



Ferry Berthing and Maintenance Facility Alternative Site Analysis

August 2009

Ferry Berthing and Maintenance Facility Alternative Site Analysis Executive Summary

Background

Recognizing that safe, reliable and efficient ferry service across the Hudson River benefits NJ TRANSIT customers, NJ TRANSIT has identified a location to which ferry operators can relocate their maintenance facility. Presently, the ferry operator's month to month lease at the existing Weehawken facility can be terminated with a 30-day notice. Continuation of ferry service as part of an intermodal transportation service offering is vital to the region's mobility and economic wellbeing.

Identifying a relocation site to support Hudson River ferry service continues efforts that NJ TRANSIT began in 1988 when it leased a portion of its waterfront at Hoboken Terminal to the Port Authority of New York and New Jersey so that overcrowding at PATH trains could be relieved by employing a ferry operator to carry NJ TRANSIT's customers to Manhattan.

Twenty one years later, two service providers operate 17 routes carrying more than 30,000 weekday passengers between the west shore of the Hudson River and New York City. Approximately fifty percent of ferry users take NJ TRANSIT's trains, buses and light-rail trains to reach trans-Hudson ferries. NJ TRANSIT and the Port Authority have invested more than \$200 million in ferry facilities in Hoboken, Weehawken and Manhattan to provide safe and reliable ferry service

Analysis

Staff evaluated nine sites in four municipalities along 6 miles of the Hudson River's western shore. Staff did not consider sites on the opposite shore because of higher land costs in Manhattan and the time required for the New York City approval process.

Sites Analyzed

- A. Port Imperial Ferry Terminal, Weehawken, NJ
- B. Port Imperial Marina, Weehawken, NJ
- C. Union Dry Dock, Hoboken, NJ
- D. Hoboken South, Hoboken, NJ
- E. Morris Canal, Jersey City, NJ
- F. Hugo Neu, Jersey City, NJ
- G. Cross Harbor, Jersey City, NJ
- H. Greenville Pier, Jersey City, NJ
- I. Bayonne Peninsula, Bayonne, NJ

The sites were listed in geographic order north to south, on the basis of eight technical & cost related criteria: (a) regulatory permitting and timing (b) vessel berthing capacity (for maintenance functions), (c) upland pier capacity, (d) landside access, (e) parking and public transit access, (f) dredging and capital construction costs, (g) impact to operations (recurring operating costs), and (h) land acquisition costs. Cost considerations counted for 40% of each site's score; the first six evaluation criteria counted for the other half of each site's ranking.

While the evaluation criteria are technical & cost related, this analysis will require a full understanding that each location may have unique community receptiveness issues which are not addressed herein. For example, significant opposition to placing the maintenance facility at Hoboken South has been expressed by the City of Jersey City and the LeFrak organization, which has extensive development interests in close proximity to the Hoboken South site.

After analyzing nine alternative locations, the most cost-effective location identified for the berthing and maintenance facility is in Hoboken, south of the Hoboken Terminal, on property owned by NJ TRANSIT.

Conclusion

Hoboken South ranked highest; followed by the Weehawken Ferry Terminal and the Weehawken Marina. The permitting for Hoboken South is expected to be completed within the next few months. Challenges associated with Weehawken Ferry Terminal, the second-ranked location, are a two year regulatory approval process, lack of upland/pier capacity and limited service access. This site also lies immediately across from a proposed hotel and office development site.

Challenges associated with Weehawken Marina, the third-ranked location, are a two year regulatory approval process, a lack of upland/pier capacity and limited service access. This site lies adjacent to a proposed residential development and park.

The remaining six sites have varied scores, with the critical distinguishing factor that separates them from the top ranked sites being a total project cost ranging from \$27M to \$34M.

Overall Project Location Map



**Port Imperial Terminal
4800 Avenue at Port Imperial
Weehawken, NJ**

Community: The site under consideration lies immediately across from a proposed hotel and office development site.

Regulatory Permits and Timing: The present development plan and zoning do not permit the development of large-scale maintenance facility at the site. Construction will require modification of existing NJDEP waterfront development permits and acquisition of all the permits associated with the dredging action. The lack of appropriate zoning and development approvals combined with the NJDEP and Army Corps permit acquisitions, which will be complicated by the required dredging, are anticipated to result in a lengthy construction lead time and potentially a two year delay.

