



State of Rhode Island and Providence Plantations

Interoffice Memorandum

November 12, 2015

To: Jared Rhodes, Chief
Rhode Island Statewide Planning Program

Department: Administration

From: Meredith E. Brady
Planning & Program Development

Department: Transportation

Subject: Request for TIP Amendment

In late October 2015, RIDOT received a seventh round Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant for a Rhode Island Travel Plaza and Transit Hub in 2015.

RIDOT hereby requests a minor amendment to the Major Projects category of the FFY2013-2016 TIP to show the \$9 million in discretionary grant funds (and \$3 million in state match) in FFY2016. The \$9.0 million for the Travel Plaza and Transit Hub should be shown as federal discretionary grant funding, and the source of the state match (\$3.0 million) will be the Highway Maintenance Account, which will have available funds in FY2016 of approximately \$20 million in excess of available state revenues programmed in the current FFY2016 TIP. Neither allocation will reduce, nor otherwise impact, funds already committed as part of approved FFY2013-2016 TIP: fiscal constraint is maintained.

Line Item	TIP Category	Funding	Current TIP Amount (Millions)	New TIP Amount (Millions)
Rhode Island Travel Plaza and Transit Hub	Major Projects	Federal TIGER Discretionary Grant	\$0.0	\$9.0
		State Matching Funds	\$0.0	\$3.0

Please let us know if you require additional information regarding this request. Thank you for your assistance in this matter.

State of Rhode Island
Transportation Improvement Program 2013 - 2016
(Total Cost Shown in Million Dollars)

Amendment 6
Draft November 12, 2015

Project/Program	Town/City	Limits	ID	Phase	2013	2014	2015	2016	FUT	Funding*
<u>Major Projects with Multi Year Funding</u>										
Providence Viaduct Bridge No. 578, Rehabilitation	Providence	146 interchange to Atwells Ave	0156F	C	\$1.00	\$20.00	\$20.00	\$20.00		Bridge
	Providence	146 interchange to Atwells Ave	0156F	C	\$10.00					TIGER
Rhode Island Travel Plaza and Transit Hub	Hopkinton	20-acre site at I-95 Exit 1		C				\$12.00		TIGER 75
Major Projects with Multi Year Funding - Program Total					\$119.38	\$68.39	\$74.36	\$84.59	----	

Pavement Management Program

Pavement Management Design and Right of Way				DR	\$3.00	\$3.00	\$3.00	\$3.00		STP
Crack Sealing		Statewide		C	\$1.00	\$1.00	\$1.00	\$1.00		STP
Paver Placed Elastomeric Surface Treatment		Statewide	0085D	C	\$1.50	\$1.50	\$1.50	\$1.50		STP
Surface Sealing		Statewide		C	\$2.00	\$2.00	\$2.00	\$2.00		STP
Local Roads Program	Statewide	Federal Program		C	\$4.30					STP
Victory Highway	Burrillville	Main Street (Cooper Hill Road) to Rt. 107 (East Ave.) Contract-1	0177G	C	\$1.00					NHS
	Burrillville	Route 7 to 0.5 miles south. Contract-2 Phase III		C	\$0.50					NHS
US Route 44 Putnam Pike	Glocester/Smithfield	RIDOT Maintenance Facility to West Greenville Rd. Contract - 3B	0061A	C	\$3.75					STP
Central Avenue and Sunset Avenue	Johnston, Providence	Atwood Avenue (Route 5) to Killingly Street	0172D	C	\$1.00					STP
Railroad Street /Manville Bridge No. 396	Lincoln	Main Street to Woonsocket City Line (Old River Road)	0165J	C	\$0.63					Bridge
	Lincoln	Main Street to Old River Road	0165J	C	\$2.50					STP
Broadway No.	Newport	Washington Square to Bliss Road	0172U	C	\$3.00					STP
Ocean Avenue	New Shoreham	Beach Avenue to Bridge Gate Square (Corn Neck Road)		C	\$0.40					STP Rural

P: Planning S: Study D: Design R: Right of Way C: Construction O: Operations

* See Page 14 for Funding Category Descriptions

**State of Rhode Island
Transportation Improvement Program 2013 - 2016
Project and Funding Detail**

Amendment 6
Draft November 12, 2015

Project/Program	(Funding Shown In Millions)					Description
-----------------	-----------------------------	--	--	--	--	-------------

Major Projects with Multi Year Funding

	Year	Total Cost	Federal	State	Other	Funding ¹	
I-195 Relocation - Providence River Pedestrian Bridge Providence To be constructed in IWAY Contract 16	2015	4.000	0.000	4.000	0.000	GARVEE-Land Sales	Phase: Construction The Providence River Pedestrian Bridge will span the Providence River along the alignment of the former I-195. It will be supported on the original I-195 bridge pier bases. The bridge is designed to provide a route for pedestrians and bicycles across the river connecting shared use paths along South Water Street to paths on the west leading to the Knowledge District and Downtown Providence. The bridge will include gathering spaces for public events. The paths on the east and west approaches will go through proposed waterfront parks with public amenities.
	2015	2.000	1.600	.400	0.000	Bridge	
	Totals	6.000	1.600	4.400	0.000		
Sakonnet River Bridge No. 250 0031K Portsmouth, Tiverton Main Bridge Non-GARVEE Funding	2013	16.000	12.800	3.200	0.000	Bridge	Phase: Construction This line item provides the funding for the remaining funding of the Sakonnet River Bridge.
Pawtucket Bridge No. 550 0143G Pawtucket I-95 over Pleasant St., Taft St., & Seekonk River	2013	10.000	8.000	2.000	0.000	Bridge	Phase: Construction This line item provides the funding for the remaining funding of the I-95, Pawtucket Bridge.
	2013	10.000	8.000	2.000	0.000	NHS	
	Totals	20.000	16.000	4.000	0.000		
Providence Viaduct Bridge No. 578, Rehabilitation 0156F Providence 146 interchange to Atwells Ave	2013	10.000	10.000	0.000	0.000	TIGER	Phase: Construction This line item provides the funding for the design, row costs and construction of the I-95 Providence Viaduct Bridge.
	2013	1.000	.800	.200	0.000	Bridge	
	2014	20.000	16.000	4.000	0.000	Bridge	
	2015	20.000	16.000	4.000	0.000	Bridge	
	2016	20.000	16.000	4.000	0.000	Bridge	
	Totals	71.000	58.800	12.200	0.000		
Rhode Island Travel Plaza and Transit Hub Hopkinton 20-acre site at I-95 Exit 1	2016	12.000	9.000	3.000	0.000	TIGER 75	Phase: Construction This line item provides the funding for the design, row costs and construction of a Travel Plaza and Transit Hub off of I-95 in Hopkinton.

Major Projects with Multi Year Funding	Totals	346.720	295.920	50.800	0.000	
---	---------------	----------------	----------------	---------------	--------------	--

¹ See Page A-31 for Funding Category Descriptions



Rhode Island Travel Plaza and Transit Hub

Creating A Multimodal Gateway into Rhode Island

- ✓ Promotes transit use and reduces single occupant vehicle travel throughout the State
- ✓ Promotes carpooling and transit use for commuters and tourists
- ✓ Relieves congested areas of I-95
- ✓ Provides much needed travel amenities
- ✓ Promotes tourism
- ✓ Results in a positive benefit-to-cost ratio of 4.02

RIDOT TIGER Discretionary Grant Application

Rhode Island Travel Plaza and Transit Hub

Contact Information

Peter Alviti, Jr., PE, Director

Rhode Island Department of Transportation

peter.alviti@dot.ri.gov

Two Capitol Hill | Providence, RI 02903

401.222.2481 x4000



Table of Contents

Evaluation Criteria and Readiness Summary	2
I. Project Description	5
II. Project Parties	8
III. Grant Funds and Sources/Uses of Funds	8
IV. Selection Criteria	9
a. Primary Selection Criteria	9
a.i. Safety	9
a.ii. State of Good Repair	9
a.iii. Economic Competitiveness	11
a.iv. Quality of Life	13
a.v. Environmental Sustainability	13
b. Secondary Criteria	14
b.i. Innovation	14
b.ii. Partnership	14
c. Results of Benefit-Cost Analysis	14
V. Demonstrated Project Readiness	16
a. Technical Feasibility	16
a.i. Financial Feasibility	16
a.ii. Project Schedule	16
a.iii. Required Approvals	16
VI. Project Costs & Benefits	17
VII. Federal Wage Rate Certification	19
Letters of Support	20
B/C Calculations	25

Dear TIGER Evaluation Team:

One of the most vital components of a healthy economy and quality of place is an efficient and sustainable transportation system. Throughout the country, transportation infrastructure is a key catalyst for economic growth, innovation, and environmental sustainability. In Rhode Island, transportation infrastructure is one of the state's most important assets.

Project Benefits/Summary

- Reduces single occupant vehicle travel throughout the State
- Promotes carpooling and transit use for commuters and tourists
- Relieves congested areas of I-95
- Provides much needed travel amenities
- Creates jobs and promotes tourism

Application Overview

The application document that follows responds to notices published in the Federal Register. We have carefully read and complied with the application requirements and are prepared to meet the expectation for future accounting, reporting and certification.

Rhode Island is the second most densely populated state in the nation, yet the state's transit usage is below the national median transit use. Interstate 95, as it passes through the state, is heavily traveled – carrying over 220,000 (RIDOT, 2012) vehicles each day. Built in the 1960s to accommodate a fraction of today's demands, this stretch of I-95 is plagued by chronic congestion and vehicle crashes. This is exacerbated by limited commuter options which has resulted in single occupant vehicle travel further straining the limited roadway capacity.

