

**SECTION 02 41 00**  
**DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Building demolition excluding removal of hazardous materials and toxic substances.
- B. Selective demolition of built site elements.
- C. Selective demolition of building elements for alteration purposes.
- D. Abandonment and removal of existing utilities and utility structures.
- E. Prior to start of demolition and removal of any item, Contractor shall first perform asbestos and/or lead abatement of affected items as indicated in other sections of Division 02 (if any).
- F. This section includes demolition and removal of selected portions of a building or structure as shown on the Drawings or required by the Work. Existing items to be removed and disposed of include but not limited to the following:
  - 1. The existing roofing and / or appurtenances on all residential building roofs/balcony roofs and on Community/Senior Center's roof/canopy roofs.
  - 2. Full thickness of parapet wall, including coping stones, flashing, caulking, cant strips, etc. down to roof level.
  - 3. Face bricks from roof to top floor lintel level.
  - 4. Damaged exterior wythe of brickwork at building facades, bulkhead walls, boiler/compactor stack, water tank enclosure or portions thereof, and any other walls above roof level.
  - 5. Deteriorated mortar joints of existing brickwork at scattered locations as shown on the Drawings.
  - 6. Existing window lintels at scattered locations as shown on the Drawings.
  - 7. Existing window sills at scattered locations as shown on the Drawings.
  - 8. Existing caulking around window and door frames at facades and bulkheads at locations as shown on the Drawings.
  - 9. The cracked or spalled concrete at locations as shown on the Contract Documents.
  - 10. The existing roofing and / or appurtenances on all residential building roofs/balcony roofs and on Community/Senior Center's roof/canopy roofs.
  - 11. The existing beams and columns reinforcing rusted / exposed.
  - 12. The existing Mechanical, Electrical, and Plumbing fixtures and appurtances.
- G. Protection of existing structure, windows, fixtures, electrical, mechanical and plumbing items to remain, finishes, conduits, and any other equipment or objects scheduled to remain. Erect proper shoring / bracing when any portion of a load-bearing structure is demolished / removed as necessary and as directed by NYCHA representative.
- H. Remove demolished materials from the site as Works progresses and / or at the end of workday and maintain the site unencumbered of materials and equipment. Provide dumpsters and closed chutes as required to dispose of all debris and demolished materials. Follow HAZMAT protocol when such material is demolished / removed.
- I. All other labor and materials and Work described in the Contract Drawings and / or Specifications herein or required to make the Work complete.
- J. It must be noted that demolition and removal of certain items shall require the abatement of asbestos. Demolition and removal of these materials shall require the use of qualified licensed technicians. All abatement must be as per abatement procedures described in the abatement sections of this Specification, in accordance with the latest rules and regulations of all agencies having jurisdiction.
- K. Erect proper warning signs for all areas of the project affected by demolition operation.

## 1.02 RELATED REQUIREMENTS

- A. Section 00 31 00 - Available Project Information: Existing building survey conducted by Owner; information about known hazardous materials.
- B. Section 01 10 00 - Summary: Limitations on Contractor's use of site and premises.
- C. Section 01 10 00 - Summary: Sequencing and staging requirements.
- D. Section 01 10 00 - Summary: Description of items to be removed by Owner.
- E. Section 01 10 00 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- F. Section 01 50 00 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- G. Section 01 57 13 - Temporary Erosion and Sediment Control.
- H. Section 01 60 00 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- I. Section 01 70 00 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
- J. Section 01 74 19 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
- K. Section 02 65 00 - Underground Storage Tank Removal.
- L. Section 02 84 00 - Polychlorinated Biphenyl (PCB) Remediation: Removal of equipment containing substances regulated under the Federal Toxic Substances Control Act (TSCA), including but not limited to PCB- and mercury-containing equipment.
- M. Section 07 01 50.19 - Preparation for Re-Roofing: Removal of existing roofing, roof insulation, flashing, trim, and accessories.
- N. Section 31 10 00 - Site Clearing: Vegetation and existing debris removal.
- O. Section 31 22 00 - Grading: Topsoil removal.
- P. Section 31 22 00 - Grading: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
- Q. Section 31 23 23 - Fill: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
- R. Section 31 23 23 - Fill: Filling holes, pits, and excavations generated as a result of removal operations.
- S. Section 32 93 00 - Plants: Relocation of existing trees, shrubs, and other plants.
- T. Section 32 93 00 - Plants: Pruning of existing trees to remain.
- U. Section \_\_\_\_\_ - \_\_\_\_\_: Other hazardous material remediation.

