design of new post offices at Pennington, New Jersey and Whitehouse Station, New York; building modifications for a new USPS ICPS facility at Building 77, JFK Airport; structural design of a new vehicle wash facility at the Melville Bulk Mail Facility; and various modifications to existing post office facilities throughout the New York metropolitan and Long Island areas.
- Structural design of new elevated water tanks for Village of Ocean Beach, Great Neck and Oyster Bay Water Districts, and the rehabilitation of elevated steel water storage tanks for Riverhead, Hicksville, West Hempstead, and Franklin Square Water Districts.
- Structural analysis and design for the replacement of the Brushes Creek Bridge, Town of Southold. Included pile location plan.
- Expert litigation testimony for litigation support of insurance and construction claims.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Katia D. Duque, P.E.	
b. Project Assignment:	Senior Structural Engineer	
c. Name of Firm, with which associated:	H2M	
d. Years experience:	With This Firm: 9	With Other Firms: 13
e. Education: Degree/Year/Specialization	M.E./Structural Engineering/1991 B.S./Civil Engineering/1989	
f. Active Registration: Year First Registered/Discipline	PE: NY/94, NJ/01, CT/00, RI/10	
g. Other Experience and Qualifications relevant to the proposed project:		

As senior structural engineer, Ms. Duque's responsibilities include the project management and structural design of industrial, commercial and sanitary structures. Ms. Duque has experience with the renovation and evaluation of existing historic structures, as well as with the design of new low-rise buildings and additions, ranging from foundation to superstructure. Ms. Duque has been involved in the structural evaluation, remediation and reconstruction of buildings which were compromised by storm surges, and wind and seismic events.

Storm related experience:

- Performed field inspections, documented damages, prepared reports with recommendations and/or prepared drawings with repair or reconstruction details for Town of Hempstead Sanitation Buildings, Point Lookout Bathhouses, Computer Associates Garages, and private and residential properties, which were damaged as a result of storm and seismic events.
- Prepared Drawings in accordance with new FEMA regulations for construction of new pile-supported structures to replace those that were irreparably damaged as a result of Hurricane Sandy for Township of Neptune, NJ; Point Lookout and south shore residences.

Selected project experience:

- Design of pile and pier supported elevated structures to meet new FEMA flood elevations.
- Design of foundations for pre-fabricated storage, equipment, and maintenance garage facilities.
- Structural analysis and design of the additions to Mount Sinai Middle School, South Huntington Elementary School and the Suffolk County Water Authority laboratory facility.
- Inspection, evaluation and repair to the Town of Hempstead Oceanside and Merrick Transfer Facilities.
- New pump stations for the Riverhead Water District, South Huntington Water District, Hicksville Water District, and Flowertime Country Club.

- Design of a training facility for Huntington Manor Fire District, antennae supports for Riverhead Fire District and renovations to Bellerose Fire House.
 - Repair and alterations to the Hicksville Water District's DeMott Avenue water tank and maintenance garage.
 - Assisted in a study to determine locations of sanitary discharges into a storm water collection system at Manhattan Psychiatric Center.
 - Structural inspection, evaluation and reports with recommendations for Point Lookout, Inc. Village of Bayville, Inc. Village of Great Neck, and various residential properties
- Prior to H2M, Ms. Duque designed the superstructure of multi-story buildings and major additions to existing buildings using steel, composite steel and reinforced concrete methods. Her structural designs also included renovations and additions using timber and light gage steel members. Her responsibilities range from designing major structural elements to support systems for brick facades, glass curtain walls, and stone panels. Her major projects included:
- Empire Fulton Ferry State Park waterfront promenade and shore protection and terrace at Welwyn Preserve in Glen Cove; Museum of the City of New York addition; Soka Gokkai Institute.
 - Wantagh Park and Marina bulkhead replacement; Columbia University Crew Boathouse and Dock; fishing pier and miscellaneous structures at the Norman J. Levy Park in Merrick; investigation and repair of various Long Island boat ramps and bulkheads.
 - College of Staten Island Library and Student Center; additions and renovations to Scarsdale's Fox Meadow and Greenacres Schools; New Hyde Park Inn catering facility and underground parking garage.
 - Norwalk Hospital operating room addition and the Staten Island Geriatric Hospital; Carnegie Laboratory addition at Steven's Institute in Hoboken, New Jersey.
 - Pool bandstand, catering and bath house facilities for the Kitzmiller Estate in New Albany, Ohio.
 - PATH Station modifications and improvements at Journal Square and Exchange Place; Bank Street College's brick facade in New York City; alterations to the McGraw Hill Building; investigation, design and renovation of a Broadway, New York City penthouse and roof.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	Scott D. Lehn, P.E.		
b. Project Assignment:	Project Manager - Structural Engineering		
c. Name of Firm with which associated:	H2M		
d. Years experience:	With This Firm: 13	With Other Firms: 0	
e. Education: Degree/Year/Specialization	B.S./2001/Civil Engineering		
f. Active Registration: Year First Registered/Discipline	PE: NY/09		

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Lehn's responsibilities as project engineer include the structural analysis and design of industrial, commercial and multi-purpose structures. Project tasks have included the design of reinforced concrete tanks for potable water supply operations and sanitary sewerage treatment plants using finite element analysis computer software. Additional tasks include the steel post and beam construction for new one to three story firehouses and school buildings, design of concrete slabs, grade beams, concrete foundations and mat foundations, as well as assessment of structural condition of existing buildings.

Storm related experience:

- As a result of damages resulting from Super-Storm Sandy, insurance claims placed with Utica, Travelers, Chubb Group, Liberty Mutual, ACE, and Hartford Insurance companies were investigated. The purpose of these assessments was to determine the extent and/or the cause and origin of damages claimed to have been attributed to flooding, wind, and fallen tree impact occurring during the storm.

Selected project experience:

- Structural analysis and design of a new Sewage Treatment Plant for Suffolk County Sewer District No. 18. Design included a nine chamber 900,000 cubic foot reinforced concrete process tank and a new four chamber 260,000 cubic foot reinforced concrete pre-equalization tank. The STP also required the design of a new single story masonry operations building (5,300 square feet) and headwork's building (1300 square feet) including steel roof joist and structural steel hoist framing and reinforced concrete foundations. Other site structures included the design of several aluminum framed observation and equipment support platforms and reinforced concrete site retaining walls.

- Structural analysis and design of the upgrade and expansion to the Inc. Village of Patchogue Sewage Treatment Plant. Structural design of two new 39,000 cubic feet reinforced concrete clarifier tanks and new 4,500 cubic foot sludge pump station. The design also included the analysis and modification of an existing primary tank to include an aluminum channel and the structural design of a new 112,000 cubic foot reinforced concrete process tank with masonry enclosure.
- Structural analysis and design of wastewater treatment facility at the State University of New York at Stony Brook, Southampton campus. New 12 Chamber, 120,000 cubic foot reinforced concrete process tank with adjacent reinforced concrete basement. Design of a new 5,400 square foot single story masonry laboratory facility that was supported by the tank structure and additional concrete foundations. Building design included structural steel hoist and first floor framing in addition to timber and engineered wood roof and canopy framing.
- Structural design for new reinforced concrete process and pre-equalization tankage and site retaining walls for the sewage treatment plant expansion for Suffolk County Sewer District at the Hauppauge Wastewater Treatment Plant.
- Structural design for a new steel framed building addition to an existing substation for Middle Island Fire Department.
- Structural analysis performed on a steel framed office building in Stamford, Connecticut for support of new HVAC equipment and steel support structure. Structural design for a new pile supported grade beam and structural slab system supporting post and beam and masonry shear walls for a new IRA building located in Brooklyn, NY for the Dormitory Authority of the State of New York.
- Structural design for a new steel framed building structure and reinforced concrete clearwell tanks for the VOC Treatment at South Farmingdale Water District.
- Structural analysis performed on an existing reinforced concrete building floor and roof slabs to support new HVAC rooftop equipment and interior masonry wall partitions for renovations to Massapequa High School.
- Structural design of a new two story bus maintenance facility for the South Huntington School District.
- Structural assessment of existing building conditions for Valley Stream School District.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:	William Brenan Construction Administrator
b. Project Assignment:	H2M
c. Name of Firm with which associated:	With This Firm: 4 With Other Firms: 1 B.S./1990/Architectural Technology
d. Years experience:	
e. Education: Degree/Year/Specialization	
f. Active Registration: Year First Registered/Discipline	
g. Other Experience and Qualifications relevant to the proposed project:	

Mr. Brenan has over 30 years construction experience in the implementing, overseeing, project management and construction management aspects of commercial and residential construction. At H2M, he is responsible for inspecting various projects under construction to insure contractor quality and construction document compliance. Mr. Brenan is involved with the writing and, when needed, enforcement of H2M procedural specifications. He reviews contract documents before going out to bid for constructability, and assists the staff and project architects in processing, reviewing, and approving project documents during the construction phase. He is also an experienced cost estimator working with H2M project managers in establishing project construction budgets.

Storm related experience:

- Town of Hempstead Department of Sanitation – Cost estimate to rehabilitate and/or replace their administration building damaged by Super Storm Sandy, assisted with FEMA related issues regarding costs and quantities – Cost estimate and construction inspections for the rehabilitation to their collections building damaged by Super Storm Sandy – Construction administration and construction inspections for the rehabilitation to their Transfer Station and Tarping Station at both the Merrick Facility as well as the Oceanside Facility, both damaged by Hurricane Irene and Super Storm Sandy.
- United States Postal Service – Inspected and generated report of damages to their Coney Island Facility damaged by Super Storm Sandy
- Various residential Inspections of homes damaged by both Hurricane Irene and Super Storm Sandy for insurance companies we provide this service to.
- Various residential inspections of homes damaged by Super Storm Sandy for the owners to determine level of damage to structure for response to their insurance companies.

- Town of Stony Point – Site inspection, report of damages and cost estimate to replace timber bulkhead damaged at their Vincent A. Clark River View Park, along the Hudson River, by Super Storm Sandy, assisting with additional breakdowns requested by FEMA to help facilitate their funding.
- Town of Hempstead Department of Conservation and Waterways – Field inspection of damages and cost estimate to replace their Bay Constable Building in Point Look Out and their two nature study buildings in Oceanside, as well as on site meetings with FEMA and additional itemized cost break downs as required by FEMA to help facilitate funding.
- Town of Hempstead Parks and Recreation – On site inspection and cost estimate to replace two bath houses at their Point Lookout Park, in Point Lookout, damaged by Super Storm Sandy.
- Various Residences – Assisting in the processing of the required paperwork for the NY Rising Program to maximize the amount of assistance funds they can receive for both their homes and/or their bulkheads, damaged by Super Storm Sandy.
- Township of Neptune, New Jersey – generated a cost opinion to replace their marina building damaged by Super Storm Sandy.

Selected project experience:

- Middle Island Fire Station, Station No. 2 – New two-bay, single story addition and renovation to existing offices, lounge, kitchen and site improvements.
- Islands Trees School District – New maintenance facility with vehicle storage, office space and public bathrooms.
- Smithtown Fire District – New two-story, three-bay fire station with offices and storage, site improvements, and constructability review.
- Hotel at Stony Brook Campus – New five-story hotel with pool addition, site improvements, and constructability review.
- North Massapequa Fire Station – New bathroom and radio room addition and renovation.
- Melville Fire Headquarters – New Kitchen renovation.
- Riverhead Building Department Facility – Worked with owner and insurance company to evaluate construction costs for restoration from building fire damage.

8. Work by firm or joint-venture members which best illustrates qualifications relevant to the project (list not more than 10 projects).					
a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Costs (in thousands)	
				Entire Project	Work for Which Firm is Responsible
(1) Santos Residence Oceanside NY	Designed plans to raise house above base flood elevation with alterations after damage from Hurricane Sandy	Eloy Santos 3442 Riverside Drive Oceanside, NY	9/2015	\$300	\$300
(2) Warshaw Residence Massapequa NY	Designed new finishes due to Hurricane Sandy flooding, construct addition above base flood elevation.	Tom Warshaw 46 Deepwater Avenue Massapequa, NY	6/2015	\$450	\$450
(3) Lasky Residence Plainview NY	Designed new roof after damage from Hurricane Sandy.	Contract was with Adam Goldsmith of AEG Restoration House address is 45 Spector Lane, Plainview NY	10/2014	\$30	\$30
(4) Proman Residence Oceanside NY	Plans for flood damage with minor alterations to house after Hurricane Sandy	Contract was with Marc Marinoff of Marin Restoration Corp. House address is 3351 Woodward Street, Oceanside, NY	10/2014	\$60	\$60
(5) Colletti Residence Baldwin NY	Designed plans to raise house above base flood elevation after damage sustained in Hurricane Sandy	Frank Colletti 2 Canoe Place Baldwin, NY	9/2015	\$250	\$250
(6) Boening Residence Freeport NY	Designed plans to raise house above base flood elevation with alterations after Hurricane Sandy damage	Pam Boening 40 Fairview Place Freeport, NY	9/2015	\$300	\$300
(7) Pascual Residence Freeport NY	Designed new house above base flood elevation after damage sustained during Hurricane Sandy	Joseph Pascual 98 West 2 nd Street Freeport, NY	12/2014	\$350	\$350
(8) Kleiman Residence Bellmore NY	Designed new reinforced concrete slab in basement after damage sustained during Hurricane Sandy	David Kleiman 2253 Wynne Lane Bellmore, NY	8/2014	\$25	\$25
(9) Montella Residence Oceanside NY	Designed new interior finishes due to flooding after Hurricane Sandy. Minor alterations to house.	Nick Montella 40 Waukena Avenue Oceanside, NY	3/2015	\$250	\$250
(10) Spindler Residence Merrick NY	Designed new interior finishes due to flooding from Hurricane Sandy. Minor alterations to house.	Adam Spindler 2947 Shore Drive Merrick NY	8/2014	\$400	\$400

9. All work by firms or joint-venture members currently being performed directly for Federal Agencies.

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address	d. Percent Complete	e. Estimated Costs (in thousands)	
				Entire Project	Work for Which Firm is Responsible
United States Postal Services Various Projects throughout New York and New Jersey	Indefinite Delivery Contract Architectural and Engineering Services	United States Postal Service Hoboken, New Jersey	30% 5 Year Term Contract (2009-2015)	Total Contract NTE \$500/Yr	100%
United States Postal Services Various Projects throughout New York and New Jersey	Indefinite Delivery Contract Environmental Services	United States Postal Service Hoboken, New Jersey	30% 5 Year Term Contract (2009-2014)	Total Contract NTE \$500/Yr	100%

NTE = Not To Exceed

10. Use this space to provide any additional information or description of resources (including any computer design capabilities supporting your firm's qualifications for the proposed project).

H2M being a full service A/E firm is uniquely qualified to provide the required scope of services needed to fulfill the tasks for the design for Hurricane Sandy affected residential community recovery for the boroughs of Queens, Brooklyn, and Staten Island. Working as the design group for the CM team, H2M will provide services including architectural design, environmental planning, building design; plumbing, mechanical, electrical, HVAC, structural, site/civil design, survey and wastewater management/sanitary design. Each project is coordinated and overseen by one or more firm officers in conjunction with a senior staff professional assigned to the project scope for each sector of the project. In this case project sectors will be developed by borough for continuity and efficiency. The services which will be provided by H2M staff teams are proposed as follows:

For the rehabilitation, elevation and reconstruction of the residences (one to four family homes attached and non-attached) for each borough (Queens, Brooklyn and Staten Island).

Architectural Design (includes MEP, structural, landscape, civil and sanitary design as applicable)

- Review of feasibility documents / damage assessments / pen permit research / tier 2 / available environmental reports
- Site visits to verify in place conditions, prepare base floor plans, obtain measurements
- Develop a program compliant scope of work
- Zoning analysis
- Landscape design (elevation and reconstruction)
- Homeowner meetings for review and agree on work (rehabilitation)
- Homeowner meeting / customer service (rehabilitation) (two hours per home)
- Homeowner meeting to review construction documents and obtain sign-off (elevation and reconstruction)
- Preparation of permit applications (elevation and reconstruction)
- Pre-bid meetings with contractors (elevation and reconstruction)
- Preparation of bid documents for construction
- Review and approval of bids

12. The foregoing is a statement of facts



Signature:

Typed Name & Title: Michael J. Bonacasa, R.A., Vice President

Date: January 9, 2015



Garrison Architects



6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, If not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1. STV 225 Park Avenue South New York, NY 10003-1604	Mechanical, Electrical, and Plumbing Engineering	Y
2. Carlin Simpson 61 Main Street Sayreville, NJ 08872	Geotechnical Engineering	Y
Sherwood Design Engineers 3. 10 East 40th Street, 39th Floor New York, NY 10016	Civil Engineering	Y
M Paul Friedberg 4. 41 East 11th Street New York, NY 10003	Expeditor	Y
William Vitacco Associates Ltd. 5. 299 Broadway Fifth Floor New York, NY 10007	Expeditor	Y
6.		
7.		
8.		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: James Garrison, Principal in Charge</p>	<p>a. Name & Title: Sal Tranchina, Project Manager (architecture)</p>
<p>b. Project Assignment: Lead Designer</p>	<p>b. Project Assignment: Project Manager</p>
<p>c. Name of Firm with which associated: Garrison Architects</p>	<p>c. Name of Firm with which associated: Garrison Architects</p>
<p>d. Years experience: With this Firm 22 With Other Firms 12</p>	<p>d. Years experience: With this Firm 8 With Other Firms 15</p>
<p>e. Education: Degree(s)/Year/Specialization Syracuse University, NY Bachelor of Architecture, 1976</p>	<p>e. Education: Degree(s)/Year/Specialization Columbia University, NY Graduate School of Architecture Master of Architecture, 1992</p>
<p>f. Active Registration: Year First Registered/Discipline 03/20/1981, New York State, Architecture, Licence number 014943</p>	<p>f. Active Registration: Year First Registered/Discipline 05/29/1998, New York State, Architecture, Licence number 026418 New Jersey State, Architecture LEED certified 06/22/2009</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: DDC DESIGN EXCELLENCE PROJECTS: NYC Parks Beach Restoration Modules, Staten Island, Brooklyn, and Queens, NY Bedford-Stuyvesant Restoration Plaza, Brooklyn, NY Staten Island Animal Shelter, Staten Island, NY Irish Repertory Theater, New York, NY Elmhurst Public Library, Queens, NY OTHER SELECTED PROJECTS: NYC Emergency Housing Prototype, Brooklyn, NY Syracuse University School of Architecture, Syracuse, NY Swiss Center, New York, NY GSA National Border Housing Program, Various Locations, USA GSA Border Patrol Station, Murrieta, CA US Consulate Residence, Apia, Samoa Lehman College Child Card Center, Bronx, NY SELECTED AWARDS: 2010 AIA/NYS two Design Awards; 2003 & 2010 Chicago Athenaeum American Architecture Award; 2006 & 2002 GSA Design Excellence Award; 2006 AIA/NYS Design Merit Award</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: DDC DESIGN EXCELLENCE PROJECTS: NYC Parks Beach Restoration Modules, Staten Island, Brooklyn, Queens, NY Bedford-Stuyvesant Restoration Plaza, Brooklyn, NY Staten Island Animal Shelter, Staten Island, NY Irish Repertory Theater, New York, NY Elmhurst Public Library, Queens, NY Roberto Clemente Plaza, Bronx, NY OTHER SELECTED PROJECTS: NYC Emergency Housing Prototype, Brooklyn, NY GSA National Border Housing Program, Various Locations, USA GSA Border Patrol Station, Murrieta, CA Lincoln-Juarez Land Port of Entry, Laredo, TX US Consulate Residence, Apia, Samoa Lehman College Child Card Center, Bronx, NY</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: Chris Kilbridge, Project Architect</p>	<p>a. Name & Title: Caitlin Moore, Project Architect</p>
<p>b. Project Assignment: Project Architect</p>	<p>b. Project Assignment: Project Architect</p>
<p>c. Name of Firm with which associated: Garrison Architects</p>	<p>c. Name of Firm with which associated: Garrison Architects</p>
<p>d. Years experience: With this Firm <u>2</u> With Other Firms <u>20</u></p>	<p>d. Years experience: With this Firm <u>4</u> With Other Firms <u>12</u></p>
<p>e. Education: Degree(s)/Year/Specialization Columbia University Master of Architecture 1992 Vassar College Bachelor of Arts in Archaeology 1986</p>	<p>e. Education: Degree(s)/Year/Specialization University of Pennsylvania Master of Architecture 1996 University of California BS, Art and Architectural History 1992</p>
<p>f. Active Registration: Year First Registered/Discipline Registered Architect: New York, 1998 LEED Certified</p>	<p>f. Active Registration: Year First Registered/Discipline Registered Architect: New York State, 2011 LEED Certified</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: DDC DESIGN EXCELLENCE PROJECTS: Irish Repertory Theater, New York, NY Role: Project Manager DCAS Computerized Testing Center Role: Project Manager OTHER SELECTED PROJECTS: EcoRise Development, Brooklyn, NY Role: Project Manager Chalfant Residence Role: Project Manager 153 Coffey Street Artists Space Role: Project Manager Berkeley Carroll School Feasibility Study Role: Project Manager</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: DDC DESIGN EXCELLENCE PROJECTS: Staten Island Animal Shelter, Staten Island, NY Role: Project Architect OTHER SELECTED PROJECTS: Lehman College Child Care Center, Bronx, NY Role: Project Architect The Myrtle Avenue Revitalization Project (MARP) Building, Brooklyn, NY Role: Project Architect 20-24 Jackson Avenue Residential Tower, Queens, NY Sousa Residence, Clifton, NJ Lincoln Park Lofts Affordable Housing Development, Newark, NJ with Newwork, LLC</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/is Responsible
(1) NYC Parks Beach Restoration Modules Queens, Staten Island, and Brooklyn, NY	Architect	Faith Rose, Design Liaison, NYCDDC 30-30 Thomson Ave Long Island City, NY 11101 718-391-1080	2013	\$109,000	\$109,000
(2) NYC Emergency Housing Prototype Brooklyn, NY	Architect	Cynthia Barton New York City Office of Emergency Management 165 Cadman Plaza East Brooklyn, NY 11201	2014	\$1,000	\$1,000
(3) Bedford-Stuyvesant Restoration Plaza Brooklyn, NY	Architect	Dyrnest Sinckler Bedford-Stuyvesant Restoration Corp. 1368 Fulton Street, Brooklyn NY 718-636-6936	2012	\$8,000	\$8,000
(4) Border Patrol Station, Murietta, CA	Architect	Steve Baker General Services Administration 880 Front Street, Suite 4236 San Diego, CA 202-344-1822	2006	\$13,000	\$13,000
(5) Irish Repertory Theater New York, NY	Architect	Faith Rose, Design Liaison NYCDDC 30-30 Thomson Ave Long Island City, NY 11101 718-391-1080	2015	\$3,000	\$3,000
(6) Staten Island Animal Care Center Staten Island, NY	Architect	Moses Ros, Project Manager, Health Unit -NYCDDC 30-30 Thomson Ave, L.I. City, NY 718-391-1681	2015	Not Applicable	\$3,000
(7) US Consulate Residence Apia, Samoa	Architect	Kevin Spence, Overseas Bureau Office Architect 1701 North Fort Meyer Drive Rosslyn, Virginia; 703-516-1801	2011	\$2,200	\$2,200
(8) Lehman College Child Care Center Bronx, NY	Architect	James Holtgreven, Project Manager Department of Design, Constr. & Management, City University of NY 646-758-7899	2014	\$6,000	\$6,000
(9) Roberto Clemente Plaza Bronx, NY	Architect	Joe Sopiak, Project Manager DDC 30-30 Thomson Ave, L.I. City, NY 718-391-1240	2015	\$4,000	\$4,000
(10) East Elmhurst Library Queens, NY	Architect	Faith Rose, Design Liaison NYCDDC 30-30 Thomson Ave Long Island City, NY 11101 718-391-1080	2015	\$3,000	\$3,000

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

Project Management

All successful projects begin with an effective project management approach. Through our team's extensive experience with the DDC and numerous projects varying in size and complexity, we have developed a set of project management tools that are especially suited to the scopes of work included in this solicitation. We completely understand the protocol required by such contracts and the management challenges inherent in projects with multiple stakeholders, demanding deadlines, manifold approvals and limited budgets.

Specifically, the following strategies have yielded particular success in meeting project objectives:

- integrated design team
- flexible staffing
- responsive schedule management
- clear communication protocols
- effective cost control and management
- well-honed quality control tactics

Integrated Design Team

For this RFP, we are excited to join a core team of exceptionally qualified engineers and consultants with a long history of working together. We also have access to other well-reputed specialists that we can draw upon as needed. These team members are brought into the project from the very onset, sharing the initial design and service objectives and expectations of the project. Our inclusive, cooperative approach to problem-solving makes us uniquely pragmatic, innovative, and design-focused. Our understanding and extensive experience with engineering and construction give us insight into practical and cost-effective solutions, knowledge that may not be available to other firms.

Flexible Staffing

In order to optimize flexibility and productivity, Garrison Architects establishes project teams at the onset of each project based on the specific requirements of the project. The Principal and the Project Manager review the project scope and schedule and assemble the Project Team, which is comprised of in-house designers and qualified personnel from the appropriate technical disciplines. The in-house team is typical comprised of the following roles:

The Principal who is ultimately responsible for the design, quality and high-level client relationships for all projects. He provides oversight, design direction and overall management decisions.

The Project Manager is the representative throughout the entire course of all phases of the project and is responsible for the overall coordination between Garrison Architects, LiRO, our consultants, and the DDC. He disseminates all information to our Design Team members and sees that the clients and the DDC receives the quality service they deserve. This organizational approach assures individual accountability and responsibility for producing a thorough and well-designed project within the budget and time constraints required by the DDC and its constituent client agencies.

For each specific project an experienced Project Architect is assigned, who will supervise the technical research and document production, and creative and productive Staff Architects who will assist and assemble the documentation.

The team members have generalized skills with specific strengths allowing them to contribute to multiple areas across the projects' execution. The Manager, Architect and core members follow the entire course of the project, including involvement in Construction Administration, maintaining project continuity and quality consistency. The entire enterprise is overseen by the Principal, who is involved in all projects.

As an office of generalists we are inherently flexible in organizing and executing projects within the required cost and schedule parameters. As a matter of office operations we maintain a comprehensive schedule of all of our projects. This has proven to be an essential management tool to realize client objectives, the in-house fiscal control of the project, and the thoughtfulness and quality of the completed work. This flexibility allows us to adapt to the changing demands of a project over its course, and more effectively respond to unexpected problems that can arise. It also allows us to successfully take on larger more complex projects, or multiple smaller projects than firms much larger than ours. Since we take on projects of various scales and types we expose our staff to a wider range of challenges and further the depth of our experience.

11. The foregoing is a statement of facts.

Signature: 

Typed Name and Title: James Garrison, Principal

Date:

01-20-15



Gans studio: Architecture PLLC



STANDARD FORM (SF) 255
Architect-Engineer and Related Services Questionnaire for Specific Project

1. Project Name/Location for which Firm is Filing:
 DDC 8502015HR0011-13P
 CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery

2a. Commerce Business Daily Announcement Date, if any:
 NA

2b. Agency Identification Number, if any:

3. Firm (or Joint-Venture) Name and Address:
 Gans studio
 481 van Brunt street
 Suite 9b
 Brooklyn NY 11231
 718 237 3034
 info@gans-studio.net

3a. Name, Title and Telephone Number of Principal to Contact:
 Deborah Gans, Principal 718 237 3034

3b. Address of office to perform work, if different from Item 3:

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) <u>1</u>	(B) <u>2</u>	Administrative	(A) <u> </u>	(B) <u> </u>	Electrical Engineers	(A) <u> </u>	(B) <u> </u>	Oceanographers	(A) <u> </u>	(B) <u> </u>
(A) <u>3</u>	(B) <u>3</u>	Architects	(A) <u> </u>	(B) <u> </u>	Estimators	(A) <u>2</u>	(B) <u>1</u>	Planners: Urban/Regional	(A) <u> </u>	(B) <u> </u>
(A) <u> </u>	(B) <u> </u>	Chemical Engineers	(A) <u> </u>	(B) <u> </u>	Geologists	(A) <u> </u>	(B) <u> </u>	Sanitary Engineers	(A) <u> </u>	(B) <u> </u>
(A) <u>1</u>	(B) <u> </u>	Civil Engineers	(A) <u> </u>	(B) <u> </u>	Hydrologists	(A) <u> </u>	(B) <u> </u>	Soil Engineers	(A) <u> </u>	(B) <u> </u>
(A) <u> </u>	(B) <u> </u>	Construction Inspectors	(A) <u> </u>	(B) <u> </u>	Interior Designers	(A) <u> </u>	(B) <u> </u>	Specification Writers	(A) <u> </u>	(B) <u> </u>
(A) <u>3</u>	(B) <u>3</u>	Draftsmen	(A) <u>1</u>	(B) <u> </u>	Landscape Architects	(A) <u>2</u>	(B) <u> </u>	Structural Engineers	(A) <u> </u>	(B) <u> </u>
(A) <u> </u>	(B) <u> </u>	Ecologists	(A) <u>1</u>	(B) <u> </u>	Mechanical Engineers	(A) <u> </u>	(B) <u> </u>	Surveyors	(A) <u> </u>	(B) <u> </u>
(A) <u> </u>	(B) <u> </u>	Economists	(A) <u> </u>	(B) <u> </u>	Mining Engineers	(A) <u> </u>	(B) <u> </u>	Transportation Engineers	(A) <u>14</u>	(B) <u>9</u>
Total Personnel										

5. If submittal is by JOINT-VENTURE, list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm:
 (Attach SF 254 for each if not on file with Procuring Office.)

5a. Has this Joint - Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name and Address	Specialty	Worked with Prime before (Yes or No)
1) Pratt Center for Community Development 536 Myrtle Ave Brooklyn NY	community based resiliency planning and architecture	Yes
2) Sherwood Design Engineers 14 east 40th St 39th floor NY NY 10016	civil engineering, living systems design, green infrastructure	Yes
3) Town and Gardens 50-02 23 st Long Isalnd City NY 11101	landscape architecture and garden design	Yes
4) Dunne and Markis Consulting Engineers 1614 Delafield Avenue Bronx New York 10471	structural engineers	Yes
5) Dagher Engineering 29 Broadway New York NY 10006	mechanical engineering	No
6) The LiRo Group 111 Broadway, Suite 501 New York, NY 10006	Project Management / Construction Manager / Construction Engineering & Inspection / Estimating/geo tech	No
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: Deborah Gans FAIA, Principal and Owner</p> <p>b. Project Assignment: project manager</p> <p>c. Name of Firm with which associated: Gans Studio</p> <p>d. Years experience: With This Firm 21.... With Other Firms .12.</p> <p>e. Education: Degree(s)/Year/Specialization Masters of Architecture, Princeton University 1981 Bachelor of Arts, Harvard University 1977</p> <p>f. Active Registration: Year First Registered/Discipline 1986 Architecture</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Deborah Gans has a portfolio developed over twenty years of residential new construction and renovation and addition at the scale of the single family home, including sustainable construction on sites challenged by water and difficult site conditions. Additionally she has been providing working as an architect adn planner on Post-Sandy Recovery since the storm. With Pratt Center she has lead a community based planning and architectural project in the courts of Sheepshead Bay that pertains directly to the special urban conditions called out in this RFP, sharing that work with Build it Back Back, DCP, HPD and HRO. She has been a senior architect on the Sandy Help desks throughout Brooklyn including Canarsie and Coney Island. At Pratt She has taught several studios devoted to rebuilding part of the RAMP (Rebuild Adapt Mitigate Plan) curriculum funded by Kresge specifically in Coney Island and Redhook. She is a consultant to the Regional Catastrophic Planning Team and the New York City Department of Emergency Management, leading their workshops on post storm interim housing. She is on the advisory board of Zone A, a Staten Island not-for-profit devoted to post-Sandy resilience. She was part of the AIA effort to develop post-storm resilient guidelines, including work that became part of the recent Furman Institute report. As a federal Hurrriplan trainer she is versed with all federally mandated design protocols related to FEMA. Previously, Gans worked in New Orelans on similar rebuilding efforts in lowlying bungalow communities with ACORN Housing under a HUD grant designing prototype singleand two family homes for over 350 properties.</p>	<p>a. Name and Title Rosamund Palmer</p> <p>b. Project Assignment: project manager</p> <p>c. Name of Firm with which associated: Gans studio</p> <p>d. Years experience: With This Firm ...1.5 With Other Firms2.</p> <p>e. Education: Degree(s)/Year/Specialization Masters in Urban Environmental Systems 2012 Pratt Institute Programs for Sustainable Planning and Development BA in Anthropology and Religion 2009 Boston University</p> <p>f. Active Registration: Year First Registered/Discipline</p> <p>g. Other Experience and Qualifications relevant to the proposed project: Rosamund Palmer is a project manager at GANS studio in charge of urban planning and design aspects of architectural projects that require negotiating among complicated groups of stakeholders from community activists to government authorities. Her background in anthropology and social studies gives her a deep understanding of how communities work, while her graduate degree in environmental systems provides the technical expertise in the planning required to insure they are resilient and sustainable. As a field researcher, Roz helped survey, inventory and map vacant lots to create the Open Space Index for the non-profit New Yorkers for Parks. She has also worked closely with constituency-based organizations to analyze and display pertinent demographic data to narrow their target area for more effective programming. Roz's analytical skills contributed to the initial growth of the Spatial and Visualization Initiative based out of Pratt Institute, which provides access to GIS and visualization resources, technical assistance, training and research.</p>
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8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).						
a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address and Project Manager's Name and Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)		
				Entire Project	Work for Which Firm Was/Is Responsible	
(1) Friedman Residence 874 Sterling Place Brooklyn NY	Architect	Adam Friedman 874 Sterling Place Brooklyn 917 379 9484	2015	400	400	
(2) Interim Housing and Resiliency Planning Workshops	Planner	Reginal Catastrophic Planning Group Cynthia Barton Project Manager 718 422 8914	2015	NA	100	
(3) Crichton Residence Brooklyn New York	Architect	Sarah Crichton, Owner 201 Bergen Street Brooklyn 917 842 2197	2014	600	600	
(4) Becker House 126 Jones Quarry Road Woodstock New York	Architect	Ina Becker, Owner 126 Jones Quarry Road 845 300 1718	2013	400	500	
(5) Raised Studio Residence Woodstock New York	Architect	Arlene Shechet 62 Old Wagon Road Woodstock NY 917 710 8003	2011	650	650	
(6) Masterplan for Stanton Court Sheepshead Bay Brooklyn	Architect and Planner	Pratt Center for Community Development 841 Myrtle Ave Brooklyn Vicki Weiner 718 636 3486	NA	10,000	7,500	
(7) Masterplan and Dormitories The Graham School Hastings on Hudson	Architect and Planner	Graham Windham Services 33 Irving Place NY Art Weingarten 914 478 1100	NA	55,000	45,000	
(8) House Prototypes for New Orleans East and the Lower Ninth	Architect and Planner	ACORN Housing Marty Shalloo 312 980 9000	2009	350,000	2000	
(9)						
(10)						

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name and Phone Number	d. Percent Complete	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Is Responsible
Interim Housing and Resiliency Planning Workshops	The firm executed capacity and vulnerability studies in the tri state region in order to select test communities for workshops on interim housing strategies. We then organized and lead those workshops to create "whole community" based plans for interim housing in five towns in New Jersey, Connecticut and New York.	Regional Catastrophic Planning Group Cynthia Barton Project Manager 718 422 8914	98%	NA	100

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

Gans studio brings to this rfp extensive experience and knowledge of all aspects of resilient rebuilding including:

- Damage Assessment and Surveys
- Working familiarity with codes and guidelines for floodplain construction such as those required by FEMA, NFIP, the New York City Building Code appendix G, Build It Back Program Standards, and the new City Planning Flood Resilience Zoning Text Amendment
- Residential Rehabilitation and New Construction including best resilient practices
- Homeowner Engagement
- Community Based Planning and Urban design

They have developed this expertise over a period of almost ten years, first in New Orleans Post-Katrina working under a HUD grant and then for ACORN Housing in the development of five house prototypes for over 350 vacant lots, and presently with the New Orleans Housing Authority as finalists in the competition Future Ground. This long experience with coastal rebuilding has informed their work post-Sandy in New York with Pratt Center and various projects with the AIA. As senior architects on the Sandy Help Desk they have visited many of the affected neighborhoods and consulted with many homeowners such that they come to the rfp with an in depth understanding of the challenges of rebuilding and possible approaches to design and construction.

