

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

17 July 2013

This submission aims to outline completion of Phase I of the East 14th Community Street Buffer & Tree Project, approved in Community Board #3 (CB3) resolution dated 28 June 2011, and respectfully requests support for Phase II of said project per same resolution.<sup>1</sup>

## **Project Background / Review**

This Street Buffer and Tree Project 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 raised, partially insulated tree beds along the south side of 14th Street, between Avenue B & C. This 706 feet long block, with a sidewalk that ranges from 17-23 feet wide, is significantly wide by any standards, but especially NYC standards, and thus can readily (and fortunately) integrate such planting features.

Currently two-thirds of said block is treeless. There is also a steam-pipe that runs its length on the south side, increasing underground temperatures and resulting in stunted trees or premature death. Thus only three 'established' (albeit small) trees exist on the block and two others have been planted repeatedly (having short lives). In addition, the block is essentially the driveway to the Con Edison East River Station. It is the plant's main entrance and as such endures inordinate traffic related to its operations.

It is thus understood from the original proposal (Phase I) that additional construction for this block is required to help:

- (1) buffer the noise and fumes from traffic and street repairs (to said steam-pipe) the block endures on a frequent basis due to proximity to the Con Edison plant;
- (2) provide a barrier between the street and pedestrians and children who utilize the area to play; and
- (3) ensure tree health and survival of trees that struggle due to Con Edison steam pipes which runs the length of this block (details in original proposal).

It was agreed the project would be implemented in two phases — Phase I: Research, design & permitting; and (II) Construction & planting.

Per original proposal, the project is being led by community members (a Project Team) living in the 14BC Coop, in collaboration with a local urban landscaping company (Town and Garden; T&G) and in cooperation with neighbors on the block, including 14BC Coop, Pedro Albizu Campos Plaza, local businesses, etc. and in close collaboration with the Parks Dept and a new partner, the NYC Tree Trust.

Although not central to it's objectives, the Project provides an additional opportunity for those

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<sup>1</sup> Delays in start of Phase I – approved June 2011 – stemmed from extensive delay in the Project receiving first tranche of grant (not until end of 2012). Worth noting that despite delay in receiving funds, Town and Garden –= in good faith – began work informally in fall of 2012.

involved in tree plantings in NYC (T&G, ConEd, Parks Dept, the Tree Trust, etc.) to gain understanding of successful tree planting and survival in adverse conditions such as are found on this block. Efforts will be made to share this knowledge with any future efforts on adjacent blocks — considering the similar circumstances of such close proximity to the Con Edison plant and potentially to their steam pipes.

### **Phase I Completion**

Phase I of the project ran successfully from January to mid June 2013. Town and Garden, the selected contractor, worked with the Project Team to undertake research, design and permit application to Parks Department. All funds allocated for Phase I – \$17,000 – were utilized. The contractors, Town & Garden, went above and beyond helping the Project meet its objectives. In their billing approximately 17.25 hours were spent on research (drilling, testing, researching insulation options); 34.25 hours were spent in outreach and meetings with partners, including with the Project Team, ConEdison and the Parks Department; and 98.25 hours were spent on design for the street, integrating community input, and computing a budget that would work for Phase II of this Project. (Invoices attached; Note that due T&G's support for this project, they billed for less than the full hours they dedicated to work undertaken during Phase I.)

### **Tree Pits**

The final design proposed and submitted to NYC Parks Dept is attached for 12 tree beds on 14<sup>th</sup> Street between Avenue B & C. This includes:

- Seven new, insulated raised beds (~18" tall) with trees and plantings will be included where there are no existing trees (#6-11 on plan);
- Revamping pits for three relatively established (albeit struggling) trees. The trees would remain and their pits, currently at side-walk level, would be expanded, surrounded with shorter (~ 6-8" high) cobblestone walls (#2-4 on plan) and filled with plantings;
- Two existing tree will be have trees carefully raised and placed back into new, insulated raised (~18" tall) tree beds (#1 & 5 on plan) where possible, along with new plantings;
- One potential 'ghost' pit (#13) was designed and submitted to Parks for approval along with the rest. It is in front of an unoccupied building on corner of 14th and Avenue C, which is likely to undergo massive reconstruction and so not included in this project since any new pit and tree would likely be damaged. However the bed was submitted in anticipation of a potential future bed, provided funds and appropriate timing.

All beds will have the following common elements:

- Shrubs and other plantings, such as bulbs, will be planted along side the trees adding to the buffer effect;
- Cobblestone walls or short barriers (for existing trees) for all beds;
- All nine new raised tree will have insulation added on the interior wall of bed down into the ground approximately one foot, on the side facing steam-pipe; and
- Spacing of 18" from the curb to allow for car door opening and passenger exit, as this distance is recommended by DOT, NYC Tree Trust and Town and Garden. It provides sufficient distance from street for car access, simultaneously lowers temperatures readings by approximately 10-20 degrees as increases distance from ConEd steam-pipe, and allows

the pits to remain 6' wide which maximizes plantings to create 'buffer' and soil to create thermal barrier.

Please note, the original proposal anticipated 13 total tree beds for the block approximating 10 feet long each. The final design includes 12 total tree beds, however the majority are significantly larger — 9 beds at 13' long. Only the 3 most established trees in 10' long beds. This change was based on request by Parks to maximize tree bed sizes, fall within parameters of utilities, as well as optimize funds for both trees and buffer effect.

