

ITEM 12 - Information

July 22, 2015

Briefing on the Implementation of the TPB Regional Priority Bus Project under the Transportation Investments Generating Economic Recovery (TIGER) Program

Staff

Recommendation: Receive briefing

Issues: None

Background: The Board will be briefed on the current status of the TPB Regional Priority Bus Project, which includes 16 project components being implemented by five project owners under a \$58 million TIGER grant administered by FTA.



NATIONAL CAPITAL REGION

TRANSPORTATION PLANNING BOARD

MEMORANDUM

TO: Transportation Planning Board

FROM: Eric Randall
Department of Transportation Planning

SUBJECT: Briefing on the Implementation of the TPB Regional Priority Bus Project under the Transportation Investments Generating Economic Recovery (TIGER) Program

DATE: July 16, 2015

This memorandum provides an update on the status of the projects funded by the Transportation Investments Generating Economic Recovery (TIGER) grant awarded to the TPB in February 2010 for *Priority Bus Transit in the National Capital Region*. The \$58 million grant has sixteen component projects being implemented on transit corridors across the District of Columbia, Maryland, and Virginia.

The TPB was briefed at their March 2015 meeting on the progress of the projects funded by the grant. At that meeting, TPB staff was asked to providing another update in May and a subsequent briefing in July. The May update was provided in a memo included in the Report of the Director (Item 5).

[Item 5 - Report with May 2015 Memorandum on the TIGER Grant](#)

The TIGER grant period of performance ends on September 30, 2016, which given invoice processing time means all of the work to be reimbursed by the grant should be completed by the end of June 2016. As of June 30, 2015 approximately \$27.8 million of the grant, or 47%, has been invoiced and reimbursed.

TIGER Grant Project Progress Report

The following progress has been reported by the five Project Owners: the City of Alexandria, Virginia; the District of Columbia Department of Transportation (DDOT); the Maryland Department of Transportation (MDOT); the Potomac and Rappahannock Transportation Commission (PRTC); and the Washington Metropolitan Area Transit Authority (WMATA).

City of Alexandria – Two projects (\$8.85 million: 94% reimbursed as of June 30, 2015)

1. **US 1 Transitway**

- The Transitway opened for service in August 2014. Final invoices are being processed, following agreement on warranty items with the bus shelter manufacturer. This project is considered complete.

2. **Van Dorn-Pentagon Rapid Bus**

- The *Transit Signal Priority (TSP) Project/Queue Jumps* construction contract was executed with the successful bidder in June and a kick-off meeting was held at the end of the month.

City staff is nearly complete with final design, while the technology for the project will be procured through an option in the DDOT TSP procurement. The City is working with WMATA to include real-time displays as part of the bus stops.

District DOT – Six projects: (\$13.09 million: 22% reimbursed as of June 30, 2015)

1. **16th Street**
 - The *Bus stop improvements* component is complete.
 - *Real Time Passenger Information (RTPI) display* installation in the District is complete (total: 120 displays in DC), with final testing and acceptance in progress.
 - *Transit Signal Priority (TSP) Project/Queue Jumps*: The first phase of the TSP and Queue Jumps procurement has been approved by Council, with the second phase scheduled to be taken up in September. Construction will start this summer.
2. **Georgia Avenue**
 - *Bus Stop Improvements, RTPI, and Transit Signal Priority/Queue Jumps* as above.
 - *Exclusive Bus Lane* construction contracts were awarded in April 2015. Construction preparations are scheduled to start in July and the project to be completed in mid-2016.
3. **H Street / Benning Road**
 - The *Security Cameras* installation is complete, awaiting final invoices.
 - *RTPI* as above.
4. **Wisconsin Avenue**
 - *RTPI and TSP* as above.
5. **14th Street Bridge to K Street**
 - *Traffic Signal Optimization*: DDOT implemented the new traffic signal timing plans for nearly 650 intersections in the downtown Washington DC core on Friday April 24, 2015. Traffic conditions will continue to be monitored for several months to further improve traffic signal timing.
 - *Uninterruptable Power Supplies (UPS) for Signals* installation is complete, awaiting final invoices.
 - *TSP* as above.
6. **Theodore Roosevelt Bridge to K Street**
 - *Traffic Signal Optimization, UPS for Signals and TSP* as above.

