PROGRAM MANAGEMENT PLAN

TIGER DISCRETIONARY GRANT PROGRAM GRANT
FOR PRIORITY BUS TRANSIT IN THE
NATIONAL CAPITAL REGION

Version 2.3: September 20, 2013

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CONTENTS

APPENDICES

ABBREVIATIONS AND ACRONYMS

ALI – Activity Line Item
ARRA – American Recovery and Reinvestment Act
COG – Council of Governments
COG/DTP – Council of Governments / Department of Transportation Planning
DC – District of Columbia
DDOT – District Department of Transportation
DTP – Department of Transportation Planning
FDR – Final Design Review
FFR – Federal Financial Report
FTA – Federal Transit Administration
MD – Maryland
MDOT – Maryland Department of Transportation
MTA – Maryland Transit Administration
MWCOG – Metropolitan Washington Council of Governments
MPR – Milestone Progress Report
PDR – Preliminary Design Review
PMOC – Project Management Oversight Contractor
POC – Point of Contact
PRTC – Potomac and Rappahannock Transportation Commission
SHA – State Highway Administration
STIP – State Transportation Improvement Program
TIGER – Transportation Investments Generating Economic Recovery
TIP – Transportation Improvement Program
TPB – Transportation Planning Board
VA – Virginia

Approvals

This Project Management Plan has been approved by:

Eric R Randall   10/8/2013

Eric Randall   Date
TPB/COG Project Manager

Thomas Savoie (signature)   10/8/2013

Thomas Savoie   Date
MWCOG Contracts and Purchasing Manager

Version History

Version	Date	Page Changed	Modifications
1.0	June 21, 2011	-	-
2.0	November 21, 2012	iii	Added acronym list
		7-10	Provided more detail on roles of each party: TPB/COG, Project Owners, and Grant Management Contractor. Also more detail on relationships between the parties.
		11-28	Added detail on policies and procedures related to grant management, document control and maintenance of records, change order procedures, QA/QC procedures, material testing policies and procedures, cost and schedule control procedures, and testing and start up criteria and procedures.
		1, 30	Updated tables to include: project numbers in addition to names, jurisdiction of project, and other detail.
		32-33	Added detail to Section V, Financial and Schedule Management.
		34-40	Added detail to Section VI, Reporting and Invoicing requirements, including updating the required reports section and adding a section on subgrantee meetings, and clarifying the allowable budget revisions.
		42-55	Updated Project Owner point of contact lists and organizational charts.
		58	Removed current project schedule chart and added a table of originally scheduled milestone dates.
		72-77	Added site visit guidance document to Appendix.
2.1	February 22, 2013	p. 5	Added explanation of WMATA's role in SHA and DDOT projects, specifically design for SHA and purchase and installation for DDOT.
		p. 5-6	Clarified roles of program managers versus project managers for Project Owners with multiple project managers.
		p. 12	Provided a table containing the general file structure of the program SharePoint site and who has access to which folders.

Version	Date	Page Changed	Modifications
		p. 18	Clarified the nature of the Grant Management Contractor's oversight role regarding QA/QC, which is to monitor whether Project Owners are following adequate procedures.
		p. 23	Provided more details on the City of Alexandria's materials testing procedures.
		p. 28	Provided details on the City of Alexandria's procedures for testing and start-up,
		p. 34	Clarified requirements for setting up a force account for in-house labor being reimbursed by the TIGER grant.
		p. 35	Added detail about the requirements for each Project Owner to update their project schedules and key milestones through the monthly form and quarterly complete schedule submissions.
		p. 35	Added explanation of cross-cutting procurements that span multiple projects.
		p. 41-42	Provided more detail on the content of the site visits and the follow up that is conducted based on the site visit reports
		p. 42-44	Added specific steps on the budget revision process, including a description and flow chart.
		p. 56	Added organization chart for MWCOG.
		p. 63	Replaced force account justification template with an updated version.
		p. 64-65	Updated DDOT projects with revised activity line items per FTA's budget revision approval in December 2012.
		p. 80-86	Replaced site visit checklist with updated version.
		p. 87	Added new appendix of a budget revision template.
		p. 66 - 67	Added charts showing project contingencies and critical path items that span multiple projects.
2.2	April 15, 2013	Throughout	Updated form and invoice due date from the 7th of each month to the last day of each month.
		p. 5	Expanded explanation of WMATA's role on SHA's projects.
		p. 15	Added additional information about SHA's quality control for design documents.
2.3	September 20, 2013	P.28 Appendix C-J	Added the RTPI/TSP matrices as an appendix to Policies and Procedures section

Version	Date	Page Changed	Modifications
			G Testing and Start-Up Criteria and Procedures and Testing Procedure. Reorganized appendix labeling.
		Appendix H	Updated the reimbursement instructions. This includes the DBE verification information.

I.   Introduction

A. Background

On February 17, 2010, U.S. Transportation Secretary Ray LaHood announced the award of a $59 million grant in stimulus transportation funding for a network of priority bus corridors and a transit center in the Washington, DC region to the National Capital Region Transportation Planning Board (TPB).

The *National Capital Region Transportation Planning Board (TPB)* is responsible for coordinating transportation planning at the regional level in Northern Virginia, Suburban Maryland and the District of Columbia. The TPB is the federally designated Metropolitan Planning Organization (MPO) for the region. COG serves as the administrative agent for the TPB under an agreement with the Transportation Departments of Maryland, Virginia, and the District of Columbia.

This Program Management Plan (PMP) outlines the policies and procedures the Metropolitan Washington Council of Governments (COG) will use in the management and administration of the TIGER Discretionary Grant Program Grant for Priority Bus Transit in the National Capital Region.

Note that all dates in the PMP refer to calendar dates; if the calendar date for MWCOG deadlines falls on a weekend or federal holiday, the date will be moved to the next working day after that date. However, federally imposed deadlines move to the previous working day before the date.

B. Roles of Each Party and Relationships Between Parties

There are several key parties involved in the management and execution of the TIGER Grant who will be referred to throughout this Program Management Plan

1) **TPB/COG** is the primary grant recipient. TPB/COG has signed the grant agreement with FTA and, as the grantee, is responsible for managing the program to complete the projects according to the agreed upon schedules, within agreed upon budgets, and to a level of quality that is the standard of the industry. TPB/COG may engage others to help manage and administer the program, including the Contractor hired for project and grant management assistance described below. TPB/COG has subgrantee agreements with all subrecipients ("Project Owners") that contractually bind the Project Owners to implement the projects in accordance with the schedules, budgets, and requirements of the FTA grant agreement. In addition, while not a Project Owner as far as project implementation, TPB/COG has the same responsibilities as the Project Owners as it pertains to the administration of the grant funds reserved for overall program management. TPB/COG is also responsible for reporting the progress of each project and processing and submitting invoices to FTA.

2) **Project Owners** are the five public agencies that have signed subgrantee agreements with TPB/COG to implement the 16 component projects funded by the grant, and are accountable for complying with federal requirements at all times. The Project Owners are responsible for completing each of their respective projects on-time and within the specified budget in the grant agreement. In order to meet COG reporting timeframes, the Project Owners are responsible for submitting timely monthly reports and invoices. In addition to the five Project Owners listed below, MTA and SHA are also considered Project Owners, as MDOT has delegated authority for executing the projects and invoicing against the grant to those two modal agencies.

The following organizations are Project Owners for the regional TIGER grant:

- City of Alexandria, Virginia;

- District Department of Transportation (DDOT);

- Maryland Department of Transportation (MDOT) delegating to:

    o Maryland State Highway Administration (SHA)

    o Maryland Transit Administration (MTA)

- Potomac and Rappahannock Transportation Commission (PRTC); and the

- Washington Metropolitan Area Transit Authority (WMATA).

3) **Grant Management Contractor** is the firm with whom TPB/COG has contracted to assist them and the Project Owners with all aspects of managing the grant, as described in detail in the section II D, *Roles and Responsibilities of the Grant Management Contractor*.

4) **Project Managers** are the managers for the 16 component projects and/or managers of specific activity line items that may span multiple projects.

5) **Federal Transit Administration (FTA)** is the funding agency with management responsibility for the TIGER grant. The FTA is assisted by the **Project Management Oversight Contractor (PMOC)**. USDOT designated the Federal Transit Administration as the modal administration responsible for managing the Federal grant, and, except where otherwise noted, grant management responsibilities and requirements are in accordance with standard FTA grant management practices.

While TPB/COG has entered into a contractual relationship with the Grant Management Contractor for assistance with managing the grant, the primary management relationship remains between TPB/COG and the Project Owners. The Grant Management Contractor is responsible for maintaining communication with the TPB/COG Project Manager to provide updates regarding the projects and to report any issues that are identified during the Grant Management Contractor's interaction with the Project Owners.

While the Grant Management Contractor maintains responsibility for working directly with each Project Owner to assist with grant management activities, TPB/COG is also involved in working with the Project Owners, including holding monthly meetings or teleconferences with all Project Owners. Detailed information for points of contact for each Project Owner is located in Appendix A.

C. Funded Projects in the TIGER Grant

The $58.8 million TIGER grant covers 16 projects over two states and the District of Columbia being implemented by five Project Owners. The funded projects are listed in Table 1.

Table 1 – TIGER Grant-Funded Projects

Project #	TIGER Project Component	Location	Project Owner
2	16th Street Bus Priority Corridor Enhancements	DC	DDOT
3	Georgia Avenue Bus Priority Corridor Enhancements	DC	DDOT
4	H Street/Benning Road Bus Priority Corridor Enhancements	DC	DDOT
5	Wisconsin Avenue Bus Priority Corridor Enhancements	DC	DDOT
6	Addison Road Bus Priority Corridor Enhancements	MD	WMATA
7	University Boulevard Bus Priority Corridor Enhancements	MD	MDOT/SHA
8	US 1 (MD) Bus Priority Corridor Enhancements	MD	MDOT/SHA
9	Veirs Mill Road Bus Priority Corridor Enhancements	MD	MDOT/SHA
10	US 1 (VA) Transitway	VA	City of Alexandria
11	VA 7 (Leesburg Pike) Bus Priority Corridor Enhancements	VA	WMATA
12	Van Dorn - Pentagon Bus Priority Corridor Enhancements	VA	City of Alexandria
13	T. Roosevelt Bridge to K Street Bus Priority Corridor Enhancements	DC	DDOT
14	14th Street Bridge to K Street Bus Priority Corridor Enhancements	DC	DDOT
16a	Pentagon - Franconia Springfield Station Improvements	VA	WMATA
16b	PRTC Buses and ITS Technology	VA	PRTC
18	Takoma/Langley Transit Center	MD	MDOT/MTA

D. Descriptions of Each Party

TPB/COG
The *National Capital Region Transportation Planning Board (TPB)* is responsible for coordinating transportation planning at the regional level in Northern Virginia, Suburban Maryland and the District of Columbia. The TPB is the federally designated Metropolitan Planning Organization (MPO) for the region. The Council of Governments (COG) serves as the administrative agent for the TPB under an agreement with the Transportation Departments of Maryland, Virginia, and the District of Columbia. This document refers to TPB/COG as the prime recipient; COG, as the administrative agent of TPB, is the grantee, and is responsible for all of the day to day management functions of administering and monitoring the grant.

The TPB/COG Project Manager (COG PM) for the TIGER grant is responsible for overall grant management, including: ensuring that all projects achieve schedule milestones, follow the intended scope, and are completed within the agreed budget; ensuring that the Project Owner follows the appropriate policies and procedures; encouraging the Project Owners to design and implement each project to a level of quality that is the standard of the industry. The COG PM is the direct contact for the grant and maintains communication with FTA and the PMOC and reports on expenditures and progress for all projects that are funded with the TIGER grant. The position qualifications for this manager include an understanding of key federal requirements relative to the grant requirements, fundamental understanding of program management and transit projects, and the ability to submit monthly and quarterly reporting information. The COG PM oversees the efforts of the Project Owners to ensure that the projects are progressing as planned and are addressing their original intents.

WMATA
The *Washington Metropolitan Area Transportation Authority (WMATA)* is the transit agency that provides regional transit service in the following jurisdictions within the COG region: District of Columbia; Montgomery County MD (and all incorporated cities and towns); Prince George's County MD (and all incorporated cities and towns); Fairfax County, VA; Arlington County, VA; City of Alexandria, VA; City of Falls Church, VA; and City of Fairfax, VA. WMATA provides heavy rail, bus, and paratransit services in these jurisdictions, and is governed by a Board that includes representatives from DC, Maryland, Virginia, and the federal government.