### Mitigating Temperatures:

During the research phase, sixteen temperature-reading holes were drilled in the sidewalk between Avenue B and C, with periodic readings of underground temperatures taken at approximately 18" deep. Control temps closely paralleled temperatures outdoors (see location of holes on map attached and "Temperature Readings" document). Temperatures for street readings were as low as 52 degrees, as high as 99 degrees, and could be grouped, as follows:

- 3 sites between 55-64 degrees F
- 7 sites between 65-74 degrees F
- 6 sites between 75-99 degrees F

Unexpectedly, it was noted that high temperatures were found intermittently down the entire block – not only on its east end – perhaps lending to the low survival rate of the oft-replaced tree on far west end (pit #1).

Town and Garden notes that temperatures over 86 degrees generally impair root growth; and temperatures over 103 degree stop root growth. Fortunately this block did not find temperatures too high for tree health and survival, once mitigated. It was found that temperatures generally decreased away from the curb and decreased 10-15 degrees F per foot below surface, so insulation near the top of the beds was deemed most critical and cost-effective. Three options for insulation were also researched, with consideration given to insulation value as well as durability in these conditions.

The final pit designed for this Project mitigates for the steam-pipe heat in three ways: (i) the beds are large and raised, thus increasing distance from heat source as well as add insulation from soil mass; (ii) a double layer foil-backed insulation is provided, wrapped in drain matt to help prevent punctures of insulation on the side of bed facing steam-pipe (see design page 3); and (iii) beds are placed 18" away from the curb, DOT recommended distance for distance to curb, which also provides some relief from the heat source, while still allowing 6' beds which maximizes soil, also helping to act as a thermal barrier. To enable continued monitoring of the temperatures and moisture levels over time, and as needed, Town and Garden plans to incorporate a PVC sleeve in each of the tree beds.

### Permit process

Permits for implementation (Phase II) of the project are needed from the NYC Parks Department and the Department of Transportation (DOT). The Parks permit was applied for, and is anticipated to be approved soon given close communications with the department in advance of the application. Application to the DOT has not been officially undertaken, however T&G has worked closely with DOT and submitted draft plans to the streetscape team so they are aware and supportive of upcoming plans. DOT has committed to assisting where they can, including with eventual placement and contribution of city bike racks.

### Community Inputs

Extensive efforts were made to engage community stakeholders on the block. Project Leaders paid individual visits to all businesses on the block speaking directly with owners, and made personal calls to owners of neighboring tenement buildings, all of whom expressed positive support to the project and its design. Two public community meetings were also held to share project information and capture the attitudes and preferences of residents and business people in the area. The meetings were held at the Pedro Albizo Campos Plaza tenants association office on Avenue C and at PS. 361 on 12<sup>th</sup> street on May 8<sup>th</sup> and May 15<sup>th</sup>.

Although the Community meetings were lightly attended, the response from these meetings and the business owners towards the project was overwhelmingly positive. Members from the 14BC Coop Board attended, including the Coop Board President, as well as tenants of Campos Plaza. All expressed enthusiasm for the possibility of finally having the trees and the potential for a safe and visual buffer from the 14<sup>th</sup> street traffic and near constant activity by ConEdison maintenance activities and deliveries. Sincere appreciation for the support by ConEd Settlement Task Fund was expressed. In addition, throughout the Phase I process, briefings were provided to the 14BC Coop Board, the Community Board (CB3) task team on Parks, Recreation, Cultural Affairs, Landmarks and Waterfront; and the CB3 ConEd Settlement Fund Task Force.

In all cases, these community members voiced their opinions on street and tree pit design, tree and shrub species, etc, which were integrated as much as possible. For example, although people had differing landscape tastes, several favorites clearly emerged. Cobblestone tree pits, Linden and Purple Plum trees were favorites and a variety of shrub species were highlighted which T&G integrated into the landscape plan. There was also strong support for a unified appearance of the beds, to tie the disparate block together. Residents of Campos, business owners and many residents of tenement buildings on the block overwhelmingly supported bike racks and opposed park style benches, (due to various concerns), which were offered by DOT for free. The 14BC Coop Board preferred 13' beds over anticipated 16' beds and requested that bike racks be introduced only after the tree beds are in place. All of these requests were honoured in the design plans for Phase II.

## **Phase II – Partnerships & Implementation**

The consultation process of Phase I lead to an opportunity in Phase II for the project to redefine its partners and help ensure the optimal success of Phase II – construction and planting. (See Phase II expected budget of \$134,000 on page 8.)

### **NYC Tree Trust**

The NYC Tree Trust in particular has stepped up and has potential to play an especially constructive and supportive role in Phase II. Project leads met with the NYC Tree Trust and a collaboration for Phase II is proposed that both supports the NYC Tree Trust and enables the ConEd Settlement Fund grant for Phase II to be used more efficiently. For background – the NYC Tree Trust (a program of the New York City Department of Parks & Recreation and the City Parks Foundation) was established in 1994 to protect, preserve, and enhance New York City's street, park and forest trees. The goals of the Tree Trust are to foster public-private partnerships in urban forestry, raise public awareness of the importance of urban forestry conservation and stewardship, promote new technologies to enhance tree survival and advance innovative management tools, and revitalize historically and arboreally significant municipal trees.