Recognizing that widening I-95 is not an option, the Rhode Island Department of Transportation (RIDOT) leadership is focused on transit and travel demand management to help intercept single occupant vehicles before they enter the congested areas of I-95 – addressing the chronic delays and crashes using a sustainable approach without adding new highway lanes.

RIDOT is requesting a \$9 million TIGER Discretionary Grant which will advance planning, design and construction of a multimodal travel plaza in Hopkinton, Rhode Island that will:

- Serve RIPTA bus riders;
- Provide a much needed rest area with full amenities on I-95, effectively addressing a 100-mile gap in service plazas along I-95;
- Provide a welcoming facility for commuters to connect and carpool;
- Support beach/tourist destinations in Newport and Westerly; and
- Function as an intercity bus hub.

We respectfully seek your support in this pursuit. Letters of support for this project have been included in the appendix.

Sincerely,



Peter Alviti, Jr., PE, Director

**Rhode Island Department
of Transportation**

Evaluation Criteria and Readiness Summary

Primary Selection Criteria

Safety

- Crashes due to “drowsy driving” are mitigated; the project fills a 100-mile gap in travel plazas along I-95; there were 29 drowsy driving crashes on I-95 in the vicinity of Hopkinton and Richmond in the past 7 years
- The potential roundabout at I-95 Exit 1 will replace an unsignalized intersection and create a landscaped gateway to the travel center; roundabouts have proven to have a B/C ratio of over 4.0 compared to rural unsignalized intersections; RIDOT is systemically installing roundabouts throughout the state as part of their Highway Safety Improvement Program (HSIP)
- The mode shift from single occupant vehicles to high occupant vehicles or transit results in fewer vehicles traveling through the congested crash prone sections of I-95 into Providence as well as the crash prone intersections leading to the Westerly beaches

State of Good Repair

- The deteriorating, overutilized, and undersized park-n-ride facilities within the immediate area are replaced or supplemented; the existing park-n-ride facilities have no spare capacity – the lots are full leaving carpoolers and transit riders with no alternative; currently the facilities can accommodate 140 vehicles while the current demand exceeds the capacity, leaving vehicles to park illegally; it is anticipated that the use will increase given the enhanced amenities.
- The project is aligned with RIDOT’s short-term goals and long-term vision for enhanced transit:
 - in the short-term, the project supports RIDOT’s vision by offering commuters an option to get to the city via public transportation;
 - over the long-term, the project is consistent with RIDOT’s plans for extended Commuter Rail service to Westerly
- The project compliments existing RIPTA bus service; the interchange is already served by RIPTA Route 95X at the existing park-n-ride lot; thus RIPTA would not incur addition costs or operating expense; current ridership is limited which could be attributed to the lack of amenities and lack of capacity at certain lots; ridership is expected to grow with increased capacity and enhanced amenities.
- RIDOT’s vision for I-95 entering the state from Connecticut is to focus passenger vehicle amenities at Exit 1, which would allow RIDOT to re-open the inactive truck stop (under a separate project) between Exit 2 and 3 to solely serve trucks; full amenities for truck drivers would occur at the inactive truck stop between Exit 2 and 3 which could be reprogrammed to accommodate more trucks
- The project has a positive B/C ratio of 4.02; the benefits far outweigh the project costs

Primary Selection Criteria

Economic Competitiveness	<ul style="list-style-type: none"> • The Westerly Comprehensive Plan cites a lack of traveler options, Commuter Rail access, and parking as major economic inhibitors; the project would serve Westerly, which is one of the few urban areas in Rhode Island without a transit hub • Parking in Westerly, downtown and at the beaches, is extremely constrained and there are no gateway information centers for tourists coming to the area • Traffic is intercepted before reaching the congested areas of I-95; doing so reduces single occupant vehicle travel and yields travel time savings and savings in annual crash costs • Rhode Island currently does not have a full service travel plaza on I-95 or any similar facility that provides tourist information; there is a 100-mile gap in service areas on I-95 which is addressed by the project • Additional wages, benefits, and tax revenue result from increased tourism spending, which is a proven benefit of traveler information centers
Quality of Life	<ul style="list-style-type: none"> • Transportation choices are substantially increased; Westerly is one of the few urban areas in the state that does not have a transit hub <ul style="list-style-type: none"> • achieves a reduction in single-occupant vehicle travel • helps to address the summertime traffic and parking surges to Westerly beaches (traffic increases by 60% during the summer tourist season) • intercepts traffic before it reaches major Westerly bottlenecks (Route 3 at Broad Street is a major bottleneck) • intercepts traffic before it reaches major commuter bottlenecks on I-95 entering Providence • Connectivity to a designated suitable bicycle road (Route 3) and secure bicycle parking is provided • Electric vehicle charging stations are provided
Environmental Sustainability	<ul style="list-style-type: none"> • Transportation choices are substantially increased reducing single occupant vehicle travel • Electric vehicle charging stations and secure bicycle parking are provided • Solar panels are incorporated into the welcome center building;

Secondary Selection Criteria

Innovation

- Electric vehicle charging stations and secure bicycle parking are provided
- Solar panels are incorporated into the welcome center building

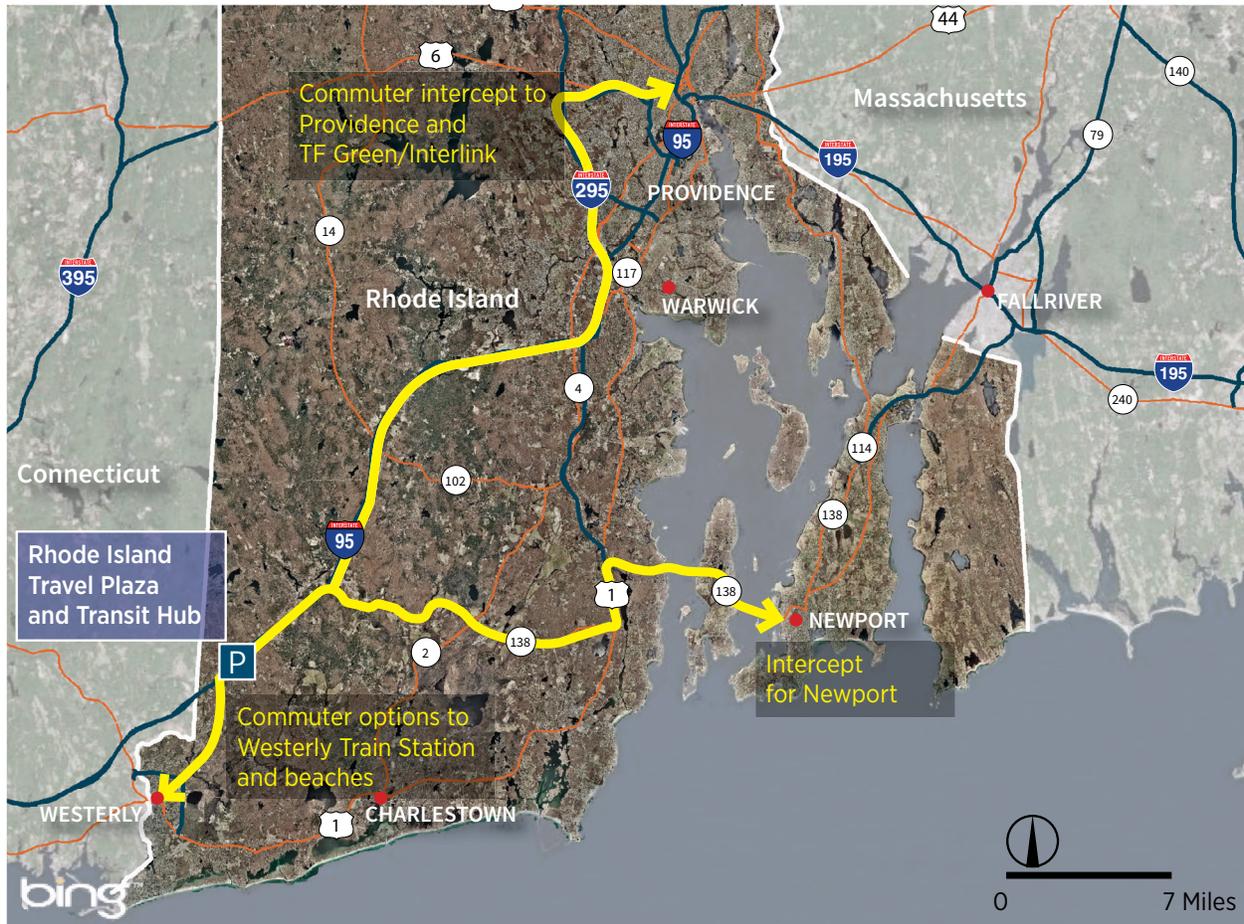
Partnership

- **RIPTA** – the project is consistent with RIPTA’s long-term park and ride program and addresses needs at the existing park and ride lot which is over capacity; since RIPTA is already providing service to this interchange, there are no additional operating costs
- **Westerly** – the project addresses many of the needs for the area identified in the Westerly Comprehensive Plan (more parking, transit options, traffic congestion mitigation)
- **RIDOT** – the project is included in RIDOT’s 10-year plan and compliments RIDOT’s long-term Commuter Rail plan and BRT concepts
- **Hopkinton** – the project is consistent with the town’s short-term and long-term goals for transit connectivity

Benefit-Cost Assessment

- Highly favorable 4.02 benefit-cost ratio

I. Project Description



RIDOT is requesting TIGER funds to construct a Travel Plaza/Transit Hub on a 20-acre site at I-95 Exit 1 in Hopkinton, Rhode Island. The site is conveniently situated near the Connecticut border with Rhode Island. The project includes:

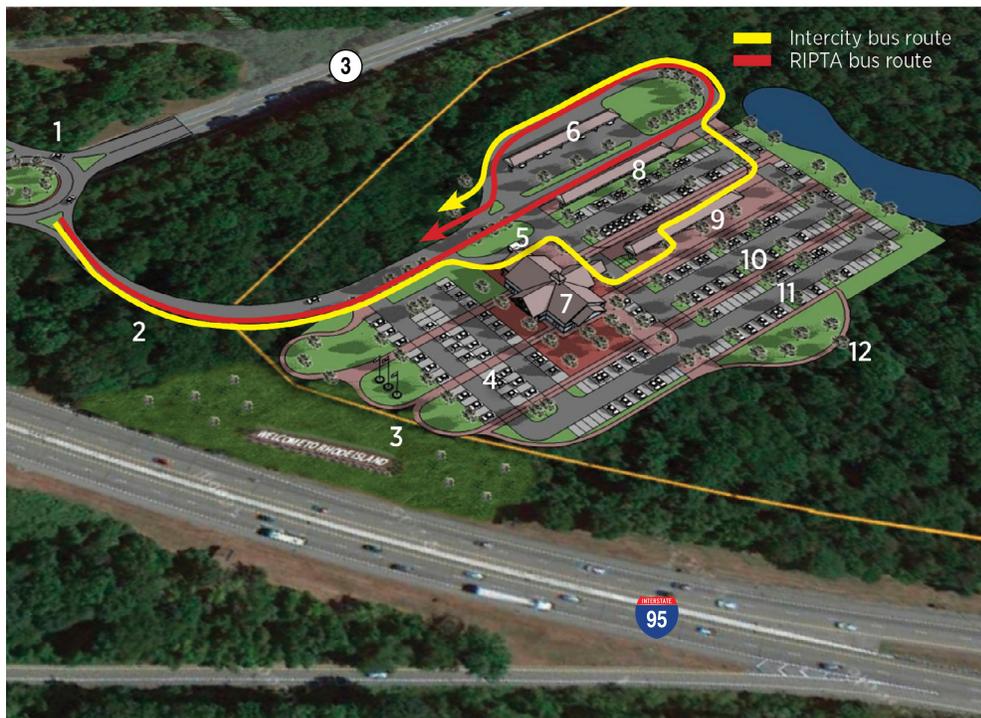
- › A 6,000 square foot Welcome Center, providing rest rooms, food, convenience shops, bike amenities, and tourism information for Rhode Island destinations and beyond
- › A park and ride facility for up to 200 vehicles, serving RIPTA and intercity bus operators as well as tourists and carpoolers

- › A RIPTA bus hub with shelter
- › An intercity bus hub serving regional destinations
- › Up to 10 fueling stations, including alternative fuels and electric vehicle stations
- › Parking for 50 bicycles

The project results in the following direct benefits:

- › Reduced congestion through the biggest bottlenecks along I-95 in the state and increased transit ridership:

Rhode Island Travel Plaza and Transit Hub Concept Plan



1. Roundabout and modified highway ramp configuration
2. Access Road
3. Gateway Flags/ Signage
4. Visitor Parking/ Walking Area
5. Intercity Bus Drop off
6. Car Fueling Station
7. Visitor Center
8. RIPTA Bus Stop
9. Intercity Bus Depot (boardings, sawtoothbays, pull in/drive through)
10. EV Charging Stations
11. Commuter Parking
12. Walking Picnic Area

- reduced single occupant vehicle traffic on the congested I-95 corridor into Providence, commuters would have more travel options (RIPTA or carpool) that are faster and more convenient
- the service plaza and bus hub could serve TF Green Airport, Newport, and Westerly
- › Improved safety:
 - commuter traffic coming into Rhode Island from Connecticut is intercepted before it enters the congested and accident prone segments of I-95 into Providence
- › Provides much needed amenities for commuters and tourists:
 - closes a large 100 mile gap in between service areas on I-95 between Connecticut and Massachusetts
 - serves regional recreational and tourist needs by providing carpooling and regional bus transit options for travelers from Connecticut and New York bound for Newport and Massachusetts (Cape Cod)
 - serve as a park and ride and carpooling option for the Westerly beaches (Misquamicut) to relieve the constrained access roads and limited parking
 - Provides much needed amenities for tourists and commuters (food, fuel, parking, destination maps, Wi-Fi, etc.)
 - allows the previous welcome center by I-95 Exit 3 to become a full service truck stop (under a separate project).

Existing driver's view along I-95 Northbound



Proposed driver's view along I-95 Northbound



II. Project Parties

The primary project parties are the State of Rhode Island and the Rhode Island Department of Transportation (RIDOT). Both entities are familiar with and have experience with federal grant processes.

RIDOT has been commended by FHWA for quality reporting on previous TIGER grants. In August 2013, FHWA's Rhode Island Division Office conducted an on-site assessment of the Southbound Viaduct Project to review the 2012 TIGER grant administration and oversight. During the review, RIDOT's financial staff explained their innovative Construction Management System (CMS) which allows RIDOT to uniquely assign funding sources and expenditures to individual contract line items. RIDOT's engineering staff facilitated construction field reviews of current activity, contractor oversight, quality controls, and

monthly performance and financial reporting. Special emphasis was placed on work zone safety, construction area signing, environmental mitigation measures, workmanship, and staffing. After the interviews, FHWA's assessment report praised RIDOT for their record keeping and construction oversight.

"Your team did a wonderful job explaining the process of payments, the systems of internal controls, and how documentation is obtained and how payments were dispersed."

"... RIDOT is and has been providing excellent oversight on the Providence Viaduct I-95 Southbound Project."

- Linda L. Burke

Financial Manager for FHWA Rhode Island Division

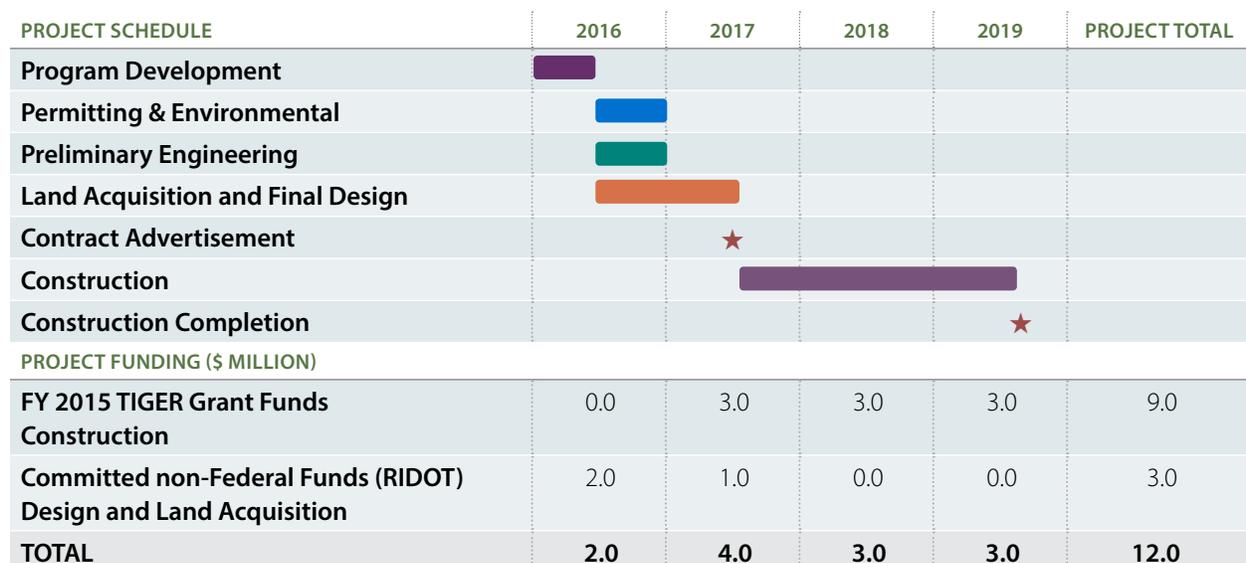
Rhode Island Department of Transportation

RIDOT will be responsible for administering the grant funds and managing the Project.

www.dot.ri.gov

III. Grant Funds and Sources/Uses of Funds

For each year of the project, the accompanying chart describes the amount of TIGER funding requested along with the non-federal funds that have been identified for the project.



IV. Selection Criteria

a. Primary Selection Criteria

a.i. Safety

Public rest areas along limited access freeways throughout the United States allow quick access and free 24-hour availability to basic amenities, such as parking, restrooms, vending machines, wifi, picnic tables, and travel information. Public rest areas serve the needs of a broad range of travelers, including vacation/recreational travelers, commercial vehicle operators, commuters, motorcyclists, bus tours, and others.

A critical function is to provide an opportunity for fatigued motorists to stop and rest rather than continue driving. Several studies have found a positive relationship between rest area spacing and certain crash types. Single vehicle crashes in Michigan and Minnesota were found to increase at distances greater than 30 miles beyond a rest area, as were fatigue-related crashes in California. There is currently a 100-mile gap in service areas on I-95 between Connecticut and Massachusetts. The proposed project would improve safety by:

- › Reducing the occurrence of shoulder stops
- › Reducing driver and passenger discomfort
- › Mitigating crashes due to “drowsy driving” (there were 29 drowsy driving crashes on I-95 in the vicinity of Hopkinton and Richmond in the past 7 years)
- › Implementing complete street concepts, such as the potential roundabout at I-95 Exit 1 which will replace an unsignalized intersection and create a landscaped gateway to the travel center

- › Reducing single occupant vehicles on I-95 which results in fewer vehicles traveling through the congested crash prone sections of I-95 into Providence as well as the crash prone intersections leading to the Westerly beaches

a.ii. State of Good Repair

The project improves the condition and resilience of existing transportation facilities and systems and is consistent with plans to maintain transportation facilities or systems in a state of good repair. The project improves the overall reliability of Rhode Island’s transportation system by reducing single occupant vehicle travel.