## 1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.
- C. All work shall conform to the latest industry practices and standards as applicable.

## 1.04 DEFINITIONS

- A. Remove: Detach / cut items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed.

### **1.05 MATERIAL OWNERSHIP**

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain NYCHA's property, demolished materials shall become Contractor's property and shall be removed from Development site.

### **1.06 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Site Plan: Showing:
  - 1. Vegetation to be protected.
  - 2. Areas for temporary construction and field offices.
  - 3. Areas for temporary and permanent placement of removed materials.
- C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
  - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
  - 2. Identify demolition firm and submit qualifications.
  - 3. Include a summary of safety procedures.
- D. Qualification Data: Required for firms and persons specified in section 1.06 "Quality Assurance" Article to demonstrate their capabilities and experience. Qualification submittals shall include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

### **1.07 QUALITY ASSURANCE**

- A. Demolition Firm Qualifications: Company specializing in the type of work required and similar in scope for this Project.
  - 1. Minimum of \_\_\_ years of documented experience.
- B. All work shall be performed by competent workers trained and experienced in the particular type of work.
- C. Proper Dust control methods should be taken prior to the start of demolition work. Exercise of options such as the "Wet Method" and/or use of saw equipped with a vacuum bag is recommended.
- D. Schedule of Selective Demolition Activities shall make provisions for:
  - 1. Uninterrupted on-site NYCHA operation.
  - 2. Coordination of shutoff, capping, and continuation of utility services.
- E. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- F. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.
- G. Professional Engineer Qualifications: A Professional Engineer who is legally qualified to practice in the State of New York with past work experience on projects of similar scope.
- H. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- I. Standards of compliance: Conform to the requirements of the NYC Building Code, and requirements of governing codes which affect conduct of the Work. Where a stricter requirement is specified herein, that requirement shall apply. Comply with all applicable regulatory and jurisdictional requirements governing the Work, materials, or project, whether or not listed herein.
- J. Pre-demolition Conference: Conduct conference at Project site to comply with requirements of this Contract. Review methods and procedures related to selective demolition including, but not limited to, the following:
  - 1. Inspect and discuss condition of construction to be selectively demolished.

2. Review structural load limitations of existing structure.
  3. Review and finalize selective demolition schedule and verify availability of materials, personnel, equipment, and facilities needed to make progress and avoid delays.
  4. Review requirements of Work performed by other trades that rely on substrates exposed by selective demolition operations.
- K. Preparation: Before cutting and removing any existing Work or cutting any new Work, Contractor shall coordinate with other Work to avoid interference and over cutting.
- L. Obtain necessary permits without additional compensation.
- M. Structural Work: Do not cut structural Work in a manner that would result in a reduction of load-carrying capacity or of load-deflection ratio.
- N. Visual Requirements: Do not cut or remove Work in a manner that would, in the opinion of the Authority, damage the building's aesthetic qualities or be visually unsatisfactory.
- O.

#### **1.08 MAINTENANCE AND PROTECTION**

- A. Maintain and protect, both temporarily and permanently, the structural integrity, continuous operation and use of the existing buildings. Safety and stability shall be maintained at all times. Maintenance and protection operations shall comply with applicable requirements of governing authorities.
- B. Protection: Provide adequate and effective, suitable means of protecting NYCHA employees, residents, or other persons from operations included in this section. Provide adequate and effective temporary supports, and bracing, etc., to prevent movement of Work in place that might be affected by selective demolition.
- C. Maintenance: Assume responsibility for the maintenance of safety and protection of the existing buildings, building appurtenances, equipment including and all persons therein and their property as covered in Division 01 General Requirements.
- D. Lighting and Power: The Contractor or Electrical Sub-Contractor shall maintain existing electrical lighting, power and power facilities where Work is being performed. Provide and maintain suitable temporary electrical power and lighting which shall be equivalent to the existing lighting levels or as directed by NYCHA