Tree Trust has offered to collaborate with this Project in three ways:

- (i) ***The Tree Trust would contribute billing resources***, enabling Phase II to be tax-exempt and the grant to go farther. This service is in their mandate and commonly undertaken as a way to incentivize greening and tree stewardship by private actors in NYC. A 5% administrative fee would be donated to the Trust Fund. However the project would save over 3% in costs (since taxes run over 8%). Project Leaders clarified that all other elements of the grant would remain the same – e.g. project decision-making and responsibility would still be held by the Project Team; Town and Garden would still remain the contractor; timely payments would be made to the contractor, etc. These conditions were confirmed in detail via email and in a 3<sup>rd</sup> July letter of offer by the Tree Trust. In essence, the Tree Trust would replace the 14BC Coop as the billing resource of the funds – at a savings for the project and a boon to the Tree Trust. This change to the NYC Tree Trust is fully supported by the 14BC Coop Board, who has expressed strong concern over potential liability of the Coop related to this project.
- (ii) **Tree Stewardship Program**: Once the trees are planted, it was agreed that a stewardship-training program – dedicated to the trees and plantings on the block – will be arranged in collaboration the Tree Trust. Professional arborists provide ‘how-to’ on tree-care as part of an ongoing Tree Trust program, as well as some free basic supplies (5 gallon bucket for water, a hose, a hand cultivator, trowels and gloves). It was also discussed that perhaps even more 14<sup>th</sup>-street-specific support equipment could be provided for this project.
- (iii) **Alignment of tree and planting species**: Among the opportunities for synergy between the 14<sup>th</sup> Street Buffer Project and Parks and the Tree Trust, was alignment of species so that the Project’s plantings fit in with neighboring planting projects. To that end, it was agreed that some of the underbrush plantings would be modified (from those preferred by the community) to those that Parks and the Tree Trust recommended. In some cases this was a small

adjustment (e.g. replacing variegated Lirope with non-variegated). In others it was a bit bigger compromise. In the case of tree species it was decided that only two different species would be planted for the new trees (as opposed to more tree variety, which many in community wanted); also that Koelreuteria paniculata (commonly known as Goldenrain Tree) was more hardy than the community-selected Purple Leaf and more in step with what Parks was hoping to promulgate in the city. Thus some compromises were made to suit both the community and Parks / the NYC Tree Trust.

Horticulture Society Green Team

The Project Team and Town and Garden (T&G) is also proud to partner with the Horticulture Society of New York Green Team. The Green Team is an internship program providing vocational training in horticulture to help newly-released men and women transition back into their communities with new skills. The workers are trained through the Horticulture Society’s Greenhouse program based on Riker’s Island. In addition to providing an employment opportunity for skilled laborers at a reduced cost the partnership illustrates the community focus of our tree-planting Project. Town and Garden will remain responsible for the quality of work undertaken and closely supervise the Green Team while the Green Team provides labor for building of walls, curbs and footings. (T&G will provide the labor for breaking ground, installation insulation and drainage, installing soils and planting.)

Maintenance of trees on block

The new trees will require watering for the first 2-3 years especially, from spring to fall until they are established, and afterwards during dry summers or drought. Watering expenses are estimated in the table below, roughly averaging 2013 and 2014 projected rate and totaling less than \$50/year for the block. If it rains 1inch or more in a week's time period, watering is not needed.

<i>Season Water Need Expense</i>	<i>per tree / year</i>	<i>Total</i>	<i>per year total</i>
May – October (26 weeks)	390 gallons / year per tree  (15 gallons recommended per tree /week)	4,680 gallons for 12 trees	<b>\$22 / year for all trees on block</b> (no rain assumed)  <b>\$44 / year for all trees &amp; plantings on block</b> (doubling above estimate)

*Based on \$3.50 / 100 cf average – \$3.39 (2013) – 3.58 (2014) per 100cf. <sup>2</sup> [748 gallons / 100 cf]*

The Project Team will ensure maintenance of the trees and plantings by collaborating with both the NYC Tree Trust and 14BC Coop Board – both of whom have committed support. 14BC Coop Board offers to maintain the project’s trees and plantings for 2 years, including contributions of

<sup>2</sup> New York City Water Board FY2013 & FY2014 Rate Schedule:  
[http://www.nyc.gov/html/nycwaterboard/html/rate\\_schedule/index.shtml](http://www.nyc.gov/html/nycwaterboard/html/rate_schedule/index.shtml)

existing funds raised by 14BC shareholders (estimated at \$4,000), which the 14BC will manage.<sup>3</sup> Simultaneously, the Project Team will work with the NYC Tree Trust who has also offered to manage a maintenance fund, to which 14BC shareholders will contribute \$2,000. The Project Team is already in the process of establishing a ‘Tree Care Team’ that builds on relations with multiple stakeholders on the block such as the Campos Tenement Association; business owners; tenement building owners, managers, supers and residents (including 14BC) – which will help ensure all the trees have active long-term care-takers.

The Tree Trust Stewardship Program will be fully utilized to provide hands-on training once the tree beds are in place – consistent with other work by the Tree Trust in the vicinity of the Con Ed Plant (which is partially funded by the Con Ed Settlement Fund). Water will be accessed from the 14BC Coop, as well as the businesses and buildings closest to the tree beds. Invoices for water (or water ‘stipends’) and equipment expenses may be submitted to NYC Tree Trust or 14 BC Tree Fund on a quarterly or annual basis.<sup>4</sup> Outreach will also be undertaken through the Lower East Side Ecology Center to find interested folk to adopt a tree. Combined, these partnerships and efforts are more likely to provide sustained care from the local community, complemented by the seasoned expertise of the NYC Tree Trust.

Going forward, the project team will also continue its consultation and communication with the community. This will include notifying the Community Board and major stakeholders on the block of final plans, including any significant revisions that may occur; the timetable for construction of the tree pits, especially notifying all of the start of construction; and providing contact information for the construction period. This will be undertaken primarily through email but also in-person and via phone calls as necessary, for example to the Campos Tenants Association to ensure news is received.

