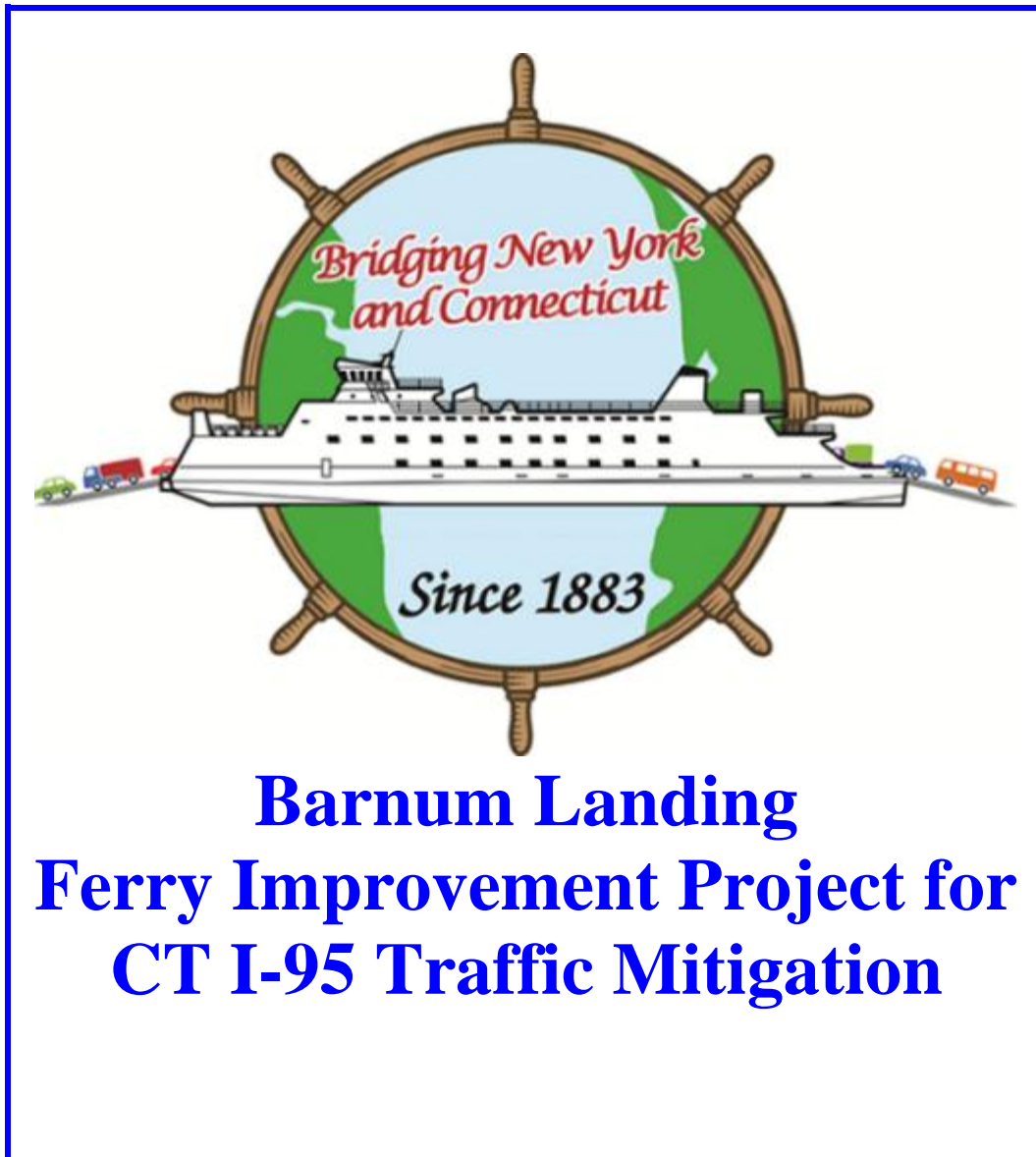


*Department of Transportation
National Infrastructure Investments
TIGER Discretionary Grants*



**Barnum Landing
Ferry Improvement Project for
CT I-95 Traffic Mitigation**

Prepared by:



City of Bridgeport Connecticut
Mayor Bill Finch
45 Lyon Terrace
Bridgeport, CT 06604

**TIGER GRANT
APPLICATION**

Project Narrative

October 31, 2011

Project Overview

Project Name	Barnum Landing Ferry Improvement Project for CT I-95 Traffic Mitigation
Project Type	Port Infrastructure Investment
Project Location	Bridgeport, Connecticut Fairfield County 4 th Congressional District This project is located in an ECONOMICALLY DISTRESSED URBAN AREA
Project Description	This project includes the development of a new passenger ferry terminal for the Bridgeport & Port Jefferson Steamboat Company. The terminal will be situated in a mixed use development which will combine ferry operations with community oriented commercial and retail uses. Site features include ferry traffic staging areas, parking, community access pedestrian boardwalks, street hardscape improvements, and appropriate traffic controls. Along the shore improvements will include bulkheads, loading ramps (link spans) and dolphins. Strategies for implementation include sustainable storm water retention and restoration of shoreline habitat. The facility will also preserve and enhance an existing commercial cargo facility, warehouse facilities, and result in a domicile for new Bridgeport-based tug and barge operation.
Funds Requested	\$14,250,000
Grant Recipient	City of Bridgeport ATTN: Department of Central Grants & Community Development Ms. Alexandra B. McGoldrick 999 Broad Street Bridgeport, CT 06604 (203) 332 5665 <i>alexandra.mcgoldrick@bridgeportct.gov</i> DUNS number: 075404137
Other Project Parties	The Bridgeport & Port Jefferson Steamboat Company, Barnum Landing, LLC; and McAllister Towing and Transportation Company, Inc.

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- B – Benefit-Cost Analysis
- C – Current Bridgeport Grants
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I. Project Description

This Barnum Landing Ferry Improvement Project for CT I-95 Traffic Mitigation (Barnum Landing) includes the construction of a new ferry terminal in Bridgeport, Connecticut for The Bridgeport & Port Jefferson Steamboat Company (BPPJ Ferry). Founded in 1883, the BPPJ Ferry provides year round ferry service across Long Island Sound between Bridgeport, Connecticut and Port Jefferson, New York for vehicles, passengers and freight. The BPPJ Ferry operates 20-30 trips per day (178 trips per week) in each direction using three vessels, and carries over 400,000 cars and trucks, and more than 800,000 passengers per year.

Barnum Landing Terminal

Barnum Landing will be situated in a mixed use development which will combine ferry operations with community-oriented commercial and retail uses. Included in the approximately 18.3 acre site will be a variety of buildings which enhance and support ferry operations (16,000-20,000 SF) including a ferry passenger terminal and restaurant, a ferry administration building and call center, and crew quarters. The community-oriented commercial and retail facilities (12,000-14,000 SF) will incorporate a grocery store, small retail storefronts, and commercial offices. Incorporating retail establishments like these into Barnum Landing is consistent with the City of Bridgeport's community development goals.

In addition, Barnum Landing will include improvements to land-side structures at a commercial cargo facility adjacent to the new ferry terminal. The existing bulkheading, berth, and mooring facilities will also be retained and rehabilitated. Under the proposed plan a freight berth could remain available for ships at Bridgeport.

There will be adequate space for a tug to moor at Barnum Landing. Tugs, which are an important component in the safe movement of ships and barges in and around the port, currently have limited space to moor in Bridgeport Harbor.

Site features at Barnum Landing will include ferry vehicle staging areas, parking, community access pedestrian boardwalks, street hardscape improvements, and appropriate traffic controls. Shoreline improvements will include bulkhead repairs, and the addition of loading ramps (link spans) and dolphins. Strategies for implementation include sustainable storm water retention and restoration of shoreline habitat. Particular attention will be given to concepts of economic, environmental and aesthetic justice for the East End community in which the project is located, an economically distressed urban area.

Existing Terminal

Sitting on just 1.5 acres, the current Bridgeport ferry terminal has insufficient space for vehicle staging and parking, particularly during ferry unloading, which effectively constrains the number of passengers that can be carried daily/annually. To date, 8.9 acres of prime waterfront have already been purchased and an adjacent 9.4 acre parcel is available, which will allow Barnum Landing to provide additional capacity over the existing site and eliminate existing capacity

problems.¹ In addition, the current site has poor roadway connections to I-95, the main travel corridor through Bridgeport and the region.

The establishment of Barnum Landing on the much larger parcel will reduce travel times for current ferry passengers, will remove facility constraints on daily and annual ridership, and will greatly increase the attractiveness of ferry service and increase ridership. The additional daily and annual riders attracted to the ferry will remove significant traffic from the highly congested, and over capacity, I-95 corridor through southern Connecticut and the New York City metropolitan region. By reducing traffic on already congested roadways, Barnum Landing is consistent with the goals of the New York Metropolitan Transportation Council (NYMTC) 2010-2035 Regional Transportation Plan. To support this assertion, NYMTC has provided a letter stating that development of Barnum Landing is consistent with their goals as well as aligned with the recommendations of the Long Island Sound Waterborne Transportation Plan. A copy of this letter is provided in [Attachment A](#).

The adjacent property, that is available for purchase and development, could be developed for cargo operations. Negotiations are ongoing to purchase the property. The BPPJ Ferry would use the second berth only as an emergency backup terminal for the ferry. The BPPJ Ferry currently has no backup berth in Bridgeport. This second berth could be used by barge or other cargo operations.

A. Project Location & Context

This project is located in the city of Bridgeport, Connecticut, in Northeast Fairfield County, on Long Island Sound. Bridgeport is known as the “Park City” with 1,375 acres of park land in a 19.4 square-mile urban area. With 139,529 residents, Bridgeport is the largest city in Connecticut and the fourth largest in New England; with a density of 8,720 people per square mile; Bridgeport is also the most densely populated City in Connecticut (2000 Census). Bridgeport is a diverse community with 31.9% of residents of Hispanic origin and 30.8% of African American origin.

Bridgeport is an economically disadvantaged community; the city-wide poverty rate is almost 25%, with certain census tracts demonstrating poverty rates approaching 80%. In the second quarter of 2011 the Connecticut Department of Labor reported a 14.5% unemployment rate in Bridgeport, compared to 9.1% for the state of Connecticut as a whole. Over the last five years unemployment in Bridgeport has typically been at least two percentage points higher than the U.S. average unemployment rate.

The city of Bridgeport identified the revitalization of the city’s East Side with a new rail station as its anchor as a path out of poverty for that section of the city and as an economic driver of a city-wide renaissance. Utilizing private funds, several large property owners in this portion of the city including Dupont and General Electric have been working diligently to remediate and plan for the repositioning of approximately 500 acres of brownfields so that they can be restored to productive elements of the city.

¹ Stena Lines, the world’s largest car and passenger ferry operator has written a report on the existing terminal and has concluded that the new terminal will eliminate the current capacity problems and related delays. Stena Lines will be consulted in connection with final plans for the Barnum Landing terminal.

Additionally, this proposal is connected to the regional and local context and will leverage collaborative relationships and support existing investment in the project area. Necessary collaboration is occurring with federal, state, and regional public agencies, including DOT, FTA, Port Authority, HUD, Housing Authority, EPA, CT DECD and CT DEEP. Collaborators in the private sector include the Seaview Avenue Business Alliance, a non-profit whose membership consists of businesses and institutions located in the upper East End. GE, Dupont, and the State Dept. of Economic and Community Development (DECD) have committed significant resources to demolish buildings, conduct remediation, and prepare sites for redevelopment. The proposed actions will lay the foundation for a new and stronger walkable, mixed-use and transit-oriented neighborhood; one that will reduce automobile trips and greenhouse gases, reclaim brownfield sites and create a sense of community and place. With an emphasis on higher density and mixed-use land patterns, the project will support municipal, as well as regional, efforts to promote equitable and affordable housing, work-force price housing and a variety of household types and needs.

With a combination of commercial and residential uses and institutional anchors, the city's East Side presents the foundation for economic revitalization unparalleled in the city's recent history. Though many aspects of the final development mixture are still in the conceptual stage, of greatest importance is the economic development and demand basis for the vision.

Barnum Landing will be built in the East End neighborhood of Bridgeport. The project site is an industrial waterfront facility located at 567 Seaview Avenue. The 18.3 acre site is bounded to the north by Seaview Avenue and to the South by Bridgeport Harbor. The site is just south of the Steel Pointe peninsula, and across the harbor from the downtown business district and the existing ferry terminal. See Figure 1.

Over the past 10 years the City of Bridgeport has been struggling to attract new business to generate both jobs and tax revenues. In particular the Steel Pointe peninsula and parts of the surrounding East End neighborhoods are in a deteriorated or blighted condition. The East End neighborhood is also one of two significant "food deserts" in Bridgeport – areas without a local supermarket or even small retail markets. Since many residents don't have a car, shopping for groceries can mean a 45 minute bus ride or a \$13 cab ride². Bridgeport has had a challenge attracting business because of these economic and social conditions.

In addition to significantly increasing the attractiveness of the existing ferry service, Barnum Landing will help to spur the redevelopment and improvement of the East End neighborhood by bringing employment and retail activity. A TIGER grant will provide the essential ingredient to develop the crucial interconnection that will move the City and this economic development enterprise forward with crucial private investment.

² Amanda Cuda, CT Post.com, *For Those in Food Deserts, Grocery Shopping Can be a Hassle*, October 15, 2011.



Figure 1 Location of Proposed New Bridgeport Ferry Terminal (Barnum Landing)

The BPPJ Ferry is a Bridgeport institution, having been founded more than a full century ago, in 1883, when Chester A. Arthur occupied the White House. The famous circus producer, Phineas Taylor (P.T.) Barnum, then in his seventies and a resident of Bridgeport, was one of twenty-seven stockholders who signed the Articles of Association. Barnum was the first president of the company. The idea of establishing the organization was presumably the idea of Barnum's old friend, Captain Charles E. Tooker, a ship master who lived directly across Long Island Sound in Port Jefferson, New York.

In 1883, steamboats were thriving. On Long Island Sound, there was a great fleet of vessels connecting New York with ports in New England, plus many more employed on shorter runs. Steam navigation had come to the Sound in 1815 when the *FULTON* was placed in service between New York and New Haven. Robert Fulton, for whom she was named, had successfully introduced steam navigation to the Hudson River in 1807 and died only a few weeks before the *FULTON* made her epic trip across the waters of Long Island Sound.

The prime reason for the establishment of the BPPJ Ferry was to link the agriculture of Long Island to industrial New England. After 127 years the company still carries commuters, vacationers, and freight-hauling trucks between New England and the eastern end of Long Island, providing a critical water by-pass to the congested New York City metropolitan region.

The BPPJ Ferry currently operates three diesel ferries, the *M/V Park City* (capacity 90 vehicles, 1,000 persons), the *M/V P.T. Barnum* (capacity 120 vehicles, 1,000 persons), and the *M/V Grand Republic* (capacity 120 vehicles, 1,000 persons), on a year-round basis. Each vessel features comfortable seating in climate-controlled cabins, as well as outdoor seating, restrooms,

and food and beverage service. The BPPJ Ferry intends to build a fourth ferry, if the TIGER grant is approved and increased ridership warrants adding ferry capacity.

