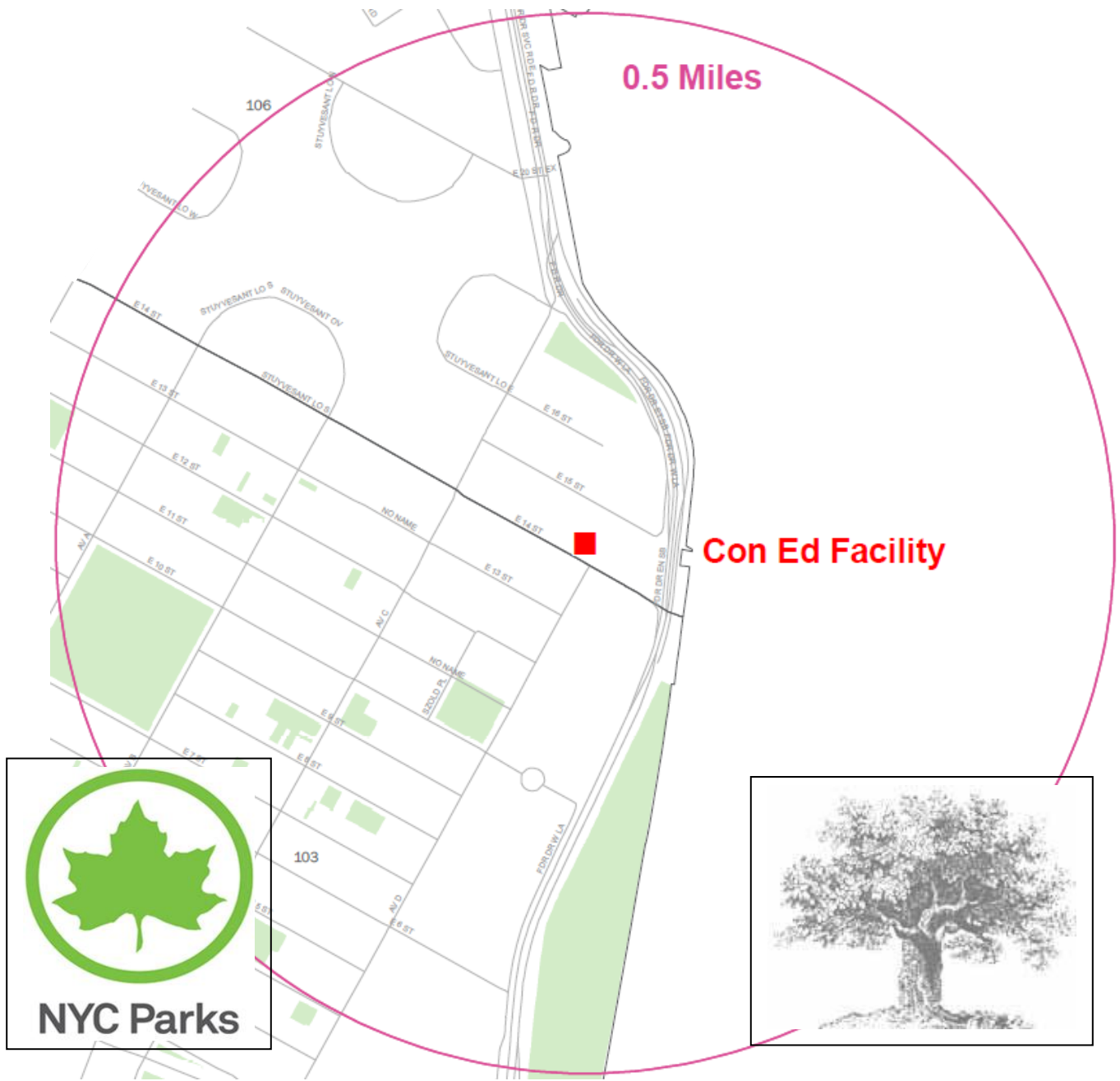


Lower East Side Accelerated Greening Program: New Trees, Pit Expansion, Groundcover Plantings and Wooden Tree Guards for Existing Trees for the Lower East Side



Lower East Side Accelerated Greening Program

New Trees, Pit Expansion, Groundcover Plantings and Wooden Tree Guards for Existing Trees for the Lower East Side

Application for Con Ed Settlement Funds

As the awareness of the benefits of an urban tree canopy has grown over recent decades there has been a growing push to plant and protect the trees in our urban neighborhoods. The Lower East Side Accelerated Greening Program's goals are to work as a focused project within this greater greening movement by completely stocking all available street tree locations and increasing the tree health of existing street trees near the Con Edison East River Complex. To achieve these goals the Lower East Side Accelerated Greening Program seeks \$150,000 from the Con Ed settlement funds which will be matched with \$150,000 from the City of New York Department of Parks & Recreation to plant trees, expand the pits of existing trees, add wooden tree guards to tree pits, and plant groundcover/ flowering spring time bulbs for as many trees as funding will allow in the Lower East Side. This effort will be coupled with a focus on long term stewardship of the trees in this area by engaging in community outreach in cooperation with the Lower East Side Ecology Center (LESEC) and leading groundcover/bulb planting days and a stewardship workshop to educate citizens on tree care.