The Project Team respectfully submits the above proposal for Phase II of the East 14th Community Street Buffer & Tree Project, along with the attachments listed below:

- 14<sup>th</sup> Street Tree Buffer Design (Attached separately)
- Temperature Readings
- NYC Tree Trust Letter of Support
- Town and Garden Letter of Commitment
- Phase II Schedule (please note all dates to be advanced by one month)
- Town and Garden Certificate of Liability Insurance
- Invoices from Town and Garden (Jan – June 2013) (Attached separately)

Submitted 17 July 2013  
By Project Team

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<sup>3</sup> To commit to maintenance of the block’s trees the 14BC Board “reserves the right to retract support for the project at any point (and petition CB3 for action, if necessary) if ... its input/consultation does not continue through completion of project and/or we find the next phase of the project is not being handled in the best interest of the coop and its shareholders.”

<sup>4</sup> There is additional potential for the project to tap into the city’s Rain Barrel Giveaway Program. This program is on an ‘invitation’ only basis, thus we are exploring if and how it may be possible to receive an invitation – given the scope and objective of this project. This could be provided as an option for some care-takers on the block, by the Tree Care Team.

### Project Team

**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 a Special Education Teacher at P.S. 61 on 12<sup>th</sup> Street. Both are owners in the 14BC Coop, living in the buildings over ten years, and have a long history of work with nongovernmental organizations and community-based initiatives.

**Principle Architect: 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 Betz 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.



<b>SCOPE OF WORK</b>	<b>TOTALS</b>	<b>COST</b>
<b>Demolition and Site Preparations</b>	<b>TOTAL</b>	<b>\$34,000.00</b>
<b>Components:</b>		
Labor and project management:		\$27,025.00
Removals of 800 SF, permitting, demolition		
<b>Materials:</b>		
Dumpsters, materials, carting		\$6,975.00
<b>Soils and Base Preparations</b>	<b>TOTAL</b>	<b>\$24,000.00</b>
<b>Components:</b>		
Labor and project management:		\$10,635.00
<b>Materials:</b>		
Insulation, drainage mat, inspection pipe /cap freight and carting		\$13,365.00
CU Soils/structural soils: 30 yd3 Regular soils: 25 yd3 Bulk Gravel: 6 yd3		
<b>Masonry Work</b>	<b>TOTAL</b>	<b>\$47,000.00</b>
<b>Components:</b>		
Labor and project management:		\$16,500.00
<b>Materials:</b> 430 LF, 18" HT wall and 8" HT curb Block, cobblestone, mortar, re-bar, footing, wire mesh		\$30,500.00
<b>Planting Installation</b>	<b>TOTAL</b>	<b>\$22,500.00</b>
<b>Components:</b>		
Labor and project management		\$10,358.00
<b>Materials:</b>		
Tree stakes, treegator, and mulch Perennials 1 & 2 gal qty 50 Ground Covers pints qty 800 Deciduous shrubs 2 and 3 gal qty 50 Evergreen shrubs 2 and 3 gal qty 50 Bulbs top size qty 500		\$12,142.00
(7) 2-2.5" cal trees		Provided and installed by Parks
<b>Tree Trust service fee:</b>		
In lieu of Sales Tax, Fee is 5% of installation costs	<b>TOTAL</b>	<b>\$6,375.00</b>
<b>Project Totals: Including demo, soils and plantings</b>	<b>TOTAL</b>	<b>\$133,875.00</b>
<b>Approved Budget:</b>	<b>TOTAL</b>	<b>\$134,000.00</b>

Installation Pricing based on revised drawings, dated 6-3-13 REV #3 set: Includes  
Cobblestone walls, curbs and footings.



# New York City Tree Trust



Olmsted Center  
Flushing Meadows-Corona Park  
Flushing, New York 11368  
718-760-6911

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Wednesday July 3, 2013

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

Re: East 14th Community Street Buffer & Tree Project

To Whom It May Concern:

This letter confirms that New York Tree Trust supports the East 14th Community Street Buffer & Tree Project and their project proposal to improve health safety and quality of life in their neighborhood by planting trees in partially raised planting beds along the south side of East 14th Street between Ave B and C. The New York Tree Trust will be working with and assisting the East 14th Community Street Buffer & Tree Project in their plans and is pleased to contribute billing resources for this project. These funds donated to the New York Tree Trust, minus 5% for administrative processing, will be reserved and used solely as outlined in the grant proposal. More specifically, this grant proposal states that Town & Gardens Ltd will be the contractor for the implementation of Phase 2 of this project thus these funds will be used by the Tree Trust to cover approved expenses incurred by Town & Gardens Ltd for this project.

If you have further questions do not hesitate to contact me.

Best regards,

Michael Vacek  
Project Manager  
New York Tree Trust

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Since 1994 Tree Trust has fostered public-private partnerships in urban forestry, raised public awareness of the importance of urban forestry conservation and stewardship, promoted new technologies to enhance tree survival, advanced innovative management tools and revitalized historically significant trees.

July 17, 2013



To: Community Board #3 Members and the Con Edison Task Force  
59 East 4<sup>th</sup> Street  
New York, NY 10003

Re: East 14th Community Street Buffer & Tree Project, approved in Community Board #3 (CB3)

Greetings,

This is to document that we, Town & Gardens, Ltd. have participated in preparing and reviewing the scope of work and budget of \$134,000.00 for the 14 BC Greening project, as detailed in the July 11, 2012 proposal. This includes materials, labor and installation. We are prepared to negotiate a contract with the NYC Tree Trust to execute the work identified for the budgeted amount. Tree purchase and planting will be by NYC Parks.

We look forward to getting started on this exciting community generated project!