Their experience has provided them with proven methodology and approach to coastal communities as well as to the individual home. In New Orleans, they developed a community based masterplan and then five house prototypes for construction on over 350 vacant properties in a neighborhood with social and physical similarities to the bungalow communities of Brooklyn such as Sheepshead Bay, they have worked along side Pratt Center with the court residents on master plan scenarios at the scale of the block and several blocks, which has required them to not only engage individual homeowners but to help them create community structures and consensus around a shared design vision for a resilient future.

Gans studio's ability to create design consensus depends on their skill at communicating complex design ideas in clear terms to multiple stakeholders. They have command of a broad range of visualization tools- from the usual architectural renderings to GIS mapping and analysis and graphic display.

They understand the importance of collaboration to the successful design of such complex projects and so work closely during the entire design process as an interdisciplinary team with partners and consultants, such as civil engineers, community organizers and landscape architects. They have included several of their partners from both New Orleans and Sheepshead on their team for this RFP. They extend this open spirit of collaboration in dealing with all authorities and regulatory agencies, engaging them from the beginning to insure that their plans are feasible implementable.

11. The foregoing is a statement of facts.

Digitally signed by deborah gans
DN: cn=deborah gans, o=gans studio,
email=deborah@gans-studio.net, c=US
Date: 2015.01.15 15:37:40 -0500



Signature: _____ Type Name and Title: Deborah Gans Principal Gans studio

Date:

2015.01.16

Keri Kazel Architecture



STANDARD
FORM (SF)
255

Architect-Engineer
and Related Services
Questionnaire for

1. Project Name/Location for which Firm is Filing:
NYC Build It Back Program

2a. Commerce Business
Daily Announcement
Date, if any:

2b. Agency Identification
Number, if any:

3. Firm (or Joint-Venture) Name & Address

Keri Kazel Architect
PO Box 169
Speonk, New York 11972

3a. Name, Title & Telephone Number of Principal to Contact

Keri Kazel, Principal, 631-874-2925

3b. Address of office to perform work, if different from Item 3

2 Windemere Court
Speonk, New York 11972

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) _____	(B) _____	¹ Administrative	(A) _____	(B) _____	Electrical Engineers	(A) _____	(B) _____	Oceanographers	(A) _____	(B) _____
(A) _____	(B) _____	² Architects	(A) _____	(B) _____	Estimators	(A) _____	(B) _____	Planners: Urban/Regional	(A) _____	(B) _____
(A) _____	(B) _____	Chemical Engineers	(A) _____	(B) _____	Geologists	(A) _____	(B) _____	Sanitary Engineers	(A) _____	(B) _____
(A) _____	(B) _____	² Civil Engineers	(A) _____	(B) _____	Hydrologists	(A) _____	(B) _____	Soils Engineers	(A) _____	³ (B) _____
(A) _____	(B) _____	Construction Inspectors	(A) _____	(B) _____	Interior Designers	(A) _____	(B) _____	Specification Writers	(A) _____	(B) _____
(A) _____	(B) _____	³ Draftsmen	(A) _____	(B) _____	¹ Landscape Architects	(A) _____	(B) _____	Structural Engineers	(A) _____	(B) _____
(A) _____	(B) _____	Ecologists	(A) _____	(B) _____	Mechanical Engineers	(A) _____	³ (B) _____	Surveyors	(A) _____	⁵ (B) _____
(A) _____	(B) _____	Economists	(A) _____	(B) _____	Mining Engineers	(A) _____	(B) _____	Transportation Engineers	(A) _____	(B) _____
										Total Personnel

5. If submittal is by JOINT-VENTURE list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office.)

5a. Has this Joint-Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1) R & W / Engineers, P.C. Michael L. Williams, P.E. 1383 Veterans Memorial Highway, Suite 45 Hauppauge, New York 11788 (631) 969-8535 (631) 960-9518 (Fax)	Civil and Structural Engineering	Yes
2) Pilot Drafting & Consulting Incorporated Robert Alweiss 112 Bedford Avenue, Bellmore, NY 11710 Phone: (516) 679-4731	Civil and Structural Engineering	Yes
3) Landview Associates, Inc. John Lennon 20 Ridge Road Smithtown, NY 11787 (631) 360-2870	Landscape Design	Yes
4) Christine Nicholl, LTD. 18 Railroad Avenue Center Moriches, NY 11934	Permit Expediting	Yes
5) MacDonald GeoScience PO Box 1000 Southold, NY 11871	Soil Testing	Yes
6) Slacke Test Boring Post Office Box 64 Kings Park, NY 11754	Soil Testing	Yes
7) Pat Seccafico Surveyor 328 Main Street Center Moriches, NY 11934	Land Surveying	Yes
8) Schnepf & Murrell PC 126 Main Street Sayville, NY 11782	Land Surveying	Yes

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: Adam DeLumen Senior Associate</p>	<p>a. Name & Title: Keri Kazel Principal Architect</p>
<p>b. Project Assignment: All Aspects</p>	<p>b. Project Assignment: All Aspects</p>
<p>c. Name of Firm with which associated: Keri Kazel Architecture, P.C.</p>	<p>c. Name of Firm with which associated: Keri Kazel Architecture, P.C.</p>
<p>d. Years experience: With this Firm 3 With Other Firms 15</p>	<p>d. Years experience: With this Firm 12 With Other Firms 8</p>
<p>e. Education: Degree(s)/Year/Specialization Bachelor of Science in Architecture from the New York Institute of Technology</p>	<p>e. Education: Degree(s)/Year/Specialization Bachelor of Architecture Degree from New York Institute of Technology</p>
<p>f. Active Registration: Year First Registered/Discipline NCARB since 2003</p>	<p>f. Active Registration: Year First Registered/Discipline Registered Architect since 2003</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p> <ul style="list-style-type: none"> • Extensive experience in all types of Architecture (both locally and nationally) including multi-use commercial buildings, daycare centers, apartment buildings, townhouses, condominiums, and single-family homes • Current committee member and co-designer of the Rocky Point Memorial • Current Chief of the Rocky Point Fire District 	<p>g. Other Experience and Qualifications relevant to the proposed project:</p> <ul style="list-style-type: none"> • Current Deputy-Chairperson of the Board of Zoning Appeals to the Town of Brookhaven • Former member of the Historic District Advisory Committee to the Town of Brookhaven • Designer and co-founder of furniture company, "Muddwall Inc." • Current member of the American Institute of Architects • Current member of the American Institute of Architects Peconic Chapter • Current member of NARI: National Association of the Remodeling Industry • Pending member of Minority & Women-Owned Business Enterprise.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: Robert Zimmerman</p>	<p>a. Name & Title: Maria McKeough</p>
<p>b. Project Assignment: All Aspects</p>	<p>b. Project Assignment: Office Manager</p>
<p>c. Name of Firm with which associated: Keri Kazel Architecture, P.C.</p>	<p>c. Name of Firm with which associated: Keri Kazel Architecture, P.C.</p>
<p>d. Years experience: With this Firm <u>1</u> With Other Firms <u>17</u></p>	<p>d. Years experience: With this Firm <u>1</u> With Other Firms <u>15</u></p>
<p>e. Education: Degree(s)/Year/Specialization Drafting Degree from the Eastern Suffolk BOCES Program</p>	<p>e. Education: Degree(s)/Year/Specialization Associates in Advertising Art from the State University of New York at Farmingdale</p>
<p>f. Active Registration: Year First Registered/Discipline</p>	<p>f. Active Registration: Year First Registered/Discipline</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p> <ul style="list-style-type: none"> • Extensive experience in all types of Architecture including fire house facilities, multi-family buildings, medical buildings, mixed-use commercial centers and other various commercial projects. • Extensive experience in managing a project for Stony Brook University Dining Hall: Bid amount of \$14,288,000.00 • Extensive experience in managing a project for Stony Brook University Dormitory: Bid amount of \$47,368,000.00 • Current Captain of the Rocky Point Fire District 	<p>g. Other Experience and Qualifications relevant to the proposed project:</p> <ul style="list-style-type: none"> • Extensive experience as a Senior Administrator with the New York Rising Program.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title:</p>	
<p>b. Project Assignment:</p>	
<p>c. Name of Firm with which associated:</p>	
<p>d. Years experience: With this Firm _____ With Other Firms _____</p>	
<p>e. Education: Degree(s)/Year/Specialization</p>	
<p>f. Active Registration: Year First Registered/Discipline</p>	
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title:</p>	<p>a. Name & Title:</p>
<p>b. Project Assignment:</p>	<p>b. Project Assignment:</p>
<p>c. Name of Firm with which associated:</p>	<p>c. Name of Firm with which associated:</p>
<p>d. Years experience: With this Firm _____ With Other Firms _____</p>	<p>d. Years experience: With this Firm _____ With Other Firms _____</p>
<p>e. Education: Degree(s)/Year/Specialization</p>	<p>e. Education: Degree(s)/Year/Specialization</p>
<p>f. Active Registration: Year First Registered/Discipline</p>	<p>f. Active Registration: Year First Registered/Discipline</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>g. Other Experience and Qualifications relevant to the proposed project:</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) Currently working with 80 clients in New York Rising Program.	All Architectural & Expediting responsibilities		May 2015		
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

Cols. NOT divided like item 8 a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

All members of Keri Kazel, Architects are adept in:

- AutoCAD
- Microsoft Office
- Adobe Suite
- Quick Books
- Photo Shop
- 3-D Rendering
- Microsoft Excel

11. The foregoing is a statement of facts.

Signature: _____

Keri Kazel

Typed Name and Title: _____

Keri Kazel, Owner

Date: _____

January 22, 2015



Rampulla Associates Architects, LLP



STANDARD FORM (SF)

255

Architect-Engineer and Related Services Questionnaire for

1. Project Name/Location for which Firm is Filing:

SANDHRO
CM/Design/Build for Hurricane Sandy
Affected Residential Recovery

2a. Commerce Business Daily Announcement Date, if any:

PIN: 8502015HR001P-13P

2b. Agency Identification Number, if any:

3. Firm (or Joint-Venture) Name & Address

Rampulla Associates Architects, llp
155 3rd Street
Staten Island, New York 10306

3a. Name, Title & Telephone Number of Principal to Contact

Leonard M. Rampulla, AIA
Principal
(718) 987-1310

3b. Address of office to perform work, if different from item 3

N/A

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) _____	(B) X _____	Administrative	(A) _____	(B) _____	Electrical Engineers	(A) _____	(B) _____	Oceanographers	(A) _____	(B) _____
(A) _____	(B) X _____	Architects	(A) _____	(B) _____	Estimators	(A) _____	(B) X _____	Planners: Urban/Regional	(A) _____	(B) _____
(A) _____	(B) _____	Chemical Engineers	(A) _____	(B) _____	Geologists	(A) X _____	(B) _____	Sanitary Engineers	(A) _____	(B) _____
(A) X _____	(B) _____	Civil Engineers	(A) _____	(B) _____	Hydrologists	(A) X _____	(B) _____	Soils Engineers	(A) _____	(B) _____
(A) X _____	(B) _____	Construction Inspectors	(A) _____	(B) X _____	Interior Designers	(A) _____	(B) _____	Specification Writers	(A) _____	(B) _____
(A) _____	(B) X _____	Draftsmen	(A) _____	(B) _____	LandscAPE Architects	(A) _____	(B) X _____	Structural Engineers	(A) _____	(B) _____
(A) _____	(B) _____	Ecologists	(A) _____	(B) X _____	Mechanical Engineers	(A) X _____	(B) _____	Surveyors	(A) _____	(B) _____
(A) _____	(B) _____	Economists	(A) _____	(B) _____	Mining Engineers	(A) _____	(B) _____	Transportation Engineers	(A) 5 _____	(B) 7 _____
Total Personnel										

5. If submittal is by JOINT-VENTURE list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office.)

N/A

5a. Has this Joint-Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1) George Schell, PE, LEED A.F. George Schell Engineering 3171 Route 9 North #316 Old Bridge, New Jersey 08857	Heating: Ventilating; Air-Conditioning Electrical: Light and Power Plumbing - Sanitary and Sprinkler	Yes
2) Zulfi Chowdry Zee Structural Engineering 160 Overlook Avenue, #20E Hackensack, New Jersey 07601	Structural Systems Steel, Concrete, Wood	Yes
3) Rogers Surveying, P.L.L.C. 1632 Richmond Terrace Staten Island, New York 10310	Civil: Surveying, grading, and paving Sanitary and Storm Taps	Yes
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title: Zulfi Chowdry, Professional Engineer</p>	<p>a. Name & Title: George Schell, Professional Engineer</p>
<p>b. Project Assignment: Structural Engineering</p>	<p>b. Project Assignment: Plumbing, Mechanical Engineering</p>
<p>c. Name of Firm with which associated: Zee Structural Engineering</p>	<p>c. Name of Firm with which associated: George Schell Engineering, LLC, President</p>
<p>d. Years experience: With this Firm ⁸ With Other Firms</p>	<p>d. Years experience: With this Firm ¹⁰ With Other Firms</p>
<p>e. Education: Degree(s)/Year/Specialization Master of Science - 1990 - Structure</p>	<p>e. Education: Degree(s)/Year/Specialization BSME - Bachelor of Science in Mechanical Engineering 1994 Stevens Institute of Technology, Hoboken, New Jersey</p>
<p>f. Active Registration: Year First Registered/Discipline Professional Engineer (Florida) 1995</p>	<p>f. Active Registration: Year First Registered/Discipline Registered 2000 in New York and New Jersey LEED - Leadership in Energy and Environmental Design (Green Design) Certification</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Experience in design and analysis of all types of residential and commercial buildings by utilizing numerous type of construction materials such as, wood, steel, masonry, and concrete. By using latest design technology and design software we produce high quality construction documents and efficient structures.</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: 1. Meridia Lifestyles, Linden, NJ NB 176-unit 5-story res bldg w/enclosed parking garage & retail stores 2. Belfuse, 198 Van Vorst St., Jersey City, NJ-NB 135-unit 7-story res bldg with enclosed parking garage & retail stores 3. 107-111 E 115th St, NY, NY-32-unit 7-story res apart bldg w/ commercial space on ground floor. 4. 1400 Clinton St., Hoboken, NJ-60-unit, 6 story res bldg w/enclosed parking garage & art gallery space. 5. 1040 Kennedy Blvd, Bayonne, NJ-8-story, 60-unit res bldg w/2 parking levels & 6 floors of apartments. 6. HACE (Housing Authority of the City of Elizabeth) NJ-Scattered Sites Development-NB 3 apart bldgs-52 res units. 7. Jaelyn Residential Development, W NY, NJ-5 apartment bldgs consisting of 155 res apartments. 8. Biergarten Rest, Hoboken, NJ-7000 SF Restaurant 1st fl of an existing 5-story commercial bldg. 9. Ironbound TV & Film Studios, Newark, NJ-37,000 SF television and film studio on the top 2 flrs of an existing 3-story bldg, new 3000 amp service, etc.</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title: Richard Daly, Professional Engineer	a. Name & Title: William Spezia, Professional Engineer Director, Topographic Operations
b. Project Assignment: Builder's Pavement Plan	b. Project Assignment: Project Manager and NYS Licensed Surveyor
c. Name of Firm with which associated: R S Engineering	c. Name of Firm with which associated: Rogers Surveying
d. Years experience: With this Firm ²⁰ With Other Firms	d. Years experience: With this Firm ²⁰ With Other Firms
e. Education: Degree(s)/Year/Specialization Bachelor of Engineering - 1980 Civil Engineering, BECE	e. Education: Degree(s)/Year/Specialization Bachelor of Science Computer Science - St. John University - 1985 I.C.S. Surveying and Mapping - 1994 GPS Mapping, Rutgers University - 2006
f. Active Registration: Year First Registered/Discipline 01/18/2006 Professional Engineer 03/07/1994 Professional Land Surveyor	f. Active Registration: Year First Registered/Discipline N.Y. State Licensed Land Surveyor No. 050106 A.C.S.M. Certified Hydrographer No. 191
g. Other Experience and Qualifications relevant to the proposed project: Extensive experience preparing plans and applications for Site Sanitary and Storm Water Drainage, Builders Pavement and Highway Plans, Water Mains, and Septic Plans throughout NYC. Experience with both small residential and large scale projects.	g. Other Experience and Qualifications relevant to the proposed project: 1. Fresh Kills Park-3,000 acre project-boundary, topographic, aerial photography, utility mapping & encroachment surveys. 2. US Army, Corps of Engineers-Hydrographic & Topographic Surveys-2 Hurricane Protection & Storm Damage Reduction Projects, SI & Coney Island 3. NYC DDC - mapping for boundary, utility, topographic and hydrographic surveys for infrastructure improvements in all the boroughs. 4. Howland Hook Facility NYC Container Terminal SI, NY-Port Authority of NY&NJ/ NYCEDC - boundary and aerial mapping, title surveying services, research, investigation, deed preparation & easement research for the 220-acre site. Mamaroneck Sheldrake Rivers-US Army, Corps of Engineers NYD - Flood Control - cross-section, bridge, weir and dam surveys with 3 dimension views for bridge areas.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title:</p>	
<p>b. Project Assignment:</p>	
<p>c. Name of Firm with which associated:</p>	
<p>d. Years experience: With this Firm With Other Firms</p>	
<p>e. Education: Degree(s)/Year/Specialization</p>	
<p>f. Active Registration: Year First Registered/Discipline</p>	
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name & Title:</p>	
<p>b. Project Assignment:</p>	
<p>c. Name of Firm with which associated:</p>	
<p>d. Years experience: With this Firm With Other Firms</p>	
<p>e. Education: Degree(s)/Year/Specialization</p>	
<p>f. Active Registration: Year First Registered/Discipline</p>	
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

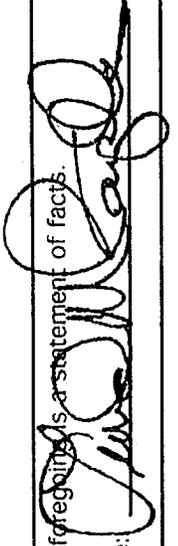
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/is Responsible
(1) The Tides @ Charleston 190 Attached Units Arthur Kill Road, Staten Island, N.Y.	- Design - Construction Doc - Full DOB Approval	Raymond Masucci Antrovette, LLC 101 Tyrellan Ave, S I, NY 10309	2010	47.5 mil	
(2) Lamberts Path 106 Attached Units Lamberts Lane, Staten Island, N.Y.	- Design - Construction Doc - Full DOB Approval	Michael Varshisky, FARR Properties, 18 Hurlington Dr, Greenwich Ct 06831	ongoing	20 mil	
(3) Butler Manor 43 Detached Units Butler Boulevard, Staten Island, N.Y.	- Design - Construction Doc - Full DOB Approval	John DiLorenzo, Page, LLC 200 Princeton Avenue Staten Island, NY 10306	ongoing	25 mil	
(4) Utopia Court 15 Detached Units Utopia Court, Staten Island, N.Y.	- Design - Construction Doc - Full DOB Approval	Thomas Costa, Blue Star Group, 445 Woodvale Ave. Staten Island, N Y10309	2001	20 mil	
(5) Blackhorse Court 8 Detached Units Blackhorse Court, SI, NY	- Design - Construction Doc - Full DOB Approval	Noce Construction 3700 Richmond Avenue Staten Island, New York 10312	ongoing	10 mil	
(6) South Shore Commons 5 Commercial Buildings Veterans Road West, SI, NY	- Design - Construction Doc - Full DOB Approval	Guido Passarelli, Passarelli Management, 2955 Veterans Road, 2nd Fl., S I, N Y 10309	2013	30 mil	
(7) Tottenville Square Retail/Offices/Restaurant-Com Bldg 7001 Amboy Road, SI, NY	- Design - Construction Doc - Full DOB Approval	Stanley Werb, Rivercrest Realty 8816 Six Forks Road, Ste 102 Raleigh, North Carolina 27615	2015	10 mil	
(8) Mixed Use Building, Arthur Kill Rd 4864 Arthur Kill Road Staten Island, New York 10309	- Design - Construction Doc - Full DOB Approval	Philip Mancuso Land & Development 120 Nicolosi Dr, SI, NY 10309	2012	2.5 mil	
(9) 1891 Richmond Road 16 Unit Building Staten Island, New York 10304	- Design - Construction Doc - Full DOB Approval	Mangone Development Corp. 168 Ravenhurst Ave Staten Island, N.Y. 10310	ongoing		
(10) Royal Crown Condominiums 11 Units Staten Island, New York 10306	- Design - Construction Doc - Full DOB Approval	Robert Germano 172 McClean Ave Staten Island, New York 10305	2007	875,000	

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.					
a. Project Name & Location Cols. NOT divided like item 8	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible
N/A					

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

- 3D Studio Max - colored rendering software
- Photoshop - colored rendering software
- Auto CADD
- Auto-Turn-Vehcile (car, truck, bus) turning radius, software
- Revit
- Sketchup
- Macromedia Flash B
- Adobe Photoshop

11. The foregoing is a statement of facts.

Signature: 

Leonard M. Rampulla, AIA
Owner/Architect

Typed Name and Title:

Date:

01/09/2015



Ricardo Zurita Architecture & Planning, PC



STANDARD FORM (SF) 255

Architect-Engineer and Related Services Questionnaire for Specific Project

1. Project Name/Location for which Firm is Filing:

CM / DESIGN / BUILD FOR HURRICANE SANDY-AFFECTED RESIDENTIAL COMMUNITY RECOVERY / CITYWIDE

2a. *Commerce Business* Daily Announcement Date, if any:

n/a

2b. Agency Identification Number, if any:

8502015HR0011-13P

3. Firm (or Joint-Venture) Name and Address:

Ricardo Zurita Architecture & Planning PC
15 East 40th Street - Suite 900
New York, NY 10016

3a. Name, Title and Telephone Number of Principal to Contact:

Ricardo Zurita, Principal
(212) 685-2910

3b. Address of office to perform work, if different from Item 3:

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) ___	(B) ___	1	Administrative	(A) ___	(B) ___	Oceanographers	(A) ___	(B) ___
(A) ___	(B) ___	6	Architects	(A) ___	(B) ___	Planners: Urban/Regional	(A) ___	(B) ___
(A) ___	(B) ___		Chemical Engineers	(A) ___	(B) ___	Sanitary Engineers	(A) ___	(B) ___
(A) ___	(B) ___		Civil Engineers	(A) ___	(B) ___	Soil Engineers	(A) ___	(B) ___
(A) ___	(B) ___		Construction Inspectors	(A) ___	(B) ___	Specification Writers	(A) ___	(B) ___
(A) ___	(B) ___		Draftsmen	(A) ___	(B) ___	Structural Engineers	(A) ___	(B) ___
(A) ___	(B) ___		Ecologists	(A) ___	(B) ___	Surveyors	(A) ___	(B) ___
(A) ___	(B) ___		Economists	(A) ___	(B) ___	Transportation Engineers	(A) ___	(B) ___
								7
								Total Personnel

5. If submittal is by JOINT-VENTURE, list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office.)

Not Applicable

5a. Has this Joint-Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name and Address	Specialty	Worked with Prime before (Yes or No)
1) n/a		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: Ricardo Zurita, Principal</p> <p>b. Project Assignment: Principal-in-Charge</p> <p>c. Name of Firm with which associated: Ricardo Zurita Architecture & Planning PC</p> <p>d. Years experience: With This Firm ¹² With Other Firms ²³</p> <p>e. Education: Degree(s)/Year/Specialization Professional Bachelor Degree / 1984 / Architecture</p> <p>f. Active Registration: Year First Registered/Discipline 1989 / Architecture</p> <p>g. Other Experience and Qualifications relevant to the proposed project: (2000-2014) Founder and principal of RZAPS. The firm has realized a number of significant projects. Their best known effort is the decade-long Redevelopment of Randall's Island in New York City for which they prepared the Master Plan and designed a number of important buildings including Icahn Stadium and Sportime Tennis Center, home of the John McEnroe Tennis Academy. Other relevant projects include Maritime Southampton, Douglaston Manor and One Penn Plaza. (1993-2000) Associate w/Beyer Blinder Belle architects in charge of large scale planning and urban design projects, including: - Port Liberte, Jersey City, NJ - Hoboken Cove, Hoboken, NJ - Redevelopment of One Penn Plaza - Riverdale Country School Master Plan Mr. Zurita was profiled for his career accomplishments in the New York Daily News in the article "I treat every space as public projects" in July 2008. He was similarly profiled by El Comercio in Quito Ecuador in November, 2007.</p>	<p>a. Name and Title Dan Heyden, Project Architect</p> <p>b. Project Assignment: Project Architect</p> <p>c. Name of Firm with which associated: Ricardo Zurita Architecture & Planning PC</p> <p>d. Years experience: With This Firm ¹ With Other Firms ²³</p> <p>e. Education: Degree(s)/Year/Specialization Professional Bachelor Degree / 1984 / Architecture</p> <p>f. Active Registration: Year First Registered/Discipline 1988 / Architecture</p> <p>g. Other Experience and Qualifications relevant to the proposed project: (2007-2013) Principal, Design AIDD Architects, NYC (2003-2007) Principal, EEK Residential, NYC (1997-2003) Senior Associate, Meltzer-Mandi Architects, NYC (1993-1996) Associate, Zimmers Associates, Philadelphia (2013) APA AWARD, Apartments in Bronx, NY (2012) ICF BUILDER BEST MULTI-FAMILY AWARD, Bronx, NY</p>
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7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title Rafael Montes, Project Manager</p>	
<p>b. Project Assignment: Project Manager</p>	
<p>c. Name of Firm with which associated: Ricardo Zurita Architecture & Planning PC</p>	
<p>d. Years experience: With This Firm With Other Firms</p>	<p>3 With Other Firms 12</p>
<p>e. Education: Degree(s)/Year/Specialization Professional Bachelor Degree / 2002 / Architecture</p>	
<p>f. Active Registration: Year First Registered/Discipline</p>	
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>(2012-2014) Project Architect & Project manager with RZAPS in charge of residential projects including: - Look Residence, Forest Hills, NY - Gajate-Prasad Residence, Forest Hills, NY and Project Architect & Project manager for several projects for the NYS Office of General Services including: - C. K. Post Alcoholism Treatment Center - Shirley Chisholm State Office Building - Jamaica State Armory Elevator (2002-2012) Project Architect & Project Manager in Spain in charge of residential projects including: - 92 Social Housing, Alcala Guadaira - 8 dwelling town house, Lepe - Oria House (single family house) - Bayo House (single family house) - 30 multifamily housing, Lepe</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address and Project Manager's Name and Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) Randall's Island Master Plan Randall's Island, New York, NY	Architectural Design	Randall's Island Sports Foundation 24 West 61st Street New York, NY 10023 Aimee Boden - (212) 830-7714	Portions Complete, Complete Build-out 2012	120,000	120,000
(2) Coney Island Boardwalk Condition Analysis Coney Island, New York, NY	Architectural Design	David Campbell Hunter Roberts Construction Group LLC 2 World Financial Center New York, NY 10281	2010	N/A	N/A
(3) The Maritime Southampton, New York, NY	Architectural Design	Peconic Bay Marina LLC 20 East 49th Street New York, NY 10017	2014	N/A	N/A
(4) Woodland Houses Rye Brook, NY	Architectural Design	David Feinberg 126 East 56th Street New York, NY 10022	2014	41,000	41,000
(5) Gaelic Sport Center Randall's Island, New York, NY	Architectural Design	Gaelic Athletic Assoc of New York 1760 Second Avenue New York, NY 10128 Peter Maloney - (212) 348-9000	2010	30,000	30,000
(6) Sportime Tennis Center Randall's Island, NY	Architectural Design	Ben Schlansky 275 Old Indian Head Road Kings Park, NY 11754	2009	16,000	6,250
(7) Lake Isle Tennis Center Eastchester, NY	Architectural Design	Ben Schlansky 275 Old Indian Head Road Kings Park, NY 11754	2012	5,030	5,030
(8) Douglaston Manor Renovations Douglaston, NY	Architectural Design	Douglaston Manor, Inc. 63-20 Commonwealth Blvd. Douglaston, NY 11363	2010	2,500	2,500
(9) Gajate-Prasad Residence Forest Hills, New York, NY	Architectural Design	Will Gajate & Deepa Prasad 75-38 Kessel Street, Forest Hills, New York, NY	2015	168,000	168,000
(10) Look Residence Forest Hills, New York, NY	Architectural Design	Danny Look 75-38 Kessel Street, Forest Hills, New York, NY	2014	70,000	70,000

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name and Phone Number	d. Percent Complete	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Is Responsible
n/a					

10. Use _____ space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

Through its completed projects, RZAPS has demonstrated that it has the talent, expertise, and commitment to bring diverse types of projects of various sizes to their successful conclusions. The firm's focus on institutional work ensures that the firm is in tune with the needs of our clients and allows us to provide artistically-based solutions that simultaneously satisfy programmatic requirements, enhance sustainability and provide pleasing aesthetic experiences. That our client seek us out for repeat business is a testament to our ability to provide them with services they require in a timely and cost-effective manner.

Our ability to attract clients (for both public agencies and private developers) and successfully complete their projects is a result of four interrelated factors:

- Our commitment to listening to our client's needs
- Our focus on design excellence and innovation
- Our expertise with projects types
- Our experience with the process of building

As it has demonstrated, RZAPS is experienced in designing and managing complex projects at a variety of building scales. Its diverse practice has arisen from its attention to clients' needs, its problem-solving abilities, its expertise and its extensive experience. The firm is committed to provide thoughtful, contemporary designs that satisfy users' needs, that enhance their surroundings and that are distinctive affirmations of the ability of good architecture to improve people's lives.

Our team has designed and constructed over hundreds of millions of dollars of public improvements in the Tri-state region notably on waterfront sites. As a key example for us: for various clients and stakeholders on Randall's Island, in over a decade RZAPS has led multidisciplinary teams throughout the master plan phase, into park development and the design of various facilities ranging from infrastructure (access ramp, electric substation), park amenities (comfort stations), athletic facilities (track and field stadium, tennis center). We have also provided schematic designs for other facilities that have been used to pursue funding or partnerships (maintenance building, visitor & nature center). We have indefatigably striven to assist our various clients and their constituents and the greater community. Our clients have included the broadest diversity of type. We have worked for public agencies (i.e., NYC Economic Development Corporation and Parks Department, NYS Office of General Services, State University Construction Fund); public/private organization entrusted with the stewardship (Randall's Island Sports Foundation) and private clients (Sportime). Our firm has also planned and designed hundreds of units of housing in region including developments in the NYC metropolitan region (Maritime Southampton and Woodland Homes, Rye Brook) that addressed wetlands, waterfronts, and FEMA regulations. Our founder and principal, Ricardo Zurita has designed and managed hundreds of new and renovated residential projects throughout the New York Metropolitan area including multi-year projects along New York Harbor (e.g.; Jersey City) and along the Hudson River (e.g.; Hoboken and Weehawken). As another example of our waterfront focus, RZAPS has recently developed the "Rapid Response Architecture" Project for Red Hook (Brooklyn) as a local response to global concerns of rising sea levels and flood response. The project was selected for award by the 2014 WT SmartCity International Award Competition and exhibited during Milan Design Week. We have consistently delivered projects on schedule and budget. Our senior staff has developed systematic procedures for ensuring coordinated documents among team members, accurate cost estimates, and critical quality control milestones.