WMATA's Project Manager for the TIGER grant is responsible for ensuring that their three projects (#6, #11, and #16a) comply with all applicable federal requirements listed in the Subgrantee Agreement, including adherence to applicable federal procurement regulations. The Project Manager also manages WMATA's projects to achieve scheduled milestones and complete each project within the agreed budget while ensuring that the design and implementation of each project is to a level of quality that is the standard of the industry. The Project Manager reports on expenditures and progress for WMATA's projects that are funded with the TIGER grant. The position qualifications for Project Manager include program and project management and transit project implementation experience. The Project Manager is also qualified in managing construction projects and implementing transit improvements.

In addition to the projects that WMATA is responsible for, WMATA has agreements in place with both Maryland State Highway Administration (SHA) and the District Department of Transportation (DDOT) to handle various elements of their projects. For SHA, WMATA is responsible for overseeing the design work for the queue jumps and Transit Signal Priority for projects #7, 8, and 9. SHA is involved in review, but WMATA is the lead agency for the design phase. WMATA project managers work closely with SHA project managers to ensure that SHA's input is included in all of the designs. For SHA and DDOT, WMATA will contract directly with the vendor for manufacture and installation of real-time passenger information displays on two of SHA's and four of DDOT's projects.

DDOT
The *District Department of Transportation (DDOT)* serves as the department of transportation for the District of Columbia. DDOT does not operate transit service, although it owns the DC Circulator system, which is in turn managed by WMATA and operated by a private contractor.

DDOT has one overall program manager who oversees all of the project managers assigned to each individual project or project component. Adherence to grant requirements and maintaining project schedules and budgets are ultimately his responsibility, however the project managers also play a key role. DDOT's Project Managers for the TIGER grant are responsible for ensuring that the six projects (#2, #3, #4, #5, #13, and #14) comply with all applicable federal requirements listed in the Subgrantee Agreement, including adherence to applicable federal procurement regulations. Project Managers manage DDOT's projects to achieve schedule milestones and complete each project within the agreed budget while ensuring that the design and implementation of each project is to a level of quality that is the standard of the industry. The Project Managers report on expenditures and progress for DDOT's projects that are funded with the TIGER grant. The position qualifications for Program Manager and Project Managers include project management and transit project implementation experience. Project Managers are also qualified in managing construction projects and implementing transit improvements.

City of Alexandria
The City of Alexandria, through its Transportation and Environmental Services Department, plans for transit service and roadway improvements in the City. It has a separate transit operations agency, DASH, which operates local bus service in the city.

The City of Alexandria has one overall program manager who oversees each of the project managers assigned to the City's two projects. The City of Alexandria's Project Managers for the TIGER grant are responsible for ensuring that the two projects (#10 and #12) comply with all applicable federal requirements listed in the grant agreement, including adherence to applicable federal procurement regulations. The Project Managers also manage the City's projects to achieve schedule milestones and complete each project within the agreed budget while ensuring that the design and implementation of each project is to a level of quality that is the standard of the industry. The Project Managers report on expenditures and progress for the City's projects that are funded with the TIGER grant. The position qualifications for Project Manager include

project management and transit project implementation experience. Project Managers are also qualified in managing construction projects and implementing transit improvements.

PRTC

The *Potomac and Rappahannock Transportation Commission (PRTC)* operates transit service in Prince William County, Virginia, and between Prince William County and the District of Columbia and other key destinations. PRTC operates commuter bus service under the name OmniRide and local deviated fixed-route service under the name OmniLink.

PRTC has one overall program manager who oversees each of the project managers assigned to PRTCs separate Activity Line Items. PRTC's Project Managers for the TIGER grant are responsible for ensuring that the project (#16b) complies with all applicable federal requirements listed in the grant agreement, including adherence to applicable federal procurement regulations. The Project Managers also manage PRTC's projects to achieve schedule milestones and complete each project within the agreed budget while ensuring that the design and implementation of each project is to a level of quality that is the standard of the industry. The Project Managers report on expenditures and progress for PRTC's projects that are funded with the TIGER grant. The position qualifications for Project Manager include project management and transit project implementation experience. Project Managers are also qualified in managing construction projects and implementing transit improvements.

MDOT

Maryland Department of Transportation (MDOT) has overall responsibility for planning, building, operating and maintaining all transportation in the state. It provides oversight over five modal administrations which have more direct roles in conducting the planning and implementation for their individual modes. MDOT has delegated responsibility to State Highway Administration (SHA) and Maryland Transit Administration (MTA) to manage the respective projects for each agency. Staff from SHA and MTA will serve as primary contacts for their respective TIGER projects.

SHA

The *Maryland State Highway Administration (SHA)* is the highway modal administration of MDOT, and is responsible for planning, building, and maintaining state roadways.

SHA's Project Managers for the TIGER grant are responsible for ensuring that the three projects (#7, #8, and #9) comply with all applicable federal requirements listed in the grant agreement, including adherence to applicable federal procurement regulations. Project Managers also manage SHA's projects achieve schedule milestones and complete each project within the agreed budget while ensuring that the design and implementation of each project is to a level of quality that is the standard of the industry. The Project Managers report on expenditures and progress for SHA's projects that are funded with the TIGER grant. The position qualifications for the Project Manager include project management and transit project implementation experience. Project Managers are also qualified in managing construction projects and implementing transit improvements.

MTA

The *Maryland Transit Administration (MTA)* is the transit modal administration of MDOT, and is responsible for statewide transit planning and provision of transit service through its commuter bus network, bus service in the City of Baltimore, and MARC commuter train. The agency also plays a role in capital projects and planning for transit facilities and services throughout the state.

MTA's Project Manager for the TIGER grant is responsible for ensuring that the project (#18) complies with all applicable federal requirements listed in the grant agreement, including adherence to applicable federal procurement regulations. The Project Manager also manages MTA's projects to achieve schedule milestones and complete each project within the agreed budget while ensuring that the design and implementation of each project is to a level of quality that is the standard of the industry. The Project Manager reports on expenditures and progress for MTA's projects that are funded with the TIGER grant. The position qualifications for the Project Manager include project management and transit project implementation experience.

II.   *Program Goals and Objectives/Roles and Responsibilities*

A. TIGER Program Goals

Known as TIGER, the Transportation Investments Generating Economic Recovery discretionary grant program made $1.5 billion available for award through a competitive application process. The U.S. Department of Transportation received 1,400 applications totaling nearly $60 billion, from which 51 awards were made. The extreme level of competition demonstrated nationwide for these TIGER funds underscores the significance of the Washington region's success in this effort.

The competitive application process for TIGER differed markedly from the traditional formula-based transportation funding programs authorized under federal transportation funding laws. Under these traditional programs, funds are distributed largely by formula on a modal basis. State highway departments receive money from the Federal Highway Administration and transit agencies receive money from the Federal Transit Administration. Not only are highway and transit projects not compared, but the funding streams to each mode are not at all equal.

In contrast, TIGER grant awards were made using a criteria-based approach for selecting projects with demonstrated benefits to the nation and/or metropolitan areas and without particular consideration to a specific mode. This arrangement put the TPB in a competitive position to lead the development of a TIGER grant application through the assistance of its partner agencies, and to submit a robust proposal on behalf of the region. Under TIGER, the TPB played a large role by hosting and facilitating the regional process to develop and propose the project through the application effort. The application process infused innovation into regional transportation planning in a way that complemented traditional regional processes in the Washington region.

TIGER funding enables the region to look forward to faster and more reliable bus service along with safer, faster, and more convenient bus transfers at one of the busiest transfer points in the region. In a difficult economy where many jurisdictions have been forced to cut vital transit services, the TIGER award allows the region to improve the efficiency and functionality of its existing transportation system without imposing higher operating costs on local and regional providers.

B. *Roles and Responsibilities of TPB/COG*

The TPB passed a resolution approving the application for the TIGER grant by TPB/COG as well as subsequent management of the grant by TPB/COG contingent upon award. COG is the designated recipient of the grant, and is bound by a Grant Agreement with the US Department of Transportation (USDOT) to carry out the approved TIGER project according to the terms and conditions established.

TPB/COG is responsible for:

1) Managing the projects awarded under this grant to ensure that the project goals, objectives, performance requirements, timelines, milestone completion, budgets, and other related program criteria are being met. TPB/COG has hired a Grant Management Contractor to assist with performing these duties and will provide guidance and oversight to the Contractor.

   TPB/COG uses the Grant Management Contractor to ensure that all Project Owners adhere to the terms and conditions of the grant agreement and FTA, making use of the Contractor's services to review project schedules and budgets, procurement specifications and contractual agreements, agency invoices, and certification and acceptance documents, and other documentation. The Grant Management Contractor informs TPB/COG of each project's status and all project delays or issues that impact or have the potential to impact project progress. If delays and/or issues are identified as a potential threat to the project, TPB/COG and/or the Grant Management Contractor contacts the Project Owner to identify the issue and measure its overall impact and discuss options available to progress the projects as planned.

2) Monitoring the expenditures of the grant via monthly reports submitted by the Grant Management Contractor and requesting reimbursement via ECHO for eligible costs incurred on behalf of the Project Owners.

   TPB/COG will use the assistance of the Grant Management Contractor as needed to ensure that all monthly reports and invoices are completed by each Project Owner for each project for which that Project Owner is responsible.

3) Submitting monthly and quarterly reports developed by the Grant Management Contractor on behalf of the Project Owners.

TPB/COG is responsible for the final submission of the FTA Monthly Report and quarterly Federal Financial Report, Milestone Progress Report, 1512 Report, Disadvantaged Business Enterprise (DBE) Report, and FTA Quarterly Report to FTA, by e-mail to the FTA, via the FTA's TEAM grant management system, and by other web-based reporting systems and/or e-mail addresses as required. TPB/COG is also responsible for the final submission of the annual FTA Report.

4) Coordinating with the Grant Management Contractor to review Project Owner's policies and procedures to confirm that the Project Owners are adhering to their processes and are completing the projects within the guidelines set forth by the FTA.

C. *Roles and Responsibilities of Project Owners, Project Managers, and Other Parties*

In accordance with the Subgrantee Agreements between TPB/COG and each Project Owner, the Project Owners have agreed to carry out and complete their respective projects without undue delays and in accordance with federal requirements and the agreed upon scope, budget, and schedule. Each Project Owner has individual Project Managers and internal staff that assist with carrying out the implementation of the projects and the requirements of the grant. Organizational charts for each Project Owner are included in Appendix B.

Project Owners are responsible for:

1) Managing their respective projects in accordance with federal requirements, including, but not limited to, complying with all program requirements, annual Certifications and Assurances, and other terms and conditions, including Title VI requirements.

2) Managing their respective projects within the agreed upon scope, budget, and schedule.

3) Managing project contractors to make ensure that projects are carried out in accordance with FTA requirements and to a level of quality that is the standard of the industry.

4) Providing the status, progress, changes and issues regarding their projects by completing the monthly forms developed by the Grant Management Contractor or directly notifying the Grant Management Contractor and/or TPB/COG.

5) Submitting timely invoices to TPB/COG, containing eligible expenses, including invoice summary sheets that summarize the information contained in the invoices as well as staff summary sheets that reflect staff time charged to the TIGER grant. Invoices will also be reviewed by the Grant Management Contractor and processed by TPB/COG. *Project Owners' disbursements are contingent upon the complete and timely submission of this information to TPB/COG.*

6) Posting all procurement documents, contracts, and change order documents for the projects to the SharePoint site.

7) Meeting and/or communicating with the Grant Management Contractor on a monthly basis to provide up to date information on the status of their projects and making the Grant Management Contractor aware of all issues that have impacted or have the potential to impact the cost, schedule, budget, and quality of the project.

D. Roles and Responsibilities of the Grant Management Contractor

The Grant Management Contractor is responsible for:

1) Assisting TPB/COG with managing the projects awarded under this grant to ensure that the project goals, objectives, performance requirements, timelines, milestone completions, budgets, and other related program criteria are being met.

2) Meeting individually with the Project Owners to obtain project information and providing assistance and guidance as needed. The Grant Management Contractor notifies TPB/COG of all issues or concerns that have impacted or have the potential to impact the planned progress, budget, and quality of all projects. The Grant Management Contractor will also notify TPB/COG of all safety and quality control or quality assurance issues that would affect the timely completion of the projects and/or have a possible impact on project quality.

3) Collecting and reviewing monthly forms submitted by Project Owners that contain financial and project status information. The Grant Management Contractor uses that information to provide TPB/COG with monthly, quarterly, and annual reports for submission to FTA.

4) Reviewing project procurement, schedule and budget documentation for adherence to FTA Circulars 5010.1D and 4220.1F and to manage adherence to schedule and budget, alerting TPB/COG to deviations and working with the Project Owners to address the situation.

