

# Pippin Park



New York State Map

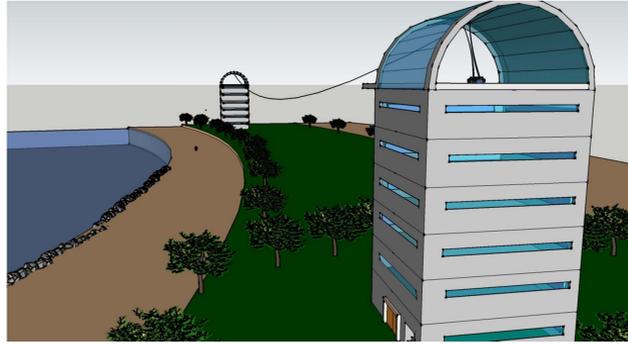


New York City Location Map



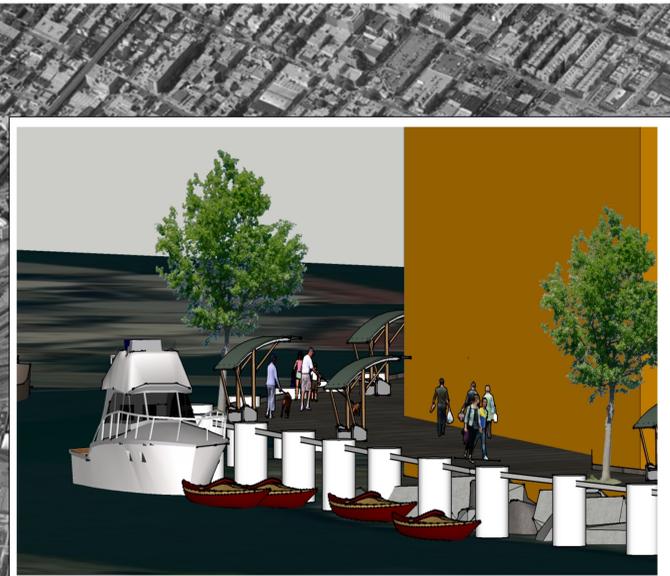
### Ferris Wheel

A commercial attraction for tourists, promoting local businesses and the park itself. A unique feature of the city, we believe it will bring in a large audience for the neighborhood.



### Zip Line

The zip line is a classic tourist attraction. This attraction promotes a lively environment for people that want a piece of adventure in their nature experience.