- The firm has won numerous awards, including:
- Red Hook Rapid Response Architecture: WT SmartCity Award - International Award; 2014
 - USTA Facility Award Winner - Public Courts: Large Tennis Centers; 2013
 - Close the GAP Competition: Envisioning a Completed East River Greenway - Special mention; 2011
 - Sportime Tennis Center: ASBA (American Sports Builders Association), Outstanding Tennis Facility; 2010
 - Fashion District Property Improvement Award; 2009
 - Grand Concourse Master Plan Competition - Finalist; 2009
 - Grand Army Plaza Master Plan Competition - Finalist; 2008
 - Icahn Stadium: ASBA (American Sports Builders Association), Outstanding Outdoor Track Facility; 2005

11. The foregoing is a statement of facts.

Signature: 

Typed Name and Title: Ricardo Zurita, Principal

Date:

01/14/2015



Heritage Architecture, LLC



6. If respondent is not a joint venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).		
Name & Address	Specialty	Worked with Prime before (Yes or No)
x) n/a		
x)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:

**Summer Alhamash, AIA
President**

b. Project Assignment:

Principal Architect

c. Name of Firm with which associated:

Heritage Architecture, LLC

d. Years experience: With This Firm 16 With Other Firms 30

e. Education: Degree(s)/Year/ Specialization

**Licensing Coordination (1998) New York University, NY
Bachelor of Architecture (1985) University of Baghdad, Iraq**

f. Active Registration: Year First Registered/Discipline

LEED Accreditation Continuing Education USGBC, NY

g. Other Experience and Qualifications relevant to the proposed project:

**Registered Architect, NJ USGBC US Green Building Council
Registered Architect, NY State Ed. Dept. LEED® Accredited Professional**

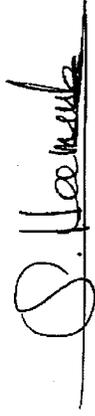
7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
<p>a. Name & Title: Todd Hause, AIA Senior Project Manager</p>	<p>a. Name & Title: Steven Zmuda, AIA Project Manager</p>
<p>b. Project Assignment: Senior Project Manager</p>	<p>b. Project Assignment: Project Manager</p>
<p>c. Name of Firm with which associated: Heritage Architecture, LLC</p>	<p>c. Name of Firm with which associated: Heritage Architecture, LLC</p>
<p>d. Years experience: With This Firm <u>4</u> With Other Firms <u>19</u></p>	<p>d. Years experience: With This Firm <u>2</u> With Other Firms <u>30</u></p>
<p>e. Education: Degree(s)/Year/ Specialization Master of Architecture (1994) Pennsylvania State University, PA Bachelor of Architecture (1991) Carnegie Mellon University, PA Arcosanti, studied & participated in construction of prototype city (Summer 1989)</p>	<p>e. Education: Degree(s)/Year/ Specialization New York Institute of Technology, NJ BACHELOR OF ARCHITECTURE</p>
<p>f. Active Registration: Year First Registered/Discipline Registered Architect, NJ State Registered Architect, NY State Ed. Dept.</p>	<p>f. Active Registration: Year First Registered/Discipline American Institute of Architects (AIA) Architects League of Northern New Jersey</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: LEED® Accredited Professional</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Architecture Licensure - New York and New Jersey</p>

8. Work by firm or joint-venture members which best illustrates current qualifications relevant to this project (list no more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in thousands)	
				Entire Project	Work for which firm was/is responsible
Spruce Spires & Garden Spires Newark, NJ	Architecture/Design	Omni Development, LLC Andrew Germansky, Project Manager 885 Second Avenue, 31st Floor New York, NY 10017 646-374-0077	Est completion 2015	\$8,000,000	\$1,000,000 (est)
BEC New Communities Physical Needs Assessments Brooklyn, NY	Physical Needs Assessments	BEC New Communities HDFC, Inc Dan Mathew, General Manager/ Chief Executive Officer 67 Hanson Place Brooklyn, N.Y. 11217 718-858-8803	2014	\$65,800	\$65,800
Fire Damaged Unit Architectural & Structural Reconstruction Newark, NJ	Reconstruction of Fire Damaged Units	Newark Housing Authority (NHA) 500 Broad Street, Newark, NJ 07102 Ram Naveendra 973-273.6166	2007-2009	\$2,500,000	\$1,000,000 (est)
High Rise ADA Unit Conversions – Baxter Terrace Newark, NJ	ADA Unit Conversions	Newark Housing Authority (NHA) 500 Broad Street, Newark, NJ 07102 Ram Naveendra 973.273.6166	2011	\$400,000	\$400,000 (est)
Physical Needs Assessment Housing Unit Rehabilitation/Reconstruction Newark, NJ	Physical Needs Assessment	Newark Housing Authority (NHA) 500 Broad Street, Newark, NJ 07102 Ram Naveendra 973.273.6166	2008-2006	2,500,000	\$300,000 (est)
On Call A/E Services (5 Year) Contract Scattered Sites - New York City, NY	Architecture and Design	Irene Barth, Project Manager New York City Housing Authority (NYCHA) 250 Broadway New York, NY 10007 212-306-3000	2011- ongoing	\$20,000,000	\$1,000,000 (est)

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

11. The foregoing is a statement of facts.



Signature: _____ Typed Name and Title: Summer Alhamash, President

Date:
1/21/15



McKissack & McKissack



ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (City and State)

CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery – DDC Build It Back, New York, NY

2. PUBLIC NOTICE DATE

December 12, 2014

3. SOLICITATION OR PROJECT NUMBER

8502015HR0011-13P

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

David Kane, PE, AICP - Chief Operating Officer

5. NAME OF FIRM

McKissack & McKissack

6. TELEPHONE NUMBER

(212) 349-6500

7. FAX NUMBER

(212) 760-4259

8. E-MAIL ADDRESS

dkane@mckissack.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

(Check)				9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
PRIME	J-V	PARTNER	SUBCON-TRACTOR			
a.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	McKissack & McKissack <input type="checkbox"/> CHECK IF BRANCH OFFICE	1001 Avenue of the Americas 20 th Floor New York, NY 10018	Construction Management Services, Section 3 HUD Compliance, CDBG-DR Compliance
b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		
c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		
d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		
e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Russell Imbrenda	13. ROLE IN THIS CONTRACT Project Principal	14. YEARS EXPERIENCE	
		a. TOTAL 41	b. WITH CURRENT FIRM 6
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Mechanical Engineering, Syracuse University		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Licensed Professional Engineer, in New York, New Jersey, Washington D.C., Member of the Institute of Electrical and Electronic Engineers, Member of the Construction Management Association of American (CMAA)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Project Executive, Mr. Imbrenda leads the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.		
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. As Project Executive, Mr. Imbrenda leads the McKissack team, the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. The McKissack + MBP Joint Venture is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 50 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
SUCF Construction Management Term Agreement, New York, NY	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Imbrenda serves as Project Executive for the SUCF CM Term Agreement, which provides design and construction services for SUNY's South Region, which includes New Paltz, Purchase, Maritime, Optometry, Brooklyn HSC, Old Westbury, Farmingdale, Stony Brook, and the Levin Institute. The projects will involve providing construction management services during pre-construction, construction and/or close-out phases of various projects.		
NYS OGS On Call Construction Management Services, Downstate NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Imbrenda serves as Project Executive for McKissack, as the lead partner in a Joint Venture, that has been selected by the NYS OGS to provide construction management services for various projects in New York's downstate region on a task order basis. The initial contract value is \$10,000,000 over a three-year term with two 1-year optional renewals. Preconstruction services under this contract include: design and constructability review, scope and bid package reviews, cost estimating, and scheduling. Construction services include project management, superintendent services, inspection, scheduling, estimating, project safety, claims analysis, administrative, information technology and affirmative action monitoring and compliance service.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Albert Odjidja		13. ROLE IN THIS CONTRACT Senior Project Manager		14. YEARS EXPERIENCE	
				a. TOTAL 24	b. WITH CURRENT FIRM 9
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY					
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, Architecture and Urban Planning, University of Maryland			17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) OSHA 40-Hour Site Safety Certificate, CAD Certification, BIM Certification, Construction Management Association of America (CMAA)					

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR CDBG Property Management/Damage Assessments, Staten Island, Nassau and Suffolk Counties	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Senior Project Manager, Mr. Odjidja leads the McKissack team awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties. This effort required the immediate mobilization of McKissack staff and of private damage assessors plus the bid and award of dozens of construction/property maintenance contracts with the goal of completing all work in an accelerated 5 month schedule.		
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. As Senior Project Manager, Mr. Odjidja leads the McKissack team, the lead partner in a Joint Venture, performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. The McKissack + MBP Joint Venture is responsible for 1/3 of the home inspections in western Nassau County. The effort required the immediate mobilization of more than 150 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
Henry J. Carter Specialty Hospital & Skilled Nursing Facility, New York, NY	2012	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Odjidja served as Project Administrator for the renovation project comprised of a new 16,000 sq. ft. state-of-the-art learning commons and information center. The new library will provide students and faculty with much needed space for reading, studying and collaborating. McKissack's scope of work included the following items of work: demolition; drywall; carpentry; millwork glazing; finishes and MEP systems upgrades.		
DASNY Medgar Evers College, Brooklyn, NY	2009	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm d. As Project Manager, Mr. Odjidja was responsible for managing pre-construction activities; soliciting and collecting pre-construction documents; managing the bid and award of 24 prime construction contracts; managing the CM project field staff including MEP, architectural and structural disciplines; coordinating daily construction activities; and monitoring and updating project schedules. He assessed and negotiated change orders; evaluated claims among multiple contractors; monitored quality control including the issuance of written directives stopping work in areas of non-compliance; reviewed contractors' request for payment and solicited and assembled closeout documents.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Eze Iheme	13. ROLE IN THIS CONTRACT Senior Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 32	b. WITH CURRENT FIRM 9
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Engineering, University of Houston		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) American Society of Civil Engineers, Construction Management Association of America			

19. RELEVANT PROJECTS		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR CDBG Property Management/Damage Assessments, Staten Island, Nassau and Suffolk Counties, NY	2014	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Project Manager, Mr. Iheme is a key member of the McKissack team awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties. This effort required the immediate mobilization of McKissack staff and of private damage assessors plus the bid and award of dozens of construction/property maintenance contracts with the goal of completing all work in an accelerated 5 month schedule.		
SUNY College of Optometry, New York, NY	2014	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Iheme served as Project Manager for the rehabilitation of research floors 16 & 17 and the electrical services at the State University of New York (SUNY) College of Optometry. The project involves a partial renovation of the 16th & 17th floors at SUNY Optometry to upgrade the college's animal holding and procedure rooms associated with research, and a comprehensive renovation of the building's primary electrical systems including services switches, switchgear transformers and emergency generation systems.		
Harlem Hospital New Patient Pavilion, New York, NY	2012	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Iheme served as Project Manager for the next phase of the Harlem Hospital Modernization. The New Patient Pavilion, or the Ronald H. Brown Pavilion, will be a 150,000 sq. ft. addition to the Harlem Hospital Center and will include a new Emergency Department, state-of-the-art critical care and diagnostic units, and new, fully equipped operating rooms. The modernization will connect the existing Martin Luther King, Jr. Pavilion and the new Ronald H. Brown Pavilion, parking garage and EMS Stations, creating one large healthcare complex for the Harlem community.		
Harlem Hospital Major Modernization Project - Phases 1, 2 & 4 New York, NY	2012	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm d. Project Manager for the phased demolition of five buildings: EMS facility, the Outpatient Department (OPD), Old Nurses Residence (ONR), New Nurses Residence (NNR) and the Women's Pavilion (WP). Of particular challenge is the volume of demolition in a community surrounded by an active hospital, EMS operation, elementary school; vibrant residential and commercial neighborhood and ongoing construction in an adjacent subway station. The hospital remained operational throughout the demolition and construction phases. Also included as part of the project is the \$4 million relocation and restoration of nine Harlem Hospital Center Murals created under the Works Progress Administration (WPA) Federal Art Project. For this assignment, Mr. Iheme provided management of hazardous material abatement, provision of work and egress access, demolition, structural repairs and coordination with Harlem Hospital for safe removal to storage. Mr. Iheme provided construction management supervision and support for the restoration of the Martin Luther King (MLK) Pavilion and construction of other connections providing a unified health-care complex that has seven buildings over two blocks. Work on the new pavilion and the MLK building constitute \$225 million of the overall project cost. Those spaces house a new emergency department, operating rooms, diagnostic and treatment services, a critical-care suite, and a radiology center. In addition, the project also calls for the renovation of an inpatient bed tower, erection of a new \$10 million garage for hospital staff and visitors, and a new \$4.6 million Emergency Medical Services garage for the New York City Fire Department.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Tim Scanlan	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 39	b. WITH CURRENT FIRM 4
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Civil Engineering, New England College		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
a.	GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm As Project Manager, Mr. Scanlan is a part of the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.		
b.	SUNY College at Purchase, Exterior Rehabilitations Project New York, NY	PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Scanlan served as Project Manager for the exterior rehabilitations of the dining hall and physical education buildings at SUNY Purchase College. Responsible for project budget, schedule, and managing day-to-day tasks of construction staff including trade coordination, submittal process, and coordination of the design team. The scope of work for the 2 projects included replacement of roofs with durable new construction exceeding energy code minimums; reconstruction, repair, repointing, and cleaning of masonry and supporting elements; replacement of doors, windows, curtainwall, storefront, atrium, clerestory, and skylights with new high performance units and systems; reconstruction and repairs to surrounding site work including plazas and paths and building foundations to improve water-tightness and user safety; abatement of hazardous materials; select mechanical and lighting upgrades; and additional work items intended to improve integrity of building envelope, efficiency, usability, health and safety.		
c.	Bridgeport School District's Wilbur Cross Elementary School, Bridgeport, CT	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Scanlan served as Project Manager for the \$6.5 million renovation and alteration project at Wilbur Cross Elementary School. The scope of work included asbestos abatement, code compliance, energy conservation, alterations for educational program needs, ceiling replacements, lighting upgrades and a new sprinkler system. Upgrades to the school included HVAC systems, surveillance/security, telephone, public address, phone and plumbing systems. All windows and doors were replaced, a new bus loop was constructed and the parking lot was expanded to accommodate 15-20 more spaces.		
d.	Marin Garfield Firehouse, Bridgeport, CT	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Project Manager for the \$2.3 million new firehouse in Bridgeport, CT. The project included new masonry, roofing windows and storefront.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Richard Sekkor	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 5	b. WITH CURRENT FIRM 2

15. FIRM NAME AND LOCATION (City and State)
McKissack & McKissack, New York, NY

16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Construction Management & Safety, North Carolina Agricultural and Technical State University Associate of Applied Sciences in Architectural Engineering Technology, Alfred State College, SUNY College of Technology	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
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18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
OSHA 30-Hr Construction Safety Certification, CPR Certification, Level 1 Firestop Instructional Training Certification, BIM (REVIT) Certification 2012, Construction Project Management, Pace University Continuing Education 3/2014, LEED Accreditation, U.S. Green Building Council

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State) GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Check if project performed with current firm
 a. As Project Manager, Mr. Sekkor is a part of the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.

(1) TITLE AND LOCATION (City and State) McKissack & McKissack, New York, NY	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Check if project performed with current firm
 b. Serving as Office Engineer, Mr. Sekkor is responsible for the following:

- Preparing complete, accurate and timely submittal logs for construction projects based on project drawings and specifications.
- Accountable for receiving approved submittals from Architect or Engineer and notifying the Project Superintendent of potential schedule impact
- Assisted the Project Manager by preparing all necessary back up relating to change requests.
- Responsible for timely completion of all required project close-out documents per contract.
- Distribute contract documents to subcontractors, including drawings, specifications, and general conditions.
- Responsible for scheduling all required construction meetings with required personnel, subcontractors, architects and owners.
- Accurate and complete meeting minutes and distribute timely
- Attend Owner/Architect pre-bid, project and closeout meetings
- Solicit subcontractors and suppliers for proposal prior to proposal submission time
- Prepared correspondence with Owner, Architect, Engineers, Subcontractors, Suppliers, etc. Examples of referenced correspondence include, but not confined to the following items: Schedule of Values, project schedule, memos, request for information, transmittals and submittals.
- Submit building permit application, follow-up on review progress and receive upon approval.
- During Construction Phase, proactively manage project to achieve quality, schedule, budget and safety. Utilize and maintain tools: schedule and document management to track and record project performance.
- Maintain customer (Owner, Architect, Engineer, Subcontractor, and Supplier) relations and conduct project meetings. Ensure prompt payment from Owner and payment to Subcontractor and Suppliers occurs according to percentage complete timely upon receipt from Owner.
- Document quality and progress of each Subcontractor and Suppliers. Update Subcontractors and Suppliers of any changes to the plans, specifications and/or schedule.
- Inform management of productivity, costs, quality control, document management and processing of applications for payment. Notify management of any issues that arise which affects quality, budget, progress and safety.
- Monitor staffing needs, evaluate performance, addressed employee relation issues as warranted for staff.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Helen Alladin	13. ROLE IN THIS CONTRACT Call Center Manager	14. YEARS EXPERIENCE	
		a. TOTAL 21	b. WITH CURRENT FIRM 1.5
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) N/A		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Train the Trainer, Colorado Springs, CO (Management Certification), Customer and Human Relations, New Canaan, CT (Intensive four-day seminar)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. Ms. Alladin serves as Call Center Manager for the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.		
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
b. Ms. Alladin served as a Project Administrator and Document Control on the McKissack team performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 200 inspectors and support personnel to assist in assessing damage and providing estimates to facilitate the release of needed funding to homeowners for home repair or replacement.		
The General Theological Seminary, New York, NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. As Director of Campus Services, Ms. Alladin administered campus-wide housing for faculty, students, and rental units. She also managed space reservations and oversaw cleaning and maintenance grounds and gardens. Ms. Alladin was also responsible for maintaining and scheduling requirements for Campus Service employees, porters, and handymen. She also coordinated and managed all outside seminary events, nationwide, as well as met with contractors for reonovations, construction, and overall maintenance of the plant and recommended cost saving applications to improve physical plant.		
As Events Coordinator/Special Projects Manager, Ms. Alladin managed all aspects of seminaries participation in General Convention (triennial national church meeting), including hotel reservations for staff of 12, dinner for 250, and all transportation needs. She also coordinated programs for the College of Bishops twice yearly and Church Development Institute (outside programs hosted by seminary). Ms. Alladin also coordinated Science & Theology program for worldwide attendees, including travel, hotel accommodations, honorariums for participation, meals and all other special requests. She also prepared all invoices for billing and supplies.		
As Administrative Assitant, Ms. Alladin had the following responsibilities: assisted in reorganizing the office under the new director; created filing system for gift acknowledgements; contacted prospective donor interests; managed postage accounts for the regular donor appeal and negotiated all contracts for departmental hospitality services; and supervised database par-time staff.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Sean Dawson	13. ROLE IN THIS CONTRACT Assistant Project Manager/ Field Inspector	14. YEARS EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 9
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S. Construction Management, Polytechnic University,		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
GOSR CDBG Disaster Recovery Inspections, Staten Island, Suffolk County & Nassau County, New York	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. Ms. Alladin served as a Project Administrator and Document Control on the McKissack team performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 200 inspectors and support personnel to assist in assessing damage and providing estimates to facilitate the release of needed funding to homeowners for home repair or replacement.		
Medgar Evers College, School of Business, Brooklyn, NY	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
b. Project Office Assistant for Medgar Evers's new \$40 million School of Business. The project is a collaboration between CUNY and DASNY, and is being managed by a joint venture between McKissack and Turner Construction. The new 40,000 sq. ft. three-story building houses the School of Business and the administrative offices for Student Affairs. Mr. Dawson's responsibilities on the project entail the preparing activity schedules reviewing consultant proposals for various elements including scope of work, staffing charts, labor cost charts and cost estimates and checking for inconsistencies and errors. He is also responsible for researching and helping to resolve design and construction issues, and for the review of design documents, change orders, payment requisitions and contracts.		
Thomas C. Burger Interior Design, New York, NY	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
c. Served as Interior Design Intern performing a variety of functions including the presentation of design concepts for selected clients. Performed furniture and finishes selections under the supervision of Senior Designers. Created design layouts in AutoCad 2004.		
Benjamin Banneker Academy, New York, NY	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm		
d. Served as Attendance Team Leader responsible for advising students on methods to improve their grades. Responsible for meeting with parents to discuss their children's academic progress. Performed various administrative tasks including data entry, filing, and coordinating office activities.		
Regional Building Committee, New York, NY	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. Served as Drafter and Architect's Assistant. Duties included creating Kingdom Halls for Jehovah Witnesses within New York State. Also made recommendations regarding the use of available space for Kingdom Hall layouts. Responsible for editing drawings on AutoCad according to instructions from engineers and architects.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Janice Haughton	13. ROLE IN THIS CONTRACT MWLBE Director	14. YEARS EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BPS, Human Services, Metropolitan College of New York		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) OSHA Certified – 10 hr.			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Compliance Advisor, Mrs. Haughton is a part of the McKissack & McKissack team for both the GOSR and DASNY projects. McKissack is the lead partner in a Joint Venture, has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. McKissack is also the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. Both projects comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. Mrs. Haughton manages and advises project team consultants on program procedures and requirements for CDBG/Section 3 and M/W/BE compliance. She also encourages project consultants, to work in accordance with the construction management team to assess and forecast M/W/BE Utilization and Section 3 hiring potential for the project. Her key responsibilities as it pertains to consultation, includes: analyzing all reporting documentation and reports for diversity compliance; employment and contracting referral process for Section 3; methods to liaise with Trade Unions and Associations; potential partnerships with community based/job readiness/training organizations; community outreach events, seminars and open houses; key stakeholder engagement; and program reporting systems, procedures and measurement mechanisms.		
NYC EDC Rockaway Boardwalk Reconstruction, Queens, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm b. Mrs. Haughton serves as the M/W/LBE/CDBG (Community Development Block Grant) Oversight Manager for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. She is responsible for the HUD/CDBG Section 3 Workforce and Community Outreach Program, which seeks to engage and assist qualified Section 3 Business Concerns and labor force professionals in providing contracting and employment opportunities in order to meet the participation goals set forth by the project and requirements for Section 3 compliance. Mrs. Haughton customized a geographic action plan and process for community involvement and enhancement of ongoing workforce development for the specific areas. She has developed contractual language for Section 3 compliance to be incorporated into all sub recipients agreements, for McKissack clients, to ensure contractor cooperation on this project. She has developed strategies and action plans to address the complex reporting and monitoring mechanisms required for CDBG/HUD reporting. Mrs. Haughton managed the Local Referral Center, located on the project site, which served as a recruiting center for employment applicants and prospective contractors. She lead the diversity team in outreach efforts to include all forms of advertising, event logistics and management, collateral materials, community board relations and partnerships and coordination with local workforce groups and trade unions, in order to maximize opportunities for potential employment, job training and contracting opportunities for Section 3 residents.		
Columbia University, Manhattanville Campus Expansion, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Serving as Manager of Small Business & Workforce Programs for McKissack & McKissack, Mrs. Haughton's key responsibilities include: establishing a list of M/W/LBE contractors who are eligible to bid and work on the project and updating and maintaining this list on an ongoing basis as the project progresses; developing and implementing an outreach program to solicit M/W/LBE firms who are qualified and interested in working on the project; attending pre-bid conferences to reinforce to bidders the M/W/LBE and workforce requirements in the bid documents and to detail the reporting and tracking methods to be implemented; participate in project team bid package review meetings to identify opportunities for M/W/LBE firms; assisting in developing policies as it pertains to M/W/LBE regulations; prescreen and provide procurement and prequalification assistance for M/W/LBE firms with CM team; referring M/W/LBE firms to prime contractors who are working on or bidding work on the project; maintaining copies of all credentials and certifications for all firms on the MWLBE list; tracking and managing M/W/LBE utilization plans; working closely with CM and Owner to develop and customize monthly M/W/LBE compliance reports for contracting and workforce; collaborates with CM accounting on contractor invoicing to ensure M/W/LBE contractual requirements met; performs reviews to ensure that all compliance documents are accurate; oversight for workforce compliance documentation and data reporting; works with McKissack's Office of Community Employment (OCE) on recruiting activities, laborforce referrals and database management; advises project team on issues related to compliance and good faith efforts.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Jennifer Fraticelli	13. ROLE IN THIS CONTRACT MWLBE Coordinator	14. YEARS EXPERIENCE	
		a. TOTAL 6	b. WITH CURRENT FIRM 1.5
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) College of Mount St. Vincent, Coursework in Education & Psychology Albright College, Coursework in Education & Psychology		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Compliance Coordinator, Ms. Fraticelli is a part of the McKissack team, the lead partner in a Joint Venture, that has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. Ms. Fraticelli advises the project team consultants on program procedures and requirements for CDBG/Section 3 and M/W/BE compliance. Her key responsibilities as it pertains to coordination, includes: analyzing all reporting documentation and reports for diversity compliance; employment and contracting/referral process for Section 3; methods to liaise with Trade Unions and Associations; potential partnerships with community based/job readiness/training organizations; community outreach events, seminars and open houses; key stakeholder engagement; and program reporting systems, procedures and measurement mechanisms.		
NYC EDC Rockaway Boardwalk Reconstruction, Queens, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Ms. Fraticelli serves as the M/W/LBE/CDBG (Community Development Block Grant) Manager for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. She is responsible for the HUD/CDBG Section 3 Workforce and Community Outreach Program, which seeks is to engage and assist qualified Section 3 Business Concerns and labor force professionals in providing contracting and employment opportunities in order to meet the participation goals set forth by the project and requirements for Section 3 compliance. Ms. Fraticelli tracks, monitors and reports on all Section 3 goals for the project. She manages all Section 3 Resident and Section 3 Business Concerns compliance documentation, in addition she analyzes and prepares certified payroll reports to ensure hiring goals are on target. She participates in client and internal meetings to educate the project team on M/W/LBE and Section 3 requirements and reporting documentation. She also participates in all pre-scope, pre-construction, and kick-off meetings to reinforce contractor compliance. Ms. Fraticelli coordinates with all contractors on Section 3 efforts, managing job announcements, Section 3 referrals and activity on the project employment website. She also provides sourcing, referrals and verification for M/W/LBE firms and manages all good faith efforts for the project. In addition, she maintains and provides community outreach, per Section 3 requirements and maintains outreach vehicles such as the community phone and project email address. Ms. Fraticelli also provides management support for the applicant database.		
AECOM, New York, NY	N/A	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Ms. Fraticelli served as Project Coordinator for the Rikers Island Cogeneration Project and was responsible for generating monthly construction reports, managing and tracking submittals and requests for information (RFI), assisting with coordinating change orders, special inspections, and work permits. She maintained submissions of CPM schedules, safety reports and construction updates for the project, and coordinated and drafted the former and current design changes for submission to the general contractor, the Department of Buildings, and the Fire Department of NY. Ms. Fraticelli served as Project Coordinator for the New York Power Authority (NYPA) contract and was responsible for reviewing, recording and processing vendor invoices for contract compliance on approximately 20 projects, and recorded meeting minutes and handled ad-hoc administrative assignments for the NYPA Southeast Energy Savings Program for projects currently in procurement, design, construction and closeout phases. She also administered the NYPA Minority/Women owned Business Enterprise (M/WBE) Program spending and reported the percentages to the client, ensuring the goals were met. She also assisted with preparing, tracking and opening bid packages with approved vendors throughout procurement and assisted AECOM's business development team, as well as upper management, with preparing responses to requests for proposals (RFP). She created and managed a document control system using the International Standards Organization (ISO). Ms. Fraticelli managed and maintained Microsoft Sharepoint websites, for the Rikers Island Cogeneration Project and the Owls Head Waste Water Treatment Plant Project.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Khalilah Hyde-Peyrefitte	13. ROLE IN THIS CONTRACT Project Coordinator	14. YEARS EXPERIENCE	
		a. TOTAL 3	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, Economics, Syracuse University BS, Biotechnology, Syracuse University AA, Liberal Arts, Early College, Bard High School		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Columbia University, Manhattanville Campus Expansion, New York, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As M/W/LBE Program Assistant, Ms. Hyde-Peyrefitte: gathers and tracks all M/W/LBE workforce data and documentation; examines M/W/LBE workforce documents, records and forms for accuracy, completeness and conformance, and follows up with contractors as needed; prepares and tracks certified payroll using both Skire, Textura and Columbia's proprietary software; retrieves, verifies and tracks certification expiration dates for M/W/LBE contractors; maintains client's SharePoint website and internal project directories with certification updates and renewals; serves as a resource for procurement working with Database Administrator to customize lists for specific trade bid packages; attends events and interacts with the community and sponsors; attends and provides support for pre-bid conferences, meetings, industry workshops and seminars; fields, logs and tracks inquiries from small businesses and workforce candidates; works with McKissack's Office of Community Employment (OCE) to track and log workforce applicants; assists with creation and modification of presentations, spreadsheets, memos, agendas and other various materials and correspondence for meetings; provides administrative support including filing, photocopying, faxing, imaging files, word processing, and archiving; and assists with typing and preparation of complimentary correspondence and e-blasts.		
NYC EDC Rockaway Boardwalk, Far Rockaway, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Ms. Hyde-Peyrefitte provided Technical and Administrative support for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. The project site encompasses 4.7 miles of shoreline with the development of new elevated boardwalks and protective measures and the installation of new boardwalks and support structure, ramps and stairs. Ms. Hyde-Peyrefitte staffed the Local Referral Center, maintaining the applicant employment database, including vetting candidate referrals, all follow-up and correspondence with applicants and contractors via phone and email. In her role, Ms. Hyde-Peyrefitte also supported the team with Section 3 Resident and Section 3 Business Concerns compliance documentation and activities. She also assisted in the website development for the project webpage and developed collateral materials including employment applications, sign-in sheets, flyers, handouts, advertisements, etc. in support of job fairs, workshops, and community meetings. Her responsibilities also included to: interaction with community groups, partner organizations and contractors for employment placements; engagement with local workforce resources i.e. NYCHA, etc.		
Ministry of Economic Development, Belmopan City, Belize		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Working with the Director of National Authorizing Office as an Economics Intern, Ms. Hyde drafted and negotiated contracts; reviewed, compiled and analyzed economic data; researched current economic issues and trends; organized and participated in presentations; performed administrative tasks including scheduling meetings; and provided excellent customer service in person and via telephone. Ms. Hyde worked with teams responsible for assisting businesses in under-served communities through mentorship and other capacity building mechanisms. She helped implement a small business capacity development program; conducted outreach; and provided guidance by connecting disadvantaged businesses to appropriate support programs including training resources, business development and marketing tools and financial assistance.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Kevin Hall	13. ROLE IN THIS CONTRACT Database Administrator	14. YEARS EXPERIENCE	
		a. TOTAL 2	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, Marketing, Berkley College		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) OSHA 10-Hour Certificate	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Columbia University, Manhattanville Campus Expansion, New York, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As the Database Administrator for the Columbia Manhattanville Expansion Project, Mr. Hall works with McKissack's Office of Community Employment (OCE) to track and log workforce applicants; gather and file workforce data and documentation, including employment applications, professionals credentials and certifications. Mr. Hall is responsible for managing and updating McKissack's internal vendor and applicant databases. Serving as a resource for procurement and labor force needs, he develops and distributes customized referral lists for specific trades; participates in contractor meetings; supports events and interacts with the community and key stakeholders; fields, logs and tracks inquiries from small businesses and workforce candidates. He also provides administrative and technical support including: basic IT/website support, filing, photocopying, imaging files, word processing and archiving. In addition, he assists with the preparation and delivery of complimentary correspondence and e-blasts.		
NYC EDC Rockaway Boardwalk, Far Rockaway, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Hall provided Technical and Administrative support for the Rockaway Boardwalk Reconstruction project. McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. The project site encompasses 4.7 miles of shoreline with the development of new elevated boardwalks and protective measures and the installation of new boardwalks and support structure, ramps and stairs. Mr. Hall staffed the Local Referral Center, maintaining the applicant employment database, including vetting candidate referrals, all follow-up and correspondence with applicants and contractors via phone and email. In his role, Mr. Hall also supported the team with Section 3 Resident and Section 3 Business Concerns compliance documentation and activities. He also assisted in the website development for the project webpage and developed collateral materials including employment applications, sign-in sheets, flyers, handouts, advertisements, etc. in support of job fairs, workshops, and community meetings. His responsibilities also included to: interaction with community groups, partner organizations and contractors for employment placements; engagement with local workforce resources i.e. NYCHA, etc.		
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Mr. Hall served as Call Center Supervisor/Database Administrator for the NY Rising Community Development Block Grant/Disaster Recovery Inspection project. McKissack was the lead partner in a Joint Venture with McDonough Bolyard Peck (MBP), performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprised the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 150 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes. Mr. Hall supervised a team of call center representatives directly and directed their activities for the call center targets and goals. He also surveyed homeowners and reviewed property specifications to solidify residence square footage in order to assess reimbursements. His responsibilities included; implementing, reviewing and improving all call center policies, and procedures; hiring, training and supervising call center employees; tracking call volume; reporting discrepancies and areas of improvement. Mr. Hall processed all orders for technical equipment and software and coordinated with IT vendors for project related trouble-shooting, in addition to maintaining equipment inventories.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Sean Killeen, PMP	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 5
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science, Business Administration, SUNY Buffalo – School of Management		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Project Manager Certificate, Baruch College - School of Continuing & Professional Studies, Project Management Professional, Project Management Institute, Microsoft Office User Specialist, (MOUS)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Call Center Manager, Mr. Killeen is responsible for supporting call center and functions relative to the project and provides support to the client and in resolving homeowner requests. The McKissack team performed Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 7,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 245 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
McKissack & McKissack, New York, NY	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Killeen served as Proposal Manger and was responsible for managing and coordinating proposal preparation process for public and private sector clients. Analyzed project scopes and solicitation requirements and prepared submission plans to include components, schedules and responsibilities. Coordinated the development and maintenance of information databases (resumes, project profiles, graphics). Coordinated processes as required on both sponsored and non-sponsored projects, ensuring the timely delivery of a comprehensive document that fully complies with the client's requirements. Performed detailed writing, editing and formatting of customized marketing and business development materials. Interacted with internal and external team members to analyze information and develop submission components. Maintained qualifications information (team member resumes, project experience profiles). Managed the design, development, implementation and maintenance of the firm's corporate website.		
Landmark Development, Inc., Long Island, NY	2009	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Served as Assistant Project Manager for various construction projects throughout Long Island, NY.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Moji Alawode	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 12	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Institute for Integrative Nutrition, New York, NY Bachelors of Arts, Literature/Liberal Arts, Sarah Lawrence College		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Health Coach Certification	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. As Call Center Representative, Ms. Alawode-El was responsible for supporting call center and functions relative to the project and provides support to the client and in resolving homeowner requests. The McKissack team performed Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 7,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 245 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
Harlem Amenities Concierge, New York, NY	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm b. As the owner and founder of the concierge service, Ms. Alawode-EL has created a net effect for her clients a stress-free and increased productivity program. She aimed for busy New York professionals who seek a work life balance and improve on time management. She has sourced, vetted and hired service providers and other vendors to support her clients.		
Raison Pure, New York, NY	2009	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. As an Account Manager, Ms. Alawode-El managed and coordinated art directors, structural designers and strategic teams to source outside vendors, manufacturers and freelancers as needed. She led the team in presenting work to clients, senior agency members and other key stakeholders. She also created and secured client approval on timelines, budget and billing schedule for each phase of work.		
Select NY, New York, NY	2006	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm d. Ms. Alawode-El served as a Account Executive at Select NY. Her responsibilities included maintaining the relationship between agency and the clients in France, Spain, and The United States. She was the primary liaison between Select NY's Paris office and the New York - based creative team. Her clients were Coty USA (Jennifer Lopez, Nautica, Joop, Chopard and Davidoff fragrances), Amway and Move Collective.		
Baron & Baron, Inc., New York, NY	2003	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm d. As the Assistant Account Executive, Ms. Alawode-El managed the daily relationship between clients and agency. She assisted in negotiation contracts rates with photographers and other outside vendors. She also organized packaging department records; including requesting and maintaining archives of completed projects.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Tracey Wooten	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 8	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Hunter Business School, Medical Office Administration/Business & Medical Terminology		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	Ongoing	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm As Call Center Manager, Mr. Killeen is responsible for supporting call center and functions relative to the project and provides support to the client and in resolving homeowner requests. The McKissack team performed Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 7,000 home assessments and ECR's/Work Write-Ups. The effort required the immediate mobilization of more than 245 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.		
b.	Long Island Power Authority, New York, NY	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm As the Administrative Assistant, Ms. Wooten provided executive administrative support to the Vice President of Environmental Affairs, as well as served as a liaison between all impacted department to ensure proper communication. She also planned and coordinated special events, travel arrangements, corporate agenda and itineraries. She maintained the Vice President's calendar		
c.	Luxottica Group, Port Washington, NY	2012	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Ms. Wooten served as the Luxury Brand Coordinator for the Luxottica Group. In this position she gained knowledge of the AS400 and saturation for the West Coast. She was also responsible for presentations, and corresponded with 100 reps daily in regards to distribution, as well as distributed weekly reports.		
d.	Magill Staffing, Levittown, NY	2010	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm As receptionist, Ms. Wooten provided administrative tasks, i.e. answered phones, pulled files, arranged travel, and created presentations.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
 (Complete one Section E for each key person.)

12. NAME Sean Hurwitz	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 6	b. WITH CURRENT FIRM 1.5
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BA, English, Hofstra University		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Hurwitz served as call center representative and program assistant on the McKissack NY Rising Team. His responsibilities included; intaking and reviewing calls to the center; training of new call center employees; tracking call volume; reporting discrepancies and areas of improvement. Mr. Hurwitz processed orders for technical equipment and software and coordinated with IT vendors for project related trouble-shooting, in addition to maintaining equipment inventories.		
Hofstra University Student Computing Services, Hempstead, NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
b. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Served as Project Leader responsible for compiling, drafting, editing and reviewing articles, instructions and scripts for distributed literature, assorted web pages, and instructional/informational videos. He worked with guest writers to organize and edit information and assisted in formatting an informational documents in printed and digital formats. As Student Assistant, he provided customer service in the university computer lab used by campus students and staff members. He responded to computer and software users needs by accessing necessary resources for end users and answered calls from students seeking technical assistance or information. Provided high quality and efficient services.		
Hofstra University Resident Safety Representative, Hempstead, NY	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
c. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Served as Supervisor/Team Leader responsible for organization and supervision of a team of fourteen security representatives stationed in various on-campus Residence Halls. He also trained new and returning employees on University Security policies and regulations.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
 (Complete one Section E for each key person.)