Crossing time between the two ports is currently scheduled for 75 minutes on a run of about 15 nautical miles in length. By comparison, the road distance between Bridgeport and Port Jefferson is approximately 100 miles, and under ideal traffic conditions takes approximately two hours.

B. Transportation Investments Included

The specific transportation investments included in this project are (see Figures 2 and 3):

- Ferry passenger staging/queuing/parking areas
- Ferry operations building and crew quarters
- Ferry passenger terminal and restaurant
- Community access pedestrian boardwalks
- Street hardscape improvements
- Traffic controls
- Commercial cargo ship and/or barge facility and associated land-side warehouse
- Tug mooring

In addition, Barnum Landing will include related retail development, including a planned grocery store or market. The overall project scope includes demolition of existing structures; site development including construction of storm water retention facilities; shoreline improvements, including bulkhead repairs, and construction of vehicle and passenger loading ramps (link spans) and dolphins; and restoration of shoreline habitat. Certain of these improvements will allow optimization and beneficial use of the commercial cargo facility, warehouse facilities and the ability to domicile a tug in Bridgeport.

The proposed community access boardwalks will provide residents of nearby neighborhoods with the only public waterfront access in the area. Intermodal connections will also be incorporated, including transit bus, maintaining the existing ferry shuttle bus, on-site bicycle facilities, and taxi drop-off/pick-up area.

Development of Barnum Landing will proceed in two phases as shown in Figures 2 and 3. Both phases will be designed concurrently. The BPPJ Ferry currently owns the land required for Phase 1 (8.9 acres). If the land needed for Phase 2 (9.4 acres) can be purchased expeditiously, construction will proceed on both phases concurrently; otherwise Phase 1 will be constructed, followed by Phase 2 after the additional site can be acquired.



Figure 2 Planned Barnum Landing Ferry Terminal (Phase 1)



Figure 3 Planned Barnum Landing Ferry Terminal (Phase 2)

C. Transportation Challenges Addressed

The existing Bridgeport ferry terminal is located on the opposite side of Bridgeport Harbor from the proposed new terminal, between existing Amtrak rail tracks, an active power plant, and the waterfront, in the vicinity of an elevated section of I-95 (see Figures 1 and 4).

Over 75% of current ferry passengers travel with their cars on the ferry. However, the current site is highly constrained; with insufficient area for ferry passenger car parking/staging access is congested, and lacking room for expansion. The constraints of the current site slow down unloading/loading operations, particularly during peak periods. In addition to increasing total travel time for ferry passengers, this often contributes to schedule slippage during the day, often resulting in the loss of one ferry round trip per day per vessel. It can also result in vessels leaving the dock with less than a full load of cars.

In addition, the site has poor connections to I-95, the main travel corridor through Bridgeport, which is used by most passengers arriving at or leaving the terminal. In particular, traffic leaving the terminal often backs up on the terminal access road due to choke points along the route. Though the distance from the terminal to I-95 is less than a mile and the first car off the ferry can make it to I-95 in approximately 3 minutes, when there is a full load it is not uncommon for the last several cars off the ferry to take 30 minutes to arrive at I-95, a frustrating experience for travelers that wish to use the ferry to reduce travel time. The cumulative delays due to congestion of the terminal cause the ferry to lose a full round trip each Friday and Sunday evening every week of the year, as well as on holidays. Also, when there are sporting events at Arena & Bluefish Ballpark at Harbor Yard, the delays are significantly longer. See Figure 5.

Barnum Landing will have larger and more efficient car staging/parking areas (Figures 2 and 3) and much more direct access to I-95 for both embarking and disembarking cars (Figure 6). Total trip time for both embarking and disembarking cars is projected to be, on average, 10 minutes shorter at the new terminal than at the existing terminal, due to both quicker unloading/loading operations at the terminal, and a shorter drive time from the terminal to I-95. Additionally, the current ferry site, situated on only 1.5 acres, has limited egress with a single entry/exit lane, leaving no additional emergency access. With 18.3 acres of property available, Barnum Landing offers multiple outlets to surface roads and ultimately I-95. In the event of an emergency, there would be multiple access lanes to permit simultaneous unloading and emergency access.

The quicker, more efficient unloading/loading operations at Barnum Landing will help to consistently maintain ferry schedules throughout the day, and will minimize lost trips due to schedule slippage.

Given the location of Barnum Landing, east and south of the existing terminal, the transit time across Long Island Sound from Bridgeport to the Port Jefferson, NY terminal will also be reduced by 5 minutes (from the current 75 minutes).

Easier access, reduced trip times, and better schedule adherence and fewer delays will all contribute to increased attractiveness of the ferry as an alternative to driving, for trips between New England and Long Island. Tritec Marine Consultants have estimated that the improved operations at the new terminal location will, over time, increase annual ferry ridership by as many as 113,000 cars (182,000 passengers), a 25% increase.

There are approximately 700 calls annually for barge towing service in Bridgeport that could be handled by a Bridgeport-stationed tug. Currently, in order to service these calls, tugs come from either New Haven or the McAllister Towing and Transportation Co., Inc. (McAllister)

facility in Port Jefferson, NY. By accommodating tugs at Barnum Landing, approximately 2 hours of tug operation per service call can be avoided.

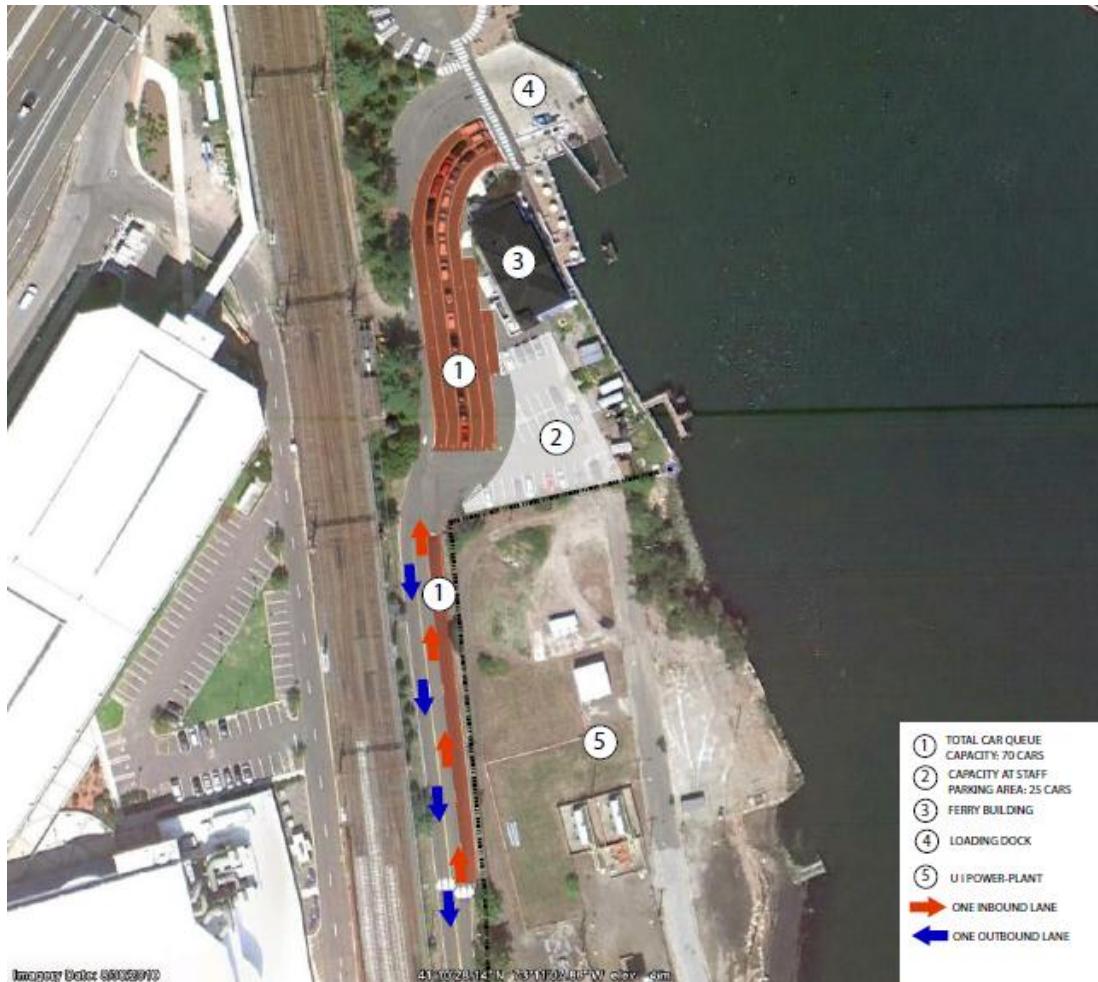


Figure 4 Constrained Layout of Existing Bridgeport Ferry Terminal

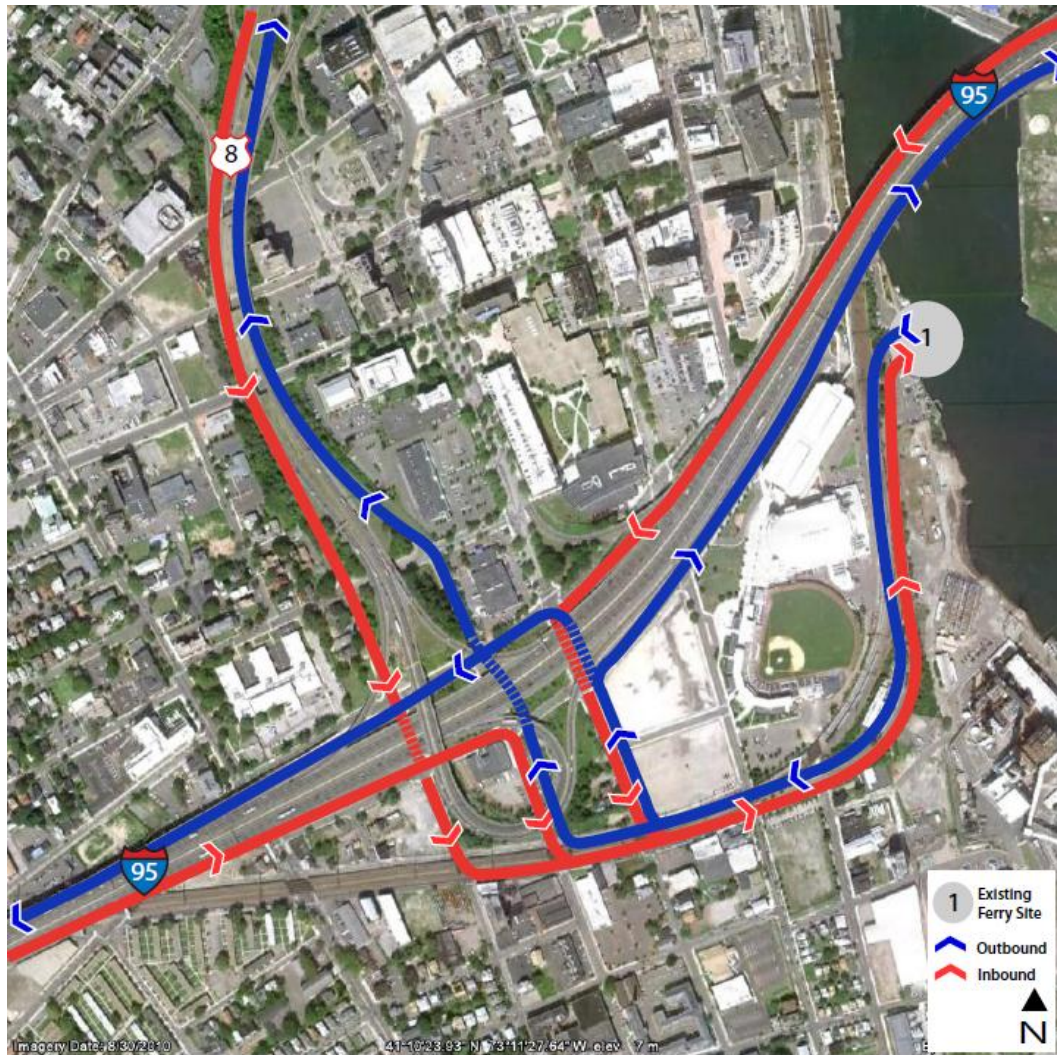


Figure 5 Highway Access to Existing Bridgeport Ferry Terminal

Additional ferry ridership will remove cars from the congested I-95 corridor in southern Connecticut and the New York City metro region, helping to alleviate serious over capacity issues on this roadway. The project will also reduce net air emissions from vehicle travel in the region, based on reduced idling from disembarking vehicles at the Bridgeport terminal, reduced ferry vessel emissions from a shorter transit time, and reduced vehicle trip mileage for car trips between Connecticut and Long Island, NY.



Figure 6 Highway Access to Proposed New Bridgeport Ferry Terminal

The existing ferry terminal is near Bridgeport’s downtown business district. However, only a small percentage of passengers connect to Bridgeport’s intermodal transportation center; including links to intercity (Amtrak) and commuter (Metro-North) rail service, and local and intercity bus service. In addition, given the terminal location on the waterfront behind both I-95 and the Amtrak rail tracks, pedestrian access between the intermodal center and the existing terminal is not as good as implied by their proximity. In fact, a van is currently operated on the circuitous roadway between the ferry terminal and other transportation links to assist passengers. Barnum Landing will be approximately one and a half miles east of the intermodal center, but there is direct access between the two locations over uncongested surface streets (Stratford Avenue). The BPPJ Ferry expects to continue operating a shuttle bus, or start a water shuttle, between Barnum Landing and the intermodal center to provide improved integration of the different transportation modes available to their customers. Also, the City of Bridgeport has begun laying the groundwork to convert a nearby property in the East End (812 Barnum Ave – approximately 1 mile from Barnum Landing) to be a commuter rail station. A

feasibility study has begun using funding from a US Housing and Urban Development (HUD) Sustainable Communities Initiative Grant. The commuter rail station is envisioned to act as a central anchor to the city's East Side redevelopment and provide a second Northeast Corridor rail terminus for Bridgeport, promoting mixed-use, transit-oriented development and affordable housing around the distressed East End and East Side neighborhoods.³

D. Project Schedule

The BPPJ Ferry has been working on the development of a new terminal in Bridgeport for several years, and in 2011 completed the purchase of the proposed Phase 1 site. The company has engaged consultants to begin design work and required environmental reviews. As evidenced by City sponsorship of this application, and the support letters attached, the company enjoys the support of the City of Bridgeport and numerous community organizations. Both the City and the BPPJ Ferry are prepared and anxious to begin construction of this project as soon as possible, with a proposed construction start date of September 2012, and opening of the new terminal in May 2014.

A realistic milestone schedule for this project is shown in Table 1.

Table 1: Project Schedule

<i>Completion of NEPA Review & Permitting</i>	September 2012
<i>Final Design Complete</i>	December 2012
<i>Construction – Site & Utilities</i>	Sept. 2012 – Sept. 2013
<i>Construction – Buildings</i>	Apr. 2013 – Oct. 2014
<i>Construction – Water Structures</i>	Jan 2013 – April 2014
<i>New Terminal Opening</i>	May 2014

II. Project Parties

The grant recipient for this project will be the City of Bridgeport, Connecticut, a local city government. The first settlement in what is now Bridgeport was created in 1659, and the current city was chartered under the laws of the State of Connecticut in 1836. Bridgeport City government is overseen by Honorable Bill Finch, Mayor, and a twenty-member City Council comprised of two elected council members from each of ten council districts. Honorable Thomas C. McCarthy presides as City Council President.