5) Reviewing invoice documentation submitted by Project Owners to ensure that expenses are eligible for reimbursement.

6) Providing on-site support at TPB/COG as needed.

E. Coordination

TPB/COG and the Grant Management Contractor facilitate monthly project update meetings and/or teleconferences with the Project Owners to discuss the progress of the project

components. Concerns that arise are resolved through coordination among TPB/COG, the Project Owner, and the FTA to ensure that TIGER's overall program goals are successfully met.

The Grant Management Contractor holds a weekly call with the COG PM to discuss the status of all ongoing work and all identified issues that have the potential to impact the projects. In addition, the Contractor's monthly invoice and status report to TPB/COG will provide more detailed information on project schedule and budget status.

III. Policies and Procedures

A. Introduction

TPB/COG is directly responsible to the FTA for the management of this grant, but through the subgrantee agreements, TPB/COG has contractually obligated the Project Owners to implement the capital projects of this grant in accordance with the rules and requirements of the grant agreement with the FTA. Generally, the Project Owners have responsibility for capital project implementation and all associated functions, including cost and schedule, QA/QC, testing, design and engineering.

Periodically, TPB/COG and the Grant Management Contractor meet individually with the Project Owners to confirm that the established procedures are appropriate and adequate for the TIGER grant and are adhered to. In cases where the procedures are not appropriate and adequate, TPB/COG and the Grant Management Contractor work with the Project Owner to ensure that an appropriate process is followed and that compliance is met. These meetings are scheduled to occur semi-annually with follow up discussions quarterly. In addition to these formal meetings to track adherence to policies and procedures, the Grant Management Contractor holds monthly telephone calls or in-person meetings with each Project Owner individually to discuss the status of their projects, quality assurance and control processes and ensure that the required documentation has been posted to SharePoint at the time it is available.

In order for TPB/COG to monitor the budget, scope and schedule for each project, each Project Owner is responsible for reporting all changes that will impact all of these items. The Project Owners are required to submit project status forms on a monthly basis that contain information on their schedule adherence, expenditures, budget issues, and status with regard to issuing awards and conducting reviews of their contractors' outputs.

The following sections describe or otherwise provide links to the location of information on specific policies and procedures required for the implementation of federal grants and of capital projects, as the policies and procedures pertain to the key components of the TIGER grant. All policies and procedures are also on SharePoint in each Project Owner's folder. In addition, each Project Owner is responsible for uploading to SharePoint all documents related to compliance with the Policies and Procedures, such as signed design review documents and completed QA/QC plans. The Grant Management Contractor and/or TPB/COG may also request that they provide other records, such as email correspondence with a contractor.

Each Project Owner's policies and procedures have been reviewed by Professional Engineers on the Grant Management Contractor's team who have expertise in design of capital projects and construction management to ensure that the policies and procedures meet industry standards. Recommendations are provided to the Project Owners based on this review, and the Grant Management Contractor continues to monitor compliance with these policies and procedures through monthly meetings with each project owner and semi-annual site visits.

B. Document Control and Maintenance of Records

TIGER Grant Project SharePoint Site
A fully secure, web-based Microsoft SharePoint site has been set up for the project: https://mwcog-tiger.securespsites.com. There is a separate folder for each Project Owner that contains their required monthly forms and specific project-level information. There are two shared folders, Resource Information folder and the Federal Reports folder, that are accessible to all. The Resource Information folder contains guidance and reference documents about federal requirements, each project, and meeting notes and presentations. The Federal Reports folder contains all of the reports that the Grant Management Contractor generates. The following table provides details about each folder and identifies the parties who have access to the folders.

	SharePoint Folders	Access
Project Owners	• A-133 Compliance • Contracts Awarded • Forms (Current and Archived) • Invoices • Issued RFPs • Monthly Reports • Project Schedules and Budgets • Policies and Procedures • Site Visit Reports • Title VI Program Approval Letters	• Each Project Owner has access to its own Project Owner folder • TPB/COG • Grant Management Contractor • FTA • PMOC
Resource Information	• Additional Documents • COG Title VI Program Approval Letters • DBE Guidance • Federal Guidance • FTA FMO Course • Grant Agreements • Invoicing Guidance • Meeting Notes and Presentations • Performance Monitoring • Program Management Plan • Project SOWs	• All Project Owners • TPB/COG • Grant Management Contractor • FTA • PMOC

SharePoint Folders	Access
Federal Reports 1201c Report 1512 Report - COG Monthly - ALL - DBE Reports - Federal Financial Reports - FTA Annual Reports - FTA Monthly Reports - FTA Quarterly Reports - Full TEAM Reports - Milestone Progress Reports - Performance Reports – Before - Project Core Accountability Reports	- All Project Owners - TPB/COG - Grant Management Contractor - FTA - PMOC

The Grant Management Contractor is responsible for maintenance of the project SharePoint site and all related technical support. TPB/COG, the Grant Management Contractor, FTA, and the PMOC have access to all folders; Project Owners are able to open their individual agency folders and shared folders.

TPB/COG
Hard copy versions of all invoices submitted by the Project Owners and Grant Management Contractor as well as all monthly, quarterly, and annual grant status reports that are developed by the Grant Management Contractor are stored onsite at TPB/COG's offices at 777 North Capitol Street, NE, Washington, DC 20002. The original copy of all incoming contractual correspondence, as well as a copy of all other correspondence related to contracts is maintained in the office of the TPB/COG Project Manager. The original copy of all contractor requisitions for payment should be forwarded to the Accounting Office, and a copy maintained by the Contract Manager. Procurement records will be maintained as required by 40 CFR 31.36.

Grant Management Contractor
The Grant Management Contractor uses SharePoint (an internal site, in addition to the SharePoint site set up specifically for the TIGER project), which is a redundant backed up document management site where version control is facilitated by an exclusive check-in/check-out process. The document repository is available to all staff 24/7 via secure remote access. The system archives previous versions of documents, and in addition, Grant Management Contractor staff uses track changes and embedded notes features in electronic documents, which allows for red lined edits and comments. As project deliverables are finalized, old versions are removed from the general document library and archived. All documents generated by staff are reviewed by the Grant Management Contractor Project Manager before submission to the client.

A summary of the document control and maintenance of records for each Project Owner can be found below:

Project Owners

District of Columbia Department of Transportation (DDOT)

DDOT's Construction Management Manual - May 2010, Section 4 "Communications Controls" guides their document control procedures with emphasis on correspondence, reports, meeting documentation, and photographic records.

DDOT's manual outlines the requirements for ensuring all incoming correspondence is read, prioritized, distributed, acted upon, and filed as necessary. DDOT requires all files to be kept secure at all times. Inspectors are required to fill out Daily Reports and a daily personnel and equipment record, one for each contract they are assigned. A Monthly Report is prepared for each contract and contains major events, milestones, starts and completions of large activities, expenditures, visitors, changes and claims, and summaries of work complete and time expired, where required. The manual states that meetings should have minutes to record the date and time, the purpose and business of the meeting, decisions agreed and action items to follow including the identification of the person(s) responsible for the action item(s), and should identify attendees and indicate distribution of the minutes. Records of existing conditions (with supplemental photos) are kept as are additional photographs of work activities.

City of Alexandria

For grants, the City of Alexandria adheres to "Finance Procedure FD 2-11: Grant Administration," Effective Date 05-20-2009 to guide their document control procedures. For purchasing related documentation, the City of Alexandria adheres to "Administrative Regulation 5-1: "Purchasing Policy," Effective Date 07-01-2001. The City has defined their document control procedures in Section 13 of their American Public Works Association reaccreditation documentation, with links to other relevant policy documents.

For the US-1 Transitway project, all outgoing and incoming correspondence related to the project is kept in dated correspondence folders within folders for the project phase (i.e., 60 percent design, 100 percent design, Construction Documents) in the City of Alexandria's computer network system. As stipulated in the agreement between The City of Alexandria and Lane Construction, all design documents are provided in both hardcopy and electronic formats. All design documents are reviewed and signed off on by the relevant division and project leaders, and kept on file both in physical and electronic form at the City. It is the City's responsibility to retain copies of signed design documents and other approved work products.

The document control procedure for the Van Dorn-Pentagon Rapid Bus project mirrors that of the US-1 Transitway. All outgoing and incoming correspondence related to the project is kept in dated correspondence folders within folders for the project phase in the City of Alexandria's computer network system. All design documents are signed off on by the relevant division and project leaders, and kept on file both in physical and electronic form at the City.

Potomac and Rappahannock Transportation Commission (PRTC)

PRTC does not have a formal document control and maintenance of records policy; however, it does follow strict protocols for each of its TIGER funded projects. PRTC maintains records of all electronic and printed communication between the agency and the replacement buses manufacturer, Gillig. Correspondence on the purchase order serves as the record of PRTC's desired specifications for the replacement buses and how Gillig responded to the agency's requests.

All of the email correspondence, design review documentation, and deliverable review documentation related to the CAD-AVL project are maintained on PRTC's internal SharePoint site.

MTA

MTA's Memorandum from Francis J. Kernan, Jr., P.E., Assistant Manager, QA and QC Division, Office of Engineering to John Gasparine, Maryland Transit Administration, Subject: Procurement and Accounting Contact Information Request, dated June 3, 2011 includes information on document control procedures in Section 01780, Close Out Procedures. MTA's document control procedures specify that document records be retained on-site, including: red-lined contract drawings showing as-built conditions; specifications; addenda; change orders and other modifications to the Contract; reviewed shop drawings, product data, and samples; and updated as-built drawings. The record documents must be stored separately from documents used for construction, and information must be kept current along with the construction process.

SHA

SHA's Standard Specifications for Construction and Materials, July 2008, provides guidance on retention of records and document control in the General Provisions Section 7.36. It specifies that all construction contractors shall retain and maintain all records and documents including, but not limited to, cost or pricing data, relating to this Contract for three years after final payment by the State hereunder or any applicable statute of limitations, whichever is longer, and shall make them available for inspection and audit by authorized representatives of the State, including the procurement officer or his designee at all reasonable times. For the TIGER Grant, all design is being directly managed by WMATA, however SHA does have its own design control documents that it follows in its review of the designs developed by WMATA's contractor.

As per SHA's Traffic Control Devices Design Manual, for signal projects SHA develops preliminary design, followed by concept review, final design, and final review. Each review step consists of review by several parties, including at the district and director level for concept review and the addition of construction review for the final quality review. Before moving on to the development of the PS&E (Plans, Specifications and Engineering) package, approval must be granted through an independent review and review by the team leader, assistant division chief, division chief, and director. The Design Manual also specifies that quality review be conducted

as an integral part of the design process and that designers should let other designers review their work.

WMATA

As specified in Chapter 8 of the WMATA TIGER Project Management Plan (PMP), WMATA has three major systems where the documents are managed and approved – an internal website where key policies and procedure are approved; the MEAD system (Metro Electronics Approval of Documents) which is used for an approval from the Board, and the ProCore System where the invoices are approved and has storage of other important project documents. ProCore is a web based software system which integrates design consultants, various departments of WMATA and the contractors for correspondences, data/document management, clarification process/Required for Information (RFI) and approval process for invoice, submittal and progress schedule approval process. Access to folders is allowed according to the needs of consultants, the type of work performed by Departments of WMATA and the position of WMATA and Consultant employees.

All documents which are stored on WMATA computers are backed up on daily basis on a WMATA secured server. There is a provision of creating folders for other departments' use by having data folders transferred to the department servers.

WMATA also uses document control software (Documentum) to store and share access to critical design and/or construction phase deliverables (i.e., performance specs, 30% plans, 60% plans, 100% plans, bid documents, change orders, etc.).

C. Change Order Procedures

Each Project Owner has its own change order procurement procedures. Modifications and changes to the contracts should be kept on file by the Project Owner and uploaded to SharePoint, including the rationale for the change, change orders issued, and documentation reflecting all time and or increases to or decreases from the contract price as a result of those modifications. Change orders that affect the original scope and budget of the grant must be submitted to TPB/COG and the Grant Management Contractor for review before the change can be made. If the proposed change does not affect the original scope or budget, TPB/COG will provide the change as an information item to FTA. An example of such a change is a change to the original list of locations for installation of Real-Time Passenger Information (RTPI) signs where some of the original sign locations were not feasible because electrification of a bus shelter was not possible. If the change order does affect the original scope and budget of the grant, it will be submitted to FTA for review and approval as a budget revision. An example of such a change is a change in the number of traffic signal Uninterruptible Power Supply units to be installed because the cost per unit increased to include the installation labor. Section VI.F. provides details for submitting scope and budget changes that qualify as a budget revision.