12. NAME Michael Ramirez	13. ROLE IN THIS CONTRACT Call Center Representative	14. YEARS EXPERIENCE	
		a. TOTAL 5	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) AA, Liberal Arts - Nassau Community College, Psychology Major - Hofstra University Related Courses: General Psychology, Psychopathology, Personality Theory, Developmental Psychology, Sociology, Social Psychology, Industrial Psychology, and Behavior Modification.		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	a.	NY Rising CDBG Disaster Recovery Inspections, Nassau County, NY	PROFESSIONAL SERVICES 2014
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. Ramirez served as call center representative and program assistant on the McKissack NY Rising Team. His responsibilities included; intaking and reviewing calls to the center; training of new call center employees; tracking call volume; reporting discrepancies and areas of improvement. Mr. Hurwitz processed orders for technical equipment and software and coordinated with IT vendors for project related trouble-shooting, in addition to maintaining equipment inventories.			
b.	Victoria's Secret, Rego Park, NY	PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As Customer Service Representative, Mr. Ramirez is responsible for stock room organization and assisting the sales team and customers with all their needs.		
c.	Acu Plus Screen Printing & Embroidery, Hicksville, NY	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As Screen Reclaimer & Screen Manager, Mr. Ramirez was responsible for consistent inventory of screens and outputting artwork for use by the company's printers. In this role, he gained knowledge of the use of both the automatic and manual presses.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Chantry Gray	13. ROLE IN THIS CONTRACT Call Center Coordinator	14. YEARS EXPERIENCE	
		a. TOTAL 20	b. WITH CURRENT FIRM 4
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Arts in Business Administration, DeVry University (expected 2015)		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
DASNY HUD Required CDBG Disaster Recovery Inspections, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input checked="" type="checkbox"/> Check if project performed with current firm </div>		
a. Ms. Gray serves as a Call Center Coordinator on the McKissack team performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort requires the immediate mobilization of more than 200 inspectors and support personnel to assist in assessing damage and providing estimates to facilitate the release of needed funding to homeowners for home repair or replacement.		
Standard & Poor's Financial Services LLC, New York, NY	PROFESSIONAL SERVICES N/A	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input type="checkbox"/> Check if project performed with current firm </div>		
b. Ms. Gray served as Senior Customer Service Representative responsible for contacting customers for support document requests regarding general ledger and other module entries. She researched and resolved client discrepancies within a timely manner, controlled expense accounts, capital budgets, and inventory purchases, and controlled budgeting, financial reporting, inventory cost, cash management, business plan development, financial analysis, and capital expenditures. Ms. Gray administered various accounting functions, including billing, accounts receivable, bank reconciliation, job costing, contracts, lien releases, customer service and financial statements, accurately processed and invoiced orders to customers, and analyzed operational reports for substantial gains and methods to more efficiently utilize resources. She maintained long-term leadership in the market segment, identified and developed comprehensive business alliances and provided client and non-client support for Standard & Poor's products processing.		
New York City Department of Environmental Protection, Croton Water Tunnel Treatment Plan, NY	PROFESSIONAL SERVICES N/A	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input type="checkbox"/> Check if project performed with current firm </div>		
c. Ms. Gray served as Account Representative where she was the critical negotiator between engineering, manufacturing, and management to balance workflow, product order fulfillment, inventory control, and vendor relationships. Her Customer Service Representative duties included accepting credit card and loan applications, opening and closing accounts, cross-selling and consultative sales of financial products, and maintaining up-to-date knowledge of banking services and product. She researched and resolved account discrepancies, provided high level of customer service for all banking transactions, and directed branch operations, increased office income, controlled losses and fraud, audited compliance regulations, and organized monthly reporting activity. Ms. Gray administered various accounting functions, including billing, payroll, accounts receivable, bank reconciliation, job costing, contracts, lien releases, customer service and financial statements, and was responsible for financial functions of the corporation including consolidations, general accounting, credit, collections, and monthly reports.		
Memorial Sloan-Kettering Cancer Center, New York, NY	PROFESSIONAL SERVICES N/A	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <div style="float: right; text-align: right;"> <input type="checkbox"/> Check if project performed with current firm </div>		
c. Ms. Gray served as a Visiting Volunteer providing training and assistance for new visiting volunteers, visited patients and their family members, and provided books or magazines and on occasion read to them. She assisted the patients with their motor skills in the recreational room, assisted patients with their transport and informational needs and assisted patient with their activities for daily living.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Steven Allen	13. ROLE IN THIS CONTRACT Director of Preconstruction	14. YEARS EXPERIENCE	
		a. TOTAL 32	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) AS, Construction Engineering, State University of New York at Farmingdale		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
USTA National Tennis Center, Flushing Meadows, NY		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE a. Mr. Allen serves as Director of Preconstruction on the McKissack team providing preconstruction and construction management services in support of the USTA National Tennis Center's major modernization program. The proposed projects will improve the USTA NTC's site plan, circulation, visitor amenities, landscaping, and will include construction of a new stadium to replace the existing Louis Armstrong Stadium in the same location and a new Grandstand Stadium in the southwest corner of the NTC site. The modernization plan also calls for improvements to Arthur Ashe Stadium and include a new operable roof. The proposed projects also include modifications to tournament courts and ancillary buildings, the construction of a new parking garage, new road access and pedestrian enhancements.		<input checked="" type="checkbox"/> Check if project performed with current firm	
School of the Arts, Nash Building Renovation, Columbia University, New York, NY		PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE b. Mr. Allen serves as Director of Preconstruction on the McKissack team selected to provide Design/Build General Contracting services for the interior fit-out of approximately 11,200 sq. ft. on the 5th floor of the Nash Building located at 3280 Broadway Columbia's Manhattanville campus.		<input checked="" type="checkbox"/> Check if project performed with current firm	
Pupin Theory Center, Columbia University, New York, NY		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE c. Mr. Allen serves as Director of Preconstruction on the Pupin Theory Center project. McKissack is acting as General Contractor for the renovation project that will provide critical space for the interaction and collaboration of faculty, students, and guests and will create the environment necessary to attract top talent in the field to Columbia's Physics Department. This project will eventually encompass the entire 8th and 9th floors of Pupin Hall, located on Columbia University's Morningside Campus. The current phase will construct shared private offices along with a spacious lounge and pantry on the 8th floor, with a sculptural open staircase connecting to the 9th floor. The 9th floor construction will provide shared private offices and several "interactive" spaces for meetings, informal gatherings and spontaneous collaboration. In addition, mechanical spaces housing electrical and I/T services will be upgraded on each floor.		<input checked="" type="checkbox"/> Check if project performed with current firm	
Kel-Mar Designs, Inc., New York, NY		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE d. Mr. Allen served as Project Manager for a general contracting firm managing day-to-day operations including purchasing for two (2) projects: a 50,000 SF charter school project consisting of side addition, build-over and renovation including structural and foundation reinforcing; and a new 11,500 SF emergency medical services station with a two-story masonry and glass structure and a green roof.		<input type="checkbox"/> Check if project performed with current firm	

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Brendan Boylan	13. ROLE IN THIS CONTRACT Estimator	14. YEARS EXPERIENCE	
		a. TOTAL 30	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) Building Management & Technology, University of Liverpool Electrical and Electronic Engineering, University of Ulster, Jordanstown		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
USTA National Tennis Center, Flushing Meadows, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. Mr. Boylan serves as Preconstruction Manager and Project Cost Estimator on the McKissack team providing preconstruction and construction management services in support of the USTA National Tennis Center's major modernization program. The proposed plans will improve the USTA NTC's site plan, circulation, visitor amenities, landscaping, and will include construction of a new stadium to replace the existing Louis Armstrong Stadium in the same location and a new Grandstand Stadium in the southwest corner of the NTC site. The modernization plan also calls for improvements to Arthur Ashe Stadium and include a new operable roof. The proposed projects also include modifications to tournament courts and ancillary buildings, the construction of a new parking garage, new road access and pedestrian enhancements.		
Pupin Theory Center, Columbia University, New York, NY	Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Mr. Boylan serves as Preconstruction Manager on the Pupin Theory Center project. McKissack is acting as General Contractor for the renovation project that will provide critical space for the interaction and collaboration of faculty, students, and guests and will create the environment necessary to attract top talent in the field to Columbia's Physics Department. This project will eventually encompass the entire 8th and 9th floors of Pupin Hall, located on Columbia University's Morningside Campus. The current phase will construct shared private offices along with a spacious lounge and pantry on the 8th floor, with a sculptural open staircase connecting to the 9th floor. The 9th floor construction will provide shared private offices and several "interactive" spaces for meetings, informal gatherings and spontaneous collaboration. In addition, mechanical spaces housing electrical and I/T services will be upgraded on each floor.		
School of the Arts, Nash Building Renovation, Columbia University, New York, NY	2014	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Mr. Boylan served as Preconstruction Manager for the development of Columbia's new Nash School of the Arts. The project is comprised of approximately 8,500 sq. ft. of existing unfinished retail space on the ground floor of the School of Social Work (SSW) building located at 1255 Amsterdam Avenue for use as a Center for Design & Global Development. The renovated space will include an auditorium, research library and offices. The entire project is budgeted at \$6.5 million.		
SUNY College at Purchase, Center for Integrated Teaching and Learning Building New York, NY	2014	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm c. Mr. Boylan served as Preconstruction Manager during the initial phase for two new buildings on the western end of the SUNY Purchase plaza. One building is the Center for Integrated Teaching and Learning (CITL), a 3-story, 49,000 sq. ft. structure that will include spaces for traditional and hands-on instruction, technical interaction, and presentation training in theatre. The second building is the Entry Pavilion, a 2-story, 12,000 sq. ft. structure, which will serve as the new main gateway into campus and has admissions, a cabaret/lobby event space and a main seating stair that is adjacent to a main outdoor stair up to the plaza. Both new buildings have renovation components on the concourse level of the plaza.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Peter Johnson	13. ROLE IN THIS CONTRACT Project Accountant	14. YEARS EXPERIENCE	
		a. TOTAL 12	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION <i>(City and State)</i> McKissack & McKissack, New York, NY			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> BA, Accounting, Baruch College		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i>	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
Hurricane Sandy Recovery, HUD Required CDBG Property Management / Damage Assessments, New York, NY	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <div style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</div>		
a. Mr. Johnson serves as Project Accountant for McKissack's storm recovery project for the Governor's Office of Storm Recovery. His project accounting responsibilities include reviewing timesheets submitted by staff and sub-consultants, tracking labor costs and other project related expenses. He is responsible for preparing billing invoices, tracking costs, and verifying charge rates are in accordance with contract terms and processing invoices for payment specific to the project.		
Loss Management Systems, New York, NY	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <div style="float: right;"><input type="checkbox"/> Check if project performed with current firm</div>		
b. Mr. Johnson served as Project Manager for the Hurricane Sandy Water Remediation project. He was responsible for managing cost budget to allocate overall cost estimate to subcontractor tasks, produced project status reports, managed the contractor and staff and resolved day-to-day issues, and was responsible for assigned clerk and prioritization of work scope. Mr. Johnson also monitored and provided an equipment analysis of all machinery on job, and monitored and provided and analysis on all inspections. Mr. Johnson served as Project Accountant and was responsible for preparing monthly AIA billing for projects, calculated labor, overhead and material cost, and assisted in the preparation of the monthly financial statements. He conducted general ledger analysis, tied in sub ledgers to general ledger and made adjusted entries, made journal entries, help maintained WIP schedule, and interacted with project managers, supported with maintained budget. Mr. Johnson maintained and ensured job cost reports are recorded accurately, reviewed all subcontractors invoices, cost coded and approved all change orders, and set up new clients, jobs, subcontractors and vendors in the timberline accounting software. He prepared daily cash flow analysis/budget forecasts, reconciled bank statements, oversaw payroll, account analysis, weekly payroll /941 quarterly taxes, and compiled various reports for management usage. Mr. Johnson prepared Amortization/Equipment/Vehicle schedules.		
IBEX Corporation, New York, NY	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <div style="float: right;"><input type="checkbox"/> Check if project performed with current firm</div>		
c. Mr. Johnson served as Senior Project Accountant and was responsible for preparing monthly AIA billings for projects, calculated labor, overhead and material cost. He assisted in the preparation of the monthly financial statements, conducted general ledger analysis, tied in sub ledgers to general ledger and made adjusted entries, and prepared journal entries, recognized revenue for the period, maintained WIP schedule. Mr. Johnson interacted with project managers, supported with maintained budget, maintained and ensured job cost reports are recorded accurately, and reviewed all sub contractors invoices, cost coded and approved all change orders. He was also responsible for accounting setups for new clients, jobs, subcontractors and vendors. Mr. Johnson recorded and posted all accounts payable and receivable, issued conditional waivers, and final waivers to closeout jobs.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Brian Lyons	13. ROLE IN THIS CONTRACT Project Executive	14. YEARS EXPERIENCE	
		a. TOTAL 37	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) McKissack & McKissack, New York, NY			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS, Mechanical Engineering, United States Coast Guard Engineering School		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
DASNY HUD Required CDBG Disaster Recovery Inspections, Nassau County, NY		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>a. As Project Executive, Mr. Lyons leads the McKissack team in performing Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The project comprises the fast-track completion of approximately 5,000 home assessments and ECR's/Work Write-Ups. McKissack is responsible for 1/3 of the home inspections in western Nassau County. The effort required the immediate mobilization of more than 250 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.</p>		<input checked="" type="checkbox"/> Check if project performed with current firm	
Pupin Theory Center, Columbia University, New York, NY		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>b. Brian serves as Project Executive on the Pupin Theory Center project. McKissack is acting as General Contractor for the renovation project that will provide critical space for the interaction and collaboration of faculty, students, and guests and will create the environment necessary to attract top talent in the field to Columbia's Physics Department. This project will eventually encompass the entire 8th and 9th floors of Pupin Hall, located on Columbia University's Morningside Campus. The current phase will construct shared private offices along with a spacious lounge and pantry on the 8th floor, with a sculptural open staircase connecting to the 9th floor. The 9th floor construction will provide shared private offices and several "interactive" spaces for meetings, informal gatherings and spontaneous collaboration. In addition, mechanical spaces housing electrical and I/T services will be upgraded on each floor.</p>		<input checked="" type="checkbox"/> Check if project performed with current firm	
Columbia University, Manhattanville Campus Expansion, New York, NY		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable)
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>c. Mr. Lyons serves as McKissack's Project Executive for the Manhattanville Expansion Project. McKissack is providing construction management services for the preparation, approval processes and construction of the first phase of Columbia's expansion in the Manhattanville section of West Harlem.</p>		<input checked="" type="checkbox"/> Check if project performed with current firm	
Wexler Library Renovation, Hunter College, New York, NY		PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable)
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>c. Mr. Lyons is served as Project Executive for the 16,000 sq. ft. renovation project comprised of a new state-of-the-art information center and learning commons. The new library provides students and faculty with needed space for reading, studying and collaborating. The project scope includes: demolition; drywall; carpentry; millwork glazing; finishes and MEP systems upgrades.</p>		<input checked="" type="checkbox"/> Check if project performed with current firm	
School of the Arts, Nash Building Renovation, Columbia University, New York, NY		PROFESSIONAL SERVICES 2014	CONSTRUCTION (if applicable)
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>c. Mr. Lyons serves as Project Executive on the McKissack team selected to provide Design/Build General Contracting services for the interior fit-out of approximately 11,200 sq. ft. on the 5th floor of the Nash Building located at 3280 Broadway Columbia's Manhattanville campus.</p>		<input checked="" type="checkbox"/> Check if project performed with current firm	

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

21. TITLE AND LOCATION <i>(City and State)</i>	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
GOSR Construction Management Support	Ongoing	Ongoing

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Governor's Office of Storm Recovery	Melvin Galloway	(212) 480-3569

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack is providing Construction Management Support Services across a broad range of CDBG-DR funded programs managed by the New York Governor's Office of Storm Recovery (GOSR). These programs are aimed at the long-term recovery of communities impacted by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. GOSR's programs will assist approximately 10,000 residents in up to 34 counties in New York State, and will contribute to essential investments in community infrastructure and resources. McKissack is responsible for the design and implementation of monitoring and compliance services for a variety of programs outlined in the New York State Action Plan, including HUD Section 3 compliance.



McKissack is managing the demolition assessment of all damaged structures including scheduling, coordination, monitoring, reporting and resolution of issues. We will provide property management and site maintenance services, as required. McKissack is also responsible for technical and demolition specifications and developing and managing a mobilization and demobilization plan.

McKissack will also serve as GOSR's on-site project management representative for the completion of construction projects. We will assist and work with the GOSR and the CPMO to perform Value Engineering Analysis and Constructability Reviews of the design and contract documents to identify saving opportunities, discrepancies and variances prior to bid of Work. We will develop detailed final cost estimates for each project and validate against established Program budget. McKissack will work with the GOSR and the CPMO to develop bidding strategies and re-align budget overruns as may be needed.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME McKissack & McKissack	(2) FIRM LOCATION <i>(City and State)</i> New York, NY	(3) ROLE Construction Management, Home Inspections & Damage Assessments, Demolition Project Level Design & Construction
b.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

2

21. TITLE AND LOCATION <i>(City and State)</i> HUD Required CDBG Property Management / Damage Assessments, Staten Island, Suffolk County & Nassau County, NY	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER Governor's Office of Storm Recovery	b. POINT OF CONTACT NAME Melvin Galloway	c. POINT OF CONTACT TELEPHONE NUMBER (212) 480-3569
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack & McKissack, as the lead partner in a Joint Venture, has been awarded a significant contract by the Governor's Office of Storm Recovery (GOSR) to perform work under the Community Development Block Grant/Disaster Recovery program. This work includes property maintenance and demolition of single family homes in addition to damage assessments of multi-family rental properties damaged during Hurricane Sandy. The contract also includes tenant relocation services in which rental tenants are temporarily relocated to allow repairs to be completed on their apartments, condominiums and co-ops so that they may be safely reoccupied. The overall program includes property maintenance and demolition of over 285 single family homes and the damage assessments of hundreds of rental properties in Staten Island, Nassau and Suffolk Counties.



This effort required the immediate mobilization of McKissack staff and of private damage assessors plus the bid and award of dozens of construction/property maintenance contracts with the goal of completing all work in an accelerated 5 month schedule.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME McKissack & McKissack	(2) FIRM LOCATION <i>(City and State)</i> New York, NY	(3) ROLE Multi-Family Home Damage Assessments Property Maintenance Demolition Tenant Relocations
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

3

21. TITLE AND LOCATION *(City and State)*

NY Rising CDBG Disaster Recovery Home Inspections

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION (if applicable)

2014

2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Dormitory Authority of the State of New York

b. POINT OF CONTACT NAME

Michael Clay

c. POINT OF CONTACT TELEPHONE NUMBER

(212) 273-5146

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack & McKissack, as the lead partner in a Joint Venture, has been awarded a significant contract by the Dormitory Authority State of New York (DASNY) to perform Community Development Block Grant/Disaster Recovery inspections on homes damaged during Hurricane Sandy. The requirement is to complete approximately 5,000 home assessments and ECR's/Work Write-Ups. The Joint Venture is responsible for 1/3 of inspections in western Nassau County.

This effort required the immediate mobilization of more than 250 inspectors and support personnel to assist in assessing damage and providing estimates so that homeowners can receive funds needed to repair or replace their homes.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	McKissack & McKissack	New York, NY	Disaster Recovery Home Inspections & Estimates

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

4

21. TITLE AND LOCATION *(City and State)*

NYC EDC Rockaway Boardwalk Reconstruction – Hurricane Sandy Recovery

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION (if applicable)

Ongoing

Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

New York City Economic Development Corporation (NYCEDC)

b. POINT OF CONTACT NAME

Christopher Cestone, PE

c. POINT OF CONTACT TELEPHONE NUMBER

917-438-4576

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

McKissack is providing CM Services related to the repair of damage to the Rockaway Beach boardwalk caused by Hurricane Sandy. The scope of the project includes:

- New resilient boardwalks/protective measures to withstand future storms.
- New boardwalks 3 feet higher than and designed to H-20 loading capacity.
- Removal of sections of original timber boardwalks, ramps and stairs with new structurally rated concrete components to allow public access, maintenance and emergency vehicle access to safely travel the boardwalks where existing substructures can be reused.
- Utilization of substantial existing structures that have withstood Storm Sandy and removal of selected sections of structures to create islands or areas distinctively different from conventional and surviving boardwalk structures.
- New oases area on the north side of the boardwalks.
- New park furniture, plumbing and electrical fixtures, and railings.
- New LED solar and conventional lighting.
- New recreation features, concession opportunities and improvements to pedestrian and bicycle access.



The Project Site will begin with approximately 5.5 miles of shoreline in the Rockaways and will have an initial 5-year duration.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	McKissack & McKissack	New York, NY	Construction Management Services
b.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL
(From Section E, Block 12)

27. ROLE IN THIS CONTRACT
(From Section E, Block 13)

28. EXAMPLE PROJECTS LISTED IN SECTION F
(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)

		1	2	3	4
Brian Lyons	Project Executive			X	
Russell Imbrenda	Project Director			X	
Albert Odjida	Senior Project Manager		X	X	
Eze Iheme	Senior Project Manager		X		
Richard Sekkor	Project Manager			X	
Tim Scanlan	Project Manager				
Sean Dawson	Assistant Project Manager/ Field Inspector				
Steven Allen	Director of Preconstruction				
Brendan Boylan	Estimator				
Peter Johnson	Project Accountant			X	
Janice Haughton	Director, MWLBE			X	X
Jennifer Fraticelli	MWLBE Coordinator			X	X
Khalilah Hyde-Peyrefitte	Project Coordinator				X
Kevin Hall	Database Administrator			X	X
Helen Alladin	Call Center Manager			X	
Sean Killeen	Call Center Representative			X	
Moji Alawode	Call Center Representative		X		
Tracey Wooten	Call Center Representative				
Sean Hurwitz	Call Center Representative			X	
Michael Ramirez	Call Center Representative			X	
Chantry Gray	Call Center Representative			X	

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	GOSR Construction Management Support	6	
2	HUD Required CDBG Property Management / Damage Assessments, Staten Island, Suffolk County & Nassau County, NY	7	
3	NY Rising CDBG Disaster Recovery Home Inspections	8	
4	NYC EDC Rockaway Boardwalk Reconstruction – Hurricane Sandy Recovery	9	
5		10	

ARCHITECT ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME The McKissack Group, Inc., dba McKissack & McKissack			3. YEAR ESTABLISHED 1905	4. DUNS NUMBER 05-349-3156
2b. STREET 1001 Avenue of the Americas, 20 th Floor			5. OWNERSHIP	
2c. CITY New York	2d. STATE NY	2e. ZIP CODE 10018	a. TYPE Corporation	
6a. POINT OF CONTACT NAME AND TITLE Alma Smith, Vice President of Business Development			b. SMALL BUSINESS STATUS Certified MWBE	
6b. TELEPHONE NUMBER (212) 649-6500	6c. E-MAIL ADDRESS asmith@mckissack.com		7. NAME OF FIRM (If block 2a is a branch office)	
8a. FORMER FIRM NAME(S) (If any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	15		A06	Airport; Terminals and Hangars; Freight Handling	5
06	Architects	6		C13	Construction Management	8
08	CADD Technician	5		D04	Design-Build	3
12	Civil Engineer	11		E02	Educational Facilities; Classrooms	5
15	Construction Inspector	13		F02	Field Houses; Gyms; Stadiums	3
16	Construction Manager	17		G02	Garages; Vehicle Maintenance Facilities; Parking Decks	3
18	Cost Engineer/Estimator	7		H09	Hospital & Medical Facilities	5
21	Electrical Engineer	7		J01	Judicial and Courtroom Facilities	3
24	Environmental Engineer	5		P03	Pipelines (Cross-Country - Liquid & Gas)	5
27	Foundation/Geotech Engineer	5		P07	Prisons & Correctional Facilities	1
42	Mechanical Engineer	6		R03	Railroad; Rapid Transit	4
	Project Manager	18		R04	Recreation Facilities (Parks, Marinas, Etc.)	2
50	Risk Assessor	3		R06	Rehabilitation (Buildings; Structures; Facilities)	8
53	Scheduler	5				
54	Security Specialist	1				
56	Specifications Writer	3				
57	Structural Engineer	9				
58	Technician/Analyst	4				
60	Transportation Engineer	5				
61	Value Engineer	1				
	Other Employees	12				
	Total	158				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
a. Federal Work	4	1. Less than \$100,000.	6. \$2 million to less than \$5 million
b. Non-Federal Work	8	2. \$100,00 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	8	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

SIGNATURE 	b. DATE 01/20/15
c. NAME AND TITLE Alma J. Smith, Vice President of Business Development	

Hirani Engineering & Land Surveying, PC



STANDARD FORM (SF) 255

Architect-Engineer and Related Services Questionnaire for Specific Project

1. Project Name/Location for which Firm is Filing:

CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery

2a. *Commerce Business* Daily Announcement Date, if any:

2b. Agency Identification Number, if any:

8502015HR0011-13P

3. Firm (or Joint-Venture) Name and Address:

Hirani Engineering & Land Surveying, P.C.
30 Jericho Executive Plaza, Suite 200C
Jericho, NY 11753
Federal ID #: 11-3467754

3a. Name, Title and Telephone Number of Principal to Contact:

Mr. Bruce Mawhirter, PE, LEED-AP, Vice President, Engineering, 516-248-1010
Jitendra Hirani, PE, President, 516-248-1010

3b. Address of office to perform work, if different from Item 3:

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) <u>1</u>	(B) <u>13</u>	Administrative	(A) ___	(B) <u>1</u>	Electrical Engineers	(A) ___	(B) ___	Oceanographers	(A) ___	(B) <u>5</u>	Safety/Occupational Health
(A) <u>1</u>	(B) <u>3</u>	Architects	(A) ___	(B) ___	Estimators	(A) ___	(B) ___	Planners: Urban/Regional	(A) ___	(B) ___	
(A) ___	(B) ___	Chemical Engineers	(A) ___	(B) ___	Geologists	(A) ___	(B) ___	Sanitary Engineers	(A) ___	(B) ___	
(A) <u>2</u>	(B) <u>5</u>	Civil Engineers	(A) ___	(B) ___	Hydrologists	(A) ___	(B) ___	Soil Engineers	(A) ___	(B) ___	
(A) ___	(B) <u>29</u>	Construction Inspectors	(A) ___	(B) ___	Interior Designers	(A) <u>2</u>	(B) <u>5</u>	Specification Writers	(A) ___	(B) ___	
(A) <u>1</u>	(B) <u>4</u>	Draftsmen	(A) ___	(B) ___	Landscape Architects	(A) <u>4</u>	(B) <u>12</u>	Structural Engineers	(A) ___	(B) ___	
(A) ___	(B) ___	Ecologists	(A) ___	(B) ___	Mechanical Engineers	(A) ___	(B) ___	Surveyors	(A) ___	(B) ___	
(A) ___	(B) ___	Economists	(A) ___	(B) ___	Mining Engineers	(A) ___	(B) ___	Transportation Engineers	(A) <u>11</u>	(B) <u>78</u>	Total Personnel

5. If submittal is by JOINT-VENTURE, list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm:
(Attach SF 254 for each if not on file with Procuring Office.)

5a. Has this Joint - Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name and Address	Specialty	Worked with Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: Bruce R. Mawhirter, PE, LEED-AP Vice President, Engineering</p> <p>b. Project Assignment: Project Executive</p>	<p>a. Name and Title YanLiang Huang, PE Senior Project Manager</p> <p>b. Project Assignment: Project Manager/Senior Engineer</p>
<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p> <p>d. Years experience: With This Firm <u>2</u>..... With Other Firms <u>32</u>.....</p>	<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p> <p>d. Years experience: With This Firm <u>0</u>..... With Other Firms <u>7</u>.....</p>
<p>e. Education: Degree(s)/Year/Specialization B.S., Civil Engineering, Spec. in Environmental Engineering, Hofstra University Associate Applied Science, Civil Technology, Nassau Community College</p> <p>f. Active Registration: Year First Registered/Discipline 1994, Professional Engineer, NY, 071020</p>	<p>e. Education: Degree(s)/Year/Specialization M.S., 2007, Structural Engineering, University of California, Berkeley B.S., 2006, Civil Engineering, University of Notre Dame</p> <p>f. Active Registration: Year First Registered/Discipline Professional Engineer, NY Professional Engineer, CA</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Mawhirter has 34 years of experience in a range of municipal and private engineering projects including highway, roadway & streetscape design and reconstruction, utility & infrastructure improvements, residential and commercial building design & site development, stormwater and erosion control. He provides QA/QC of all engineering designs. Professional experience includes: Building Inspection & Evaluations, New York, NY -- Project Manager. In charge of multi-disciplinary engineering team performing engineering inspections and evaluations of 15 high-rise residential multi-family buildings. Engineering Inspection of Hotel Facilities, Puerto Rico -- Project Engineer. Team member who performed post Hurricane Andrew building structure condition inspections of six mid and high-rise government owned buildings Hurricane Gloria - As a member of the Lynbrook Fire Department, provided emergency service responses to multiple incidents including building fires, flooding, motor vehicle accidents and medical emergencies. Hurricane Sandy - Managed and performed damage assessment inspections of various residential and school structures impacted by the storm.</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Huang has 7 years of engineering experience in such increasingly responsible positions as Engineer, Project Engineer and Senior Project Engineer. Project experience includes: NYC Build It Back, NYCEDC -- Project Manager. Scope of work includes Providing land surveying, special inspections, engineering and architectural services for lifting residential homes. Rehabilitation of Spalling Concrete at the Brooklyn Army Terminal, NYCEDC -- Project Manager. Services included inspection and documentation of building facade defects. Project in Staten Island, NY Lead engineer in charge of all structural analysis and design of this 900,000sf project Project in Midtown East, New York, NY Lead engineer in charge of all structural analysis and design of the 57 story concrete high rise tower Project in Midtown East, New York, NY Lead engineer in charge of all structural analysis and design of the concrete building</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: Lynne L. Vu Design Engineer</p> <p>b. Project Assignment: Structural Engineer</p>	<p>a. Name and Title Graham S. Kenney Junior Engineer/CAD Drafter</p> <p>b. Project Assignment: Junior Engineer</p>
<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p> <p>d. Years experience: With This Firm 0.... With Other Firms 5...</p>	<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p> <p>d. Years experience: With This Firm 4.... With Other Firms 4...</p>
<p>e. Education: Degree(s)/Year/Specialization B.S., 2011, Architectural Engineering, Drexel University</p> <p>f. Active Registration: Year First Registered/Discipline</p>	<p>e. Education: Degree(s)/Year/Specialization B.S., 2010, Architectural Technologies, NY Institute of technology</p> <p>f. Active Registration: Year First Registered/Discipline</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Ms. Vu has 7 years of design and inspection experience. She joined Hirani in February as a Structural Design Engineer. Project Experience includes: NYC Build It Back, NYCEDC – Structural Engineer. Scope of work includes Providing land surveying, special inspections, engineering and architectural services for lifting residential homes. Rehabilitation of Spalling Concrete at the Brooklyn Army Terminal, NYCEDC - Engineer. Performed a facade inspection of 2 buildings, investigated water infiltration into the basement levels of 2 buildings and prepared contract documents detailing the necessary repairs. Project Engineer – O&S Associates <ul style="list-style-type: none"> • Performed evaluation of existing structures and building exterior envelopes • Prepared condition assessment reports for building owners & property managers Client: New York City Housing Authority • Prepared original repair details for re-anchoring a precast panel facade based on existing drawings as part of Bond B project • Facilitated smooth transition between revisions requested by client & existing documents by promoting software interoperability </p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Preparation of various civil engineering and architectural drawings using AutoCAD, including site plans, floor plans, elevations, sections, details, landscape plans, and roof surveys. Responsible for changes to as-built drawings, setting up Request For Proposal packages, plotting various drawings, managing x-refs, general office duties, delivering packages and invoices. Experience with field measuring and the construction process. Hirani Engineering - Jericho, NY Projects utilizing AutoCAD- CAD Drafter / Engineer's Assistant. Campbell Sports Complex at Baker Field, Columbia University, NY Various NYC Public School Roof Surveys and As-Built Drawings Projects utilizing Micro station: Various bridge renovations for DOT along the Southern State Parkway, Long Island, NY NYC Build It Back, NYCEDC – Junior Engineer. Scope of work includes Providing land surveying, special inspections, engineering and architectural services for lifting residential homes. Metrotech Consulting Services, Inc. - New York, NY- Carpentry Assistant. Responsible for changes to as-built drawings, preparing various engineering drawings.</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title Bogna J. Parczewska Civil Engineer</p>	<p>a. Name and Title Muhammed Latif Senior Structural Engineer</p>
<p>b. Project Assignment: Civil Engineer</p>	<p>b. Project Assignment: Structural Engineer</p>
<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p>	<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p>
<p>d. Years experience: With This Firm .5.... With Other Firms .6....</p>	<p>d. Years experience: With This Firm .46.. With Other Firms 0...</p>
<p>e. Education: Degree(s)/Year/Specialization M.S., 2003, Engineering of Environment, Polytechnic of Bialystok</p>	<p>e. Education: Degree(s)/Year/Specialization M.S., 1998, Environmental Engineering, B.S., 1994, Civil Engineering, University of Idaho</p>
<p>f. Active Registration: Year First Registered/Discipline</p>	<p>f. Active Registration: Year First Registered/Discipline</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Ms. Parczewska has 5 years of experience as a civil and mechanical engineering designer and drafter trained in diverse engineering fields such as environmental, civil and structural engineering, HVAC, water and sewage treatment and pipe design. U.S. Experience (2007-Present) • Preparation of Maintenance & Protection of Traffic Plans for various municipal and private projects throughout Nassau and Suffolk Counties and New York City. • Preparation of contract documents for various site development projects throughout Nassau, Suffolk and New York City. • D'Amato Court House Parking Garage, Central Islip, NY, General Services Administration. Evaluation of existing parking structure including inspection, evaluation and repair estimates. • NYC Local Law 11 Façade inspection and repair design for various privately owned New York City buildings. • Environmental engineering reviewer for permitting and standard operating procedure in conjunction with NYC zoning and building code requirements. • Design and preparation of civil drawings for New York City Department of Environmental Protection.</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Latif has more than 16 years of experience in structural design and analysis for various new construction and rehabilitation projects related to buildings, bridges, steel, and concrete structures. He is also experienced in structural inspection for projects involving construction, renovations, structural painting, and rehabilitation. He is familiar with major design software and computer applications. Project Experience includes: Reconstruction of Vladeck Houses, NY (NYC Housing Authority) – Senior Design Engineer. Performed connectional analysis, design and drawings for extension of elevator to the last floor. Design services included removal of structural members, design of new members and connection to support the elevator assembly. Engineering Services for Delaware Aqueduct shafts 9, 10 & 17, Westchester & Putnam Counties (NYC Department of Environmental Protection) – Senior Design Engineer. Provided structural design on this project. Incorporating addition of new structural members to existing steel beams and columns and demolition of existing ones. Construction of Petri Houses - A New 5-Story Building – Senior Design Engineer. Providing design of a residential apartment building with a cellar, basement, five floors and a penthouse. This includes design of combined footings for the foundation wall and columns, two-way slab and detailed structural drawings</p>

