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Meta Brunzema Architect P.C., President

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Gary Roth
Adjunct Professor of Urban Planning

May Yu
Teaching Assistant

Authors:

Emily Gordon
Taylor Miller
Yifu Sun
Chu Yan
Amy Yang
Chi Zhang
Linghong Zou

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APPENDICES
In the Spring of 2013, the Hudson River Park Studio set out to collaborate with the Hudson River Park Trust to help this waterfront park realize its vision. The studio team is comprised of seven urban planning graduate students from Columbia University’s Graduate School of Architecture, Planning and Preservation. Based on the studio’s research and analysis, this report offers recommendations for the Trust that takes into consideration the tasks put forth by the client, as well as a vision for the study area.

While many parks encounter difficulties with financing, funding is an especially pressing challenge for Hudson River Park, as it does not receive any funding from the City or State of New York for operation or maintenance. Additionally, the piers that were envisioned to be revenue generating centers for this over four-mile long waterfront park, are not bringing in the money needed to support the park due to controversy over suitable uses in one area, and a prolonged development process in another. The park has also had difficulty holding on to a cohesive image, as it runs through seven Manhattan neighborhoods.

The studio focused on the area between Pier 76 at West 34th Street to Pier 84 at West 44th Street, because the client viewed this section as an area with opportunity for the whole park. Similarly, this section has not been given as much attention as the other commercial nodes. The aim was to re-envision the space as a place that is both visually and functionally connected to the rest of the park, and one that helps increase income for the Trust. The New York Police Department (NYPD) Tow Pound at Pier 76 presented the largest area of opportunity, and was the facility least aligned with acceptable park use.

Through the goals of PlaNYC 2030, New York City is envisioning a greener and greater New York. The Hudson River Park can contribute to this vision by removing incompatible waterfront uses to make the park a destination for the community, the city and the world. Through changes to legislation and negotiations with current occupants, the studio proposes the Trust recapture park space, design desirable piers that increase connectivity to the rest of the park, and employ additional financing strategies that increase income to help the park realize its vision.
Mayor Bloomberg has called New York City’s waterfront its sixth borough, an invaluable asset that he hopes will one day be “known as one of the world’s premier waterfront cities.”1 The waterfront should be reclaimed as a destination that brings together communities and visitors and a place where everyone feels welcome. As a waterfront park, the Hudson River Park is a valuable resource to New York City and its residents. However, it is faced with unique challenges that make it difficult for the park to reach its full potential.

THE PARK
Hudson River Park is located on the west side of Manhattan in New York City. As the longest waterfront park in the United States, it extends 4.1 miles long, and is the largest open space project in Manhattan since Central Park. Of its 550 acres, 400 are not located on land, but in the Hudson River. The park runs from the northern boundary of Battery Park City up to West 59th Street, and is bordered on the east by Route 9A, a state highway that originates in Peekskill, New York. The park falls within Manhattan Community Boards 1, 2 and 4. The Hudson River Park attracts 17 million visitors each year to its many attractions and educational programs.2 Some well-known attractions in Hudson River Park include the Frying Pan waterfront bar at Pier 66, Chelsea Piers at Pier 60, and the sports fields at Pier 40.

STUDY AREA
The study area extends from Pier 76 to Pier 84, within Community Board 4, in the northern part of the park. There are a variety of activities on the piers within the study area. Pier 76 is home to the NYPD Tow Pound and Mounted Unit. Pier 78 is a private pier included within the bounds of the study area, but it is not a part of the park. NY Waterway, which provides ferry service between New Jersey and New York, is located on Pier 79. Pier 81 is World Yacht, which offers nighttime dinner cruises, with two levels of parking. Circle Line sightseeing boat tours and two levels of parking are found on Pier 83. Pier 84 is primarily used as open space, but also includes a non-profit boating house, Floating the Apple, a dog park, a bike rental shop, and a restaurant. Finally, the uplands is the area between the piers and the bike path of Route 9A that provides connectivity between

Figure 1: Study Area

INTRODUCTION
the different sections of the park.

**USERS**

Compared with other parts of the park, the study area is very different. From Pier 76 to Pier 84, this section of the park is less green and has poor continuity of green space. The park visitors of the study area are more likely to be tourists and much less familiar with the park. They also tend to be first-time visitors rather than regular users. The uniqueness of the area determines that different strategies should be adopted in meeting the challenges (see Appendix B).

**THE CLIENT**

The client of the studio is the Hudson River Park Trust, a state-city entity governed by a 13-member Board of Directors. Five members are appointed by the Governor of New York State and five are appointed by the Mayor of New York City. The remaining three members are appointed by the Manhattan Borough President in consultation with Community Boards 1, 2 and 4. The Trust is responsible for the design, planning and construction of the park, in addition to the operation and maintenance of the park in such a way that preserves this community asset and provides low-cost, relaxing, and recreational opportunities for New Yorkers and tourists. It is also charged with maintaining and enhancing the park’s financial self-sufficiency by developing the remaining major commercial nodes.

**THE ACT**

Both the park and Trust were created by the Hudson River Park Act in 1998. According to the Act, the goals of the park are to encourage, promote, and expand public access to the Hudson River. Additionally, the Trust is charged with promoting water-based recreation and enhancing the natural, cultural, and historic aspects of the Hudson River.

**THE TASK OF THE STUDIO**

The studio was tasked with looking at the area from Pier 76 to Pier 84 because it is not consistent with the rest of the park. The group was asked to investigate ways to reclaim public access to the study area, develop a plan for alternative uses of the piers, and identify methods to increase income for the Trust.

Therefore the mission of the studio has been defined as the following:

The mission of Hudson River Park Studio is to establish a popular, enjoyable, and attractive destination at Piers 76 through 84 for a diverse group of users with complementary functions that expand public access to the park, support the operation of the Trust, and foster appreciation of the waterfront.

Thus, the studio aimed to construct a financially viable proposal aligned with these goals.

The study area includes five piers. However, the studio considers Pier 84 to be fairly complete as a park, Pier 79, the NY Waterway terminal to be a functional and vital business operation, and Pier 78 a private pier to be outside the scope of the project. The proposal will therefore focus on Piers 76, 81, 83 and the uplands area.

**FACTS ABOUT HUDSON RIVER PARK**

- 17 MILLION VISITORS ANNUALLY
- 135,000 PEOPLE ATTENDED FREE CONCERTS, MOVIES AND DANCES IN SUMMER 2012
- 7,500 CHILDREN PARTICIPATE IN FREE EDUCATIONAL PROGRAMS ANNUALLY
- 12 FULL TIME STAFF MEMBERS
Before crafting proposals, the studio examined the history of the Hudson River and the site. There were also numerous opportunities to speak with key stakeholders and meet with the client, Noreen Doyle, Executive Vice President of the Hudson River Park Trust. The studio also attended community board meetings, made several visits to the site to try out the services offered on the piers, conducted interviews, took pictures, and simply walked around to gain a pedestrian perspective. One of the goals of the Trust is to enhance public space. To understand what makes a successful space, the project considered Project for Public Space’s ideas about multi-functional and accessible areas (see Appendix C). Another important resource for the team is a park visitor survey produced by the Friends of the Hudson River Park in December 2012. Audience Research & Analysis (ARA) surveyed 1,288 visitors representing the public whose interests must be kept at heart while planning (see Appendix B).

