

# East 14<sup>th</sup> Community Street Buffer & Tree Project

26 May 2011 (Revised Proposal)

## Project Overview

This project proposal aims to improve the health, safety and quality of life of community members in nearest proximity to the Consolidated Edison (Con Edison) East River Station by planting trees in partially sunk and raised planting beds along the south side of East 14<sup>th</sup> Street between Avenue B and C.

The proposal details the justification of additional construction required to help:

(1) buffer the noise and fumes from traffic and street repairs the block endures due to proximity to the Con Edison plant; (2) enhance safety of children who utilize the area to play and quality of life of residents; and to (3) ensure tree survival due to Con Edison steam pipes that run the length of this block. (Details in ‘Objectives’ and ‘Background’ section).

The project would be implemented in three phases — (1) Research & Testing; (2) Design & Permitting; (3) Construction & Planting — over a 1 year period, for which we are requesting an allocation of **\$151,515.00** from the Consolidated Edison Settlement Funds.

It will be lead by members of the 14BC Coop on said block, in collaboration with a local urban landscaping company, and in cooperation with all neighbors of the block, including Pedro Albizu Campos Plaza, neighboring businesses, and apartment building owners and managers.

## Target Area

South side of East 14<sup>th</sup> Street between Avenue B & C (the Settlement Zone).

This 706 feet long block, with a sidewalk that ranges from 17-23 feet wide, is the home of three successful ‘street trees’ along the sidewalk edge, in five existing tree pits.

## Objectives

To create and implement plans to plant small and medium size trees and other low-profile perennials in elongated raised planting beds that are both ‘tree pits’ (in-ground) and above ground. This structure is required to help:

- 1) Create a **buffer to the noise and fumes** from traffic the block endures due to proximity to the ConEdison plant;
- 2) Create an **enhanced health and safety barrier** for foot traffic and children who play on the extra-wide (17-23 ft.) sidewalk;
- 3) Enhance **quality of life and a sense of community** in particular along a block consisting of disparate micro-communities;
- 4) **Ensure tree survival** due to Con Edison steam pipes that run the length of this block, after two attempts to plant trees in standard urban tree ‘pits’.

## **Objectives / Benefit to Community**

This block (14<sup>th</sup> Street, between Avenue B & C) is essentially the driveway to the Con Edison East River Station. It is its main entrance and as such endures inordinate traffic related to its operations. The project aims to improve the health, safety and quality of life of community members in nearest proximity to the Con Edison expansion project by helping create the following.

### *Benefits of Structural Design*

**Buffer to excessive noise associated with the ConEdison plant** including:

- (a) Traffic from ConEd service vehicles that line-up along the block awaiting entrance or delivery to the ConEdison plant (often idling in the winter);
- (b) Frequent repairs to the steam pipe underlying this block's street — which often includes jack-hammering and idling vehicles, and
- (c) Intermittent noise from the plant itself, which includes a low-pitch drone as well as loud hissing and bursts due to steam releases.

**Enhanced health & safety barrier**, including:

- (a) Barrier for children and adolescents who frequently play in front of the blocks apartment buildings (Campos Plaza and tenement buildings);
- (b) Slight barrier from wafts of fuel fumes from the loading process at the plant;
- (c) Minimal although valuable air purification, especially with additional bushes, perennials and other biomass

**Quality of life**, including:

- (a) A sense of place and community: The structures — all of a thematic and complementary design — would also create a sense of community to the block, which consists of fairly disparate community 'members' of different cultures and socio-economic status. The structure with trees and plantings would be the only contiguous physical element that is common along the block, aside from the concrete sidewalk. This would contribute to a sense of place and community among the micro-communities along the block (businesses, residents of Campos Plaza under the New York Housing Authority, cooperative residents, etc).
- (b) Other benefits and quality-of-life 'non-measureables' that urban trees contribute to include counteracting the stress of city life, enjoyment of shade in the summer, and — most important on this block — greenery and 'life' in a barren area on a street that straddles the 'industrial' nature of the Consolidated Edison East River Station. The trees and structures could distract from and ease the visual impact of ConEdison plant at end of 14<sup>th</sup> Street.
- (c) Potential to gain experience to successful tree planting and survival, and share this knowledge in any future efforts on adjacent blocks — considering the unique circumstances of such close proximity to the Con Edison plant and their steam pipes.

### **Benefits of Urban Trees**

- (a) Helps diminish NYC heat island effect
- (b) Improves local air quality and rainwater absorption
- (c) Contributes to NYC Million Trees Initiative
- (d) Long-term carbon sequestration (one ton of carbon absorbed over the life of average tree)

## **Background/ Context**

### **Complexities of Project**

Two previous attempts to plant trees on this same section of 14<sup>th</sup> street have failed. In each case — one in the 1970's and one in the 1980's — trees were planted directly in the sidewalk in 'regular' tree pits. However steam from the Con Edison plant pipes increase the underground temperature and resulted in the trees' premature death. This information has been assimilated into our proposal. Temperature constraints due to the steam pipes will be mitigated with the addition of partially raised planting beds which will provide insulating effect of added soil as well as added distance from the pipes, compounded by measures including additional underground insulation. We have learned through research and calls to the Parks and Recreation that it is these very measures, which are necessary although more expensive. They require smart design as well as agile and time-consuming negotiation with the DOT and Parks and Recreation to ensure a feasible project. For this reason, 'experts' are needed.