A summary of the change order procedures for each Project Owner can be found below:

Project Owners

District of Columbia Department of Transportation (DDOT)

DDOT's Construction Management Manual - May 2010, Section 7.2 "Change Orders," outlines the conditions and procedures under which change orders may occur.

 DDOT's construction contract documents will stipulate the conditions or circumstances that constitute changed conditions and the procedures to be adopted to amend the contract to incorporate the changed condition. DDOT reviews all notifications of change from the Contractor and provides recommendations to the Contracting Officer and team leader. Each change order must include a justification cover letter and all documentation verifying the amount and method of payment to be made for the work.

DDOT's Design and Engineering Manual – April 2009, section 2.4 "Preparation of Drawings" requests that project managers crosscheck the "summary of quantities table" with the drawings in order to avoid change orders. The manual states that a change order must be issued by the Contracting Officer to the Contractor covering changes in the contract and establishing the basis of compensation and time adjustments for work affected by the changes.

City of Alexandria

The City of Alexandria Code of Ordinances Sec. 3-3-50 – Contract Modification, documents the city's construction change order procedures. The section states that a contract may include provisions for modification during performance, but specifies the limits to modification before advance written approval of the city council is needed. The section also provides provisions that contractors cannot modify prices due to inaccuracies or incompleteness.

Potomac and Rappahannock Transportation Commission (PRTC)

PRTC's Public Procurement and Procedures Manual was approved by FTA in March 2012 and became effective July 1, 2012. Change Order procedures are outlined in Part B of the Manual, Section 17 – Contract Modifications (Change Orders), beginning on page 85. This document is available on the SharePoint site.

MTA

MTA's Memorandum from George D. Shuster, Chief Changes and Claims Section Construction Division, to Stephen Silva, Chief Engineer, Office of Engineering and Construction, dated May 24, 2011, Subject: Change Orders -Takoma Langley Crossroad Transit Center, outlines the procedure for reviewing, processing, and implementing a change order. It specifies that a "Change Order and Claim Review Board" has been established to monitor the costs as well as the process relating to changes and claims of the Takoma Langley Transit Center. The Board will

monitor, on an on-going basis, the entire administrative process relating to changes and claims pertaining to the project.

MTA has established procedures for processing and implementing change notices. The Resident Engineer issues a Contract Change Request and Change Notice documents for the MTA that include a detailed description of the change, reasons and justification, preliminary estimates of cost and time impact, and the revised contract documents necessary to implement the change. The documentation will be brought to the Change Order Review Board, and if they deem it appropriate, the documents are transferred to the contractor. The changes are then logged in the change document control system, followed by the preparation of cost proposal, negotiation, and agreement between the Resident Engineer and the contractor.

SHA

SHA's Standard Specifications for Construction and Materials - 2008, Section GP4.06 "Changes" outlines the conditions and procedure under which a construction change order may occur. The section states that the procurement officer may make changes in the work within the general scope of the Contract, including but not limited to changes in the specifications; in the method or manner of performance of the work; in the state-furnished facilities, equipment, materials, services, or site; or directing acceleration in the performance of the work. It further clarifies that all other written orders or an oral order that includes certain details be treated as a change order provided that the contractor gives the procurement officer written notice. The manual provides great detail about how to address change orders that impact the project cost.

WMATA

WMATA's PMP for TIGER Section 7.3.C, "Claims, Change Orders and Modifications," outlines the conditions and criteria for determining, approving, and implementing a change order. The section explains the criteria for determining if a change order is allowed, and if so how it must be made. Change orders require the completion of a Potential Change Order (PCO) form by the contractor that includes a detailed description of the change, plausible reasons for WMATA to accept the proposal, and time and cost impacts. The WMATA Project Manager then reviews the request and will issue a response letter accepting or denying the request, or request changes to the PCO submitted.

D. *Quality Assurance/Quality Control Procedures*

TPB/COG, as the grantee, works with Project Owners to ensure quality while executing the project on-time and on-budget. Each Project Owner has its own quality assurance/quality control procedures. As part of the semi-annual site visit to review adherence with each Project Owner's policies and procedures, the Grant Management Contractor reviews the QA/QC procedures vis-à-vis the FTA QA/QC guidelines. FTA's guidelines suggest a program of "planned and systemic actions necessary to provide adequate confidence that a product or service will satisfy given requirements for quality."

The Grant Management Contractor monitors each Project Owner's compliance with its own QA/QC guidelines, but does not have oversight over whether the actual products are of quality. For example, the Grant Management Contractor will confirm that the Project Owner has reviewed materials submitted by their contractors and required them to update items that did not pass the review, but the Grant Management Contractor does not also review the materials for quality. It is the responsibility of each Project Owner to ensure that their contractors are providing products and services that are of acceptable quality and meet the required safety standards.

Quality Assurance refers to all planned and systematic actions necessary to provide adequate confidence to the management that a product or service will satisfy given requirements for quality. Quality Control pertains to the operational techniques and activities that are used to fulfill requirements for quality.

Grant Management Contractor

The Grant Management Contractor follows QA/QC procedures as outlined in an internal document entitled *Foursquare ITP QA-QC Process Apr 30 2011*. Upon completion of a technical study or memorandum, Foursquare ITP staff conducts an internal review of deliverables. For interim deliverables and small tasks the output is reviewed by another staff member involved in the project for technical accuracy and editorial content. Major deliverables are also reviewed by staff members not involved in the project for a final quality assurance check. In the case of the TIGER Grant Management, Foursquare ITP's Project Manager reviews all reports, minutes, and documents provided to TPB/COG for accuracy and completeness before they are submitted.

A summary of the quality assurance/quality control procedures for each Project Owner can be found below:

Project Owners

District of Columbia Department of Transportation (DDOT)

DDOT's Construction Management Manual - May 2010, Section 8 "Quality Assurance and Control" describes the roles of responsible parties and outlines the oversight tasks for quality assurance and control.

DDOT requires contractors to have QA/QC processes in place to ensure that quality requirements are met. DDOT uses qualified personnel or sub-consultants for sampling and testing, for survey checks of the contractor's work, and for other specialist QA/QC activities. For construction contracts that specifically require quality control to be performed by the contractor, the contractor will be required to provide a Contractor Quality Control (CQC) Plan. DDOT will monitor and verify that projects are being constructed in accordance with the plans and specifications and in compliance with the terms of the contract. Testing is scheduled to ensure that their resources are planned and available. DDOT reviews design plans to ensure that all

survey reference information is included in the plans. DDOT's project managers review each design submitted by their contractor, bringing in Professional Engineers in other fields as needed. For example, designs may need civil engineering and signal engineer sign off.

Notification of non-conforming design or construction work by a contractor is made by means of a Non-Compliance Notice (NCN), which identifies the non-conforming work or non-compliance and, if re-work is extensive, complicated or time-consuming, requires the contractor to submit a proposal for corrective action.

In the design phase of their projects, DDOT has forms on file for the design plans stating who developed the design, the reviewer, and who signed off on the design. The designs are reviewed by DDOT, including civil and signal engineering staff. Each project has a Project Manual developed that identifies appropriate design criteria and specifications, and identifies the process and lead contact for checking assumptions, verifying calculations, and reviewing and preparing documentation.

City of Alexandria

The City has internal Design and Construction Standards, which are available on SharePoint. The City of Alexandria generally follows Virginia Department of Transportation design and QA/QC standards.

For the US-1 Transitway project, the agreement between the City of Alexandria and the construction contractor requires submission of a quality control/quality assurance plan. The agreement states that a marked up set of prints from the Quality Control review will be sent in with each review submittal. The responsible professional engineers or professional surveyor that performed the Quality Control review, as well as the QA manager will sign a statement certifying that the review was conducted. The contractor provides all design deliverable documents to the City to a designated staff member, and this person distributes the document to all relevant City departments for review. All review comments must be completed in a matrix format, and the individual who distributed the document is then responsible for compiling all of the City's comments in a single matrix and transmitting them back to the contractor. The contractor provides their responses to comments back to the City in the same matrix format and to the same designated point of contact.

Alexandria also has accepted a Project Quality Plan from the design subcontractor to the US-1 transitway construction prime that is part of their contract documentation. The Project Quality Plan identifies the individuals responsible for QA/QC procedures related to the project design. The contractor marks up revisions to design documents in one color, and then another individual will review the design documents using a pen with a different color. The contractor keeps the documents on file at their offices. The City has the ability to request to see these documents.

For the Van Dorn-Pentagon project, the City, through its engineering contractor, will utilize a VDOT form to ensure quality in the queue jump signal design; this form will be completed at

both 60 percent and 100 percent signal design. (Alexandria is utilizing VDOT's form but they do not need to submit this review to VDOT. All of the signals involved are City-owned.)

The City will require signed plans or QA/QC forms from the design subconsultant for all plan submittals and project deliverables. All deliverables will be reviewed by the relevant City departments, and the comments will be compiled in a matrix format very similar to what is being used for the US-1 Transitway.

Potomac and Rappahannock Transportation Commission (PRTC)

The agency ensures that QA/QC is being done in two ways. As part of the procurement process, prospective contractors' internal QA/QC programs and processes are assessed and considered in contractor selection. For all construction projects, PRTC hires contractors to provide the construction management and another firm to provide the construction testing and inspections. In the case of bus manufacture and overhaul, PRTC hires on-site inspectors to perform QA/QC to ensure that the buses are being manufactured or overhauled to specifications. For the CAD/AVL project, the technical expertise is provided by a contractor who is also providing QA/QC monitoring.

PRTC's operations contractor First Transit maintains an on-site bus inspector at Gillig's manufacturing factory. The First Transit inspector, Transit Resource Center (TRC), takes pictures of buses while in production and when production is complete, completes quality assurance tests and inspections that are recorded in a daily log, and performs Buy America inspections. Documentation of the results of these tests is provided by TRC to First Transit and PRTC. The QA/QC audit of the bus production conducted by TRC is provided in the Post-Delivery Buy America audit that is on SharePoint.

PRTC is being assisted by the company Macro (whose work is *not* funded by the TIGER grant) with quality assurance and quality control on the CAD-AVL project. RTC was very specific with the technical specifications and capabilities that must be incorporated in the CAD-AVL system. Macro will help ensure that these specifications are met by participating in milestone deliverable reviews, equipment factory testing, and monitoring the on-site installation. As Macro provides CAD-AVL technical specifications for transit agencies around the country, they utilize their own internal quality control worksheets for completing these reviews. Macro provides recommendations to PRTC on when final deliverables associated with each milestone payment are acceptable.

PRTC has established a detailed review process for the CAD-AVL design documentation to ensure project quality. PRTC has 20 days to complete a review and provide comments once a design document - Preliminary Design Review (PDR) or Final Design Review (FDR) - is submitted by Trapeze.

MTA

MTA's Memorandum from Francis J. Kernan, Jr., P.E., Assistant Manager, QA and QC Division, Office of Engineering to John Gasparine, Maryland Transit Administration, Subject: Procurement and Accounting Contact Information Request, dated June 3, 2011 includes the boilerplate language from the "Standard Specification" section (section 01450) of project contracts, which outlines the requirements and procedures for quality assurance and quality control.

The QA/QC requirements cover all actions involving the selection of material sources and suppliers, inspection and testing of materials and samples, work placement procedures, workmanship, equipment calibration, use of Certificates of Compliance, implementation of procedures for audit, surveillance and corrective action, inspection, testing and commissioning.

Section 01450 describes the detailed component requirements of the Contract Quality Control Plan. The contractor has the responsibility of providing and maintaining a Contract Quality Control Plan (CQC). The CQC Plan is designed and administered to assure that the contractor's work will be in full compliance with the latest codes, technical specifications, etc. The contractor is required to submit an interim CQC Plan within 7 days of Notice to Proceed and a detailed one within 30 days. The contractor is required to designate a CQC Plan Manager who is responsible for administering the Plan, and who will be on-site on a full-time basis.

  SHA

SHA's quality control and quality assurance program for construction is discussed in the Maryland Standard Method of Test Manual, updated July 2011 and available on SharePoint. It defines quality assurance as the planned and systematic actions and processes necessary to ensure that a product or service will satisfy established requirements for quality. These include sampling, random sampling, representative sampling, and testing of new products or processes not previously used by SHA and not covered by current applicable SHA specifications. These projects may require submission to the New Products Committee for evaluation. The manual defines quality control as all contractor/vendor operational techniques and activities that are performed to fulfill the Contract requirements. This includes verification and acceptance activities, independent audits, and material certification.