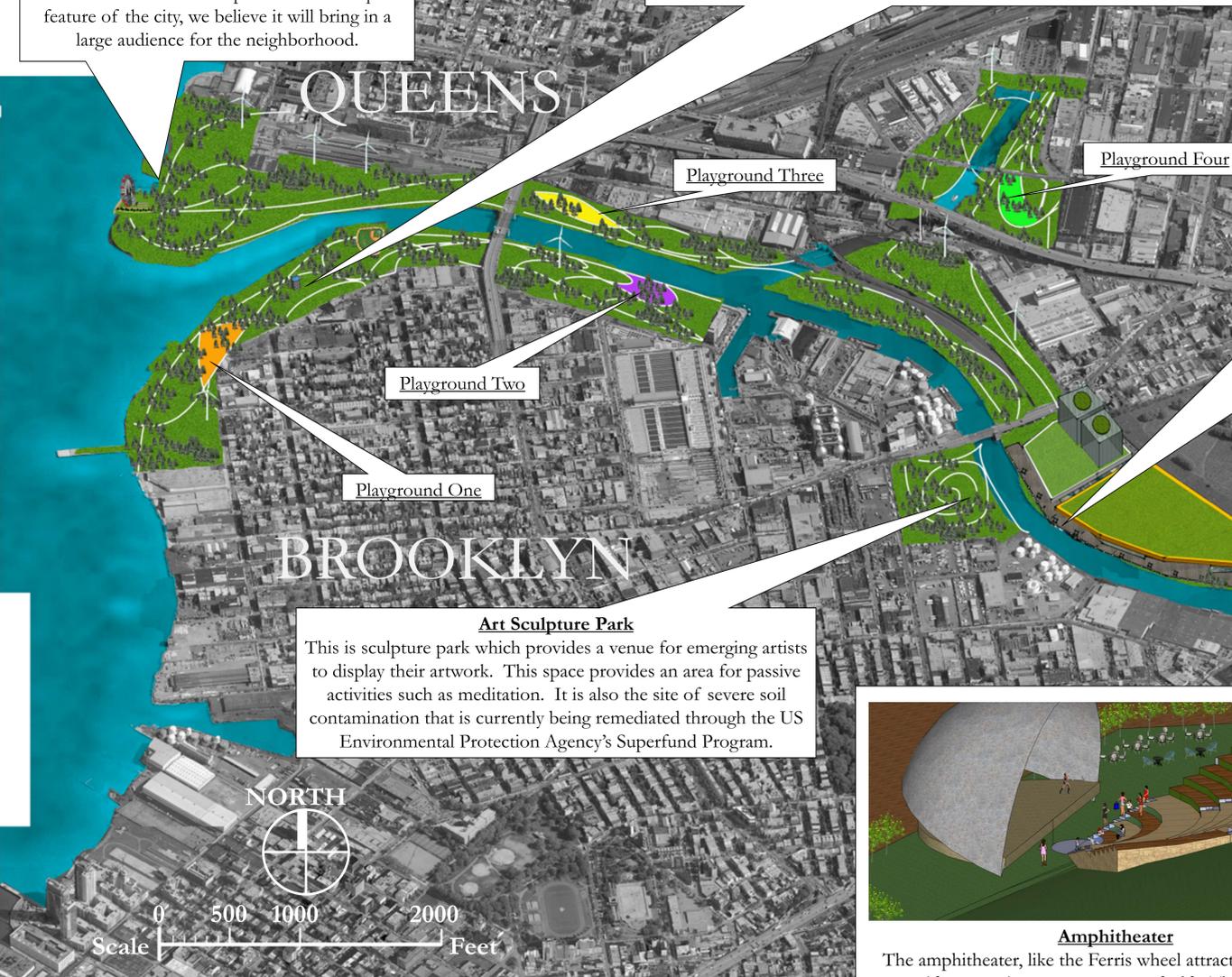
### Residential / Commercial

This is a proposed residential space to bring together the people from Queens and Brooklyn. The two towers include 7 floor luxury lofts.



### Marina / Ferry Boat

The Marina is a privately funded dock for pleasure boaters. Residents of the area and visitors can utilize the Ferry Boat services to and from this multimodal connection.



QUEENS

BROOKLYN



Scale 0 500 1000 2000 Feet

Playground Three

Playground Four

Playground Two

Playground One

### Art Sculpture Park

This is sculpture park which provides a venue for emerging artists to display their artwork. This space provides an area for passive activities such as meditation. It is also the site of severe soil contamination that is currently being remediated through the US Environmental Protection Agency's Superfund Program.



### Amphitheater

The amphitheater, like the Ferris wheel attraction is meant to provide entertainment to young and old. The events at the Amphitheater can be heard through live streaming video and audio feeds that park goers can enjoy through their Wi-Fi capable devices.

Swimming Pool

Playground Five

Playground Six

### Sports Zone

The Sports Zone Area provides space for a variety of active recreational and organized sports activities for locals of all ages.



Central Park  
Manhattan  
(843 acres)

Prospect Park  
Brooklyn  
(585 acres)

Pelham Bay Park  
Bronx  
(2766 acres)  
New York City's largest Park

Pippin Park  
Brooklyn/Queens  
(375 acres)

### New York City Park Comparison

This scaled comparison is between other famous New York City parks, and our very own Pippin Park. Unlike any of these parks, Pippin Park is not a defined shape, it follows the natural path of what nature has given us. As well, Pippin Park is defined by the street grids of Williamsburg, Brooklyn and Long Island City, Queens.