Sincerely,



Liz Pulver, Landscape Architect, Town & Gardens, Ltd.

TIMELINE - 14th STREET STREET SCAPE by Town and Gardens, Ltd. SUMMER-FALL 2013

STEPS	Notes	June				July				August				September				October			
		Week of 3rd	Week of 10th	Week of 17th	Week of 24th	Week of 1st	Week of 8th	Week of 15th	Week of 22nd	Week of 5th	Week of 12th	Week of 19th	Week of 26th	Week of 2nd	Week of 9th	Week of 16th	Week of 23rd	Week of 30th	Week of 7th	Week of 14th	Week of 21st
<b>PHASE ONE -- PLANNING</b>																					
Site Analysis	Complete																				
Contact with Utilities and Their Respective Mapping Services	Complete																				
Preliminary Review with DOT and Parks Dept.	Complete																				
Testing at the site	Complete																				
Permitting research	Complete																				
Preparation of Concepts	Complete																				
Meeting and review with Client	Complete																				
Preparation of Preliminary Budget	Complete																				
Meeting and review with Client	Complete																				
<b>PHASE TWO -- DESIGN AND PERMITS</b>																					
Schematic Design	Complete																				
Meeting and review with Client	Complete																				
Procure permitting	In process																				
Review with Vendors	Complete																				
Meeting and review with Client and community	Complete																				
Preparation of Drawings for Town and Gardens installation	Complete																				
Final Installation Proposal. Permit application submitted to Parks for new street tree pits. Full package of information also sent to DOT and ConED Steam group.	Complete																				
Presentation to CB3	19-Jun			Presentation to CB3																	
<b>PHASE THREE -- CONSTRUCTION</b>																					
Procure Parks permitting	Application submitted, awaiting permit																				
Procure DOT permitting	(Occurs 2-3 weeks before excavation will begin)																				
Sidewalk cutting and excavation																					
Installation of Insulation and drainage materials																					
Installation of footings, walls and curbs																					
Installation of soils in new raised Beds																					
Planting	Parks allows trees to be planted after Oct 1.																				
Installation of Site Furnishings (Bicycle racks), by DOT	Install schedule to be confirmed																				
Site Walk Through with Client, ID Punch list items, review maintenance and watering specifications with clients.																					
Address any remaining final punch list items.																					
Preparation of Documents of Completed Work																					

	Phase 1 Planning		Phase 3 Presentations and Final permitting
	Review with Clients		Phase 3 Excavation
	Phase 2 Design		Phase 3 Construction
			Phase 3 Installation , Soils and plantings, site furnishings



# CERTIFICATE OF LIABILITY INSURANCE CS

DATE (MM/DD/YYYY)  
07/17/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).


PRODUCER  <b>GEORGE R GROSSMANN, LUTCF FARM FAMILY CASUALTY INSURANCE COMPANY 4250 VETERANS MEMORIAL HIGHWAY HOLBROOK, NY 11741</b>	CONTACT NAME <b>CATHY SKLAR</b>	FAX (A/C, No): <b>631-439-4651</b>	
	PHONE (A/C, No, Ext): <b>631-439-4650</b>	E-MAIL ADDRESS:	
INSURED  <b>TOWN AND GARDENS, LTD. 328 EAST 25TH STREET NEW YORK, NY 10010</b>	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A:	<b>FARM FAMILY CASUALTY INSURANCE CO</b>	<b>13803</b>
	INSURER B:		
	INSURER C:		
	INSURER D:		
	INSURER E:		

**COVERAGES**                      **CERTIFICATE NUMBER:** 104641                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	X	X	3131X0080	04/28/2012	04/28/2013	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 1,000,000 \$
A	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			3131C0053	04/28/2012	04/28/2013	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			3131E1008	04/28/2012	04/28/2013	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in Nh) <input type="checkbox"/> Y <input checked="" type="checkbox"/> N If yes, describe under DESCRIPTION OF OPERATIONS below			N/A			WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

<b>CERTIFICATE HOLDER</b>  TOWN AND GARDENS, LTD. 328 EAST 25TH STREET NEW YORK, NY 10010	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE  

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# 14th Street Treepit Expansion

## Town and Gardens, Limited

328 East 25th Street, New York, NY 10010  
 Phone 212.685.6566 Fax 212.685.6466

SCALE: 1/32" = 1'-0"  
 DRAWN BY: SM, LP  
 DATE: 4-23-13

REVISIONS: 7-17-13 Rev. 5

### KEY

- FIRE HYDRANT
- STREET LIGHT
- PARKING METER

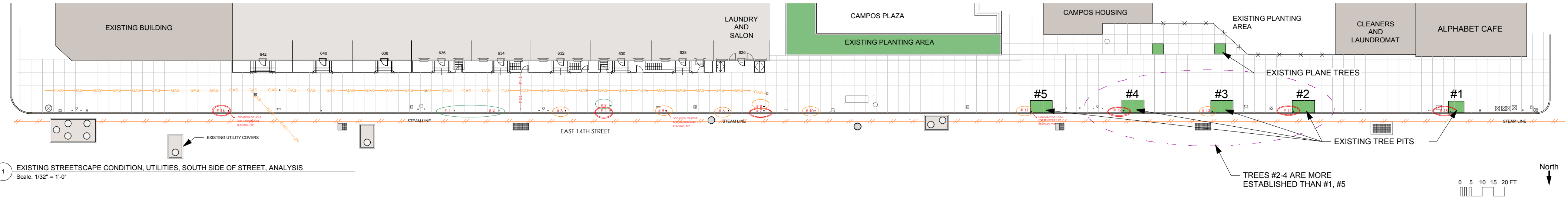
### TEMPERATURE KEY

- Temperatures between 55-64 degrees F
- Temperatures between 65-74 degrees F
- Temperatures between 75-99 degrees F