### **Selected Contractor**

After researching and speaking with several landscape design companies, Town and Gardens, Ltd. was determined to be the best choice to assist in accomplishing this project. Town and Gardens has experience in working with similarly complicated projects, including tree plantings in the area of underground steam pipes, and negotiating the permit process required for a project such as this.

They have a history of working in NYC since 1995 on various, complex projects that have required extensive problem-solving — ranging from the rooftop at MOMA to Donald Trump's Fifth Avenue skyscraper to Madison Square Park and street trees all around the city. They have a large network of contractors with whom they collaborate, allowing them to harness various expertise for problem-solving such as this project requires. Town and Gardens is a very reputable company, having won over 30 landscape design and construction awards, yet value community and are eager to work on this project with us.

They reside within the neighborhood, East 25<sup>th</sup> Street, and so are very familiar with the circumstances, block lay-out and spirit of the Lower East Side. What placed them above all others was their willingness to phase the proposal and project in such a way that they can provide some up-front (although limited) support for research and proposal development, at minimal expense which the Project leaders (14BC Coop) could afford. They also express appreciation of the community spirit in which this endeavor will be undertaken and have offered to meet with residents of the block, 14BC Coop Board as well as to attend ConEdison Settlement Fund Task Force meetings to answer any questions. They also emphasize working within budgets while fully cognizant of this projects complexity.

Project leaders (see below) will work in close collaboration with Town and Gardens in each Phase to ensure the project stays on track, on time and within budget; and 14BC Coop will be solely responsible for the project's execution and associated proposal obligations.

## **Project Phases & Cost**

The project will be executed in **four phases**. A detailed time-line is provided on Annex 3, below, however the Phases, estimated time-line and estimated expense are as follows:

<b>Phase</b>	<b>Time-Line</b>	<b>Cost</b>
1) Research / Testing	Aug-Sept 2011	\$2,000 - 5,000
2) Design / Permits	October-Nov 2011	\$9,000 - 12,000
3) Construction	Nov-Dec 2011	\$105,265
4) Planting	Spring 2012	\$29,250
<b>TOTAL</b>		<b>\$145,515 – \$151,515</b>

A **module approach** was utilized for this estimate, based on **thirteen 18” tall beds of mid-range cost materials**:

- 5 tree pits currently exist (nearest to Avenue B); three of which have marginally healthy trees
- 8 additional locations on the block are large enough for a new tree pits according to the NYC Department of Park and Recreation Tree Planting Guidelines, although the locations are also sufficient for even larger beds than the recommended 10’X5’ tree pit
- Combined, these total 13 potential locations for raised tree and planting beds

Of all **13 possible tree locations**, estimated maximum size for raised planting beds are estimated as follows. These are listed as rectangular shapes however actual shape will depend on the final design, based on temperature readings and distance to utilities, sidewalk artifacts, etc. in alignment with city code. Labor is estimated at approximately 58% the cost of site prep; 56% of construction / building of walls; and 20-26% of planting expenses. Worth noting: design and construction of entire project in full will reap savings as compared to if completed in phases, which will compound site visits, permit processes, and labor expenses. The cost below and in estimated budget for module approach (Annex 7) are based on the mid-range material expense:

- Three 10’X5’: \$7,200 each = \$21,600 (existing tree pits restructured as small raised beds)
- Seven 15’X5’: \$10,345 each = \$72,415 (new tree and planting beds)
- Three 20’X5’: \$13,500 each = \$40,500 (new tree and planting beds)

Mapping and photos of the block and project site (Annexes 1 and 2) evidences that the five existing sidewalk tree pits are gathered to the west end of the 14<sup>th</sup> Street’s south side. All but one tree are struggling significantly or dead. The addition of raised beds with this project, including fresh un-compacted soil and the care that would accompany the project, may salvage a couple of these trees. Moreover adding the raised beds to trees at the west end of the street combined with new beds on the east end of the block would enhance the sense of continuity and community, as well as provide an added buffer for the pedestrians, businesses and residents along the entire block. Any additions funds left over could be dedicated to the long term maintenance of trees and plants or for an additional small module at the next available tree pit site.

## **Maintenance**

Maintenance will be taken care of by the 14 BC Coop, although support by neighboring residents, businesses, the management of Campos Plaza, and NYC Housing Authority will be sought. The 14

BC Coop is prepared however to adopt all these street trees and ensure their survival, regardless of whether commitments are made by neighbors on the block.