Existing Newtown Creek Map

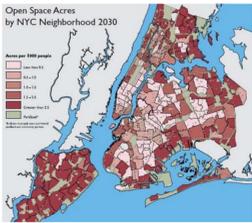
Preliminary Sketches



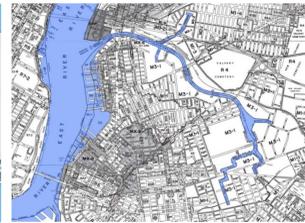
Existing Sign at Newtown Creek



NYC Greenway Map



Open Space Map



NYC Zoning Map

### Project Vision

Our intent is to implement a development plan for a small scale waterfront park that provides entertainment for, and unites, the communities of Brooklyn and Queens. The waterfront park would provide retail amenities; large amounts of open outdoor space; waterfront recreation areas, and affordable residential units. Overall, the proposed plan would transform the industrial area into an enlivened waterfront park. This would provide significant improvements to the underdeveloped area between the Boroughs of Queens and Brooklyn. Our design process began by all members of the team creating rough renderings and sketches, and gathering information to gain a further understanding of the current layout of New Town Creek. The most challenging aspect of our design process was deciding the different activities and where to place them along the creek. As aspiring architects, engineers and construction workers and urban residents, the members of Team 8 were inspired to build a site that rejuvenates the area that and will hopefully bridge the communities of Brooklyn and Queens. As teenagers of a metropolitan area, where most of the interesting aspects of the city are divided, we believe it would be interesting to create an area that would finally combine elements of nature in an eco-friendly environment, with entertainment centers, recreational areas, and residential complexes.

Initially, we explored the idea of having hubs, which are above the water, and can function to connect Queens and Brooklyn. We spent time adding venues that are not common in New York City, such as the zip line, and the Ferris wheel. We reviewed the New York City 2020 Plan which promotes access to the New York City waterfront.

**Site Selection**

Our Team wanted to create a waterfront park in an underdeveloped area. We wanted to create a new atmosphere for the people surrounding it as well. We concluded that Newtown Creek was the most appropriate location. We felt that Newtown Creek is the best site because it is located in an industrial area surrounded by residential zones on both sides of the creek. Instead of having the industrial area, we wanted a waterfront park that would provide recreational activities, residential housing, and commercial amenities. The team reviewed planning maps of the area surrounding Newtown Creek to identify transit availability, school proximity, essential factories, nearby parks, etc. We concluded that this 375 acre site situated in an industrial area, parallel to the Long Island and Queens Midtown expressways was the most suitable area to plan our park.

**Site History**  
 Newtown Creek, located in the City of New York, is a part of the New York – New Jersey Harbor Estuary. It forms the northern border of the Borough of Brooklyn and the southern border of the borough of Queens. In the mid 1800's, the area adjacent to the 3.8 mile Newtown Creek was one of the busiest hubs of industrial activity in New York City. More than 50 refineries were located along its banks, including oil refineries, petrochemical plants, fertilizer and glue factories, sawmills, and lumber and coal yards. In addition to the industrial pollution that resulted from all of this activity, the city began dumping raw sewage directly into the water in 1856. During World War II, the creek was one of the busiest ports in the nation.. Today, as a result of its industrial history, including countless spills, Newtown Creek is one of the nation's most polluted waterways. The operation, and the contamination, stem from an oil spill that occurred more than half a century ago and has been described as **more than twice as large as the Exxon Valdez disaster**, which released 11 million gallons of crude oil off the Alaskan coast.

**Contaminated site**  
 The Brooklyn spill, which resulted from an industrial explosion in 1950, released an estimated 17 million gallons of oil and oil products, polluted the soil, left traces of toxic chemicals in Newtown Creek, led to years of community and environmental outcry and became the basis of several continuing lawsuits. Nearly eight million gallons remain beneath the Exxon Mobil property and nearby properties along Kingsland Avenue, though the contamination cannot be seen or smelled. How long it will take to get rid of the remaining material is unclear. It is not much to look at, but Exxon Mobil officials say the cleanup operation is slowly eliminating the contamination that has been deep underground in the Greenpoint neighborhood for decades.