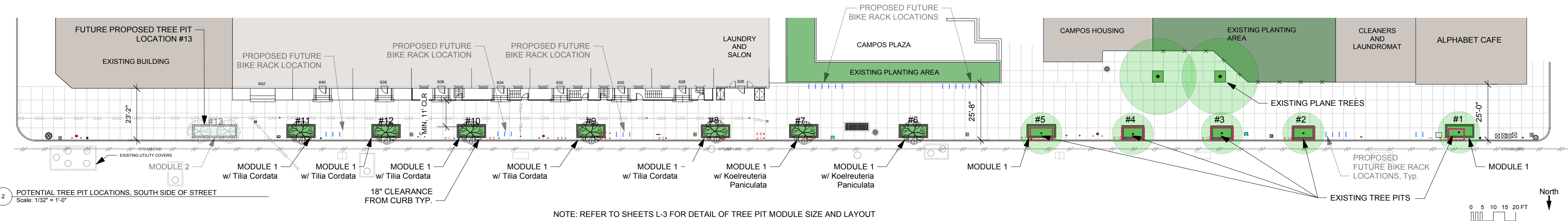
All temperatures were recorded Jan-March 2013, at approx. 18" dp. These can be compared against control temperatures for alternate tree pit, not near a steam pipe in 40-44F degree range. Control temps closely paralleled temperature outdoors.

Temps over 86F degrees generally impair root growth. Root growth stops at temperatures over 103F degrees. As distance from heat source increases, temperatures generally drop 10-15F degrees/foot.

## 14th Street: Existing Plan



## 14th Street: Proposed Layout





# 14th Street Treepit Expansion

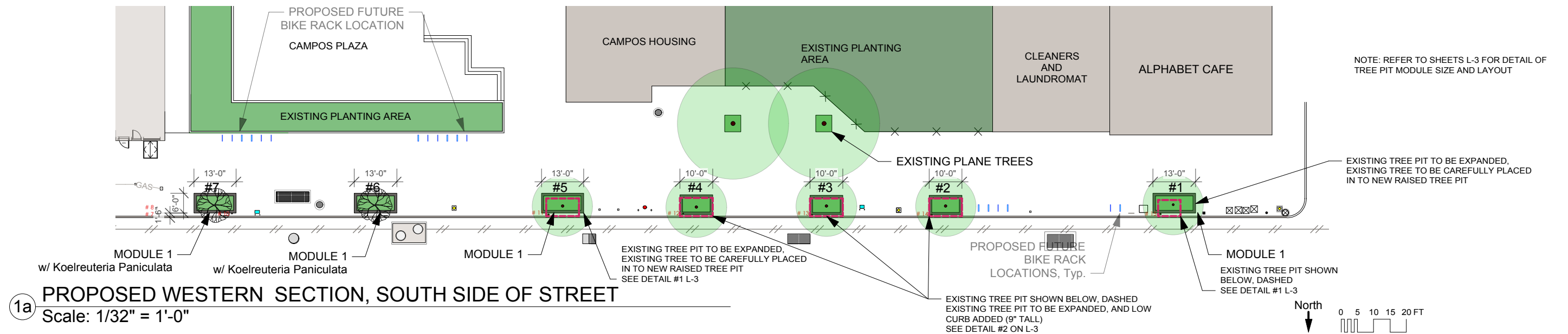
## Town and Gardens, Limited

328 East 25th Street, New York, NY 10010  
Phone 212.685.6566 Fax 212.685.6466

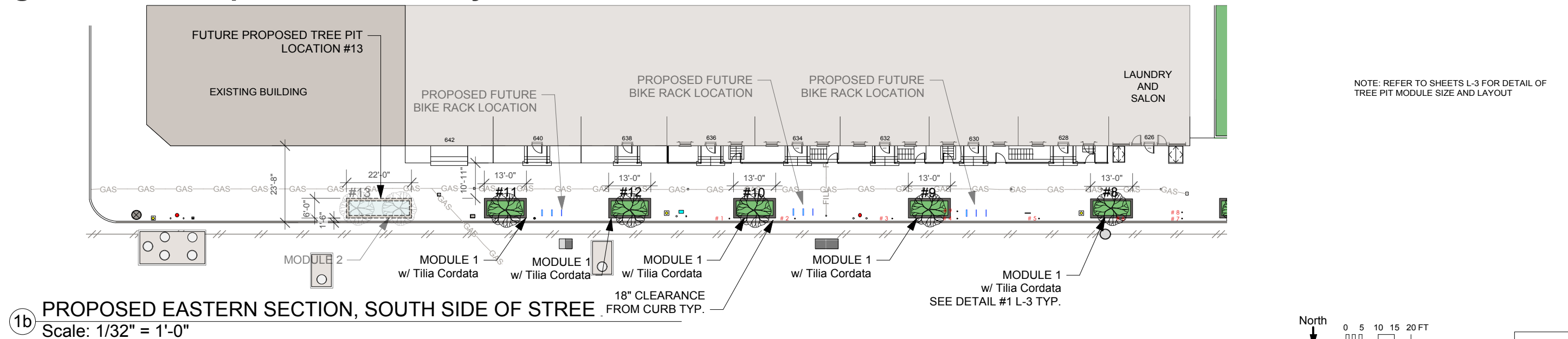
SCALE: 1/32" = 1'-0"  
DRAWN BY: SM, LP  
DATE: 4-23-13