The ten new trees between Avenues B and C will require extensive watering for the first 2-3 years, from spring to fall. After they are established, they will require significantly less water unless New York City experiences dry summers or drought. To mitigate long-term expense and conserve treated city water, the 14 BC Coop will establish a low-cost and practical rain-catch system in the alley on the buildings’ west side and possibly in between buildings, where drains already lead to near the ground. Additionally, two deep-watering tree spikes will be installed per tree upon planting to ensure that water reaches the root ball — optimizing water usage and ensuring water reaches where it is needed most. The expense of the spikes (estimated at \$286 or \$11 per 24’ spike), the rain-catch system/barrels (estimated at \$200-750), and long garden hoses (\$10 per 50 feet) will be covered by the 14 BC Coop’s tree reserve fund. The Coop will also seek out support programs for rain-catch systems in particular, such as the annual NYC Environmental Protection ‘Rain Barrel Give-Away Program.’

Watering expenses are estimated in the table below, at the current and also highest projected rate of increase for the near future (2011-2013). The total expense also assumes dry and drought conditions where rain-catch would be minimal and thus not mitigate watering expenses. Thus it provides a high-end estimate for the expected watering expense of 10 new trees for the first 2-3 years until they become established and water needs are significantly reduced.

Season	Water Need	Expense per tree / year	Total per year
May – October (26 weeks)	5,200 gallons/10 trees (20 gallons per tree /week)	\$2.10-2.30 per tree*	\$21-23

\* Based on 2011 city rates and expected increase for 2012 (at .4 -.43 cents/gallon residential rate)<sup>1</sup>

The above and all long-term expenses of tree maintenance will be covered by the 14 BC Coop. And as the 14 BC Coop has already raised \$5,000 we are confident that the Coop, its Environment Committee, and the enthusiastic residents of the buildings and block will be able to raise additional maintenance funds as needed, including via ‘stoop sales’ (already undertaken) and additional initiatives.

**Project Leverage & Volunteerism**

This project draws on the East Village community spirit, aiming to gather the skills and will of residents to enhance the health, safety and quality of life of the whole community — one block at a time. Project Leaders have reached out and are building collaboration with the Campos Plaza Tenants Association and Management, business owners of the block, and neighbors. They aim to continue these efforts to ensure all in this block’s community have the opportunity to contribute to the project. The following partnerships have been established to ensure the success of the project:

<sup>1</sup> New York City Water Board FY2011 & FY2012 Rate Schedule  
[http://www.nyc.gov/html/nycwaterboard/html/rate\\_schedule/index.shtml](http://www.nyc.gov/html/nycwaterboard/html/rate_schedule/index.shtml)

The **Lower East Side Ecology Center** and the **NYC Department of Park and Recreation Parks** have offered to help with obtaining trees via the **NYC Million Tree initiative**, building on synergies from another project currently supported by the ConEdison Settlement Fund — the EcoBizNYC program. Additionally, the Project Leaders and residents have committed to attending workshops (provided by the above organizations) on urban street tree care to help ensure longevity of the trees and aim to share this knowledge to other neighbors on the block to develop a network of care-takers.

Additional programmes that Project Leaders have either contacted include the **NYCHA ‘Green Agenda’** (Board Member Ms. Margarita Lopez in particular) to identify entry-points for collaboration on maintenance and awareness-raising in particular; around Campos Plaza. Project Leaders will also keep an eye out for opportunities with the NYC interagency taskforce’s **‘Sustainable Stormwater Management Plan (Plan NYC) programme**, which closed April 2011 but may reopen with additional phases in the future; the NYC Environmental Protection **‘Rain Barrel Give-Away Program’**; and the NYC non-profit organization **IOBY** (in our backyard), which helps communities organize around and support environmental projects through small donations and volunteerism.

The **14BC Cooperative** — established in 1987 with 120 apartments in six old-law tenement buildings — has also committed to supporting this project. To help cover unexpected expenses related to maintenance, the Coop has committed the sum of their fund-raising efforts for tree planting (\$5,000). And while the Coop aims for a collaborative effort with neighboring businesses and residents to ensure long-term street care, the Coop has committed to the responsibility of tree care as needed. It is worth noting that the Coop has many long-term residents that are enthusiastic, highly capable, and reliable volunteer gardeners. The trees and plantings will be in good hands.

**Project Leaders:** Tracy Raczek and Joseph Keshner are dedicating their time and expertise to this project, including a combined 12 years in silviculture and wildlife biology. Currently Tracy Raczek works in intergovernmental relations and climate change policy at the United Nations and Joseph Keshner is Vice President of the 14BC Coop Board and a Crisis Intervention Teacher at P.S. 61 on 12<sup>th</sup> Street. Both are owners in the 14BC Coop, living in the buildings over seven years, and have a long history of work with non-governmental organizations and community-based initiatives.

Reid Betz, a **Principle Architect** (LEED AP) of the 14BC Coop has also committed time and expertise to assist and collaborate with Town and Gardens to ensure the project is successful, including meets its objectives and falls within budget. An architect since 1999, Reid Bet has worked developing environmental guidelines for the design, construction and operation of the Second Avenue Subway line. Prior to graduate studies, Reid studied at the Cooper Union and received a Bachelor Degree in Civil Engineering with a focus on hydraulic design and water resources. He also worked with the EPA on a study assessing pollution levels in the Hudson River. With a strong belief that good design takes into account the responsible use of energy and resources, Reid has been an LEED accredited professional since 2001.