The Grant will be administered by the Department of Central Grants and Community Development, under the direction of Ms. Alexandra B. McGoldrick, Acting Director, Central grants Office. The direct point of contact for questions or issues related to this proposal is:

Ms. Alexandra B. McGoldrick, 999 Broad Street, Bridgeport, CT 06604
(203) 332-5665 ; alexandra.mcgoldrick@bridgeportct.gov

³ Information regarding the proposed use of 812 Barnum Ave., was taken from the following press release: <http://www.nyc.gov/html/dcp/html/about/pr041511.shtml>

The other project partners are Barnum Landing, LLC; The Bridgeport and Port Jefferson Steamboat Company, and its parent company McAllister Towing and Transportation Company, Inc. These companies will own and operate the proposed new ferry terminal to be constructed with TIGER grant funds, and will provide all local matching funds from privately raised capital.

III. Grant Funds & Sources/Uses of Project Funds

The total cost of this project is \$28,950,000, and the project partners are requesting \$14,750,000 in TIGER grant funding, or 51% of total project costs.

Local matching funds of \$14,200,000 (49% of total project costs) will be provided by BPPJ Ferry from privately raised capital and include funds to be spent on Phase 2 land acquisition. In addition to the local match for development of the new terminal facilities, BPPJ Ferry expects to spend an additional \$40 million on other related activities. This sum includes funds already spent on Phase 1 land acquisition and pre-design activities, costs for the Barnum Landing retail development and costs for upgrading one existing ferry and for construction of a fourth ferry to handle expected passenger growth after 2020.

Given the current economic conditions a TIGER grant is necessary to get this important transportation improvement for Bridgeport and the region started in a timely manner. It would take many years before the BPPJ Ferry could raise the full project construction amount on their own, but a TIGER grant would allow them to move forward with design in 2012, followed by a construction start in 2013 on buildings.

Given the size of the financial need for this project the City of Bridgeport and the BPPJ Ferry believe that the TIGER discretionary grant program is a much better fit for this project than other Department of Transportation funding programs. In particular, the Ferry Boat Discretionary funding program is not large enough to provide a sufficient level of grant funding to make this project work.

The sources and use of project funds is summarized in Table 2.

Table 2 Sources and Uses of Project Funds

Project Element	TIGER Grant	Local Match	Total TIGER	OTHER
Site prep/demo/recycling	NA	\$750,000	\$750,000	
Environmental remediation	NA	\$2,000,000	\$2,000,000	
Site utilities/structures /sustainable storm water retention (LEED Silver equivalent)	\$1,750,000	NA	\$1,750,000	
Seaview Ave improvements (curb cuts, traffic light, paving)	\$750,000	NA	\$750,000	
Drives/sidewalks/fencing/ lighting/signage	\$1,500,000	NA	\$1,500,000	
Ferry staging areas paving	\$1,850,000	NA	\$1,850,000	
Ferry Terminal & Crew house -10,000 sf (LEED Silver equivalent)	\$2,000,000	NA	\$2,000,000	
Ferry water structures (bulkhead repair, pier, 2 nd floor passenger ramp, car ramp and emergency car ramp, and dolphins)	\$4,000,000	NA	\$3,500,000	
Ferry Operations - 6,000 sf (LEED Silver equivalent)	\$750,000	NA	\$750,000	
Coastal Terminal Warehouse renovations	\$500,000	NA	\$500,000	
Tug operations buildings and force main sewer	\$650,000	NA	\$650,000	
Terminal security measures (Fence, cameras, IT back bone)	\$1,000,000	NA	\$1,000,000	
Neighborhood Waterfront Park	NA	\$1,500,000	\$1,500,000	
Ferry terminal surface parking lots (paving and landscaping)	NA	\$1,350,000	\$1,350,000	
Phase 2 Land Acquisition (2012)		\$3,100,000	\$3,100,000	
Subtotal-Hard Costs	\$14,750,000	\$8,700,000	\$23,450,000	
Contingencies	NA	\$1,400,000	\$1,400,000	
Incidentals	NA	\$850,000	\$850,000	
Design & Construction Administration	NA	\$2,500,000	\$2,500,000	
Project Legal/Permitting	NA	\$750,000	\$750,000	
SUB-TOTAL TIGER	\$14,750,000	\$14,200,000	\$28,950,000	
Phase 1 Land Acquisition (2011)				\$4,200,000
Land Purchase Legal Consulting for Phase 1				\$1,300,000

Land Acquisition		
Pre-design activities to date		\$500,000
Neighborhood Store (12,000 sf)		\$1,500,000
Retail Parking		\$850,000
Renovation of Park City ferry (ADA elevator – 2012)		\$1,650,000
Construction of new ferry (2020-2025)		\$30,000,000
SUB-TOTAL OTHER		\$40,000,000
GRAND TOTAL	\$68,450,000	

IV. Selection Criteria

This project is well aligned with the TIGER Discretionary Grant program selection criteria, providing both long-term and short term benefits to the City of Bridgeport and the surrounding region. In the long term, this project will improve cross-sound transportation options for residents of New England and Long Island, reducing travel times and vehicle exhaust emissions, and helping to alleviate congestion in the crowded I-95 corridor. At the same time it will increase job opportunities and economic competitiveness, and improve the livability, of Bridgeport by helping to revitalize a deteriorated urban neighborhood. In the short term, this project, which can begin quickly after grant award, will provide economic stimulus to the southern Connecticut region via the creation of construction jobs. This is a region that has lost 27% of its construction jobs in the last five years.

A. Long-Term Outcomes

The positive, long-term outcomes from the proposed investment in Barnum Landing include a reduction in trip times for ferry passengers, increased ferry ridership which will displace cars from the congested I-95 corridor and reduce total miles traveled by car for trips from New England to Long Island and bypassing the New York metro area, and reductions in criteria pollutant and greenhouse gas emissions from vehicles operating in the Bridgeport area, and reduced tug transiting from other locations to service the Bridgeport harbor area.

i. State of Good Repair

The current Bridgeport ferry terminal is located in a constrained site which negatively affects the efficiency of unloading/loading operations, negatively affects ferry schedule adherence, and effectively limits vehicle throughput and annual car/passenger growth. In addition, the site has poor access to I-95, the main travel corridor used by most ferry customers, which contributes to delays for disembarking vehicles, particularly during peak periods.

The development of Barnum Landing will improve the efficiency of unloading/loading operations, improve ferry schedule adherence, reduce passenger delays, and increase annual ferry ridership by improving the attractiveness of ferry travel compared to car travel. Additionally, preserving and improving a commercial cargo facility, associated warehouse

facilities and allowing for stationing of a tug at Barnum Landing would offer opportunities for increased utilization of the facilities.

ii Economic Competitiveness

Over the past five years, the BPPJ Ferry has carried an average of 7,900 trucks, 406,000 cars, and 861,000 passengers annually in both directions between Bridgeport and Port Jefferson⁴.

Barnum Landing is projected to reduce total trip time for existing ferry passengers embarking and disembarking by car at Bridgeport by an average of 10 minutes. Travel time reduction for cars embarking at Bridgeport will result from additional staging space at Barnum Landing, which will allow faster unloading/loading operations. Travel time reduction for disembarking cars will result from the additional staging space at Barnum Landing, and a shorter drive time from the terminal to I-95, due to a shorter distance and fewer choke points. The economic value of this projected travel time reduction for existing ferry car passengers totals \$1.9 million per year.

The location of Barnum Landing, east and south of the existing terminal, will also reduce ferry transit times between Bridgeport and Port Jefferson by an estimated five minutes, further reducing total travel time for existing ferry passengers, including passengers in cars and walk-on passengers not in a car. The economic value of this projected travel time reduction for existing ferry passengers is \$1.2 million per year.

Over the next ten years, Barnum Landing is projected to increase current annual ferry ridership by 25% - adding 114,000 more cars annually and 182,000 more passengers. Total trip time for these passengers, for trips from Bridgeport to Long Island⁵, is projected to decrease by an average of 45 minutes compared to driving south on I-95 and through New York City. The economic value of this projected travel time reduction for new ferry passengers is \$2.3 million per year.

Increased Bridgeport to Port Jefferson ferry ridership will remove cars from the severely congested I-95 corridor through southern Connecticut and the New York City metropolitan region. This will reduce congestion delays and travel time for the remaining cars using the corridor, but the economic value of this travel time reduction could not be calculated.

Improvements to land side facilities at the Barnum Landing commercial cargo facility will allow a tug to be stationed in Bridgeport full-time, to service local ship and barge moves (approximately 700 per year). Currently, tugs must come from New Haven or Port Jefferson to assist these arrivals, a two hour trip. The ability to station a tug in Bridgeport full-time will reduce barge transit time by 1400 hours per year, saving fuel and crew costs totaling \$370,000 per year.

⁴ Annualized Average for January 2007 – August 2011. Includes an estimate of 20,000 annual un-ticketed passengers, under 12 years old, who ride for free.

⁵ Ferry passengers from Bridgeport to Port Jefferson could be transiting from New England to multiple final destinations throughout Long Island and the boroughs of New York City. For this analysis the “average” trip was modeled assuming that the final destination was Patchogue, NY. Customer research has shown that the majority of ferry passengers have a start or end point on the eastern end of Long Island, between Huntington and Riverhead. Patchogue is the approximate center of this main service area. See Attachment B, Benefit-Cost Analysis.

iii Livability

This project is intermodal in nature, involving significant improvements to an existing transportation mode that offers an alternative to travel by car and freight movement by truck along the congested I-95 corridor, for trips from New England to Long Island and the New York City metropolitan area. As such, this project will further the Department of Transportation's Marine Highway Program goals, as outlined in the *America's Marine Highway – Report to Congress* (April 2011). As articulated in that report, these goals include:

- Improving our nation's economic competitiveness while creating and sustaining jobs, including through the reduction of landside traffic congestion, the ability to add cost-effective new freight and passenger transportation capacity, the reduction of wear-and-tear on roads and bridges, and by providing resiliency to the surface transportation system;
- Providing an environmentally sustainable transportation system that requires less energy and reduces greenhouse gas (GHG) emissions per ton-mile of freight moved;
- Adding to the nation's strategic sealift resources and supporting the nation's shipbuilding industry; and
- Improving public safety and security through the safe movement of passengers and freight, including hazardous materials, and by enabling more effective transportation responses to natural and manmade disasters.

The I-95 Corridor Coalition estimates that by 2040, miles traveled by all vehicles using the corridor will increase by 70 percent. Truck volumes could nearly double even though such volumes are probably not physically or environmentally sustainable in many regions along the corridor. Further, ever-increasing congestion at highway and rail bottlenecks along the Atlantic Coast constrains interstate commerce and economic productivity. The Coalition estimates that to respond to this growth, approximately \$47 billion per year would need to be invested along the I-95 corridor on highways, \$15 billion to \$19 billion per year for transit, \$4 billion to \$5 billion per year for passenger rail, and \$2 billion per year for freight rail.

By strengthening water-borne passenger and freight alternatives to car and truck traffic along the corridor, the Barnum Landing project - both the new ferry terminal and the improvement of the existing adjacent deep water freight berth - will contribute to the creation of a marine highway that can help to alleviate current and future land-side congestion.

In addition, this project includes construction of new pedestrian boardwalks along the waterfront, which will provide the East End residents with their only open, public access to the waterfront in the neighborhood. The project will also bring new retail shopping opportunities to East End neighborhood residents, in particular a local grocery store/market. This will significantly reduce the amount of time required for local residents without a car to shop for groceries, and may help to promote healthier eating habits by providing easier access to fresh, healthy foods.

The creation of a local grocery store/market is vital for East End households living in poverty, who must take a bus to purchase groceries. Each bus ride could last 30 minutes, adding approximately one hour to the weekly shopping experience. The projected travel time reduction, if residents no longer took the bus, has an economic value of \$412,000 per year⁶. This economic value is presented for illustrative purposes only and is not included in the benefit-cost analysis.

This project directly furthers the six “livability principles” developed by DOT, HUD, and EPA as part of the Partnership for Sustainable Communities. Specifically, this project will:

- provide more transportation choices to a significant urban population.
- provide greatly enhanced public access to the waterfront which has not been previously accessible.
- enhance the economic competitiveness of Bridgeport by improving the over-all transportation system and allowing the development of new sources of employment.

iv Environmental Sustainability

This project will reduce travel times and vehicle idling for existing Bridgeport to Port Jefferson ferry customers, will reduce ferry vessel emissions due to shorter cross-sound transit times, will reduce total vehicle miles traveled by new ferry customers who switch to the ferry instead of traveling from Connecticut to Long Island exclusively by car, and reduce tug operating times for existing barge calls. All of these outcomes will contribute to a reduction in criteria pollutant and greenhouse gas emissions from vehicles operating in the greater Bridgeport area. Over the next 30 years projected reductions in vehicle and marine vessel exhaust emissions are as follows⁷:

- Particulate Matter (PM) - 17.75 ton reduction
- Nitrogen Oxides (NOx) – 579 ton reduction
- Carbon Monoxide (CO) – 809 ton reduction
- Volatile Organic Compounds (VOC) – 53.7 ton reduction
- Carbon Dioxide (CO₂) – 137,000 ton reduction

Using estimates of emission damage costs used by the National Highway Traffic Safety Administration, and EPA’s Diesel Emission Quantifier, the economic value of these projected emission reductions is estimated to total approximately \$1.0 million annually.

v Summary of Benefit-Cost Analysis

The projected construction cost of this project is \$28.95 million, and the expected monetized benefits that will accrue from the project over the next 30 years total \$182.1 million, for a net benefit of \$153.2 million. The net present value of these net benefits over the 30-year project analysis period is \$41.9 million. The benefit-cost ratio for this project is 2.45:1.

Of the total \$153.2 million in expected net benefits from this project, 78% are the result of travel time savings, 16.5% represents the monetized value of projected emission reductions,

⁶ 462 East End households in poverty(2000 Census) x 1 hr./trip x 52 trips/yr. x \$24.50/hr. x 70%

⁷ See the Benefit-Cost Analysis included at Attachment B for the methodology of calculating expected emission reductions.

and 5.5% represents the direct estimated savings of fuel and crew costs associated with tug operation.

See [Attachment B](#) for the complete benefit-cost analysis, including all major assumptions and calculation methodology.

B. Job Creation & Economic Stimulus

This project will rapidly inject short-term economic stimulus into the economy of Connecticut through the creation of construction jobs, and in the long term will directly contribute to the creation of over 300 permanent new jobs in Bridgeport, by enabling an expansion of the existing ferry service and through related retail development.

Construction jobs in the State of Connecticut have seen a decline of 27% (19,000 jobs lost) since 2007⁸. This project will create 181.7 job-years of the construction jobs for construction of Barnum Landing.

i Short-term Job Creation

See Table 3 for a projection of construction spending, construction labor effort, and direct and induced job creation from this project over the next three years. As shown, through the second quarter of 2014 this project will produce 181.7 job-years worth of direct construction jobs and will induce an additional 101.5 job-years of labor within the wider economy.