Vessel Berthing Capacity: Current berthing capacity is 4 vessels overnight and 3 vessels during the off-peak period. Upon completion of the barge installation as currently planned vessel berthing capacity will be 12.

Upland/Pier Capacity: The proposed maintenance site has no existing upland or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment and would have to rely upon on street parking. There is no pier space available for fuel tanks, waste oil and other liquid storage tanks nor is there the ability to construct the necessary piers adjacent to the proposed facility.

Landside Access/Utility Availability: The proposed Port Imperial facility has limited access for service vehicles because of the restricted hours created by commuter operations at the existing ferry terminal. Additionally, there is an existing public esplanade immediately adjacent to the terminal site conflicting with service vehicle and fuel truck access. There are existing utilities at the site including power, water and sewer. The former may require an upgrade and all three will require construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Port Imperial facility has sufficient parking for ferry employees and it is highly accessible by several forms of mass transit including NJT bus service, light rail and ferry.

Impact to Operation: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will not result in additional maintenance and operating expenses.

Dredging Required: Dredging is required.

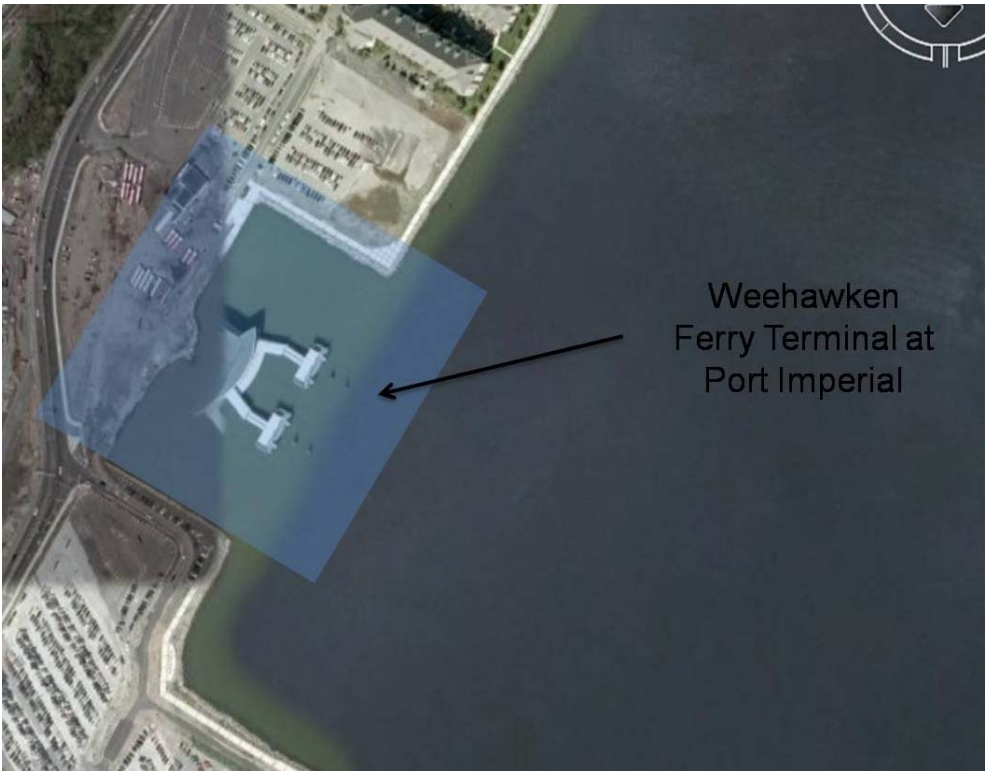
Capital Costs:	Dredging -	\$3,000,000
	Pier Work -	\$3,000,000
	Marine Work -	\$1,000,000
	Utilities -	<u>\$2,000,000</u>
	Total -	\$9,000,000

Land Acquisition / Ownership: Property owned by NJ Transit and Port Imperial South LLC. Access easements required.