**Annexes**

Annex 1: Map of block / project site (before and after)

Annex 2: Photos of block / project site

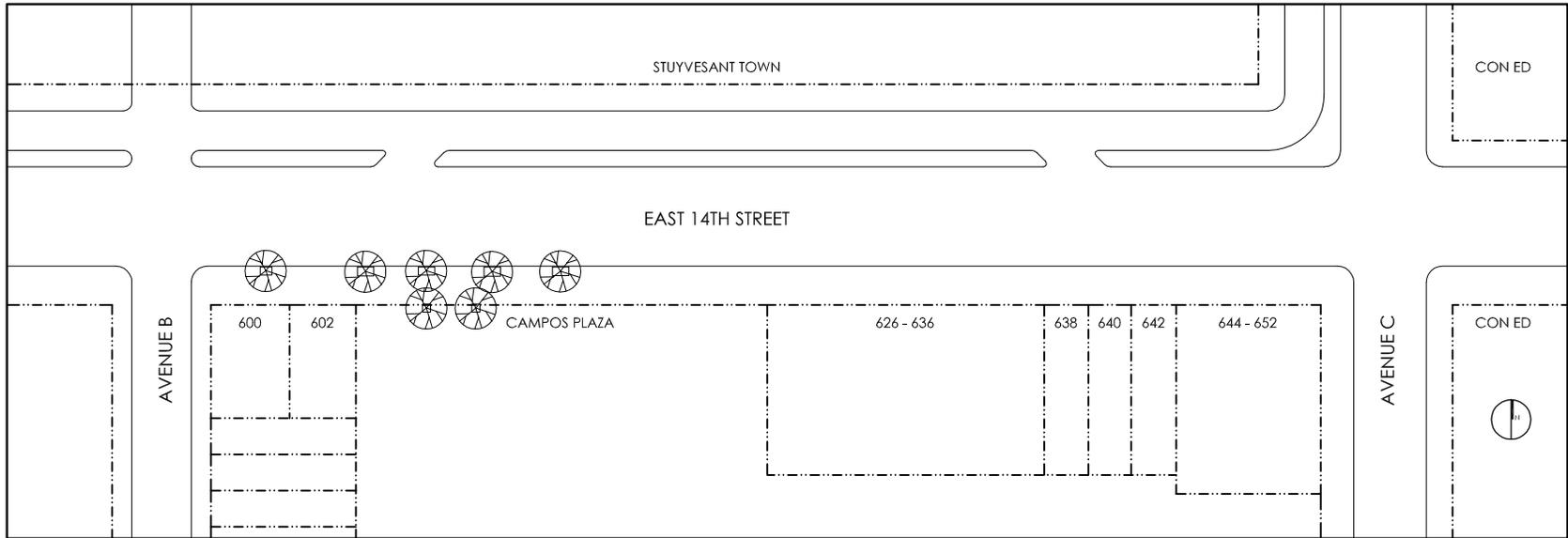
Annex 3: Time-line with steps and phases

Annex 4: Precedent examples of potential materials, design elements

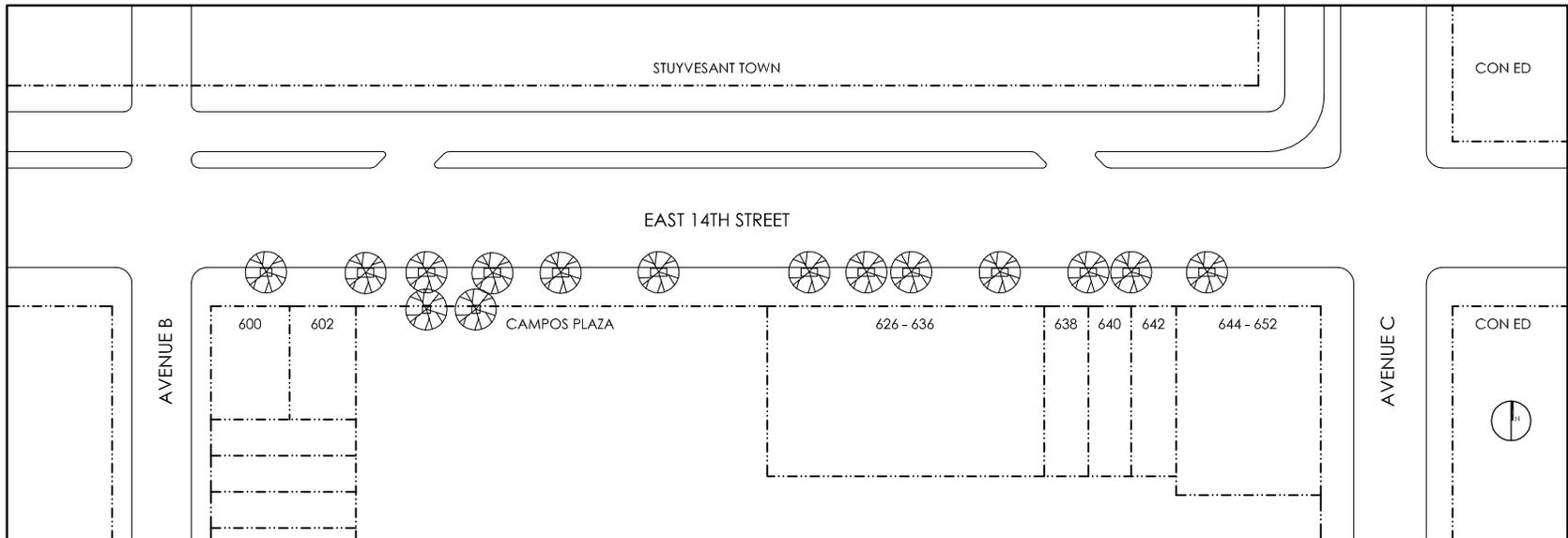
Annex 5: Design elements of tree pit with similar underground heat source