The BPPJ Ferry will use all commercially reasonable efforts to promote economic opportunity for Bridgeport and/or other Connecticut residents as well as other economically disadvantaged groups, when hiring for all construction related to this project. Specifically, the BPPJ Ferry will require that contractors:

- Will not discriminate on the grounds of race, color, national origin, religion, sex, sexual orientation, disability, or veteran status in its employment practices.
- Will develop programs intended to ensure that Bridgeport and/or other Connecticut residents receive at least 25% of all new construction-related jobs created.
- Will require contractors and subcontractors to collaborate with Bridgeport community-based organizations to ensure that appropriate skills training programs are established to support local hiring.
- Will cooperate with the City of Bridgeport to ensure that maximum opportunity is given to Minority-Owned Business Enterprises (MBE) to participate in the construction activities, including using City resources to help identify qualified MBEs, including Bridgeport-based MBEs.

⁸ Salvatore Dipillo, Office of Research, Connecticut Labor Department.

Table 3 Construction Spending and Short-term Job Creation

Time Frame	Construction Spending	Construction Labor Effort [job-hrs]	Direct Jobs Created ⁹ [job-years]	Induced Jobs Created ¹⁰ [job-years]
1 st QTR 2012	NA	NA	NA	NA
2 nd QTR 2012	NA	NA	NA	NA
3 rd QTR 2012	\$3,350,000	50,000	24.0	13.4
4 th QTR 2012	\$4,000,000	59,700	28.7	16.1
1 st QTR 2013	\$3,750,000	56,000	26.9	15.0
2 nd QTR 2013	\$3,250,000	48,500	23.3	13.0
3 rd QTR 2013	\$3,250,000	48,500	23.3	13.0
4 th QTR 2013	\$3,250,000	48,500	23.3	13.0
1 st QTR 2014	\$2,500,000	37,300	17.9	10.0
2 nd QTR 2014	\$2,500,000	37,300	17.9	10.0
TOTAL	\$25,850,000*	385,800	185.3	103.5
* Total construction spending does not include Phase 2 land acquisition costs.				

ii Long-term Job Creation

By enabling the expansion and growth of the existing Bridgeport to Port Jefferson ferry service, and by bringing new retail development to an under-served urban community, Barnum Landing will contribute to the creation of over 300 new, permanent jobs within Bridgeport. See Table 4 for an estimate of the number and types of jobs that will be created.

It is expected that more than 50% of these new jobs will go to Bridgeport and/or other Connecticut residents. Bridgeport is an economically distressed area with low per-capita income and persistent high unemployment. These new jobs will provide currently unemployed Bridgeport residents with new economic opportunities within their own community.

Additionally, McAllister estimates that to station a tug at Barnum Landing in Bridgeport would require creation of four (4) new marine vessel crew jobs.

⁹ Assuming that one full-time job year is equivalent to 2,080 job hours (52 weeks x 40 hrs/week)

¹⁰ Based on job creation estimates in *Estimates of Job Creation from the American Recovery & Reinvestment Act of 2009*, Table 5 (The Executive Office of the President, Council of Economic Advisors, May 2009). For every \$92,000 of government spending it is estimated that one job-year is created, with 64% from direct and indirect effects and 36% from induced effects.

Table 4 Projected Long-term Job Creation from Barnum Landing Development

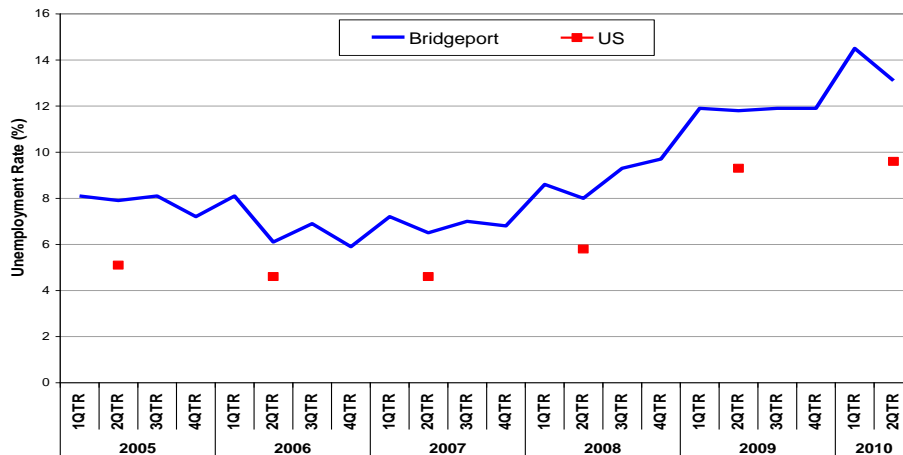
Job Type	2013 - 2014	2015 - 2016	2017 - 2020	TOTAL
Retail	10	10	4	24
Warehouse	13	2	2	17
Office/Professional	13	13	26	52
Ferry related	5	2	27	34
Tug Operations (Crew)	4	--	--	4
SUB-TOTAL	45	27	59	135
Indirect Jobs ¹¹	70	46	100	216
TOTAL PERMANENT JOBS	115	73	159	347

iii Effect on an Economically Distressed Area

The entire city of Bridgeport meets the definition of an economically distressed area, per section 301 of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3161), due to both low per-capita income and persistent high unemployment.

From 2006 – 2008 per-capita income in Bridgeport was \$20,082, compared to a national average of \$27,466. During the same time period 17.8% of Bridgeport families and 20.3% of individuals in Bridgeport had income below the “poverty level”, compared to 9.6% and 13.2% of all U.S. families and individuals, respectively¹².

Bridgeport CT Unemployment Rate



Source: Connecticut Department of Labor; U.S. Bureau of Labor Statistics

Figure 7 Comparison of Unemployment Rates, U.S. and Bridgeport, CT

¹¹ Indirect job creation based on 1.7:1 ratio, as provided by the Bridgeport Regional Business Council.

¹² US Census Bureau, *American Fact Finder*, 2006 – 2008 American Community Survey 3-year Estimates, Data Profile (<http://factfinder.census.gov>).

See Figure 7 for a comparison of unemployment rates in Bridgeport and the U.S. as a whole from 2005 through the second quarter of 2010. As shown, for the last five years the Bridgeport unemployment rate has typically been at least two percentage points higher than the U.S. average.

iv. Project Schedule

See Table 1 on page 12 for the projected schedule for completion of the proposed transportation investments under this project. As shown, construction activities are expected to begin as early as September 2012 with construction completion and opening of Barnum Landing in May 2014.

v. Project Approvals

This project is ready to proceed to design and construction expeditiously once grant funds are received. See below under section V for a discussion of project readiness and status of all required project approvals.

C. Innovation

The BPPJ Ferry will actively pursue green options for the design and construction of Barnum Landing utilizing high performance guidelines and sustainable approaches. The feasibility of natural gas power for future new-build ferries, either as replacements for existing vessels or for long-term service expansion will also be investigated.

D. Partnership

While a private development, Barnum Landing has the full support of the City of Bridgeport, which views the project as an important element of its overall plan for revitalization of the East End neighborhood.

As evidenced by the Letters of Support included at Attachment A, this project also has the formal support of the following agencies, groups and individuals:

- Connecticut Maritime Coalition
- The East End Neighborhood Revitalization Zone
- East End Community Council
- James Holloway, Councilman – 139th District, Bridgeport City Council
- Ralph R. Ford, Ph.D., Democratic District Leader – 139th District, Bridgeport

V. Project Readiness & NEPA

This project can proceed quickly to design and construction after grant award. Phase 1 land acquisition is complete, and the required environmental and legislative approvals are in process, and are expected to be completed by the end of September 2012. Preliminary design work has begun. Necessary financing for local matching funds is in place.

A. Environmental Reviews

The project will be submitted through the U.S. Department of Transportation's Maritime Administration (MARAD) to complete National Environmental Policy Act (NEPA) review and processing. Barnum Landing is located directly on Bridgeport Harbor, is easily accessed by

existing surface roads and Interstate 95 (I-95), and is in close proximity to other transportation modes including the Metro North railroad station, and the Greater Bridgeport Transit (GBT) bus terminal. As such, Barnum Landing fits nicely into the existing transportation network and will enhance intermodal connectivity of the area; an important consideration given the increasingly congested nature of Interstate I-95 through southwestern Connecticut.

Natural resources on and in the vicinity of Barnum Landing are scarce and only include the few that are described below. The site proper is entirely paved with the exception of two dilapidated buildings that will be removed. Also, the shorefront at the site is completely developed and would require only minimal improvements to accommodate the proposed ferry service. Those improvements would include updating bulkheads, and adding loading ramps (link spans) and dolphins. Most importantly, dredging would not be required as the water depth at this location is more than adequate to support unimpeded ferry operations. Since the project will include sustainable design components/techniques and a mixed-use, community-oriented development, the relocated ferry terminal may also provide several benefits to area residents and the City of Bridgeport. Moreover, the proposed action is in keeping with the City's plans to enhance the overall image of this formerly industrialized area and to improve citizen access to the waterfront.

Based on the aforementioned facts, it is anticipated that Barnum Landing would result in minimal impacts to the environment and the surrounding community. As such, we anticipate the preparation of an Environmental Assessment (EA) with a finding of no significant impact (FONSI) since the project components will not individually or cumulatively result in significant social and/or environmental impacts. State funding will not be used for this project; therefore a separate Connecticut Environmental Policy Act (CEPA) Environmental Impact Evaluation (EIE) document is not required and therefore will not be prepared.

The NEPA process was begun in early October 2011, with the distribution of project information letters to state, federal, and local maritime, transportation, environmental, and planning agencies. To date, the following agencies have been contacted:

- MARAD, Office of Infrastructure Development and Congestion Mitigation
- U.S. Coast Guard
- U.S. Department of the Army, New England District Corps of Engineers
- U.S. Environmental Protection Agency, New England Region 1
- U.S. Fish and Wildlife Service (USFWS)
- NOAA – National Marine Fisheries Service
- Connecticut Department of Energy and Environmental Protection (CTDEEP)
- Connecticut State Historic Preservation Officer (SHPO)
- Connecticut Department of Public Health, Environmental Health Section
- City of Bridgeport, Connecticut
- Office of the Harbormaster, Bridgeport

The NEPA process will continue through the remainder of 2011 with the screening of natural and community resources and a draft EA prepared and ready for internal review by late February 2012. Formal agency review is then anticipated to occur in early Spring with an administrative draft of the EA ready for public review by late Spring. It is anticipated that the entire NEPA process will conclude with a FONSI by September 2012.

Based on a preliminary review of the area surrounding the proposed site, there is the potential for impacts to the following resources:

- 100-Year floodplain: Barnum Landing is located entirely within the 100-year floodplain of Long Island Sound. A more in-depth evaluation of the potential for this project to impact floodplains and flood elevations will be necessary. It should be noted however, that the proposed site is currently a large, paved area
- Coastal boundary and coastal resources: The proposed site is located entirely within Connecticut's Coastal Boundary, which generally extends inland approximately 1,000 feet from the shoreline. The proposed ferry terminal is a water-dependent use and is therefore permitted/allowed under the statutes of the Connecticut Coastal Management Act (CCMA) of 1980.
- Neighborhoods – a large number of multi-family and single-family residences are located to the north and east of Seaview Avenue. The EA will include an evaluation of the potential for impacts from increased traffic along Seaview Avenue and from noise resulting from the operation of the ferry terminal.
- Environmental Justice – the City of Bridgeport is economically-distressed, therefore the EA will evaluate the potential for disproportionate impacts (both adverse and beneficial) to low-income and minority populations living near Barnum Landing.
- Hazardous and Contaminating Conditions - Environmental investigations pursuant to the Connecticut Property Transfer Act and in accordance with State and Federal requirements are currently being conducted..

B. Legislative Approvals

There are no legislative approvals required for this project to proceed.

C. State and Local Planning

The City of Bridgeport is in the process of presenting this project to the Greater Bridgeport Metropolitan Planning Organization for inclusion into the Transportation Improvement Plan (TIP/STIP). The project will be added to the TIP/STIP once the grant application is approved by the U.S. Department of Transportation. Barnum Landing is consistent with the region's long range transportation plan and once amended, the plan will include the action in its list of recommended projects. Barnum Landing is also consistent with the goals of the New York Metropolitan Transportation Council (NYMTC) 2010-2035 Regional Transportation Plan, and also aligned with the recommendations of the Long Island Sound Waterborne Transportation Plan.

D. Technical Feasibility

The following permits and approvals will be required for the proposed project:

- *Structures and Dredging Permit* from the Army Corps of Engineers (33 USC 403)
- *Structures and Dredging Permit* from Connecticut Department of Environmental Protection (Section 22a-361, CT general Statutes)

- *Special Permit/Site Plan Approval* from the City of Bridgeport Planning and Zoning Commission (Section 7-3-2 & 14-4, Bridgeport Zoning Regulations)
- *Building and Construction permits* from the City of Bridgeport
- *Major Traffic Generator Certificate* from the Connecticut State Traffic Commission
- *Encroachment Permit* from the Connecticut Department of Transportation
- *General Permit for Stormwater and Dewatering Wastewaters from Construction Activities* from the Connecticut Department of Environmental Protection.

The processes for obtaining these permits will begin in December 2011, concurrent with completion of the NEPA process. It is expected that all required permits will be obtained no later than September 2012.

Preliminary design work for both site and building construction has already begun. The BPPJ Ferry has engaged the following consultants to help with design and development of this project:

- *Marine Waterfront Planning & Design* - Ocean and Coastal Consultants, Inc., Trumbull, CT
- *Environmental Consulting* - Environ Corporation, Hartford, CT
- *Site Planning & Architecture* - Gregg Wies & Gardner Architects, LLC (AOR), New Haven, CT; Gray Organschi Architects, New Haven, CT
- *Civil & Geotechnical Engineering* - Langan Engineering & Environmental Services, Inc., New Haven, CT
- *Landscape Architecture* - Starr Whitehouse Landscape Architects and Planners PLLC, New York, NY
- *Traffic Engineering/NEPA Consulting* - Fitzgerald & Halliday, LLC, Hartford, CT
- *Legal/Permitting* - Bryan Cave LLC, New York, NY
- *Local Permitting* - Quatrella & Rizio, LLC, Hartford, CT
- *Ferry Vessel Environmental Consulting* - M.J. Bradley & Associates, LLC

The preliminary design is expected to be completed in December 2011 with final design completed in December 2012.

The BPPJ Ferry already owns the property required for Phase 1 construction. Concurrent with the design and permitting process, the company will begin the process to acquire the property required for Phase 2. It is expected that this process can be completed by the middle of 2012. If Phase 2 property acquisition cannot be completed as quickly as planned, Phase 1 construction will proceed anyway, followed by Phase 2 after the additional site can be acquired. TIGER funds will be used exclusively for construction and improvements; all land acquisition will be accomplished using local match funding.

E. Financial Feasibility

The BPPJ Ferry has offered regular service to its customers ever since its founding in 1883. The BPPJ Ferry is a wholly owned subsidiary of McAllister. Founded in 1864, McAllister is a

diversified marine industrial company that owns or operates over 100 vessels and more than a dozen marine terminals on the East Coast and the Caribbean.¹³

Local match funding for this project will be provided by BPPJ Ferry from privately raised capital. Barnum Landing, LLC will enter into all contractual agreements regarding construction of the facility. McAllister is a privately held company owned by the McAllister family. McAllister does not have any outstanding public stock or bonds. Specific financial information will be made available upon request, after execution of a mutually satisfactory confidentiality agreement.