Overall Project Location Map



Site Specific Location Map



**Port Imperial Marina
Weehawken, NJ**

Community: The site under consideration lies immediately across from a proposed residential development and park.

Regulatory Permits and Timing: The present development plan and zoning do not permit the development of large-scale maintenance facility at the site. Construction will require modification of existing NJDEP waterfront development permits and acquisition of all the permits associated with the dredging action. The lack of appropriate zoning and development approvals combined with the NJDEP and Army Corps permit acquisitions, which will be complicated by the required dredging, are anticipated to result in a lengthy construction lead time and potentially a two year delay.

Vessel Berthing Capacity: Berthing capacity is limited and as drawn on the McLaren plan dated March 26, 2006 is 9 vessels overnight and during the off-peak period. Whether these can be accommodated on a long term basis depends upon future land use plans.

Upland/Pier Capacity: The proposed maintenance site has no existing bulkhead or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There is no pier or upland space available for fuel tanks, waste oil and other liquid storage tanks. All access piers will have to be constructed as part of the overall plan.

Landside Access/Utility Availability: The proposed marina facility has limited access for service vehicles and would have to rely upon on street parking. Additionally, there is an existing public esplanade immediately adjacent to the marina site conflicting with service vehicle and fuel truck access. There are existing utilities at the site including power, water and sewer. All three utilities will require upgrade and construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Port Imperial Marina site has sufficient parking for ferry employees and it is highly accessible by several forms of mass transit including NJT bus service, light rail and ferry.

Impact to Operation: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will not result in additional maintenance and operating expenses.

Dredging Required: Dredging is required.

Capital Costs:	Dredging -	\$6,000,000
	Pier Work -	\$3,000,000
	Marine Work -	\$1,000,000
	Utilities -	<u>\$2,000,000</u>
	Total -	\$12,000,000

Land Acquisition / Ownership: Property owned by Romulus Development Corp.

Overall Project Location Map



Site Specific Location Map



Union Dry Dock Hoboken, NJ

Community: The site under consideration for the facility lies immediately below the Steven's Institute of Technology Campus and adjacent to a newly constructed waterfront park.

Regulatory Permits and Timing: The present development and zoning plans permit the development of vessel maintenance facility at the site and presently there is a large barge repair facility there. Construction will require modification of existing NJDEP waterfront development permits and acquisition of all the permits associated with the dredging action. Although the zoning and development approvals are consistent with the proposed and existing use, NJDEP and Army Corps permit acquisitions are required and will be complicated by the required dredging action. It is anticipated that they will result in a lengthy construction lead-time and potentially a two year delay.

Vessel Berthing Capacity: No specific plans exist for the Union Dry Dock site. Several site visits and discussions with management indicate that there is limited berthing capacity and that the maximum numbers of vessels that may be berthed overnight and off peak are 4. The travel lift and shop barge can be accommodated.

Upland/Pier Capacity: The proposed maintenance site has no existing upland or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There is no pier space available for fuel tanks, waste oil and other liquid storage tanks and there is very limited ability to construct the necessary piers adjacent to the proposed facility.

Landside Access/Utility Availability: The proposed Union Dry Dock site has good access for service vehicles. There are existing utilities at the site including power, water and sewer. The former may require an upgrade and all three will require construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Union Dry Dock facility has sufficient parking for ferry employees but has limited accessible by mass transit.

Impact to Operation: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will not result in additional maintenance and operating expenses.

Dredging Required: Dredging is required.

Capital Costs:	Dredging -	\$1,000,000
	Pier Work -	\$1,000,000
	Marine Work -	\$ 750,000
	Utilities -	<u>\$1,500,000</u>
	Total -	\$4,250,000

Land Acquisition/Ownership: The property is owned by Union Dry Dock Corp. Past asking price for property was \$23,000,000.

Overall Project Location Map



Site Specific Location Map



**Hoboken South
One Hudson Place
Hoboken**

Community: Despite the historic nature of the facility, the proposed use is consistent with its transportation and maintenance functions. There has been significant opposition to placing the maintenance facility at Hoboken South by both the City of Jersey City and the LeFrak organization, which has extensive development interests in close proximity to the proposed site.

