



**Department of Planning &
Community Development**
Mount Vernon Urban Renewal Agency
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Richard Thomas
Mayor

Jaime A. Martinez
Acting Commissioner

February 4, 2016

Mr. Anthony Foxx
Secretary
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

**Re: US Department of Transportation
Smart City Challenge
Southern Westchester Crossing Transit Corridor Initiative**

Dear Secretary Foxx:

The City of Mount Vernon is writing as the lead partner and consortium member of the Southern Westchester Tri-Cities Consortium application to the Smart City Challenge Grant program.

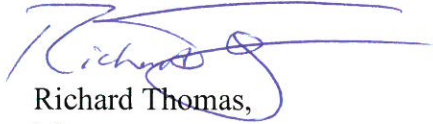
As the lead member of the group, the City feels that the grant's goals are aligned with the planning goals and vision of not only Mount Vernon, Yonkers, New Rochelle and Westchester County individually, but also collectively. We have spent many tireless hours studying the existing transportation network and attempting to deal with the congestion that has arisen from the \$3 billion of transit oriented development activities that serve as destinations throughout this region.

The Southern Westchester Tri-Cities Consortium area resides within the greater New York City Metropolitan Area; where congestion and air quality are major concerns of our residents. Accordingly, we look forward to implementing innovative technological solutions to improve these environmental factors while enhancing the quality of life for our residents. We, the Southern Westchester Tri-Cities Consortium, look forward to

partnering with the US Department of Transportation as our goals and outcomes are shared.

Please find attached the City of Mount Vernon's application for The Smart City Challenge. Thank you in advance for your considerations of our application.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard Thomas", with a stylized flourish extending to the right.

Richard Thomas,
Mayor

City of Mt. Vernon Department of Planning & Community Development
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DUNS #: 098220981

Beyond Traffic: The Smart City Challenge
U.S. Department of Transportation
DTFH6116RA00002
Submitted February 4, 2016

Part 1 - VISION NARRATIVE

The City of Mount Vernon, as lead project applicant, on behalf the cities of Mount Vernon, Yonkers and New Rochelle, requests a grant of \$100,000 from the U.S. Department of Transportation Smart City Challenge to develop a Southern Westchester Crossing Transit Corridor Initiative.

The Southern Westchester Crossing Transit Corridor Initiative primarily seeks to enhance the connectivity of the transit oriented development (TOD) within the three cities, to boost public perception of the region's mass transit use and to incorporate complete streets within a defined zone that connects the partnering cities to collaborate on the project. The project goals are congruent with the planning goals and vision of the participant cities.

We envision a Bus Rapid Transit ("BRT") system which resembles "at-grade" or an above-grade fixed or semi-fixed system that operates on a route that improves the Westchester County Bee Line's existing #7 bus route. The new BRT vehicles will ideally be fully electric, semi-automated and include capacity to transport parcels, bicycles and people through and around Mount Vernon, New Rochelle and Yonkers (Southern Westchester County). Fares will be collected using a one card system, the BRT will feature Wi-Fi access, and be "state of the art" handicap-accessible. Bus shelters will be rider and pedestrian friendly and constructed using "green" materials.

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In an effort to maximize the speed and efficiency of the BRT, the Southern Westchester East-West Corridor route will feature signalization enhancements that minimize the adverse environmental degradation that accompanies traffic congestion. The Southern Westchester Crossing East-West Corridor will also include bike paths and complete streets to create more intermodal facilities.

The Westchester County Department of Transportation ("WCDOT") budget allows them to maintain its existing infrastructure with limited monies or capital improvements. Smart City Challenge funds will allow the Consortium to conduct a major investment study and acquire "cutting edge," "next generation," fuel- efficient transportation options and technology.

Mount Vernon, New Rochelle and Yonkers are very urbanized cities located as first ring inner suburbs of the New York City Metropolitan Area. Combined, the Southern Westchester region is home to 340,330 residents and approximately 35% of Westchester County's total population and would also be the 2nd largest city and 3rd most densely populated city in the State of New York (10,391 people per square mile/4,243 housing units per square mile). While each municipality boasts train station(s) with rail services to midtown Manhattan the linkages within and between the communities along an east west corridor is virtually nonexistent. With a region this large, the transportation system lacks the capacity to adequately serve a population of this size.