Through McAllister's insurance program, the BPPJ Ferry is in a position to respond to insurable liabilities arising out of the proposed operations. This extensive insurance program is placed with top rated US and London insurance syndicates.

McAllister has a syndicated loan with Bank of America, N.A. This syndicated loan includes a line of credit for the construction or purchase of vessels or facilities, including facilities such as Barnum Landing. For bank references, please contact Patrick Cornell, Senior Vice President Bank of America Business Capital, Bank of America Merrill Lynch, 4 Penn Center, 1600 John F. Kennedy Blvd, Suite 1200 Philadelphia, PA 19103.

The City of Bridgeport has a demonstrated ability to effectively manage grants, with more than 30 federal grants currently under management. A summary of their major on-going grants can be found in Attachment C.

VI. Federal Wage Rate Certification

The City of Bridgeport agrees to comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code of Federal Regulations (Federal Wage Rate Requirements) for all work associated with this project. See signed certification statement at Attachment D.

VII. Material Changes to Pre-Application Form

Since submission of the pre-application the projected project budget for this project has increased from \$20 million to \$28.95 million. Requested TIGER grant funds have increased from \$12 million to \$14.75 million.

¹³ Additional information regarding BPPJ Ferry and McAllister is available at the company websites: <http://www.88844ferry.com/Home.aspx> and <http://www.mcallistertowing.com/>

ATTACHMENT A
NYMTC Letter of Consistency
Letters of Support

NEW YORK METROPOLITAN TRANSPORTATION COUNCIL

Joel P. Ettinger
Executive Director

October 27, 2011


Secretary Ray LaHood
US Department of Transportation
1200 New Jersey Avenue, SE
Washington DC, 20590

Re: Barnum Landing Ferry Transportation Improvement Project

This letter affirms the consistency of the above project proposal with the metropolitan transportation planning process undertaken through the New York Metropolitan Transportation Council (NYMTC). The proposed project is in alignment with the goals set forth in the 2010-2035 Regional Transportation Plan; specifically the goal to improve transportation access and its related objective to expand connection between modes and within communities.

The proposed project is also in alignment with the recommendations of the Long Island Sound Waterborne Transportation Plan, which was jointly undertaken by NYMTC and several metropolitan planning organizations in Connecticut. Specifically, the Waterborne Plan recommended enhancing landside access to the ferry terminals of the existing Bridgeport-Port Jefferson Ferry service.

Sincerely,



Gerry Bogacz
Planning Director

CONNECTICUT MARITIME COALITION



23 October 2011

Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington D.C. 20590

Dear Secretary LaHood,

The undersigned represents Connecticut's maritime industry. Our trade organization is greatly concerned with the maintenance and improvement of the economy, our environment and the quality of life in the City of Bridgeport, Connecticut.

It has come to our attention that an application for TIGER funding for a project known as BARNUM LANDING FERRY IMPROVEMENT PROJET FOR I-95 TRAFFIC MITIGATION, will come before you in the very near future. We believe this proposed project will vastly improve not only transportation in our region but will also become the catalyst for renewed investment in a community that has long fought for revitalization through economic, environmental and aesthetic justice.

The proposal to create a thoroughly modern ferry terminal on the east side of Bridgeport Harbor will integrate elements of traffic mitigation, intermodal exchange, emissions reductions as well as provide amenities sought after by the East End Community such as waterfront access. In respect of transportation improvements, the project is expected to decrease the crossing time of the ferry by five minutes in each direction with land improvements adding an additional traveller benefit of some ten minutes. These enhancements are expected to entice many vehicles from the over capacity I-95 here in Connecticut as well as the overcapacity highways on Long Island making a truly regional positive impact.

Additionally, connections for pedestrian, bicycle and bus connections will be integrated into the project along with land and/or water shuttle service to AMTRAK and Metro-North railways. Significantly, the ferry will be located approximately equidistant from the current train station and a second Bridgeport train station that has been proposed.

For the reasons enumerated above (and many others) we advocate for a positive response to the request for TIGER funding to help bring this worthy project to fruition as rapidly as possible. It deserves to be funded as it will benefit not only our community but our entire region.

Sincerely,

A handwritten signature in black ink, appearing to read "David E. Pohorylo".

David E Pohorylo
Chairman



**Bridgeport
City Council**

Thomas C. McCarthy
City Council President

Carlos Silva
President Pro Tempore

Richard Bonney
Majority Leader

Susan T. Brannelly
Martin C. McCarthy
130th District

Anderson Ayala
Denese Taylor-Moye
131st District

M. Evette Brantley
Robert S. Walsh
132nd District

Howard Austin Sr.
Thomas C. McCarthy
133rd District

Michelle A. Lyons
AmyMarie Vizzo-Paniccia
134th District

Warren Blunt
Richard Bonney
135th District

Angel M. de Para, Jr.
Carlos Silva
136th District

Manuel Ayala
Lydia N. Martinez
137th District

Robert P. Curwen, Sr.
Richard M. Paoletto, Jr.
138th District

Andre F. Baker, Jr.
James Holloway
139th District

Bill Finch
Mayor

Fleeta Hudson
City Clerk

Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

October 26, 2011

Dear Secretary LaHood:

As an elected official for the East End of Bridgeport (139th District) for the past eighteen years, I have had to endure the extensive suffering and hardships as the other Twenty Five Thousand residents of this community. I have witnessed the loss of: affordable housing, business and industry, jobs, services and other amenities that a community must have to survive. I have been a proponent of neighborhood development that will responsibly restore these vital assets. The Bridgeport/Port Jefferson Ferry has put forth a proposal to relocate and develop a vacant port on Seaview Avenue, a major thoroughfare that connects to the major arteries transversing the city including direct access to the I-95 highway. I am an ardent supporter of their project and I am respectfully asking your department to support their application for TIGER funding.

The Barnum Landing Ferry Improvement Project for I-95 Traffic Mitigation will support other planned development projects for the East End and the city of Bridgeport. In addition to the neighborhood development, a change in location of the Bridgeport Ferry will allow access of trucks and other no passenger vehicles to be removed from the highly congested New York/Connecticut thoroughfares by utilizing water transportation as an alternative. Their current location is restricted to due to low railroad overpass. This will have a positive impact on the entire region!

There are many positive aspects that this project will bring to the neighborhood and the City of Bridgeport, far too many to enumerated at this time. Suffice it to say, that in my capacity as an elected representative of the East End community. I am committed to supporting this development and seriously urge the Department of Transportation to act favorably on the application. The economic, environmental and social impact of this project has tremendous implications for the East End community, the City of Bridgeport and the surrounding region.

Thank you, very much for your consideration.

Yours truly,

James Holloway
Councilman 139th District

999 Broad Street, 2nd Floor, Bridgeport, Connecticut 06604 • Telephone (203) 332-3006 • Fax (203) 332-3013

Ralph R. Ford, Ph.D.

LICENSED CLINICAL PSYCHOLOGIST

1057 BROAD STREET, THIRD FLOOR
BRIDGEPORT, CONNECTICUT 06604
PH. 203-336-3661

October 26, 2011

Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Dear Secretary LaHood:

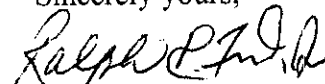
As a former Councilman and the current Democratic District Leader (139th District), It is with great enthusiasm to support the project known as **Barnum Landing Ferry Improvement Project For I-95 Traffic Mitigation**. This project will spearhead and support all the community plans for revitalization of the East End of Bridgeport, a community struggling to reverse the years of neglect and destruction.

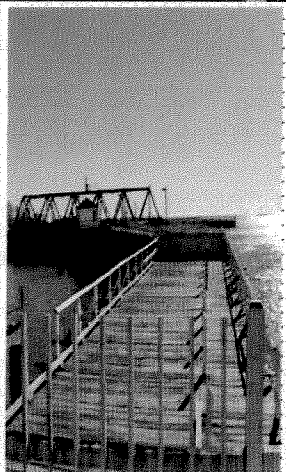
This proposal will support the creation of a modern ferry terminal on the Seaview Avenue corridor that will link the East End of Bridgeport to the intermodal center in downtown Bridgeport as well as the proposed second Bridgeport Train Station on Barnum Avenue. This Project will also help create the possibility of a new industry, Water Taxis, that will provide harbor view transportation to the various parks, beaches and amusement attractions along the Bridgeport harbor and coastline. The collateral effect of this project will provide development and employment opportunities for this distressed neighborhood, specifically, and the City of Bridgeport as well as the region.

The East End civic and political leadership are all in accord regarding this project. The Neighborhood Revitalization Zone Committee (NRZ) has developed an ambitious redevelopment plan for the East End of Bridgeport and the Barnum Landing Ferry Improvement Project compliments this plan without exception.

It is without hesitation or reservation, that I urge your Department to respond favorably to the request for TIGER funding for this project. It will be of great benefit to the East End community, the City of Bridgeport and the greater Bridgeport region.

Sincerely yours,


Ralph R. Ford, Jr.



The East End Neighborhood Revitalization Zone

240 Adams Street, Bridgeport, CT 06607

203-336-9481..eastendbridgeportnrz@yahoo.com

www.bridgeporteastendnrz.org

October 25, 2011

Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington D.C. 20590

Dear Secretary LaHood,

Lillian Wade
President

Re: TIGER funding for a project known as BARNUM LANDING FERRY IMPROVEMENT PROJECT FOR I-95 TRAFFIC MITIGATION.

Keith Williams
Vice President

The East End NRZ is excited about the Barnum Landing Ferry project being proposed for our neighborhood. The Neighborhood Revitalization Zone is a law that was enacted in 1995 that established a process for the development of Neighborhood projects. The objective of the NRZ process is to revitalize neighborhoods through the collaborative involvement of residents, businesses and government to determine the vision and priorities of the individual neighborhoods. Our NRZ process provides a mechanism for local stakeholders, along with local municipal officials, to develop a strategic plan to revitalize their neighborhood. We have over 29 member agencies serving over 5,000 children and families. Our group has been meeting for over 8 years working on different projects for the neighborhood. A copy of our plan can be found at www.bridgeporteastendnrz.org.

Deb Thomas-Sims
Secretary

During the last 8 years, the Ferry Company has actively participated in our planning meetings and in our neighborhood projects. They have worked tirelessly with us to bring plans to life in the East End. We are excited about this project because it will develop a blighted piece of property and also be the catalyst for much needed change. The project will provide much needed jobs to our residents and also allow us to have access to the waterfront.

Valencia Carter
Treasurer

We believe in this project and in the developers, and believe that the Tiger funding will not only help them but help move our neighborhood forward. Please help us to move the East End a little closer to their dreams by supporting this grant request. Few companies have come to the table and actually did what they said they will do. The Ferry Company has ALWAYS done or exceeded expectations for our community. They are a much welcomed addition!

Edith Anderson

Esperina Baptiste

Annette Blackwell

Tom Coble

Charlie Coviello

Bishop R. Griffith

Michael Jordan

Ella Marsh

Ted Meekins

Robert Morton

Gussie Polite

Willie Polite, Jr.

Rev. Dr. Stallworth

Jackie Richardson

Hubert Sims

Frank Soares

Chris Taylor

**Bishop Ken Moales*

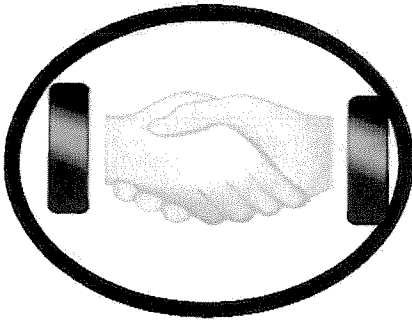
**Robert McIntosh*

Deceased

Please feel free to call me if you have any questions. And thank you in advance for bringing this project to life.

Sincerely,

Lillian Wade
President



East End Community Council

1149 Stratford Avenue
Bridgeport, CT 06607

Together is Better.....

October 25, 2011

Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington D.C. 20590

Dear Secretary LaHood,

Re: TIGER funding for the BARNUM LANDING FERRY IMPROVEMENT PROJECT FOR I-95 TRAFFIC MITIGATION.

The East End Council is in full support of the Barnum Landing Ferry Project. We are a member organization that has been in the East End for over 25 years. We provide the following services: food and clothing banks, fire assistance when burnt out, youth mentoring, relationship building with the community and the police and many other functions.

This project will provide us with access to the waterfront and also jobs for the residents. It will also bring consumers to our neighborhood to support the retail development at Seaview Plaza.

Sincerely yours,

Ted Meekins
President



CITY OF BRIDGEPORT
CHIEF ADMINISTRATIVE OFFICE

999 Broad Street
Bridgeport, Connecticut 06604
Telephone (203) 576-3964 Fax (203) 332-5652

BILL FINCH
Mayor

ANDREW J. NUNN
Chief Administrative
Officer

October 28, 2011

Honorable Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington D.C. 20590

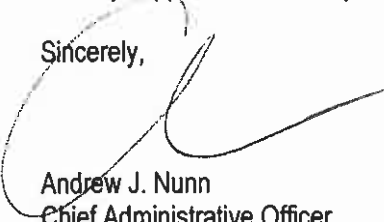
Dear Honorable Secretary LaHood:

On behalf of the City of Bridgeport and the Bridgeport Port Authority, I am writing this letter in full support of an application submitted to the Department of Transportation National Infrastructure Investments TIGER Discretionary Grant Program. The Barnum Landing Ferry Improvement Project for I-95 Traffic Mitigation Project will continue Bridgeport's approach to provide enhanced access to public transportation. The improved convenience will result in an increase in ridership which will ease traffic congestion and make for a healthier and cleaner environment.

Establishing convenient transportation is a main priority for the City of Bridgeport, as is the development the East End neighborhood. Bridgeport and the East End in particular, is an economically disadvantaged community that faces many societal dilemmas. The new terminal will be situated in a mixed use development which will combine ferry operations with community-oriented commercial and retail uses. Through this project East End residents will be provided a full service grocery store, ample access to transportation and waterfront access, all of which have been absent for decades.

The Department of Transportation National Infrastructure Investments TIGER Discretionary Grant Program will assist the City of Bridgeport in the relocation efforts of a crucial piece of transportation infrastructure that serves over 800,000 passengers annually. With this repositioning, the City and the BPPJ Ferry Company will also be able to offer optimism for an underprivileged neighborhood that lacks crucial amenities such as transportation and accessibility. I am fully supportive of the City of Bridgeport's application and urge that you consider this essential project as well.