**LEED**  
 LEED or Leadership in Energy and Environmental Design is an internationally recognized certification system for green building design. Developed in 2000 by the United States Green Building Council (USGBC) it can be used to implement environmentally sound features into both commercial and residential buildings, existing or new. There are four levels of LEED certification: Certified, Silver, Gold, and Platinum, from lowest to highest ranking. LEED's credit system is split into seven different categories, which are: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design Process. This project is comprised of LEED credits in six categories. The goal for Sustainable Sites was to improve and implement green features at Pippen Park. Our design attained twenty-two points for Sustainable Sites. The goal for Water Efficiency was to reduce water use and implement innovative wastewater technologies. Our design achieved six points for Water Efficiency. The goal for Energy and Atmosphere optimize energy performance and installing green power, such as solar panels and wind turbines. We achieved 21 points for Energy and Atmosphere. The goal for Materials and Resources was to use sustainably sound materials. Pippen Park received three points for Materials and Resources. The goal for Indoor Environmental Quality is to maximize the air quality in the area of the park, such as lighting, daylight, and views. Lastly, the goal for Innovation & Design Process was develop a new construction and Major Renovation by surpassing past designs.

**Pier and Waterfront Construction**  
 Fiberglass Composite Piles are today's preferred building material for waterfront foundations, docks, piers and bridges. Composite pilings are stronger than wood, steel and do not contain chemical preservatives that leach into the water. Sustainable fiberglass composite pilings are environmentally friendly, will not rust, rot or crumble.

**Elements of Pippen Park: Soils**  
 Fertile soil is essential to the upkeep and sustainability of our innovative design of Newtown Creek. Within the site, we expect our soil to serve beneficial functions such as: support for vegetation, regulation of water supply, treatment and filtration of water pollutants. Newtown Creek is a superfund site which contains large amounts of contamination and is being remediation by various organizations. Until the remediation of soil is complete, healthy, productive soil cannot be placed. Newtown Creek has been exposed to industrial contaminants over the years. It's most severe contamination happened as a result of the Exxon oil spill of 2007 that dumped between 17-30 million gallons of oil into the site. To start, we plan to create a soil assessment report which will show the toxicity level of the area. As a result of completion the site assessment, we have made certain assumptions that a 30 foot deep concrete retaining wall will have to be constructed to contain and prevent any further contamination into the creek. We anticipate that the US Department of Environmental Protection (as per the Superfund Guidelines) would install multi-phased extraction systems throughout the portion of land that is bound by Kingsland Avenue, Lombardi Street, Greenpoint Avenue and the Creek. This remediation project was intentionally included within our project scope. We did, however, design a portion of Pippen Park, outdoor Arts Park/Sculpture, to sit on top of the contaminated site. We investigated the types of remediation systems and discovered that a multi-phased extraction system would be used. These systems include vapor extractors that are placed within the soil. The contaminated vapor would be circulated through the system by using a series of filters, which would result in clean, harmless vapor being released into the atmosphere above grade. We will accomplish this by incorporating chimneys into the sculptures so that they are not visible. Additionally, in this entire portion of the site, a 10 mil thick vapor barrier will be placed approximately 10 feet below grade. New healthy soil will be placed on top of the vapor barrier for all of the new park landscaping. Throughout the majority of the site creek banks, we have placed rip rap along our boardwalks to prevent soil erosion. We then must identify which areas of the site demand proper soil for planting, such as our amphitheaters and parks. The types of soil that we will use include top soil, which is crucial to the sustainability of indigenous plants, and contracted soil, which is impermeable.