Maryland DOT – Four projects: (\$14.12 million: 46% reimbursed as of June 30, 2015)

1. **Takoma/Langley Transit Center**
 - Construction of the steel structure of the transit center is in progress, to be followed by the glass canopy structure. Construction work is on track for an opening goal of October 2015.
2. **University Boulevard Corridor Enhancements**
 - The *Bus stop improvements* component is complete.
 - *Real Time Passenger Information (RTPI) display* installation is complete (total: 18 displays in MD), with final testing and acceptance in progress.
3. **US-1 Corridor Enhancements**
 - *Queue Jumps* final design is being completed by WMATA, which will then lead to procurement.
 - *TSP* design is also being completed by WMATA, while the technology for the project will be procured through an option in the DDOT procurement.
4. **Veirs Mill Corridor Enhancements**
 - *RTPI* as above.

PRTC – One project: (\$9.65 million: 88% reimbursed as of June 30, 2015)

1. **Buses and ITS Technology:**

- *Bus* procurement was completed in 2013 and *Security Camera* installation in 2011.
- The *Computer-Aided Dispatch and Automatic Vehicle Location (CAD/AVL)* system has been successfully installed on all vehicles with over 90% in full operation. Three milestones remain for payment, including fixing a farebox issue, receipt of final documentation, and final acceptance testing. A one year maintenance contract payment in early 2016 will complete the project.

WMATA – Three projects: (\$11.07 million: 3% reimbursed as of June 30, 2015)

1. **Addison Road**

- *Real Time Passenger Information (RTPI) display* installation is complete (total: 4 displays at WMATA stations in MD), with final testing and acceptance in progress.
- *Busbay* improvement work is complete.

2. **VA-7 (Leesburg Pike)**

- *Transit Signal Priority (TSP)* prototype intersection tests will take place along VA-7 at locations in Fairfax County (at a VDOT signal) and in the City of Alexandria in the next few weeks. Also in development is the operational readiness test procedure for installation of on-board software and fleet installation. WMATA will start TSP installation after the technical documentation has been reviewed, revised and finalized. All physical work is scheduled to be completed by September 30, 2015. The City of Falls Church still requires a signal upgrade prior to finalizing their MOU and agreeing on installation dates.