Yonkers is located between the Hudson River on the western side of Westchester County and the Bronx River along its eastern border and is the fourth largest city in New York State and the largest in the County. New Rochelle is a coastline city on Long Island Sound on the eastern side of the region and is the seventh largest

city in the state and the second largest in the county. Mount Vernon is centrally located in the Southern Westchester region and is the eighth largest city in the state, third largest in the county and the second most densely populated municipality in the State. Together, they represent approximately one-third of the population of Westchester County and are comprised of large clusters of dense, mixed income communities adjacent to New York City. According to the 2010 Census (SF1) if this Tri-City area was a single unit, it would be the 2nd largest city (340,330 population), and the 3rd densest (10,391 persons per sq mi/4,243 housing units per sq mi) in New York State.

The cities developed over time first as communities separate from New York City as evidenced by their commercial and industrial bases. Later, after WWII as havens for commuters to New York City. All three communities offer exceptional cultural, socioeconomic and physical diversity and are built-out cities that are generally characterized by sprawling residential neighborhoods that cocoon a more densely developed aging downtown. Each city has also experienced a wave of residential and commercial investment in the past two decades that lays a strong foundation for future growth. However, the cities all face a host of development and economic challenges, which have been compounded by the recent nationwide economic recession. Each respective city is in the process of analyzing downtown development and considering zoning or comprehensive plan changes to help spur revitalization.

Due to Westchester County's strategic location there are ample connections, in a north-south direction via rail and car including four parkways, two interstate highways and three rail lines. Each city benefits from its proximity to New York City with connections to local rail service available from Metro-North on three

(3) different train lines running north and south through Westchester County but the rail lines do not connect until they meet in New York City. New Rochelle, Mount Vernon and Yonkers are each located within a short distance to NYC subways and provide easy access to the surrounding region via rail and several interstate highways. While each municipality boasts train station (s) with rail services to midtown Manhattan the linkages within and between the communities along this east west corridor are virtually non-existent, except for the No. 7 Westchester Beeline bus, which travels from a terminus at the New Rochelle Intermodal Transit Center to another terminus in Yonkers. This grant will afford our collective the opportunity to evaluate and implement a transit corridor in an east-west direction resulting in a connection between all three respective downtowns.

Currently, the No. 7 bus route, which is approximately 11.5 miles long, takes more than an hour to travel from end to end and is the sole east-west link. Within a half-mile of this bus route there are five regional rail train stations; however, the bus only stops at two of them. While the buses are synchronized with the train schedules, heavy congestion prevents the buses from efficiently making the connections for passengers. The five train stations include Yonkers on the Hudson Line, Mount Vernon West on the Harlem Line, and Mount Vernon East, Pelham and New Rochelle along the New Haven Line. This lack of connectivity makes for a more cumbersome commute for train riders seeking to ride a bus for the final leg of their commute. The Metro North Stations of Mount Vernon, Yonkers and New Rochelle have an average combined daily ridership of 21,928 (NYMTC), Pelham station has an average daily ridership of 5,036. Additionally, there is a failure to connect riders to other transit linkages within this identified Southern Westchester Transit Corridor.

Along or near the route that the No. 7 bus traverses there are 6 colleges, 4 hospitals, 12 schools, a shopping center, an entertainment complex, dozens of restaurants, and several neighborhoods where the median income is well below the area median income of \$106,500. The lack of connections to local rail stations and each municipality's respective downtown means that people in this transit corridor have limited job opportunities, are not easily linked to educational opportunities nor do they have ready access to supermarkets or recreational activities.

The goal of this application is to fund a "state-of-the-art", innovative, reliable, and affordable east west transportation corridor with a BRT as the anchor. The existing corridor that the No. 7 bus traverses is primarily residential and has the potential to serve as a vital link to three (3) different rail lines and at least five (5) train stations and several bus routes and provides a unique opportunity to spur regional job growth; address inequities within and just beyond the corridor with respect to income, jobs and transportation options; enhance connectivity to the area train stations and within each respective community and promote public health by addressing the potential pedestrian and bicycle traffic – a concept commonly referred to as "complete streets."

The Southern Westchester Crossing Transit Corridor Initiative can potentially enhance and increase economic development along the corridor. Westchester County is already a 2011 IRS SECTION 42(d)(5)(B) METROPOLITAN DIFFICULT DEVELOPMENT AREA. The initiative stands to also position the participating municipalities to assess the impact a robust, targeted transportation system can have on our region while making our region more appealing to the Millennial demographic.