This research, guided by the mission, has led to a proposal for the site that can be broken down into three main phases:

1) RECAPTURING THE SPACE
   BY MAKING THE SPACE AVAILABLE FOR MORE DESIRABLE PARK USAGE THROUGH CHANGING RELEVANT LEGISLATION AND LOBBYING FOR SUCH ACTION

2) DESIGN + PROMOTION
   BY REDESIGNING THE SPACE TO MAKE FOR MORE DESIRABLE PARK USAGE

3) FINANCE STRATEGIES
   BY DEVELOPING STRATEGIES THE TRUST CAN USE TO INCREASE FINANCING FOR THE PARK
To understand how the current physical characteristics of west side waterfront came to be, it is important to look at its past.

**WEST SIDE WATERFRONT**

The completion of the Erie Canal in 1825 brought about the growing importance of New York City as an international harbor. The west side of Manhattan was industrial, dedicated for all things related to shipping, and catered to the longshoremen that worked there. By 1860, nearly half of all United States trade moved through the Port of New York. However, the shift away from maritime industry in the mid-1900s led to the increasingly vacant land along the shoreline. Furthermore, the adoption of container shipping made New York City's old-styled warehouses obsolete, hastening the decline of the industrial waterfront.

During this time, Governor Miller pushed for and saw completion of the Elevated West Side Highway in 1951, appropriately named the Miller Highway. Within two decades, however, the physical condition of the highway was rapidly declining, spurring conversations about how to fix or replace the deteriorating structure. In 1972, Westway, an innovative underground tunnel, was proposed. When part of the Miller Highway collapsed in 1973, these conversations became ever-more pressing and relevant. The design of Westway would put the highway underground and run along the shoreline, connecting to the Lincoln Tunnel just south of West 40th Street. Advocates were proud of this design, highlighting how it would re-connect the urban fabric with the waterfront, increase park space, and above all, would not cut through any communities. Opponents, however, were skeptical that this project would not be as democratic as it claimed to be and feared that this mega-project was simply the urban renewal monster in a different costume. For over 10 years, the two sides fought over the merits and demerits of the project. It was finally defeated in 1985 when the anti-Westway team found a small technical error in the Environmental Impact Statement (EIS) submitted by the pro-Westway team, which had disclaimed the tunnel's impact on the striped bass population in the Hudson River. However, scientists on the anti-Westway team proved that the striped bass population would be adversely affected by the landfill necessary for the construction of Westway. Because the EIS had failed to cite this, the Westway project was officially dismantled.

The money originally dedicated to Westway was then diverted to renovating the subways and to the rebuilding of the West Side Highway, its repair having been put off due to its then-imminent replacement by Westway. In 2001, the six-to-eight lane urban boulevard was finally completed, which Mayor Giuliani affectionately named the Joe DiMaggio Highway. It serves as the southern end of Route 9A, as
well as the western portion of the Manhattan Greenway, a bike path that circumvents the island of Manhattan. While a critical artery for intra-state travel, the dominating presence of the West Side Highway presents a physical and mental barrier to New Yorkers attempting to reach the waterfront.

**PARK HISTORY**

In light of Westway’s defeat in 1985, the Governor of New York State and the Mayor of New York City formed the West Side Task Force to research ways to reconstruct the waterfront. Three years later in 1988, the West Side Waterfront Panel was created and tasked to develop a master plan to reconstruct the open area next to the water and the piers, as well as a method of financing and management of these areas. The plan, titled “A Vision for the Hudson River Waterfront Park” produced by this panel in 1990 was to be implemented by the Hudson River Park Conservancy (HRPC), which was created through a Memorandum of Understanding (MOU) between New York State (Governor Cuomo) and New York City (Mayor Dinkins) in 1992, the origin of a city-state governing structure unique to the Hudson River Park. In 1995, the HRPC produced the “Concept and Financial Plan” followed by a Design Guidelines Master Plan that outlined not only the physical layout, but also the design philosophy and the need to ensure public access and environmental protection.

In 1998, the Hudson River Park Act officially designated the boundaries of the park, specifically outlined the allowed and prohibited uses of the park, and created the Hudson River Park Trust (HRPT) to replace the HRPC to oversee the management of the park. In 1999, the Friends of the Hudson River Park was founded, serving to advocate for the park. However, in recent years, it has become apparent that the allowable uses of the park have become a hindrance to the park’s ability to generate its own revenue to cover operational expenses. Thus in 2011, the Friends and the Trust signed an MOU, officially designating the Friends as the fundraising body for the park, a departure from their past, advocacy-based mission.

**PIER HISTORY**

In 1945, the Circle Line Company was founded, offering cruises around Manhattan. The business began in Battery Park, but moved to their current location, Pier 83 located at West 43rd Street, in 1955. In 1988, the company, now called Circle Line Sightseeing Yachts, Inc., acquired World Yacht, their neighbor on Pier 81, and became the Circle Line Sightseeing Cruises. During this period, there was much change happening just south of Circle Line. In March 1977, the NYPD moved into Pier 76 after Piers 95 and 96 became too deteriorated for safe use. The International Longshoremen’s Association picketed the usage of the pier, claiming the pier should be used for “shipping and cargo consolidation,” which would provide work for the longshoremen under contract who were unhappy with their “extended periods of idleness.” However, the tow pound remained and the shipping industry along the west side continued to decline. In 1998, the Hudson River Park Act stated that the city should their “use best efforts to relocate the tow pound on Pier 76.” To this day, Pier 76 continues to be a storage facility for cars towed by the NYPD and has yet to find a suitable alternative.

In 1986, New York Waterway was founded, which sought to bring back ferries as a mode of transportation to and from Manhattan. Then in 2006, the newly renovated Pier 84 opened and is currently the largest open pier in the Hudson River Park.

**CURRENT SITUATION**

Recently, the limited allowable uses of the park have become a hindrance to the park’s ability to generate its own revenue. The parameters within which the Trust can upkeep the park are narrow, with specific definitions of what is considered permissible park use. The exact specifications of land use are different for each pier. Many piers must have at least 80% of their land dedicated to “park use.” Other...
Piers must have at least 50% of dedicated park use space.\textsuperscript{13} In the case of Pier 76, once the tow pound moves off, half of the space is retained by the city, and the other half must be used as open space. While these stipulations ensure that the public interest is upheld by preventing large developments, this also makes it difficult for the park to generate enough revenue for the completion of the park on top of general operational expenses. At the end of 2011, while 70% of the park is completed, the remaining 30% is predicted to take much longer to finish due to decreasing funding.\textsuperscript{14} Additionally, the dual oversight by both city and state entities puts increasing restraints on the Trust’s functions. Furthermore, it is explicitly stated in the Act that the park must generate its own operating funds.\textsuperscript{15}