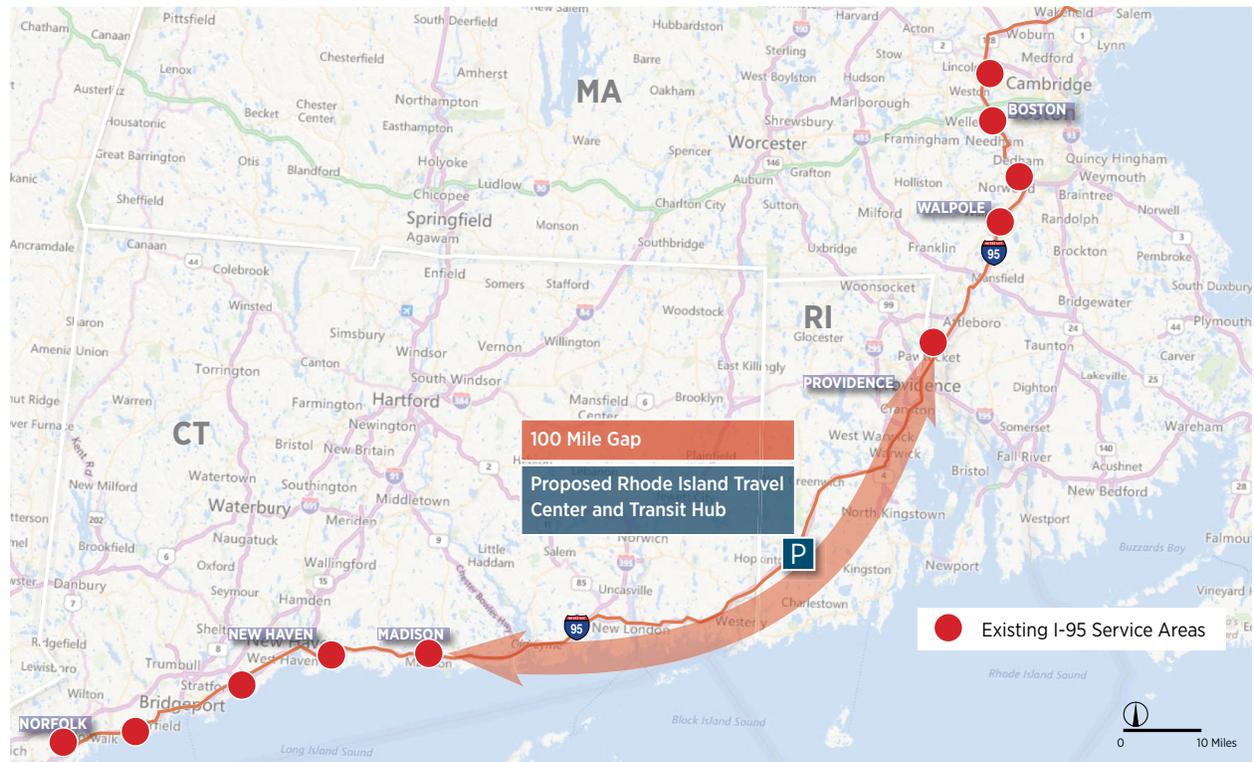




Existing over-utilized park-n-ride facility

- › The existing park and ride facility at the interchange is replaced by the project. The deteriorating overutilized, and undersized park-n-ride facilities within the immediate area are replaced or supplemented. The existing park-n-ride facilities have no spare capacity, the lots are routinely full leaving carpoolers and transit riders with no alternative.
- › By providing a convenient rest area, transit hub, and carpool opportunity along a limited access freeway, excess travel is





reduced which results in lower vehicle operating costs and travel time that would otherwise be necessary in order to obtain similar services from facilities located off of the limited access freeway system.

- › The project is aligned with RIDOT’s short-term goals and long-term vision for enhanced transit. In the short-term, the project supports RIDOT’s vision by offering commuters an option to get to the city via transit bus. Over the long-term, the project is consistent with RIDOT’s plans for extended Commuter Rail service to Westerly, which is the only urban area in the state that lacks transit service.
- › The project is consistent with the State’s Long Range Transportation Plan, Transportation 2035 and 10-year plan.
- › RIDOT’s vision for I-95 entering the state from Connecticut is to focus passenger vehicle amenities at Exit 1, which would

allow RIDOT (under a separate project) to re-open the inactive truck stop between Exit 2 and 3 to solely serve trucks; full amenities for truck drivers would occur at the inactive truck stop between Exit 2 and 3 which could be reprogrammed to accommodate approximately 35 trucks.

a.iii. Economic Competitiveness

The proposed travel plaza/bus hub would increase economic competitiveness:

- › **Decreased transportation costs** - By providing a convenient rest area, transit hub, and carpool opportunity along a limited access freeway, excess travel along I-95 is reduced which results in decreased transportation costs including fuel consumption, maintenance, repairs, wear and tear, and depreciation.
- › **Travel time savings** - Traffic is intercepted before reaching the congested areas of I-95;

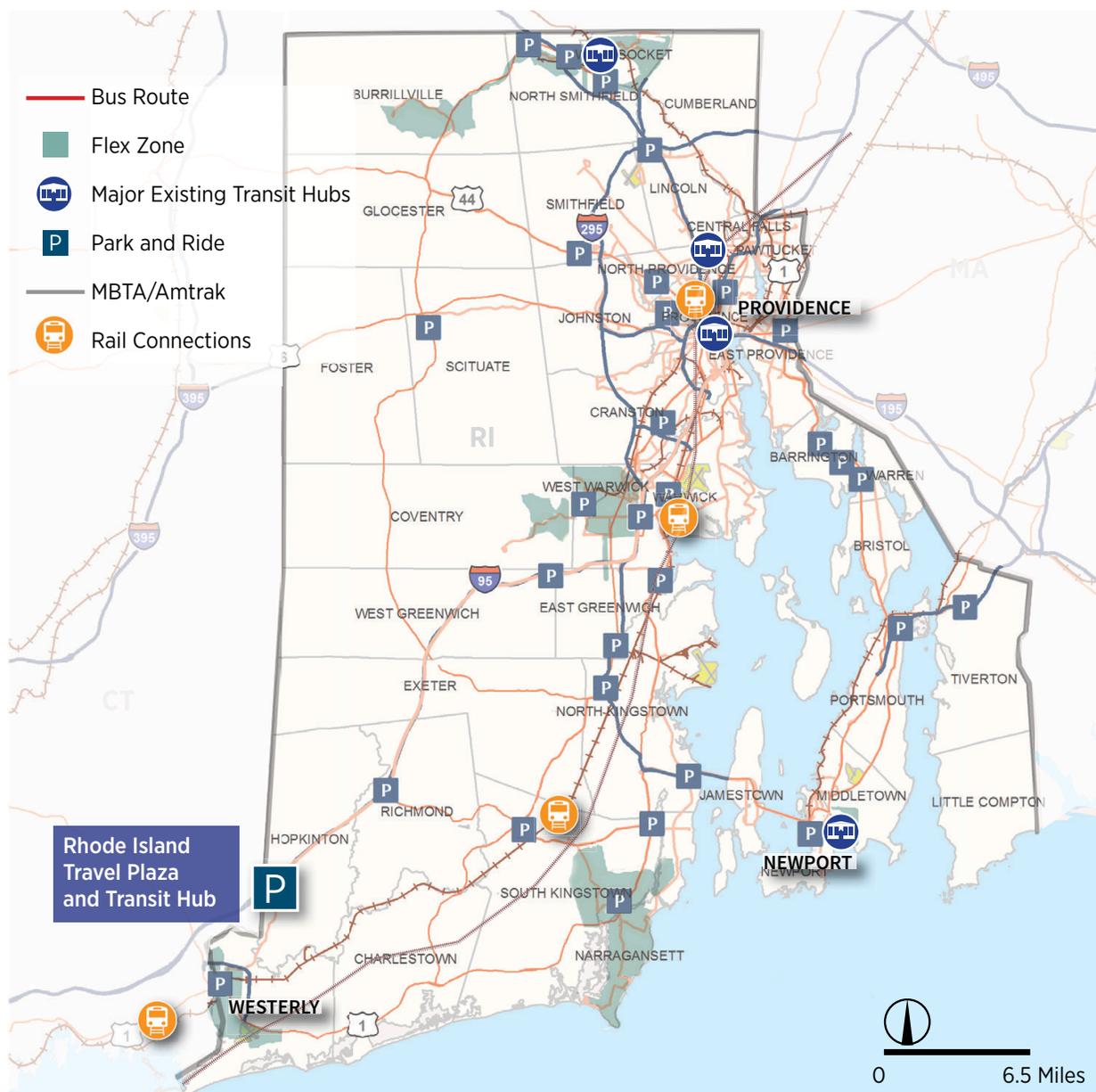
doing so reduces single occupant vehicle travel and yields travel time savings and savings in annual crash costs and lost productivity. The location of the travel plaza and transit hub is within 10 miles of Westerly, 35 miles to Newport, and under 40 miles to Providence.