REVISIONS: 7-17-13 Rev. 5

### 1a: Enlarged View of Proposed Tree Pit Layout



### 1b: Enlarged View of Proposed Tree Pit Layout





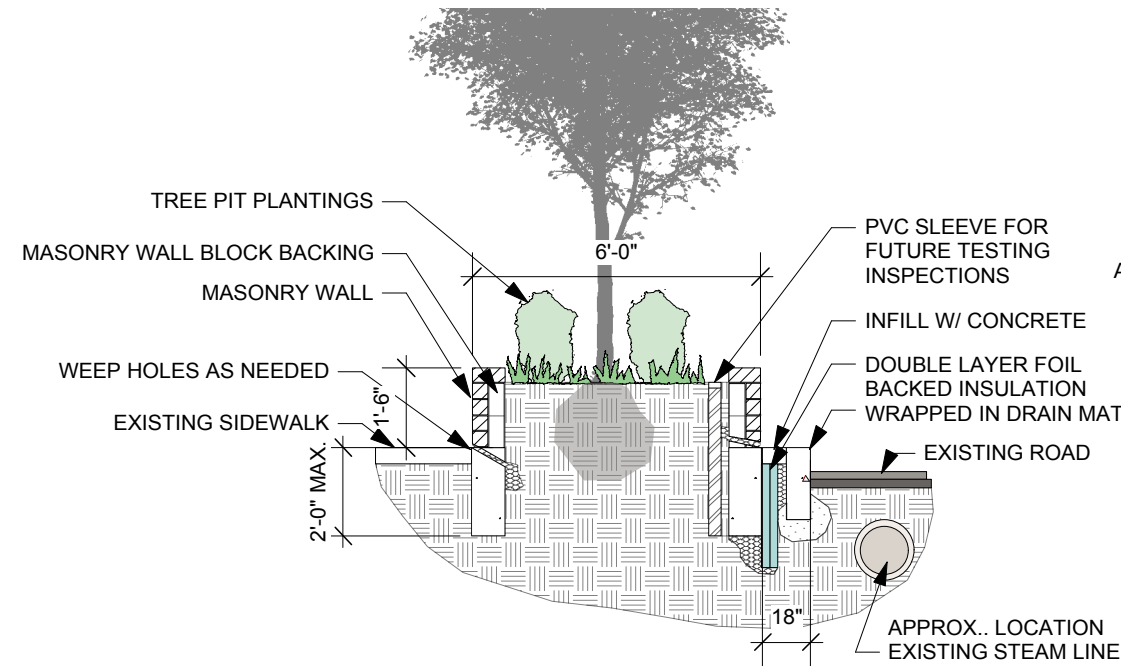
# 14th Street Treepit Expansion

Town and Gardens, Limited

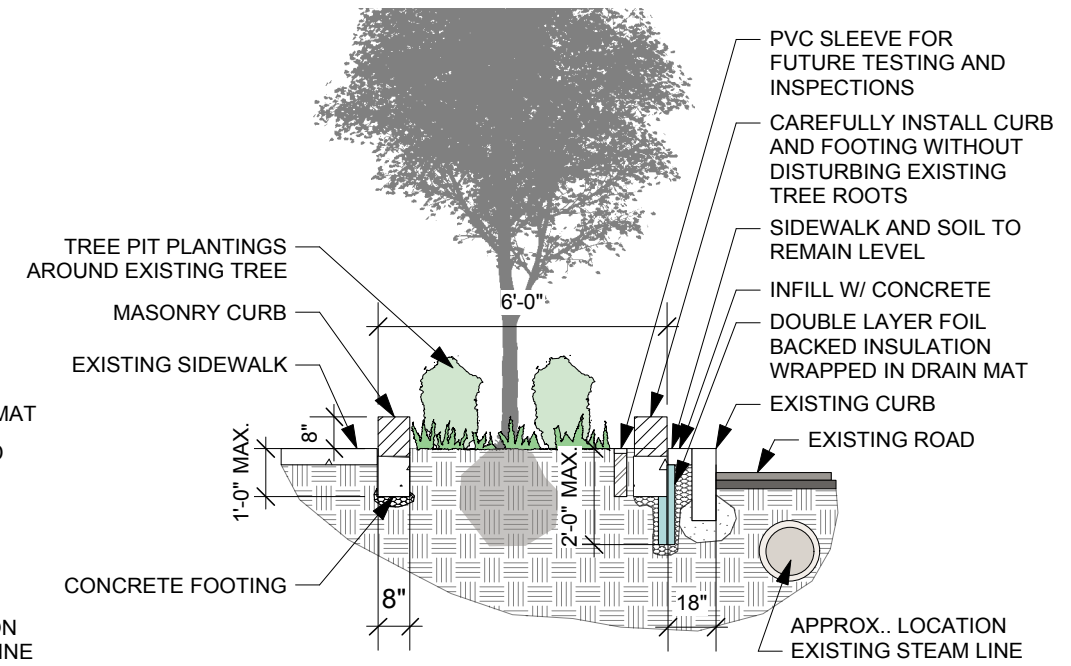
328 East 25th Street, New York, NY 10010  
 Phone 212.685.6566 Fax 212.685.6466