Currently expenses and capital maintenance exceed revenue, leading to a budget gap of roughly $7 million for the park.\textsuperscript{16} If this continues, the park will run out of financial reserves within three years.\textsuperscript{17} Because the park is neither a city nor state park, it does not receive maintenance funding from the government. The money they do receive from the government is reserved for capital construction. However, in recent years even the amount of capital funding is only enough to reinforce the structure of a few piers. There are a few money generating opportunities for the park: Pier 40, Pier 57 and the Neighborhood Improvement District (NID). Pier 40 is the largest commercial generating node in the park. The 15-acre pier is home to athletic fields, a parking garage and the Trust’s offices. Unfortunately, Pier 40 is deteriorating. Not only is the roof in need of a repair that will cost the Trust $30 million, but the steel piles need to be reinforced.\textsuperscript{18} For public safety issues and electrical problems from Superstorm Sandy, Pier 40 is not generating as much revenue as the Trust needs to support the operation of the park. According to Madelyn Wils, the president and chief executive of Hudson River Park, “The intent was for Pier 40 to be developed so that it would support the park, but now the park is supporting the pier.”\textsuperscript{19} Proposals for what to do with Pier 40 have encountered community opposition, most notably from Assemblymember Deborah Glick, and currently, much controversy still surrounds the decision. Airlines recently passed the public review process and will be redeveloped into a commercial market by Young Woo & Associates. The redesign will include 300,000 square feet of commercial space, space for educational uses, and 2.5 acres of public rooftop. It is set to be completed by 2015.

Finally, the Friends of the Hudson River Park proposed the NID two years ago, and it is currently in the outreach phase of the approval process. The proposed NID, shown in Figure 9, borders the park and is predicted to bring in an additional $10 million each year for maintenance and operations of the park, the bike path, and pedestrian crossings.\textsuperscript{20}
LAND USE PATTERNS

The studio also analyzed the site and surrounding areas to determine relevant challenges and opportunities. The area to the north of the study area is mainly residential and commercial. Recently, there has been re-zoning to increase residential space. The area to the south of the study area is mostly industrial and manufacturing and has a low population density. However recently, the Chelsea Art District has expanded into this area and is transforming the traditionally industrial and manufacturing zone into a culture-oriented area.

The area across from the study area is mainly occupied by transportation and public facilities like the Metropolitan Transportation Authority (MTA) Quill Bus Depot and Javits Center. In addition, the 42nd Street corridor now has many new luxury high rise buildings. In recent years, there has been a push to transform this area into a vibrant, medium-to-high density extension of the Midtown business district, with residential, cultural, hotel, and retail uses, in addition to substantial new open space and parkland. Finally, the Hudson Yards Development will bring immense zoning and land use changes to the neighborhood. According to Anna Hayes Levin, former vice chairperson of Community Board 4, “The city is proposing unprecedented zoning...Some sites would have an unlimited floor-to-area ratio and many would give developers the opportunity to raise the FAR to 24 - almost equal to the 25 of the Empire State Building,” in...
In order for a proposal to be successful, it is imperative that the site is accessible from other parts of the city. The transportation landscape illustrates how people can access the park, and some of the new developments that will make the site even more accessible in the future.

From Times Square, it would take approximately 20 minutes to walk to the site, which is about one mile away. 42nd Street Times Square and 34th Street Penn Station are the closest subways to the study area. In 2011 the MTA reported an annual ridership of 51.5 million at Penn Station, with average weekday ridership at about 169,000 and average weekend ridership at about 154,000. These two stations were the fifth and sixth busiest subway stations in New York City in 2011. Annual ridership at Times Square, the busiest station in the network, was about 37.7 million, with average weekday ridership (daily) of 189,000 and average weekend ridership (Saturday and Sunday) of 225,000. Within a quarter-mile radius of the site, 89.2 million people are exiting trains each year. Additionally, the MTA is working on extending the 7 Train to 34th Street and 11th Avenue. The project, scheduled to be completed by June 2014, will make Manhattan’s west side and the study area more accessible.

Another way to get to Hudson River Park is by bike. The New York City Department of Transportation cites that bicycle commuting has doubled between 2007 and 2011. The goal is to triple bike commuting by 2017. The Department of Health found that over half a million New Yorkers ride bikes. Route 9A includes a dedicated bike path that runs along the length of Manhattan’s west side. According to Noah Budnick, the Deputy Director for Advocacy at Transportation Alternatives, the Hudson River Greenway is the most heavily used bike path in the United States. Citi Bike, New York City’s future bike share is scheduled to open in May 2013. Citi Bike will open 600 stations, adding 10,000 bikes to Manhattan, Brooklyn and Queens.

Surrounding Areas and Nodes

There are many important activity nodes surrounding the study area. There are three cross-town buses that serve Manhattan’s west side. In 2011, 4.4 million people rode the M42 across 42nd Street, and 5.4 million people rode the M34 across 34th Street. The M50 also services the area, but has significantly lower ridership with only 964,000 people using this bus in 2011. The M11 bus also runs north and south along 10th Avenue and 9th Avenue respectively, with 3.8 million riders.

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the study area that may greatly influence and bring potential opportunities to the site. The first node is the many luxury residential developments that have been built one or two blocks from the piers. They range from 41 to 60 stories high, providing about 4,200 housing units.

The second node consists of the Jacob Javits Convention Center directly east of Pier 76. Each year, more than 3.5 million people come to the Javits Center. The study area site has the potential to provide them with a place to relax and eat between events.

Third, the Hudson Rail Yards located southeast of the research area is a future activity area. Under the Hudson Yards Redevelopment Project, Hudson Yards will become a highly developed office and commercial district with limited residential use. There will be more than 28 million square feet of commercial and office space and 12.6 million square feet of residential space added to this area, potentially attracting tens of thousands of visitors, commuters, and residents to the future central business district, all of whom could be potential users of the Hudson River Park.

The fourth node is Phase III of the High Line which will be constructed near the site. In 2012, the High Line attracted 4.4 million visitors, and the number is still increasing. If the proposal can strengthen the visual connection between the High Line and the piers, High Line users may be inclined to come enjoy the waterfront. The fifth node is Times Square, “the crossroads of the world,” welcoming more than 37 million visitors each year. Finally, the Maritime Entertainment District extends from Pier 76 to Pier 92. There are many kinds of maritime attractions in this area. In addition to the businesses in the study area, there is the Intrepid Sea, Air, and Space Museum and Cruise Line Passenger Terminal. This district attracts over 4.2 million visitors each year. By adding proper facilities and activities to the site, the proposal can make this district more attractive, inviting these visitors to spend more time on the site.

CHALLENGES
While all of these areas provide a large potential user-base, they bring challenges as well, including safety and accessibility, superblocks, parking and climate change.

Figure 14: Javits Center facade
Figure 15: Hudson Yards redevelopment rendering
Figure 16: Rendering of Phase III of the High Line
Figure 17: The Intrepid is part of the Maritime Entertainment District and is a unique attraction on the water
Figure 18: Times Square brings many people to midtown
While the Times Square and Penn Station subway stations are bringing many people to the Midtown area, the stations are more than one mile away from the site, and it is difficult to tell the waterfront is nearby when the landscape of the area is filled with bright billboards and tall buildings. The walk to the park from Midtown, while not impossible, is lengthy and difficult to navigate in some places. If visitors do find themselves by the park, there are limited pedestrian crossings along Route 9A, some of which have few markings, raising additional accessibility and safety issues. The path to the waterfront in this area is not a journey a pedestrian would stumble upon unless they have a specific reason to travel to the area. Furthermore, the superblocks the Javits Center and Hudson Yards create are currently physical and mental barriers to the site. There is no entrance to the Javits Center on the west side of the building, and it is hard to circle around both Javits and Hudson Yards, especially if a person does not know which streets will take them to the river and which will dead end at these superblocks. Thus, accessibility to the site from the east and south is poor.