- › **Crash reductions** - There is currently a 100-mile gap in service areas on I-95 between Connecticut and Massachusetts. There were 29 drowsy driving crashes on I-95 in the vicinity of Hopkinton and Richmond in the past 7 years. A critical

The project compliments the current and planned transit system in Rhode Island and provides a transit hub in the southwest quadrant of the state.

function of service plazas is to provide an opportunity for fatigued motorists to stop and rest rather than continue driving. The proposed project would improve safety by:

- Reducing driver and passenger discomfort and the resulting occurrence of shoulder stops along I-95



- Mitigating crashes due to “drowsy driving” caused by the 100-mile gap in service plazas
- Reducing single occupant vehicles on I-95 which results in fewer vehicles traveling through the congested crash prone sections of I-95 into Providence as well as the crash prone intersections leading to the Westerly beaches

› **Promotes tourism** – The Westerly Comprehensive Plan cites a lack of traveler options, Commuter Rail access, and parking as major economic inhibitors for this key underserved urban area of Rhode Island. The project would serve Westerly (within 10 miles and 17 minutes), which is one of the key urban areas in Rhode Island without a transit hub. Parking in Westerly, downtown and at the beaches, is extremely constrained and there are no options for tourists coming to the area. In addition,

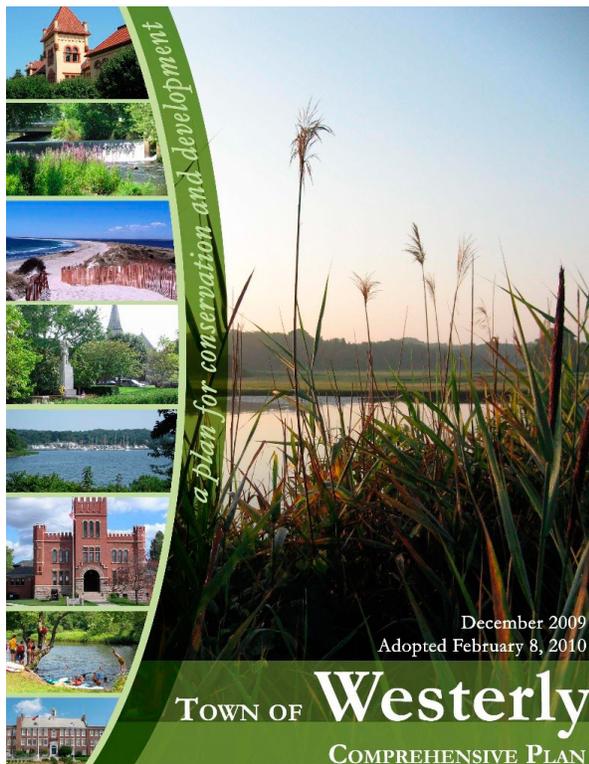
Rhode Island currently does not have a full service travel plaza on I-95 or any similar facility that provides tourist information. Additional wages, benefits, and tax revenue result from increased tourism spending, which is a proven benefit of traveler information centers.

a.iv. Quality of Life

- › Transportation choices are substantially increased; Westerly is one of the few urban areas in the state that does not have a transit hub
 - achieves a reduction in single-occupant vehicle travel
 - helps to address the summertime traffic and parking surges to Westerly beaches (traffic increases by 60% during the summer tourist season)
 - intercepts traffic before it reaches major Westerly bottlenecks (Route 3 at Broad Street is a major bottleneck)
 - intercepts traffic before it reaches major commuter bottlenecks on I-95 entering Providence
- › Connectivity to a designated suitable bicycle road (Route 3) and secure bicycle parking is provided
- › Electric vehicle charging stations are provided

a.v. Environmental Sustainability

- › Transportation choices are substantially increased reducing single occupant vehicle travel
- › Electric vehicle charging stations and secure bicycle parking are provided
- › Solar panels are incorporated into the welcome center building



b. Secondary Criteria

b.i. Innovation

- › Electric vehicle charging stations and secure bicycle parking are provided
- › Solar panels are incorporated into the welcome center building

b.ii. Partnership

Prior to, and throughout the completion of this application, RIDOT has met and discussed the project with numerous stakeholders. RIDOT has benefited from strong advance collaboration which has helped galvanize support for the project.

The project compliments the existing MBTA and RIPTA public transportation networks, both in the short-term and over the long-term. The project is supported by Westerly and Hopkinton municipalities.

c. Results of Benefit-Cost Analysis

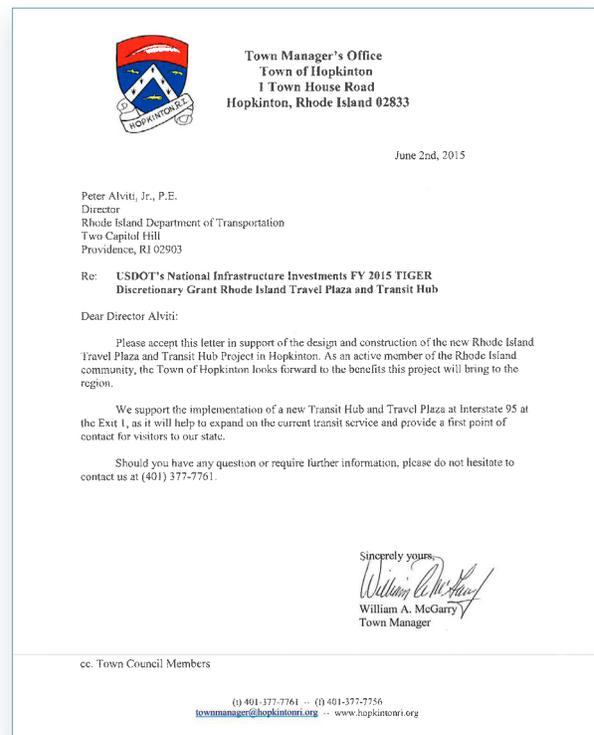
Based on a \$12M construction cost plus \$400K annual operating costs (based on similar facilities), the project has a B/C ratio of 4.02, which is consistent with the other B/C ratios for Welcome Centers nationally. The appendix includes the spreadsheet and research used to calculate the B/C ratio.

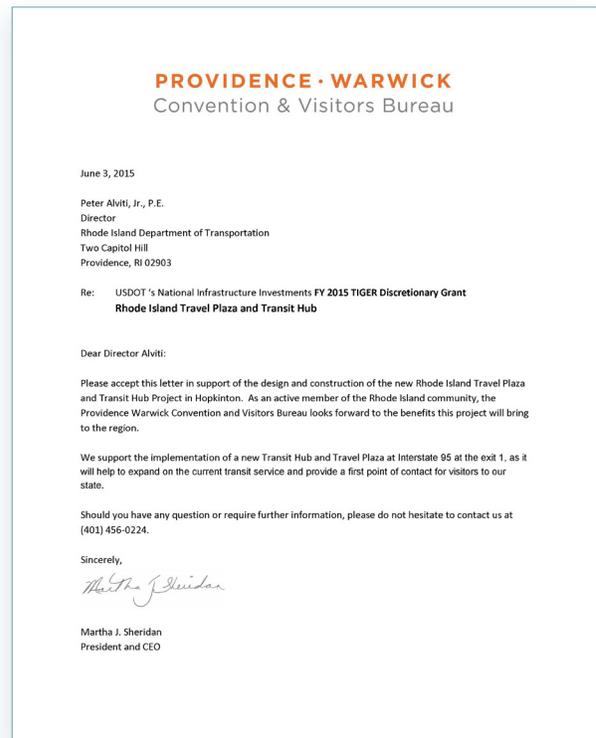
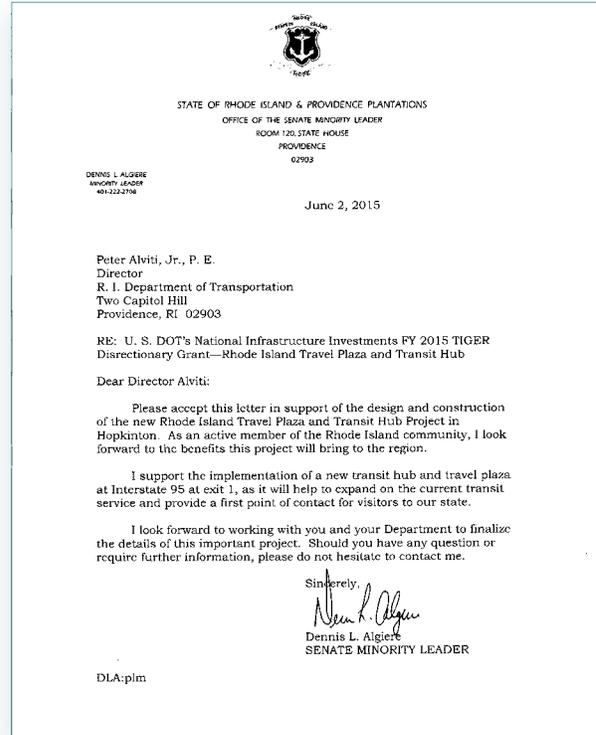
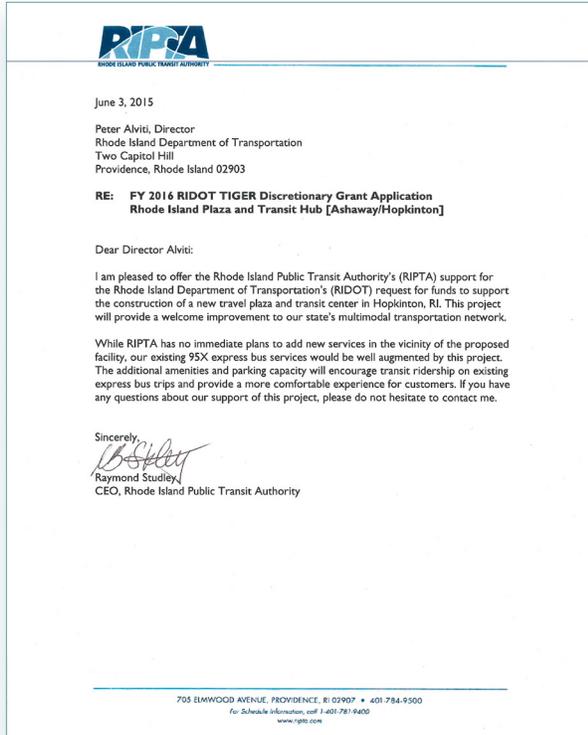
Two related studies were referenced for the B/C analysis methodology used in this application:

- › Mn/DOT Interstate Safety Rest Area Spacing Study <http://www.dot.state.mn.us/restareas/research.html>

- › Economic Assessment of Public Rest Areas and Traveler Information Centers On Limited Access Freeways <http://trrjournalonline.trb.org/doi/abs/10.3141/2346-08>

The project has garnered support from many stakeholders and has received letters of support from the Town of Hopkinton, RIPTA, Senator Algieri, AAA, and the Providence/Warwick Convention & Visitors Bureau.