3. **Pentagon and Franconia-Springfield Station Improvements**

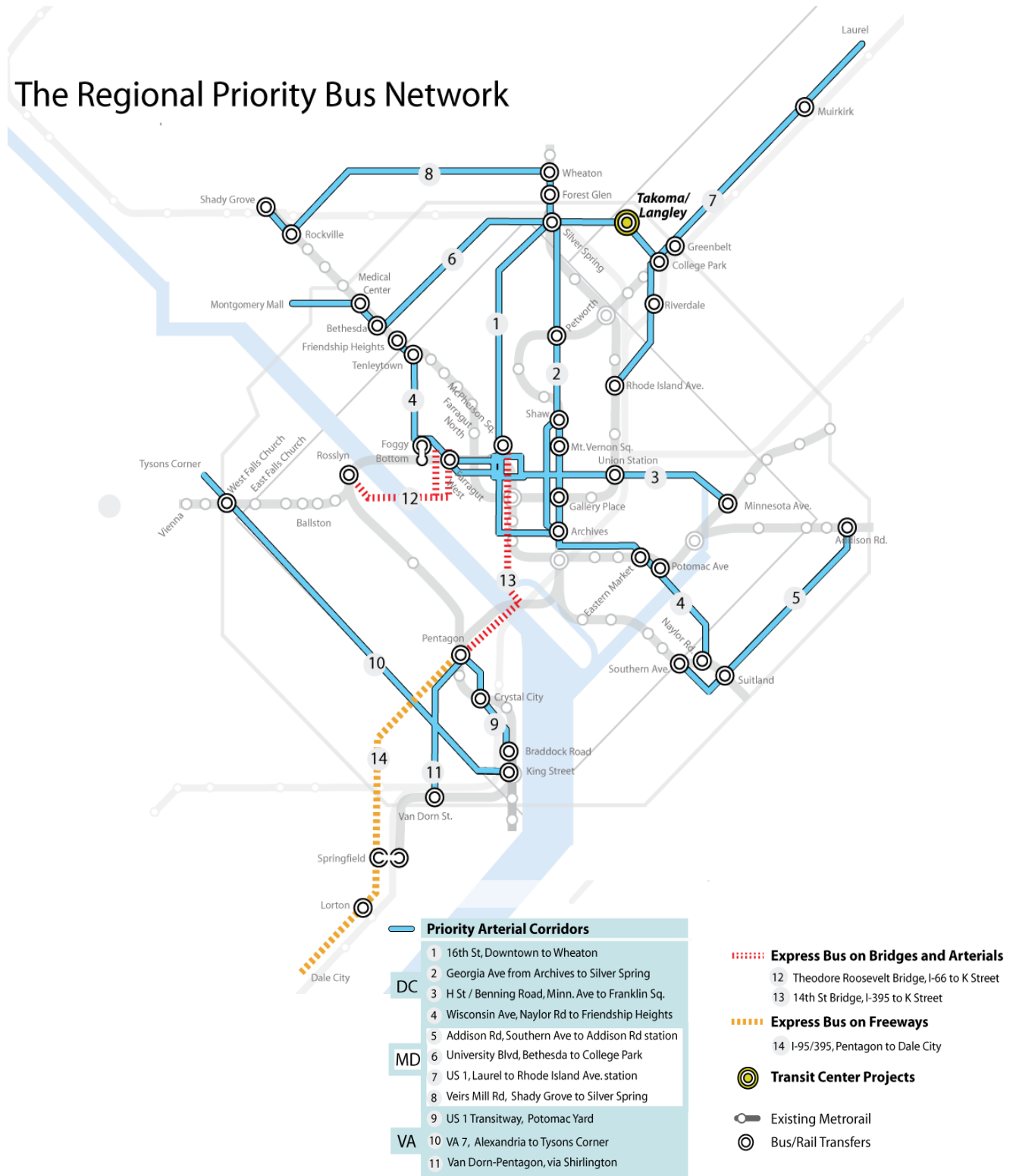
- The *Franconia-Springfield Station* construction was awarded in June. Construction is scheduled to start this summer with a seven month period of performance.
- The *Pentagon Station* construction of pedestrian access, safety, and security improvements started in early May, with installation of guardrails already completed. Additional physical improvements will be installed in July once equipment arrives, while CCTV Cameras and PA system technology vendors will be selected for implementation later in the year.
- *Alternative Bus Bays at Army Navy Drive* - This project for a bus bay facility at the Hayes Parking Lot off Army Navy Drive will continue past the lifetime of the TIGER grant, which will fund only the first part of the project. The construction design submittal is due in July 2015, with award of construction in fall 2015 if funding is available.

Staff will update the Board on the status of the above projects and highlight any potential issues associated with the timely completion and utilization of the grant funds at the July 2015 meeting.

APPENDIX: MAP AND DETAILS OF 16 COMPONENT PROJECTS OF THE TIGER GRANT

The map below shows the 16 component projects of the TIGER grant.

The Regional Priority Bus Network



The 16 component projects of the TIGER Priority Bus Transit grant are as follows:

Project Component Descriptions

#	Project Components (As Revised January 15, 2015)
1	16th Street Bus Priority Improvements (DDOT): \$1,292,317 Capital improvements include a queue jump lane, bus stop improvements, real time passenger information (RTPI) displays at up to 17 stop locations, and transit signal priority/traffic system management (left turn phase for bus) at 31 intersections.
2	Georgia Avenue Bus Priority Improvements (DDOT): \$5,442,000 Improvements include a short bus-only lane that will be constructed on Georgia Avenue to alleviate current bus delays. Additionally, improvements include transit signal priority, bus stop improvements, queue jumps, and real time passenger information (RTPI) displays will be installed.
3	H Street/Benning Road Bus Priority Improvements (DDOT): \$434,000 This project will implement RTPI displays and install security cameras at select locations.
4	Wisconsin Avenue Bus Priority Improvements (DDOT): \$1,490,000 Capital improvements include transit signal priority and RTPI displays deployed to a number of express service stop locations.
5	Addison Road Improvements (WMATA): \$2140,000 This is a WMATA priority bus corridor that connects the Addison Road and Southern Avenue Metrorail stations. The project includes the replacement of bus shelters along with installation of real-time passenger information displays at select locations.
6	University Boulevard Bus Priority Improvements (MDOT): \$235,864 Planned improvements include installation of RTPI displays and a series of bus stop enhancements along the corridor.
7	US 1 Bus Priority Improvements (MDOT): \$476,250 Improvements include queue jump lanes and transit signal priority.
8	Veirs Mill Bus Priority Improvements (MDOT): \$98,479 Improvements include deployment of RTPI displays.
9	US 1 Transitway (City of Alexandria): \$8,202,500 A bus transitway in the median of US 1 within the city limits will provide exclusive right of way for buses.
10	VA 7 (Leesburg Pike) Bus Priority Improvements (WMATA): \$1,084,000 A WMATA Priority Corridor that connects the Cities of Alexandria and Falls Church with the commercial center of Tysons Corner, the TIGER grant funds improvements that include transit signal priority at up to 25 intersections along the corridor.
11	Van Dorn-Pentagon Rapid Bus (City of Alexandria): \$646,550 The project will provide runningway improvements to support a future rapid bus service in the City of Alexandria from the Van Dorn Metrorail Station in the City of Alexandria to the Pentagon in Arlington County. TIGER funding will support signal prioritization technology, two super stops, and two queue jump lanes. These improvements will enhance transit service along three current bus routes in addition to a future new BRT route.
12	Theodore Roosevelt Bridge to K Street Bus Priority Improvements (DDOT): \$1,703,683 Implementation of an integrated transit signal priority and traffic signal optimization system along E Street, northbound 18th Street, and southbound 19th Street. Additionally, uninterruptable power supply installation will take place at select traffic lights will prevent traffic signals outages following power interruptions.

#	Project Components (As Revised January 15, 2015)
13	<p>14th Street to K Street Bus Priority Improvements (DDOT): \$2,729,190</p> <p>Implementation of an integrated transit signal priority and traffic signal optimization system along 14th Street from the bridge to K Street. Additionally, uninterruptable power supply installation will take place at select traffic lights.</p>
14a	<p>Pentagon and Franconia-Springfield Station Improvements (WMATA): \$9,770,550</p> <p>Station improvements at Pentagon Station and Franconia/Springfield Station, including bus bays, real time bus information, and traffic circulation/access/security improvements. Major technology improvements include real-time bus information displays.</p>
14b	<p>PRTC Buses and ITS Technology (PRTC): \$9,650,000</p> <p>This component includes the replacement of 13 buses, with new vehicles using state-of-the-art clean-fuel technology. The project also includes security cameras outfitted on 15 buses and the procurement of computer-aided dispatch and automatic vehicle location (CAD/AVL) technology.</p>
TC	<p>Takoma/Langley Transit Center (MDOT): \$13,309,287</p> <p>This transit center at the intersection of University Boulevard and New Hampshire Avenue will consolidate the bus stops at the intersection into one facility (although some existing bus stops will still remain in order to prevent requiring pedestrians to cross busy roads to their final destinations). The transit center will provide a safe, attractive, comfortable and efficient facility for passengers and improve pedestrian safety and accessibility.</p>



Briefing on the Implementation of the TIGER Grant for Priority Bus Transit in the National Capital Region

Transportation Planning Board
July 22, 2015

Project Implementation Update

Eric Randall

Department of Transportation Planning



Overview of the TIGER Grant

- The TPB's Transportation Investments Generating Economic Recovery (TIGER) Grant Agreement with USDOT was signed on December 14, 2010.
 - \$58.8 million in capital funding (100% Federal) for priority bus transit improvements.
 - Sixteen component projects with five implementing organizations: City of Alexandria, DDOT, MDOT, PRTC, and WMATA.
- TPB last briefed on grant progress in March 2015.
 - Requested bi-monthly updates via alternating memos and presentations.
 - Memorandum update distributed at May 2015 meeting.