Sincerely,



Andrew J. Nunn
Chief Administrative Officer
Acting Director, Port Authority

ATTACHMENT B Benefit-Cost Analysis

Table 1 Summary of Costs and Benefits (\$ millions)

[NOTE that Costs are shown as (negative) and benefits are shown as positive numbers]

Calendar Year	Project Year	PROJECT COSTS Construction	PROJECT BENEFITS							Undiscounted Net Benefits ¹	NET BENEFITS discounted at 7%	
			Travel Time Savings			Monetized Emission Reductions						Tug Operation Fuel and Crew Savings
			Ferry Terminal Improvements [Table 2]	Shorter Ferry Travel Time [Table 3]	New Ferry Riders [Table 4]	Ferry Terminal Improvements [Table 5]	Shorter Ferry Travel Time [Table 6]	New Ferry Riders [Table 7]	Reduced Tug Operation [Table 8]	Tug Operation Fuel and Crew Savings [Table 9]		
2012	1	(\$10.450)									(\$10.450)	(\$10.450)
2013	2	(\$13.500)									(\$13.500)	(\$12.617)
2014	3	(\$5.000)	\$0.959	\$0.615	\$0.117	\$0.004	\$0.408	\$0.005	\$0.617	\$0.370	(\$1.904)	(\$1.663)
2015	4		\$1.918	\$1.231	\$0.469	\$0.008	\$0.408	\$0.018	\$0.617	\$0.370	\$5.040	\$4.114
2016	5		\$1.918	\$1.231	\$0.704	\$0.008	\$0.408	\$0.021	\$0.617	\$0.370	\$5.277	\$4.026
2017	6		\$1.918	\$1.231	\$0.939	\$0.007	\$0.408	\$0.027	\$0.617	\$0.370	\$5.517	\$3.934
2018	7		\$1.918	\$1.231	\$1.174	\$0.007	\$0.408	\$0.032	\$0.617	\$0.370	\$5.757	\$3.836
2019	8		\$1.918	\$1.231	\$1.408	\$0.006	\$0.408	\$0.037	\$0.617	\$0.370	\$5.997	\$3.734
2020	9		\$1.918	\$1.231	\$1.643	\$0.006	\$0.408	\$0.042	\$0.617	\$0.370	\$6.236	\$3.629
2021	10		\$1.918	\$1.231	\$1.878	\$0.006	\$0.408	\$0.047	\$0.617	\$0.370	\$6.475	\$3.522
2022	11		\$1.918	\$1.231	\$2.112	\$0.006	\$0.408	\$0.052	\$0.617	\$0.370	\$6.714	\$3.413
2023	12		\$1.918	\$1.231	\$2.347	\$0.006	\$0.408	\$0.056	\$0.617	\$0.370	\$6.953	\$3.303
2024	13		\$1.918	\$1.231	\$2.347	\$0.006	\$0.408	\$0.055	\$0.617	\$0.370	\$6.952	\$3.087
2025	14		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.055	\$0.617	\$0.370	\$6.952	\$2.885
2026	15		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.054	\$0.617	\$0.370	\$6.951	\$2.696
2027	16		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.054	\$0.617	\$0.370	\$6.950	\$2.519
2028	17		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.053	\$0.617	\$0.370	\$6.950	\$2.354
2029	18		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.053	\$0.617	\$0.370	\$6.949	\$2.200
2030	19		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.949	\$2.056
2031	20		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.949	\$1.921
2032	21		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.949	\$1.796
2033	22		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.948	\$1.678
2034	23		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.948	\$1.568
2035	24		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.948	\$1.466
2036	25		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.052	\$0.617	\$0.370	\$6.948	\$1.370
2037	26		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.051	\$0.617	\$0.370	\$6.948	\$1.280
2038	27		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.051	\$0.617	\$0.370	\$6.948	\$1.196
2039	28		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.051	\$0.617	\$0.370	\$6.948	\$1.118
2040	29		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.051	\$0.617	\$0.370	\$6.948	\$1.045
2041	30		\$1.918	\$1.231	\$2.347	\$0.005	\$0.408	\$0.051	\$0.617	\$0.370	\$6.948	\$0.977
TOTAL		(\$28.950)	\$52.741	\$33.850	\$55.040	\$0.157	\$11.426	\$1.281	\$17.282	\$10.368	\$153.195	\$41.994

¹ Sum of all project costs and benefits. A positive number in any year indicates net benefits in that year.

Table 2 Travel Time Savings - Ferry Terminal Improvements

Calendar Year	Project Year	Affected Annual Travelers ¹	Minutes Reduced per Trip ²	Total Annual Travel Time Saved ³ [hr]	Total Value of Travel Time Saved ⁴ [\$]
2014	1	335,488	10.00	55,915	\$958,935
2015	2	670,975	10.00	111,829	\$1,917,870
2016	3	670,975	10.00	111,829	\$1,917,870
2017	4	670,975	10.00	111,829	\$1,917,870
2018	5	670,975	10.00	111,829	\$1,917,870
2019	6	670,975	10.00	111,829	\$1,917,870
2020	7	670,975	10.00	111,829	\$1,917,870
2021	8	670,975	10.00	111,829	\$1,917,870
2022	9	670,975	10.00	111,829	\$1,917,870
2023	10	670,975	10.00	111,829	\$1,917,870
2024	11	670,975	10.00	111,829	\$1,917,870
2025	12	670,975	10.00	111,829	\$1,917,870
2026	13	670,975	10.00	111,829	\$1,917,870
2027	14	670,975	10.00	111,829	\$1,917,870
2028	15	670,975	10.00	111,829	\$1,917,870
2029	16	670,975	10.00	111,829	\$1,917,870
2030	17	670,975	10.00	111,829	\$1,917,870
2031	18	670,975	10.00	111,829	\$1,917,870
2032	19	670,975	10.00	111,829	\$1,917,870
2033	20	670,975	10.00	111,829	\$1,917,870
2034	21	670,975	10.00	111,829	\$1,917,870
2035	22	670,975	10.00	111,829	\$1,917,870
2036	23	670,975	10.00	111,829	\$1,917,870
2037	24	670,975	10.00	111,829	\$1,917,870
2038	25	670,975	10.00	111,829	\$1,917,870
2039	26	670,975	10.00	111,829	\$1,917,870
2040	27	670,975	10.00	111,829	\$1,917,870
2041	28	670,975	10.00	111,829	\$1,917,870
TOTAL				3,075,302	\$52,741,431

¹ Average annual passengers in cars embarking and disembarking in Port Jefferson, 2007 - 2011. Figures for 2011 are projected based on actual data through August. Includes an estimated 20,000 non-ticketed passengers per year (children under 12 who ride for free) For 2014 only half a year ridership is included due to new terminal opening in May 2014.

² Reduction in travel time for average car, both embarking and disembarking at Bridgeport terminal, which will allow faster unloading/loading operations. Travel time reduction for disembarking cars based on additional queing space at new terminal, and shorter drive from terminal to I-95, with fewer choke points.

³ *Total Travel Time Saved* = Affected Annual Travelers x Minutes Reduced per Trip ÷ 60 min/hr

⁴ *Total Value of Travel Time Saved* = Total Travel Time Saved x \$24.50 per hour * x 70% **

* Mean hourly wage for the State of Connecticut, as published by the US. Bureau of Labor Statistics

** Per USDOT "Departmental Guidance for the Valuation of Travel Time in Economic Analysis"



Table 3 Travel Time Savings - Shorter Ferry Crossing

Calendar Year	Project Year	Affected Annual Travelers ¹	Minutes Reduced per Trip ²	Total Annual Travel Time Saved ³ [hr]	Total Value of Travel Time Saved ⁴ [\$]
2014	1	430,636	5.00	35,886	\$615,451
2015	2	861,272	5.00	71,773	\$1,230,901
2016	3	861,272	5.00	71,773	\$1,230,901
2017	4	861,272	5.00	71,773	\$1,230,901
2018	5	861,272	5.00	71,773	\$1,230,901
2019	6	861,272	5.00	71,773	\$1,230,901
2020	7	861,272	5.00	71,773	\$1,230,901
2021	8	861,272	5.00	71,773	\$1,230,901
2022	9	861,272	5.00	71,773	\$1,230,901
2023	10	861,272	5.00	71,773	\$1,230,901
2024	11	861,272	5.00	71,773	\$1,230,901
2025	12	861,272	5.00	71,773	\$1,230,901
2026	13	861,272	5.00	71,773	\$1,230,901
2027	14	861,272	5.00	71,773	\$1,230,901
2028	15	861,272	5.00	71,773	\$1,230,901
2029	16	861,272	5.00	71,773	\$1,230,901
2030	17	861,272	5.00	71,773	\$1,230,901
2031	18	861,272	5.00	71,773	\$1,230,901
2032	19	861,272	5.00	71,773	\$1,230,901
2033	20	861,272	5.00	71,773	\$1,230,901
2034	21	861,272	5.00	71,773	\$1,230,901
2035	22	861,272	5.00	71,773	\$1,230,901
2036	23	861,272	5.00	71,773	\$1,230,901
2037	24	861,272	5.00	71,773	\$1,230,901
2038	25	861,272	5.00	71,773	\$1,230,901
2039	26	861,272	5.00	71,773	\$1,230,901
2040	27	861,272	5.00	71,773	\$1,230,901
2041	28	861,272	5.00	71,773	\$1,230,901
TOTAL				1,973,748	\$33,849,784

¹ Average annual passengers embarking in Bridgeport and Port Jefferson, 2007 - 2011
 Figures for 2011 are projected based on actual data through August.
 Includes an estimated 20,000 non-ticketed passengers per year (children under 12 who ride for free).
 For 2014 only half a year ridership is included due to new terminal opening in May 2014.

² Reduction in trip time for crossing from Bridgeport to Port Jefferson (and vice-versa).
 due to location of new terminal.

³ *Total Travel Time Saved* = Affected Annual Travelers x Minutes Reduced per Trip ÷ 60 min/hr

⁴ *Total Value of Travel Time Saved* = Total Travel Time Saved x \$24.50 per hour * x 70% **

* Mean hourly wage for the State of Connecticut, as published by the US. Bureau of Labor Statistics

** Per USDOT "Departmental Guidance for the Valuation of Travel Time in Economic Analysis"



Table 4 Travel Time Savings - New Ferry Riders

Calendar Year	Project Year	Affected Annual Travelers ¹	Minutes Reduced per Trip ²	Total Annual Travel Time Saved ³ [hr]	Total Value of Travel Time Saved ⁴ [\$]
2014	1	9,124	45.00	6,843	\$117,356
2015	2	36,496	45.00	27,372	\$469,425
2016	3	54,743	45.00	41,058	\$704,138
2017	4	72,991	45.00	54,743	\$938,850
2018	5	91,239	45.00	68,429	\$1,173,563
2019	6	109,487	45.00	82,115	\$1,408,275
2020	7	127,735	45.00	95,801	\$1,642,988
2021	8	145,983	45.00	109,487	\$1,877,700
2022	9	164,230	45.00	123,173	\$2,112,413
2023	10	182,478	45.00	136,859	\$2,347,125
2024	11	182,478	45.00	136,859	\$2,347,125
2025	12	182,478	45.00	136,859	\$2,347,125
2026	13	182,478	45.00	136,859	\$2,347,125
2027	14	182,478	45.00	136,859	\$2,347,125
2028	15	182,478	45.00	136,859	\$2,347,125
2029	16	182,478	45.00	136,859	\$2,347,125
2030	17	182,478	45.00	136,859	\$2,347,125
2031	18	182,478	45.00	136,859	\$2,347,125
2032	19	182,478	45.00	136,859	\$2,347,125
2033	20	182,478	45.00	136,859	\$2,347,125
2034	21	182,478	45.00	136,859	\$2,347,125
2035	22	182,478	45.00	136,859	\$2,347,125
2036	23	182,478	45.00	136,859	\$2,347,125
2037	24	182,478	45.00	136,859	\$2,347,125
2038	25	182,478	45.00	136,859	\$2,347,125
2039	26	182,478	45.00	136,859	\$2,347,125
2040	27	182,478	45.00	136,859	\$2,347,125
2041	28	182,478	45.00	136,859	\$2,347,125
TOTAL				3,209,335	\$55,040,088

¹ Assumed growth in annual car volume based on relief of existing constraints at Bridgeport terminal* multiplied by 1.6 average passengers/car (2007 - 2011 average)

Assumes growth to maximum potential increase over a 10 year period.

² *Minutes Reduced per Trip* = [Total Trip Time Car] - [Total Trip Time Ferry + Car]

Assumed nominal trip is from Bridgeport, CT to Patchogue, Long Island, NY **

Car trip via I-95:	Free flow travel	126 minutes (Bridgeport, CT to Patchogue, NY, 100 miles)
	+ typical delay	30 minutes (CT-NYC congestion on I-95)
	=	156 minutes
Ferry + Car Trip:	Ferry crossing	70 minutes (Bridgeport to Port Jefferson)
	+ Ferry disembarking	15 minutes
	+ Car Travel	26 minutes (Port Jefferson, NY to Patchogue, NY, 14 mi)
	=	111

³ *Total Travel Time Saved* = Affected Annual Travelers x Minutes Reduced per Trip ÷ 60 min/hr

⁴ *Total Value of Travel Time Saved* = Total Travel Time Saved x \$24.50 per hour *** x 70% ****

* Tritec Marine Consultants Limited, *Bridgeport & Port Jefferson Steamboat Company - Study and Recommendations for an Improved Ferry Service*, 19 March 2003

** Based on suveys of current passengers, typical starting/ending destinations on Long Island lie between Huntington (west) and River Head (east).

*** Mean hourly wage for the State of Connecticut, as published by the US. Bureau of Labor Statistics

**** Per USDOT "Departmental Guidance for the Valuation of Travel Time in Economic Analysis"

Table 5 Monetized Emission Reductions - Ferry Terminal Improvements Travel Time Savings