V. Demonstrated Project Readiness

a. Technical Feasibility

The project is incorporated into RIDOT’s 10-year plan and long-range transportation plan.

The land on which the travel plaza is located is currently available for sale. If the TIGER grant is approved, RIDOT would purchase the land with state funds. Land acquisition is not necessary.

a.i. Financial Feasibility

RIDOT has been successfully managing FHWA grants for decades. RIDOT has implemented an automated grant management system to effectively manage the federal grant program to ensure accuracy in financial transactions. Evidence of this effectiveness is the receipt of an unqualified opinion on the recent 2012 financial audit. The state utilizes a special fund known as the Intermodal Surface Transportation Fund (ISTF) for all State Highway projects, along with maintenance and operations. State gas tax funds, Rhode Island Capital Plan (RICAP) funds, and an increase in license and registration fees provide reliable sources of funds for the ISTF.

RIDOT is requesting \$9 million from the TIGER Discretionary Grant funding program and is

committing \$3 million from its TIP to complete the project. If granted, the \$9 million in TIGER funds will be expended starting in FY 2016. The \$9 million TIGER grant will enable RIDOT to begin the project sooner that it would without the additional funding.

RIDOT has already earmarked the non-federal cost share (\$3 million) state’s 10-year plan and Long Range Transportation Plan.

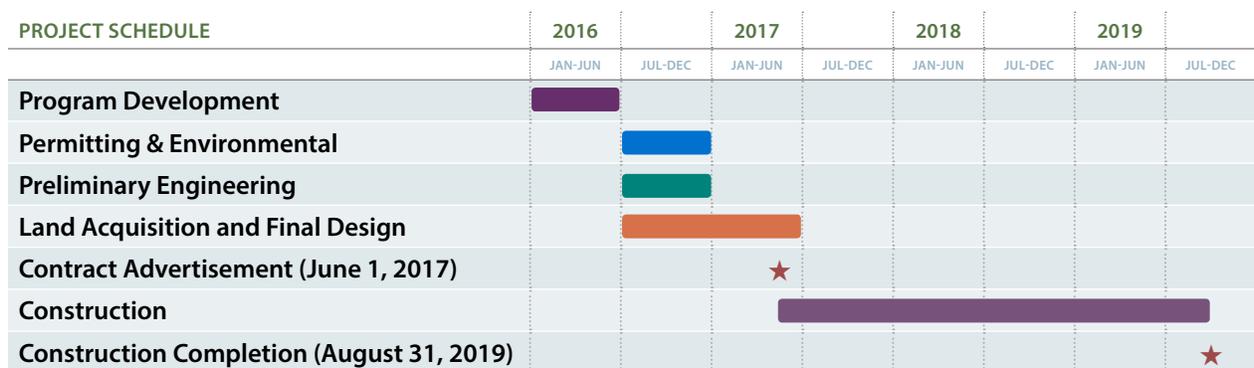
a.ii. Project Schedule

The project is already listed on the local matching funds have been allocated to accompany the TIGER funds.

With TIGER funding available in FY 2016, the project would be completed in summer 2019.

a.iii. Required Approvals

The land on which the travel plaza is located is currently available for sale. If the TIGER grant is approved, RIDOT would purchase the land with state funds. By June 30, 2017, RIDOT will complete the NEPA process and obtain any other necessary permits and approvals, as well as complete all additional, necessary pre-construction steps. Land acquisition is not necessary.



VI. Project Costs & Benefits

The following table summarizes the benefit-cost assessment. Costs included construction costs and estimated annual operating/maintenance costs. Benefits were quantified in terms of:

- › comfort and convenience
- › vehicle operating savings
- › travel time benefits
- › tourism benefits
- › crash reductions

Two related studies were referenced for the B/C analysis methodology used in this application:

- › Mn/DOT Interstate Safety Rest Area Spacing Study <http://www.dot.state.mn.us/restareas/research.html>
- › Economic Assessment of Public Rest Areas and Traveler Information Centers On Limited Access Freeways <http://trrjournalonline.trb.org/doi/abs/10.3141/2346-08>

The appendix to this application includes the detailed B/C calculations.

Project Annual Benefits = \$3.2 million



Crash reductions = \$2.2 million
 Tourism = \$605k
 Comfort and convenience = \$380k
 Vehicle operating benefits = \$38k
 Travel time benefits = \$23k



Favorable
 benefit-to-cost ratio
 4.02



New present value
 of benefits
 \$63 million

RIDOT Travel Plaza and Transit Hub TIGER Grant Benefit-to-Cost Analysis

COMFORT AND CONVENIENCE

Median Value of Services Utilized	\$2.21		\$ 380,000
AADT	47,000		
Average Use	1%		

VEHICLE OPERATING BENEFITS

AADT	47,000	Passenger Car	\$ 31,000
Average Use	1%	Commercial	\$ 7,000
Passenger Car %	89%		
Commercial Vehicle %	11%		
Diversions Rate - Passenger Car	0.659		
Diversions Rate - Commercial	0.383		
Excess Travel Mileage	1		
Operating Costs - Passenger Car	\$0.30		
Operating Costs - Commercial	\$1.02		

TRAVEL TIME BENEFITS

AADT	47,000	Passenger Car	\$ 20,000
Average Use	1%	Commercial	\$ 3,000
Passenger Car %	89%		
Commercial Vehicle %	11%		
Diversion Rate - Passenger Car	0.659		
Diversion Rate - Commercial	0.383		
Excess Travel Mileage	1		
Operating Costs - Passenger Car	\$13.00		
Operating Costs - Commercial	\$25.80		
Operating Speed	65 miles per hour		

TOURISM BENEFITS

AADT	47,000		\$ 605,000
Average Use	1%		
Proportion of Parties Spending	12.5%		
Spending/Party	\$100.00		
Percent of entering vehicles with occupants that enter Welcome Center	60%		
Percent of total tourism expenditures that are locally retained	47%		

CRASH REDUCTIONS

Without rest area	\$3,685,739		\$ 2,170,000
With rest area	\$1,514,690		
Total Annual Benefit			\$3,216,000

Total Construction Cost	\$12,000,000	based on preliminary site assessment
Annual Construction Cost	\$400,000	assumed 30 year service life
Operations & Maintenance	\$400,000	estimated, based on similar facilities
	\$800,000	
Service Life	30	estimated, based on similar facilities
Discount	3%	assumed discount rate
PV Benefit	\$63,030,000	
PV Cost	\$15,680,000	
B/C Ratio	4.02	

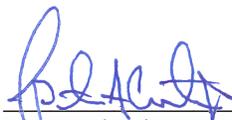
VII. Federal Wage Rate Certification

RIDOT certifies that it will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), as required by the Recovery Act.

**FY 2015 TIGER Discretionary Grant Application
Rhode Island Travel Plaza and Transit Hub**

FEDERAL WAGE RATE CERTIFICATION

The undersigned agrees to comply with the requirements of Subchapter IV of Chapter 31 of title 40, United States Code regarding Federal wage rate requirements, as required by the FY 2015 Consolidated Appropriations Act, 2015.



Peter Alviti, Jr. P.E.

Director, Rhode Island Department of Transportation

June 1, 2015

Appendix

Letters of Support



**Town Manager's Office
Town of Hopkinton
1 Town House Road
Hopkinton, Rhode Island 02833**

June 2nd, 2015

Peter Alviti, Jr., P.E.
Director
Rhode Island Department of Transportation
Two Capitol Hill
Providence, RI 02903

**Re: USDOT's National Infrastructure Investments FY 2015 TIGER
Discretionary Grant Rhode Island Travel Plaza and Transit Hub**

Dear Director Alviti:

Please accept this letter in support of the design and construction of the new Rhode Island Travel Plaza and Transit Hub Project in Hopkinton. As an active member of the Rhode Island community, the Town of Hopkinton looks forward to the benefits this project will bring to the region.

We support the implementation of a new Transit Hub and Travel Plaza at Interstate 95 at the Exit 1, as it will help to expand on the current transit service and provide a first point of contact for visitors to our state.

Should you have any question or require further information, please do not hesitate to contact us at (401) 377-7761.

Sincerely yours,

William A. McGarry
Town Manager

cc. Town Council Members

(t) 401-377-7761 -- (f) 401-377-7756
townmanager@hopkintonri.org -- www.hopkintonri.org

Letters of Support



June 3, 2015

Peter Alviti, Director
Rhode Island Department of Transportation
Two Capitol Hill
Providence, Rhode Island 02903

**RE: FY 2016 RIDOT TIGER Discretionary Grant Application
Rhode Island Plaza and Transit Hub [Ashaway/Hopkinton]**

Dear Director Alviti:

I am pleased to offer the Rhode Island Public Transit Authority's (RIPTA) support for the Rhode Island Department of Transportation's (RIDOT) request for funds to support the construction of a new travel plaza and transit center in Hopkinton, RI. This project will provide a welcome improvement to our state's multimodal transportation network.