The Southern Westchester Crossing Transit Corridor Initiative will support increased transit-oriented and mixed-use development that will spur global community revitalization. The initiative will seek to capitalize on the availability of goods and services or opportunities in each respective downtowns that are not available to residents in the non-participant communities. The Southern Westchester Region is ethnically very diverse and enjoys physical and historical differences that make visiting the various municipalities within the region worthwhile. Creating an ability to easily access the several downtowns via transit will improve the vitality of the struggling downtown areas, especially in relation to their competitiveness with surrounding suburban areas. The downtowns when connected would collectively comprise the single largest TOD in Westchester County.

Each city is currently pursuing TOD rezonings along the corridor in Yonkers (Downtown), Mount Vernon (Mount Vernon West and Mount Vernon East), and New Rochelle (Downtown). Throughout the Corridor there are multiple “soft sites” that are currently underdeveloped--(Mount Vernon West), Garden Street (New Rochelle) or undeveloped (Mount Vernon East). The four main Metro North Rail Stations combined have an average daily ridership of 21,928 (NYMTC), the fifth, Pelham station has an average daily ridership of 26,964. Southern Westchester Crossing Transit Corridor Initiative will increase the number of commuters and create new revenue streams to benefit neighborhoods and communities within immediate proximity of the route. Further, the study can identify where local capital spending can be coordinated along the corridor by the various communities comprising the region.

The Southern Westchester Tri-City Region can boast that along the Westchester Crossing Corridor there are four County or State parks: The Old Croton Aqueduct trail (Yonkers), Dunwoodie Golf Course (Yonkers), the Bronx River Reservation (Yonkers/Mount Vernon) and Wilson Woods Park (Mount Vernon). There is also access to the Hudson River waterfront in Yonkers and to Hudson Park Beach, along Long Island Sound in New Rochelle; however, there is no link to these local and regional recreational spots from the rail lines or via the local bus routes within each municipality. Connections with the rail and bus lines have the potential to shepherd residents and tourists to these valuable community resources. Tourism is an underutilized development policy with great potential given the nature of our three communities and the pool of interested persons in NYC.

We anticipate the following Transit changes to become manifest as a result of our

Output	Outcomes	Performance
East-West connections across the three municipalities	--Increased connectivity to existing sustainable transportation investments --Reduced carbon emissions footprint	-Increased BRT ridership --Increased intersection density (pedestrian) --
Increased transit linkages	Increased walking, cycling & localized public transit use	Analyze bus (BRT) ridership and number of automobile-less households
	Regional transportation planning	
	Identify opportunities	

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Output	Outcomes	Performance
	Creation of a viable environmentally friendly, transformative transportation corridor	

Our consortium has a tremendous level of local and regional support to assist in developing our plan. First and foremost, the three municipalities are joined in the consortium with three major regional players. The Regional Plan Association and Patterns for Progress are the major voices for transit oriented development, sustainable development and increasing overall competitiveness with the New York metropolitan area. The New York Metropolitan Transportation Council is our region's Metropolitan Planning Organization, which includes Long Island, New York City and the Hudson Valley, proves to be a continued invaluable resource to our collective. On a local level, the consortium has garnered far reaching support from hospitals, Chambers of Commerce, Business Improvement Districts, community based organizations and employment centers. Paramount among these centers is the Empire City Casino at Yonkers Raceway, which has expressed an interest in making a portion of their parking areas available as a park and ride facility valued at \$1.5 to \$2.5 million annually if this proves to be a viable feature of our plan.

The consortium has also begun to reach out to various levels of County and State governments for guidance and assistance. Westchester County Department of Transportation own and operate the Region's transit system and are able to implement any form rapid transit improvements that are made. Westchester Departments of Planning, Parks and Economic Development will also be invited

to play a role in sharing information and advocating for the transit improvements. The New York State Department of Transportation will provide their technical research and expertise to guide the establishment of a new transit alternative. Lastly, the Empire State Development Corporation will be asked to provide funding or other assistance to assist this Southern Westchester Region become more economically competitive.

As the lead participant, the City of Mount Vernon's leadership is committed to the planning and implementation of the Southern Westchester Crossing Transit Corridor Initiative and welcomes the participation of the U.S. Department of Transportation in assisting in the City's vision a reality.