Calendar Year	Project Year	Total Travel Time Saved ¹ [hr]	Emission Rates ²					Emission Reductions ³					Monetized Benefits ⁴					
			PM [g/hr]	NOx [g/hr]	CO [g/hr]	VOC [g/hr]	CO ₂ [g/hr]	PM [ton]	NOx [ton]	CO [ton]	VOC [ton]	CO ₂ [ton]	PM [\$]	NOx [\$]	CO [\$]	VOC [\$]	CO ₂ [\$]	TOTAL [\$]
2014	1	55,915	0.10	5.0	65.5	15.2	1,389	0.01	0.31	4.03	0.93	85.6	\$990	\$1,198	\$0	\$1,588	\$599	\$4,375
2015	2	111,829	0.09	4.5	61.3	13.8	1,393	0.01	0.55	7.56	1.70	171.7	\$1,872	\$2,149	\$0	\$2,882	\$1,202	\$8,105
2016	3	111,829	0.09	4.0	58.7	12.7	1,397	0.01	0.50	7.24	1.56	172.2	\$1,796	\$1,933	\$0	\$2,658	\$1,205	\$7,592
2017	4	111,829	0.08	3.6	56.6	11.8	1,400	0.01	0.44	6.98	1.46	172.6	\$1,704	\$1,735	\$0	\$2,477	\$1,208	\$7,125
2018	5	111,829	0.08	3.3	54.9	11.1	1,403	0.01	0.40	6.77	1.37	172.9	\$1,635	\$1,578	\$0	\$2,331	\$1,210	\$6,755
2019	6	111,829	0.08	3.0	53.5	10.6	1,406	0.01	0.37	6.59	1.30	173.3	\$1,594	\$1,445	\$0	\$2,213	\$1,213	\$6,464
2020	7	111,829	0.08	2.8	52.3	10.1	1,408	0.01	0.34	6.45	1.24	173.6	\$1,551	\$1,330	\$0	\$2,116	\$1,215	\$6,213
2021	8	111,829	0.07	2.6	51.2	9.7	1,411	0.01	0.31	6.31	1.20	173.9	\$1,501	\$1,228	\$0	\$2,037	\$1,217	\$5,984
2022	9	111,829	0.07	2.4	50.4	9.4	1,413	0.01	0.30	6.22	1.16	174.2	\$1,485	\$1,154	\$0	\$1,972	\$1,219	\$5,830
2023	10	111,829	0.07	2.3	49.8	8.7	1,415	0.01	0.28	6.14	1.08	174.4	\$1,467	\$1,092	\$0	\$1,828	\$1,221	\$5,609
2024	11	111,829	0.07	2.2	49.3	8.5	1,415	0.01	0.27	6.08	1.05	174.4	\$1,454	\$1,041	\$0	\$1,789	\$1,221	\$5,505
2025	12	111,829	0.07	2.1	48.9	8.4	1,415	0.01	0.25	6.03	1.03	174.4	\$1,441	\$989	\$0	\$1,750	\$1,221	\$5,401
2026	13	111,829	0.07	2.0	48.6	8.3	1,415	0.01	0.24	5.99	1.02	174.4	\$1,432	\$951	\$0	\$1,735	\$1,221	\$5,338
2027	14	111,829	0.07	1.9	48.3	8.2	1,415	0.01	0.24	5.96	1.02	174.4	\$1,424	\$919	\$0	\$1,728	\$1,221	\$5,293
2028	15	111,829	0.07	1.8	48.0	8.2	1,415	0.01	0.23	5.91	1.01	174.5	\$1,417	\$887	\$0	\$1,718	\$1,221	\$5,243
2029	16	111,829	0.07	1.8	47.8	8.2	1,415	0.01	0.22	5.89	1.01	174.5	\$1,411	\$862	\$0	\$1,714	\$1,221	\$5,208
2030	17	111,829	0.07	1.7	47.6	8.2	1,415	0.01	0.22	5.87	1.01	174.5	\$1,407	\$840	\$0	\$1,711	\$1,221	\$5,179
2031	18	111,829	0.07	1.7	47.2	8.1	1,415	0.01	0.21	5.82	1.00	174.5	\$1,402	\$814	\$0	\$1,704	\$1,221	\$5,141
2032	19	111,829	0.07	1.7	47.2	8.1	1,415	0.01	0.21	5.81	1.00	174.5	\$1,399	\$802	\$0	\$1,702	\$1,221	\$5,124
2033	20	111,829	0.07	1.6	47.1	8.1	1,415	0.01	0.20	5.81	1.00	174.5	\$1,396	\$791	\$0	\$1,701	\$1,221	\$5,109
2034	21	111,829	0.07	1.6	47.1	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$778	\$0	\$1,699	\$1,221	\$5,081
2035	22	111,829	0.07	1.6	47.1	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$774	\$0	\$1,698	\$1,221	\$5,076
2036	23	111,829	0.07	1.6	47.0	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$772	\$0	\$1,697	\$1,221	\$5,073
2037	24	111,829	0.07	1.6	47.0	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$763	\$0	\$1,697	\$1,221	\$5,065
2038	25	111,829	0.07	1.6	47.0	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$763	\$0	\$1,697	\$1,221	\$5,065
2039	26	111,829	0.07	1.6	47.0	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$763	\$0	\$1,697	\$1,221	\$5,065
2040	27	111,829	0.07	1.6	47.0	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$763	\$0	\$1,697	\$1,221	\$5,065
2041	28	111,829	0.07	1.6	47.0	8.1	1,415	0.01	0.20	5.80	1.00	174.5	\$1,383	\$763	\$0	\$1,697	\$1,221	\$5,065
TOTAL		3,075,302						0.25	7.66	169.85	31.14	4,784	\$40,845	\$29,877	\$0	\$52,935	\$33,490	\$157,148

¹ From Table 2

² Emissions rates are from EPA emission factor models, and represent fleet average rates for idling cars and light trucks, in each calendar year, for Fairfield County, CT

³ Emission Reduction [ton] = Travel time saved [hr] x Emissions rate [g/hr] ÷ 453.6 g/lb ÷ 2,000 lb/ton

⁴ Monetized Benefits = Emission Reduction [ton] x Emission Reduction value [\$ / ton].

Pollutant	PM	NOx	CO	VOC	CO ₂
Value (\$/ton)	\$164,000	\$3,900	\$0	\$1,700	\$7

U.S. Department of Transportation, National Highway Traffic Safety Administration, *Draft Environmental Impact Statement, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011-2015*, June 2008, Appendix C, Table VIII-B (Emission Damage Costs)



Table 6 Monetized Emission Reductions - Shorter Ferry Trips

Calendar Year	Project Year	Total Annual Ferry Time Saved ¹ [hr]	Emission Rates ²					Emission Reductions ³					Monetized Benefits ⁴					
			PM [g/hr]	NOx [g/hr]	CO [g/hr]	VOC [g/hr]	CO ₂ [g/hr]	PM [ton]	NOx [ton]	CO [ton]	VOC [ton]	CO ₂ [ton]	PM [\$]	NOx [\$]	CO [\$]	VOC [\$]	CO ₂ [\$]	TOTAL [\$]
2014	1	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2015	2	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2016	3	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2017	4	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2018	5	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2019	6	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2020	7	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2021	8	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2022	9	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2023	10	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2024	11	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2025	12	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2026	13	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2027	14	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2028	15	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2029	16	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2030	17	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2031	18	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2032	19	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2033	20	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2034	21	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2035	22	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2036	23	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2037	24	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2038	25	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2039	26	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2040	27	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
2041	28	771	250	8,799	1,200	250	605,040	0.21	7.48	1.02	0.21	514.4	\$374,916	\$29,177	\$0	\$361	\$3,601	\$408,056
TOTAL		21,597						5.95	209.48	28.57	5.95	14,404	\$10,497,654	\$816,960	\$0	\$10,117	\$100,828	\$11,425,558

¹ Assumes 178 trips per week x 52 weeks per year x 5 minutes per trip saved ÷ 60 minutes/hour
² Assumes average fuel use of 60 gallons per hour (5,000 hp x 20% load for no-wake cruise out of the harbor, average of three BPJ vessels)
 $Emission\ Rate\ [g/hr] = Fuel\ Use\ [gal/hr] \times Emission\ Factor\ [g/bhp-hr] \times 50.5\ hp-hr/gal \times 0.33\ bhp-hr/hp-hr$

	<u>PM</u>	<u>NOx</u>	<u>CO</u>	<u>VOC</u>	
Emission Factor [g/bhp-hr]	0.25	8.8	1.2	0.25	EPA nonroad emission factors, Tier 1 & 2 marine engines - average for three BPJ vessels

 $CO_2\ Emission\ Rate\ [g/hr] = Fuel\ Use\ [gal/hr] \times 10,084\ g\ CO_2/gallon.$ (EPA420-F-05-001 February 2005)

³ $Emission\ Reduction\ [ton] = Ferry\ Travel\ time\ saved\ [hr] \times Emissions\ rate\ [g/hr] \div 453.6\ g/lb \div 2,000\ lb/ton$

⁴ $Monetized\ Benefits = Emission\ Reduction\ [ton] \times Emission\ Reduction\ value\ [$/ton].$

Pollutant	PM *	NOx**	CO**	VOC**	CO ₂ **
Value (\$/ton)	\$1,764,000	\$3,900	\$0	\$1,700	\$7

* U.S. EPA, Diesel Emission Quantifier, Benefits Module, Health Benefit Results, PM reduction from Ferry/Excursion Vessel diesel reduction project, Fairfield County, Connecticut

** U.S. Department of Transportation, National Highway Traffic Safety Administration, *Draft Environmental Impact Statement, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011-2015*, June 2008, Appendix C, Table VIII-B (Emission Damage Costs)



Table 7 Monetized Emission Reductions - New Ferry Riders

Calendar Year	Project Year	New Annual Ferry Riders ¹ [# cars]	Total Travel Miles Saved ² [mi]	Emission Rates ³					Emission Reductions ⁴					Monetized Benefits ⁵					
				PM [g/mi]	NOx [g/mi]	CO [g/mi]	VOC [g/mi]	CO ₂ [g/mi]	PM [ton]	NOx [ton]	CO [ton]	VOC [ton]	CO ₂ [ton]	PM [\$]	NOx [\$]	CO [\$]	VOC [\$]	CO ₂ [\$]	TOTAL [\$]
2014	1	5,685	488,949	0.02	0.65	3.87	0.11	391.86	0.011	0.35	2.1	0.06	211	\$1,768	\$1,366	\$0	\$101	\$1,478	\$4,713
2015	2	22,742	1,955,795	0.02	0.56	3.62	0.10	391.78	0.043	1.21	7.8	0.22	845	\$7,071	\$4,708	\$0	\$366	\$5,912	\$18,058
2016	3	34,113	2,933,692	0.01	0.50	3.38	0.09	391.37	0.032	1.62	10.9	0.29	1,266	\$5,303	\$6,306	\$0	\$495	\$8,859	\$20,963
2017	4	45,484	3,911,590	0.01	0.44	3.16	0.07	390.77	0.043	1.90	13.6	0.30	1,685	\$7,071	\$7,399	\$0	\$513	\$11,794	\$26,777
2018	5	56,855	4,889,487	0.01	0.39	2.97	0.07	390.02	0.054	2.10	16.0	0.38	2,102	\$8,839	\$8,198	\$0	\$641	\$14,714	\$32,393
2019	6	68,225	5,867,384	0.01	0.34	2.78	0.06	389.15	0.065	2.20	18.0	0.39	2,517	\$10,607	\$8,576	\$0	\$660	\$17,618	\$37,461
2020	7	79,596	6,845,282	0.01	0.30	2.64	0.05	388.30	0.075	2.26	19.9	0.38	2,930	\$12,375	\$8,828	\$0	\$641	\$20,509	\$42,354
2021	8	90,967	7,823,179	0.01	0.26	2.52	0.04	387.31	0.086	2.24	21.7	0.34	3,340	\$14,142	\$8,744	\$0	\$586	\$23,380	\$46,853
2022	9	102,338	8,801,077	0.01	0.24	2.43	0.04	386.30	0.097	2.33	23.6	0.39	3,748	\$15,910	\$9,080	\$0	\$660	\$26,233	\$51,884
2023	10	113,709	9,778,974	0.01	0.21	2.35	0.04	385.26	0.108	2.26	25.3	0.43	4,153	\$17,678	\$8,828	\$0	\$733	\$29,070	\$56,309
2024	11	113,709	9,778,974	0.01	0.19	2.29	0.03	384.27	0.108	2.05	24.7	0.32	4,142	\$17,678	\$7,987	\$0	\$550	\$28,995	\$55,210
2025	12	113,709	9,778,974	0.01	0.18	2.24	0.03	383.33	0.108	1.94	24.1	0.32	4,132	\$17,678	\$7,567	\$0	\$550	\$28,924	\$54,719
2026	13	113,709	9,778,974	0.01	0.17	2.20	0.03	382.43	0.108	1.83	23.7	0.32	4,122	\$17,678	\$7,147	\$0	\$550	\$28,856	\$54,231
2027	14	113,709	9,778,974	0.01	0.16	2.16	0.03	381.59	0.108	1.72	23.3	0.32	4,113	\$17,678	\$6,726	\$0	\$550	\$28,793	\$53,747
2028	15	113,709	9,778,974	0.01	0.15	2.14	0.03	380.82	0.108	1.62	23.1	0.32	4,105	\$17,678	\$6,306	\$0	\$550	\$28,735	\$53,268
2029	16	113,709	9,778,974	0.01	0.14	2.11	0.02	380.12	0.108	1.51	22.7	0.22	4,097	\$17,678	\$5,885	\$0	\$366	\$28,682	\$52,612
2030	17	113,709	9,778,974	0.01	0.13	2.10	0.02	379.52	0.108	1.40	22.6	0.22	4,091	\$17,678	\$5,465	\$0	\$366	\$28,637	\$52,146
2031	18	113,709	9,778,974	0.01	0.13	2.09	0.02	378.94	0.108	1.40	22.5	0.22	4,085	\$17,678	\$5,465	\$0	\$366	\$28,593	\$52,103
2032	19	113,709	9,778,974	0.01	0.13	2.08	0.02	378.41	0.108	1.40	22.4	0.22	4,079	\$17,678	\$5,465	\$0	\$366	\$28,553	\$52,063
2033	20	113,709	9,778,974	0.01	0.12	2.07	0.02	377.94	0.108	1.29	22.3	0.22	4,074	\$17,678	\$5,045	\$0	\$366	\$28,517	\$51,607
2034	21	113,709	9,778,974	0.01	0.12	2.07	0.02	377.53	0.108	1.29	22.3	0.22	4,070	\$17,678	\$5,045	\$0	\$366	\$28,487	\$51,576
2035	22	113,709	9,778,974	0.01	0.12	2.06	0.02	377.14	0.108	1.29	22.2	0.22	4,065	\$17,678	\$5,045	\$0	\$366	\$28,457	\$51,546
2036	23	113,709	9,778,974	0.01	0.12	2.06	0.02	376.80	0.108	1.29	22.2	0.22	4,062	\$17,678	\$5,045	\$0	\$366	\$28,431	\$51,521
2037	24	113,709	9,778,974	0.01	0.12	2.05	0.02	376.50	0.108	1.29	22.1	0.22	4,058	\$17,678	\$5,045	\$0	\$366	\$28,409	\$51,498
2038	25	113,709	9,778,974	0.01	0.12	2.05	0.02	376.24	0.108	1.29	22.1	0.22	4,056	\$17,678	\$5,045	\$0	\$366	\$28,389	\$51,478
2039	26	113,709	9,778,974	0.01	0.12	2.05	0.02	376.02	0.108	1.29	22.1	0.22	4,053	\$17,678	\$5,045	\$0	\$366	\$28,373	\$51,462
2040	27	113,709	9,778,974	0.01	0.11	2.05	0.02	375.84	0.108	1.19	22.1	0.22	4,051	\$17,678	\$4,624	\$0	\$366	\$28,359	\$51,028
2041	28	113,709	9,778,974	0.01	0.11	2.05	0.02	375.71	0.108	1.19	22.1	0.22	4,050	\$17,678	\$4,624	\$0	\$366	\$28,349	\$51,018
TOTAL									2.55	44.77	567.7	7.59	96,301	\$418,970	\$174,610	\$0	\$12,910	\$674,108	\$1,280,598

¹ Assumed growth in annual car volume based on relief of existing constraints at Bridgeport terminal.

(Tritec Marine Consultants Limited, *Bridgeport & Port Jefferson Steamboat Company - Study and Recommendations for an Improved Ferry Service*, 19 March 2003)

² Total Travel Miles Saved = New Annual Ferry Riders x 86 miles per trip (difference between a trip from Bridgeport to Patchogue and a trip from Port Jefferson to Patchogue; see Table 4 notes)

³ Emissions rates are from EPA MOVES model, and represent fleet average rates for cars and light trucks traveling on urban restricted roadways, in each calendar year, for Fairfield County, CT

⁴ Emission Reduction [ton] = Travel Miles Saved [mi] x Emissions rate [g/mi] ÷ 453.6 g/lb ÷ 2,000 lb/ton

⁵ Monetized Benefits = Emission Reduction [ton] x Emission Reduction value [\$ /ton].