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: C. Richard Moravec, L.S. Vice President, Licensed Land Surveyor</p>	<p>a. Name and Title Dipak Upadhyaya Senior Inspector</p>
<p>b. Project Assignment: Licensed Land Surveyor</p>	<p>b. Project Assignment: Inspector</p>
<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p>	<p>c. Name of Firm with which associated: Hirani Engineering and Land Surveying, P.C.</p>
<p>d. Years experience: With This Firm .45.. With Other Firms .29..</p>	<p>d. Years experience: With This Firm .3.... With Other Firms .28.</p>
<p>e. Education: Degree(s)/Year/Specialization Selected Courses in Mathematics, Westchester Community College Selected Courses in Surveying, San Bernardino Valley College Selected Courses in Surveying, Accounting & Computers, Eastland College</p>	<p>e. Education: Degree(s)/Year/Specialization Bachelors Degree in Civil Engineering</p>
<p>f. Active Registration: Year First Registered/Discipline 1990, Registered Land Surveyor, NY, 049917 1994, Registered Land Surveyor, TX, 5105</p>	<p>f. Active Registration: Year First Registered/Discipline CWI & ICC Special Inspector -Structural Welding and Bolting, ACCP Level II NICET IV - Bridge Inspection; NICET II - Highway Construction OSHA 10/30</p>
<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Moravec has over 44 years of experience with increasing levels of responsibility in surveying and mapping. His diversified background is well rounded with Subdivision, Architectural, Photogrammetric, Acquisition, Construction, Control, Settlement, Route, Boundary and Engineering surveys. He is responsible for all surveying projects undertaken by the firm. Sample projects includes Term Agreement for Topographic and Utility Surveying, NYCSCA. Hirani was selected to provide topographic utility and property line surveys as a prime consultant on an On-Call basis for projects located in all of the Boroughs of New York City. Services provided include: Property survey including property line establishment of project limits location of previously established monuments benchmarks building corners roads walkways and drainage. Theodore Roosevelt Government Operations Center, Nassau County DPW. The project included the full renovation of the Theodore Roosevelt Executive and Legislative Building. Hirani developed and provided survey, design mapping, contour maps, profiles, cross sections, details, alignment plans and pavement design for the complete Site Civil Engineering Design phase of this project.</p>	<p>g. Other Experience and Qualifications relevant to the proposed project: Mr. Upadhyaya has over 28 years of experience in all phases of civil engineering and construction from pre-project activities to project completion. He has provided special inspection services on numerous facilities throughout New York City since joining Hirani in 2012. Noteworthy projects include: LaMarqueta Building 3 American Airlines Terminal 8 Décor Planet</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address and Project Manager's Name and Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) NYC Build It Back Various Locations in Brooklyn, Queens and SI	Scope of work includes Providing land surveying, special inspections, engineering and architectural services for lifting residential homes.	NYC Economic Development Corporation 110 William Street New York, NY 10038 Anthony Portillo (IBTS), 518-283-1834	2017	7,430 Fees	7,430 Fees
(2) NYCSCA Storm Damage Assessment PS15 PS254 PS288 Various locations in NYC	Provided architectural and engineering design services to prepare the necessary design documents to apply for a permit with the New York City Department of Building (NYCDOB), as well as other agencies	NYC School Construction Authority 30-30 Thomson Avenue Long Island City, NY 11101 Anthony Alduino, PE (IP Group), 212-982-3877	2013	100	100
(3) NYCT- Sandy Related Mitigation Various NYC Locations	Research and prepare mapping of critical NYCT facilities within FEMA flood zones.	NYCTA 345 Madison Ave New York, NY 10017	2014	25 Fee	25 Fee
(4) Fire Island Stabilization Project - Survey and Mapping Community of Point O'Woods Fire Island, NY	Survey and mapping services in conjunction with the Fire Island Stabilization Project.	Suffolk County Department of Public Works 335 Yaphank Avenue Yaphank, NY 11980-9744 Frank Flanagan, L.S., 631-852-4001	2015	204 Fee	204 Fee
(5) Management Plan in Relation to Tree Removal Various Locations, Nassau County	Nassau County rapid assistance response for post Hurricane Sandy reconstruction. Hirani provided personnel to oversee and document tree removal/trimming operations.	Nassau County Department of Public Works 1194 Prospect Avenue Westbury, NY 11590 Joseph Epifania, P.E. (Nelson & Pope), 631-427-5665	2013	150 Fee	150 Fee
(6) Construction Management Services at Various NYSOGS Facilities - Downstate	As part of the Sandy Emergency Repairs, provided short term full time inspectors to inspect work done on time and material projects.	NYS Office of General Services 35th Floor, Corning Tower Empire State Plaza, Albany, NY 12242 Gerry Chi (Parsons), 212-465-5000	2013	120 Fee	120 Fee
(7) Jacob Riis Park Site Management and Debris Processing - Hurricane Sandy Debris Removal, Jacob Riis Park Leonard, NJ	In the wake of Hurricane Sandy, as part of the Coastal Team, responded, around the clock, to all of the USCG facilities in NY harbor to assess the damage to all pier facilities.	U.S. Army Corps of Engineers - NY District 26 Federal Plaza, CEN-CT New York, NY 10278 Joseph Hedges (Coastal), 631-234-4100	2013	5 Fee	5 Fee
(8) Boat Marina Repairs Due to Damage by Sandy 801 State Route 36 Leonard, NJ	Design structural repairs to storm damaged elements of an existing wave screen including sheet piles, walers, box beam and cap.	U.S. NAVAL WEAPONS STATION EARLE (U.S. NAVY) North Division Contracts Office 201 Highway 34 South Bldg C-23 Cotts Neck, NJ 07725-5925 Tara Finkbeiner (Coastal), 631-234-4100	2014	16 Fee	16 Fee
(9) NYCHA Emergency Boiler Project Various Locations in NYC	Monitor boiler operation for multifamily housing.	NYC Housing Authority 250 Broadway 27th Floor New York, NY 10007 Gregory Mackoud (Jacobs), 347-935-7280	2014	10 Fee	10 Fee
(10) Storm Damage Assessments -Gerritsen Beach Area And Structural and Civil Engineering Services - Various Residential Properties Nassau & Suffolk Counties	Hiran provided professional structural and civil engineering services to assess the potential impacts of Post-Tropical Storm Sandy on various single-family residential structures and properties throughout various Long Island communities and Gerritsen Beach Area.	Various Private Owners	2012	15 Fee	15 Fee

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name and Phone Number	d. Percent Complete	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Is Responsible

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

Hirani Engineering & Land Surveying, P. C., based in Jericho, New York, was formed in 1991. The company provides civil and structural engineering, land surveying, construction inspection/management, site safety and special inspection services. The firm's market sectors include transportation (highway, bridge, and rail infrastructure); building and facility projects inclusive of schools and colleges, medical care, housing, waste water treatment, commercial and site development; and municipal engineering. Hirani continues to strengthen its presence in the New York Metropolitan area. Hirani has been successful in building an excellent reputation of professional service and experience with all of our clients. We place great emphasis on client communication, quality, meeting project deadlines, and innovative problem solving. The firm is a certified Disadvantaged/Minority Business Enterprise.

Structural/Civil Design Services

Hirani has highly qualified, licensed and experienced civil and structural engineers with project specific experience in design of buildings, roadways, bridges, tunnels, and site development work.

Structural/Design services include but not limited to:

- Building Design • Pre-stressed Concrete Design • Concrete Design • Highway & Roadway Design • Steel Design • Traffic Studies & Analysis • Site/Civil Design • Geo-technical Analysis

Land Surveying Services

Hirani has 4 survey crews comprised of experienced, and qualified personnel who are supervised by licensed land surveyors. Hirani Engineering & Land Surveying, P. C., is an affiliate of the I.U.O.E. Local 15D.

Surveying services include:

- Topographic Surveys • Global Positioning Surveys • Abstract Request Maps (ARM) • Base Mapping • Geometric Surveys • Right of Way (ROW) • Settlement Surveys • Hydrographic Survey
- Acquisition Maps • Utility Surveys

Construction Inspection and Construction Management Services

Hirani has a highly experienced staff of NICET and NACE certified inspectors. We also have inspectors who are certified for lead abatement and asbestos handling. Our inspectors ensure that contractors adhere to specifications, building codes, and quality standards. The focus of the construction inspection services is the completion of construction projects on time, within budget and in compliance with the contract documents. We pride ourselves in resolving problems expeditiously for the successful completion of the project. Construction Inspection/Management services include:

- Cost Estimating & Scheduling • Reviewing Plans and Specifications for Compliance • Conducting Controlled Inspections for Fire Stopping • Building Department Expediting and Filings • Change Order Requests & Analyzing Contractor Claims

Environmental Services

Hirani's staff of environmental professionals have completed numerous environmental planning, permitting, environmental assessments and environmental impact statements in the U.S. and world wide. Our professionals have performed reviews and analyses in compliance with the National Environmental Policy Act (NEPA), State Environmental Quality Review Act (SEQRA), and the New York City Environmental Quality Review (CEQR) process, for residential, industrial, government, military, institutional and commercial projects. Hirani engineers and scientists provide comprehensive services in site selection, environmental systems computer modeling, geographic information systems, risk management, permit filings and agency negotiations, pollution prevention programs, waste and water treatment design and engineering, and operational troubleshooting. Services include:

- Environmental Impact Statements/Assessment • Ecological studies • Regulatory compliance & permitting • Tidal and Freshwater Wetlands investigation and delineation • Hazardous materials investigation & remediation design • Storm water analysis, permitting & design • Subdivision planning and site engineering • Wastewater design and engineering • Noise analysis and mitigation • Coastal assessments • Socio-economic & demographic analysis • Lead and Asbestos investigation and remedial design

11. The foregoing is a statement of facts.

Signature: 

Type Name and Title:

Bruce R. Mawhirter, P.E., Vice President, Engineering

Date:

1/9/14



Laland Baptiste, LLC



6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title:

Robert Baptiste
Hiring Plan Manager

a. Name & Title:

b. Project Assignment:
Hiring Plan Manager

b. Project Assignment:

c. Name of Firm with which associated:

Laland Baptiste LLC

c. Name of Firm with which associated:

d. Years experience: With this Firm 6 **With Other Firms** 8

d. Years experience: With this Firm **With Other Firms**

e. Education: Degree(s)/Year/Specialization

M.S., Civil Engineering/Construction Management
B.S., Civil Engineering

e. Education: Degree(s)/Year/Specialization

f. Active Registration: Year First Registered/Discipline

f. Active Registration: Year First Registered/Discipline

g. Other Experience and Qualifications relevant to the proposed project:

NY Rising Housing Recovery Program, New York, New York, Principal
The NY Rising Housing Recovery Program is a multi-billion effort that includes several programs to help New Yorkers rebuild in the wake of Superstorm Sandy, Hurricane Irene or Tropical Storm Lee. The Program provides: Grants for repair and reconstruction of storm-damaged homes, Interim Mortgage Assistance (IMA) for homeowners displaced by the storm and incurring additional housing cost in addition to mortgage, purchases of homes in designated Buyout areas, and assistance for owners of rental property. As a Principal on the Program, Mr. Baptiste functions include: ensuring compliance with the State's Minority and Women owned business participation mandates as well as the Housing and Urban Development Section 3 requirements. Mr. Baptiste has also expanded his role to include assisting the Technical Advisor Team and Call Center Group in helping Homeowners through the rebuilding process.

g. Other Experience and Qualifications relevant to the proposed project:

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) NY Rising Housing Recovery Program	Construction Management Support Services	HCR/DASNY	Ongoing	TBD	
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible
Cols. NOT divided like item 8 NY Rising Housing Recovery Program Nassau/Suffolk County/Upstate NY	Construction Management Support Services: - Document Control - Analyst - Technical Advisor - Manage compliance	HCR/DASNY	Ongoing		

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

Iceland Baptiste is currently providing Construction Management support services to the Master Construction Manager (LiRo) on the NY Rising Housing Recovery Program. This Program was implemented to assist homeowners who were impacted by Hurricane Sandy, Hurricane Irene, and/or Tropical Storm Lee.

The NY Rising Program provides: Grants for repair and reconstruction of storm-damaged homes. The scope of these individual projects include: architectural, structural, electrical and mechanical repairs, replacements and/or upgrades. In addition, many of the homes in the Program will be elevated to provide for a more resilient structure and community.

11. The foregoing is a statement of facts.

Signature: Robert Baptiste

Typed Name and Title: Robert Baptiste

Date:

15 January 2015

Vanir Construction Management, Inc.



STANDARD FORM (SF) 255

Architect-Engineer and Related Services Questionnaire for Specific Project

1. Project Name/Location for which Firm is Filing:

CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery
Long Island City, NY

2a. Commerce Business Daily Announcement Date, if any:

n/a

2b. Agency Identification Number, if any:

8502015HR0011-13P

3. Firm (or Joint-Venture) Name and Address:

Vanir Construction Management, Inc.
111 Broadway, Suite 501
New York, NY 10006

3a. Name, Title and Telephone Number of Principal to Contact:

John Kuprenas, President
213-923-2515

3b. Address of office to perform work, if different from Item 3:

4. Personnel by Discipline: (List each person only once, by primary function.) Enter proposed consultant personnel to be utilized on this project on line (A) and in-house personnel on line (B).

(A) ___ (B) <u>63</u>	Administrative	(A) ___ (B) ___	Electrical Engineers	(A) ___ (B) ___	Oceanographers	(A) ___ (B) <u>2</u>	Computer Programmer
(A) ___ (B) <u>32</u>	Architects	(A) ___ (B) ___	Estimators	(A) ___ (B) <u>95</u>	Planners: Urban/Regional	(A) ___ (B) <u>95</u>	Construction Manager
(A) ___ (B) ___	Chemical Engineers	(A) ___ (B) ___	Geologists	(A) ___ (B) <u>84</u>	Sanitary Engineers	(A) ___ (B) <u>84</u>	Project Manager
(A) ___ (B) ___	Civil Engineers	(A) ___ (B) ___	Hydrologists	(A) ___ (B) <u>2</u>	Soil Engineers	(A) ___ (B) <u>2</u>	Technician/Analyst
(A) ___ (B) ___	Construction Inspectors	(A) ___ (B) ___	Interior Designers	(A) ___ (B) <u>5</u>	Specification Writers	(A) ___ (B) <u>5</u>	MIS Technician
(A) ___ (B) ___	Draftsmen	(A) ___ (B) ___	Landscape Architects	(A) ___ (B) <u>34</u>	Structural Engineers	(A) ___ (B) <u>34</u>	Project Director
(A) ___ (B) ___	Ecologists	(A) ___ (B) ___	Mechanical Engineers	(A) ___ (B) <u>6</u>	Surveyors	(A) ___ (B) <u>6</u>	Schedulers
(A) ___ (B) ___	Economists	(A) ___ (B) ___	Mining Engineers	(A) ___ (B) <u>366</u>	Transportation Engineers	(A) ___ (B) <u>366</u>	Total Personnel

5. If submittal is by JOINT-VENTURE, list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office.)

n/a

5a. Has this Joint-Venture previously worked together? Yes No

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name and Address	Specialty	Worked with Prime before (Yes or No)
1) n/a		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title:</p>	<p>a. Name and Title</p>
<p>b. Project Assignment:</p>	<p>b. Project Assignment:</p>
<p>c. Name of Firm with which associated:</p>	<p>c. Name of Firm with which associated:</p>
<p>d. Years experience: With This Firm With Other Firms</p>	<p>d. Years experience: With This Firm With Other Firms</p>
<p>e. Education: Degree(s)/Year/Specialization</p>	<p>e. Education: Degree(s)/Year/Specialization</p>
<p>f. Active Registration: Year First Registered/Discipline</p>	<p>f. Active Registration: Year First Registered/Discipline</p>
<p>g. Other Experience and Qualifications relevant to the proposed project:</p>	<p>g. Other Experience and Qualifications relevant to the proposed project:</p>

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address and Project Manager's Name and Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1) Los Angeles World Airports - Staff Augmentation; Los Angeles, California	Construction Management	Los Angeles World Airports Debbie Bowers 7301 World Way West FL 6 Los Angeles, CA 90045	Ongoing	\$65,625,000	\$65,625
(2) Los Angeles County - Internal Services Department Los Angeles, California	PM/CM	Los Angeles County - ISD Tim Braden, General Manager 1100 North Eastern Avenue Los Angeles, CA 90063	Ongoing	\$180,000,000	\$180,000
(3) Dillard University - Hurricane Isaac, New Orleans, Louisiana	Damage Assessment	Dillard University Keith McKendall, Asst. Vice President Facilities Management	9/1/2012	\$262,500	\$26,500
(4) Dillard University - Hurricane Isaac, New Orleans, Louisiana	Direct Cost Administration	2601 Gentilly Boulevard New Orleans, LA 70122	2/18/2014	\$70,000,000	\$70,000
(5) Port of Long Beach - Ship to Shore Power Retrofit; Long Beach, California	Construction Management	Port of Long Beach Suzanne C. Plezia, Acting Dir. of CM 925 Harbor Plaza Long Beach, CA 90802	3/1/2014	\$45,000,000	\$45,000
(6) US Veterans Affairs - Palo Alto Health Care System; Palo Alto, California	Construction Management	US Department of Veterans Affairs Stephen McGrath, Chief 3801 Miranda Ave, Palo Alto, CA 94304	Ongoing	\$60,000,000	\$60,000
(7) KBK Enterprises - BW Cooper Housing Development; New Orleans, Louisiana	Construction Management	n/a	Ongoing	\$106,500,000	\$106,500
(8) Mercer Island - Sewer Lake Line and Pump Station No. 4, Mercer Island, Washington	Construction Management	City of Mercer Island, Anne Tonella-Howe Asst. City Engineer, 9611 Southeast 36th St, Mercer Island, WA 98040-3732	1/31/2011	\$19,222,000	\$19,222
(9) WeWork Tenant Improvements San Francisco, California	Construction Management	WeWork Golden Gate LLC Jon Czarnick, Project Manager 156 2nd Street, San Francisco, CA 94105	2/1/2014	\$112,700,000	\$11,270
(10) PCR - Facility Planning, Construction and Management Statewide, California	Program Management	CDCR, Deborah Hysen, Chief Deputy 9838 Old Placerville Rd Ste B Sacramento, CA 95827	Ongoing	\$2,037,591	\$200,000

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name and Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name and Phone Number	d. Percent Complete	e. Estimated Cost (In Thousands)	
				Entire Project	Work for Which Firm Is Responsible
n/a					

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

Vanir Construction Management, Inc. is one of the nation's leading program/project/construction management firms. Since 1980, we have provided project and construction management services for nearly \$16 billion dollars in construction, including public works, education, healthcare, justice facilities and water/wastewater projects. Headquartered in Sacramento, California, Vanir maintains regional offices throughout the state, as well as in New York, Illinois, Washington, Nevada, Arizona, Colorado, Louisiana, Texas, Virginia and internationally. From its early days, Vanir has specialized in providing various types of services for public facility projects. Vanir has successfully provided these services for cities, states, counties and other public agencies. Vanir's public facilities experience includes libraries, community centers, office buildings and fire stations. We have successfully managed new construction as well as renovation projects. Our renovation expertise includes seismic retrofit and energy retrofit projects. Vanir has had a major role in managing programs and projects from inception to completion. Through each phase of planning, design, construction and start-up, we continuously focus on achieving the owner's goals for cost, schedule and quality. Vanir takes pride in the ability to finish projects on schedule and within budget and in exceeding the client's expectations. Engineering News-Record has consistently ranked Vanir as one of the top CM firms for the past 20 years. Our staff of 300 professionals includes project directors, project managers, construction managers, cost engineers, schedule engineers, claims specialists and other experienced design and construction professionals. Vanir employs the industry's leading experts and are first in the nation with more than 70 certified construction managers, approximately 25 registered architects and engineers, and more than 40 LEED® Accredited Professionals.

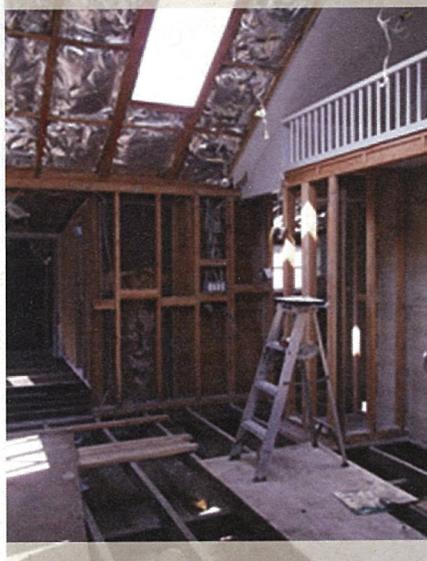
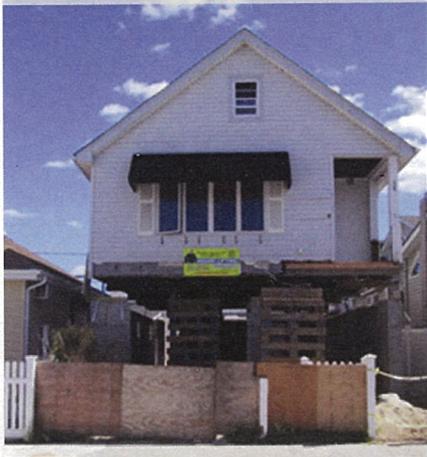
11. The foregoing is a statement of facts.

Signature: 

Type Name and Title: John Kuprenas, President

Date:

January 7, 2015



**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company

4. Forms



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

Borough of
Brooklyn

ATTACHMENT 1: STATEMENT OF UNDERSTANDING AND CERTIFICATION

STATEMENT OF UNDERSTANDING: By signing in the space provided below, the undersigned certifies that the proposer: (i) has read and understands the scope and requirements of this project, as described in the RFP and all attachments; (ii) has the capacity to execute this project, (iii) agrees to accept payment in accordance with the requirements of this RFP and the standard design contract, attached hereto, (iv) will, if its proposal is accepted, enter into the attached standard contract with the New York City Department of Design and Construction, and (v) will carry all types of insurance specified in the contract. The undersigned further certifies that the information in this proposal is, to the best of his/her knowledge, true and accurate.

Is the proposal printed on both sides, on recycled paper containing the minimum percentage of recovered fiber content as requested by the City in the instructions to this solicitation?

Yes **No**

CERTIFICATION FOR M/WBE UTILIZATION PLAN: By signing in the space below, the proposer agrees to the Vendor Certification and Required Affirmations set forth below, unless a full waiver of the Participation Goals is granted. The Vendor Certification and Required Affirmations will be deemed to satisfy the requirement to complete Section V of Part II of Schedule B: M/WBE Utilization Plan.

Section V: Vendor Certification and Required Affirmations

I hereby:

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth in this Contract and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and the rules promulgated thereunder;
- 2) affirm that the information supplied in support of the M/WBE Utilization Plan is true and correct;
- 3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
- 4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and
- 5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

LiRo Program and Construction Management, PE P.C.

Name of Proposer
(Full Business Name)

By: 
Signature of Partner or Corporate Officer

January 29, 2015
Date

Lawrence H. Blond, PE
Print Name

Senior Vice President and General Manager
Title

516-938-5476
Telephone #

11-3205660
EIN#

3 Aerial Way, Syosset, NY 11791
Address

Blondl@liro.com
E-Mail Address

ATTACHMENT 2 (continued)

**PROPOSER'S CERTIFICATION OF COMPLIANCE WITH
IRAN DIVESTMENT ACT**

Pursuant to General Municipal Law §103-g, which generally prohibits the City from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the proposer submits the following certification:

[Please Check One]

PROPOSER'S CERTIFICATION

By submission of this proposal, each proposer and each person signing on behalf of any proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

I am unable to certify that my name and the name of the proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.

Dated: Syosset, NY
City State

January 29 20 15
Month, Date Year



SIGNATURE

Lawrence H. Blond, PE

PRINTED NAME

Senior Vice President and General Manager

TITLE

LiRo Program and Construction Managment, PE P.C.

FULL BUSINESS NAME

Sworn to before me this

29th day of Jan, 20 15

Mallory Mae Hoffman
Notary Public

MALLORY MAE HOFFMAN
Notary Public, State of New York
No. 01HO6220142
Qualified in Suffolk County
Commission Expires April 12, 2016

ATTACHMENT 2

IRAN DIVESTMENT ACT COMPLIANCE RIDER FOR NEW YORK CITY CONTRACTORS

The Iran Divestment Act of 2012, effective as of April 12, 2012, is codified at State Finance Law ("SFL") §165-a and General Municipal Law ("GML") §103-g. The Iran Divestment Act, with certain exceptions, prohibits municipalities, including the City, from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Pursuant to the terms set forth in SFL §165-a and GML §103-g, a person engages in investment activities in the energy sector of Iran if:

- i. The person provides goods or services of twenty million dollars or more in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; or
- ii. The person is a financial institution that extends twenty million dollars or more in credit to another person, for forty-five days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list created pursuant to paragraph (b) of subdivision three of Section 165-a of the State Finance Law and maintained by the Commissioner of the Office of General Services.

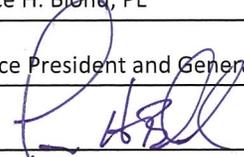
A bid or proposal shall not be considered for award nor shall any award be made where the bidder or proposer fails to submit a signed and verified bidder's certification.

Each bidder or proposer must certify that it is not on the list of entities engaged in investment activities in Iran created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. In any case where the bidder or proposer cannot certify that they are not on such list, the bidder or proposer shall so state and shall furnish with the bid or proposal a signed statement which sets forth in detail the reasons why such statement cannot be made. The City of New York may award a bid to a bidder who cannot make the certification on a case by case basis if:

- (1) The investment activities in Iran were made before the effective date of this section (i.e., April 12, 2012), the investment activities in Iran have not been expanded or renewed after the effective date of this section and the person has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran: or
- (2) The City makes a determination that the goods or services are necessary for the City to perform its functions and that, absent such an exemption, the City would be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.

ATTACHMENT 5

ACKNOWLEDGEMENT OF ADDENDA

TITLE OF THE REQUEST FOR PROPOSALS: Construction Management / Design /Build for Hurricane Sandy-affected Residential Community Recovery	PIN: 8502015HR0011P-13P
Instructions: The proposer is to complete Part I or Part II of this form, whichever is applicable, and sign and date this form. This form serves as the proposer's acknowledgement of the receipt of Addenda to this Request for Proposals (RFP) which may have been issued by the Agency prior to the Proposal Due Date and Time	
<input checked="" type="checkbox"/> Part I Listed below are the dates of issue for each Addendum received in connection with this RFP. Addendum # 1, dated <u>January 5, 2015</u> Addendum # 2, dated <u>January 7, 2015</u> Addendum # 3, dated <u>January 12, 2015</u> Addendum # 4, dated <u>January 15, 2015</u> Addendum # 5, dated <u>January 26, 2015</u> Addendum # 6, dated _____ Addendum # 7, dated _____ Addendum # 8, dated _____ Addendum # 9, dated _____ Addendum #10, dated _____	
<input type="checkbox"/> Part II No Addendum was received in connection with this RFP.	
Proposer Name LiRo Program and Construction Management, PE P.C.	
Proposer's Authorized Representative: Name: <u>Lawrence H. Blond, PE</u> Title: <u>Senior Vice President and General Manager</u> Signature: <u></u> Date: <u>January 29, 2015</u>	





January 5, 2015

ADDENDUM NO. 1

PROJECT: SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery, Boroughs of Queens, Brooklyn and Staten Island

PIN: 8502015HR0011P-13P

THE ADDENDUM IS ISSUED FOR THE PURPOSE OF AMENDING THE REQUIREMENTS OF THE REQUEST FOR PROPOSALS AND IS HEREBY MADE A PART OF SAID REQUEST FOR PROPOSALS TO THE SAME EXTENT AS THOUGH IT WERE ORIGINALLY THEREIN.

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the Acknowledgement of Addendum and original signed copy(ies) of Addenda to the technical proposal. All addenda shall become a part of the requirements for this RFP. Failure to do so may deem the proposal non-responsive.

Extension of Proposal Due Date

- The Proposal due date has been extended to Friday, January 23, 2014.

Anticipated Timeline

- Shortlisted firms will be notified the week of February 2nd for interviews the week of February 9th, 2015.
- It is the goal of DDC to notify firms of potential award in March with registration, mobilization and start of all services in May.

December 19, 2014 Pre-Proposal Conference

- The PowerPoint Presentation has been posted to DDC's RFP Website and is included in this Addendum.

Questions and Answers

- Questions and Answers from consultants and from the December 19, 2014 Pre-Proposal Conference are attached to this addendum.

Request for Proposals

- RFP-5-7 has been revised. Please delete and replace with the revised RFP-5-7 attached to this addendum.
- RFP-8-9, Project Schedule has been revised. Please delete and replace with the revised RFP-8-9, Project Schedule attached to this addendum.





- RFP-12, Links were added to the Barracuda Web Application Firewall “WAF” firmware v7.9.0.19 - Application Firewall and Scribe Insight 7.6.1.36092 - CRM automation and data integration.
- RFP-12, Task A.7, add the sentence “*The CM needs to include a full-time Community Liaison position for this scope of work within their CM Base Fee.*” to the end of the last paragraph.
- RFP-13, Task B.1, Preliminary Design has been revised. Please delete and replace with the revised RFP-13, Task B.1 attached to this addendum.
- RFP-16-17, Anticipated Time Frames chart has been revised. Please delete RFP-16-17 and replace with the revised RFP-17-18 attached to this addendum.
- RFP-22 has been revised. Delete RFP-22 and replace with revised RFP-23 attached to this addendum.
- RFP-24 has been revised. Delete RFP-24 and replace with revised RFP-25 attached to this addendum.
- Attachments 3A, B and C have been revised. Delete RFP-34-43 and replace with the revised Attachments 3A, B and C attached to this addendum.
- Attachment 4 – Staffing Requirements has been revised. Delete Attachment 4 and replace with revised Attachment 4 attached to this addendum.
- Attachment 7 - Schedule B: M/WBE Utilization Plan has been revised and attached to this addendum. The M/WBE participation goal has been revised to 25%. Asian American consultant and construction firms will be included in the goals for Construction and Standard Services.

Contract

- Addendum No. 2 will be issued to address all the revisions on the contract.

Contact: Jue Zhang, zhangju@ddc.nyc.gov
Phone No.: 718-391-1096

By signing in the space provided below, the Proposer acknowledges receipt of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY THE PROPOSER FOR THE CONTRACT AND ATTACHED TO THE TECHNICAL PROPOSAL.

Veronica Nnabugwu
Deputy Agency Chief Contracting Officer

LiRo Program and Construction Management, PE P.C.

Name of Proposer

By _____

Lawrence H. Blond, PE

Title Senior Vice President and General Manager





January 7, 2015

ADDENDUM NO. 2

PROJECT: SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery, Boroughs of Queens, Brooklyn and Staten Island

PIN: 8502015HR0011P-13P

THE ADDENDUM IS ISSUED FOR THE PURPOSE OF AMENDING THE REQUIREMENTS OF THE REQUEST FOR PROPOSALS AND IS HEREBY MADE A PART OF SAID REQUEST FOR PROPOSALS TO THE SAME EXTENT AS THOUGH IT WERE ORIGINALLY THEREIN. **IT MUST BE READ IN CONJUNCTION WITH ADDENDUM NO 1.**

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the Acknowledgement of Addendum and original signed copy(ies) of Addenda to the technical proposal. All addenda shall become a part of the requirements for this RFP. Failure to do so may deem the proposal non-responsive.

Questions and Answers

- 14. Please provide "NYC Build it Back Minimum Standards". (Exhibit I)

Please see Exhibit I attached to the contract which is included with this Addendum No. 2.

Request for Proposal

- Page RFP-7 has been revised. Please delete and replace with the revised page RFP-7 attached to this Addendum.
- Section III. SCOPE OF WORK AND CONTRACT CONDITIONS has been revised. Please delete and replace with the revised Section III.
- Attachment 3 – FEE PROPOSAL FORM has been revised. Please delete and replace with the revised Attachment 3.

Contract

- The contract has been revised and is included in this Addendum. **(Please read closely as many articles have been moved, added, revised and deleted.)**
- EXHIBIT I: NYC BUILD IT BACK MINIMUM PROGRAM STANDARDS is attached to the Contract.





Contact: Jue Zhang, zhangju@ddc.nyc.gov
Phone No.: 718-391-1096

By signing in the space provided below, the Proposer acknowledges receipt of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY THE PROPOSER FOR THE CONTRACT AND ATTACHED TO THE TECHNICAL PROPOSAL.

Veronica Nnabugwu
Deputy Agency Chief Contracting Officer

LiRo Program and Construction Management, PE P.C.

Name of Proposer

By



Lawrence H. Blond, PE

Title Senior Vice President and General Manager





January 7, 2015

ADDENDUM NO. 3

PROJECT: SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery, Boroughs of Queens, Brooklyn and Staten Island

PIN: 8502015HR0011P-13P

THE ADDENDUM IS ISSUED FOR THE PURPOSE OF AMENDING THE REQUIREMENTS OF THE REQUEST FOR PROPOSALS AND IS HEREBY MADE A PART OF SAID REQUEST FOR PROPOSALS TO THE SAME EXTENT AS THOUGH IT WERE ORIGINALLY THEREIN. **IT MUST BE READ IN CONJUNCTION WITH ADDENDA NO. 1 AND NO. 2.**

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the Acknowledgement of Addendum and original signed copy(ies) of Addenda to the technical proposal. All addenda shall become a part of the requirements for this RFP. Failure to do so may deem the proposal non-responsive.

Questions and Answers

- The last date for submitting question is the Close of Business on Tuesday, January 13, 2015.

Request for Proposal

- Attachment 3 – FEE PROPOSAL FORM has been revised. Please delete and replace with the revised Attachment 3.
 - Please note that the Base Fee covers the professional staffing and overhead of the Consultant, as described in Article 42.2.3 of the attached contract.
 - Please print company name on the upper right corner of the Fee Proposal Form.

Contract

The contract has been revised. Delete the pertinent paragraphs and replace with the revised paragraphs as listed below.

- 8.1 To enable the Work to be performed in an orderly and expeditious manner, the Contractor, within twenty (20) calendar days after commencement of the Contract, unless otherwise directed by the Commissioner, shall submit a proposed progress schedule per Home, Project and for the Program, indicating the information specified below:





- 8.4 Responsibility for Delay: In the event that any Project or Home or the Program is not completed within the timeframe set forth in the original Project Schedule, the Commissioner shall prepare a report analyzing the causes of the delay and determining responsibility for the same.
- 10.2.3 (b) Such subcontracts shall contain the DDC Safety Requirements and DDC General Conditions. Such subcontracts shall contain provisions approved in advance by the Commissioner regarding: (1) time for completion; (2) warranties and/or guarantees.
- 10.2.3 (e) Such subcontracts shall require that the Subcontractor carry the types and amounts of insurance required of the Contractor set forth in Article 23. For Homes in the Elevation Pathway or Reconstruction Pathway, such subcontracts shall contain provision requiring Builders Risk insurance. In such instances the Contractor shall require the construction Subcontractor to provide Builders Risk Insurance on a completed value form for the total value of the Work through Substantial Completion of the Work in its entirety. Such insurance shall be provided on an All Risk basis and include coverage, without limitation, for windstorm (including named windstorm), storm surge, flood and earth movement. Unless waived by the Commissioner, it shall include coverage for ordinance and law, demolition and increased costs of construction, debris removal, pollutant clean up and removal, and expediting costs. Such insurance shall cover, without limitation, (a) all buildings and/or structures involved in the Work, as well as temporary structures at the Home, and (b) any property that is intended to become a permanent part of such building or structure, whether such property is on the Home site, in transit or in temporary storage. Policies shall name the Contractor as Named Insured and list the City and Homeowner as both Additional Insureds and Loss Payees as their interest may appear. This requirement to provide Builders Risk insurance may be waived by the City.