Regulatory Permits and Timing: While several comment letters have been forwarded to NJDEP and the Army Corps, information from the reviewing agencies indicates the necessary permits will be fully issued within the next few months. Hoboken has had no objections or comments regarding the proposed facility. A substantial amount of time and effort has been dedicated to preparing the plans and permits for the proposed Hoboken location. As such, this site has a distinct advantage over all other sites with respect to implementation. It is estimated that the Phase I construction, barge acquisition and installation will be complete by the end of January 2010. Full construction will be completed by June 2010.

Vessel Berthing Capacity: Current berthing capacity is 5 vessels overnight and 4 vessels during the off-peak period. Upon completion of the barge installation as currently planned vessel berthing capacity will be 18 not including the additional capacity created by the completion of the new ferry facility in the historic terminal. Upon completion of this project total vessel storage in Hoboken will be 18 vessels and is considered an excellent attribute of the site.

Upland/Pier Capacity: Presently the proposed maintenance site has adequate existing upland and pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. Additionally, there is pier space available for fuel tanks, waste oil and other liquid storage tanks. Piers require rehabilitation and stabilization in order to be functional.

Landside Access/Utility Availability: The proposed Hoboken facility has limited access for service vehicles because of the restricted hours created by commuter operations at the facility. Despite this restriction the proposed facility will be accessible by utility and fuel trucks delivering parts and fuel for the vessels. There are existing utilities at the site including power, water and sewer. The former will require an upgrade and all three will require construction of the delivery and distribution systems.

Parking/Transit Access: While the proposed Hoboken site has little or no employee parking available for ferry employees, it is highly accessible by several forms of mass transit including NJT rail and bus service, PATH, light rail and ferry.

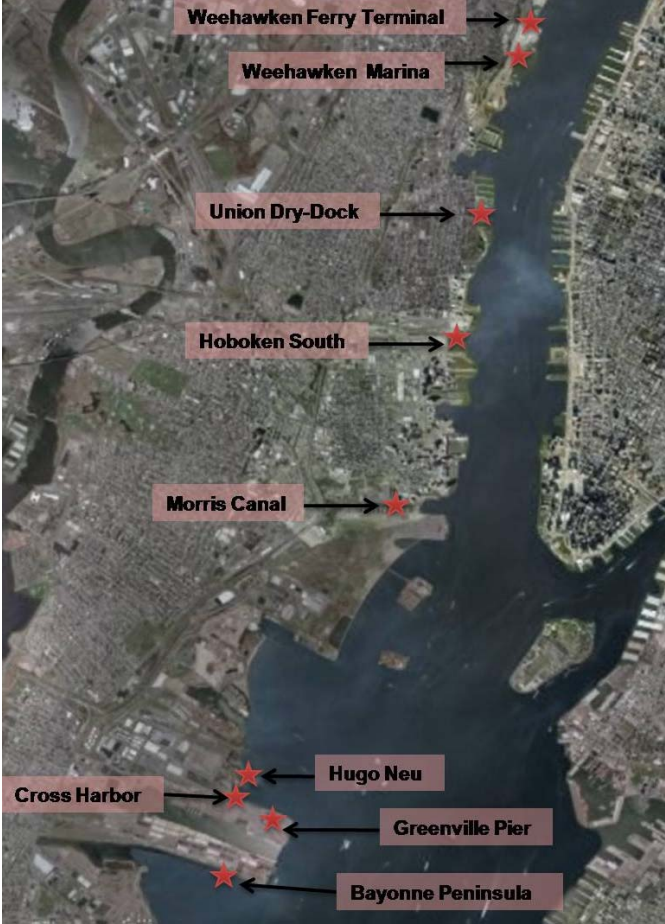
Impact to Operations: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will not result in additional maintenance and operating expenses.

Dredging Required: No dredging is required.