This multifaceted project begins by focusing efforts within ½ mile radius zones of the Con Ed East River Complex (see Appendix 1). The first goal is to ensure that all available street tree planting locations radiating from the Con Edison facility are planted. NYC Parks has estimated there are approximately 55 remaining tree planting opportunities within the ½ mile area. Next, existing trees will be surveyed for tree pit expansion, low-cost wooden tree guard installation, and groundcover/ flowering bulb plantings until remaining funds are used. We estimate the funds requested will enable the expansion, guarding, and tree bed planting for at least 167 trees but will vary depending on the amount of new tree planting locations that are found. In addition, it is estimated that 120 of the newly planted trees in the neighborhood within the past few years will have groundcover, bulbs and a tree guard installed. This work will revitalize many of the newly planted trees by New York City Parks & Recreation in conjunction with LESEC, as well as approximately 20 new trees that are scheduled to be planted the spring of 2013. The rehabilitation of existing tree beds, installation of affordable tree guards, and any new trees planted will create a visual consistency to all street tree beds within the focus ½ mile area as well as ensuring each trees growing conditions are optimized for tree longevity. It is also possible that some tree planting could be focused on nearby Park areas or any private land if desired by the Committee or Con Edison.

These efforts will be further refined by a variety of public outreach efforts on tree care and community empowerment to provide additional boost to future tree health and longevity to maximize the benefits trees bring to this neighborhood. This outreach will be done in close coordination with LESEC, and events will focus on the following areas: groundcover planting, bulb planting, and tree guard installation. The NYC Tree Trust will provide all materials (bulbs, groundcover, tools, etc) needed for the work days and stewardship workshops while the LESEC will help to coordinate as their own events to leverage LESEC's already sterling reputation throughout the neighborhood. Our hopes are that the groundcover, bulbs and tree guards will be installed with the help of volunteers, increasing the level of community involvement, as well as the anticipated level of ownership. Please note, these stewardship efforts are not redundant of the contractually obligated initial tree care for two years as required that will be provided by the contractor that performs the work. This focus on stewardship ensures the trees within the neighborhood are as healthy as possible to ensure their longevity and maximize the benefits they will provide. In the event that NYC Tree Trust has difficulty in managing community work days, and not all of the groundcover or bulbs are planted NYC Tree Trust will pay LESEC to install any remaining groundcover, bulbs, or tree guards. LESEC and Tree Trust will coordinate a per tree fee for any remaining planting or tree guard installation. The fee will cover all necessary costs to install remaining portions of the proposed grant work.

Lower East Side Accelerated Greening Program will be led by New York City Department of Parks and the New York Tree Trust. They will coordinate with the LESEC, MillionTrees NYC, property owners, local community gardens, adopt a tree pledges, and citizen pruners. The New York Tree Trust, a 501-3c non-profit, will accept the settlement funds for the trees and tree work. NYC Parks will match those dollars and coordinate the use of these funds according to the Program's stated budget and goals, and coordinate the installation of trees and tree work.

The Lower East Side Accelerated Greening Program will satisfy the settlement funds scope as a healthy canopy of trees is one of the best ways to provide local air quality improvement and subsequently neighborhood health improvement. The Program will also provide stewardship and outreach efforts that will serve the local community in a variety of ways thru the numerous other benefits that trees and neighborhood beautification provides. These efforts equally satisfy NYC's Million Tree goals by enabling the planting of more trees in an area of need. In addition, Parks has already planted many trees in the area and it has become clear that the underground infrastructure of the neighborhood restricts tree planting locations. Therefore, it is critical to the long term development of canopy within this neighborhood that existing trees receive extra care to ensure their longevity. By increasing the health of existing trees this plan also works to offset future tree maintenance and tree replacement costs, which again helps NYC Park's goals of increasing the longevity of large trees and the benefits those large trees provide. The partnership of these goals will provide environmental, economic, and health benefits to the local community for generations to come.