Overview of the TIGER Grant (2)

- **Progress to Date / Remaining**

	<u>To Date:</u>	<u>Remaining:</u>
Period of Performance:	Four years and six months (78%)	15 months to go (22%)
Actual/Anticipated Expenditures:	\$27.7 million (47%)	\$31.1 million (53%)

Funds Expiration and Performance Monitoring

- Work must be completed by the end of June 2016 to ensure timely invoicing before funds expire in September 2016.
- Performance monitoring and reporting on the grant projects will continue through 2018.

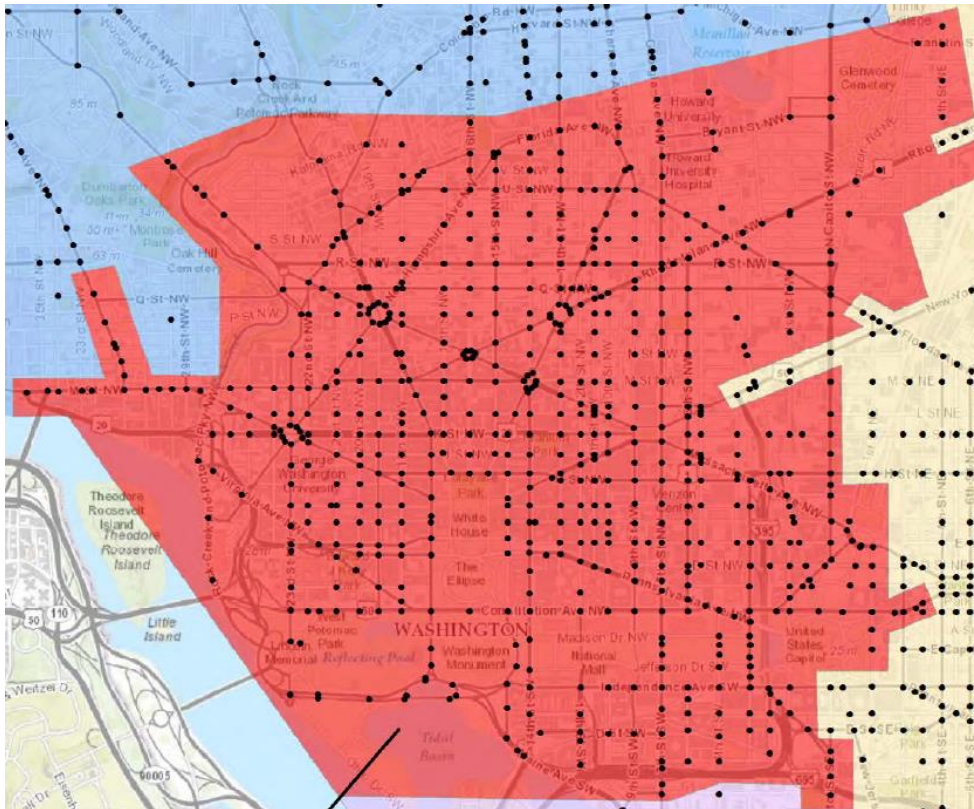
TIGER Projects Completed

- **Buses (PRTC)**
 - 13 Buses procured in 2013.
- **US-1 (VA) / Potomac Yard Transitway (Alexandria)**
 - Opened for service August 2014.
- **Bus Stop Improvements (DDOT, WMATA, MDOT)**
 - Constructed along 16th Street, Southern Ave, University Blvd.
- **Traffic Signal Uninterrupted Power Supply (DDOT)**
 - UPS installed at 30 locations in DC Downtown Core.