In addition, SHA's Construction Manual defines the role of Inspectors to oversee the quality of the construction by the designer or SHA, the owner. Inspectors and Project Engineers are given the same stated responsibilities and authorities, with direction that any issues not easily resolved at the Inspector level should be immediately elevated to the Project Engineer who will either resolve the issue or further elevate it to the District level. The Manual states that the Inspector is responsible for protecting the Owner against defects and deficiencies in the work. It further states that construction administration and quality control by the contractor or quality assurance by the Owner should include continuous on-site inspection throughout construction by one or more competent, technically qualified, and experienced Inspectors. The Inspector or Project Engineer inspects that the work is in conformance with the contract documents. Specific step by step guidance is provided in the SHA Construction Manual.

WMATA

As outlined in WMATA's Manual of Design Criteria for Maintaining and Continued Operation of Facilities and Systems, all designers shall prepare Contract Drawings and Specifications for each project in accordance with the Design Criteria and procedures established in the Manual. It further specifies that WMATA's Safety and Security Certification Program Plan (SSCPP) will be followed when new bus facilities are incorporated into the agency's inventory. In terms of quality control, the manual specifies that all designs shall meet or exceed the Authority's Design Criteria relevant for each element of the work as these represent the minimum standards to be used for design and construction.

WMATA's TIGER Project Management Plan, Chapter 6, specifies that for design of WMATA's projects, all documents will be reviewed for compliance with the scope of service, WMATA's operational requirements and WMATA's standard design criteria. The on call design service contracts that WMATA uses are awarded to the design consultant who meets the WMATA QA/QC criteria for design development. It further specifies the quality assurance plan for constructability reviews and detailed design. It notes that the Project Manager will forward the documents to the designated reviewer(s) with the deadline date for comments. The comments will be recorded on Design Review Comment Forms (modified Constructability Review, Form 19.73). The Project Manager will establish the review period for the reviewers.

WMATA's TIGER Project Management Plan, Chapter 7, specifies that the contractor is ultimately responsible for performance of the work under each contract, and for the conduct of contractor and subcontractor personnel. It is the responsibility of the Project Manager to see that the work is completed in accordance with plans and specifications, and in strict compliance with the terms of the contract. The plan also outlines the field inspection requirements of the Project Manager to verify the effectiveness of the contractor's quality control program, to permit appropriate corrective action in the event that unacceptable material or workmanship is detected, and to monitor construction progress and conditions which affect the conduct of the work.

E. Material Testing Policies and Procedures

A summary of the materials and testing procedures for each Project Owner can be found below:

Project Owners

District of Columbia Department of Transportation (DDOT)

DDOT's Construction Management Manual – May 2010, Section 12 "Materials and Plan" outlines the roles of responsible parties involved in testing of materials to assure that the materials and workmanship incorporated in DDOT projects meet the specified contract requirements.

DDOT coordinates their testing and inspection activities with representatives from one or more of the following DDOT departments or private entities: DDOT's Infrastructure Project Management Administration (IPMA); DDOT's Quality Assurance/Quality Control Division (QA/QC); DDOT's Consultant; designated Material Testing Laboratories (MTL); and approved manufacturing plants. DDOT conducts "receiving inspections" to verify that the materials received by the contractor are accompanied by documentation noting the source of supply and are in conformance with the contract documents. Sampling and testing are performed to assure that the materials and workmanship incorporated in the projects meet the specified contract requirements. Work is accepted after the results of the acceptance or assurance tests meet all of the requirements of the contract documents.

City of Alexandria

Alexandria requires that contactors submit testing results of materials used for City contracts. The City of Alexandria's APWA Accreditation Section 13.8 – "Materials Testing" has an explanation of the materials testing policies and procedures and links to relevant documentation, including the City's Purchasing Manual, Inspecting Section (page 14-2); VDOT's 2007 Road and Bridge Specifications, Sec. 200.03; General Sampling and Testing Procedures (pages 127-128); and the City's Contract Boiler Plate Sample section that outlines shop, drawing, product, and data requirements (page 9).

For the US-1 Transitway project, the material sampling and testing policy is contained as Article VI of the contract with Lane. Lane is responsible for testing materials and providing the results to the construction manager. If the City wants additional tests, or disagrees with the results of Lane's tests, they can ask their on-call contractor to perform further tests at the City's own expense.

Potomac and Rappahannock Transportation Commission (PRTC)

Inspection and testing is usually conducted by an outside firm, except in the case of accepting a new or overhauled bus. The bus service and maintenance contractor has final sign-off on accepting a bus using a checklist they have developed (this is a requirement of the PRTC Operations and Maintenance Contract).

An extensive materials testing plan is established in Chapter 7 of the CAD-AVL contract. Factory testing of the CAD-AVL equipment will occur first. Several PRTC staff members including Carl Roeser, Eric Marx, and at least one customer service agent and dispatcher, as well as staff from Macro will travel to the Trapeze factory in Iowa to spend five days on-site participating in the factory testing process.

MTA

MTA's Memorandum from Francis J. Kernan, Jr., P.E., Assistant Manager, QA and QC Division, Office of Engineering to John Gasparine, Maryland Transit Administration, Subject:

Procurement and Accounting Contact Information Request, dated June 3, 2011 includes the boilerplate language from the "Standard Specification" section (section 01450) of project contracts, which outlines the requirements and procedures for inspection and testing. The required Contract Quality Control Plan developed by the contractor must include methods for ensuring that all required inspections and tests are performance and that the status of each work product, material item's inspection/tests is known. Nonconforming work products must be identified and removed, as described in Section 01450-7 of the project contracting document.

SHA

SHA's Standard Specifications for Construction and Materials – 2008, Section GP 6 "Control of Material" and Category 900 "Materials" outline the procedures for inspection and testing of materials. It is also documented in SHA's Maryland Standard Method of Tests (revised July 31, 2011). Both documents are available on SharePoint.

SHA's Standard Specifications for Construction and Materials specifies how materials should be stored to preserve their quality and acceptability for work. SHA's Maryland Standard Method of Tests (revised July 31, 2011) outlines the procedures and guidelines for assuring the quality of materials and construction projects. This document is published by the Office of Materials Technology (OMT) and contains the Maryland Standard method of test procedures for field and laboratory testing. It requires that contractors submit proposed source of supply letters to OMT upon award of a construction contract. SHA then arranges to evaluate a proposed source that has not been used recently by SHA / never been used. SHA may take representative samples of the material to evaluate the production process and ensure quality control.

WMATA

WMATA's TIGER Project Management Plan, Chapter 7, provides guidance on Materials Testing by a contractor. The quality control provisions of the General Provisions or Special Conditions require the contractor to develop a test plan. The test plan will identify the tests to be conducted, the frequency of testing, the organization to perform the tests, and evidence that the party who will perform the tests is qualified and capable. The contractor's test plan will be forwarded to the Project Manager for review and approval.

F. Cost and Schedule Control Procedures

Project Owners submit invoices and supporting documents to COG for reimbursement of incurred project costs. TPB/COG and the Grant Management Contractor review all invoice documentation to confirm that all expenses are eligible and within the project's budget. The Grant Management Contractor maintains a record of the amount of funds spent and funds remaining for each activity line item. Each Project Owner has its own cost and schedule control procedures.

A summary of the cost and schedule control procedures for each Project Owner can be found below:

Project Owners

District of Columbia Department of Transportation (DDOT)

DDOT's Construction Management Manual - May 2010, Section 7 "Cost Control" outlines the roles of responsible parties for controlling and recording the flow of funds for the construction projects and for managing changes to the work that affect the cost of the project.

The majority of DDOT's construction contracts stipulate that the work will be paid for at regular intervals, usually monthly, during the course of construction. The contract stipulates the period for payment, the timing of submission for payment, the required documentation and amount to be retained. DDOT's requirements state that only acceptable work be paid for, that the contractual requirements necessary for payment are fulfilled prior to payment, and that the amount remaining to be paid, including retainage, is sufficient to complete the work in the event of default by or termination of the contractor.

DDOT's May 2010 Construction Management Manual, Section 6 "Schedule Control" outlines the roles of responsible parties for monitoring the construction schedule to ensure that projects stay on schedule.

DDOT requires that the Critical Path Method (CPM) be used in developing the construction schedule. The CPM schedule activities should show interrelation with sequential and parallel activities. The schedule must clearly indicate the completion date and all contractual milestone dates. DDOT reviews the schedule to confirm that there is a logical sequence of activities, that the durations for activities are sensible and achievable based on the known or reasonably expected resources available, and that the format meets all contractual requirements.

For project design, DDOT follows the requirements in the April 2009 Design and Engineering Manual. Chapter 2, Project Development, identifies that as part of the planning process the Project Team Leader must be updated on the project status on a monthly basis, who must then confirm the proposed design and construction schedule. As part of the design, the Project Manager/Consultant will be responsible for keeping the Chief Engineer informed of all schedule impacts caused by other offices and utility companies. The Design and Engineering Manual also specifies that cost estimates be prepared using the AASHTOware Estimator developed by the American Association of State Highway Transportation Officials (AASHTO). DOT prepares engineer cost estimates that are matched with planned cost estimates. After a cost proposal is received, DDOT negotiates with the contractor to align costs with engineer's cost estimate.

City of Alexandria

There is a weekly US-1 Transitway construction meeting where all issues associated with the project are discussed. At the weekly construction meeting, budget and schedule are discussed at

a high level. The construction firm, Lane, is also required to provide a detailed budget and schedule analysis with each monthly invoice.

For the Van Dorn – Pentagon project, Alexandria closely monitors contractor adherence to schedule. Alexandria will hold monthly meetings with each contractor to discuss project status, budget, and schedule. The City's engineering contractor will prepare a cost estimate and coordinate tasks for queue jump implementation based on the results of queue jump design.

Potomac and Rappahannock Transportation Commission (PRTC)

PRTC's Procurement Policy, Amendment 1 (6/05), dated January 29, 2002 (and available on SharePoint), outlines all procedures for managing work performed on a contractual basis for the agency, including contract administration, change order procedures and project close-out procedures, to ensure that projects stay on-schedule and on-budget. This document provides details on the roles and responsibilities of individual PRTC staff, including the PRTC Contract Administrator and the PRTC Executive Director, throughout the contracting and project management process.

The cost and schedule for the production of the replacement buses was established in the purchase order. The cost and schedule for the CAD/AVL project is closely monitored by the PRTC project manager.

MTA

MTA's Memorandum from Francis J. Kernan, Jr., P.E., Assistant Manager, QA and QC Division, Office of Engineering to John Gasparine, Maryland Transit Administration, Subject: Procurement and Accounting Contact Information Request, dated June 3, 2011 includes the boilerplate language for the "Submittals" section of project contracts, which outlines the requirements and procedures for cost and schedule control. The contractor is required to submit a Progress schedule to the Resident Engineer upon Notice to Proceed. The Resident Engineer is then responsible for monitoring the progress of the work compared to the schedule. Major changes to the schedule are brought to the Change Orders and Claims Review Board for discussion, as are all cost changes. The Resident Engineer also reviews costs on a monthly basis through the contractor's progress invoices.

SHA

SHA's Standard Specifications for Construction and Material- 2008, Section GP 8 "Prosecution and Progress" outlines the procedure for managing the schedules of contracted projects. Various sections in the document outline the cost control procedures for contracted projects. The section on project prosecution and progress details the requirements for prompt project commencement by the contractor, submittal of a Progress Schedule to the procurement officer, and revised project schedules as directed by the procurement officer. It details causes for withholding progress payments and how to address significant changes to the approved progress schedule.

Section TC 7 of the SHA Construction Manual identifies procedures for tracking costs on a quantity basis and keeping abreast of what has been completed and what the costs are for those items. The manual also outlines how to address cost overruns, in terms of by what amount and when to raise the issue to a higher level.

WMATA

WMATA's PMP for its Infrastructure Renewal Program – February 2006, Section 7.1 E "Schedule Monitoring and Performance Evaluation" outlines the procedures for implementing, monitoring, and controlling the project schedule.

WMATA's TIGER Project Management Plan, Chapter 7, describes the TIGER grant Program Schedule System that consists primarily of a Program Master Schedule (PMS), and the process to develop, update and monitor the PMS. The PMS is implemented and maintained with Primavera Project Planner (P3) or MS Project. During the design phase, the Project Manager will monitor the progress of the work, including review of scheduling specifications, project/contract durations, milestones, etc. During the procurement phase, the PM is required to monitor the progress of procurement activities, identify delay issues, resolve issues, and report the status to the Director, through the Senior Project Manager.

Contract milestones, including the contract completion date, will not be revised before a contract modification has been finalized. Minor revisions may be made to the updated schedules submitted with the Monthly Progress Status Report. "Minor revisions" are generally defined as changes which do not alter the critical paths and do not require extensive re-sequencing of work activities. A major revision requires submission of the same documents as required for the initial schedule. The contractor must continue to submit monthly schedule updates based on the currently approved schedule until such time that the revised schedule is approved.