**Elements of Pippen Park: Housing**  
 We wanted to create a waterfront living community with a view of the Manhattan skyline. Therefore, we created Pippen Park Apartments. The Team analyzed how the City grid was laid out for the borough of Queens that encompasses the neighborhoods of Hunter's Point, Blissville, Sunnyside and Ridgewood. On the Brooklyn side were the communities of Greenpoint and East Williamsburg. The Team felt that the existing residential zone was the ideal connecting piece to bridge the two communities and spawn a new commercial center. The new development would be a hub that would foster economic development. In order to create this site, which includes two residential towers with a combined underground garage, we redistricted our zoning from R4 to R6. This allowed us to build the towers at 730 ft. in height, giving us 7 floors, with a 1200 square feet footprint. The buildings are constructed of masonry rainscreen with a glass curtain wall system. The structure of the building consists of a concrete slab on grade foundation supported by fiberglass composite piles. Each tower has its own circular rooftop garden which is approximately 150 ft. in diameter. The towers have a green roof was used to contain rain water for use for all landscaping of the site. We believed it was more important to build the towers at 7 stories high, because buildings between 4 and 7 stories tend to have a lower energy footprint per square feet than high rises greater than 7 stories. In front of the towers, there is a commercial center and a mile- long boardwalk, which will allow both residents and non-residents to enjoy shopping or activities such as kayaking on the creek.

**Elements of Pippen Park: Art Sculpture Garden**  
 The Art Sculpture Garden is an integral area of the Pippen Park complex. The Sculpture Garden is located directly across the creek from the apartment towers and boardwalk, and measures 600 square feet. The garden also features abstract sculptures, which are all done by local Brooklyn and Queens' artists. It includes a small playground area, park benches, and various indigenous vegetation such as milkweed bushes and pippen apple trees. The intent of the park is to provide open space and a free environment for artistic inspiration for the residents of Queens and Brooklyn.

**Wind Power**  
 We feel that Pippen Park is an ideal location to utilize wind power to generate electricity. We intend to locate 120 foot tall wind turbines throughout the 387- acre, 4 mile long site. We feel that our site is an ideal location for this because of the low scale of the built environment. Most buildings in the area are less than 30 feet high. Our turbines will generate approximately 5 megawatts of energy, enough to power 1000 homes. The electricity would be distributed throughout the park and used for security lighting, electrical needs at the comfort stations and concession stands, and to provide power to our recreational attractions. Adding wind turbines would transform Newtown Creek from a neglected area into something wonderfully healthy and sustainable. Having windmills within the beautiful park setting could be a model for future parks around the world.

**Park Amenities**  
 Since Pippen Park straddles the borders of Brooklyn and Queens, it covers some of the most ethnically diverse communities in the world. Pippen Park attracts people of different age groups. Therefore the team thought it was necessary to incorporate recreational features appropriate for all ages. Commercial amenities including an outdoor shopping mall, cafe, and a Ferris wheel are all located near the intersection of new town creek and the east river. Active recreation amenities including baseball fields, tennis courts, and soccer fields are located in the west side of Newtown creek.

**Zip Line**  
 Come take a ride! The tower would measure 75 feet in height, to the top of the canopy extending 300 feet. A zip line is an adventurous ride made to transport people from point A to point B. No other New York City Park has a zip line. Pippen Park would be the first park to have an urban zip line to be useful, amusing and interesting. Our zip line would extend along the shoreline of Pippen Park for visitors to have a view of New York City and Newtown Creek. Inside the 6 story tower of the zip line would include stairs and an elevator.

**Ferris wheel**  
 Come enjoy the fun! The Ferris wheel is the main attraction of Pippen Park. Along with a Ferris wheel there is also a concession stand for people to sit and eat. There is also a nature trail for people to enjoy the natural habitat of Pippen Park. It is a place for people to come and enjoy the waterfront view of New York City and be apart of the natural setting. It has been returned to its original ecological wonders of Brooklyn and Queens

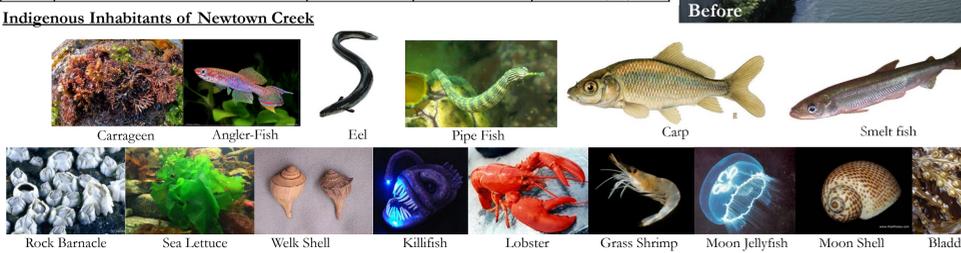
**Amphitheater/Marina**  
 Enjoy the party! Another exciting venue is the amphitheater bringing world class entertainment. We also include a marina so people who own boats can go sailing anytime they want. We are trying to create enjoyable recreational areas for both residents and non-residents Ferry Service. We provide a convenient transportation through water via the Newtown Creek Ferry Service which connects to our land base multimodal public transportation such as the subways, buses, and bike riders. Commuters can utilize this transportation service departing the Newtown Creek Marina on a half an hour basis.