The Southern Westchester Crossing Transit Corridor Initiative aligns with the following key USDOT vision elements:

Technology Elements

Connected Vehicles – It is the Region's vision to integrate intelligent technology systems and information and communication technology to prevent buses from clumping. This keeps passengers abreast of the bus's schedule in "real time".

Intelligent, Sensor-based Infrastructure – The Region envisions that our BRT vehicles will have transit signal priority more efficient service.

Smart City Elements

Architecture and standards

The Consortium has been using form based zoning and complete street elements to foster an enhanced pedestrian experience along the Region's commercial corridors and around transit oriented development downtown nodes and

centers. The Consortium's members have all been using architecture and design features to create places that are only destinations but also provide a safe and inviting experience for residents, visitors and business owners alike.

Innovative Approaches to Urban Transportation Elements

Smart Grid, Roadway Electrification and Electric Vehicles-- The Consortium envisions a fixed or a semi-fixed guide way; in which, electric road infrastructure would be source of the BRT's fuel system.

Key Technical, Policy, Institutional Vision Deployment-related Risks

The following are some of the major risk factors associated with our project:

Alignment of Intellectual, Political and Fiscal Capital and Priorities Among the Participating Government Entities—Our biggest risk is ensuring that the technology is advanced enough to minimize to legal exposure in which the Consortium members may face due to limited testing and limited use of such technology.

Cost-related Limitations to Long-term In Kind Participation by Municipal Staff—As budgets become more constrained and tax payers demand increased services and a greater return on the investment of their tax dollars, it becomes more difficult for decision makers to stay committed to external projects to maintain their involvement at the expense of other pressing matters that may require their immediate attention.

Financial Equity-- One potential problem could result from the consortium member's distribution of financial resources. This obstacle will be mitigated by having the Consortium members participating in Memoranda of Understanding that details each members' roles, rights and responsibilities.

We will continue to mitigate our losses from these adverse factors by sustaining the practices within our group that has yielded the strong working group we have in place today. This includes maintaining open lines of communication, maintaining an environment of cooperation, and very effective problem solving.

Capacity

Southern Westchester Crossing Consortium has a broad depth of capacity and experience in implementing the proposed project. The Cities of Yonkers, Mount Vernon and New Rochelle are direct entitlement cities with decades-long experience administering CDBG, HOME and other HUD funds. This has entailed creating thousands of affordable housing units throughout the corridor and revitalizing low and moderate income areas within each city. The Planning and/or Development Departments of each city also have experience implementing complex projects, managing budgets of varying sizes, and hiring consultants to fulfill numerous contract deliverables.

City of Yonkers

Wilson Kimball is the **Commissioner of Planning and Development** for the City of Yonkers. Prior to serving as Commissioner, Kimball held the position as Deputy Commissioner of Planning and Development. Kimball leads negotiations of multi-million dollar property sales and coordinates development of public and private projects ranging from \$3 million to \$500 million.

Lou Albano, Deputy Commissioner of Planning & Community Development.

Mr. Albano is the former Planning Commissioner of Mt. Vernon's Department of Planning & Community Development and Executive Director of the Urban Renewal Agency.

Mario Caruso, AICP, Grants Manager – is a 20 year veteran of planning and grants management and he has served a variety of roles including managing capital streetscapes programs and providing professional and administrative staffing to the city's Planning Board and Landmarks Preservation Board. Mr. Caruso will be the primary grants administrator and project manager for this study.

City of Mount Vernon

Jaime Martinez is the Acting Commissioner of Planning & Community Development, is responsible for establishing and setting policies in regard to the overall development and comprehensive planning for the City of Mount Vernon.

William Long is the Planning Administrator for the City of Mount Vernon and the primary contact person for this project. Mr. Long has 15 years of planning, GIS and economic development experience.

Steve Lawrence is the Research & Grants Administrator for the City of Mount Vernon and will assume administrative and reporting responsibility for this project in cooperation with William Long. Mr. Lawrence has over 12 years experience in research and grants administration.

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City of New Rochelle

Luiz Aragon, MBA – Director of Planning, has over two decades of governmental experience in New York City and upstate New York. His broad expertise includes community development, economic development and revitalization, housing, planning, transportation, and environmental management. Mr. Aragon served as Commissioner for Planning & Environmental Management for Sullivan County, NY and Deputy Commissioner for Preservation Services for NYC’s Department of Housing Preservation & Development (HPD) among other prestigious appointments in his field.