As discussed earlier, there are many parking spaces on the piers now. While parking is not an ideal use of waterfront space, future developments in the area, such as the Hudson Yards Development, could increase the demand of parking as visitors to the area increases. Additionally, the parking spaces currently provide easy revenue to the companies operating on these piers, necessitating clear and persuasive negotiating tactics to convince these companies to change.

In light of Superstorm Sandy, which occurred in October 2012, any proposal must also account for the challenges that future climate change and sea-level rise will bring. In a given year, there is a one percent chance that a 100-year storm will occur. However, according to Climate Central, an organization that surveys and conducts scientific research on climate change, the frequency of 100-year storms has increased and may occur every three to 20 years, which means the probability has increased to anywhere between 5 and 33% each year. Additionally, in the Hudson River Park and the study area, there is a one in six chance that the sea level will rise an entire foot by 2020. During Sandy, the newly renovated piers in Hudson River Park had minimal damage. On the older piers, Sandy caused over $20 million in structural and electrical damage. Ensuring the sustainability of the waterfront will be a continual challenge for the studio and the client.

concerns & stakeholders
A concern of this proposal is that it could catalyze the gentrification of the surrounding community, specifically Community Board 4. Between 2000 and 2010, there was an 18% increase in population, with the greatest increase within the Asian and Pacific Islander population. In 2011, the average household income of Community Board 4 was roughly $63,000, a 6% increase from 2009. However, luxury residences have been going up in recent years, indicating that gentrification is already underway and foreshadowing a population shift toward a more affluent and wealthier community. The addition of the residences from the Hudson Yards Development will only push along this trend. While the increase of property value is a positive change for the city, this raises concerns on the impact it might have on low-income residents and long-established businesses in the area. The Friends of the Hudson River Park acknowledge this and assert that “a mechanism to address concerns must be developed.” Additionally, Community Board 4 has advocated for the inclusion of 30% of the proposed 12,000 new apartments as permanently affordable units within the Hudson Yards residential developments. However, ensuring that current tenants retain their footing in the area would require a continued acknowledgement of and advocacy for all who wish to stay.

Another concern of the proposal is the possibility of creating a space that is either too public or too private. The studio defines “too public” to be a plan that generously applies concepts of public open space and “too private” as overly generous to commercial and private development. If a plan is “too public,” the Trust is left with limited resources to raise the revenues necessary for the completion and upkeep of the park, whereas if a plan is “too private,” it could become inaccessible to those with lower incomes and also lose the vitality that spontaneous public activity typically brings to a space. A targeted approach of commercial activities in some places and community open space in others will help to address this dichotomy.
Recapturing the space involves removing specific constraints of the Act and relocating current parking facilities. Through these ways, the proposal will restore public access to currently underutilized spaces.

**ACT CHANGES**

The park is constrained by the 1998 Act. The Act created the park and the Trust and placed restrictions on operations. In order to address these restrictions, the studio will propose an amendment to the Act and strategies the Trust can utilize to get the amendment passed. In 2005, an amendment was enacted to increase the allowable lease terms on Pier 57, demonstrating a precedent for changes to the Act. The team therefore proposes another amendment to the 1998 Act.

1**ST CLAUSE:**

Section 5 of the current Act that states that New York City must use their “best efforts to relocate the tow pound” is not being enforced (see Appendix D). Although legal action could be pursued under this wording, the studio proposes using more direct language, forcing the city to take actions. The first clause of the studio’s proposed amendment should state that New York City must relocate the NYPD Tow Pound within three years and follow a clear timeline for relocation, including monetary consequences if the deadlines are not met.

2**ND CLAUSE:**

The city currently owns Pier 76. The Act states that once the tow pound moves off, the Trust gets half of the space for passive open space contiguous with the water, and the city retains the other half of the space. The studio proposes that the second clause of the amendment state that 100% of Pier 76 will be transferred to the Trust, with 50% as passive open space, and up to 50% of the space designated for commercial use. This will allow the park to make Pier 76 a more pleasant and financially sustainable destination for the public and make the site attractive to developers. Based on the proposal, the studio expects Pier 76 to not only be self-sustaining but be a pier that generates money for the rest of the park as well.

3**RD CLAUSE:**

The current Act states that “the Trust may not enter into a lease, concession agreement or license greater than 30 years.” The studio proposes that the third clause of the amendment state that the Trust may enter into a lease for 49 to 99 years, based on the Pier 57 precedent that authorized the Trust to enter into a lease for 49 to 99 years, based on the Pier 57 precedent that authorized the Trust to enter into a lease term for 49 years.

In order to enact these changes, the Trust would have to lobby the state legislature. Both houses would have to pass the amendment, and the governor would have to sign off on the changes for it to become a law. From attending the Community Board 4 meeting, the studio already knows that the board is in support of changes that would recapture Pier 76 and allow for the park to legally control the entire pier. Assemblymember Dick Gottfried sponsored the 1998
Hudson River Park Act legislation, so he may be interested in sponsoring an amendment to the Act. Additionally, the group recommends that the Trust engage community organizations to spread awareness with residents and help constituents write their legislators to petition for the changes, similar to what they are doing for the NID proposal.

PARKING

Additional elements to recapturing the space consider changes to the current parking usages on Piers 76, 81, and 83, with the goal of finding uses that are more in line with the waterfront nature of the space.

Pier 76 has the capacity for 300 towed cars. In the Environmental Impact Statement (EIS) for Hudson Yards, the report considered the project an opportunity for the relocation of incompatible uses from Hudson River Park. The EIS also states that “The NYPD Tow Pound... may be relocated within the Hudson Yards area as an associated element of the project.” This is an opportunity to cooperate and collaborate with Hudson Yards to finish these relevant projects. This relocation would be ideal, but since Hudson Yards is not a guaranteed option and it could be several years before such a facility is built, an alternate plan was also deemed necessary.

The alternate proposal is to privatize storage for the towed cars in lots throughout Manhattan because the studio strongly believes that this space should be parkland. There are hundreds of commercial lots throughout the city that could absorb these cars at which parking companies like Edison and ICON might jump at the chance to have a solid stream of revenue from making a contract with the city. Figure 21 shows an example of potential ICON parking sites. ICON parking manages over 200 garages throughout Manhattan. The map identifies six garages spread out through Manhattan and easily accessible by transit. ICON already has a solid website in place that finds comparable alternatives when garages become full which could be leaned upon in the event these six garages reach capacity. Privatizing parking for the tow pound is also more environmentally sustainable, as cars would be towed to lots closer to where they were parked. This creates a more efficient and less polluting system. Similarly, it would be more convenient for car owners to retrieve their car. Car owners could access an online database on the city’s website or call 311 to determine to which parking lot their car was towed.

Automated parking structures were also considered, but found to be costly at $15,000-30,000 per space and susceptible to damage in the event of flooding.