G. Testing and Start-Up Criteria and Procedures

A summary of the testing and start-up criteria and procedures for each Project Owner can be found below. In reference to the RTPI and TSP projects, each Project Owner contributed and approved the development of a project responsibility matrix, which is included in Appendix C.

Project Owners

District of Columbia Department of Transportation (DDOT)

DDOT's Construction Management Manual - May 2010, Section 3 "Construction Start-Up" outlines the roles of responsible parties and discusses the process establishing a construction project start-up.

DDOT coordinates testing requirements with the contractor and the testing agencies. The contractor must provide reliable schedule information about when specific types of construction activities are to be performed. Construction engineering and inspection services are provided during the construction phase of a project.

City of Alexandria

Alexandria has procedures in place that cover inspections of all work in the public right-of-way. The City of Alexandria's APWA Accreditation Section 13.7 – "Inspection" states that the City utilizes VDOT's Road and Bridge Specification section 105.12, City ordinance Sec 5-2-117 Daily Inspections, City Ordinance Sec 5-4-11 Inspections and amendment of plans, City Ordinance Sec 5-6-63 Inspections, as well as the City's own Design and Construction Standards. Alexandria's APWA Accreditation Section 13.11 "Acceptance" states that the City utilizes VDOT's 2007 Road and Bridge Specifications Sec 109.10 Final payment (pgs. 123-124) and the City's own established contracting procedures per the City's Contract Boiler Plate, Completion and Final Payments section (page 16), to guide the Acceptance process.

For the US-1 Transitway project, the agreement between The City of Alexandria and the construction contractor requires as-built plans be provided to the City and includes completion of a punch list that must be satisfactorily met before the City will accept the facility. The contract inspection, closeout, and completion procedures are included in Article XIX of the agreement.

For the Van Dorn – Pentagon project, the City will use the testing plan that will be a part of the WMATA TSP contract documents. In addition to the testing procedure outlined in the WMATA TSP contract, the City will review the submittal plans prior to the installation of any equipment to confirm it is compatible with the City's signal controllers. Once this review is complete then the City coordinate with WMATA to test the TSP and queue jump equipment in-house. Alexandria representatives will then conduct field tests of the equipment, and will return to the contractor to determine how to fix all deficiencies that are apparent from the field test.

The signal contractor will implement the queue jump/signal design plans that are being prepared by the City's engineering contractor. Once the plans are implemented, an inspector tests what the contractor has installed and the City reviews and approves the inspector's analysis. Items that do not meet the City's standards are identified and brought to the contractor's attention for correction. Alexandria will perform an in-house construction inspection of the SuperStops once they are installed.

Potomac and Rappahannock Transportation Commission (PRTC)

As with Material Testing, (see Section E. Material Testing Policies and Procedures), PRTC generally uses outside contractors for testing. For start-up criteria and procedures, PRTC has specific procedures by project, which differ for their projects of bus replacement and implementing CAD/AVL/Smart Bus Technology. For the testing and inspection of a new bus before it is placed into service, as described in Section D, the bus service and maintenance

contractor has final sign-off on accepting a bus using a checklist they have developed. For the CAD/AVL/Smart Bus Technology, start-up criteria and procedures are addressed in Section 7 – Inspection, Test, and Availability of the *Conformed Technical Specifications* which is posted on SharePoint. Section 7 is a sixteen-page in-depth plan that details the four levels of testing that PRTC's contractor is responsible for conducting in advance of moving the CAD/AVL/Smart Bus Technology system into revenue service.

MTA

MTA's Memorandum from Francis J. Kernan, Jr., P.E., Assistant Manager, QA and QC Division, Office of Engineering to John Gasparine, Maryland Transit Administration, Subject: Procurement and Accounting Contact Information Request, dated June 3, 2011 includes the boilerplate language for the "Commissioning" section of project contracts, which outlines the procedures for testing and start-up criteria. This document includes processes and roles and responsibilities related to start-up, including testing of equipment, functional performance testing, retesting, and deferred testing.

SHA

SHA is in the process of developing testing and start-up criteria and procedures related to testing the operational system or its major components. It will likely follow many of the same protocols used in the SHA Materials Testing Manual.

WMATA

As described in Section E, Materials Testing Policies and Procedures, WMATA's TIGER Project Management Plan, Chapter 7, provides guidance on Materials Testing by a Contractor. This same chapter specifies that the start-up and testing requirements applicable to the Infrastructure Renewal Program, of which the TIGER grant projects are a part, are not equivalent to the procedures for a new build or an extension to an existing system. TIGER grant projects primarily involve replacing discrete components of the existing system and therefore, elaborate "start-up" procedures are not applicable. For TIGER grant projects that do involve system operations, close coordination will be facilitated with the requisite operating departments within WMATA throughout the project from planning and design to construction and acceptance. In the event formal start-up procedures are required to place the effected portions back into service, specific procedures will be developed in conjunction with the applicable departments.

IV.   TIGER Project Overview

A. Project Components

More than $26 million of the funding is going to improve bus transportation along priority corridors in the District of Columbia, Maryland, and Virginia. Improvements to these corridors include dedicated bus lanes, transit signal priority, limited stop service, enhanced pedestrian

access, real-time passenger information, and enhanced bus stops to increase bus ridership and reliability in these busy corridors.

More than $19.9 million funds multimodal improvements for priority bus transit connecting portions of Northern Virginia with the District of Columbia. These improvements will provide high quality transit options for commuters and relieve pressure on the regional Metrorail system.

Finally, more than $12.3 million will be used for a new multimodal transit center in Prince George's County, Maryland to improve safety and intermodal access to priority bus corridors. In addition to providing connections to several highly-used bus routes, the center will serve the planned Purple Line, a 16-mile intra-suburban light rail line connecting Bethesda in Montgomery County to New Carrollton in Prince George's County in Suburban Maryland.

B. Detailed Budget Information

Original Grant Agreement Budgets

The budgets in Table 2 below are based upon the Grant Agreement, signed December 14, 2010 and approved in TEAM on December 30, 2010. All budgets are subject to change as planning and implementation progress; the total TIGER Grant Award, however, will remain unchanged. A percentage of the amount of each project award will be set aside to fund TPB/COG administrative and oversight costs; that amount is shown in Table 2.

Project Owners are responsible for managing each project component and its activities (ALIs) within the budget and schedule. Project budgets may change as projects progress and go through procurement. Project Owners will provide updated budgets to TPB/COG and the Grant Management Contractor quarterly by uploading the budgets to their individual folders on SharePoint. The Grant Management Contractor and TPB/COG will monitor expenditures and the amount of funds remaining in each activity line item as projects progress. Amendment requests may be submitted for approval through TPB/COG to the FTA, but until and unless approved do not waive project scope, budget and schedule adherence responsibilities.

Table 2 – TIGER Project Components and Budgets from Original Grant Agreement, December 2010

Project Number	Location	TIGER Project Component	Activity Line Items	Budget
#2	DC	**16th Street Bus Priority Corridor Enhancements**	NextBus Real Time Information Display	$316,000
			Real Time Bus Information Prototype Development	$414,000
			Transit Signal Priority	$400,000
			Curb Extensions	$165,000
			Total Budget	**$1,295,000**
#3	DC	**Georgia Avenue Bus Priority Corridor Enhancements**	NextBus Real Time Information Display	$250,000
			Transit Signal Priority	$64,000
			Curb Extensions	$297,000
			Exclusive Bus Lane	$3,500,000
			Total Budget	**$4,111,000**
#4	DC	**H Street/Benning Road Bus Priority Corridor Enhancements**	NextBus Real Time Information Display	$280,000
			Emergency Call Boxes	$135,000
			Total Budget	**$415,000**
#5	DC	**Wisconsin Avenue Bus Priority Corridor Enhancements**	NextBus Real Time Information Display	$400,000
			Transit Signal Priority	$345,000
			Total Budget	**$745,000**
#6	MD	**Addison Road Bus Priority Corridor Enhancements**	NextBus Real Time Information Display	$105,000
			Addison Road Station Busbay Improvements	$10,000
			Southern Avenue Station Busbay Improvements	$75,000
			Total Budget	**$200,000**
#7	MD	**University Boulevard Bus Priority Corridor Enhancements**	Queue Jumps	$624,650
			Bus Stop Improvements	$42,500
			NextBus Real Time Information Display	$283,805
			Transit Signal Priority	$349,850
			Total Budget	**$1,262,000**
#8	MD	**US 1 (MD) Bus Priority Corridor Enhancements**	Transit Signal Priority	$220,000
			Queue Jumps	$517,340
			Total Budget	$805,000
#9	MD	**Veirs Mill Road Bus Priority Corridor Enhancements**	Queue Jumps	$31,250
			NextBus Real Time Information Display	$208,695
			Total Budget	**$265,000**
#10	VA	**US 1 (VA) Transitway**	Construct Busway	**$8,075,000**
#11	VA	**VA 7 (Leesburg Pike) Bus Priority Corridor Enhancements**	NextBus Real Time Information Display	$189,000
			Transit Signal Priority	$1,084,000
			Total Budget	**$1,340,000**

Project Number	Location	TIGER Project Component	Activity Line Items	Budget
#12	VA	**Van Dorn - Pentagon Bus Priority Corridor Enhancements**	Real Time Bus Information Deployment/Super Stops	$92,800
			Transit Signal Priority	$395,350
			Queue Jumps	$148,350
			Total Budget	**$670,000**
#13	DC	**T. Roosevelt Bridge to K Street Bus Priority Corridor Enhancements**	Downtown Core Signal Optimization	$850,000
			Transit Signal Priority	$850,000
			Uninterruptible Power Supply for Traffic Signals	$100,000
			Total Budget	**$1,800,000**
#14	DC	**14th Street Bridge to K Street Bus Priority Corridor Enhancements**	Downtown Core Signal Optimization	$2,126,000
			Transit Signal Priority	$2,126,000
			Uninterruptible Power Supply for Traffic Signals	$200,000
			Total Budget	**$5,200,000**
#16a	VA	**Pentagon and Franconia -Springfield Station Improvements**	Pentagon Station Busbay Improvements	$3,916,500
			Franconia-Springfield Busbay Improvements	$5,513,500
			Total Budget	**$9,930,000**
#16b	VA	**PRTC Buses and ITS Technology**	Purchase Replacement Buses	$5,685,000
			Purchase CAD/AVL System	$3,860,000
			Purchase and Install Bus Security Cameras	$105,000
			Total Budget	**$10,000,000**
#18	MD	**Takoma/Langley Transit Center**	Construct Bus Terminal	**$11,685,000**
		TPB/COG Program Administration	Total Budget	**$2,802,410**
			TOTAL	**$58,838,000**

C. Federal TIGER Funding Requirements

TIGER project components are funded at 100 percent Federal share by the TIGER grant and do not require matching funds. In several cases, other sources of funds (Federal, State, and/or local) are being used to complete complementary projects closely integrated with the TIGER project components; however, TIGER funding is not contingent upon these funds.

D. Use of Other Funds

COG is obligated by the Grant Agreement to complete the components of the TIGER Grant as approved by the U.S. Department of Transportation in the Memorandum of Understanding. This is irrespective of cost overruns or other project modifications, unless approved by the Federal Transit Administration.

By Subgrantee Agreements, the five Project Owners have in turn obligated themselves to COG for completion of their project components, again irrespective of cost overruns or other project modifications. In the event that a project component cannot be completed with the funds from the TIGER grant, and without modification approval from the FTA, the Project Owners are required to obtain funds from other sources to complete their project components.

Project Owners may use other DOT Federal funds, or other source of funds to make up the needed funding. Examples include: Congestion Mitigation and Air Quality Improvement (CMAQ) program funds, state or local appropriations, dedicated tax revenues, and other sources identified by the Project Owner.

V. *Financial and Schedule Management*

As the grant recipient, TPB/COG is responsible for the recurring reporting on budget and milestone progress, using the FTA's TEAM project management system. TPB/COG and its Grant Management Contractor collect the necessary information from the Project Owners and submit reports as required to the FTA. The following sub-sections provide detail on the requirements for financial and schedule management of the grant.

The Project Owners have responsibility for the management of their respective components projects, in accordance with the terms and obligations of the subgrantee agreements between TPB/COG and each Project Owner. Project Owners must adhere to federal requirements for procurement and construction, including not only FTA requirements but also the additional requirements specified in ARRA for the TIGER grants. Project Owners have the obligation to manage projects to the agreed scope, budget, and schedule, and to report on their progress to TPB/COG, the Grant Management Contractor and to the FTA.