Jeremy Schulman, AICP has worked with the city for over 13 years and as Economic Development Manager for the past seven years and brings a wealth of experience in working with state officials for economic development.

Southern Westchester Tri-Cities Consortium’s Existing Transportation Infrastructure and System Features

The existing transportation infrastructure within the three cities is disjointed and unconnected. The current transportation network features uncoordinated traffic signals, heavy congestion, cumbersome wait times for bus riders and a host of other environmental impacts which are derived from such congestion. All of these factors impact and devalue the quality of life for the residents within this region.

Arterial Miles

Currently, the buses are synchronized to arrive at the train stations along the corridor when the Metro-North Commuter Trains arrive at the stations. However, due to heavy congestion along this major arterial, trains riders find it difficult to make the appropriate bus connections for commuting purposes.

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Accordingly, the corridor is approximately 11¹/₂ miles long and it generally takes 1 hour and 15 minutes to traverse the entire route by bus. Riders find this extremely inconvenient which leads to only those without any other means of transportation to use this insufficient mode of transportation within a region of this magnitude. Currently, various studies of the corridor have been conducted. The most recent is a bus route study for the #7 bus which traverses the corridor.

Metro-North Commuter Train Service

Currently, the Southern Westchester East West Corridor traverses the Hudson, Harlem and New Haven Lines of the MTA Metro-North Railroad which provide rail service south to New York City and north to Putnam and Dutchess Counties in New York and to various cities within Connecticut. By doing so, this corridor is home to four MTA Metro-North Train Stations. This corridor is the linkage into each individual municipality's downtown. The bus that transverse the route is able to connect passengers to other bus routes which lead into New York City, the City of White Plains and cities in Connecticut.

Highways

The corridor links to three major "north-south" highway systems together because it runs east and west. The corridor provides vehicular traffic to the Saw Mill River to the west, New York State Thruway (I-87), the New England Thruway (I-95) to the east and the Bronx River Parkway and Hutchinson River Parkway in between.

Shared-use Mobility Services

The region lacks shared-use mobility services. The three cities have been seeking ways to include more shared-use mobility services such as shared bike opportunities and zip car. Zip car was attempted and proven to be unsuccessful

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due to the lack of infrastructure. In 2010, a study was conducted to explore the feasibility of bike share in the region, however; no definitive steps have been taken to implementation. All three communities lack the infrastructure to support shared-use mobility services at this time.

Amtrak Service

Amtrak services two lines within the region which leads to the City of Albany and the City of Boston. Amtrak experiences approximately 61 daily riders at its Downtown Yonkers station and approximately 232 daily riders at its Downtown New Rochelle location. Amtrak does not provide any service in the City of Mount Vernon.

Information and Communication Technology

Information and Communication Technology is used primarily by the Metro-North Commuter Rail Road at its station for “real-time” events as to when riders can expect the next train or delays. Amtrak offers this service as well. At this time, however; the Westchester County Beeline and Westchester County Department of Transportation and local Department of Public Works and/or Transportation do not afford this information to its citizens due to lack of funding. This grant would assist us providing greater access to information and communication to underserved populations.

Inter-modal Facilities

The Southern Westchester East West Corridor Communities consists of four major inter-modal facilities. These facilities include four train stations the second, third and fourth busiest bus terminals in the County. These major hubs hosts taxi stands for local trips for people not wishing to wait for a bus or train.

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In recent years, the incorporation of bicycle racks has been included to foster an additional means of getting around.

Walkability

The Southern Westchester East West Corridor Communities are very walkable.

The communities have extensive sidewalk networks.

Reverse Commutes

Reverse commuting has become an emerging trend in the Southern Westchester

East West Corridor Communities. This trend is shown by 15% of Downtown

Yonkers daily Metro-North Commuter Railroad riders as reverse commuting.

While Mount Vernon East Metro-North Commuter Railroad Station riders

experienced 34% of its daily riders reverse commuting. Mount Vernon West

Metro-North Commuter Railroad station saw 40% of its daily riders reverse

commuting and Downtown New Rochelle evidenced 9% of its daily riders

reverse commuting.

Intelligent Transportation Systems (ITS)

Intelligent transportation systems have not yet been implemented within this

region. The region in order to do so, would need fixed guide way system and

infrastructure. This grant would allow the region to explore.