MOUNTED UNIT

The Mounted Police Unit is also located on Pier 76 per a five-year agreement with the city that has already expired. The studio proposes to allow the Mounted Unit to remain on Pier 76, contingent upon an agreement that they will open their doors for educational purposes. In addition to their police duties, the unit will become an equestrian attraction for school and community groups to learn from. The Mounted Unit already allows some school groups to tour their facilities, so the studio simply proposes expanding these tours for more audiences in exchange for their continued stay on public parkland. As the Mounted Unit does not take up much space and stables in the city are incredibly limited making relocation difficult, they have been integrated as an unique element of the new Pier 76 where they could continue operations and better serve the city and the community.

PIERS 81 & 83

Currently, the physical piers of Piers 81 and 83 are both used for parking and managed by Circle Line. Circle Line leases both piers for their boating operations, but can use the structure of the piers for any use allowed within the Act. Unfortunately, they have chosen to use the space for commercial parking. Since the studio strongly believes that this is not the best use for waterfront space and is not in keeping with the park image the client is trying to project, the team suggests recapturing this space for alternative plans to be described later in the design section of this report. While parking generates revenue for this organization, it does not help foster appreciation of the waterfront. Thus, in order to help the park to have more appropriate waterfront uses on Piers 81 and 83, the proposal includes two negotiating tactics to use in working with Circle Line.

On Circle Line’s Pier 83, the lower and top levels are
separately dedicated to daily and monthly customers. Based on informal interviews and observations, the occupancy on the top level is rarely at 50% of its capacity. Even if one assumes it is fully occupied all year round, 130 monthly parking spots generates $37,120 per month or roughly $450,000 a year. However, based on current occupancy rates, Circle Line is only making a maximum $225,000 a year. If Circle Line could be shown that an alternative plan could be earning higher revenue, they may be inclined to participate in such a plan. This would help the Trust create the unity and clearly identified public space the studio believes the Park should be portraying.

However, if Circle Line is not willing to convert to the more appropriate waterfront usages, the second negotiating tactic suggests that the Trust lower Circle Line’s lease and put out an RFP for another company to perform these more desirable operations. While Circle Line would almost certainly demand to be compensated for the full $450,000 a year they could potentially be making with this space, the lease with a new company should be set at an amount that would earn this money back, avoiding additional financial burden, but still being able to transform the park into a more suitable public space.

World Yacht at Pier 81 has the same parking situation for which the proposal also suggests the two-pronged negotiating tactic. Again, the proposed design for this space does not necessitate the elimination of parking on the entirety of the second floor meaning the values of the lease changes would be lower to reflect this difference.
This section will discuss the design aspect of the proposed site plan from Pier 76 to Pier 84. As discussed previously, the studio considers both Piers 79 and 84 to be complete, and Pier 78 not within the scope of the project.

Included in the discussion are Piers 76, 81, 83 and the uplands area. Pier 76 will be designed as a combination of passive open space and a multi-functional structure. On Pier 81, part of the parking structure will be designed as a bar. On Pier 83, part of the parking structure will be designed for an amusement space. The uplands area will become a dedicated greenway with public art and improved signage.

In developing and designing the site plan, primary concern has been given to different target users on each pier, how the physical layout of the piers address the issue of climate change adaptation, the enhancement of community engagement, and financial feasibility. Moreover, in order to make the site plan successful, considerations have also been given to carefully crafting the presentation of the site plan so as to build an attractive public image for this section of the park and recreate the park as a source of community pride. However, the bulkheads are currently landmarked, restricting any physical changes to the piers. All of the renderings, models and site plans presented were created by the studio. While the renderings serve to provide a vision for the site, it is recommended that the concepts and key features, rather than the details of the images be included in the Trust’s RFP process.

TARGET USERS
Based on its research, the studio has determined that the target user group for the proposals should be different for different piers. For Pier 76 and the uplands, the intended users are the local residents, specifically the people who work or live in the surrounding area. The proposal has also kept in mind the future workers and residents from the Hudson Yards Development who will be in close proximity to the park. As evidenced from the High Line, what is a local hit can also attract visitors from around the world. The proposal for Piers 81 and 83 mainly targets the tourists who visit World Yacht and Circle Line. It also aims to take advantage of the sight line down 42nd Street from Times Square to Pier 83 to draw in additional tourist users.

The entire proposal will be able to accommodate locals in some areas and visitors in others without attempting to be something for everyone at every location. This targeted approach will best allow for a capitalization of the numerous tourists in the area without alienating the current and future local residents.

PIE R 76
For Pier 76, the proposal includes a three-floor main structure in the center of our pier. The rest of the space on the pier, the space contiguous to the Hudson River, will be green space with places to relax such as areas with seating and swings surrounding this main structure. Additionally, a water plaza is designed in the open space to enhance the interaction with water or allow for alternative uses in case of floods.

MA IN STRUCTURE ON PIER 76
The main structure is three-floors, multi-functional, and resembles a ship, as shown in Figure 24. The first floor is a semi-open space for seasonal pop-up stores and other temporary uses. The second floor is an enclosed space with a glass facade for an artisanal dining space and interim space. The third floor is designed as green open space with a performance venue and an organic garden.

1ST FLOOR USE
The first floor of the structure is designed as a semi-open space with a minimum number of pillars that support the three-floor structure. Located within Flood Zone A, the site bears a high possibility of flooding or destruction by a storm in the future. Therefore the main structure is designed to withstand these challenges. For such purposes, the first floor is designed as a permeable space consisting of supporting pillars on the edge and a major pillar in the center that also serves as a staircase and elevator to the upper floors. Additional measures will be taken to make the building compliant with the Americans with Disabilities Act (ADA).

First floor uses will be temporary and movable such as pop-up stores or food stands, so that there will be no vital loss both in physical or in economic damage to the building when the
pier is flooded. Floodwater will pass through the first floor, instead of causing damage to the structure. Additionally, lighting elements should be installed on the ceiling of the first floor to allow for activities at night. This design actively adapts to the issue of climate change as a waterfront site. In the extreme case that the river level rises and the pier level is filled with water, the main function of the structure in the second and the third floor will remain protected. Overall, the design of the first floor should be aesthetically attractive and also be integrated with the open space landscape outside of the structure on the pier. In addition, in order to build the three-floor structure, the structure of Pier 76 might need to be reinforced.

2ND FLOOR USE

The second floor of the structure will be an artisanal dining space, which has been informally named the Hudson River Kitchenette, that will provide a wide variety of choices from around the world. Besides food, cultural elements will also be incorporated into the space such as culinary culture exhibitions, cooking performances, and nutrition education.

This idea of the Hudson River Kitchenette has been found to be suitable and well justified: First, the preliminary study shows that the dining choices in the surrounding area, especially the affordable ones, are very limited. According to the 2012 park survey, eating places are among the most frequently mentioned suggestion for improving the park. (See Appendix B). Having a dining facility addresses this gap. Second, if run successfully, the dining space would become a sustainable revenue generator for the Trust. Third, the dining space will function as an attraction for a diverse group of users by providing affordable choices for locals, as well as residents and workers from Hudson Yards area. Fourth, New York City has always been given credit for embracing cultures from all over the world, yet there is no such place in the city where people can sit in one space and enjoy the food from around the globe. The idea of having an artisanal food space providing world-wide choices revitalizes the global identity of New York City and allows people to enjoy the beautiful view of the waterfront while dining.