Annex 6: Cover Letter from Town and Gardens to Project Leaders / Coop 14BC

Annex 7: Estimated Budget for Module Based Approach



EXISTING SITE PLAN



PROPOSED SITE PLAN

PROJECT SITE - 626-636 14TH STREET STREET SCAPE



CURRENT VIEWS OF PROJECT SITE



PROJECT SITE - 626-636 14TH STREET STREET SCAPE



CURRENT VIEWS OF PROJECT SITE



**ANNEX 3: TIMELINE WITH STEPS AND PHASES**

TIMELINE - 14th STREET STREET SCAPE by Town and Gardens, Ltd. Fall 2011/SPRING 2012																							
STEPS	Notes	August			September				October					November				December			Spring 2012		
		Week of 15th	Week of 22nd	Week of 29th	Week of 5th	Week of 12th	Week of 19th	Week of 26th	Week of 3rd	Week of 10th	Week of 17th	Week of 24th	Week of 31st	Week of 7th	Week of 14th	Week of 21st	Week of 28th	Week of 5th	Week of 12th	Week of 19th	March 2011	April 2011	May 2011
<b>PHASE ONE -- PLANNING</b>																							
Preparation of Grant Application	Deadline April 15th.																						
Site Analysis																							
Contact with Utilities and Their Respective Mapping Services	Gas, Water, Sewer																						
Preliminary Review with DOT and Parks Dept.																							
Testing at the site																							
Permitting																							
Preparation of Concepts																							
Meeting and review with Client																							
Preparation of Preliminary Budget																							
Meeting and review with Client																							
<b>PHASE TWO -- DESIGN AND PERMITS</b>																							
Schematic Design																							
Meeting and review with Client																							
Permitting																							
Review with Vendors																							
Meeting and review with Client																							
Preparation of Drawings for Town and Gardens installation																							
Final Installation Proposal																							
<b>PHASE THREE -- CONSTRUCTION</b>																							
Sidewalk cutting and excavation																							
Installation of Raised Beds																							
Installation of Site Furnishings																							
Installation of Possible Insulation Materials																							
Installation of soils																							
Planting																							
Site Walk Through with Client																							
Maintenance Specifications																							
Preparation of Documents of Completed Work																							



PRECEDENT IMAGES - OPTIONS AND EXAMPLES



Raised Planter with Belgian Block



PRECEDENT IMAGES - OPTIONS AND EXAMPLES



Raised Planter with Brick Wall



PRECEDENT IMAGES - OPTIONS AND EXAMPLES



Raised Planter with Wrought Iron Enclosure



PRECEDENT IMAGES - OPTIONS AND EXAMPLES



Raised Planter with Brick and Stone Coping with Metal Fencing



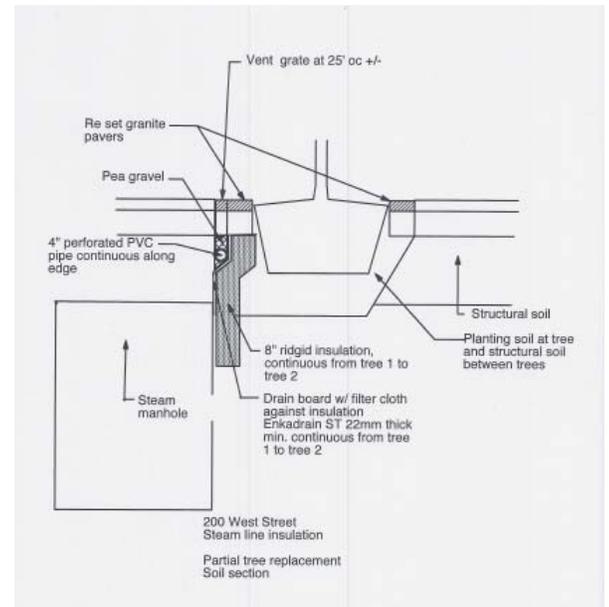
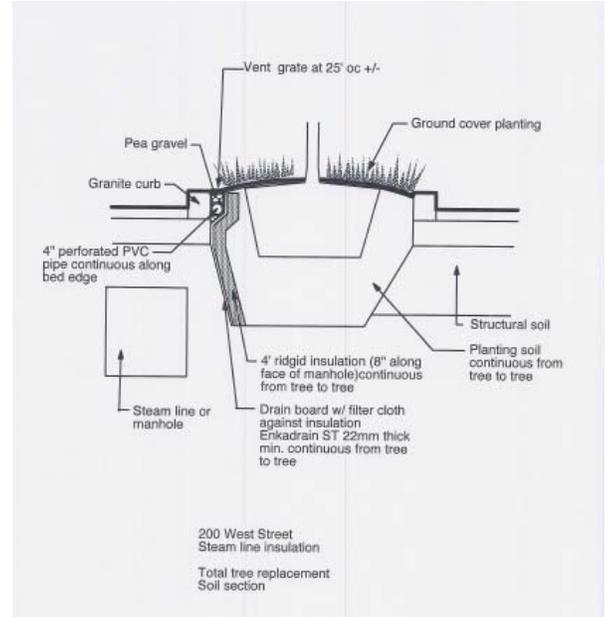
## Project Portfolio