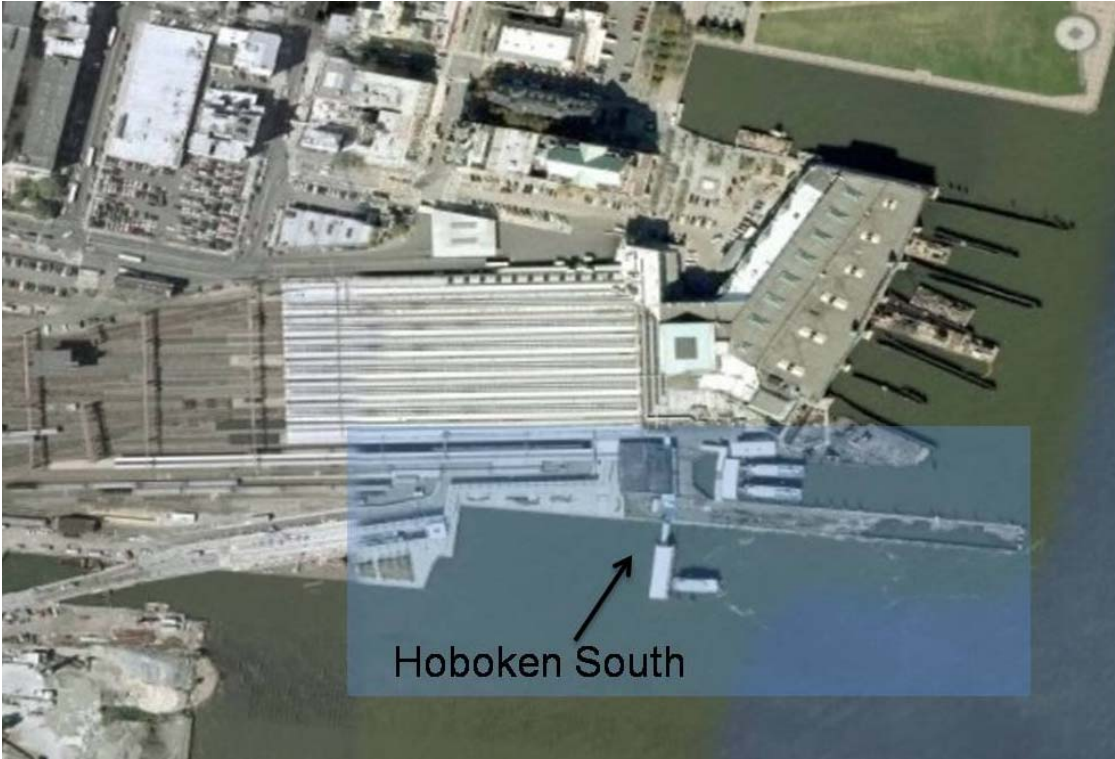
Capital Costs:	Dredging -	\$	0
	Pier Work -	\$3,000,000	
	Marine Work -	\$1,100,000	
	Utilities	<u>\$2,500,000</u>	
	Total -	\$6,600,000	

Land Acquisition / Ownership: The property is owned by NJ Transit

Overall Project Location Map



Site Specific Location Map



**Morris Canal
Jersey City, NJ**

Community: The site under consideration lies immediately across the canal from Liberty State Park and is part of a congested and heavily travel marine corridor.

Regulatory Permits and Timing: Current zoning does not permit the development of large-scale maintenance facility at the site. Construction may require modification of existing NJDEP waterfront development permits and acquisition of all the permits associated with the dredging action. The lack of appropriate zoning and development approvals combined with the NJDEP and Army Corps permit acquisitions, which will be complicated by the required dredging, are anticipated to result in a lengthy construction lead time and potentially a two year delay.

Vessel Berthing Capacity: No specific plans exist for the Morris Canal site. Several site visits and discussions with management indicate that there is limited berthing capacity, although; the travel lift and shop barge may be accommodated. It is estimated that a maximum of 4 vessels may be stored at the site in association with the travel lift operation.

Upland/Pier Capacity: The proposed maintenance site has no existing bulkhead or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There is no pier or upland space available for fuel tanks, waste oil and other liquid storage tanks. All access piers will have to be constructed as part of the overall plan. While there is sufficient vacant upland space available at the site it is presently used for commercial parking purposes

Landside Access/Utility Availability: The proposed Morris Canal site has good access for service vehicles and there are no conflicts with recreational or pedestrian activity. There are existing utilities at the site including power, water and sewer. All three utilities will require upgrade and construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Morris Canal site has sufficient parking for ferry employees. There is limited convenient mass transit access.