SCALE: 1/32" = 1'-0"  
 DRAWN BY: SM, LP  
 DATE: 4-23-13  
 REVISIONS: 7-3-13 Rev. 4

## Raised Tree Pit Wall Details:



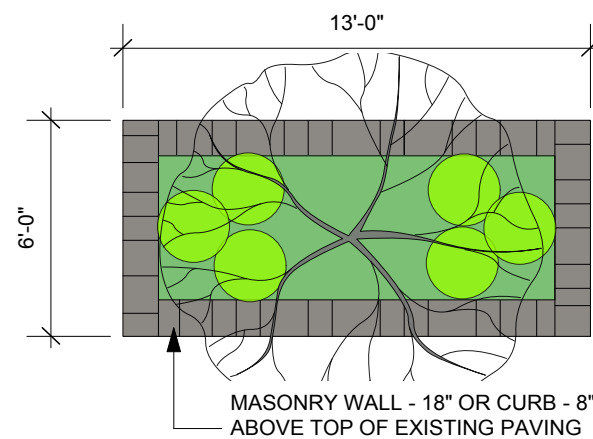
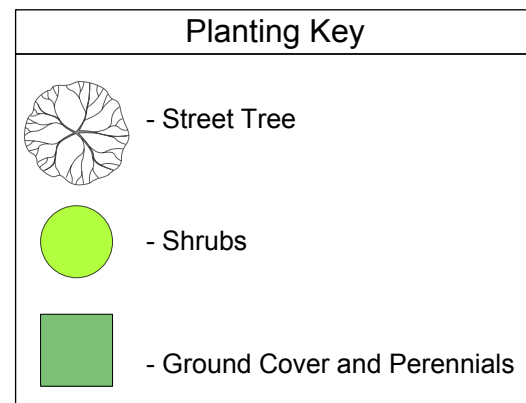
1 **Masonry Wall**  
 Scale: 1/4" = 1'-0"



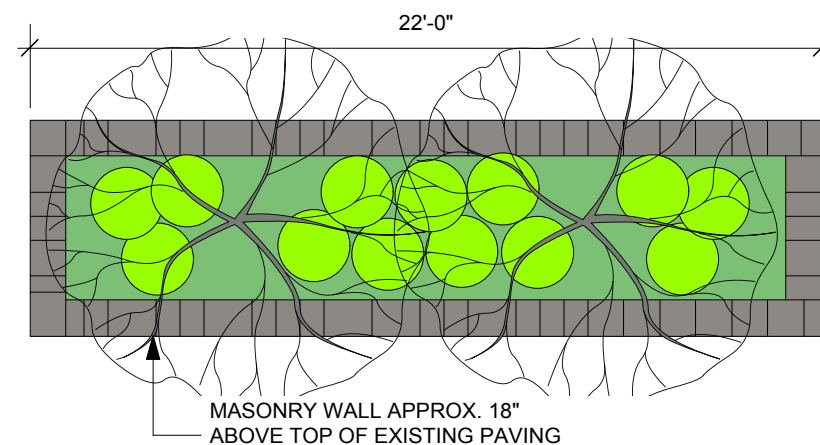
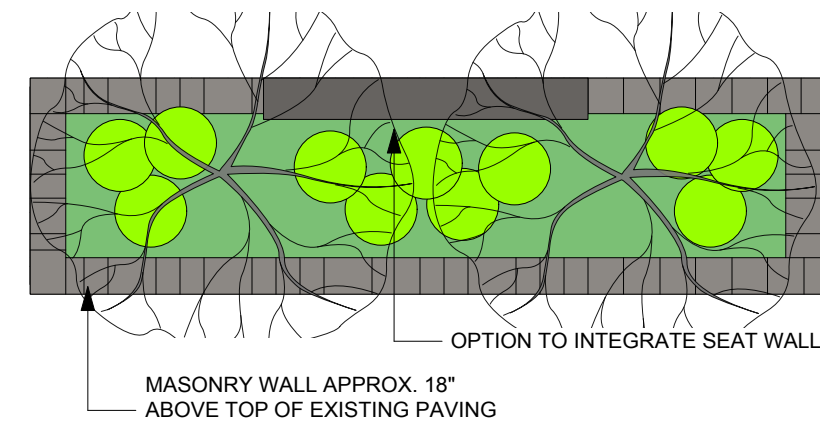
2 **Masonry Curb at Existing Trees**  
 Scale: 1/4" = 1'-0"

## Raised Tree Pit Modules:

With planting layout options



**TREE PIT MODULE 1**  
 Approx. 6' x 13'



**TREE PIT MODULE 2**  
 Approx. 6' x 22'





*Gleditsia Triacanthos*, Honeylocust  
Summer Flowers

*Koelreuteria paniculata*, Goldenrain Tree  
Summer Foliage



Planting: Shrubs and Ground Cover Selections



Purple Sand Cherry



Kerria japonica



Deciduous Azalea



Hydrangea Shrubs



Hydrangea Endless Summer



Spiraea



Spiraea Flowers



Liriope



Groundcover Rose- Pink



Groundcover Rose- Yellow



Cotoneaster  
White Flowers and Late Season Berries



Cotoneaster Summer Foliage



Juniper 'Bar Harbor'



Daffodil Bulbs, ties into nearby "Parks"  
planting



Daffodil Bulbs, ties into nearby "Parks"  
planting



14th Street Trees

Existing Street Trees  
June 06, 2013



View South, Existing Conditions  
Intersection with Avenue B, to right



TREE #5



TREE #4



TREE #3



TREE #2



TREE #1



14th Street Plantings

Existing Street Trees and Site Conditions  
June 06, 2013



View North from Campos Plaza entrance



View East, Campos Plaza Buildings on right



View South toward Campos Plaza plantings



View North from Campos Plaza entrance



View East



View South toward Campos Plaza. Avenue B on right. Avenue C on left.



View East toward Con Edison Plant Entrance and Avenue C



View South and East, near Avenue C



View Southwest toward Buildings #642 - 628