200 West Street and Vesey Street,  
Goldman Sachs Corporate offices

#### Streetscape troubleshooting:

Several street trees are in-decline. They were planted over a Con Edison steam line. Temperatures surrounding the trees are much warmer than normal. Town and Gardens, Ltd. was called in to help resolve the issues.

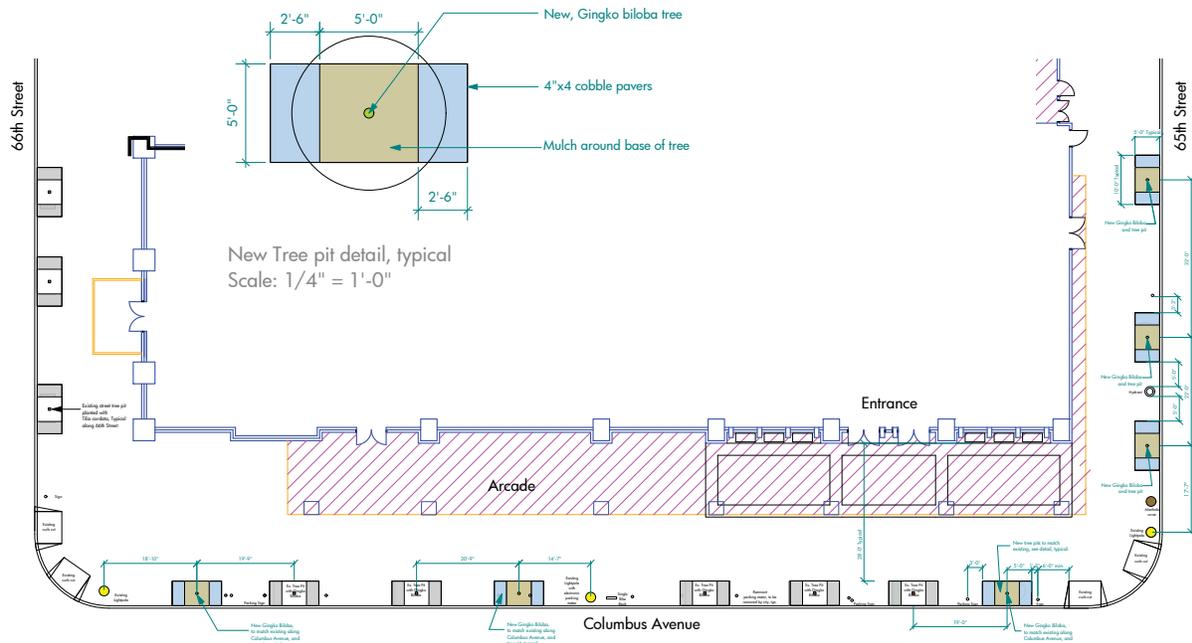


Two preliminary options are under development with in-house arborists and outside consultants, to ensure trees survival.

See above details for proposed site- specific solutions.

# Project Portfolio

60 West 66th Street at Broadway,  
The Church of Jesus Christ of Latter Day Saints:  
New Streetscape and tree pit layout plan, for submission to NYC DPR



The site consists of three city blocks, where 9 existing tree pits were expanded and retrofitted and 3 new tree pits added (for a total of 12 tree pits).

During the Design Development phase, our design team was able to analyze options and find solutions to meet the Client's varied needs and objectives. These were evaluated in light of design, budget, municipal requirements, and all the various site conditions and coordination issues. We also worked to accommodate new DPR street tree pit and tree planting guidelines. The Client was fully involved in this process.

The result is- three continuous blocks of updated streetscapes, with cobble paving bands at large street tree planting areas- for a clean, permeable and pleasing look!