Impact to Operations: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will result in additional maintenance and operating expenses of \$350,000 to \$400,000.

Dredging Required: Dredging is required.

Capital Costs:	Dredging -	\$3,000,000
	Pier Work -	\$3,000,000
	Marine Work -	\$1,500,000
	Utilities -	<u>\$1,000,000</u>
	Total -	<u>\$8,500,000</u>

Land Acquisition / Ownership: The property is owned by Liberty Harbor Marina

Overall Project Location Map



Site Specific Location Map



**Hugo Neu
Jersey City, NJ**

Community: The site under consideration lies immediately across the canal from the Port Liberte development and is part of a congested and heavily traveled marine corridor.

Regulatory Permits and Timing: Current zoning permits the development of large-scale maintenance facility at the site. Construction may require modification of existing NJDEP waterfront development permits and acquisition of all the permits associated with the dredging action. Appropriate zoning and development approvals are an advantage, however; the NJDEP and Army Corps permit acquisitions, which will be complicated by the required dredging, are anticipated to result in a lengthy construction lead time and potentially a two year delay.

Vessel Berthing Capacity: No specific plans exist for the location at the Hugo Neu site in Jersey City. Previously several attempts were made to acquire or lease a portion of the site, which lies between Port Liberte and Cross Harbor Railroad in Jersey City. Several site visits and discussions with management indicate that there is limited berthing capacity, although; the travel lift and shop barge may be accommodated.

Upland/Pier Capacity: The proposed maintenance site has no bulkhead or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There is no pier or upland space available for fuel tanks, waste oil and other liquid storage tanks. All access piers will have to be constructed as part of the overall plan. While there is sufficient vacant upland space available at the site it is present used for the existing Hugo Neu scrap operations.

Landside Access/Utility Availability: The proposed Hugo Neu site has good access for service vehicles and there are no conflicts with recreational or pedestrian activity. There are existing utilities at the site including power, water and sewer. All three utilities will require upgrade and construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Hugo Neu site has sufficient parking for ferry employees. There is no convenient mass transit access.

Impact to Operations: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will result in additional maintenance and operating expenses of \$550,000 to \$600,000.

Dredging Required: Dredging is required.

Capital Costs:	Dredging -	\$3,000,000
	Pier Work -	\$3,000,000
	Utilities -	\$1,500,000
	Marine Work -	<u>-\$2,500,000</u>
	Total -	\$10,000,000

Land Acquisition / Ownership: The property is owned by Hugo Neu

Overall Project Location Map



Site Specific Location Map



**Cross Harbor Rail Road
Jersey City, NJ**

Community: The site under consideration lies immediately to the north of the Cross Harbor Rail Road float bridges and the site is part of a congested and heavily traveled marine corridor

Regulatory Permits and Timing: Current zoning permits the development of large-scale maintenance facility at the site. Construction may require modification of existing NJDEP waterfront development permits and acquisition of all the permits associated with the dredging action. Appropriate zoning and development approvals are an advantage, however; the NJDEP and Army Corps permit acquisitions, which will be complicated by the required dredging, are anticipated to result in a lengthy construction lead time and potentially a two year delay.

Vessel Berthing Capacity: No specific plans exist for the Cross Harbor Rail Road site in Jersey City. Several site visits and discussions with management indicate that there is limited berthing capacity, although; the travel lift and shop barge may be accommodated at the northern most section of the site.

Upland/Pier Capacity: The proposed maintenance site has no existing upland or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There are no existing bulkheads nor are there pier or upland space available for fuel tanks, waste oil and other liquid storage tanks convenient to the berthing area. All access piers will have to be constructed as part of the overall plan. While there is sufficient and remote vacant upland space available at the site it is presently used for the existing Cross Harbor Rail Road operations.

Landside Access/Utility Availability: The proposed Cross Harbor Rail Road site has good access for service vehicles and there are no conflicts with recreational or pedestrian activity. There are existing utilities at the site including power, water and sewer. All three utilities will require upgrade and construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Cross Harbor Rail Road site has sufficient parking for ferry employees. There is no convenient mass transit access.