(1) Policies of such insurance shall specify that, in the event a loss occurs at an occupied facility, occupancy of such facility is permitted without the consent of the issuing insurance company.

(2) Such insurance may be provided through an Installation Floater, at the Contractor's option, if it otherwise conforms with the requirements of this Article and Article 23.

(3) All required policies shall be in accordance with the terms and conditions set forth in Article 23 of this Contract. Proof of Insurance shall be provided to the City in accordance with Article 23.3. If the Commissioner directs the Contractor to supply Builder's Risk or Pollution Insurance for any Project or Home, such additional insurance so ordered by the Commissioner shall be paid for as a Miscellaneous Expense, as set forth in Article 42.5.

- 42.2 Tasks

- 42.2.1

- Task A Construction Management Services and Task C Construction Procurement Services:

- Base Fee (Annual Cost of professional staffing): monthly payment according to one twelfth of the amount in the final negotiated Fee Proposal. The Basic Fee is further described in Article 42.2.3.
- Set Up of Project Office (mobilization and demobilization): lump sum payment of the amount in the final negotiated Fee Proposal
- Operation of the Project Office: monthly payment according to one sixtieth of the lump sum total set forth in the fee
- Fee for Profit in increments of 20 Homes per pathway: milestone payment. 25% of the Fee for Profit upon being issued a Work Order identifying a project; 25% of the Fee for Profit commencement of construction of 20 Homes; and 50% of the Fee for Profit upon Final Acceptance of 20 Homes.

- 42.3 42.2.3 The Basic Fee shall be deemed to include: (1) all expenses incurred by the Contractor in the performance of all required CM services for the Project (2) all expenses related to management and oversight, including, without limitation, any time spent by principals performing such duties, (3) all expenses in connection with providing the related services set forth in Article 11 and (4) all expenses related to overhead. The Basic Fee shall include, without limitation, the items set forth below:

(a) Compensation paid to personnel of the Contractor including without limitation all officers, principals, employees and personnel of the Contractor, serving in whatever capacity, including the Project Executive set forth in Exhibit A. Compensation shall include without limitation: (1) wages and/or salaries; (2) all payments mandated by law, including without limitation, Social Security and Medicare taxes, insurance (Worker's Compensation, Employers Liability, Unemployment); (3) employer contributions, if any, to retirement plans, including without limitation pension and/or deferred compensation plans; (4) all payments for compensated absence time, including without limitation vacation time, sick time, personal time and holidays, and (5) costs for any and all other fringe and/or supplemental benefits.





(b) All expenses for compensation paid to construction management personnel identified in the approved Staffing Plan that are in excess of compensation for such personnel payable hereunder. Compensation for such personnel shall include without limitation the items listed in item (a) above.

(c) All expenses incurred by the Contractor in connection with providing the related services set forth in Article 11, including without limitation, transportation, meals and lodging, unless the Contractor is directed in advance in writing by the Commissioner to provide services which require long distance travel,

(d) All expenses incurred by the Contractor with respect to home office general facilities including, but not limited to, rental cost or depreciation factor, light, heat and water, telephone charges, including all charges for calls to the job site and DDC (except for long distance calls to other locations as specifically required by the Commissioner), sales, estimating expenses, accounting fees and bookkeeping expenses, electronic data processing services, including programming and rental equipment, dues and subscriptions, stationery, printing, postage, and any other office or miscellaneous expenses, except as otherwise expressly provided in an allowance for miscellaneous expenses.

(e) All expenses incurred by the Contractor with respect to applicable taxes of any kind whatsoever, including without limitation, federal, state and local income tax and any franchise or other business taxes.

(f) All insurance coverage determined by the Contractor to be necessary for the performance of all required services hereunder, including without limitation: (1) all insurance required under this Contract; (2) all insurance required by law, and (3) all other insurance maintained by the Contractor in the course of business, including without limitation, burglary and theft, general fidelity and payroll insurance.

(g) Any losses for theft or robbery sustained by Contractor.

(h) All expenses incurred by the Contractor with respect to fixed capital, including interest thereon or on monies borrowed.

(i) All expenses incurred by the Contractor with respect to legal services.

(j) All management, administrative or overhead expenses of any kind whatsoever incurred by the Contractor, including without limitation, (1) management and/or administrative expenses in connection with the Design Consultant, and (2)) management and/or administrative expenses in connection with the performance of additional services.

- 42.5.1 (f) (4) Builder's Risk Insurance, except as required by Article 10.2.3(e) or Pollution Insurance for the Project, if directed by the Commissioner
- Fee Schedule





FEE SCHEDULE - Borough of Queens

	<u>List of Services</u> <u>Borough of Queens</u>	<u>Estimated Quantity of Homes</u> <u>(a)</u>	<u>Unit Price per Home</u> <u>(b)</u>
1	<p><u>All required scoping and design services for rehabilitation of one-to four-family Homes including:</u></p> <ul style="list-style-type: none"> • <u>Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research</u> • <u>All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work</u> • <u>Support Homeowner customer service (assume 2 hours per Home for bidding purposes)</u> • <u>All meetings with Homeowner to review and agree on scope of work.</u> • <u>Preparation of bid documents for construction</u> • <u>Review and approval of bids (including cost reasonableness and constructability analysis)</u> 	1,250	
2.	<p><u>All required scoping and design services for elevation of one- to four-family Homes attached and non-attached including:</u></p> <ul style="list-style-type: none"> • <u>Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and</u> 	950	





	<p><u>compliance of existing site with historically documented conditions</u></p> <ul style="list-style-type: none">• <u>All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work</u>• <u>Utility Markout</u>• <u>Land Survey</u>• <u>Zoning Analysis</u>• <u>Borings and Geotech Analysis</u>• <u>Landscape design to comply with program standards</u>• <u>Preparation of construction drawings (including submittal and approval by DOB)</u>• <u>Homeowner meeting to review construction documents.</u>• <u>Preparation of permit applications</u>• <u>Pre-bid meeting with contractors</u>• <u>Preparation of bid documents for construction</u>• <u>Review and approval of bids (including cost reasonableness and constructability analysis)</u>		
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<p>3.</p>	<p><u>All required scoping and design services reconstruction of one- to four-family Homes attached and non-attached including:</u></p> <ul style="list-style-type: none"> • <u>Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions</u> • <u>All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work</u> • <u>Utility Markout</u> • <u>Land Survey</u> • <u>Zoning Analysis</u> • <u>Borings and Geotech Analysis</u> • <u>Landscape design to comply with program standards</u> • <u>Preparation of construction drawings (including submittal and approval by DOB)</u> • <u>Homeowner meeting to review construction documents</u> • <u>Preparation of permit applications</u> • <u>Pre-bid meeting with contractors</u> • <u>Preparation of bid documents for construction</u> • <u>Review and approval of bids (including cost reasonableness and constructability analysis)</u> 	<p><u>20</u></p>	
<p>4.</p>	<p><u>As needed Architectural, Engineering and Construction Management</u></p>	<p><u>Estimated</u></p>	<p><u>Hourly</u></p>





<u>Services (Paid on a T&M Basis):</u>		<u>Hours</u>	<u>Rate</u>
		<u>(a)</u>	<u>(b)</u>
	<u>More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes</u>	<u>500</u>	
	<u>Early Engineering (any pathway prefinal design signoff by Homeowners)</u>	<u>500</u>	
	<u>Emergency Construction Services</u>	<u>500</u>	
	<u>Wetlands</u>	<u>500</u>	
	<u>Septics</u>	<u>500</u>	
	<u>Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)</u>	<u>500</u>	
	<u>Demolition Plans</u>	<u>500</u>	
	<u>Post Approval Amendments</u>	<u>500</u>	
	<u>SJO/RFI's</u>	<u>500</u>	
	<u>Marine Engineering</u>	<u>500</u>	
	<u>Other Technical Professionals</u>	<u>500</u>	
<u>5.</u>	<u>Base Fee</u> <u>The Base Fee covers the professional staffing and overhead of the Contractor, as described in Article 42.2.3</u>		<u>Year One</u> <u>Lump Sum</u> <u>Year Two</u> <u>Lump Sum</u> <u>Year Three</u> <u>Lump Sum</u> <u>Year Four</u> <u>Lump Sum</u>





		<u>Year Five</u>	
		<u>Lump Sum</u>	
6.	<u>Project Office Setup (Mobilization and Demobilization)</u>	<u>Lump Sum</u>	
7.	<u>Project Office Operation for 60 months</u>	<u>Lump Sum</u>	
8.	<u>Fee for Profit</u>	<u>Estimated</u>	<u>Unit</u>
	<p><u>CM firms are required to submit a Fee for Profit for each Home pathway in increments of 20 Homes. Upon being issued a Work Order from DDC (in increments of 20 Homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 20 Homes, the CM shall receive 25% of the Fee for Profit. Final Acceptance of 20 Homes, the CM shall receive 50% of the Fee for Profit.</u></p>	<u>Qty of</u>	<u>Price</u>
		<u>Groups of</u>	<u>per 20</u>
		<u>20 Homes</u>	<u>Homes</u>
		<u>(a)</u>	<u>\$</u>
		<u>(b)</u>	
	<u>20 Rehabilitations</u>	<u>62.5</u>	
	<u>20 Elevations</u>	<u>47.5</u>	
	<u>20 Reconstructions</u>	<u>1</u>	





FEE SCHEDULE Borough of Brooklyn

	<u>List of Services</u> <u>Borough of Brooklyn</u>	<u>Estimat</u> <u>ed</u> <u>Quantit</u> <u>y of</u> <u>Homes</u> <u>(a)</u>	<u>Unit</u> <u>Price</u> <u>per</u> <u>Home</u> <u>(b)</u>
2	<u>All required scoping and design services for rehabilitation of one-to four-family Homes including:</u> <ul style="list-style-type: none"> • <u>Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research</u> • <u>All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work</u> • <u>Support Homeowner customer service (assume 2 hours per Home for bidding purposes)</u> • <u>All meetings with Homeowner to review and agree on scope of work</u> • <u>Preparation of bid documents for construction</u> • <u>Review and approval of bids (including cost reasonableness and constructability analysis)</u> 	2,500	
2.	<u>All required scoping and design services for elevation of one- to four-family Homes attached and non-attached including:</u> <ul style="list-style-type: none"> • <u>Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and</u> 	800	





	<p><u>compliance of existing site with historically documented conditions</u></p> <ul style="list-style-type: none">• <u>All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work</u>• <u>Utility Markout</u>• <u>Land Survey</u>• <u>Zoning Analysis</u>• <u>Borings and Geotech Analysis</u>• <u>Landscape design to comply with program standards</u>• <u>Preparation of construction drawings (including submittal and approval by DOB)</u>• <u>Homeowner meeting to review construction documents,</u>• <u>Preparation of permit applications</u>• <u>Pre-bid meeting with contractors</u>• <u>Preparation of bid documents for construction</u>• <u>Review and approval of bids (including cost reasonableness and constructability analysis)</u>		
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<p>3.</p>	<p><u>All required scoping and design services reconstruction of one- to four-family Homes attached and non-attached including:</u></p> <ul style="list-style-type: none"> • <u>Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions</u> • <u>All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work</u> • <u>Utility Markout</u> • <u>Land Survey</u> • <u>Zoning Analysis</u> • <u>Borings and Geotech Analysis</u> • <u>Landscape design to comply with program standards</u> • <u>Preparation of construction drawings (including submittal and approval by DOB)</u> • <u>Homeowner meeting to review construction documents</u> • <u>Preparation of permit applications</u> • <u>Pre-bid meeting with contractors</u> • <u>Preparation of bid documents for construction</u> • <u>Review and approval of bids (including cost reasonableness and constructability analysis)</u> 	<p>25</p>	
<p>4.</p>	<p><u>As needed Architectural, Engineering and Construction Management</u></p>	<p><u>Estimated</u></p>	<p><u>Hourly</u></p>





	<u>Services (Paid on a T&M Basis):</u>	<u>Hours</u>	<u>Rate</u>
	<u>As needed Architectural and Engineering Services (Paid on a T&M Basis):</u>	<u>(a)</u>	<u>(b)</u>
	<u>More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes</u>	<u>500</u>	
	<u>Early Engineering (any pathway prefinal design signoff by Homeowners)</u>	<u>500</u>	
	<u>Emergency Construction Services</u>	<u>500</u>	
	<u>Wetlands</u>	<u>500</u>	
	<u>Septics</u>	<u>500</u>	
	<u>Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)</u>	<u>500</u>	
	<u>Demolition Plans</u>	<u>500</u>	
	<u>Post Approval Amendments</u>	<u>500</u>	
	<u>SJO/RFI's</u>	<u>500</u>	
	<u>Marine Engineering</u>	<u>500</u>	
	<u>Other Technical Professionals</u>	<u>500</u>	
<u>5.</u>	<u>Base Fee</u> <u>The Base Fee covers the professional staffing and overhead of the Contractor, as described in Article 42.2.3</u>		<u>Year One</u> <u>Lump Sum</u>
			<u>Year Two</u> <u>Lump Sum</u>
			<u>Year Three</u> <u>Lump Sum</u>
			<u>Year Four</u>





		<u>Lump Sum</u>	
		<u>Year Five</u>	
		<u>Lump Sum</u>	
6.	<u>Project Office Setup (Mobilization and Demobilization)</u>	<u>Lump Sum</u>	
7.	<u>Project Office Operation for 60 months</u>	<u>Lump Sum</u>	
8.	<u>Fee for Profit</u>	<u>Estimat ed Qty of Groups of 20 Homes</u>	<u>Unit Price per 20 Homes</u>
	<u>CM firms are required to submit a Fee for Profit for each Home pathway in increments of 20 Homes. Upon being issued a Work Order from DDC (in increments of 20 Homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 20 Homes, the CM shall receive 25% of the Fee for Profit. Upon Closeout of 20 Homes, the CM shall receive 50% of the Fee for Profit.</u>	<u>(a)</u>	<u>(b)</u>
	<u>20 Rehabilitations</u>	<u>125</u>	
	<u>20 Elevations</u>	<u>40</u>	
	<u>20 Reconstructions</u>	<u>1.25</u>	





FEE SCHEDULE - Borough of Staten Island

	List of Services Borough of Staten Island	Estimat ed Quantit y of Homes (a)	Unit Price per Home (b)
3	<p>All required scoping and design services for rehabilitation of one-to four-family Homes including:</p> <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Support Homeowner customer service (assume 2 hours per Home for bidding purposes) • All meetings with Homeowner to review and agree on scope of work • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis) 	1,200	
2.	<p>All required scoping and design services for elevation of one- to four-family Homes attached and non-attached including:</p> <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and 	950	





	<p>compliance of existing site with historically documented conditions</p> <ul style="list-style-type: none">• All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work• Utility Markout• Land Survey• Zoning Analysis• Borings and Geotech Analysis• Landscape design to comply with program standards• Preparation of construction drawings (including submittal and approval by DOB)• Homeowner meeting to review construction documents• Preparation of permit applications• Pre-bid meeting with contractors• Preparation of bid documents for construction• Review and approval of bids (including cost reasonableness and constructability analysis)		
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3.	<p>All required scoping and design services reconstruction of one- to four-family Homes attached and non-attached including:</p> <ul style="list-style-type: none"> • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis) 	30	
4.	<u>As needed Architectural, Engineering and Construction Management</u>	Estimated	Hourly





Services (Paid on a T&M Basis):		Hours	Rate
As needed Architectural and Engineering Services (Paid on a T&M Basis):		(a)	(b)
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	500	
	Early Engineering (any pathway prefinal design signoff by Homeowners)	500	
	Emergency Construction Services	500	
	Wetlands	500	
	Septics	500	
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	500	
	Demolition Plans	500	
	Post Approval Amendments	500	
	SJO/RFI's	500	
	Marine Engineering	500	
Other Technical Professionals		500	
5.	Base Fee The Base Fee covers the professional staffing <u>and overhead of the Contractor, as described in Article 42.2.3</u>	Year One Lump Sum	
		Year Two Lump Sum	
		Year Three Lump Sum	
		Year Four	





		Lump Sum	
		Year Five	
		Lump Sum	
6. Project Office Setup (Mobilization and Demobilization)			
		Lump Sum	
7. Project Office Operation for 60 months			
		Lump Sum	
8. Fee for Profit	<p>CM firms are required to submit a Fee for Profit for each Home pathway in increments of 20 Homes. Upon being issued a Work Order from DDC (in increments of 20 Homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 20 Homes, the CM shall receive 25% of the Fee for Profit. Upon Closeout of 20 Homes, the CM shall receive 50% of the Fee for Profit.</p>	Estimat ed Qty of Groups of 20 Homes (a)	Unit Price per 20 Homes (b)
20 Rehabilitations		60	
20 Elevations		47.5	
20 Reconstructions		1.5	





Contact: Jue Zhang, zhangju@ddc.nyc.gov
Phone No.: 718-391-1096

By signing in the space provided below, the Proposer acknowledges receipt of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY THE PROPOSER FOR THE CONTRACT AND ATTACHED TO THE TECHNICAL PROPOSAL.

Veronica Nnabugwu
Deputy Agency Chief Contracting Officer

LiRo Program and Construction Management, PE P.C.

Name of Proposer

By 
Lawrence H. Blond, PE

Title Senior Vice President and General Manager







January 15, 2015

ADDENDUM NO. 4

PROJECT: SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery, Boroughs of Queens, Brooklyn and Staten Island

PIN: 8502015HR0011P-13P

THE ADDENDUM IS ISSUED FOR THE PURPOSE OF AMENDING THE REQUIREMENTS OF THE REQUEST FOR PROPOSALS AND IS HEREBY MADE A PART OF SAID REQUEST FOR PROPOSALS TO THE SAME EXTENT AS THOUGH IT WERE ORIGINALLY THEREIN. **IT MUST BE READ IN CONJUNCTION WITH ADDENDA NO. 1, NO. 2 AND NO. 3.**

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the Acknowledgement of Addendum and original signed copy(ies) of Addenda to the technical proposal. All addenda shall become a part of the requirements for this RFP. Failure to do so may deem the proposal non-responsive.

Extension of Proposal Due Date

- **The Proposal Submission Deadline has been extended to Tuesday, January 27th, 2015 at 4:00 PM.**

Anticipated Timeline

- **Shortlisted firms will be notified the week of February 2nd for interviews the week of February 9th, 2015.**
- **It is the goal of DDC to notify firms of potential award in March with registration, mobilization and start of all services in May.**

Request for Proposal

- **When submitting their Fee Proposal, prospective proposers shall use the revised FEE PROPOSAL FORM which was attached in Addendum No. 3 issued on January 12, 2015. Failure to use the correct form will deem the proposal non-responsive.**





Request for Qualifications

- **Request for Qualifications for the eight Pre-Qualified Lists is now available on DDC's website**
<http://ddcftp.nyc.gov/rfpweb/>

Questions and Answers

1. Construction hard cost:
 - Is there a maximum construction dollar limit per house for each type of design path?
Max construction costs are linked to the FHA 2013 Loan Limits.
2. Regarding Section IV.1.A Experience of Firm of the RFP:
 - Can Form SF 330 be substituted for Forms SF 254/255?
Yes, it can.
3. Regarding Section 8.4.1 of the Sample Contract:
 - Is the intent to impose Disincentive Payments noted in Article 71 of the sample contract in addition to Delay Penalties noted in Section 8.4.1 of the sample contract?
No, we do not intend to assess both disincentive payments and Art. 8.4 relief for the same incident of delay
4. Regarding Section 10.5.3 of the Sample Contract:
 - Please confirm that the procedures for an extension of time apply to the Architectural services phase as well as the Construction phase.
Yes, they do.
5. Referencing Task A.5, IT Database Administration, are there software/licensing costs required to access the existing Case Management System provided by HRO in the Microsoft Azure cloud.
There are no costs to access the existing system.
6. Please clarify that the amounts indicated in the following Question/Response given in Addendum #1 reflect estimated CONSTRUCTION COSTS ONLY.
Q - Fee for Profit, please advise if estimates are available for the average home construction costs for Rehabilitations, Elevations and Reconstructions. This information is requested for the CM's use in calculating Fee for Profit. (RFP Attachment 3A, 3B & 3C as shown on pages RFP 35-43)
R - The following are rough average costs, based upon prior work and are not the actual amounts for the work anticipated under this contract, since the scope of every home will vary:
 - Elevations: \$250,000
 - Rehabilitation: \$35,000
 - Reconstruction: \$600,000**Yes, these are the average home construction costs.**





7. Who is responsible for insuring the property during the course of construction? The homeowner? DDC? CM? GC?

The revised contract, (Addendum 3) requires Builders Risk coverage for Homes in the Elevation and Reconstruction pathways. Homeowners are required to notify their homeowners insurance company of the work, if the Home is insured.

Contact: Jue Zhang, zhangju@ddc.nyc.gov
Phone No.: 718-391-1096

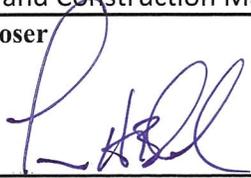
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By signing in the space provided below, the Proposer acknowledges receipt of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY THE PROPOSER FOR THE CONTRACT AND ATTACHED TO THE TECHNICAL PROPOSAL.

Veronica Nnabugwu
Deputy Agency Chief Contracting Officer

LiRo Program and Construction Management, PE P.C.

Name of Proposer

By 
Lawrence H. Blond, PE

Title Senior Vice President and General Manager







NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

DR. FENIOSKY PEÑA-MORA
Commissioner

JOHN GODDARD
Agency Chief
Contracting Officer

January 26, 2015

ADDENDUM NO. 5

PROJECT: SANDHRO, CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery, Boroughs of Queens, Brooklyn and Staten Island

PIN: 8502015HR0011P-13P

THE ADDENDUM IS ISSUED FOR THE PURPOSE OF AMENDING THE REQUIREMENTS OF THE REQUEST FOR PROPOSALS AND IS HEREBY MADE A PART OF SAID REQUEST FOR PROPOSALS TO THE SAME EXTENT AS THOUGH IT WERE ORIGINALLY THEREIN. **IT MUST BE READ IN CONJUNCTION WITH ADDENDA NO. 1, NO. 2, NO. 3 AND NO. 4.**

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the Acknowledgement of Addendum and original signed copy(ies) of Addenda to the technical proposal. All addenda shall become a part of the requirements for this RFP. Failure to do so may deem the proposal non-responsive.

- **The Proposal Submission Deadline has been extended to Friday, January 30th, 2015 at 5:00 PM.**

Contact: Jue Zhang, zhangju@ddc.nyc.gov
Phone No.: 718-391-1096

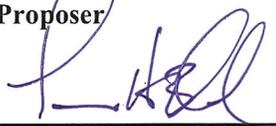
By signing in the space provided below, the Proposer acknowledges receipt of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY THE PROPOSER FOR THE CONTRACT AND ATTACHED TO THE TECHNICAL PROPOSAL.

Veronica Nnabugwu
Deputy Agency Chief Contracting Officer

LiRo Program and Construction Management, PE P.C.

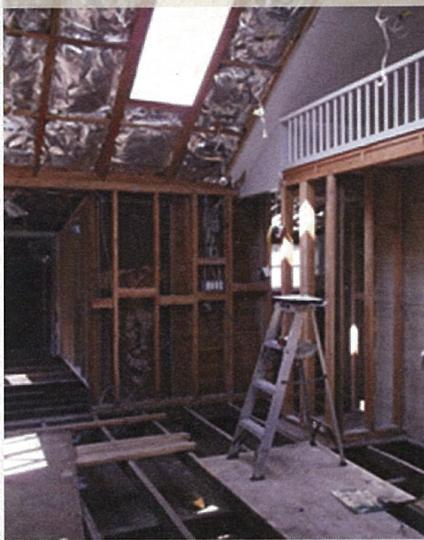
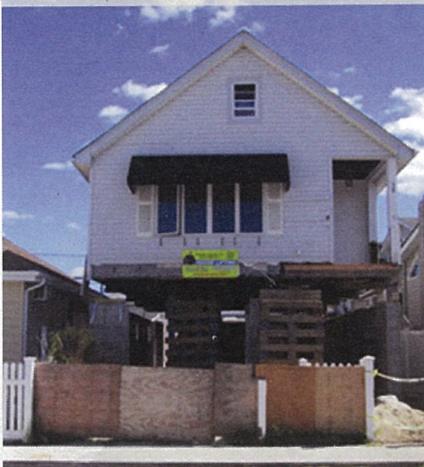
Name of Proposer

By  _____
Lawrence H. Blond, PE

Title _____
Senior Vice President and General Manager







**LiRo Program and
Construction Management, PE P.C.**
A LiRo Group Company

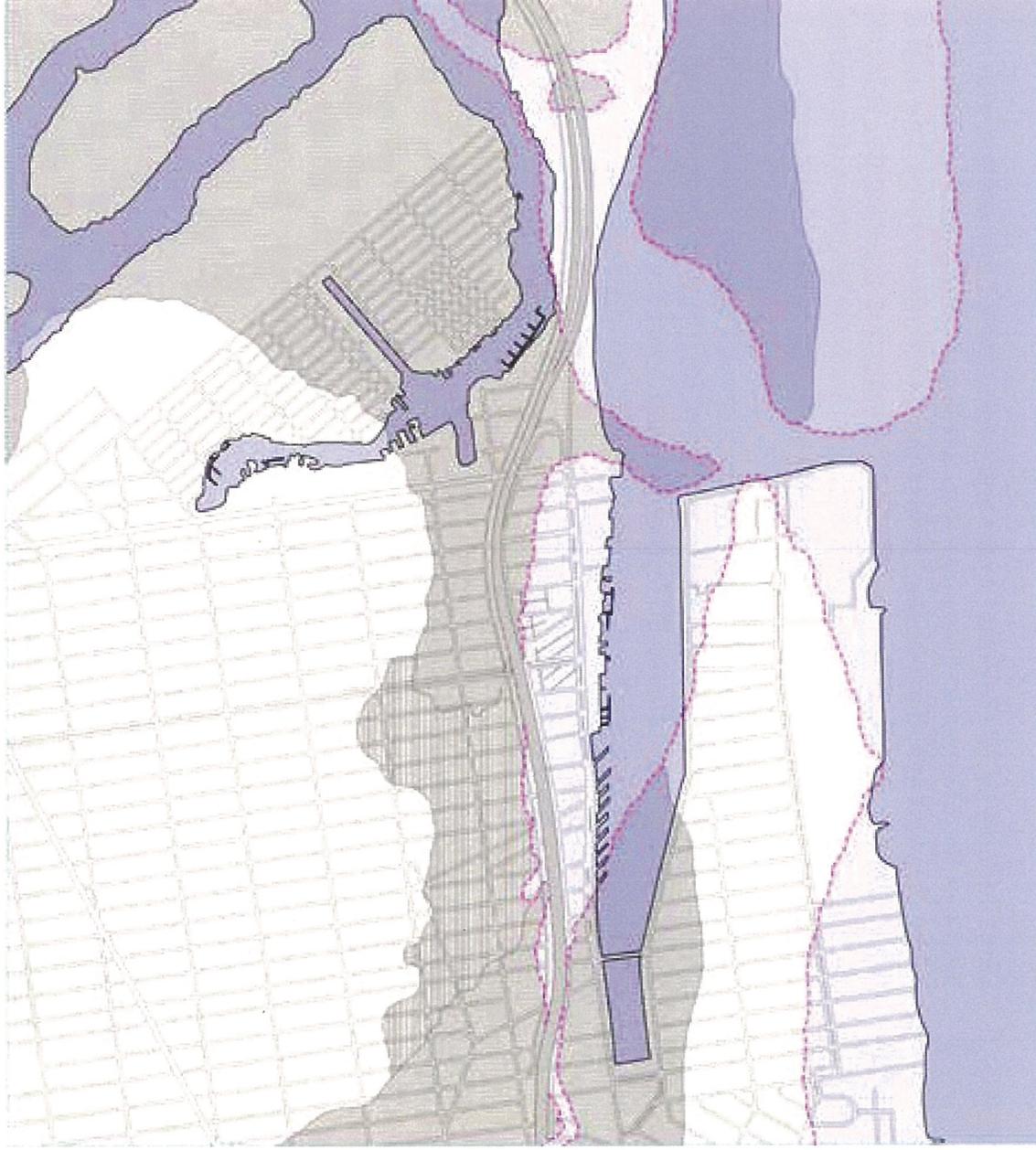
5. Appendices



**NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION**

Borough of
Brooklyn

THE COURTS OF SHEEPSHEAD BAY



GAN'Sstudio

 PRATT
CENTER
FOR COMMUNITY
DEVELOPMENT

50 YEARS



Since January of 2013, Pratt Center and Gans studio have worked with residents of the Sheepshead Bay courts to develop an integrated approach to rebuilding that includes housing, landscape and infrastructures. The goal is to reduce the impact of both catastrophic events and the everyday vulnerabilities related to water management and sustainability that have affected the neighborhood for years and will increase in an age of climate change.

The courts are residential blocks organized around interior mews that have both great charm and intrinsic exposure to water. Originally constructed in 1929 as summer cottages on former wetland, most have been winterized and many have been expanded. The construction of the Coney Island Sewage Treatment plan in 1971 greatly exacerbated the situation when it raised the street grid leaving the mews at their original elevations and as much as 4 feet below street level. Currently, the mews flood with every heavy rainfall and, as shareholders in the common property, the residents are responsible for the mews infrastructure and its repair.

Residents of the courts are ready to work together on a common plan that will leverage their individual investments. This is a longstanding community where many properties are occupied by the original owners. There are also some courts- such as Bogardus and Shale where a single resident owns as many as two dozen properties. The plan includes raising the houses in synchrony to the design flood elevation and thereby creating the opportunity to redesign the existing collective landscape, and to re-connect to the grid in a way that re-integrates them with services provided by the city. Recognizing that their homes are fragile and under-performing, many are eager to replace them with a net-zero prefabricated alternative.

Gans studio has visualized many potential futures for the residents as part of the community visioning process, including a scheme in which the mews itself is lifted to street level (2), and one in which the mews remains a low landscape feature with the houses accessed via a shared board walk (1). They have explored the possibility and method by which the houses would be raised separately over time with individual access and shared infrastructures could be installed at a later date (3). Finally, as a consequence of their collaboration with Jason Loiselle of Sherwood Engineering, they have begun to develop plans at the scale of the entire neighborhood that create sequences of smaller and larger wetlands in relation to a renewed shoreline.

SCHEME 1

Mews remains low. Infrastructure is raised in a rear "garden wall". Homes are elevated to the DFE with entry stairs from beneath.



SCHEME 2

Mews is raised to meet the street, extending the city grid and allowing for water and vegetation to grow below.

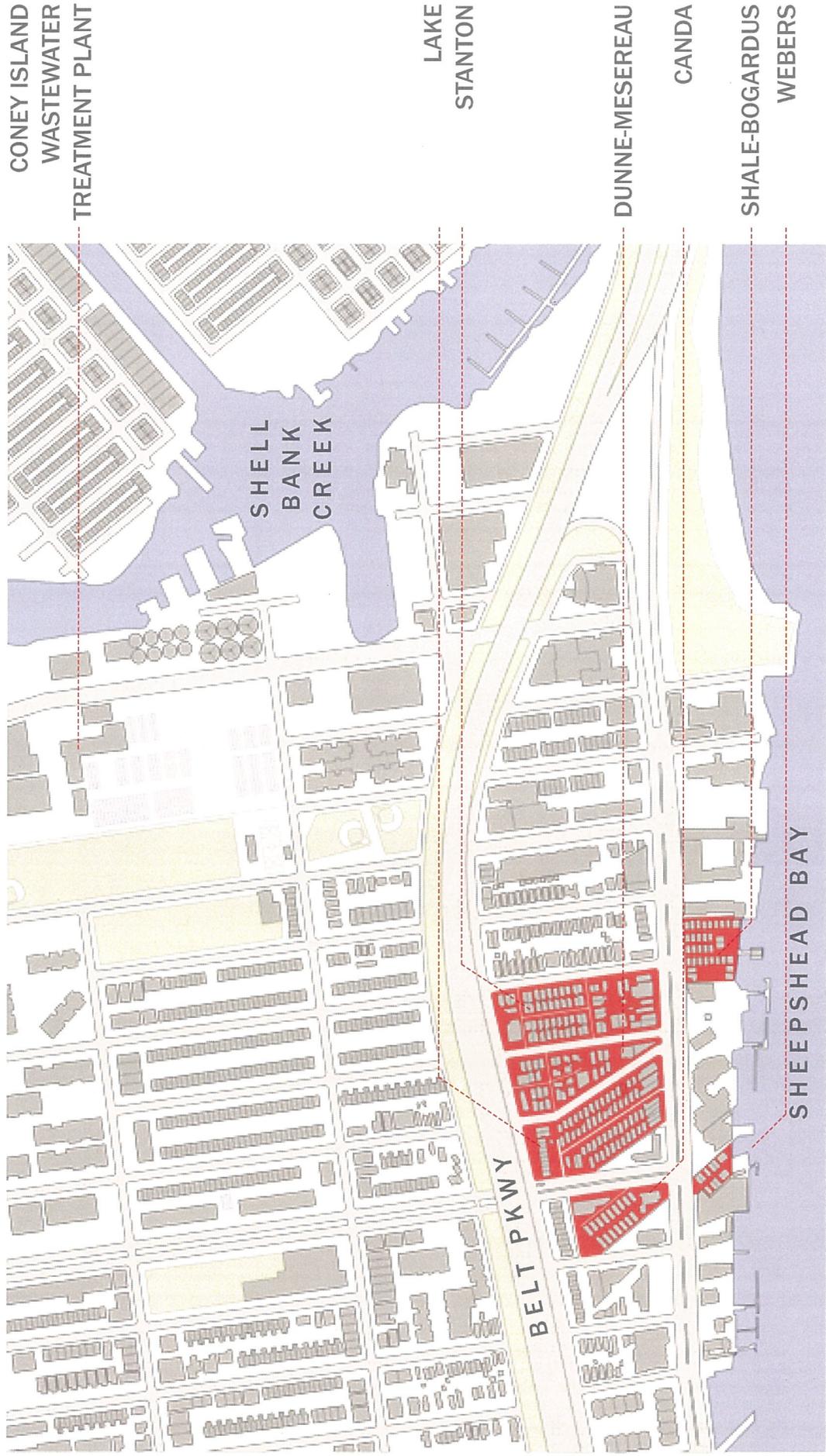


SCHEME 3

Mews is raised to the Designed Flood Elevation and new plumbing is installed and incorporated into the new boardwalk system.



LOCATION MAP



POCKET GARDENS

Homes that were destroyed by Hurricane Sandy are demolished and replaced by water gardens or small farming pockets. Affect- ed homeowners can relocate within their court.



OPPORTUNISTIC

Homes that were destroyed or abandoned after the storm are demolished and replaced by water gardens or small farms. Affected homeowners can relocate within their court.



CLUSTERED WETLANDS

Homes attached to or in between destroyed property are all demolished. Affected homeowners can relocate within the courts in general. Properties then become water gardens and coastal wetlands.