One complimentary use of the second floor would be an interim space that allows for flexible uses throughout the year. A possible use of the space would be an education center for children to learn about the culinary culture in different countries as well as how to plant organic fruits and vegetables in the food garden on the third floor. The space could also be used by local community members for activities and events to enhance community engagement.

3RD FLOOR USE

In its precedent case study, the studio found that multi-use space is an effective design that encourages a diverse group of people to stop by and activate the space. According to the 2012 park survey, a great number of the park users want to have more places to enjoy music and performances. The design for the third floor open space employs the multi-use concept while also satisfying park users’ needs for more diverse activities. This design will not only attract the target users group, including community residents and people who work nearby, but also provide a relaxing space for visitors to sit down and enjoy the park.

Thus, the third floor is proposed to be a dynamic green open space, including a semi-open performance space, as shown in Figure 25, with plots for organic gardening on both sides. A platform with seating is placed in the performance space, holding between 300 and 400 people. The stage and seating are movable, allowing users to change their seating direction. Visitors will be able to enjoy performances either sitting under the shade of the roof or in the open area. In addition to concerts and plays, the space will also be open for community activities.

The proposed organic gardening plots will invite people to learn about and experience urban agriculture. In PlaNYC 2030, green roofs and urban gardens have been set as urban agriculture programs. If the park grows drought-resistant plants in this garden, the green roof will be eligible for the New York State green roof tax abatement, which could reduce the cost of building and maintaining this garden. Additionally, in terms of operation and maintenance, the Trust can collaborate with non-profit organizations who initiate urban agriculture programs. The studio also proposes to organize educational programs to teach people how to garden or organize a Community Urban Agriculture Competition in the fall every year as a special event. This encourages community interaction with the park. It may also be possible to incorporate elements of aquaculture in keeping with the pier’s maritime history.

Finally, the Hudson River is an invaluable asset to New York City and a treasure to the Hudson River Park. Thus, the third floor will have a dedicated area facing the river solely for sitting, sunbathing, and simply enjoying the grand river view.

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DESIGNING THE SPACE 37
WATER PLAZA
In the additional open area outside of the main structure, the proposal includes a water plaza. The plaza has the potential to be used for either stormwater management or recreational use. When it rains, the park can serve as a basin for runoff from Route 9A or a water plaza for recreational use. Additionally, considerations must be made for service vehicle access. Figure 26 shows a proposed water plaza in Rotterdam, Holland. In dry seasons, it is an ideal passive open plaza for relaxing. But with rainfall, special gullies will collect water, creating ponds that encourage people to play and continue using the space. The idea here is to hold on to the water for a little while, turn it into something beautiful and then let it gradually drain away. In the winter season, the space may be turned into an ice skating rink. Additionally, water plazas are useful for addressing combined sewer overflow, because they alleviate stress on the combined sewer system. With the increasing threat of climate change, designing a permeable space that can accommodate flooding is critical for the sustainability of the park.

GREEN SPACE
Additional areas of the ground floor will be occupied by traditional green space. The survey results show that people desire more trees and shaded area in summer. Furthermore, green space serves to enhance the cohesive image of the park and provides a pleasant and relaxing destination at the waterfront. Therefore, green space will be a main feature of the Pier 76 design.

SEATING SPACES AND SWINGS
To take advantage of the river view, space will be left along the green edge for seating spaces and relaxing swings. Based on the studio’s precedent case study of Bryant Park (see Appendix A), people feel comfortable when they are able to personalize space according to their own preference. So seats will be designed to be movable and allow users to have comfortable and flexible, relaxing experiences. Swings are also designed to make the space more vibrant, as shown in Figure 27.

PIER 81
World Yacht offers dinner cruises from Pier 81, typically for customers engaging in celebratory events. However, the cruises end at 10pm and if visitors wish to continue the festivities on the waterfront, the options are scarce. Thus, the proposal includes a bar or beer garden on the top level of the parking structure so that patrons can continue having fun at this conveniently located spot. With climate change in mind, the proposal will leave parking on the first floor, allowing the ground level to be immersed with no physical damage in the event of flooding. An image of the proposed changes are shown in Figure 29.

PIER 83
A Circle Line cruise, contrary to a World Yacht dinner cruise, is a more family-oriented, daytime activity. The top portion of Pier 83 will be converted into an amusement ride such as a small ferris wheel or swings, with seating areas and seasonal food vendors surrounding the amusement to attract the tourists who visit Circle Line. The top level will be converted into a pleasant environment for families to continue enjoying the waterfront after the cruise without having to leave Pier 83, as shown in Figure 30. A tall, brightly colored amusement ride also takes advantage of the sight line down 42nd Street drawing people to the waterfront.
UPLANDS GREENWAY

Improving the uplands areas is also a priority because it will strengthen the visual and physical connections throughout the study area, making the walking experience for visitors more enjoyable. Walking west toward the river, a pedestrian should become aware that they are approaching Hudson River Park. Walking north from the southern part of the park, a pedestrian should feel confident that they are still in the park. However, the fact that Route 9A exists between the city and the riverfront remains a critical pedestrian access issue. The New York State Department of Transportation is currently in the middle of a project that will install safer pedestrian crossings along Route 9A. Additionally, Hudson Yards has been pushing for a pedestrian crossing between their development and the Javits Center, and another one between the Javits Center and Hudson River Park, so this may be a possible feature to the park in the future.

Nonetheless, when pedestrians are able to safely cross Route 9A, the goal is that they will like what they see on the other side of the road. The proposal includes design elements such as landscaping, wayfinding signs, and public art to create a greenway that can foster an appreciation of the waterfront and aid in creating a united and cohesive image of Hudson River Park.

For the public art, the proposal imagines the greenway will include pieces by local artists that will enhance community interaction, the way Candy Chang invites passive users to become active participants in the space through her work.

Overall, the design of the upland space should provide visual interest, enhance continuity throughout the expansive space, and become a platform for community and visitor engagement. During the construction phase of the project, work similar to that of Candy Chang’s could be particularly effective because it would entice the pedestrians and bike riders to stop by, create excitement around the new pier, and help the community to interact with the space. An example of her work is shown in Figure 31.

PROMOTION STRATEGIES

As the character of the park is different in different sections, the studio believes that specialized promotion strategies would help integrate the design proposal within the existing fabric of the park. The promotion strategies will include programming, outreach, increased membership benefits, social media, and wayfinding.

PROGRAMMING & OUTREACH

The park already hosts several events during the summer. The group proposes to create an event series for Pier 76, as well...
The Trust can also bolster their social media presence by developing a phone application that engages users and rewards them for active usage. The application can have a detailed map of the park as well as a calendar of events. Additionally, the Trust should focus on increasing its presence on sites like Twitter and Facebook. One way to encourage users to keep coming back to the park is to provide promotions for programs or events on Facebook or Twitter when the users click “like” or “follow”. Also, users can make comments on that the park can take into consideration when improving their programs and events.