#### **1.09 PROJECT CONDITIONS**

- A. Provide not less than 72 hours notice to the Authority of activities that shall affect NYCHA's operations.
- B. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
1. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from authorities having jurisdiction.
- C. Hazardous Materials: Hazardous materials present in building to be demolished and legally disposed of as indicated in the related sections elsewhere in the Contract Documents. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
- D. Storage or sale of removed items or materials on-site shall not be permitted.
- E. The Contractor shall be responsible for protection of the building, existing roof accessories and equipment, which are to remain or be reinstalled in complete accordance with Contract requirements.
- F. If the Contractor damages or fails to protect or salvage any items noted to be repaired or replaced under this Contract, then such damaged items shall be repaired or replaced by the Contractor to the complete satisfaction of the Authority at no additional cost to the Authority.

- G. Contractor shall coordinate and schedule the removal of the existing roofing with the installation of the new roofing and structural repairs to concrete, and provide temporary trash chute and roof protection as necessary to afford protection to the building and its contents from the elements at all times.
- H. Contractor shall conduct Work in such manner and at such times and with such precautions and safeguards as may be required for the purpose of avoiding interference with the safe and continuous operations at each of the buildings and of avoiding interference with or injury to NYCHA personnel, residents, Contractor's personnel and other persons.
- I.
- J. Contractor shall comply with the requirements of the Authority, as to the use of the building with regard to the use of construction equipment, storing of materials, etc., to the end that interference with the safe and continuous operation of existing facilities and interference with or injury to NYCHA personnel, residents, Contractor's personnel, and other persons, and damage to their property or that of NYCHA may be avoided.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Fill Material: As specified in Section 31 23 23 - Fill.

**2.02 REPAIR MATERIALS**

- A. Use repair materials identical to existing materials.
  - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  - 2. Use materials whose installed performance equal or surpass that of existing materials.
- B. Comply with material and installation requirements specified in individual Specification Sections.

**PART 3 EXECUTION**

**3.01**

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to the Authority.
- D. Safety Engineer shall supervise selective demolition of structural items in order to avoid structural deficiency or unplanned collapse of any portion of structure or adjacent structures during demolition operations.

**3.02 SCOPE**

- A. Remove the entire building designated \_\_\_\_\_.
- B. Remove portions of existing buildings in the following sequence:
  - 1. \_\_\_\_\_.
  - 2. \_\_\_\_\_.
  - 3. \_\_\_\_\_.
- C. Remove paving and curbs as required to accomplish new work.
- D. Remove all other paving and curbs within site boundaries.
- E. Break up paving within site boundaries to permit natural moisture drainage; leave pieces not larger than 1 square yard.

- F. Within area of new construction, remove foundation walls and footings to a minimum of 2 feet below finished grade.
- G. Outside area of new construction, remove foundation walls and footings to a minimum of 2 feet below finished grade.
- H. Remove concrete slabs on grade within site boundaries.
- I. Break up concrete slabs on grade within site boundaries to permit natural moisture drainage; leave pieces not larger than 1 square yard.
- J. Remove underground tanks.
- K. Remove underground tanks that contain or once contained petroleum products; fill and bury other types of tanks.
- L. Remove manholes and manhole covers, curb inlets and catch basins.
- M. Remove fences and gates.
- N. Remove creosote-treated wood utility poles.
- O. \_\_\_\_\_.
- P. Remove other items indicated, for salvage, relocation, recycling, and \_\_\_\_\_.
- Q. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as specified in Section 31 22 00.
- R. Full thickness of parapet wall, including coping stones, flashing, caulking, cant strips, etc. down to roof level.
- S. Face bricks from roof to top floor lintel level.
- T. Damaged exterior wythe of brickwork at building facades, bulkhead walls, boiler/compactor stack, water tank enclosure or portions thereof, and any other walls above roof level.
- U. Deteriorated mortar joints of existing brickwork at scattered locations as shown on the Drawings.
- V. Existing window lintels at scattered locations as shown on the Drawings.
- W. Existing window sills at scattered locations as shown on the Drawings.
- X. Existing caulking around window and door frames at facades and bulkheads at locations as shown on the Drawings.
- Y. The cracked or spalled concrete at locations as shown on the Contract Documents.
- Z. The existing roofing and / or appurtenances on all residential building roofs/balcony roofs and on Community/Senior Center's roof/canopy roofs.
- AA. The existing beams and columns reinforcing rusted / exposed.
- AB. The existing Mechanical, Electrical, and Plumbing fixtures & appurtenances.
- AC. Protection of existing structure, windows, fixtures, electrical, mechanical and plumbing items to remain, finishes, conduits, and any other equipment or objects scheduled to remain. Erect proper shoring / bracing when any portion of a load-bearing structure is demolished / removed as necessary and as directed by NYCHA representative.
- AD. Remove demolished materials from the site as Works progresses and / or at the end of workday and maintain the site unencumbered of materials and equipment. Provide dumpsters and closed chutes as required to dispose of all debris and demolished materials. Follow HAZMAT protocol when such material is demolished / removed.
- AE. All other labor and materials and Work described in the Contract Drawings and / or Specifications herein or required to make the Work complete.
- AF. It must be noted that demolition and removal of certain items shall require the abatement of asbestos. Demolition and removal of these materials shall require the use of qualified licensed technicians. All abatement must be as per abatement procedures described in the abatement