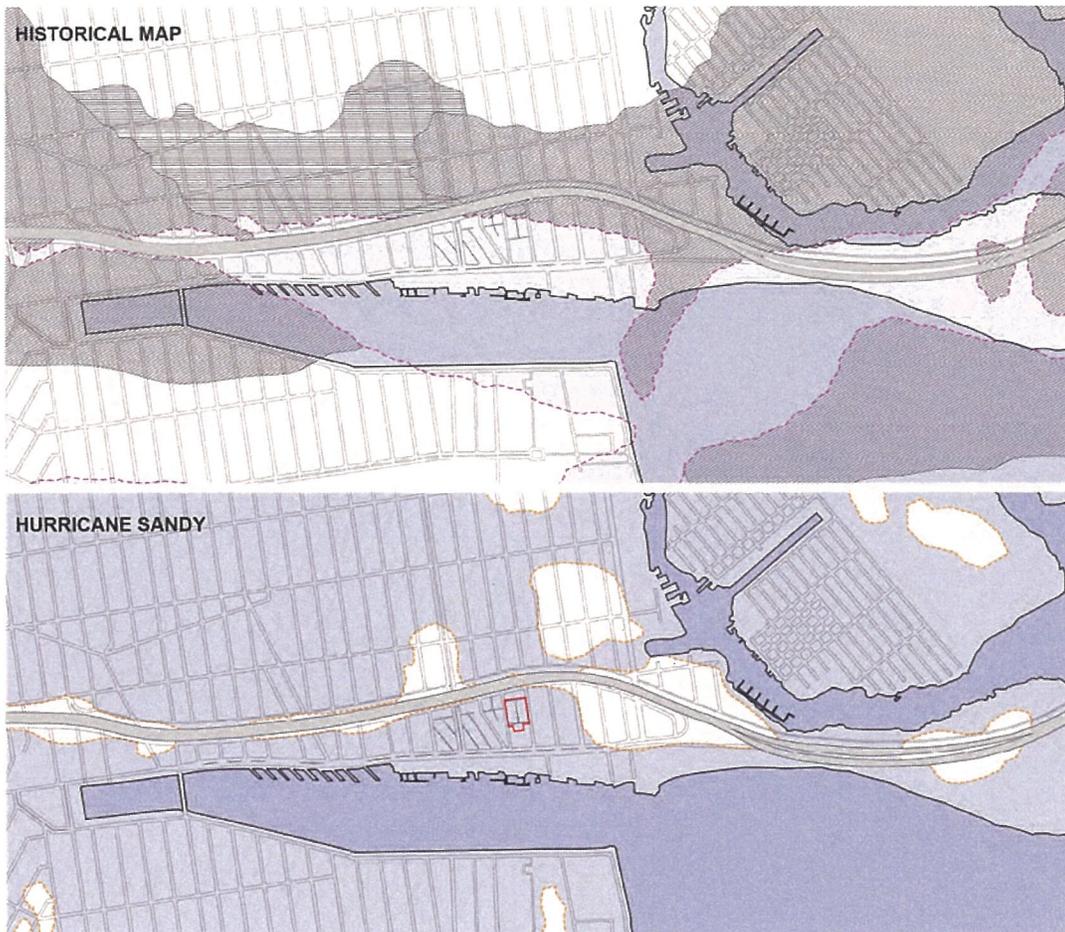


MAIN DRAIN

Dunne-Mesereau is demolished and restored to a wetland that manages most of the water, along with the growth of a coastal wetland to diffuse energy from storm surges and daily tidal patterns.



PROPOSALS for REBUILDING STANTON COURT



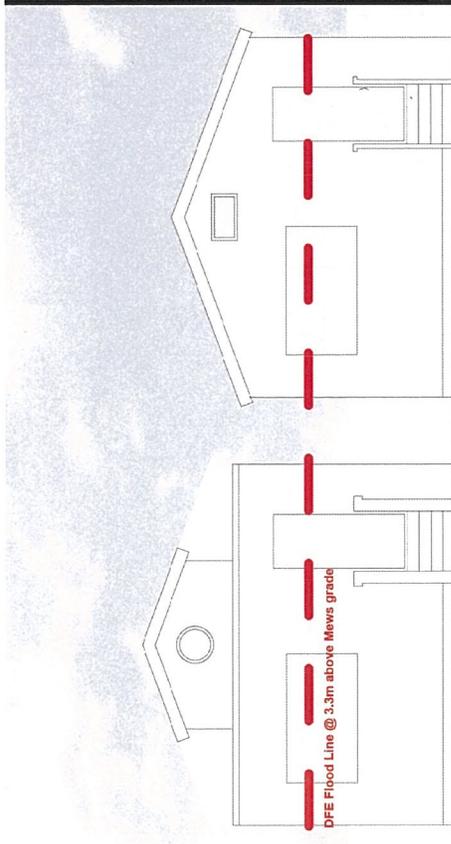
Gans studio/MHANY/Pratt Center

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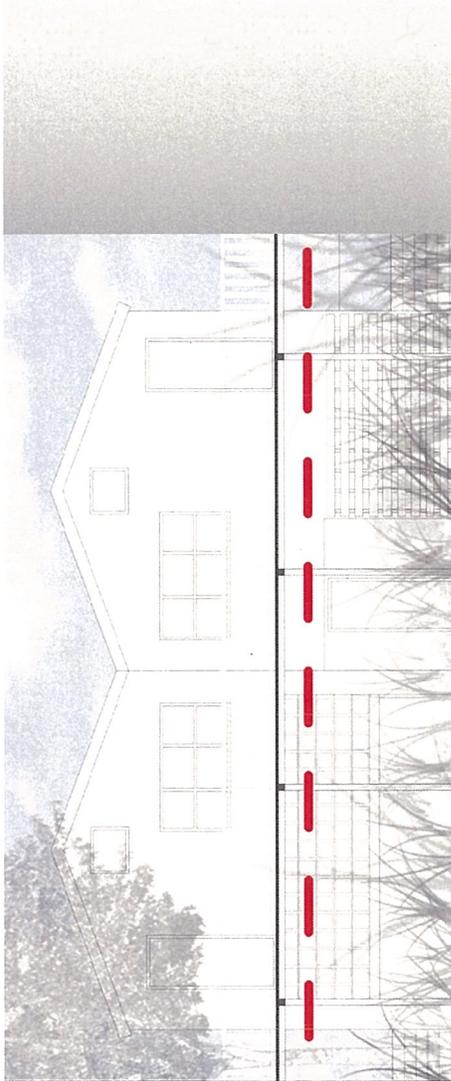
● PROPOSAL 1 A+B	01
● PROPOSAL 2	02
● PROPOSAL 3	03
● RECOMMENDATIONS	04

PROPOSAL 1

single houses raised on boardwalk



EXISTING BUNGALOWS / RAISED BUNGALOWS



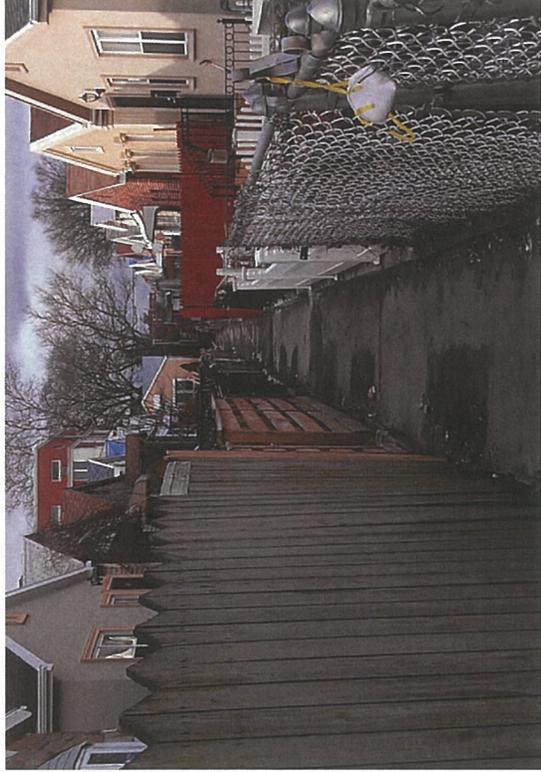
PROPOSAL 1

● THE HOUSES ARE ALL RAISED TO THE SAME HEIGHT AT the controlling Design Flood Elevation for the lowest part of the site.

- a. Raising all the houses at the same time will protect them from storm surge. Note that if some houses remain low, they will become more vulnerable to surge when their neighbors are raised because they will be more exposed to wave action.
- b. The aesthetic and social cohesion of the block both will be compromised if the houses have extremely different relations to the shared lanes given the intimate spatial structure of the court.
- c. Lifting all of the homes at once is more cost effective and easier than lifting them separately. Because the court is so narrow and some houses are semi-attached, hydraulic jacks will be difficult to maneuver if the effort is not coordinated. It should be possible to lift several houses at a time.
- d. A comprehensive approach to reconstruction and repair should be cost effective by providing an economy of scale.

● THE HOUSES WILL BE ENTERED VIA A RAISED BOARDWALK

- a. A collective boardwalk will eliminate the need for individual stairs and maximize the square footage and number of rooms in each home. Individual stairs will compromise the house plans, which are already very small at approximately 600 feet/home.
- b. Individual stairs will not be ADA accessible. The boardwalk will provide ADA access for both the disabled and the aging court population.
- c. The boardwalk will restore the scale of the mews that might be compromised by raising the houses. Residents will have a shared walkway just outside their doors and other porch-like spaces. The scale of each house will appear bungalow-like from the vantage of the board walk.
- d. The cost of the boardwalk will be less than or equal to the cost of individual stairs, while satisfying issues of safety and amenity.



Existing Stanton Court

PROPOSAL 1

● AT GROUND LEVEL, PLANTING AND GRADING WILL REPLACE THE CONCRETE PAVING

- a. The paving creates runoff that exacerbates flooding during normal snow and rainstorms.
- b. If planted extensively and correctly, the gardens and soft paving will be capable of managing water from adjoining properties as well as from the court and mitigate flooding on the scale of the block. If expanded to other courts, they could mitigate daily flooding at the scale of the neighborhood.
- c. It is a cost effective water management strategy that also provides a community amenity.

● NEW SEWER AND SUMP PUMP WILL REPLACE THE CURRENT INFRASTRUCTURE BENEATH THE PEDESTRIAN LANES

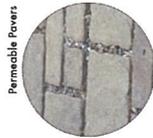
- a. Superstorm Sandy compromised the existing system filling it with sand so that it regularly backs up. The remediation paid for by the courts has not corrected this new and recurring back up, which requires a more comprehensive solution.
- b. The sub-grade system is old and most likely undersized given it was designed for a smaller, summer population over fifty years ago. If it is replaced with new and adequate pipes and correctly sized pumps it will perform under normal conditions.



Iva frutescens



Panicum virgatum



Permeable Pavers



Hibiscus moscheutos



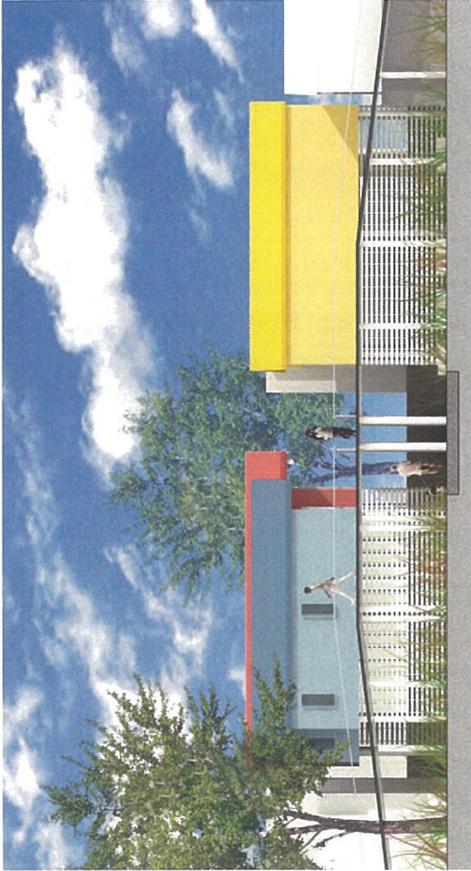
Bio Swale

VARIATIONS 1A + 1B

PROPOSAL 1A: REPAIR and REPLACE

REPAIR DAMAGED HOMES AND REPLACE DESTROYED HOUSES: Houses that are damaged at greater than 80 percent of their original value will be replaced with new raised homes of the same footprint and square footage. Houses damaged by less than 80 percent will be repaired and raised.

- This rate of replacement and repair meets current program standards, with the exception of raising all of the homes.
- Some of the cost of raising and repairing a house could be born by the homeowner.
- Homeowners who are attached to their current houses because they have just invested as much as \$30,000 in rebuilding or because of personal preference will be able to keep them.



Center boardwalk at DFE with existing raised houses



Central boardwalk at street level with perimeter ramp

PROPOSAL 1B: REPLACE

ALL NEW HOUSES: All of the houses will be new and raised. The new houses will be prefabricated.

- Most of the existing houses do not meet current standards of sustainable construction in terms of thermal resistance and insulation, weather tightness, system (HVAC) performance.
- Many are structurally inadequate and have foundations that were compromised by the storm.
- They are not built of fireproof materials.
- When the fragile houses are raised they may develop further problems that will cost either the homeowner or the city additional money. Rebuild could well be more cost effective than repair.
- Demolition of the houses will make the installation of the piles, the elevation of the homes, and the infrastructural improvement easier and cost effective.
- Prefabrication will speed up the replacement process so homeowners are displaced for less time. The quantity of units allows for cost savings through factory production.

CODE REVIEW + ANALYSIS 1

PRELIMINARY CODE REVIEWS for PROPOSAL 1A + 1B:

● Department of Buildings: R-4

- 27-290 Article 2: 1 and 2 family homes need not meet accessibility requirements
- 27-291 Frontage: 8% of the perimeter must be on street or Frontage space but frontage need not be a street as per 27-292
- 27-292 Access: 1 and 2 family dwellings need not provide direct access
- 27-297 Construction Class Exemptions: 1 or 2 family dwelling or two stories or less in height and 2500 sf or less in area in R4 may be constructed or reconstructed of combustible materials
- 27-298 Maximum bulk: No building in a Fire district of combustible construction may be increased in area or height to exceed table 4.1 and 4.2 (2100 sf max and 40' high)
- 27-308 Ramps are an allowable projection beyond the street line

● Zoning Resolution: District: R4-1

- 23-12 Permitted Obstructions in open space: Fire escapes of 6' in projection, Balconies per 23-131
- 23-131 Balconies Front yard: Balconies above 7' high above grade are allowed. If the front yard is greater than 12' deep, they can project 6' but cannot exceed 67% of the aggregate width of the surface from which they project.
- 23-131 Balconies in Rear Yard: In the rear yard, if the balconies are at the second story their width is not limited and their depth may be 8'.
- 23-44 Permitted Obstructions in Yards: In any yard, Balconies as per 23-131 and Ramps except that no part of a rear yard equivalent which is also a required front or side yard can have obstructions not permitted in a front or side yard.
- 23-86 Lot line windows: The minimum distances between legally required shall not apply to buildings 35' high or less or 3 units or less.
Allowable FAR: .75 and may be increased under a sloping roof by as much as 20%
- 23-22 Dwelling Factor Unit: 870 (Max allowable FAR/870 = units)

PRELIMINARY CODE ANALYSIS for PROPOSAL 1A + 1B:

● Building Code:

The raised reconstruction of the court is Building Code compliant with new houses built of wood.

● Zoning Resolution:

Houses: Because the houses may be rebuilt as of right on their pre-existing property, and even their lot line windows are allowed as per 23-86, there is no review required for the houses. The houses may be able to be increased in square footage with attic lofts under the building code and this would allow them to meet the current Zoning dwelling factor of 870.

Boardwalk: The boardwalk may be constructed as of right in the front yards of the houses if it is considered in its entirety to be a ramp for persons with physical disabilities. We believe the boardwalk to function in the capacity of such a ramp and that it should be allowed. However, if it is not allowed, then the boardwalk may be built in the front yard according to the allowance for fire escapes as permitted obstruction. Also, it could be allowed at the rear of the house as of right as either a ramp or as a series of continuous balconies that extend property line to property line. In this case, the rear of some of the houses, if they remained, would need to be reconfigured because there is little depth between them and their rear property line. This reconfiguration is allowed by the Department of Buildings within the reconstruction of 1 and 2 family houses.

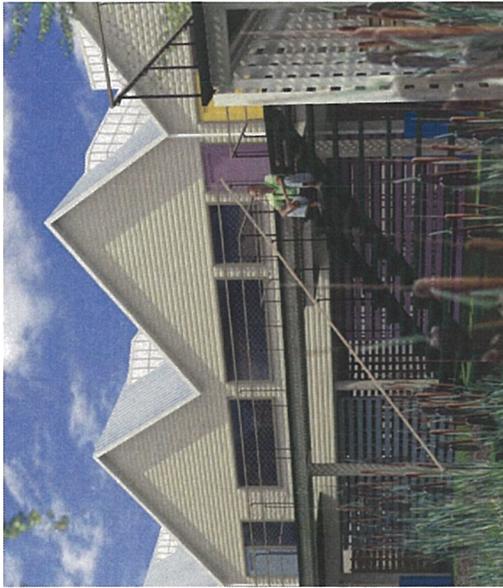
PROPOSAL 2

semi-attached raised on boardwalk



RAISED BOARD WALK with NEW PREFABRICATED BUNGALOWS (SECTION EAST-WEST)

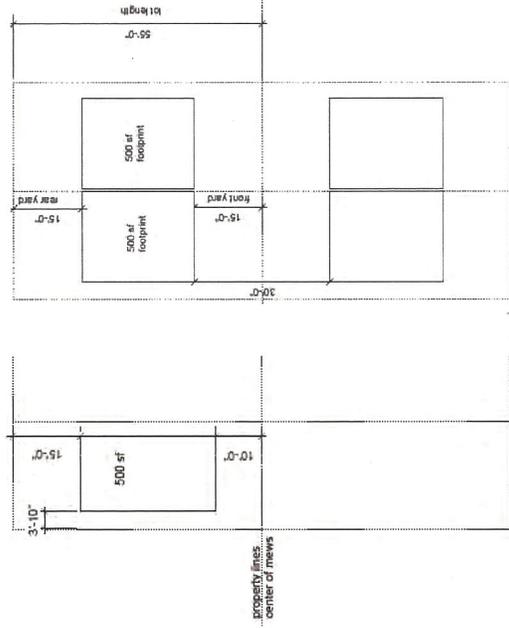
PROPOSAL 2



Attached houses on the boardwalk overlooking a water garden

- ALL THE HOUSES ARE REPLACED WITH NEW SEMI-DETACHED HOUSES.
 - a. This allows the houses to be brought into compliance with zoning rear and side yard requirements without disrupting the property structure of the courts.
 - b. It allows the front yards to conform to requirements for an outer court.
 - c. The attached houses could share certain services and infrastructures including perhaps a second mean of egress.
 - d. Each house will have a square footage of about 500 sf per floor, assuming the reduction in yard requirements for small lots.

- ALL HOUSES ARE ACCESSED VIA A BOARDWALK: As per PROPOSAL 1
- NEW SEWER INFRASTRUCTURE AT THE PEDESTRIAN LANE: As per PROPOSAL 1
- NEW GROUND PLANTING AND SOFT INFRASTRUCTURE: As per PROPOSAL 1



Zoning Diagrams: Single House Small Lot

Semi-Attached House with a Front Court

PRELIMINARY CODE REVIEW for PROPOSAL 2

● Department of Buildings: R-4

- 27-290 Article 2: 1 and 2 family homes need not meet accessibility requirements
- 27-291 Frontage: 8% of the perimeter must be on street or Frontage space but frontage need not be a street as per 27-292
- 27-292 Access: 1 and 2 family dwellings need not provide direct access
- 27-297 Construction Class Exemptions: 1 or 2 family dwelling or two stories or less in height and 2500 sf or less in area in R4 may be constructed or reconstructed of combustible materials
- 27-298 Maximum bulk: No building in a Fire district of combustible construction may be increased in area or height to exceed table 4.1 and 4.2 (2100 sf max and 40' high)
- 27-308 Ramps are an allowable projection beyond the street line

● Zoning Resolution:

- 23-23 In lieu of the dwelling unit factor a two family may be a minimum of 925 sf
- 23-25 Special Provision for Existing Small zoning lot: Notwithstanding the lot requirements of 23-22 a single family residence may be built upon a lot that was owned separately and individually from all other zoning tracts on December 15, 1961 and is so currently held.
- 23-45 Front Yard Set back: ten feet or if more then it should match its neighbor
- 23-46 Side yard requirements for semi-detached houses: 4' with a total of 8' between properties
- 23-32 Required lot area and width: single or two family detached or 0 lot line: 25 foot width, 2375 sf. For 2 family semi-detached the min lot is 3135 and width is 33 feet if it is a single lot.
- 23-45 Front yard: 10 feet or as deep as adjacent front yard
- 23-48 For Existing Narrow Lots: owned separately and individually prior to December 15, 1961 and on the date of the building permit still held by the same owner, the side yard requirement is reduced 4" per foot that the lot is narrower than required with a minimum total side yard of 5' minimum.
- 23-52 Existing Shallow Lots: For lots less than 70' in depth owned separately and individually from all adjoining lots prior to December 15, 1961 and on date of application for the building permit, the required rear yard can be reduced by 1' for every foot its depth is less than 70'. planes control the space to the maximum height of 35'.
- 23-841 Outer Courts: Outer courts for single or two family residences must have a width of 30' or a width that is at least equal to its depth.
- 23-87 Obstructions Allowed in Courts: fire escapes, porches and steps, arbors and trellises

PRELIMINARY CODE ANALYSIS for PROPOSAL 2

● Department of Buildings

Construction Class: If rebuilt on their existing property as semi-detached houses, the homes will need to be non-combustible construction because their position on the lot would be altered to align with the lot line in some cases. The existing semi-attached houses could remain wood if they are reconstructed on the same footprint.

● Zoning Resolution:

- Square Footage: The impact of transforming all the houses into semi-detached homes would result in a net square footage loss for many homeowners of between 25-100 sf unless a second story mezzanine is provided, in which case they could perhaps meet the 925 sf minimum dwelling requirement.
- Yard Requirements: The new semi-detached houses of smaller footprint could potentially meet the rear, side and front yard setback requirements for pre-existing narrow lots in continuous ownership from 1961. However, the bank held property and the house that recently changed hands might require a variance.

Boardwalk: The boardwalk could possibly be built as of right in the rear yard as a series of continuous balconies or a ramp. Because the front yard would be a bona fide court, arbors and porches as well as fire escapes are all allowed and could be designed in the form of a boardwalk.

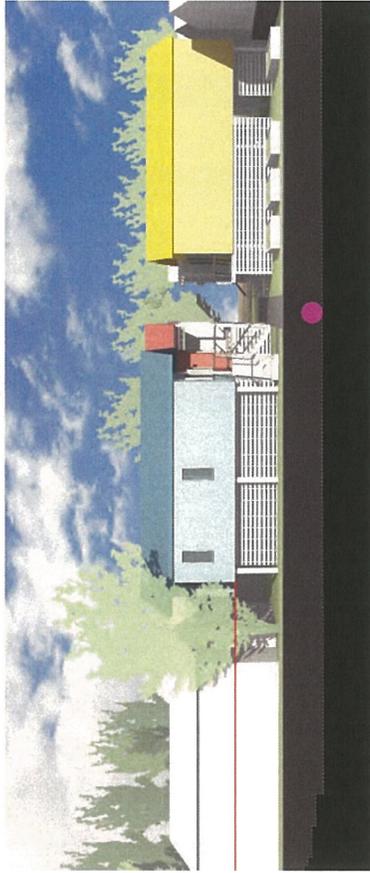
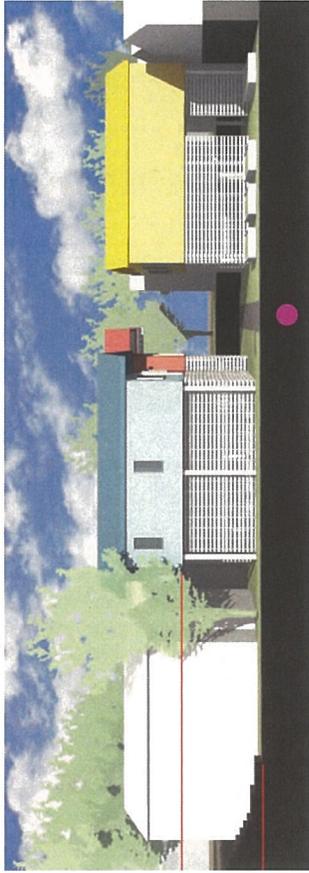
PROPOSAL 3

raised lane and houses



INDIVIDUAL BUNGALOWS on a RAISED LANE

PROPOSAL 3



Top section: existing bungalows raised to DFE on existing lane
Bottom section: yards and lane raised to street level

● **RAISED LANE:** Rather than building a boardwalk, the lane of the court is raised on fill to street level at approximately 4-5' above court level.

- This potentially allows for the lane to be mapped as a pedestrian street.
- If mapped, the city could take responsibility for the combined sewer services located in the fill beneath it, which residents want.
- The fill could also be used for passive water storage and water management.
- Emergency Access is potentially easier.
- The raised ground allows the houses to be elevated to 7' rather than 11-12' to meet the design flood elevation, easing access issues and maintaining the current neighborhood fabric.

● **RAISED YARDS: FRONT YARDS ARE RAISED AS AN EXTENSION OF THE FILL FOR THE LANE**

- The gardens are water management devices for the court.
- Residents can maintain their customary yards and relation to the pedestrian street.

● **RAISED HOUSES:** The existing homes are replaced with new raised houses that meet the zoning requirements for pre-existing small lots. They are accessed via stairs that rise from beneath the house or from the front yard rather than from a boardwalk.

- Because the ground has been raised, the stairs are shorter and can be accommodated within the individual property without the need for a boardwalk.
- The stairs and yards maintain a more traditional relationship to the property.

PRELIMINARY CODE REVIEW for PROPOSAL 3

- **Property Law:**
Unlike Scheme 1 and 2, which would be executed within the existing property structure as a project of single-family homes on non-conforming lots, this proposal could require that the current easement become city property and the property lines change.
- **Department of Environmental Protection:**
The raising of the lane and its designation as a pedestrian street would require DEP approval and, if accepted, would be executed as a capital project whose funding stream is on a ten-year cycle.
- **Department of Transportation:**
The designation of the lane as a pedestrian street makes it subject to DOT regulations.
- **Fire Department:**
The designation of the street makes it subject to Department regulations.
- **Building Department:**
As per Proposal 1 if the houses are simply raised in place or replaced on the same footprint.
As per Proposal 2 if they are replaced with semi-attached or alternate configurations.
- **Zoning:**
25-243 Waiver of requirements for narrow zoning lots in certain districts: Parking shall be waived for single family residences on an interior zoning lot that has a width along a street less than 25'.
25-21 Accessory off-street parking: It is required 1 per unit for all dwelling units created after December 15, 1961.
25-211 Additional units: If units are added, they need to be provided with parking -- but only the additional units -- assuming they are not narrow lots.
25-23 Group parking facility: It is allowed, if reserved for the residences.
- **Uniform Land Use Review Procedure:**
The mapping of the pedestrian street would require this approval.
- **Department of Environmental Conservation:**
The mapping of an existing street as a type 2 action (#17) does not appear to require a SEQR process.

PRELIMINARY CODE ANALYSIS for PROPOSAL 3

- **Raised Lane:** The current property structure can remain and the lane can be raised to street level, but the governmental funding for the work and its maintenance will be jeopardized. It is unknown at this point if there is some other legal form of easement that can create a public pedestrian street.
- **Raised Pedestrian Street:** Most likely, the current easement would need to be replaced by public land, so that the lots would need to be reduced in length, exacerbating their setback issues to the degree that the houses are only 15' deep if current front and back yard setback requirements are fully met. The houses would therefore have to be allowed to occupy their current footprints. Parking is not required in any case because they would remain narrow.
- **Both scenarios of lane or street require special review by entities listed: DEP, DOT, DOB, DCP.** Additionally, the raised street scenario would require a ULURP approval and an Environmental Impact Statement.

REVIEW + RECOMMENDATION



SEMI-ATTACHED HOUSES ON BOARDWALK (SECTION EAST-WEST)



REVIEW + RECOMMENDATION

● REVIEW of ALL PROPOSALS

Proposal 1 meets the needs and desire of the residents at the lowest cost and in the shortest time frame. It can be built as-of-right, according to our preliminary reading of the codes. The houses can be replaced on their current footprints or, if allowed, moved forward several feet to create a back yard. An upstairs room could be added within the envelope that is allowed by code.

While the homes could be built of combustible construction as-of-right without additional fire department review, we recommend that the existing bungalows all be replaced with non-combustible pre fabricated homes, that the boardwalk similarly be fireproof construction and that each home have two means of egress even though only one is required by code.

Nothing in the zoning resolution specifically addresses a private boardwalk in a court. However, this structure fits well with the regulations in place for accessible ramps and fire escapes, both of which are allowed as-of-right. We recommend the boardwalk be deemed an accessible ramp and means of fire escape.

Proposal 2 does not change the boardwalk addition or the lot size, but it will raise more zoning issues if the new semi-detached houses will be required to meet current yard and square footage requirements. In that case, the homes will need to be two full stories with interior stairs to meet the 925 sf minimums for semi-detached houses. This shift in building typology will be an issue with residents unless its advantages are demonstrated. One advantage that has been suggested is the potential to make the houses even larger and add a third apartment within each semi-detached pairing. These could be a source of rental income the homeowners might appreciate if they could afford the upfront investment.

Proposal 3 is the most costly in time and money. It requires multiple agency reviews and its feasibility is unclear. As long as the houses in scheme 1 or 2 are raised on concrete piers or foundations in ways that anticipate the possibility of raising the street, then Scheme 3 will not be precluded in the future.

● RECOMMENDATION

We recommend Proposal 1B — to replace the Court's houses with prefabricated, raised units — as it is the most code compliant, cost effective and acceptable to the neighborhood. The new homes in Variation B will eliminate many of the serious problems that could be encountered in trying to raise the fragile houses on small lots without direct street frontage. It also replaces this fragile construction with dwellings that meet current standards of building and sustainability. The pre-fabrication process will help address the concern of homeowner displacement for an extended period of time during construction.

The financial gain to either the City or the residents from the small increase in density achieved through the restructuring of the courts with semi-attached houses in Proposal 2 seems of limited value. Proposal 3 is cost prohibitive in the present and yet does not assure better water management than the landscape and sewer infrastructure scenarios of Proposal 1. In sum, Proposal 1B is a true pilot project in that it offers an integrated approach to infrastructure, landscape and housing at the scale of the block that is sustainable and replicable.



*BUNGALOW COURT by GAMSstudio with SHERWOOD DESIGN ENGINEERS and PRATT CENTER
Sheepshead Bay Brooklyn, NY 2014
Client: Sheepshead Community*



 The LiRo Group



LiRo Recovery Manager

**DATA MANAGEMENT SOLUTION
FOR DISASTER RESPONSE & RECOVERY**

LIRO RECOVERY MANAGER (LRM)

LRM can be customized and scaled to the specific needs and goals of each recovery program. Its proven functionalities include:

- Data management and problem-solving tool
- Dashboard and reporting tool for macro view of program
- Access to granular view of each project/applicant status
- Automation of queries, tickler files, and other action items and reminders
- Ability to interface with existing data systems for efficient data transfers and updates

FILE

- Location
- Appointments
- Assessments
- Environmental
- Fast Track
- Clarifications
- Call
- Time
- Log

Navigation

- New
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- Refresh
- Spelling
- Delete
- New
- Delete
- Save

Operations

- Close Form
- Update Lifo Recovery Mgr
- Reports
- Close Report
- Administration

LiRo Recovery Manager

059-HA-44099-2013 - LiRo/Worley

48 Vinton Street, Long Beach

Michael Kuehn

Location ID: 1047

Inspection Date: 9/17/2013

Inspector: MUNSON, SCOTT - WORLEY

Inspection Status: Successful

Sent to OA Date: 9/25/2013 4:45:00 AM

QC Manager: [Dropdown]

QA Manager: Thees, Mathew

Report Status: Accepted Rejected

Finalized Filed Date: [Dropdown]

Finished OA Date: 10/3/2013

Calculate

Elevation Removed

Has Bulkhead - Length: 78 ft

Amounts

	AA	ECR
Original	\$156,941.05	\$0.00
AE Fee	\$15,694.11	\$0.00
Final	\$172,635.16	\$0.00
Elevation	\$124,798.93	
Bulkhead		\$63,291.54

FINALIZE

Cyber QC

Directory

- Vault
- Award Letter
- GRANT
- PLOT
- ST PHOTO
- FORM1
- AA
- ECR
- ELEV
- ESX
- ENV
- ROE
- SCOPE

Xactimate Narrative

PRIORITY OF REPAIRS

When insufficient funds are available to complete the entire scope of work described in this Estimated Costs of Repair (ECR), the generalized prioritization of storm related repairs for this property is first the restoration of the weatherproof integrity of the

Have Photos Right Of Entry Signed Sketch Matches Tax Block Follow-up Call Required Total Loss Recommendation

Tier 2 Demo Status Elevation Status

Notes

Estimate notes 3 feet of flood water in house. Estimate included for elevating house to 7ft originally and this is now listed as elevating house to 5ft since flood level in house was at 3 ft.

Rejection / Ineligible Details

Report Rejected Date

Reason Report Was Rejected

Reason AA was changed

Reason ECR was changed

Building Determined Ineligible Date

Reason Building Ineligible

Form View

NUM LOCK FILTERED

The damage assessment module.

LiRo Recovery Manager

Michael Kuehn

FILE Location Environmental Fast Track Appointments Assessments Clarifications Log Track Call Time TAIM Log Track

Navigation: New Previous Next Last New Delete Save Refresh Spelling Print Undo Redo Operations: Close Update LiRo Form Recovery Mgr Reports Close Administration Report

Main: Find Location Maintain Location Environmental Inspection Maintain Award Clarification Requests

The LiRo Group 059-HA-42997-2013 - Mckissack

Location ID: 1003 Status: Submitted for Approval Logged By: binkiewicz At: 1/30/2014 4:26 PM Clarifications: binkiewicz 1/30/2014 4:26:00 PM

Source of Request: ProSource Request Type: Scope Second Request Type: [Dropdown]

Tech Reviewer: Anthony LaBarbera High Priority: Policy Decision Needed: Homeowner Notified of Resolution: Old Value: \$42,452.80 New Value: \$43,917.99

Visits: * (New) Visit ID: [Dropdown] Visit Date: [Dropdown] MCM Rep: [Dropdown] ProSource Rep: [Dropdown]

Information Required: [List of buttons: ACR, COR, ELC, SURVEY, TAX, APPRAISAL, SDL, SN, AE, RECEIPT, PERMIT, COO, CES, BULK]

Notes: 3.31.14 LD: called homeowner to tell him hot water heater was approved. DESKTOP REVIEW: 3/25/14 BH - A desktop review has been completed per Applicant request and the water heater has been added to the estimate. The boiler unit was changed from a 130,000 BTU unit to a 120,000 BTU unit, however the price is the same. 3/19/2014; (SMT) Attached is a receipt for a hot water heater that the Homeowner stated he purchased and was not included in his AA for his Proposed Resolution Next Action: Amend Award Amount

3/25/14 BH - QA review complete and revised AA in Report Output folder. Proposed Resolution to provided amended award letter. Contact Applicant and notify him of the change in scope.