WAYFINDING
Finally, the Trust can install new wayfinding signage that directs users to Piers 76, 81, and 83 from the lower parts of the park and Midtown attractions such as Times Square. The most straightforward way to enhance the branding of the site is to assign more signage throughout the park. The signage will be the combination of logo of Hudson River Park and catch phrases about Pier 76, which help promote the new pier and integrate it into the whole park.

Figure 31: Work by Candy Chang that invites passers-by to tell what they hope to see in the new development as an initial kick off celebration. For example, the Trust can hold an annual Summer Food Festival as its signature event. Outreach to inform the public about events and special programs in the park is crucial to the success of the new uses on the piers. The Trust can advertise in local papers, and work with the businesses in the park to help promote special events.

MEMBERSHIP BENEFITS
Hudson River Park already has a membership program. To further promote the new built up area, the studio proposes that the Trust provide discounted event tickets to performances on Pier 76 and the attractions on Piers 81 and 83 as a benefit to their members. Additionally, it is suggested that the Trust provide discounted tickets for the opening month of these new attractions.

SOCIAL MEDIA
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While the studio understands that the new pier development would go through the RFP process to attract appropriate, revenue generating leases, it also proposes outside means not directly related to the new development that could support the operations of the park.

The studio was tasked with increasing the Trust’s revenue streams within the study area and the rest of the park because currently capital maintenance plus expenses exceed revenue leading to a budget gap for the park. The proposed strategies aim to address this gap.

ADVOCATE FOR MORE GOVERNMENT FUNDS
According to the Hudson River Park Act, “It is in the public interest for the State and City of New York to act together to finance the Hudson River Park and for the Hudson River Park Trust to design, develop, operate, and maintain the Hudson River Park, including through the use of available federal funds.” If the park is not meeting its operating and maintenance costs, the city and state should step in. To lobby for more government funds, the Trust can lean on the strength of the community boards to gather support for the park.

REVIEW LEASING STRATEGIES
So far, the Trust receives a relatively small proportion of their lessees’ business revenues. While this is beneficial for the businesses on the piers, it is a lost opportunity for the Trust in terms of income generation. It is something to keep in mind in the future when the Trust has the opportunity to make new leases with the businesses in the study area, especially the future development on Pier 76. In order to increase revenue, the Trust should apply longer terms to the developer and put forth a selective and competitive process, that aims for a balance of commercial and public.

ARGUE FOR THE ABILITY TO TRANSFER THE DEVELOPMENT RIGHTS
The Trust can lean on the precedent from the High Line Transfer Corridor, that aims for a balance of commercial and public.

Take Pier 76 as an example. It is within the M2-3 zoning district with a FAR of 2.0. The studio’s proposed building only has one indoor story that takes as much as 50% of the space of the pier, so the FAR of the building is 0.5 at most. Then 1.5 FAR, or roughly 420,000 square feet of development rights can be transferred. Now the air rights price in Manhattan is about $200 – $500 per square foot, so the development rights for Pier 76 alone could generate $84 to $210 million to help finance the park. In order to do this, the studio proposes that a new clause should be added to the Act, as well as a zoning text amendment with Department of City Planning (DCP) stating that the Trust has the ability to transfer their development rights to nearby properties. After the Act is changed, the Trust can work with DCP to find suitable receiving zones to transfer their FAR. As the park is over four miles long, there are many opportunities.

HUDSON YARDS COLLABORATION
A series of projects can be accomplished through the collaboration between Hudson Yards and Hudson River Park to achieve common goals. One of the goals of the Hudson Yards Redevelopment is to “improve the pedestrian environment and access to Hudson River Park from upland areas” and to connect the future Hudson Yards Park, future green roof of Javits Center, and the Hudson River waterfront. Also, as mentioned earlier, the EIS of the Hudson Yards Project states that “The NYPD Tow Pound... may be relocated within the Hudson Yards area as an associated element of the (Hudson Yards) project.” So it seems likely that the Hudson Yards Development may be willing to collaborate to finish these relevant projects.

Off-site funding is another means of collaboration. Hudson Yards Infrastructure Corporation was a created corporation aimed at financing the Hudson Yards infrastructure projects, adding more public open spaces in this area, and increasing the accessibility to the waterfront. Because the studio’s proposed project would improve the surrounding environment and increase property value of Hudson Yards Project, it is possible to seek collaboration and off-site funding from Hudson Yards Infrastructure Corporation when doing the mutually benefit projects.
With multiple challenges that hinder the park’s ability to operate at its fullest potential, a comprehensive approach is necessary to tackle these difficulties. The restrictions have deep-seeded histories that must be studied and understood so that the recommendations made today do not repeat mistakes of the past. Events such as the rise and fall of New York City’s industrial waterfront, the controversy surrounding the innovative Westway Project, and the 1998 Hudson River Park Act all left the Hudson River Park Trust with political and legal liabilities that frame the parameters within which they work. Thus, research involved the dissection of these components and the search for alternative solutions.

While many developing parks have the benefit of having a blank slate when building out their vision, the Hudson River Park must accommodate the current tenants of the piers. However, these accommodations make it difficult for the park to be fully functional as these gaps in park ownership management break the visual and mental connectivity of the park. The section describing reclaiming the space provides a series of strategies the Trust could carry out to to better realize their vision of the park.

Once the space is reclaimed, it must be designed. There are designs that promote community use of a public space and others that do not. Special attention was given to climate change adaptability through the incorporation of a permeable first floor, user comfort through movable seating, and user diversity by providing many types of uses from open green space and the Kitchenette, to a performance space and an amusement ride. The design section also incorporates aspects of promotion because these exciting new elements to the park will require some work to be shared, especially as the study site is not an area most people associate with the Hudson River Park.

Finally, without financial viability, the Trust would have a difficult time carrying out its goals, no matter how beautiful. Thus, the alternative financial strategies aim to give the Trust more options for much needed income so that vision does not have to be sacrificed.

This report aims to present ways to turn undesirable waterfront uses into enjoyable and attractive destinations for the community, city, and the world to visit. It is the hope of this studio that the research presented will better help the Hudson River Park realize their vision.
APPENDIX A: CASE STUDIES

BRYANT PARK
Manhattan, New York
Key Words: Movable and flexible space
People feel comfortable when they are able to make changes according to their preference and feel free to sit where they want. The case of Bryant Park provides a good precedent example of this concept. There are over 1,000 chairs in the park that people can move, allowing visitors to create an environment that is personalized. Bryant Park also has pop-up shops that are popular and could be included in a successful, flexible space.49

HIGH LINE
Manhattan, New York
Key Words: Complementary use
The High Line Park is an example of a project that was conceived in harmony with pre-existing structures. A strong point of appeal for the High Line park is that it re-utilized an industrial structure, yet maintained the characteristics of the railyard in its design. Because it was built on an abandoned structure, the High Line became part of the existing city landscape.50
Brooklyn Bridge Park, a 1.3 mile waterfront park opened in 2010. The park must generate revenue for its operation, but is permitted to have 20% commercial use in the park. Brooklyn Bridge Park can therefore build housing projects in the park. Based on their 2010 report, the current expenses are covered by the ground lease and PILOT payment of One Brooklyn Bridge Park, which is the only completed housing project. Several other revenue-generating projects will open in the park in the future.