Impact to Operations: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will result in additional maintenance and operating expenses of \$550,000 to \$600,000.

Dredging Required: Dredging is required.

Capital Costs:	Dredging -	\$3,000,000
	Pier Work -	\$7,000,000
	Marine Work -	\$2,000,000
	Utilities -	<u>\$2,000,000</u>
	Total -	\$14,000,000

Land Acquisition / Ownership: The property is owned by the Port Authority of New York and New Jersey

Overall Project Location Map



Site Specific Location Map



**Greenville Pier
Jersey City, NJ**

Community: The site under consideration lies immediately adjacent to the Cross Harbor Rail Road site is part of a congested and heavily traveled marine corridor.

Regulatory Permits and Timing: Current zoning permits the development of large-scale maintenance facility at the site. Construction may require modification of existing NJDEP waterfront development permits and the necessary Army Corp Permits. Appropriate zoning and development approvals are an advantage, however; the NJDEP and Army Corps permit acquisitions will result in a lengthy construction lead time and potentially a one year delay.

Vessel Berthing Capacity: No specific plans exist for the Greenville Pier site in Jersey City. Several site visits and discussions with management indicate that there is good to adequate berthing capacity and that the maximum numbers of vessels, the travel lift and shop barge may be accommodated.

Upland/Pier Capacity: The proposed location for the maintenance site has no existing bulkhead, upland or pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There is sufficient but remote upland space available for fuel tanks, waste oil and other liquid storage tanks. All access piers will have to be constructed as part of the overall plan.

Landside Access/Utility Availability: The proposed Greenville Pier site has good access for service vehicles and there are no conflicts with recreational or pedestrian activity. There are existing utilities at the site including power, water and sewer. All three utilities will require upgrade and construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Greenville Pier site has sufficient parking for ferry employees. There is no convenient mass transit access.

Impact to Operations: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will result in additional maintenance and operating expenses of \$700,000 to \$750,000.

Dredging Required: Dredging is required.

Capital Costs:	Dredging -	\$3,000,000
	Pier Work -	\$3,000,000
	Marine Work -	\$1,500,000
	Utilities	<u>\$2,000,000</u>
	Total -	\$9,500,000

Land Acquisition / Ownership: The property is owned by the Port Authority of New York and New Jersey

Overall Project Location Map



Site Specific Location Map



**Bayonne Peninsula
Bayonne, NJ**

Community: The site under consideration is a large development site comprised of several residential, commercial and marine development parcels. Presently, a small vessel and barge repair facility occupies the eastern most portion of the site. This operation will be relocated or eliminated as the development proceeds.

Regulatory Permits and Timing: Current zoning permits the development of large-scale maintenance facility at the marine parcel. Construction may require modification of existing NJDEP waterfront development permits and acquisition of the necessary Army Corp Permits. Appropriate zoning and development approvals are an advantage in Bayonne, however; the NJDEP and Army Corps permit acquisitions will result in a lengthy construction lead time and potentially a one year delay. The delay may be longer if dredging is required.

Vessel Berthing Capacity: No specific berthing or layout plan exists for the Bayonne Peninsula maintenance facility site. Several site visits and discussions with management indicate that there is good to adequate berthing capacity and that the maximum number of vessels, the travel lift and shop barge may be accommodated somewhere on the site.

Upland/Pier Capacity: The proposed maintenance site has no existing pier space suitable for the ferry crews and maintenance staff to access vessels and the necessary maintenance equipment. There are several areas with bulkheads where suitable connections can be made. All access piers will have to be constructed as part of the overall plan. There is sufficient upland space available for fuel tanks, waste oil and other liquid storage tanks.

Landside Access/Utility Availability: The proposed Bayonne Peninsula site has good access for service vehicles and there are no conflicts with recreational or pedestrian activity. There are existing utilities at the site including power, water and sewer. All three utilities will require upgrade and construction of the delivery and distribution systems.

Parking/Transit Access: The proposed Bayonne Peninsula site has sufficient parking for ferry employees. There is no convenient mass transit access to the areas under consideration.