Timeline

- June/July 2013–NYC Parks will survey all street tree sites within ½ of a mile of the East River Complex for tree planting viability as well as survey for the expansion of existing pits and/or ground cover plantings and/or wooden tree guards in this area. Community Outreach efforts will begin in conjunction with the Lower East Side Ecology Center.
- October 2013–NYC Parks will mark locations with a contractor and start any necessary pre-construction work. NYC Parks will provide a report to Community Board and Con Edison detailing proposed work prior to the commencement of work.
- October-November 2013–All installation work for tree planting and tree pit expansion occurs.
- November- December 2013–Stewardship workshop occurs. Groundcover, bulbs, and tree guards are installed throughout the focus areas in conjunction and coordination with LESEC.
- December 2013- NYC Parks will provide an updated report to the Community Board and Con Edison detailing the final work completed.
- December 2013-December 2015– All trees will get weeded and watered once every two weeks through the growing season (May 15-October 15). Any trees that die will be replaced in the subsequent season.

Budget

The New York Tree Trust has obtained estimates from approved NYC Department of Parks & Recreation contractors of approximately \$1,800 to install each new tree. In addition, see below for a summary of the three different installations that could occur with grant funding:

- Plant street tree, install groundcover, install bulbs, install tree guard \$2000 (55 estimated)
- Expand tree bed, install groundcover, install bulbs, install tree guard \$650 (167 estimated)
- Install groundcover, install bulbs, install tree guard around newly planted trees \$350 (120 estimated)

These funds will pay for a contractor to oversee all sidewalk site preparation, the actual tree, tree planting (which may include hand digging of more difficult tree planting sites), a two-year guarantee period, maintenance and watering for two years, and all necessary permits to perform the work from both NYC Department of Parks and Recreation (DPR) and the Department of Transportation (DOT). This price also covers supervision of all trees while they are planted to ensure they are planted to DPR's specifications. DPR will coordinate the full survey of underground electric and gas utilities in the area for tree planting locations. The project management costs listed includes staff time needed to carry out the coordination, implementation, and management of this proposal for the 6-month timeline described.

Funding

Settlement Funds	\$150,000
<u>Matching Funds from Park's & Recreation</u>	<u>\$150,000</u>
Total	\$300,000

Costs

Project Management (Salary and fringe for grant line- 6 months) <i>Covered by Con Ed portion of the grant</i>	\$40,000
55 Newly Planted Trees (\$2000 per tree) Plant street tree, install groundcover, install bulbs and install tree guard <i>Covered by Parks matching funds</i>	\$110,000
Expand existing tree bed and install groundcover/ bulb plantings/ wooden tree guards around existing trees (\$650 per tree) <i>Shared cost between Parks (\$40,000) and Con Ed (\$68,000)</i>	\$108,000
Install groundcover/ bulb plantings/wooden tree guards around new trees (\$350 per tree) <i>Covered by Con Ed portion of the grant</i>	<u>\$42,000</u>
Total	\$300,000

Deliverables

In October 2013, at the completion of an initial detailed survey of the areas detailed in (Appendix1), Lower East Side Accelerated Greening Program (NYC Tree Trust) will provide a report to the Community Board and Con Edison detailing the proposed address of each new tree to be planted, guard to be installed, and each existing pit to be expanded and/or planted with ground cover. Lower East Side Accelerated Greening Program (NYC Tree Trust) will provide a final report to the Community Board and Con Edison at the conclusion of the project in December 2013. This report will include the address of each new tree planted, guard installed, and each existing pit expanded and/or planted with groundcover or flowering bulbs.

Additional Information on Tree Benefits and the Improved Community Health Trees Provide

The benefits of planting trees in cities have been studied extensively. Trees have been found to consistently provide environmental benefits, economic benefits, and health benefits to the local community (Appendix I). In addition to these benefits Lower East Side Accelerated Greening Program focuses specifically on improving and protecting the tree health of large high value existing trees by targeting them for pit expansion, guard, and/or groundcover planting. The benefits of expanded trees pits and guards are that they simply provide trees the space and resources they need to remain healthy, thus enabling the trees to provide these listed air quality and public health benefits well into the future. The use of groundcover and bulb plantings is a two pronged approach to tree health and neighborhood quality of life problems in that they both aid in tree health and add aesthetic value to the neighborhood. The aesthetic value of groundcover planting generally raises neighborhood awareness to trees, beautify the neighborhood, and add incentive to public and business engagement in tree care activities. The Lower East Side Accelerated Greening Program will have many positive effects on community health, some more specific information on these benefits of trees include:

- **Improved Air Quality**-Net annual air pollutants removed, released, and avoided average 1.73lb. per tree and are valued at \$5.27 million or \$9.02 per tree (New York City, 2007). In fact, one tree can remove 26 pounds of carbon dioxide from the atmosphere annually, the equivalent of 11,000 miles of car emissions. In addition, trees remove dust and other pollutants from the air.
- **Improved Health**-There is strong evidence that trees help reduce air pollutants that can trigger asthma and other respiratory illnesses. A 2008 study in the Journal of Epidemiology and Community Health found that children in NY living in areas with more street trees have a lower prevalence of asthma. Studies find that by planting trees, there is a high likelihood of lowering childhood asthma rates in the area served by Community Board 3. (Appendix III). Green spaces also encourage physical activity-a healthy habit for any New Yorker.
- **Community and Business District Appeal** -The greening of business districts increases community pride and positive perception of an area, drawing customers to the businesses. Studies have found that tree-lined retail districts encourage more frequent visits, more time spent shopping and more spending by consumers (Journal of Forestry, 2005).
- **Reduced Crime**-A study by University of California horticulturalist Ted Stamen in 1993 found that urban spaces which had been planted had a 90% chance of remaining graffiti free.
- **Storm Water Capture**-New York City's street trees capture rain both in their canopies and tree beds, reducing storm water runoff by 890.6 million gallons annually. This has an estimated value of \$35.6 million and the average tree captures 1432 gallons of storm water each year (New York City, 2007).
- **Slowing Global Climate Change** - Urban trees help offset climate change by capturing atmospheric carbon dioxide in their tissue, reducing energy used by buildings, and reducing carbon dioxide emissions from fossil-fuel based power plants. NYC trees remove over 42,000 tons of carbon each year.
- **Lower Summer Air Temperature**- According to the U.S. Environmental Protection Agency, urban forests reduce urban temperatures significantly by shading buildings and concrete and returning humidity to the air through evaporative cooling.
- **Natural Resource Conservation**- By using trees to modify temperatures, the amount of fossil fuels used for cooling and heating by homeowners and businesses is reduced.

- **High Return of Investment-** Over the years the City has invested millions in its urban forest. NYC Parks Department estimates that trees provide \$5.60 in benefits for every dollar spent on tree planting and care.

Additional Information on Local Support, Community Outreach & Continuing Efforts

Lower East Side Accelerated Greening Program will use its contact list of already vested tree care entities and business owners in the Lower East Side for community outreach. This outreach coupled with field visits in the neighborhood will ask for support from the local community to assist in monitoring, watering, and maintaining the trees once the two-year guarantee has lapsed. These efforts will operate in tandem with DPR's existing Adopt-a-Tree effort. Information about DPR's volunteer stewardship effort to get the community to care for trees can be found here; <http://stewardship.nycparks.org/>

MillionTrees NYC will also plan to hold a stewardship workshop during the Fall of 2013 in the Lower East Side to help equip local residents with the knowledge and tools needed to care for new street trees. The workshop will cover basic tree biology as well as teach the basics of new tree care.

The continuing efforts for all specific work items will also be contractually binding for two years. The installers hired by New York City Parks and the Tree Trust will be required to water the trees every two weeks during the growing seasons and to guarantee each tree for a two-year period.

Additional information on NYC Department of Parks & Recreation Trees Planting efforts in this Area.

DPR receives and records each request to plant a tree in the city through a database. While DPR attempts to plant trees as quickly as possible NYC Parks is only scheduled to plant some of these requests in the 2013 planting seasons as requests can take up to 1 year to be surveyed. The DPR request based system does not have any requests for recently identified empty tree pits on streets bordering the East River Complex. (Note: Any tree site adjacent to Con-Ed property will be carefully considered and negotiated to be planted by Con-Ed rather than by these funds at the request of the granting committee). In addition, there is no current funding for the expansion of tree pits or guarding of trees in the LES. Unrequested tree sites and trees in need of pit expansion are often delayed in being addressed as public demand for trees are given top priority. These sites and this neighborhood are perfect candidates for specific grant based funds such as the Lower East Side Accelerated Greening Program. By focusing in on the neighborhoods in the immediate proximity to the East River Complex the Lower East Side Accelerated Greening Program will both quicken the pace of planting, provide opportunities for tree planting in often neglected sites, and increase existing tree health by expanding pits, guarding trees, and using ground cover plantings.

Lower East Side Accelerated Greening Program Participants

New York Tree Trust



The New York Tree Trust is a non-profit 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 arboreal significant municipal trees. The New York Tree Trust's fiscal sponsor is the City Parks Foundation whose tax ID number is 133561657.

NYC Department of Parks and Recreation



The Parks Department Central Forestry division and forestry divisions of each borough provide a variety of tree and sidewalk-related services to New York City. NYC Parks evaluates each tree planting location to determine the sites suitability and potential infrastructure conflicts.

MillionTreesNYC, one of the PlaNYC initiatives, is a citywide, public-private program with an ambitious goal: to finish planting and care for one million new trees across the City's five boroughs over the next five years. By planting one million trees, New York City can increase its urban forest a valuable environmental asset made up of street trees, park trees, and trees on public, private and commercial and by an astounding 20%, while achieving the many quality-of-life benefits that come with planting trees. More information about MillionTreesNYC can be found at:

<http://www.milliontreesnyc.org>

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