An accessibility feature was also included in the design of the park. The Squibb Bridge connects the Brooklyn Heights promenade with the Brooklyn-Queens Expressway. A safe and creative crossing that is interesting and attractive would be ideal to reach the piers in the study area, potentially as a connection from the top level of Javits Center.

Brooklyn Bridge Park is furthermore a good example of addressing the issue of sustainability. It has a comprehensive water management system that collects, circulates, naturally cleans and re-utilizes stormwater. While most parts of the system are underground, some elements are made visible and well incorporated into the park design, which also serves to portray a sustainable park image.

Additionally, in the phase of building the park, efforts were made to recycle the materials from other deconstruction projects. For instance, the granite stones used in Granite Prospect on Pier 1 were delivered from Roosevelt Island Bridge. The Longleaf Yellow Pine used for some benches were originally from two 19th century cold storage warehouses. Recycling and reusing materials may not directly save the budget compared to using completely new materials, but it should still be prioritized in light of the positive environmental and social spillovers.

Brooklyn Bridge Park has also integrated the built environment with the existing natural environment. Shoreline ecologies that used to exist on the site before the construction of the park were mimicked, recreated and integrated into the park. According to the park, “these ecologies evolve over time and require less intensive maintenance to survive the harsh waterfront conditions.” Choosing local vegetation to build up the park not only saves maintenance costs but also serves for environmental education purposes.

The graduated slope built in the Brooklyn Bridge Park allows the river tides to create a shallow water habitat for various forms of amphibious life. The park therefore finds balance between human interaction and the preservation of the surrounding nature.
YOKOHAMA INTERNATIONAL PORT TERMINAL
Osanbashi, Japan
Key Words: Multi-purpose space

The roof of Yokohama International Port Terminal is designed as an open space that is continuous with the surface of Yamashita Park as well as Akanegawa Park. The building is not only a ferry terminal but a place where locals can stroll out into the harbor and look back at their city. Anticipating that cruise ship traffic would be insufficient to make full use of the complex, it was designed as infrastructure that could be used for markets, expositions, and group activities of different sizes. Cars can be driven into the arrival hall and the broad walkway can be used for outdoor performances. Multi-purpose design is effective in attracting visitors.  

OLYMPIC SCULPTURE PARK
Seattle, Washington
Key Words: Accessibility, Connectivity

The Olympic Sculpture Park in Seattle, Washington opened in 2007. It was built over a highway and rail yards and helps connect the city center to the waterfront without disturbing the railway activity. The park complements the city’s infrastructure by creating a path for visitors from the city center, over the infrastructure, and down to the waterfront. Since Route 9A is an obstacle for pedestrians, the park can consider creative crossings to mitigate this safety and accessibility issue.

PUBLIC MARKET, GRANVILLE ISLAND
Granville Island, Vancouver
Key Words: Multi-purpose, Used throughout the day

Granville Island is a popular public market with day vendors. The market is operated on a rotating schedule, and the mix of vendors changes weekly to entice visitors to return over and over. The Hudson River Park can consider creating a space that has changeable and seasonal vendors.

APPENDICES

Figure 43: View of Yokohama Ferry Terminal
Figure 44: Olympic Sculpture Park connects the city to the waterfront
Figure 45: Olympic Sculpture Park has pieces from artists like Alexander Calder
Figure 46: Public market at Granville Island

Credit: http://www.weissmanfredi.com/project/seattle-art-museum-olympic-sculpture-park
Credit: http://www.carnival.com/cruise-from/seattle.aspx
Credit:  http://seansadventuresinflavortown.files.wordpress.com/2013/01/dsc_0188.jpg
Credit:  http://tky-jp.blogspot.com/2010/05/yokohama-ferry-terminal.html
The Singapore Flyer is one of the world’s largest giant observation wheels and also one of Asia’s biggest tourist attractions. This waterfront attraction opened in 2008. It not only has a view of the skyline and the bay, but also captures views of neighboring Malaysia and Indonesia. The wheel’s structure was built on the top of a terminal building with a two-floor indoor space. Tourists have a variety of choices to explore with dining and shopping in the terminal building. The stage outside takes advantage of the tropical climate by running different shows all year round. Singapore Flyer targets a diverse group of users by promoting different programs. Every Monday, senior citizens can enjoy a Singapore Flyer flight at only $10. Students can purchase tickets at a 50% discount. The Singapore Flyer also cooperates with local elementary schools to take children up in the air.

APPENDICES

APPENDIX B: ANALYSIS OF 2012 HUDSON RIVER PARK VISITOR SURVEY

In 2012, Friends of Hudson River Park hired Audience Research & Analysis (ARA) to conduct a study of visitors in Hudson River Park. A total of 1,288 visitors including 20 online participants, completed surveys collected across six Hudson River Park areas. The below analysis reflects the study area of the report and is based on the data collected from Pier 84.

153 visitors were surveyed in the study area. 59.2% of them were male and 40.8% of them were female. The median household income of the visitors in the study area is $72,159, the lowest among all six part of the park, much lower than the median household income of the whole park ($89,370).

Based on the survey data, it is evident that the visitors of the study area are quite different from other parts of the park. The visitors of the study area are more international (30.7%, compared to 13.8% of the whole park), and much less familiar with the park. Only 46.7% of visitors said they are familiar with the park, while the percentage of the whole park is 59.5%. The visitors of the study area also tend to be first time visitors (34.2%).

The age group of the visitors in the study area is similar with the whole park. 77.4% of the visitors in the study area are of working age, between 18 to 54 years old. Interests and needs of this age group should be considered in improving the park facilities of the study area.

The survey also collected what the park users want to be added or improved in the park. The survey shows that the dining needs are the biggest issue that concerned park users. 60 of 339 people think the park needs more and better places to eat.
to eat or drink, including restaurants and food vendors. The second concern for visitors is to improve the current sports facilities and add more sports fields. Among the top five things that park users want is an improved park environment and facilities e.g. more tables, chairs, and shaded areas for people to relax and enjoy the waterfront, more space and facilities for pets, and more events held on the piers.62

Figure 52: The most-cited amenity to add to the park is a place to eat or drink.

APPENDIX C: PROJECT FOR PUBLIC SPACE

Figure 53: Project for Public Space defines the components of a good public space

APPENDIX D: HUDSON RIVER PARK ACT SECTION 5

(c) The city of New York shall use best efforts to relocate the tow pound on Pier 76. Subsequent to relocation of the tow pound, the city of New York shall convey to the trust a possessory interest in fifty percent of Pier 76 for passive and active public open space use for a period not to exceed 99 years, provided that such open space portion of Pier 76 shall be contiguous to water. Upon such conveyance, the portion so conveyed will become part of the park and will be used solely for passive and active public open space uses, towards and away from the park. 10. (a) The trust shall receive and have exclusive title to all rents, fees, and other revenues required to be transferred to it under paragraph (b) of this subdivision and also to all rents, fees, and other revenues paid or to be paid to it pursuant to any lease, concession arrangement, license or other agreement relating to any part of the park, made by it or any predecessor, and all such monies shall be used solely for constructing, improving, operating and maintaining the park including, but not limited to, capital improvements which facilitate park uses and park/commercial uses.63
ENDNOTES


16. Ibid.