Smart Grid Infrastructure

From a transportation standpoint, the consortium members are being asked to

implement smart grid infrastructure. This infrastructure includes using electric

and hybrid vehicles as part of our existing transportation network. The

consortium members have also embraced New York State's initiative of solar

panels on roofs. Accordingly, the members integrating solar panels as alternative sources of energy into building design and infrastructure design.

Data the Southern Westchester Tri-Cities Consortium Currently Collects

Define the data currently collected

The data collected is public feedback such as origin/destination studies. We propose to use one card system (MetroCard) to conduct bus counts. We analyze fare box recovery to determine that the number of trips provided are justified through the cost per ride. We assess the amount of time buses actual use to complete a route. We further determine the peak use of the bus system and the peak use of each bus within the system. We collect operational data such as the number of times a vehicle may be used before preventive maintenance is needed to keep the rolling stock functional. We examine land uses both present and future for population projections as well as for destination purposes. We explore parking and parking policies within the Region to determine whether foster mass transit use or not. We examine local policy initiatives within the each municipality to determine that our transportation system is keeping up with development pressure within the individual locality.

Describe the way data collected may be used by the lead agency, project partners

The data will be “state of art” technology; wherein, real time data is collected for automated passenger analysis. It allows us to collect data for “real time” planning. This allows for “up to the minute” information about system delays, early arrivals, accidents, alternatives routes which allow the rider to better approximate the time to reach their destination.

Describe the integration of transportation data could integrate with other functions

To ensure connectivity between service providers such as neighboring MTA New York City's Subway and Bus Transit system, the data will be shared. We are committed to providing information to New York City's Subway and Bus Transit system because we currently share a "one-card" system called "MetroCard"; wherein, passengers are able to transfer between our Westchester Beeline System and the New York City transit system.

We want to continue providing data to the MTA Metro-North Railroad because there are five commuter train stations within the aforementioned area. Metro-North Railroad will continue to be afforded information so that if a train were to become inoperable, buses could be deployed immediately so that there is minimal service disruption.

This coordination is essential for emergency situations particularly as they pertain to at-risk populations. At-risk populations are to become more vulnerable during emergency situations and continuing coordination prevents at-risk populations from being susceptible to further calamity.

Describe the way other data could improve transportation operations

The data will improve transportation operations by allowing for better service planning. The transit operator will be able to track load capacity in "real time." This is extremely helpful during special events such as sporting events or concerts because it allows for additional buses to be brought into service as needed. "Real time" also allows for the service operator to know exactly where the vehicles are located in the system; therefore, if a vehicle were to become inoperable, a new vehicle could be deployed immediately to the location.

Describe existing policies that will be used to collect data

The data that will be collected as result of the deployment of the system will be ridership and usage. This data will also include an understanding of whether the new infrastructure will add into the existing system and justify the investment. The data collected currently includes the fare box recovery ratio. The data consists of automated fare collection system. Currently system-wide transaction data is captured and comprehensive data records on usage are collected for travel behavior research. The data is compiled for spatial and temporal behavior of commuters which includes mode choice, travel, waiting times and performed. The Consortium evaluates planning and management. Easy to board analysis is aggregated. We explore new demonstration data for the express stops. The Consortium conducts transit studies. We assemble short term bus improvements. We amass travel time savings, reliability data, identity and branding data, safety and security analysis and capacity information. Load factors, traffic data, schedule compliance, financial data and ridership information are collected.

Describe the terms of partnership agreements

The anticipated partnership agreements will be between the consortium members and Westchester County. Westchester County is the owner and operator of the surface transit system in Westchester County. The intent is to have the BRT operate under the Westchester Beeline Transportation Network of which the details will be developed during the grant procurement process.

Southern Westchester Tri-Cities Consortium's Approach For Using Existing Standards, Architectures And Certification Process For ITS

Use of Existing Standards

The Consortium members will use ITS standards, architecture and certifications process to create a BRT system; wherein, the signal prioritization and bus trackers will be used to keep passengers informed of bus movements while allowing buses to stay "on" or "close" to schedule.