While RIPTA has no immediate plans to add new services in the vicinity of the proposed facility, our existing 95X express bus services would be well augmented by this project. The additional amenities and parking capacity will encourage transit ridership on existing express bus trips and provide a more comfortable experience for customers. If you have any questions about our support of this project, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Studley", is written over the printed name of Raymond Studley.

Raymond Studley
CEO, Rhode Island Public Transit Authority

Letters of Support



STATE OF RHODE ISLAND & PROVIDENCE PLANTATIONS
OFFICE OF THE SENATE MINORITY LEADER
ROOM 120, STATE HOUSE
PROVIDENCE
02903

DENNIS L. ALGIERE
MINORITY LEADER
401-222-2708

June 2, 2015

Peter Alviti, Jr., P. E.
Director
R. I. Department of Transportation
Two Capitol Hill
Providence, RI 02903

RE: U. S. DOT's National Infrastructure Investments FY 2015 TIGER
Discretionary Grant—Rhode Island Travel Plaza and Transit Hub

Dear Director Alviti:

Please accept this letter in support of the design and construction of the new Rhode Island Travel Plaza and Transit Hub Project in Hopkinton. As an active member of the Rhode Island community, I look forward to the benefits this project will bring to the region.

I support the implementation of a new transit hub and travel plaza at Interstate 95 at exit 1, as it will help to expand on the current transit service and provide a first point of contact for visitors to our state.

I look forward to working with you and your Department to finalize the details of this important project. Should you have any question or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis L. Algieri", is written over the typed name.

Dennis L. Algieri
SENATE MINORITY LEADER

DLA:plm

Letters of Support



110 Royal Little Drive
Providence, RI 02904-1860
(401) 868-2000
AAA.com

June 2, 2015

Peter Alviti, Jr., P.E.
Director
Rhode Island Department of Transportation
Two Capitol Hill
Providence, RI 02903

Re: **USDOT 's National Infrastructure Investments FY 2015 TIGER Discretionary Grant
Rhode Island Travel Plaza and Transit Hub**

Dear Director Alviti,

Please accept this letter in support of the design and construction of the new Rhode Island Travel Plaza and Transit Hub Project in Hopkinton. As an active member of the Rhode Island community, AAA Northeast looks forward to the benefits this project will bring to the region.

We support the implementation of a new Transit Hub and Travel Plaza at Interstate 95 at the exit 1, as it will help to expand on the current transit service and provide a first point of contact for visitors to our state.

Should you have any question or require further information, please do not hesitate to contact me at (401)-868-6130.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Lloyd P. Albert'.

Lloyd P. Albert
Senior Vice President, Public / Government Affairs &
New Business Development

Letters of Support

PROVIDENCE · WARWICK Convention & Visitors Bureau

June 3, 2015

Peter Alviti, Jr., P.E.
Director
Rhode Island Department of Transportation
Two Capitol Hill
Providence, RI 02903

Re: **USDOT 's National Infrastructure Investments FY 2015 TIGER Discretionary Grant
Rhode Island Travel Plaza and Transit Hub**

Dear Director Alviti:

Please accept this letter in support of the design and construction of the new Rhode Island Travel Plaza and Transit Hub Project in Hopkinton. As an active member of the Rhode Island community, the Providence Warwick Convention and Visitors Bureau looks forward to the benefits this project will bring to the region.

We support the implementation of a new Transit Hub and Travel Plaza at Interstate 95 at the exit 1, as it will help to expand on the current transit service and provide a first point of contact for visitors to our state.

Should you have any question or require further information, please do not hesitate to contact us at (401) 456-0224.

Sincerely,



Martha J. Sheridan
President and CEO

B/C Calculations

RIDOT Travel Plaza and Transit Hub TIGER Grant

Benefit-to-Cost Analysis

COMFORT AND CONVENIENCE

Median Value of Services Utilized	\$2.21		\$379,126
AADT	47,000		
Average Use	1%		

VEHICLE OPERATING BENEFITS

AADT	47,000	Passenger Car	\$30,587
Average Use	1%	Commercial	\$7,336
Passenger Car %	89%		
Commercial Vehicle %	11%		
Diversion Rate - Passenger Car	0.659		
Diversion Rate - Commercial	0.383		
Excess Travel Mileage	1		
Operating Costs - Passenger Car	\$0.30		
Operating Costs - Commercial	\$1.02		

TRAVEL TIME BENEFITS

AADT	47,000	Passenger Car	\$20,123
Average Use	1%	Commercial	\$2,869
Passenger Car %	89%		
Commercial Vehicle %	11%		
Diversion Rate - Passenger Car	0.659		
Diversion Rate - Commercial	0.383		
Excess Travel Mileage	1		
Operating Costs - Passenger Car	\$13.00		
Operating Costs - Commercial	\$25.80		
Operating Speed	65 miles per hour		

TOURISM BENEFITS

AADT	47,000		\$604,714
Average Use	1%		
Proportion of Parties Spending	12.5%		
Spending/Party	\$100.00		
Percent of entering vehicles with occupants that enter Welcome Center	60%		
Percent of total tourism expenditures that are locally retained	47%		

CRASH REDUCTIONS

Without rest area	\$3,685,739		\$2,171,049
With rest area	\$1,514,690		
Total Annual Benefit			\$3,215,803

RIDOT Travel Plaza and Transit Hub TIGER Grant

Benefit-to-Cost Analysis (continued)

Total Construction Cost	\$12,000,000	based on preliminary site assessment
Annual Construction Cost	\$400,000	assumed 30 year service life
Operations & Maintenance	\$400,000	estimated, based on similar facilities
	\$800,000	
Service Life	30	estimated, based on similar facilities
Discount	3%	assumed discount rate
PV Benefit	\$63,030,000	
PV Cost	\$15,680,000	
B/C Ratio	4.02	

After - E(Y) with Rest Area	12.3
Before - E(Y) without Rest Area	30.0
Roadway Departure Crash Cost	\$123,000.00
Crash Reduction Benefit	\$2,171,049.12

E(Y)_i - Predict Annual Target Crashes for the *i*th one-mile segment along the limited access freeway

AADT - AADT mainline directional traffic on the *i*th one-mile segment - Assume 47,000

DIST - Distance (miles) of the *i*th one-mile segment from the nearest rest area

Safety Performance Function - $E(Y)_i = AADT^{0.654} * \exp(-7.715 + 0.018 * DIST)$

Crash Cost - \$123,000 per each single vehicle roadway departure crash (most common fatigue-related crash type)

After - E(Y) with Rest Area - Predicted annual frequency of target crashes summed for 40 one-mile segments from 20 miles upstream to 20 miles downstream of the rest area

Before - E(Y) with No Rest Area - Predicted annual frequency of target crashes summed for the entire 40 mile distance assuming the rest area did not exist

Crash Reduction Benefit - $[E(Y) \text{ with Rest Area} - E(Y) \text{ without Rest Area}] * \text{Crash Cost for Roadway Departure Crash}$

Backup Calculations

Crash Prediction

ADDT 47,000	CRASH COST \$123,000	TOTAL ANNUAL CRASH FREQUENCY 29.965355	TOTAL ANNUAL CRASH FREQUENCY 12.314549
		Miles Away	Miles Away
		40	20
		1.0415068	0.7266346
		39	19
		1.0229274	0.7136722
		38	18
		1.0046794	0.700941
		37	17
		0.986757	0.688437
		36	16
		0.9691542	0.676156
		35	15
		0.9518655	0.664094
		34	14
		0.9348852	0.6522473
		33	13
		0.9182078	0.6406119
		32	12
		0.901828	0.629184
		31	11
		0.8857403	0.61796
		30	10
		0.8699396	0.6069363
		29	9
		0.8544208	0.5961091
		28	8
		0.8391788	0.5854752
		27	7
		0.8242087	0.5750309
		26	6
		0.8095057	0.5647729
		25	5
		0.7950649	0.554698
		24	4
		0.7808818	0.5448027
		23	3
		0.7669517	0.535084
		22	2
		0.75327	0.5255387
		21	1
		0.7398325	0.5161636
		20	
		0.7266346	
		19	
		0.7136722	
		18	
		0.700941	
		17	
		0.688437	
		16	
		0.676156	
		15	
		0.664094	
		14	
		0.6522473	
		13	
		0.6406119	
		12	
		0.629184	
		11	
		0.61796	
		10	
		0.6069363	
		9	
		0.5961091	
		8	
		0.5854752	
		7	
		0.5750309	
		6	
		0.5647729	
		5	
		0.554698	
		4	
		0.5448027	
		3	
		0.535084	
		2	
		0.5255387	
		1	
		0.5161636	

Backup Calculations

Cost for Roadway Departure Type Crash

CRASH TYPE	COMPREHENSIVE CRASH COSTS (2001)	HUMAN CAPITAL CRASH COSTS (2001)	DIFFERENCE IN 2001 NON-MONETARY COSTS	HUMAN CAPITAL CRASH COSTS CPI ADJUSTED	ECI ADJUSTED COST	2013 COMPREHENSIVE CRASH COSTS	2013 COMPREHENSIVE CRASH COSTS* ROUNDED
Single Vehicle - Fixed Object	\$94,669	\$39,569	\$55,100	\$51,298	\$71,733	\$123,030	\$123,000