# Project Portfolio

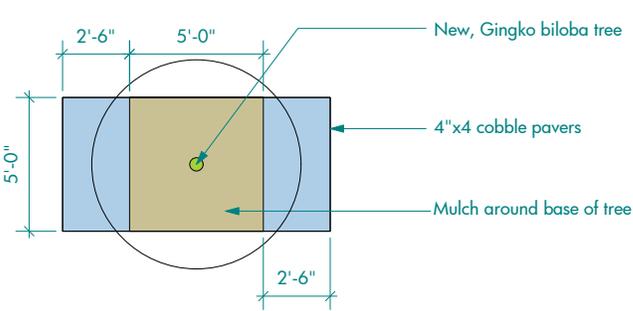
## New Street tree pit installation process:



Sidewalk, as seen before tree planting. Coordination with DPR took place and permit was secured. Tree pit location was re-confirmed in field with DPR staff. Sidewalk was saw-cut and tree pit prepared for planting.



Soil was tamped down and paving band areas prepared for cobble paving. Sand was poured over joints, swept and joints filled.



New Tree pit detail, typical  
Scale: 1/4" = 1'-0"

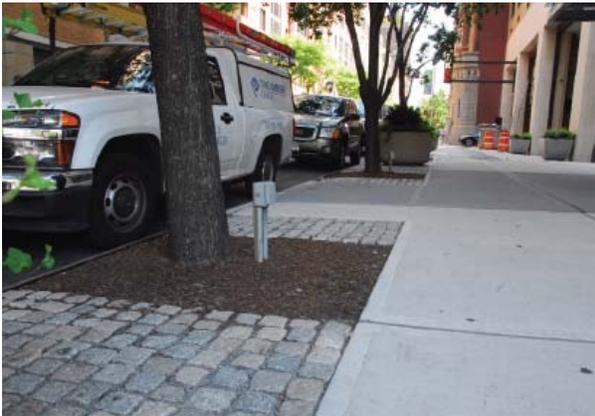


The completed tree pit.

Project Portfolio



Cobble pavers, set in sand bed. New tree planting.



Existing tree pit expanded. Cobble pavers, set in sand bed, around existing trees.



Town and  
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April 11, 2011

14BC Coop  
C/O Tracy Raczek, Joe Keshner and Reid Betz  
626-636 East 14<sup>th</sup> Street  
New York, NY 10009

**Re: Streetscape development**

Dear Members of 14 BC Coop,

We have enjoyed working with you and the property owners from the 14BC Coop over the last few months, as you strive to improve your streetscape. Your proposed East 14<sup>th</sup> street project presents unique challenges and opportunities- but it is one we feel we are uniquely suited to help with.

Designing, implementing and maintaining improvement and beautification programs in public spaces in NYC requires unique expertise, which T&G has developed over the years. This includes understanding the collaborative partnerships required to successfully the various goals of a Community Board, property owners, city agencies like DOT and DPR, commercial businesses and public utilities- like Con Edison. Consideration of present and future development is also critical.

As a design build firm, we help our clients beyond the initial phase of developing design options, to incorporate accurate cost projections and accurate installation budgets. These budgets are based upon real and current information for every part of the project. What is critical in this combined design and build process, is that we know we can accomplish our client's goals within budget.

Enclosed, you will find: a projected timeline for our design development work, an example of budgeting on a similar project, a conceptual budget for this project, and concept images for consideration as we move ahead with the design process.

Thank you for the opportunity to work with your cooperative, Community Board 3, members of the Lower East side community, and Consolidated Edison.

We look forward to speaking with you further!

Sincerely,

Liz Pulver, Landscape Architect  
Town & Gardens, Ltd.

Hanna Packer, Senior Designer  
Town & Gardens, Ltd.

Don Sussman, President  
Town & Gardens, Ltd.



Town and  
Gardens Ltd.

## Town and Gardens Ltd. and related experience.

Town and Gardens Ltd. (T&G) was established in 1995 and has been providing design and consulting services to other New York City (NYC) BIDs, public spaces and large institutions since its inception. We've designed and completed many streetscape installations and improvements over the years, including projects with the 34<sup>th</sup> Street Partnership, East Midtown Association and Broadway Malls. Recently, we worked with the Flatiron /23<sup>rd</sup> Street Partnership BID, and the Fund for Park Avenue as well.

Each time we are involved with streetscape projects, we work closely with the client, the NYC Department of Parks and Recreation (DPR), and the NYC Department of Transportation (DOT) to coordinate the layout and expectations for the projects, to secure permitting and to review proposed options.

As a design build firm we are able to develop design options and incorporate accurate cost projections into the design process. What is critical in this combined design and build process, is that we know we can accomplish our client's goals within budget.

Our experienced team and talented staff will help with the preparation of design and budget options and solutions. Should the scope of the project expand to include additional elements, we have built a network of other professionals, we can turn to. These vendors and suppliers are experienced in meeting the unique challenges of working in NYC public spaces.

- Our full-time staff includes licensed landscape architects, landscape designers, project estimators, NYS licensed arborists, ornamental plant pest/disease applicators, certified irrigation specialists, horticulturalists, LEED trained project managers, as well as support staff.
- We take great pride in our work and strive to stay involved with our projects through ongoing care and maintenance programs. We bring this knowledge to the table from the start. When we share our experience, we can help you make the RIGHT choices and investments in your neighborhood.
- Our ability to mock-up and prepare models in-house, in a timely manner can help speed the design process. We find SHOWING our clients what can happen is one of the best ways to help our client's visualize the materials choices and options available for their projects.