Connected Vehicle Based Technology

The BRT system operated in this Region would consist of a fixed or semi-fixed guideway; wherein, autonomous vehicles would be deployed to operate at a fixed time in synchronization with other vehicles in the system. These autonomous vehicles would have the appropriate technology to understand or sense pedestrians and other vehicles or hazards that may enter the guideway system unexpectedly without causing any accidents. The Consortium members are committed to creating a more attractive mass transit system to encourage more people within this Region to use mass transit. Currently, the riders are typically people without any other means of transportation. This BRT system which may be comprised of autonomous trolley/electric street cars or autonomous buses, would attract other users to ride and use the system such as the case in many cities/regions of this size.

Plans for documenting experiences

The County, as the operator of the transit system, could potentially be responsible for documenting most of the experiences. The County is best poised to do so because they have the infrastructure and facilities in place to track, document and suggest the appropriate changes needed to ensure efficiency of the service that is being offered. The County could assume responsibility for

monitoring the architectural standards of the developers, the operation of the system, its vehicles, safety and infrastructure. The County will take performance measures, train staff on the use of new equipment and seek customer feedback which will be reported to the architects, pioneers and standards developers as to ways in which the system can be improved and the lessons learned can be shared with the masses so that the same mistakes or mishaps do not occur again. This also leads to enhanced experiences for future riders.

Project Goals, Objectives, Approach & Monitoring

The goals of the project are to create a corridor that through the use of Intelligent Transportation Systems, adoption of a Bus Rapid Transit System and the Implementation of Complete Streets, that we will see an increase in overall bus ridership, a decrease in the amount of time it takes the bus to traverse the corridor (currently over an hour for an 11 mile stretch), as well as an increase in the number of commercial and non-bus vehicles in the corridor while simultaneously decreasing existing issues of excessive queuing throughout the corridor.

We also believe that the implementation of complete streets will lead to a dramatic increase in the amount of bike traffic in the corridor. Therefore, we will measure the growth of BRT ridership over the life of the grant and beyond, while also measuring the impact on the numbers of non-bus vehicles in the corridor. We anticipate that as the Corridor does a more efficient job of moving buses through it, the same will occur for commercial vehicular traffic. Ultimate proof of concept will be considered if we are able to evidence substantial growth in ridership, shorter bus times, and increased vehicular traffic in the corridor while

simultaneously decreasing vehicle queue times. We would also measure semiannually the number of bike riders utilizing the corridor in order to measure the growth of bike-ridership.

Capacity & Capabilities

The Southern Westchester Tri-Cities Consortium, along with Westchester County has both the capacity and commitment to take on a project of this magnitude. Currently, amongst all three Cities there is more than \$3 Billion in ongoing planning projects involving multiple rezoning, comprehensive plans and master plans, and each City, as well as the County have multiple dedicated and experienced planning staff members that are prepared to take on this initiative through the planning phase. Moreover, Westchester County oversees a Bus system that has 60 distinct bus routes traveling over 1100 miles of road with a fleet of over 325 fixed route buses and 91 para-transit vehicles. We feel strongly that between the experience of the Cities and the County that we are fully capable of handling the responsibilities associated with planning, design, implementation and data collection and management that are necessary to get the job done.

The Tri-Cities and Westchester County also have a long standing commitment to focusing on strengthening the transportation network in this corridor evidenced in the over seven (7) years of ongoing collaboration in working on identifying solutions to the transportation dilemma. As recently as May 2014, through funding provided by the Federal Community Challenge Planning Grant program and the New York/Connecticut Sustainability Consortium, this corridor was studied and was identified by the New York Metropolitan Transportation Council (our regional Metropolitan Planning Organization) as a priority area for Major Future Study. It was through this process that we identified complete

streets and bus rapid transit as keys to economic growth in the corridor. The study also identified zoning principles and strategies which have since influenced the direction of planning in the corridor in the years since, including the implementation of form-based transit-oriented-development zoning changes.

Leveraging US DOT's Investment

The City of Mt., Vernon will endeavor to leverage the U.S. DOT Smart cities Challenge grant to win New York State Consolidated Funding through the Mid Hudson Regional Economic Development Council and additional support as a result of the project's designation as a Regional Priority Project.

This initiative will also be leveraged to establish partnerships with at least one (1) major college or university where students will avail themselves of the opportunity to participate in the project's implementation through internships.

THE SOUTHERN WESTCHESTER CROSSING

PROPOSED CORRIDOR OF BUS RAPID TRANSIT AND COMPLETE STREET NETWORK