Impact to Operations: Provided the full compliment of proposed vessel berthing is achieved at Hoboken and Weehawken, this location will result in additional maintenance and operating expenses of \$700,000 to \$750,000.

Dredging Required: Depending upon the final location for the facility at the site, dredging may be required. Some areas including the "marine district" may have adequate depth.

Capital Costs:	Dredging -	\$ 3,000,000
	Pier Work -	\$ 3,000,000
	Marine Work -	\$ 1,100,000
	Utilities -	<u>\$ 1,500,000</u>
	Total -	\$ 8,600,000

Land Acquisition / Ownership: City of Bayonne

Overall Project Location Map



Site Specific Location Map



**Ferry Berthing And Maintenance Facility
Evaluation of Alternative Sites
(Presented in Rank Order)**

Description		Evaluation Result		Criteria and Score									
		Rank	Score	Regulatory Permits and Timing ⁽¹⁾	Vessel Berthing Capacity ⁽²⁾	Upland Pier Capacity ⁽³⁾	Landside Access ⁽⁴⁾	Parking and Transit Access ⁽⁵⁾	Impact to Operations ⁽⁶⁾	Dredging + Capital Construction	Land Acquisition	Total Projected Cost ⁽⁷⁾	Total Cost Score
			Weight >>> (% of 100)	20%	10%	5%	5%	5%	15%				40%
Hoboken South - NJT	Hoboken	1	3.80	4	4	4	2	2	4	\$ 6,600,000	\$ -	\$ 6,600,000	4
Port Imperial Ferry Terminal	Weehawken	2	2.90	1	2	0	2	4	4	\$ 9,000,000	\$ -	\$ 9,000,000	4
Port Imperial Marina	Weehawken	3	2.80	1	1	0	2	4	4	\$ 12,000,000	\$ -	\$ 12,000,000	4
Greenville Pier	Jersey City	4	1.70	2	4	2	3	2	1	\$ 9,500,000	\$ 20,000,000	\$ 29,500,000	1
Bayonne Peninsula	Bayonne	4	1.70	2	4	2	3	2	1	\$ 8,600,000	\$ 20,000,000	\$ 28,600,000	1
Union Dry-Dock	Hoboken	6	1.60	1	1	1	3	2	4	\$ 4,250,000	\$ 23,000,000	\$ 27,250,000	1
Morris Canal	Jersey City	7	1.50	1	2	2	3	3	2	\$ 8,500,000	\$ 20,000,000	\$ 28,500,000	1
Cross Harbor	Jersey City	8	1.35	1	3	1	3	2	1	\$ 14,000,000	\$ 20,000,000	\$ 34,000,000	1
Hugo Neu	Jersey City	9	1.25	1	2	2	2	2	1	\$ 10,000,000	\$ 20,000,000	\$ 30,000,000	1

Cost Range	Score
\$ 34,000,000	1
\$ 27,150,000	2
\$ 20,300,000	3
\$ 13,450,000	4
\$ 6,600,000	Min

Notes:

- Regulatory and Timing: Permit requirements
Timing associated with regulatory process - from 0 to 2 years
Availability of berthing.
- Site Considerations: Critical mass between 11 and 12 vessels as can be accommodated in Hoboken and Weehawken respectively
- Upland Pier Capacity: Storage for fuel and waste tanks
Access to vessels for equipment/parts
- Landside Access: Availability of utilities and access for service vehicles
- Parking and Transit Access: Availability of commuter/employee parking and proximity to public transportation
- Impact to Operations: Proximity to berthing, maintenance facility
Incremental costs - labor, fueling, administration, maintenance
Annual costs for sites E through I range from \$400,000 to \$750,000 as the distance to operation increases.
- Costs: Dredging
Initial capital construction
Land acquisition for operation and parking @ \$10.0 million/acre times 2 acres

Site Scoring:

- Weight - Each Evaluation Criteria has been assigned a weight relative to its value. The total of all weights equal 100%.
- For each site - a value of 1 to 4 is assigned for each criteria. 0 = not avail/worst/most expensive and 4 = Excellent/best option/least expensive
- Max score possible = 4

**Ferry Berthing And Maintenance Facility
Site Evaluation Score
(Presented in Rank Order)**