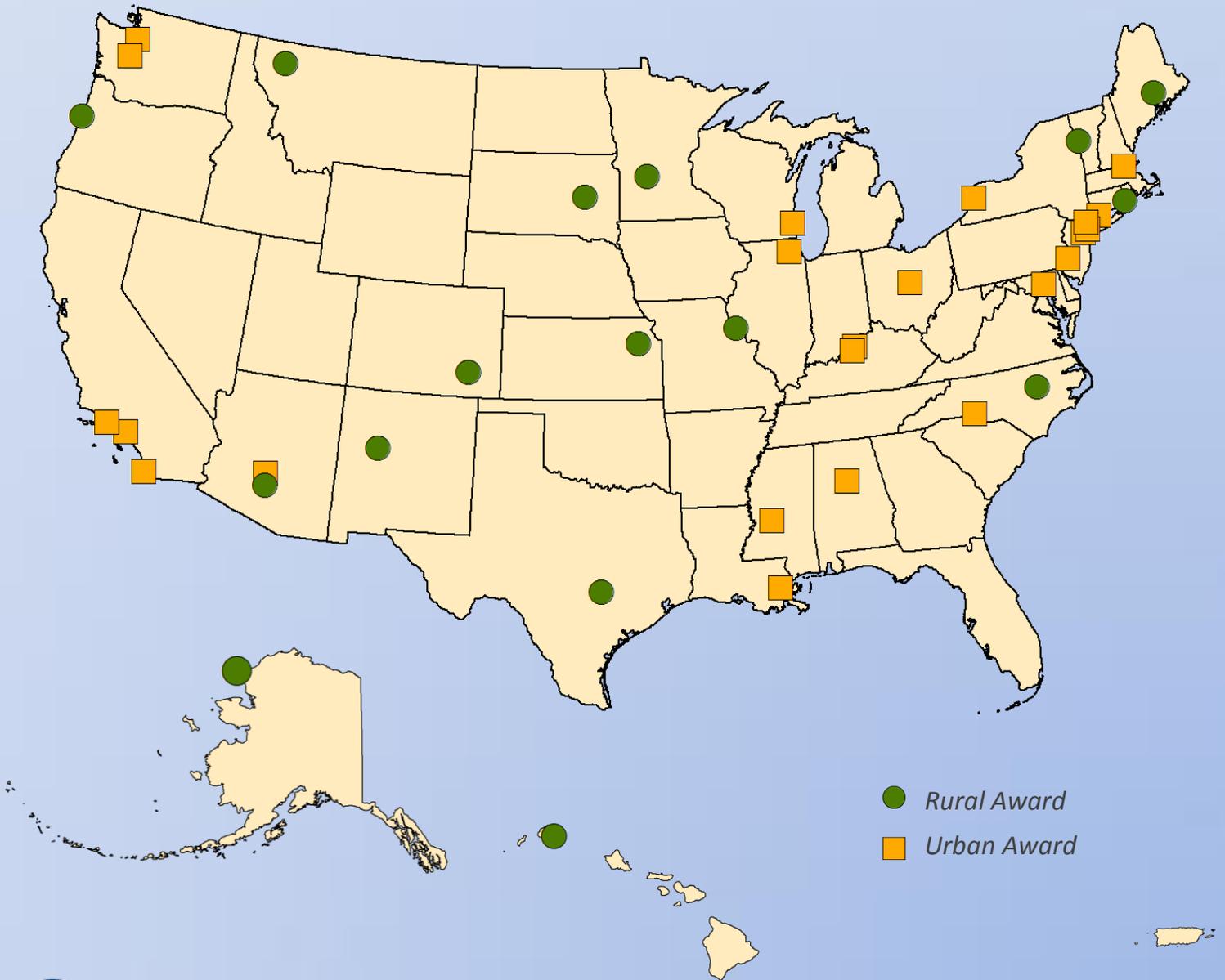
* Comprehensive crash costs derived from the FHWA report "Crash Cost Estimates by Maximum Police-Reported Injury Severity within Selected Crash Geometries" 2005 report FHWA-HRT-05-051 Table 11 - Level 4 without speed limits.

2001-2013 adjustment cost methodology derived from HSM Volume 1 - Chapter 4 - Appendix 4A.

CPI 2013 (2012)	229.6
CPI 2001	177.1
CPI Ratio (2001-2013)	1.30
ECI 2013	111.7
ECI 2001	85.8
ECI Ratio (2001-2013)	1.30

TIGER

2015 AWARDS



U.S. Department
of Transportation

2015 TIGER Awards

Project Name (click to link)	State	TIGER Grant Award	Urban/ Rural
Connecting our Neighborhoods to Opportunities	Alabama	\$20,000,000	Urban
Native Village of Point Hope Transportation Infrastructure and Transit Improvement Project	Alaska	\$2,899,992	Rural
Grand Canal Bike and Pedestrian Improvements	Arizona	\$10,330,000	Urban
SR 347 Grade Separation Project	Arizona	\$15,000,000	Rural
Port of Hueneme Intermodal Improvement Project	California	\$12,300,000	Urban
Rail to Rail Active Transportation Corridor Connector Project	California	\$15,000,000	Urban
Tenth Avenue Marine Terminal Modernization Project	California	\$10,000,000	Urban
Southwest Chief Route Advancement and Improvement Project	Colorado	\$15,210,143	Rural
Barnum Station Project	Connecticut	\$10,000,000	Urban
Līhu'e Town Core Mobility and Revitalization	Hawaii	\$13,815,100	Rural
Milwaukee District – West Line Fox River Bridge Improvement Project	Illinois	\$14,000,000	Urban
Port of Indiana - Jeffersonville Truck-to-Rail and Rail-to-Water Improvements	Indiana	\$10,000,000	Urban
Regional Truck Parking Information and Management System	Kansas	\$25,000,000	Rural
Transforming Dixie Highway Project	Kentucky	\$16,910,000	Urban
New Orleans Canal Street Ferry Terminal	Louisiana	\$10,038,678	Urban

2015 TIGER Awards (Continued)

Project Name (click to link)	State	TIGER Grant	Urban/ Rural
Maine Regional Railways Project	Maine	\$20,000,000	Rural
Southeast Baltimore Port Industry Freight Corridor Plan	Maryland	\$10,000,000	Urban
Lowell Canal Bridges	Massachusetts	\$13,389,750	Urban
Willmar Rail Connector and Industrial Access	Minnesota	\$10,000,000	Rural
Greening the Gateways	Mississippi	\$16,500,000	Urban
U.S. Route 54 Mississippi River Bridge	Missouri	\$10,000,000	Rural
Glacier Rail Park/Kalispell Core Area Development and Trail Project	Montana	\$10,000,000	Rural
NEC Portal Bridge Replacement Acceleration Project	New Jersey	\$16,000,000	Urban
Pueblo of Laguna Bike and Pedestrian Priority Route Construction	New Mexico	\$1,000,000	Rural
Bronx River Greenway: Bridge the Critical South Bronx Gap	New York	\$10,000,000	Urban
Hudson Links I-287 BRT/ITS Project	New York	\$10,000,000	Urban
Main Street Multi-Modal Access and Revitalization	New York	\$18,000,000	Urban
Charlotte Gateway Station Track and Safety Improvements	North Carolina	\$25,000,000	Urban
U.S. 301: Road to Opportunity	North Carolina	\$10,000,000	Rural
Transit Tech Ohio	Ohio	\$6,839,860	Rural
Port of Newport International Terminal Shipping Facility	Oregon	\$2,000,000	Rural
Closing the Gaps	Pennsylvania	\$10,265,000	Urban

2015 TIGER Awards (Continued)

Project Name (click to link)	State	TIGER Grant	Urban/ Rural
Hopkinton Travel Plaza and Transit Hub	Rhode Island	\$9,000,000	Rural
South Dakota Freight Capacity Expansion Project	South Dakota	\$6,000,000	Rural
Texas Rural Transit Asset Replacement Project	Texas	\$20,802,400	Rural
Western Vermont Freight-Passenger Rail Project	Vermont	\$10,000,000	Rural
Mukilteo Multimodal Ferry Terminal	Washington	\$10,000,000	Urban
Tacoma LINK Expansion	Washington	\$15,000,000	Urban
Milwaukee Streetcar - Lakefront Line	Wisconsin	\$14,200,000	Urban

Hopkinton Travel Plaza and Transit Hub

APPLICANT/SPONSOR: Rhode Island Department of Transportation

TIGER GRANT AWARD: \$9,000,000

TOTAL PROJECT COST: \$12,000,000

Rural

PROJECT DESCRIPTION:

The funds from this TIGER grant will help construct a multimodal travel plaza on I-95 in Hopkinton, Rhode Island, near the Connecticut border. The project will serve Rhode Island Public Transit Authority bus riders and provide a much needed rest area with full amenities on I-95. The project includes a welcome center with restrooms, food, convenience shops, bike amenities, and tourism information for Rhode Island destinations and beyond; a park and ride facility; an intercity bus hub; fueling stations including alternative fuels and electric vehicle stations; and bicycle parking.



RHODE ISLAND

PROJECT HIGHLIGHTS AND BENEFITS:

The project fills a gap in rest areas along I-95, where there were 29 drowsy driving crashes in the vicinity within the past seven years. A roundabout at Exit 1 will increase safety compared with the current unsignalized intersection. The project will improve economic competitiveness, as Rhode Island currently lacks a full-service travel plaza on I-95 to provide tourist information. Furthermore, parking in the nearby beach town of Westerly is extremely constrained, and a plaza at this location will provide options for carpooling to this destination, increasing opportunities for tourism. In addition, the project includes installation of electric vehicle charging stations and solar panels on the welcome center building, as well as bicycle parking, which will enhance environmental sustainability.



U.S. Department
of Transportation

www.transportation.gov/tiger

TIGER