sections of this Specification, in accordance with the latest rules and regulations of all agencies having jurisdiction.

AG. Erect proper warning signs for all areas of the project affected by demolition operation.

### 3.03 PREPARATION

- A. Dangerous Materials: Remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  - 1. Erect temporary protection, such as walks, fences, railings, canopies, and sidewalk sheds, where required by authorities having jurisdiction.
  - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
  - 3. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
- C. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  - 3. Protect walls, ceilings, floors, and other existing finish Work that are to remain or that are exposed during selective demolition operations.
  - 4. Contractor shall protect all windows and window sills during parapet replacement and repairs. All damaged windows and sills shall be replaced by the Contractor to the complete satisfaction of the Authority at no additional cost to the Authority.
  - 5. Contractor shall protect buildings from damage from trash, debris, and trash chutes.
  - 6. Contractor shall install temporary enclosure around section of parapet wall being demolished and temporary railing in section where parapet wall is demolished until new permanent fence installed as directed by the Authority's Representative.
- D. Temporary Enclosures: Provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
  - 1. Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
- E. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
- F. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of construction to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
  - 1. Strengthen or add new supports when required during progress of selective demolition.

### 3.04 PERFORMANCE

- A. Dust Control: Use water mist, temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
  - 1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
  - 2. Wet mop floors to eliminate traceable dirt and wipe down walls and doors of demolition enclosure.

- B. Disposal: Remove and transport debris in a manner that shall prevent spillage on adjacent surfaces and areas.
  - 1. Remove debris from elevated portions of building by chute, hoist, or other device that shall convey debris to grade level in a controlled descent.
- C. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.
- D. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Proceed with selective demolition systematically; from higher to lower level.
  - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
  - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 4. Do not use cutting torches until Work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
  - 5. Maintain adequate ventilation when using cutting torches.
  - 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
  - 7. Remove members / units and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
  - 8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  - 9. Dispose of demolished items and materials promptly.
  - 10. Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.
  - 11. At the end of each Work day exterior openings shall be secured and the building kept weather tight.
  - 12. Licensed electricians shall perform all electrical Work.
  - 13. All Work shall be performed by competent Workers, experienced in this kind of Work and shall be carried through the completion with due regard to the safety and with as little nuisance as possible to residents.
- E. Existing Facilities: Comply with the Authority's requirements for using and protecting stairs, walkways, building entries, and other building facilities during selective demolition operations.
- F. Existing items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Authority, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.
- G. Masonry: Demolish in small sections. Saw cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.
- H. Telecommunication equipment that is in conflict with the intended work shall be documented and reported to the Authority's Representative, Management and the service provider or equipment owner 60 days prior to any required relocation or reinstallation. The contractor shall provide any support, coordination or ancillary services required for the utility or service provider or equipment owner to perform their work.