Record: 1 of 1 Filtered Search Form View NUM LOCK

Applicant communication and document submission tracking module.

Michael Kuehn
?

LiRo Recovery Manager

FILE

- Location
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- Assessments
- Fast Track
- Clarifications
- Log Track
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- TAM
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- ABC
- Undo Redo
- Close Update LiRo
- Form Recovery Mgr
- Reports
- Close Administration
- Report

Operations

Print

Operations

Navigation

Environmental Inspection

582 Longacre Avenue, Woodmere

059-HA-42997-2013 - McKissack

Maintain Award Clarification Requests

Find Location

Maintain Location

maintainAssessment

Environmental Inspection

Maintain Award Clarification Requests

The LiRo Group

Inspection Type: **Lead - Clearance**

Inspector: **Rahim, Inshan**

Lab: **EMSL - NJ**

Report Writer: **Warfel, William**

Wipe: **13** Soil: **0** Paint: **0**

Samples Collected: **0**

Tested Positive: **0**

QC /Project Manager: **Meagan Bornkamp**

Mark T Need: **19**

Inspection Status: **Successful**

Inspection Date: **12/13/2013**

QC Date: **12/22/2013**

QA Date: **12/23/2013**

Mail Date: **Rpt.**

Finalized Date: **12/23/2013 7:18:03 AM**

Existing Inspections

- Asbestos - Clearance
- Lead - Clearance
- Field Form (COC)
- Lab Report
- Sketches
- Report
- Report Scan
- FINALIZE

Add Photos: **19**



Notes

Form View
NUM LOCK
FILTERED

Integrated environmental assessment and clearance tracking module.

059-HA-44039-2013_AA_v3_140115.pdf - Adobe Reader

File Edit View Window Help

3 / 60 72.4%

Tools Sign Comment

Allowable Activities

Recreate NY Smart Home Program

Window	3' X 4'	Opens into Exterior	
Window	3' X 4'	Opens into Exterior	

DESCRIPTION	QNTY	UNIT COST	TOTAL
Final cleaning - construction - Residential	603.86	SF @	0.27 = 163.04
Seal Exposed Framing & Joists	391.55	SF @	0.75 = 293.66
Apply anti-microbial agent	391.55	SF @	0.25 = 97.89
Remove Batt insulation - 4" - R13 - paper faced	97.89	SF @	0.36 = 35.24
Batt insulation - 4" - R13 - paper faced	97.89	SF @	0.94 = 92.02
Remove 1/2" drywall - hung, taped, ready for texture	391.55	SF @	0.64 = 250.59
1/2" drywall - hung, taped, ready for texture	391.55	SF @	1.91 = 747.86
Seal/prime then paint the walls twice (3 coats)	764.31	SF @	1.35 = 1,031.82
Remove Baseboard - 3 1/4"	97.89	LF @	0.67 = 65.59
Baseboard - 3 1/4"	97.89	LF @	3.70 = 362.19
Seal & paint baseboard - three coats	97.89	LF @	2.48 = 242.77
Remove Base shoe	97.89	LF @	0.24 = 23.49
Base shoe	97.89	LF @	1.65 = 161.52
Seal & paint base shoe or quarter round	97.89	LF @	0.92 = 90.06
Remove Exterior door - metal - insulated - flush or panel style	1.00	EA @	32.05 = 32.05
Exterior door - metal - insulated - flush or panel style	1.00	EA @	330.32 = 330.32
Door lockset & deadbolt - exterior	1.00	EA @	115.92 = 115.92
Remove 5-0 6-8 wood sliding patio door - exterior cladding	1.00	EA @	55.57 = 55.57
5-0 6-8 wood sliding patio door - exterior cladding	1.00	EA @	2,091.88 = 2,091.88
Prime & paint door slab only - exterior (per side)	4.00	EA @	50.68 = 202.72
Remove Casing - 2 1/4"	64.00	LF @	0.75 = 48.00
Casing - 2 1/4"	64.00	LF @	2.53 = 161.92
Seal & paint casing - three coats	64.00	LF @	2.48 = 158.72
Remove Window sill	12.00	LF @	1.03 = 12.36
Seal & paint window sill	12.00	LF @	2.94 = 35.28
Remove Oak flooring - #1 common - no finish	603.86	SF @	3.47 = 2,095.39
Remove Laminate - simulated wood flooring	603.86	SF @	1.76 = 1,062.79
Laminate - simulated wood flooring	603.86	SF @	7.67 = 4,631.61
Underlayment - rubber - 1/8" - Floating	603.86	SF @	1.15 = 694.44
Remove 110 volt copper wiring run, box and switch	6.00	EA @	7.93 = 47.58
110 volt copper wiring run, box and switch	6.00	EA @	80.75 = 484.50
Remove 110 volt copper wiring run, box and outlet	7.00	EA @	7.93 = 55.51
110 volt copper wiring run, box and outlet	7.00	EA @	80.68 = 564.76

Den			Height: 8'
Window	3' X 4'	Opens into Exterior	
Window	3' X 4'	Opens into Exterior	
Missing Wall	8' 11 13/16" X 8'	Opens into KITCHEN_1	

44039 12/26/2013 Page: 3

Fully integrated with Xactimate damage estimates.

New York Recovery - Mozilla Firefox
File Edit View History Bookmarks Tools Help
New York Recovery
www.rebuild-recreate.org/DEV/login/Award2a.aspx



**Repair.
Rebuild.
Reimagine.**

NY Rising: resilience for our future

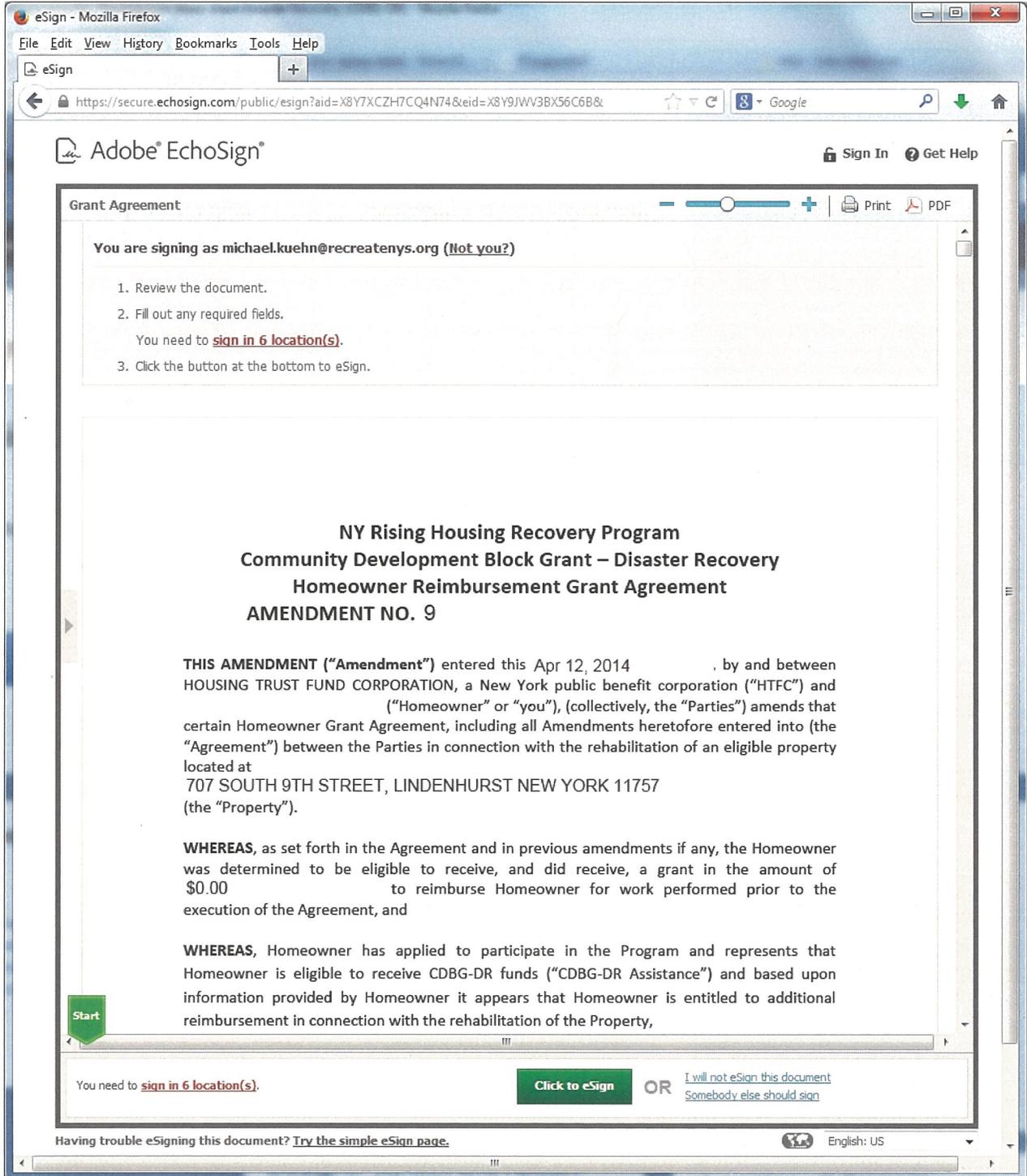
**Welcome to the
NY Rising Housing Recovery Award Verification website.**

In order to electronically sign your grant agreement, please enter the following information

Please enter your Last Name:

Date of Birth (MM/DD/YYYY)
(example 01/01/2013):

If you do not wish to sign this document electronically, you can sign the documents included and call (855) 697-7263 to have them picked up, or deliver the documents to your customer service representative.



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eSign

https://secure.echosign.com/public/esign?aid=X8Y7XCZH7CQ4N74&eid=X8Y9JWV3B56C6B&

Adobe® EchoSign® Sign In Get Help

Grant Agreement

You are signing as michael.kuehn@recreatenys.org (Not you?)

1. Review the document.
2. Fill out any required fields.
You need to **sign in 6 location(s)**.
3. Click the button at the bottom to eSign.

**NY Rising Housing Recovery Program
Community Development Block Grant – Disaster Recovery
Homeowner Reimbursement Grant Agreement
AMENDMENT NO. 9**

THIS AMENDMENT (“Amendment”) entered this Apr 12, 2014, by and between HOUSING TRUST FUND CORPORATION, a New York public benefit corporation (“HTFC”) and (“Homeowner” or “you”), (collectively, the “Parties”) amends that certain Homeowner Grant Agreement, including all Amendments heretofore entered into (the “Agreement”) between the Parties in connection with the rehabilitation of an eligible property located at 707 SOUTH 9TH STREET, LINDENHURST NEW YORK 11757 (the “Property”).

WHEREAS, as set forth in the Agreement and in previous amendments if any, the Homeowner was determined to be eligible to receive, and did receive, a grant in the amount of \$0.00 to reimburse Homeowner for work performed prior to the execution of the Agreement, and

WHEREAS, Homeowner has applied to participate in the Program and represents that Homeowner is eligible to receive CDBG-DR funds (“CDBG-DR Assistance”) and based upon information provided by Homeowner it appears that Homeowner is entitled to additional reimbursement in connection with the rehabilitation of the Property,

Start

You need to **sign in 6 location(s)**.

Click to eSign OR [I will not eSign this document
Somebody else should sign](#)

Having trouble eSigning this document? [Try the simple eSign page.](#) English: US

Comprehensive E-Sign portal to allow grant agreements to be signed and optional work requested by applicants.

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 File Edit View History Bookmarks Tools Help
 budget_dashboard.swf

file:///C:/DEV/budget_dashboard.htm

Housing
IMA
Rental

Elevation Opt-in Rate

 50%

New applicants

 3,500

Bulkhead Opt-in Rate

 90%

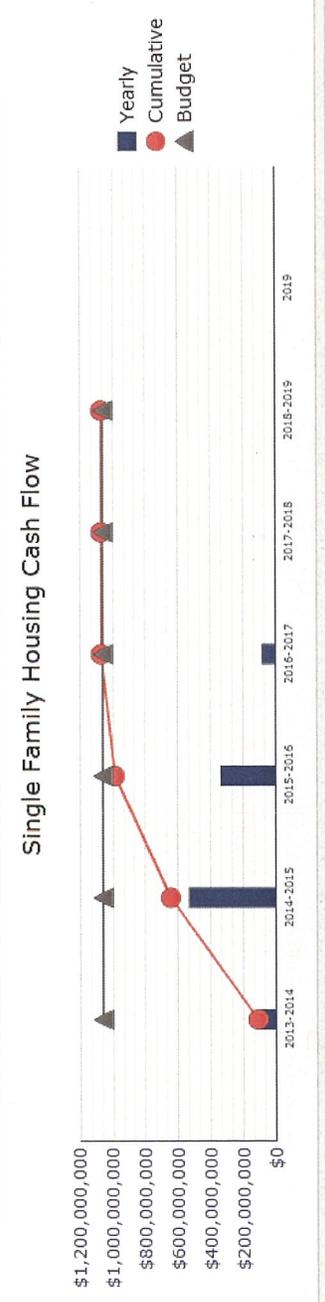
Clarifications

 2,500

Mitigation Opt-in Rate

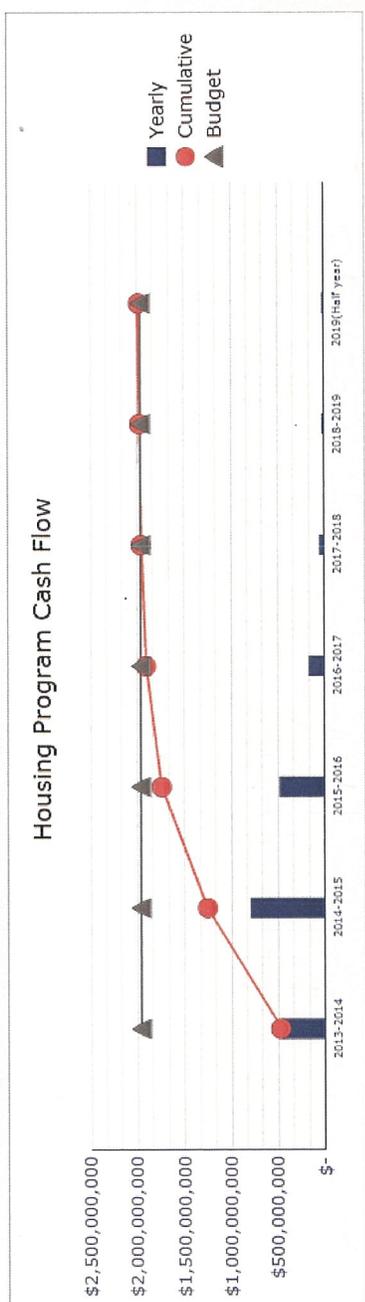
 60%

Single Family Housing Cash Flow



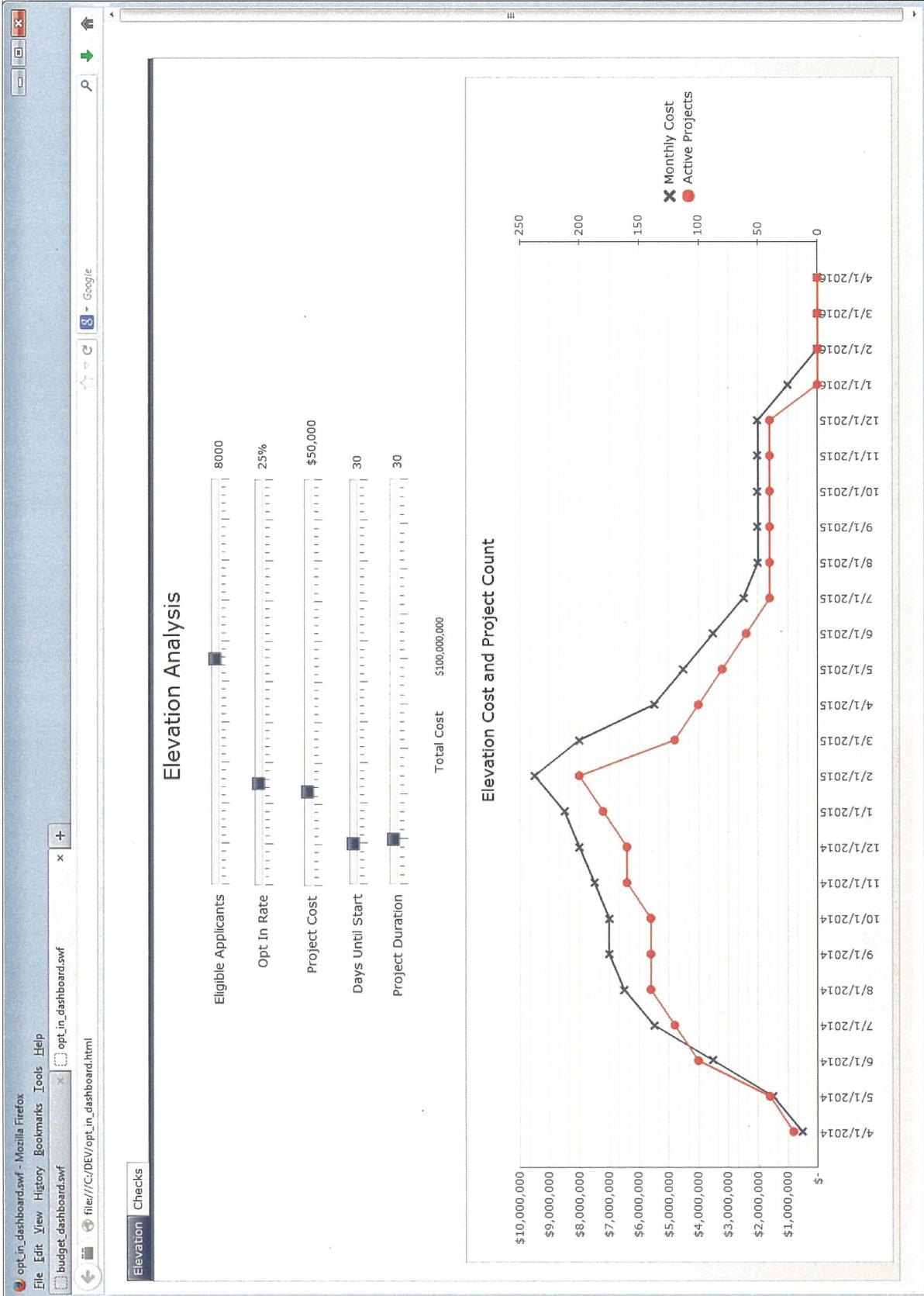
Year	Yearly	Cumulative	Budget
2013-2014	~\$200,000,000	~\$200,000,000	~\$200,000,000
2014-2015	~\$400,000,000	~\$600,000,000	~\$600,000,000
2015-2016	~\$400,000,000	~\$1,000,000,000	~\$1,000,000,000
2016-2017	~\$200,000,000	~\$1,200,000,000	~\$1,200,000,000
2017-2018	~\$200,000,000	~\$1,400,000,000	~\$1,400,000,000
2018-2019	~\$200,000,000	~\$1,600,000,000	~\$1,600,000,000

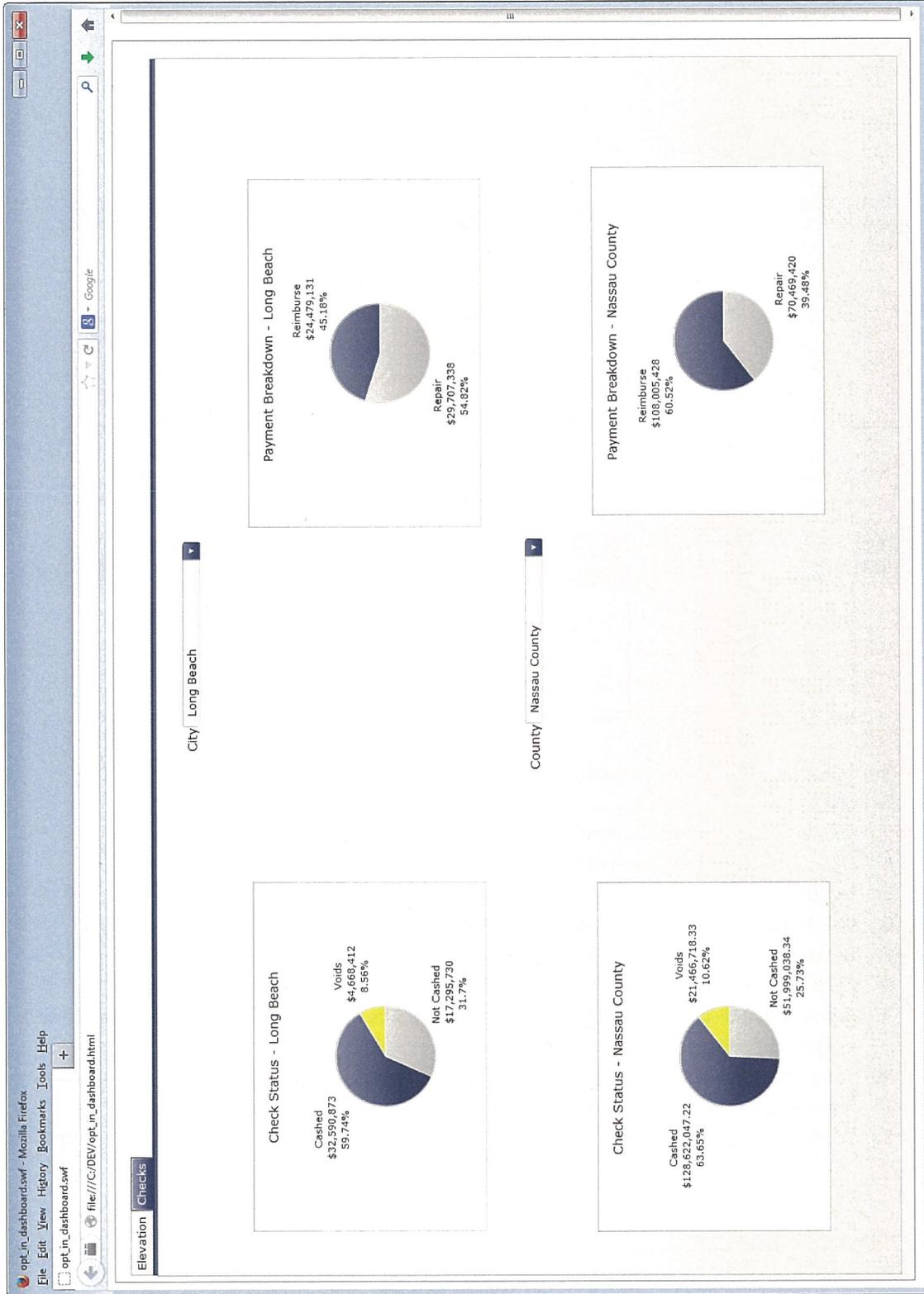
Housing Program Cash Flow



Year	Yearly	Cumulative	Budget
2013-2014	~\$500,000,000	~\$500,000,000	~\$500,000,000
2014-2015	~\$1,000,000,000	~\$1,500,000,000	~\$1,500,000,000
2015-2016	~\$1,000,000,000	~\$2,500,000,000	~\$2,500,000,000
2016-2017	~\$1,000,000,000	~\$3,500,000,000	~\$3,500,000,000
2017-2018	~\$1,000,000,000	~\$4,500,000,000	~\$4,500,000,000
2018-2019	~\$1,000,000,000	~\$5,500,000,000	~\$5,500,000,000

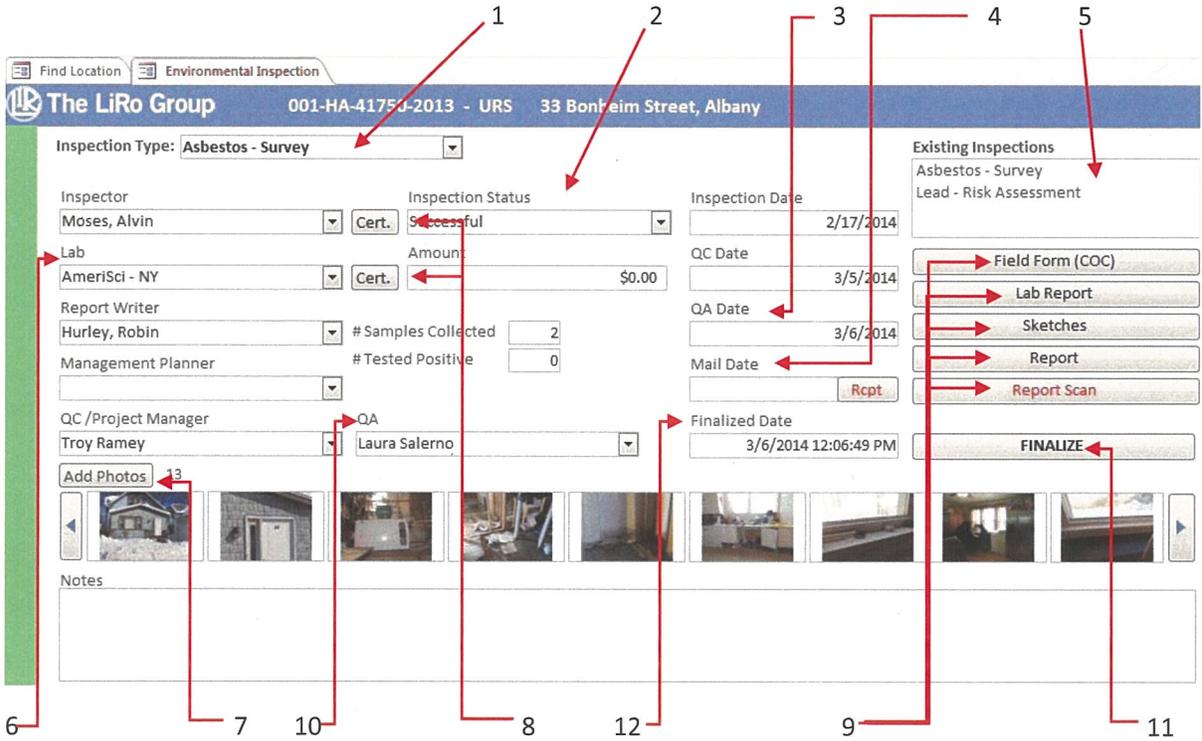
Print





Dynamic dashboards allow forecasting and scenario analysis.

Environmental Screen



The screenshot shows the 'Environmental Inspection' screen for '001-HA-41750-2013 - URS' at '33 Bonheim Street, Albany'. The interface includes a top navigation bar, a main form area with various input fields and dropdown menus, a right-hand sidebar with 'Existing Inspections' and report generation buttons, and a bottom section for photos and notes. Red arrows with numbers 1 through 13 point to specific elements: 1 (Inspection Type dropdown), 2 (Inspection Status dropdown), 3 (QA Date field), 4 (Mail Date field), 5 (Existing Inspections list), 6 (Lab dropdown), 7 (Add Photos button), 8 (Cert. button), 9 (Report Scan button), 10 (QA dropdown), 11 (Finalize button), 12 (Finalized Date field), and 13 (Notes text area).

1. List of inspection types. Based on the type the screen field will change.
2. List of inspection status.
3. QA Date is the date that the QA person review the report.
4. Date the sample has been mailed out.
5. List of inspections types on this location.
6. List of labs to choose from, where the samples have been sent.
7. Button to add photos for this location.
8. Click the Cert. button to display the certifications of the Inspector
9. A dialog will display with a question of Yes or No. Yes will display a list of reports. No will let you import a new report.
10. The person that finalizes the report of the selected existing inspections.
11. Finalize takes the QA Date in the Finalized Date and makes a final PDF report.
12. When the Finalize button is press, the finalized date is entered.

LRM Appointment Screen

Appointments
X

001-HA-41950-2013 - URS 2 Stafford Street, Albany

Appointment Type Sched By

Environmental Inspection - Clearance At

Start Time End Time Status

Notes 2262

Attendees

	GuestType	Name	Response
*	▼		

Record:

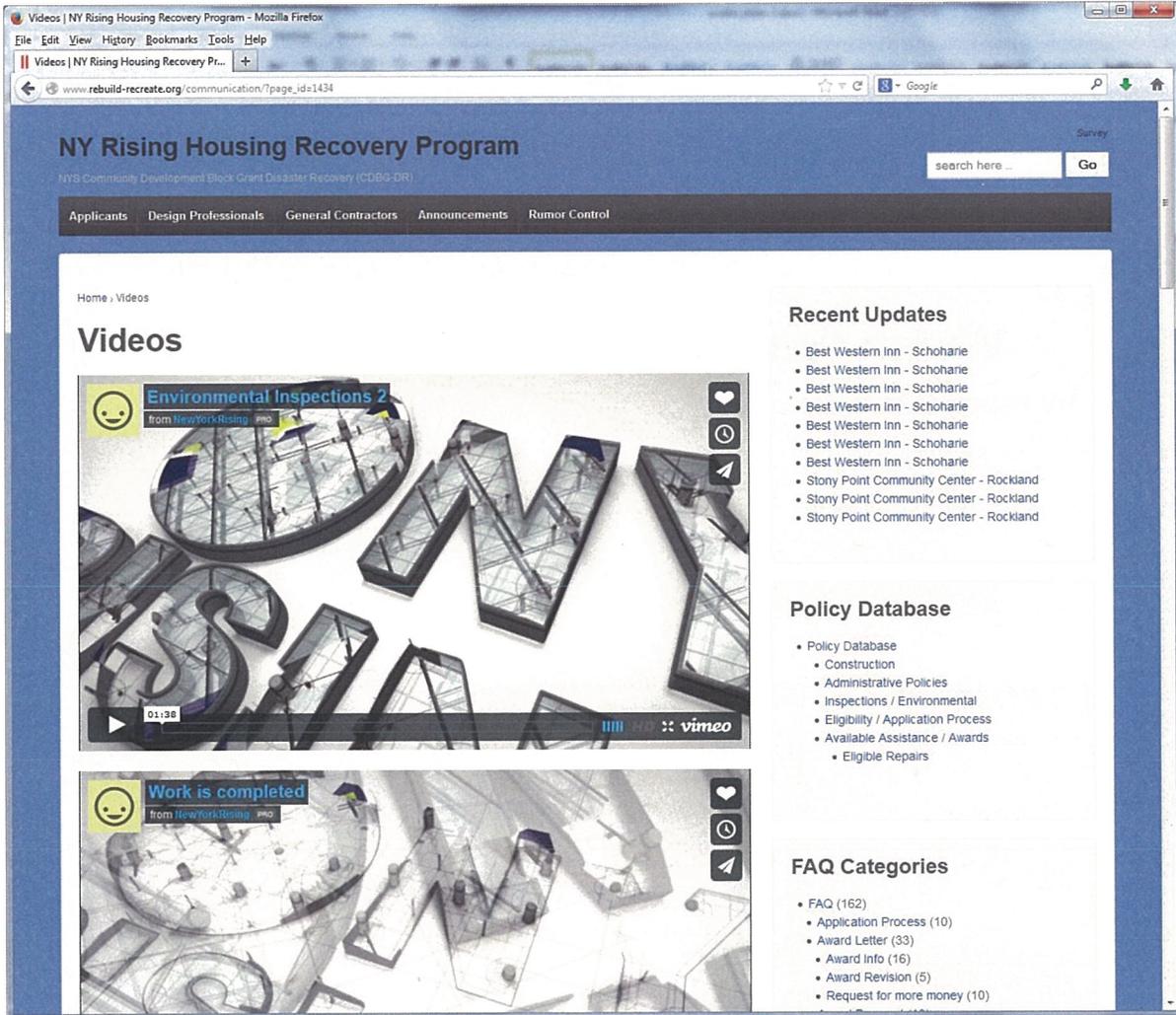
Schedule on Google

Change Log

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LRM Scheduling Tool

Environmental Inspection - Clearance Schedule						
June, 2014						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
						1 07:00 AM X 08:00 AM X 09:00 AM X 10:00 AM X 11:00 AM X 12:00 PM X 01:00 PM X 02:00 PM X 03:00 PM X 04:00 PM X
2 07:00 AM X 08:00 AM 0 09:00 AM 0 10:00 AM X 11:00 AM 1 12:00 PM 0 01:00 PM X 02:00 PM 1 03:00 PM 0 04:00 PM X	3 07:00 AM X 08:00 AM 0 09:00 AM 0 10:00 AM X 11:00 AM 0 12:00 PM 0 01:00 PM X 02:00 PM 0 03:00 PM 0 04:00 PM X	4 07:00 AM 8 08:00 AM 0 09:00 AM 0 10:00 AM X 11:00 AM 0 12:00 PM 0 01:00 PM 10 02:00 PM 0 03:00 PM 0 04:00 PM X	Select Time 07:00 AM Add	6 07:00 AM 2 08:00 AM 0 09:00 AM 0 10:00 AM 7 11:00 AM 0 12:00 PM 0 01:00 PM 4 02:00 PM 0 03:00 PM 0 04:00 PM 8	7 07:00 AM X 08:00 AM X 09:00 AM X 10:00 AM X 11:00 AM X 12:00 PM X 01:00 PM X 02:00 PM X 03:00 PM X 04:00 PM X	8 07:00 AM X 08:00 AM X 09:00 AM X 10:00 AM X 11:00 AM X 12:00 PM X 01:00 PM X 02:00 PM X 03:00 PM X 04:00 PM X
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16 07:00 AM 0 08:00 AM 0 09:00 AM 0 10:00 AM 1 11:00 AM 0 12:00 PM 0 01:00 PM 2 02:00 PM 0 03:00 PM 0 04:00 PM 0	17 07:00 AM 0 08:00 AM 0 09:00 AM 0 10:00 AM 0 11:00 AM 0 12:00 PM 0 01:00 PM 0 02:00 PM 0 03:00 PM 0 04:00 PM 0	18 07:00 AM 0 08:00 AM 0 09:00 AM 0 10:00 AM 0 11:00 AM 0 12:00 PM 0 01:00 PM 0 02:00 PM 0 03:00 PM 0 04:00 PM 0	19 07:00 AM 0 08:00 AM 0 09:00 AM 0 10:00 AM 0 11:00 AM 0 12:00 PM 0 01:00 PM 1 02:00 PM 0 03:00 PM 0 04:00 PM 0	20 07:00 AM 0 08:00 AM 0 09:00 AM 0 10:00 AM 0 11:00 AM 0 12:00 PM 0 01:00 PM 0 02:00 PM 0 03:00 PM 0 04:00 PM 1	21 07:00 AM X 08:00 AM X 09:00 AM X 10:00 AM X 11:00 AM X 12:00 PM X 01:00 PM X 02:00 PM X 03:00 PM X 04:00 PM X	22 07:00 AM X 08:00 AM X 09:00 AM X 10:00 AM X 11:00 AM X 12:00 PM X 01:00 PM X 02:00 PM X 03:00 PM X 04:00 PM X
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30 07:00 AM 2 08:00 AM 0 09:00 AM 0 10:00 AM 0 11:00 AM 0 12:00 PM 0 01:00 PM 0 02:00 PM 0 03:00 PM 0 04:00 PM 1						



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NY Rising Housing Recovery Program

NYS Community Development Block Grant Disaster Recovery (CDBG-DR)

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from NewYorkRising PRO

Work is completed
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 - Inspections / Environmental
 - Eligibility / Application Process
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- Application Process (10)
- Award Letter (33)
- Award Info (16)
- Award Revision (5)
- Request for more money (10)

Web based knowledge base to keep staff up to date with videos, FAQs, and training materials.

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www.rebuild-recreate.org/communication/

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