TIGER Projects Completed (2)

- **Signal Optimization in Downtown Core: (DDOT)**
 - DDOT implemented new traffic signal timing plans for the nearly 650 intersections in the downtown Washington DC core on April 24, 2015. (208 signals funded through TIGER).
 - Observed improvements in traffic and bus operations; adjustments continuing based on field investigations and public comments. Final report anticipated in fall 2015.



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DDOT: Traffic Signal Timing Changes Save Drivers Time

By Marina di Marzo

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Updated at 8:58 AM EDT on Tuesday, Jun 16, 2015

Changes to traffic signal timing are saving drivers time, according to the D.C. Department of Transportation.

DDOT is attempting to cut down on driving time and improve traffic flow.

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TRENDING STORIES

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- Watch News4 Live
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- Arrest Made in Case of Body Found in

TIGER Projects Nearing Completion

- **Real Time Passenger Information (DDOT, WMATA, MDOT)**
 - Installation of 169 RTPI signs complete, installed on: 16th Street, Georgia Ave, H Street/Benning Rd, University Blvd, Veirs Mill Rd, Addison Rd
 - Awaiting final acceptance with completion anticipated in summer 2015.
- **Intelligent Transportation Systems (PRTC)**
 - Computer-Aided Dispatch and Automatic Vehicle Location (CAD/AVL) system installed on fleet. In final acceptance review with completion anticipated in fall 2015.
- **Takoma/Langley Transit Center (MDOT)**
 - Scheduled for opening in fall 2015.



TIGER Projects Beginning Implementation

- **Bus Corridor Priority Treatments** (*DDOT, WMATA, MDOT, Alexandria*)

- **Transit Signal Priority (TSP)**

- Prototype deployment on VA-7 (Leesburg Pike) installed at two locations. Testing plan nearing completion.
- Following testing, installation will continue through 2016 on other corridors: 16th Street, Georgia Avenue, Wisconsin Avenue, DC Downtown Core, and US 1 (MD).
 - ❖ *Installing TSP Systems across multiple wayside traffic signal systems is technologically challenging and implementation may experience delays.*



- **Capital Improvements**

- Georgia Avenue Bus-Only lane: May 2016
- Van Dorn-Pentagon Queue Jumps and SuperStops: 2016.
 - ❖ *These projects will be completed in time based on current schedules, but unanticipated delays may occur.*

TIGER Projects Beginning Implementation (2)

- **Franconia-Springfield and Pentagon stations (WMATA)**

- **Franconia-Springfield**

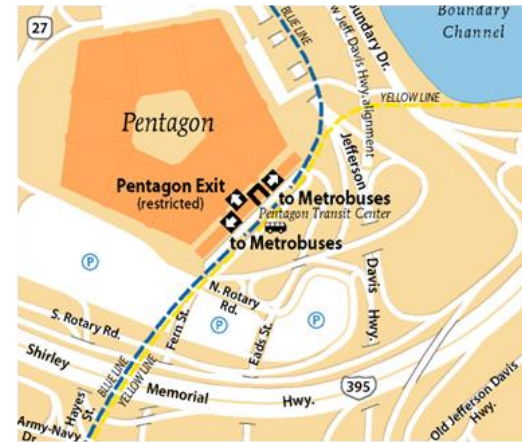
- Site mobilization for bus stop canopies and additional safety improvements for pedestrians has started, with construction planned to begin in August 2015.

- **Pentagon Transit Center**

- Guardrails, bomb resistant trash receptacles, and other access and safety & security treatments have begun installation and will continue through fall 2015.

- **Army Navy Drive Bus Bays:** TIGER will also fund partial construction of an alternative bus bay site on Army-Navy Drive, for which design is being finalized.

- 100% design is being completed, with the issuance of the construction package anticipated in August 2015, followed by bids and procurement.
- TIGER is providing \$656,000 for the initial construction of this project; approximately 25% of the preliminary total cost of \$2.5 million. The remainder of the funding has yet to be finalized.



❖ *Construction on all of these projects will continue into mid-2016. Delays could lead to these projects not being completed by the end of the grant.*

TIGER Grant for Priority Bus Transit in the National Capital Region

- Propose to provide memorandum update to the TPB in September and a briefing in November on progress of the TIGER Grant.

Questions?