- I. Closed Circuit Television cameras and security equipment that is in conflict with the intended work shall be documented and reported to the Authority's Representative, Management and the service provider or equipment owner 60 days prior to any required relocation or re-installation. The contractor shall provide any support, coordination or ancillary services required for the utility or service provider to perform their work. All work shall be coordinated with the Management and Technical Services Department and CCTV Operations Unit at Long Island City.
- J. Contractor shall survey the project for any conduits, piping, duct work, electrical fixtures, fans, CHAS (Computerized Heating Automated System) wiring and antennae on the facades, roofs, elevator motor room and elevator shafts, etc., so that care may be taken not to damage them that are in conflict with the intended work, and report findings to the Authority's Representative before proceeding. Any items that are found to be in conflict with the intended work shall be removed, stored as directed by the Authority's Representative, and reinstalled in the existing condition at existing location by the Contractor. No items shall be disposed of without the prior written consent of the Authority's Representative. All costs associated with this item shall be the responsibility of the Contractor.
- K. The Contractor shall be responsible for the removal, salvage, and reinstallation of any structures and/or fixtures located in Work areas including window air conditioning gates/grills. All costs associated with this item shall be the responsibility of the Contractor.
- L. The Contractor to restore all existing lawns, pavements and other installations disturbed or damaged by work under this Contract, to their original conditions, with materials matching and equal to the original installation without extra cost to the Authority, and to the satisfaction of the Authority.
- M. It shall be the responsibility of the Contractor to designate a certified site safety manager or coordinator as per New York City Building Code. The site safety manager or coordinator must be present without exception for all NYCHA construction sites.

### **3.05 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with other requirements specified in Section 01 70 00.
- B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Obtain required permits.
  - 2. Comply with applicable requirements of NFPA 241.
  - 3. Use of explosives is not permitted.
  - 4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
  - 5. Provide, erect, and maintain temporary barriers and security devices.
  - 6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
  - 7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  - 8. Do not close or obstruct roadways or sidewalks without permit.
  - 9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
  - 10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- C. Do not begin removal until receipt of notification to proceed from Owner.
- D. Do not begin removal until built elements to be salvaged or relocated have been removed.
- E. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.

- F. Protect existing structures and other elements that are not to be removed.
  1. Provide bracing and shoring.
  2. Prevent movement or settlement of adjacent structures.
  3. Stop work immediately if adjacent structures appear to be in danger.
- G. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- H. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- I. Hazardous Materials: Comply with 29 CFR 1926 and state and local regulations.
- J. Perform demolition in a manner that maximizes salvage and recycling of materials.
  1. Comply with requirements of Section 01 74 19 - Waste Management.
  2. Dismantle existing construction and separate materials.
  3. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.
- K. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.
- L. Underground Storage Tanks: Remove and dispose of as specified in Section 02 65 00.

### **3.06 EXISTING UTILITIES**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

### **3.07 SELECTIVE DEMOLITION FOR ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  1. Verify that construction and utility arrangements are as shown.
  2. Report discrepancies to Architect before disturbing existing installation.
  3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Separate areas in which demolition is being conducted from other areas that are still occupied.
  1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 50 00 in locations indicated on drawings.
  2. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.

- D. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
  - 2. Remove items indicated on drawings.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications, and \_\_\_\_\_): Remove existing systems and equipment as indicated.
  - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
  - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
  - 3. See Section 01 10 00 for other limitations on outages and required notifications.
  - 4. Verify that abandoned services serve only abandoned facilities before removal.
  - 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- F. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
  - 4. Patch as specified for patching new work.

### **3.08 PATCHING AND REPAIRS**

- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
- B. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
  - 1. Completely fill holes and depressions in existing masonry walls that are to remain with an approved masonry patching material applied according to manufacturer's written recommendations.
  - 2. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

### **3.09 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.
- B. Remove from site all materials not to be reused on site; comply with requirements of Section 01 74 19 - Waste Management.
- C. Leave site in clean condition, ready for subsequent work.
- D. Clean up spillage and wind-blown debris from public and private lands.
- E. Do not burn demolished materials.
- F. Transport demolished materials off Authority's property and legally dispose of them.

**END OF SECTION**