Pollutant	PM	NOx	CO	VOC	CO ₂
Value (\$/ton)	\$164,000	\$3,900	\$0	\$1,700	\$7



U.S. Department of Transportation, National Highway Traffic Safety Administration, *Draft Environmental Impact Statement, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011-2015*, June 2008, Appendix C, Table VIII-B (Emission Damage Costs)



Table 8 Monetized Emission Reductions - Reduced Tug Operation

Calendar Year	Project Year	Total Annual Tug Transiting Time Saved ¹ [hr]	Emission Rates ²					Emission Reductions ³					Monetized Benefits ⁴					
			PM [g/hr]	NOx [g/hr]	CO [g/hr]	VOC [g/hr]	CO ₂ [g/hr]	PM [ton]	NOx [ton]	CO [ton]	VOC [ton]	CO ₂ [ton]	PM [\$]	NOx [\$]	CO [\$]	VOC [\$]	CO ₂ [\$]	TOTAL [\$]
2014	1	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2015	2	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2016	3	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2017	4	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2018	5	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2019	6	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2020	7	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2021	8	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2022	9	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2023	10	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2024	11	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2025	12	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2026	13	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2027	14	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2028	15	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2029	16	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2030	17	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2031	18	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2032	19	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2033	20	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2034	21	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2035	22	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2036	23	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2037	24	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2038	25	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2039	26	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2040	27	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
2041	28	1,400	208	7,333	1,000	208	504,200	0.32	11.32	1.54	0.32	778.1	\$567,073	\$44,131	\$0	\$546	\$5,447	\$617,197
TOTAL		39,200						9.00	316.84	43.21	9.00	21,786	\$15,878,042	\$1,235,679	\$0	\$15,302	\$152,505	\$17,281,527

¹ Assumes 700 trips per year x 2 hours per trip saved

² Assumes average fuel use of 50 gal/hr
 $Emission\ Rate\ [g/hr] = Fuel\ Use\ [gal/hr] \times Emission\ Factor\ [g/bhp-hr] \times 50.5\ hp-hr/gal \times 0.33\ bhp-hr/hp-hr$

	PM	NOx	CO	VOC
Emission Factor [g/bhp-hr]	0.25	8.8	1.2	0.25

 EPA nonroad emission factors, Tier 1 & 2 marine engines
 $CO_2\ Emission\ Rate\ [g/hr] = Fuel\ Use\ [gal/hr] \times 10,084\ g\ CO_2/gallon.$ (EPA420-F-05-001 February 2005)

³ $Emission\ Reduction\ [ton] = Tug\ transiting\ time\ saved\ [hr] \times Emissions\ rate\ [g/hr] \div 453.6\ g/lb \div 2,000\ lb/ton$

⁴ $Monetized\ Benefits = Emission\ Reduction\ [ton] \times Emission\ Reduction\ value\ [$/ton].$

Pollutant	PM *	NOx**	CO**	VOC**	CO ₂ **
Value (\$/ton)	\$1,764,000	\$3,900	\$0	\$1,700	\$7

* U.S. EPA, Diesel Emission Quantifier, Benefits Module, Health Benefit Results, PM reduction from Ferry/Excursion Vessel diesel reduction project, Fairfield County, Connecticut

** U.S. Department of Transportation, National Highway Traffic Safety Administration, Draft Environmental Impact Statement, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2011-2015, June 2008, Appendix C, Table V-III-B (Emission Damage Costs)



Table 9 Monetized Fuel and Crew Reductions - Reduced Tug Operation

Calendar Year	Project Year	Total Annual Tug Transiting Time Saved ¹ [hr]	Monetized Benefits ^{2,3,4}		
			Fuel [\$]	Crew [\$]	TOTAL [\$]
2014	1	1,400	\$224,700	\$145,600	\$370,300
2015	2	1,400	\$224,700	\$145,600	\$370,300
2016	3	1,400	\$224,700	\$145,600	\$370,300
2017	4	1,400	\$224,700	\$145,600	\$370,300
2018	5	1,400	\$224,700	\$145,600	\$370,300
2019	6	1,400	\$224,700	\$145,600	\$370,300
2020	7	1,400	\$224,700	\$145,600	\$370,300
2021	8	1,400	\$224,700	\$145,600	\$370,300
2022	9	1,400	\$224,700	\$145,600	\$370,300
2023	10	1,400	\$224,700	\$145,600	\$370,300
2024	11	1,400	\$224,700	\$145,600	\$370,300
2025	12	1,400	\$224,700	\$145,600	\$370,300
2026	13	1,400	\$224,700	\$145,600	\$370,300
2027	14	1,400	\$224,700	\$145,600	\$370,300
2028	15	1,400	\$224,700	\$145,600	\$370,300
2029	16	1,400	\$224,700	\$145,600	\$370,300
2030	17	1,400	\$224,700	\$145,600	\$370,300
2031	18	1,400	\$224,700	\$145,600	\$370,300
2032	19	1,400	\$224,700	\$145,600	\$370,300
2033	20	1,400	\$224,700	\$145,600	\$370,300
2034	21	1,400	\$224,700	\$145,600	\$370,300
2035	22	1,400	\$224,700	\$145,600	\$370,300
2036	23	1,400	\$224,700	\$145,600	\$370,300
2037	24	1,400	\$224,700	\$145,600	\$370,300
2038	25	1,400	\$224,700	\$145,600	\$370,300
2039	26	1,400	\$224,700	\$145,600	\$370,300
2040	27	1,400	\$224,700	\$145,600	\$370,300
2041	28	1,400	\$224,700	\$145,600	\$370,300
TOTAL		39,200	\$6,291,600	\$4,076,800	\$10,368,400

¹ Assumes 700 trips per year x 2 hours per trip saved

² Assumes average fuel use of 50 gal/hr

³ Assumes average fuel cost of \$ 3.21 /gal

³ Assumes average crew cost of \$ 104.00 /hr

Annual Fuel Savings [\$] = Fuel Use [gal/hr] x Annual Trips [trips] x Time Saved [hr/trip] x Cost of Diesel Fuel [\$/gal]

Annual Crew Cost Savings [\$] = Annual Trips [trips] x Time Saved [hr/trip] x Average Crew Cost [\$/hr]



ATTACHMENT C
Current Bridgeport Grants

DOT/FTA

The Bridgeport Intermodal Transportation Center (BITC) project is a multi-phased capital project begun in 1999 that includes construction of facilities to enhance access for transit riders commuting to and from Downtown Bridgeport and to ease intermodal transfers and connections. As part of the State of Connecticut’s Transportation Strategies 2003-2020, the Transportation Strategy Board has endorsed the concept of the Bridgeport ITC as one of the 3 mainline multi-modal hub stations on the Metro North Line in Connecticut. The BITC incorporates the functions of the local bus service, the Greater Bridgeport Transit Authority (GBTA); Metro North and Amtrak commuter rail services; intercity bus services, such as Peter Pan & Greyhound; Bridgeport/Port Jefferson Ferry Service to Long Island, NY; and shuttle services such as Connecticut Limo to metropolitan airports. This project has been funded through a partnerships between the City, FTA , CT DOT and CT DECD.

Project Summary

The project is divided into the following Federal phases:

Commuter Rail Parking Garage at Harbor Yard – Design included a 1400 space commuter garage with a pedestrian bridge/walkway directly to the southbound Metro North /Amtrak platform. Construction was completed in Spring 2010 of a 2 floor 500 car addition onto the original 2001 constructed 900 car garage.

Bus Terminal - and Pedestrian walkways - A 17 bay Bus Terminal and Pedestrian Bridges / Walkways linking the Bus Terminal and Transit Garage with the Train platforms were completed and opened for revenue operations in September of 2007. Ridership increased 19.3% over the first year of operations, and 26% of bus riders also traveled by rail.

Downtown Transit Connectivity

Provide pedestrian level enhancements and betterments connecting the Transit Garage, the Train Station and the Bus Terminal to each other and the Central Business District. . It will also include Intelligent Transportation Systems (ITS) elements that will electronically link messages and schedules between I-95 Commuters , MN Rail and GTBA Bus. Signage / signalization will be improved throughout the downtown areas leading to and from the ITC to improve traffic flow.

Federal (FTA) Grants

Fiscal Year	Amount	Grant Program
FY2001	\$3,099,834	FTA, Bus, section 5309
FY2002	\$5,197,652	FTA, Bus, section 5309
FY2004	\$3,883,494	FTA, Bus, section 5309
FY2005	\$6,802,447	FTA, Bus, section 5309
FY2006	\$3,960,000	FTA, Bus, section 5309

FY2008	\$4,307,100	FTA, Bus, section 5309
FY 2009	\$3,000,000	FTA, Bus, section 5309
FY2010	\$2,435,000	FTA, Bus, section 5309

The City has dedicated staff from the Office of Planning and Economic Development and the Finance Department that are responsible for managing various DOT – FTA reports and awards.. The City has been a recipient of substantial FTA grants over the past decade for the design and construction of the Bridgeport Intermodal Transportation Center.. The City is well versed in DOT and HUD processes and procedures including the development of Project Management Plans (PMP’s) and Disadvantaged Business Enterprise Plans (DBE’s) as well as the federal TEAM and ECHO systems.

Leading initiatives include Seaview Plaza, a 16 acre mixed-use commercial development, starting the Business Development Fund & Storefront Improvement Program, founding the Bridgeport Arts Fest, expansion of key local manufacturers, and new residential developments at Bijou Square and 333 State Street; the Seaview Ave Corridor & LSBP; development of a Regional Discover School.

DOT TIGER II:

Bridgeport was awarded funding under the TIGER II grant program for the Steel Pointe Peninsula Project. This project includes the reconstruction and modernization of urban minor arterial roadways within the City of Bridgeport. Roadway improvements follow the Complete Streets model, including roadway reconstruction, separation/reduction of site drainage, and inclusion of bikeways, enhanced landscaping, and pedestrian connections to the surrounding neighborhoods, Bridgeport’s Downtown Intermodal Transportation Center, and public water front. The roadways to be reconstructed under this project comprise a significant travel corridor within Bridgeport today, and are also the core transportation components of the “SteelPointe Harbor Development”, a planned redevelopment of the Steel Point peninsula into a vibrant mixed-use, transit-oriented, residential and commercial urban community.

EPA Brownfields

Since 1994 the City of Bridgeport has managed over \$7 million of various US EPA Brownfields grants, including site-specific clean up, community-wide assessment, revolving loan fund, and job training grants.

HUD

Over the past five years the City of Bridgeport has received from HUD Community Development Block Grants (CDBG); HOME Program grants; Emergency Shelter Grants; Housing Opportunities for Persons with AIDS; Lead HUD Hazard Mitigation

Grant; and Homeless Prevention and Rapid Re-housing funds. The city has received approximately \$7.3 million per year for these programs.

HUD Lead Hazard Control

The City of Bridgeport has been successful in the past 10 years in securing a HUD Lead Hazard Control Grant. The last funding for over \$ 3 million was awarded in December 2010 for the grant cycle 2011-2014. Identified locally as the Bridgeport Lead Free Families Program (BLFF), an intervention and prevention program structured to reduce lead hazards for low and very low-income children (ages six and under) in targeted neighborhoods located throughout the City of Bridgeport. The City is moving to build on the existing Lead grant and expand to the Healthy Homes concept. With the 2010 Lead grant award, the City also received \$100,000 for Healthy Home initiative. Homes with lead-based paint hazards often have other important health hazards that could be addressed at the same time. The concept is that it is more efficient and cost-effective to identify and mitigate multiple health hazards, rather than follow the traditional approach of addressing individual hazards.

HUD Sustainable Communities

Bridgeport is part of an unprecedented bi-state collaboration of nine cities, two counties and six regional planning organizations that have come together to form the New York-Connecticut Sustainable Communities Consortium. With support from the states of New York and Connecticut, the Consortium is designed to integrate housing, economic development, transportation and environmental planning in the metropolitan region. Working together, the Consortium will develop livable communities and growth centers around existing and planned transit to enhance affordable housing efforts, reduce congestion, improve the environment and continue to expand economic opportunities. A central goal is to link strategies, on a metropolitan scale, to develop mixed-income housing, employment and infrastructure in locations connected by the region's two commuter rail networks – the MTA Metro-North Railroad and the MTA Long Island Rail Road. The Consortium was awarded \$3.5 million in 2010. With a portion of this grant, Bridgeport will explore the feasibility of a new train station at the core of this transit-oriented development opportunity examining ridership, operations, environmental impacts, infrastructure requirements, station locations, and capital and operating costs. This project will likely be conducted jointly to increase regional collaboration and cut costs.

The SCI planning project will also complete a feasibility assessment of a new commuter rail station on the East Side of Bridgeport as part of a plan to redevelop the area as a transit oriented and supportive area. The city of Bridgeport prepared a city-wide sustainability plan (*BGreen 2020*) that emphasizes the revitalization of the East Side with the construction of a new commuter rail station to serve as the catalyst for redevelopment. The proposed TOD project in Bridgeport envisions the construction of a new commuter rail station on the East Side as the anchor for a revitalization and redevelopment of the area. The surrounding land use is a mix of older vacant, underutilized and deteriorated industrial buildings. The project will reuse and renovate existing structures and remediate brownfield sites and a mix of higher density

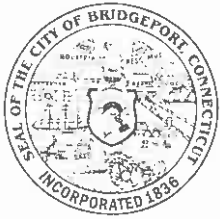
residential units and commercial and industrial activities. The project area also encompasses the planned Seaview Avenue transitway concept. This project will link the port of Bridgeport with the Lake Success Business Park, a ±400 acre industrial site that is currently being remediated for an office park development. The new rail station will be located at the intersection of the New Haven rail line and the transitway.

ARRA

In 2009, the City was awarded \$22,000,000 in grant funds through the American Recovery and Reinvestment Act. Projects included purchase of public safety vehicles and equipment, and hiring of 20 additional police officers (Department of Justice); energy efficiency activities and programs (Department of Energy); Brownfield Revolving Loan Fund for remediation; Community Development Block grant funding for the demolition of the City's Congress Street Bridge, Homelessness Prevention and Rapid Re-Housing, and Neighborhood Stabilization Program to demolish blighted properties and rehab foreclosed properties to resell as supportive housing units (HUD); Port Security funding for Police and Fire Marine Unit equipment (FEMA); and funding for re-paving various City streets.

The City is compliant with all quarterly and annual programmatic and financial reports on all cooperative agreements with federal agencies. The City currently has no adverse audit findings and is not considered "high risk". City departments work in cooperation with the City's Central Grants Office and the Office of the Comptroller to ensure that all contract requirements are met and that the initiatives are in administrative, programmatic and fiscal compliance.

ATTACHMENT D
Federal Wage Rate Certification



OFFICE OF THE MAYOR
CITY OF BRIDGEPORT, CONNECTICUT

999 BROAD STREET
BRIDGEPORT, CONNECTICUT 06604
TELEPHONE (203) 576-7201
FAX (203) 576-3913

BILL FINCH
Mayor

October 24, 2011

To Whom It May Concern:

In accordance with the Federal Wage Rate regulations, I, Bill Finch, as Mayor of the City of Bridgeport, and in conjunction with City's Department of Public Purchases, will ensure that all of our bid solicitations and resulting covered contracts contain Davis Bacon labor standards and wage determinations using U.S. DOT funds.

In addition, I will require all contractors and subcontractors to pay laborers and mechanics at least the prevailing wages as determined under DBA.

Sincerely,

Bill Finch
Mayor