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## Project Team

- Donald Sussman, President**, Bachelor of Science with a major in Botany and Plant Science, NYC teaching license with seven years teaching experience and a Masters degree in Education, Member: Associated Landscape Architects of America, Associated Landscape Contractors of America, Metro Horticulture Group. Over thirty years experience in the field of ornamental horticulture with ten years of specializing in the urban environment. Licensed by the NYS DEC as a pesticide applicator. He speaks regularly on industry issues and consults with various professionals throughout NYC.
- Hanna Packer, Landscape Designer**, has been a Senior Designer at Town and Gardens, Ltd. since 2005. Her passion for plants, design, and all things green has inspired her projects and expertise in rooftop gardens, green roofs and green walls. Hanna is a native of Warsaw, educated in London and Stockholm as an Art Director, transitioned into Landscape Design at The New York Botanical Garden where she is now a frequent lecturer in the landscape design program.
- Liz Pulver, Landscape Architect**, is a licensed landscape architect and has a degree in Landscape Architecture from Cornell University and has designed public and private spaces throughout New York City. Prior to joining T&G, Liz worked at Thomas Balsley Associates, where she was frequently involved with NYCDPR and DOT projects, residential and commercial developments, streetscapes, parks and plazas in the New York City area.
- Melissa McCardle, Streetscapes Improvement Coordinator**. Melissa has extensive experience in both design and NYC permitting and approval processes. For the past six years she has been designing and managing the East Midtown seasonal display program for T&G, which continues to be a big success. Melissa manages the landscape installations for the Broadway Malls Association, The Bryant Park Restoration Corporation and the 34th Street Partnership.
- Jim Watson, Operations Manager**, has a Bachelor Degree in Horticulture with a concentration in Landscape Design, Associates Degree in Landscape Business Management, certified Irrigation Auditor, certified Landscape Technician. He has twenty three years experience in the landscape industry.
- Rudy Deleon, Mason Foreman**, is our senior mason specialist and installer who will be working on site for preparation, layout and installation of the streetscape solution. He will be a part of the design process in that he will be giving important feedback in qualifying choices and estimating materials and labor needs. He is a dedicated professional who takes extreme pride in getting his work done correctly. His jobs have been honored with multiple national awards.



Town and  
Gardens Ltd.

**REFERENCES: Town and Gardens Ltd.**

**Flatiron/23<sup>rd</sup> St Partnership BID**

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**East Midtown Association**

Rob Byrnes, President  
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**34<sup>th</sup> Street Partnership/Bryant Park Restoration**

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**NYC DOT**

Mary (Randy) Wade, Director of Streetscapes DOT  
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**Broadway Malls Association**

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**Rockefeller University**

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**60 West 66<sup>th</sup> Street, The Church of Jesus Christ of Latter Day Saints**

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**Additional contacts**

Camilla McFadden, MetroHort Group  
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Annex 7

**Estimated Budget for MODULE-BASED APPROACH**

<b>5X5</b> Square feet 25 Linear feet 20	Site Prep	Materials	368	* Labor is estimated at approximately 58% of site prep; 56% of wall building; & 20-26% of planting expenses
		Labor	507	
	Walls	Materials	792	
		Labor	1008	
	Planting	Materials	740	
		Labor	260	
	<b>Total</b>			
	Soil	Materials	375	Materials Total \$2,525
	Heat remediation	Materials	250	Labor Total \$1,775

<b>10X5</b> Square feet 50 Linear feet 30	Site Prep	Materials	735	
		Labor	1015	
	Walls	Materials	1188	
		Labor	1512	
	Planting	Materials	1110	
		Labor	390	
	<b>Total</b>			<b>\$7,200</b>
	Soil	Materials	750	Materials Total \$4,283
	Heat remediation	Materials	500	Labor Total \$2,917

<b>15X5</b> Square feet 75 Linear feet 40	Site Prep	Materials	1100	
		Labor	1520	
	Walls	Materials	1584	
		Labor	2016	
	Planting	Materials	1665	
		Labor	585	
	<b>Total</b>			<b>\$10,345</b>
	Soil	Materials	1125	Materials Total \$6,224
	Heat remediation	Materials	750	Labor Total \$4,121

<b>20X5</b> Square feet 100 Linear feet 50	Site Prep	Materials	1470	
		Labor	2030	
	Walls	Materials	1980	
		Labor	2520	
	Planting	Materials	2220	
		Labor	780	
	<b>Total</b>			<b>\$13,500</b>
	Soil	Materials	1500	Materials Total \$8,170
	Heat remediation	Materials	1000	Labor Total \$5,330

<b>L-shape 15X7</b> Square feet 85 Linear feet 44	Site Prep	Materials	1250	
		Labor	1725	
	Walls	Materials	1743	
		Labor	2217	
	Planting	Materials	1887	
		Labor	663	
	<b>Total</b>			<b>\$11,510</b>
	Soil	Materials	1275	Materials Total \$6,905
	Heat remediation	Materials	750	Labor Total \$4,605