A. *Financial Management and Project Monitoring*

TPB/COG maintains financial management systems for financial reporting, accounting records, internal controls, and budget controls subject to standards specified in local, state and federal laws. All systems and procedures for financial management are in compliance with 49 CFR 18.20, the "Common Rule".

Invoices will be submitted by the Project Owners to the Grant Management Contractor by the last calendar day of each month, or the Monday following if the last day falls on a weekend. The Grant Management Contractor will also review the Project Owner Invoice Summary Sheets and Staff Summary Sheets; all of this will be submitted to TPB/COG by the last day of the month.

B. *Project Owner Financial Management*

TPB/COG has developed and executed subgrantee agreements with the five Project Owners of TIGER grant funds; the subgrantee agreements as well as the full grant agreement are all located on the SharePoint site. All TIGER grant agreements are for capital projects and provide details regarding the equipment approved for purchase and its intended use.

TPB/COG reimburses the Project Owners with federal funds up to the amounts identified in the grant agreement. Project Owners are responsible for keeping all original invoices and receipts for eligible capital project expenditures. Copies of vendor invoices for capital purchases must be included with the Project Owner's monthly invoice to TPB/COG and summarized on the Invoice Summary Sheet. In accordance with FTA grant management policies and procedures, Project Owners may obtain authorization to make amendments to the ALIs of the TIGER project.

Project Owners may charge costs associated with in-house staff time to the TIGER Grant; any Project Owner intending to charge more than $100,000 and less than $10,000,000 for a project is required to submit a force account plan and justification to TPB/COG and maintain the plan in its files. All staff time charged to the grant must be summarized in the monthly Staff Summary Sheet provided by the Grant Management Contractor and submit to TPB/COG for reimbursement. Instructions on developing a force account plan are provided in Appendix D.

The Grant Management Contractor maintains individual spreadsheets for each Project Owner that track project expenditures, amounts charged, and project budgets that are reviewed and coordinated with the TPB/COG Project Manager.

TPB/COG will report in TEAM-Web total expenditures for each project component and will reconcile the grant expenditures and revisions to project budgets. TPB/COG will also be responsible for project closeout and eventually grant closeout in TEAM.

Each year, MWCOG contracts with an independent audit firm to review compliance with OMB Circular A-133. TPB/COG will request, on an annual basis, each Project Owner's most recent A-133 audit findings; if a Project Owner spends more than $500,000 of Federal funds in a year, they must have an A-133 audit. If there are findings related to the TIGER grant projects, TPB/COG and the Grant Management Contractor will work with the Project Owner to help address all deficiencies.

C. Program and Project Schedules

Project Owners are responsible for updating detailed project schedules on a monthly basis and are required to provide updates to key milestones (e.g., RFB Issued, Contract Award, and Project Completion), as applicable, for each Activity Line Item (ALI). These updates are made in the monthly form that each Project Owner is required to submit by the last day of each month (if the last day of the month falls on a weekend or holiday, the form is due on the next business day). Project Owners upload current detailed project and construction schedules to their individual folders on SharePoint on a quarterly basis and during site visits if it takes place between quarters; updated dates are entered into the forms on a monthly basis and the progress is discussed on calls with each Project Owner individually each month and as part of the monthly full team call/meeting. The schedules are used by the TPB/COG Project Manager and the Grant Management Contractor to track the progress of projects and for reporting purposes. The original advertisement and project completion dates for each ALI are provided in Appendix E, but are updated, along with contract award dates, by the Grant Management Contractor during the monthly and quarterly reporting process.

There are several projects that have interrelated procurements. Specifically, as part of Project #11, VA-7 Bus Priority Corridor Enhancements, WMATA is procuring technology for real-time passenger information (RTPI) and transit signal priority (TSP). Several other projects being implemented by DDOT, SHA, and the City of Alexandria rely on these procurements; in some cases other Project Owners may piggyback on WMATA's contracts and in some cases the Project Owners will issue their own RFPs that include the specifications of the technology selected for Project #11. Charts showing project contingencies and critical path items that apply to multiple projects across several Project Owners are also located in Appendix E. These charts show the interrelationships between projects and the importance of not only coordination but also making sure that these critical path items do not impede the progress of the related projects.

VI.   Project Reporting and Invoicing Requirements

The Grant Management Contractor developed a monthly form that each Project Owner is required to complete and submit monthly by uploading the completed form to SharePoint. The form includes fields to provide information about the projects by Activity Line Item (ALI). The monthly form includes fields to provide information about project expenditures, revisions to milestone dates, job hours, updates about project activities, issues, and plans for the following month. An example of the monthly form is shown in Appendix F. The information provided in the forms is used to generate semi-automated and manual reports for TPB/COG and FTA, as depicted in the figure below.

Reporting Requirements

Monthly Forms Submitted by Project Owners Feed into a Series of Required Reports

Monthly Reports
- COG Monthly Reports
- FTA Monthly Report

Quarterly Reports
- Milestone Progress Report
- Federal Financial Report
- 1512 Report
- FTA Quarterly Report

Semi-annual Report
- Disadvantaged Business Enterprise (DBE) Report

Annual Report
- FTA Annual Report
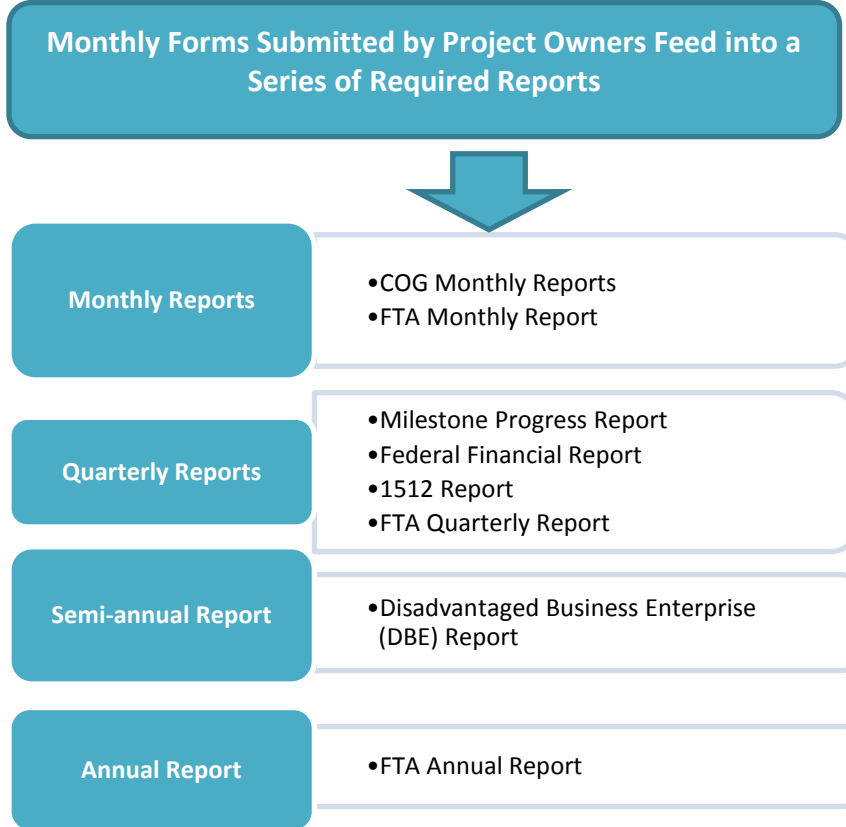
Process/Schedule

- The Grant Management Contractor updates the forms each month with cumulative expenditures and updated milestones dates that were provided in the previous month's forms and posts new forms to SharePoint in each Project Owner's "Forms/Current" folder. The Grant Management Contractor then emails the Project Owners on the 1st of each month to remind them to complete the form.

    o The completed form is due on the last day of the month for the month just completed, e.g., the completed May 2013 form is due on May 31, 2013. The form is due on the next business day if the last day of the month falls on a weekend or holiday.)

- Invoices to MWCOG requesting reimbursement are also due the last day of the month (if the last day of the month falls on a weekend or holiday, the form is due on the next business day). The invoicing and reimbursement process is described in detail in Appendix G, and invoicing instructions for the Project Owners is shown in Appendix H.

Additionally, Appendix H provides information on how to report DBE firms when submitting invoice information.

Monthly Form

- The Monthly Form is the same for all Project Owners in terms of the data that is required, although individual project milestones and expenditures will differ by project.
  - o Current milestones and cumulative expenditures are read-only for the Project Owners.
- Project Owners input changes to milestone dates and input current expenditures on the monthly forms, which are captured in the monthly and quarterly reports and used to update TEAM on a quarterly basis.
- Monthly data is rolled up to quarterly data at the end of each calendar quarter (January – March, April – June, July – September, October – December).

A. TIGER / ARRA Reporting

The American Recovery and Reinvestment Act (ARRA) specifies reporting requirements for all awards under TIGER. In accordance with ARRA and TIGER requirements, TPB/COG prepares and submits quantitative and qualitative information through required monthly, quarterly, and annual reports, including: 1512 report, FTA Annual Report, FTA Quarterly Report, FTA Monthly Report, and the bi-annual DBE report. Unless replaced by FTA requirements, the following program information is required as part of the quarterly report on project performance that TPB/COG will submit to the FTA:

1. Project Activities and Deliverables

2. Action Items/Outstanding Issues

3. Project Schedule

4. Project Cost

5. Job hours

6. Contractual obligations and expenditures

There are several reports that are required for the ARRA TIGER Grant on a monthly, quarterly, semi-annually, and annual basis:

Monthly Report
- FTA Monthly Report

Quarterly Reports
- Milestone Progress Report (MPR)
- Federal Financial Report (FFR)

- Section 1512 Report
- FTA Quarterly Report

Semi-annual Report
- Disadvantaged Business Enterprise (DBE) Report

Annual Report
- FTA Annual Report
- Section 1201 (c) Reports (last required report submitted in February 2012)

The report formats were developed by the Grant Management Contractor based on the requirements set forth by FTA and the Office of Management and Budget (OMB).

The report extracts information directly from the monthly forms that the Project Owners fill out for each project. Samples of the reports are shown in Appendix I.

B. FTA Grant Management Reporting

In addition to their own specific requirements, the ARRA TIGER grants must follow the same requirements as other FTA grants. To support these requirements, the sub-bullets below each item below have been added for further clarity on how this will be done.

Project management reports are prepared in accordance with FTA Circular 5010.1D, "Grant Management Guidelines," dated November 1, 2008. Specific tasks include:

1. Monitoring grant supported activities to ensure compliance with applicable Federal requirements. This includes the administration and management of the grant in compliance with the Federal regulations, Grant Agreement, and applicable FTA circulars.

   The TPB/COG Project Manager, with assistance from the Grant Management Contractor, monitors grant expenditures through monthly reporting. The Project Owners are responsible for compliance with applicable Federal requirements related to procurement regulations and other Federal regulations.

2. Maintain the project work schedule agreed to by FTA and the grantee and monitor grant activities to assure that schedules are met and other performance goals are achieved.

   The Grant Management Contractor maintains anticipated schedule information in the online forms and the Project Owners update their status in the forms on a monthly basis, enabling the development of schedule status reports.

3. Keep expenditures within the latest approved project budget.

   The Grant Management Contractor maintains anticipated expenditure information (by month and cumulatively) in the online forms and the Project Owners update their actual expenditures in the forms on a monthly basis, enabling the development of budget status reports.

4. Ensure compliance with FTA and Federal requirements on the part of agencies, consultants, contractors, and subcontractors working under approved third party contracts or inter-agency agreements.

   The Grant Management Contractor provides the Project Owners with reference links to federally developed best practices and checklists related to procurement and other requirements of federal grants. Additional assistance is provided to Project Owners upon request.

5. Prepare and submit FTA required reports (per Chapter III, Section 3. "Reporting Requirements").

   The Project Owners are responsible for filling out the monthly forms, and the Grant Management Contractor then develops the FTA required reports using that information. The TPB/COG Project Manager then submits the reports to FTA.

6. Update and retain FTA required reports and records for availability during audits or oversight reviews.

   All reports and monthly submissions from the Project Owners are kept on SharePoint. All FTA required reports are kept on SharePoint and also at TPB/COG in hard copy.

In coordination with the reports required under paragraph A above, TPB/COG and the Grant Management Contractor must prepare and TPB/COG submit through the FTA TEAM system, the FTA Federal Financial Reports (FFRs) and Milestone/Progress Reports (MPRs) to provide grant status to the FTA, including information on the following:

(1) The purposes of the grant are being achieved;

   The outputs of implementation of each project are tracked as required by FTA, including keeping track of the status of implementing all components of each project.

(2) The project is progressing on time and within budget;

   Schedule and budget progress reporting are tracked on a monthly basis through the forms that each Project Owner is required to fill out. Monthly financial status reports,

including adherence to schedule, are run based on these forms and provided to TPB/COG by the 10th of each month.