**Passive and Active Landscapes**  
 Newtown Creek incorporates various types of sites. It incorporates passive landscapes and active recreation areas. A passive landscape embodies the perception of the general public. It is composed of pathways, resting areas consisting of a natural setting and playgrounds. These sites are ideal for relaxing and appreciating the scenery. One of our passive areas is the "Artists Sculpture Garden" which is located in the south western side of Newtown Creek in the borough of Brooklyn. This area gives rising artists an opportunity to promote their artwork with less expense. An active recreation area also embodies the perception of the general public. It is composed of active facilities such as basketball courts, tennis courts, handball courts, bocce courts, etc.

**Trees**  
 When planting the trees, you should take placement into consideration. Trees that are planted close together provide shade, less soil compaction and less reflective heat absorbed by each tree. It is preferable for a continuous tree pits for trees to be placed in a park. Some issues to be aware of are pest control and soil. Part of Brooklyn, Queens, Manhattan and Staten Island are infested with the Asian Longhorn Beetle which is why some trees are prohibited from being planted there. The top soil in which the trees are planted require 8-12% organic material, a PH level of 6.0 to 7.0, a sieve analysis and a test to measure clay in the soil. A shredded bark mulch between 5/8" and 1 1/4" is to be placed on top of the soil to create a smooth and level cover. The maintenance of the trees plays a significant role in the park. The trees have to be watered in two week intervals with 20 gallons of water. This can vary because of weather conditions, other maintenance issues including weeding, soil replacement, pruning, edging and other things to ensure the trees have a healthy environment.

**BUDGET SUMMARY**

CBI - CODE	TRADE // DESCRIPTION	Unit Rate	Variable	Total Cost
09250	Twin tower residential complex	\$ 650.00	\$ 2,200.00	\$ 1,430,000.00
09250	New Landscaping	\$ 750	\$ 1,500.00	\$ 1,125,000.00
09220	Ferris Wheel	N/A	N/A	\$ 9,000,000.00
09250	Zip Line	N/A	N/A	\$ 1,200,000.00
08100	Playground Pricing	\$ 100,000	\$ 450,000	\$ 550,000.00
09800	Swimming Pool	\$ 1	\$ 450,000	\$ 450,000.00
09800	Art Sculpture Area	\$ 1	\$ 500,000	\$ 500,000.00
10240	Kayak Launch	\$ 1	\$ 50,000	\$ 50,000.00
13300	Community Garden	\$ 250	\$ 150,000	\$ 150,000.00
16000	Commercial shopping mall	\$ 250	\$ 10,000	\$ 2,500,000.00
16000	Concession Area	\$ 350	\$ 5,000	\$ 1,750,000.00
<b>SUBTOTAL</b>				<b>\$ 18,982,238.87</b>
	Overhead			\$ 1,820
	Profit			\$ 3,041
	Insurance			\$ 1,324



**387 Acres of New Parkland!**



**LEED Rating -GOLD**  
 22 point for sustainable sites  
 6 for water efficiency  
 21 in energy and atmosphere  
 3 in materials and resources  
 8 for indoor environmental quality  
 2 for innovation and design process  
**Total: 62 points**

Certified- 40-49 points  
 Silver: 50-59  
 Gold: 60-79  
 Platinum: 80+



**Over 1500 NEW trees!**  
**Over a dozen varieties of native plantings.**



**Preserving our ecological heritage while fostering community health!**



**Supports, sustains and strengthens diverse habitats and living eco-system!**