(3) The grantee is demonstrating competence and control in executing the project;

This includes as an overall assessment in the MPR, based on budget and schedule adherence and an overall assessment from meetings with the Project Owners and Project Managers.

(4) The project meets all program requirements;

A discussion of how the projects meet program requirements is included in the MPR based on inputs from each Project Owner.

(5) If there is a problem developing which may require FTA resources to resolve.

Problems are flagged on a monthly basis to TPB/COG as part of the monthly reporting and are brought to the FTA if needed, based on discussion between the Project Owner, TPB/COG, and the Grant Management Contractor.

C. *Project Reporting Work Flow*

Project Owners submit all required information for reporting in accordance with the following work flow.

1. Project Owners submit forms to Grant Management Contractor through SharePoint.

2. Grant Management Contractor reviews for reasonableness, requests any additional or missing info from Project Owners and computes required performance measures.

3. TPB/COG PM reviews *(and Project Owner review as necessary)*.

4. Grant Management Contractor assembles reports into FTA reporting template.

5. COG PM submits reports to TEAM (or FTA PM) and to federalreporting.gov.

The workflow set out in the beginning of this section depicts how the monthly information provided by the Project Owners feeds into the status reports for TPB/COG and the required reports for FTA and other federal agencies. Additional detail is provided in Appendices F and G.

Table 3 – Reporting Requirements and Schedule

Report	Agency Requesting	Frequency	Date Submitted to TPB/COG by Contractor	Date Submitted by TPB/COG to Federal Agencies
Monthly Status Report	TPB/COG	Monthly	12th of month	n/a
FTA Core Accountability Report	FTA	Monthly	10th of month	12th of month
Federal Financial Report (FFR)	FTA	Quarterly	20th of month	30th of month
Milestone Progress Report (MPR)	FTA	Quarterly	20th of month	30th of month
Section 1512 Report	OMB	Quarterly	8th of month	10th of month
FTA Quarterly Report	FTA	Quarterly	12th of month	20th of month
FTA Annual Report	FTA	Annually	12th of month	October 30th
Section 1201 (c) Report	DOT	Annually	-	-

*The last required Section 1201 (c) Report was submitted in February 2012.

D. Subgrantee Meetings

TPB/COG and the Grant Management Contractor hold regularly scheduled meetings with all of the Project Owners once a month; FTA and the PMOC are in attendance at these meetings. The meetings occur by conference call eight times a year and in-person four times a year, after the end of each quarter.

At each meeting, the Grant Management Contractor reviews the most recently completed reports, discusses all changes or updates to the reporting process, identifies issues and their resolution that occurred over the previous month, and provides recommendations for Project Owner grant management. At these meetings, updates to the Project Management Plan and changes to policies and procedures regarding grant management are also discussed. Following the Contractor's review of these overall items, each Project Owner is asked to provide a detailed update of their projects, including status of procurements, design, and construction. Project owners are also asked about the status of their project budgets and how they are addressing potential budget issues.

In addition to the meetings with all of the Project Owners, the Grant Management Contractor meets monthly, either by phone or in person, with each individual Project Owner. The purpose of these meetings is to review the status of each project in greater detail so that the Contractor can keep track of progress and issues, make suggestions for addressing all challenges and issues to keep the projects on track and to provide a forum for the Grant Management Contractor to provide guidance to the Project Owners on questions they may have.

E. Site Visits

In addition to holding subgrantee calls/meetings and individual Project Owner meetings, the Grant Management Contractor conducts semi-annual site visits with Project Owners to thoroughly discuss the status of each project, adherence to its policies procedures, and compliance with federal requirements. As a result of monthly calls with all of the Project Owners, plus monthly calls with each individual Project Owner, the Grant Management Contractor and TPB/COG are kept abreast of the status of the Project Owner progress and are able to ask the Project Owners to provide necessary documentation, including documents related to sign-offs on various tasks being conducted by contractors. Due to the constant communication between the Grant Management Contractor, semi-annual site visits, where various topics are reviewed in greater detail, are sufficient for maintaining appropriate level of control for the various projects being implemented under the TIGER grant.

Prior to the semi-annual site visits, the Contractor requests updated detailed project schedules and budgets, updated versions of the policies and procedures discussed in Section III, and missing procurement documentation. The Grant Management Contractor provides each Project Owner with a copy of the Site Visit Guide before the site visit, which can be found in Appendix J; the guide is also used by the Contractor during the site visit to guide discussion. Prior to the site visit, the Grant Management Contractor completes the "Documents and Policies on SharePoint" section of the Site Visit Guide, which captures information about required documents and the status of documentation that has been uploaded to SharePoint. The remainder of the guide is completed during the site visit and addresses project schedules, budgets, procurement documentation, and policies and procedures. Information obtained during the site visit is used to develop site visit reports for each Project Owner. The site visit report provides an overview of the Project Owners projects, project and/or procedural recommendations, required project deliverables, individual project statuses, and Grant Management Contractor follow-up actions. Project Owners are given one week to respond to requests in the report and/or provide timelines for delivery of requests that will require more time to address. The report provides guidance to the Project Owner and the Grant Management Contractor in following up on any items that are not being adequately addressed.

The Grant Management Contractor also provides on-site support at TPB/COG offices, as needed, to work with the staff to ensure timely reporting, drawdown, and payment to Project Owners.

F. Budget Revisions

Projects may require changes to their budget and/or scope during various stages of implementation. All proposed changes that deviate from the original activities and funding outlined in the grant agreement must be submitted to TPB/COG and the Grant Management Contractor. Project Owners must submit a request to change a budget and/or scope item on agency letterhead and identify each project and corresponding ALI that is proposed for modification. The letter must also include detailed justification for the change, affirming how the change enhances the benefit of the project and is in line with the original intent of the grant. Project Owners must accompany the letter with a completed budget revision template, an example of which is shown in Appendix K and is available on SharePoint. TPB/COG and the

Grant Management Contractor will review the request and contact the Project Owner if additional information is needed. After review, TPB/COG will compile all requests received from each Project Owner and submit to FTA's Region III Office for a budget revision on a semi-annual basis, or more often if needed. FTA's Region III Office will review the request and follow up with TPB/COG and/or the Project Owner(s) for additional information, if needed. Following FTA Region III approval, the request is forwarded to FTA's Office of Management and Budget for approval. If approved, FTA's Region III Office issues approval to COG/TPB. COG/TPB then notifies the Grant Management Contractor and Project Owner(s) of the approval and updates TEAM to reflect the approved changes. The process and timeframe for budget revision requests is depicted in the figure below.

Budget Revision Process

Project Owner	• Submits a letter and budget revision template requesting a budget and/or scope change to TPB/COG and Grant Management Contractor.
COG/TPB and Grant Contractor	• TPB/COG and the Grant Management Contractor reviews the budget and/or scope change submission and contact Project Owner(s) if additional information is needed. • TPB/COG then submits the request to FTA Region III Office. (*TPB/COG and the Grant Management Contractor's review may take 2-3 weeks depending upon if additional information is needed and the time required to recieve requested information*).
FTA Region III Office	• FTA Region III Office reviews the request and notifies TPB/COG if additional information is needed. • After internal approval, the request is submitted to the Office of Management and Budget for approval. (*This review may take 2-3 months depending upon if additional information is needed and the time required to recieve requested information*).
Office of Management and Budget	• The Office of Management and Budget reviews the request and notifies FTA's Region III Office if additional information is needed. After internal approval, FTA Region III Office is notified. (*This review may take 2-3 months depending upon if additional information is needed and the time required to recieve requested information*).
FTA Region III Office	• FTA Region III Office notifies COG/TPB of approval.
COG/TPB	• COG/TPB will notify the Grant Management Contractor and the Project Owner(s) of the approval and update the changes in TEAM.
Grant Contractor	• The Grant Management Contractor will update the monthly, quartelry and annual forms and reports with the budget and/or scope changes.

VII. Other Grant Management Requirements

These requirements are a summary of what is contained within the subgrantee agreements and are provided here for reference purposes.

A. Restriction on Lobbying

TPB/COG requires each Project Owner to complete FTA's Certification on Lobbying prior to contract execution. All bids for equipment prepared by these Project Owners are required to contain this certification as well.

B. Civil Rights

TPB/COG requires that Project Owners recommended for federal funding submit all project appropriate FTA certifications and assurances prior to contract execution, and annually thereafter. These include, but are not limited to:

- Standard Assurances

- Civil Rights Assurances

TPB/COG will not execute any grant contract without having first received these items.

C. Procurement

Purchasing equipment under the TIGER program may be conducted directly by the Project Owners with TPB/COG oversight or from an existing contract with another governmental agency. TPB/COG's role is to ensure purchases are made competitively and in compliance with federal procurement guidelines.   TPB/COG reserves the right to review all bid documents to ensure compliance with federal standards; likewise, Project Owners have the option of taking advantage of assistance provided by the Grant Management Contractor to review bid document in advance of bid letting to ensure that the appropriate terms and certifications and assurances have been included.

D. Property Management

Legal ownership of capital items purchased under the TIGER programs shall be transferred to the Project Owner. Project Owners will be responsible for all future capital equipment reporting required by the FTA, such as the annual Owned Rolling Stock Inventory required on the anniversary of vehicle purchase or final disposition of equipment.

E. Management Plan Revisions

In consultation with the Grant Management Contractor, TPB/COG will periodically revise its TIGER Discretionary Grant Program Management Plan (PMP).

APPENDIX A – Project Owner and Grant Management Contractor Points of Contact

DDOT

Project	Role	Name	Title	Email	Phone
All DDOT Projects	Program Manager / Primary POC	Jose Thommana	Chief Performance Officer	jose.thomanna@dc.gov	202-671-2700
All DDOT Projects	Secondary POC	Wasim Raja	Traffic Signals/ITS Manager	wasim.raja@dc.gov	202-671-2656
Real-time Passenger information (16th St, Georgia Ave, H Street/Benning, and Wisconsin Avenue)	Project Manager	Anthony Foster	Transportation Planner	anthony.foster@dc.gov	202-741-5367
	Installation Manager	John Páez	Manager (Clear Channel)	johnpaez@mac.com	(240) 751-7234
	QA/QC Manager	Joe Kroeger	Operations Manager (Exterior Concepts)	JoeKroeger@clearchannel.com	301-617-2600
Security Cameras	Project Manager	Harvey Alexander	ITS Engineer	harvey.alexander@dc.gov	202-671-1495
	Installation Manager			TBD Upon Contract Award	
Transit Signal Priority (16th St, Wisconsin Avenue, T.R. Bridge, and 14th St Bridge)	Project Manager	Wasim Raja	Traffic Signals/ITS Manager	wasim.raja@dc.gov	202-671-2656
	Design Engineer	Kevin Lee	Assoc. Engineer, Kittelson	klee@kittelson.com	410-347-9610
	Installation Manager			TBD	
	QA/QC Manager	Tom Urbanik	Sr. Principal Engineer, Kittelson	turbanik@kittelson.com	512-670-8074
	Safety Manager			TBD	
Queue Jumps (16th St and Georgia Avenue)	Project Manager	Wasim Raja	Traffic Signals/ITS Manager	wasim.raja@dc.gov	202-671-2656
	Design Engineer			TBD Upon Contract Award	
	Installation Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Bus Stop Improvements	Project Manager			TBD Upon Contract Award	

Project	Role	Name	Title	Email	Phone
(16th St and Georgia Avenue)	Design Engineer			TBD Upon Contract Award	
	Construction Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
Exclusive Bus Lane (Georgia Avenue)	Project Manager	Richard Kenney	Project Manager	richard.kenney@dc.gov	202-671-2249
	Lead Design Engineer	Leverson Boodlal, PE	Lead Design Engineer (KLS Engineering)	Leverson.boodlal@kls-eng.com	703-858-1356
	Construction Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Uninterruptable Power Supply (T.R. Bridge and 14th St Bridge)	Project Manager	Harvey Alexander	ITS Engineer	harvey.alexander@dc.gov	202-671-1495
	Lead Traffic Engineer			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Signal Optimization (T.R. Bridge and 14th St Bridge)	Project Manager	Wasim Raja	Traffic Signals/ITS Manager	wasim.raja@dc.gov	202-671-2656
	Lead Traffic Engineer	Ogechi Elakwachi (DDOT) Venkat Nallamothu, (SWA)	Lead Traffic Engineer SWA Deputy PM	vnallamothu@sabra-wang.com	202-671-4631 443-741-3719
	QA/QC Manager	Keith Riniker (SWA)	Director, Traffic Engineering and ITS	kriniker@sabra-wang.com	443-741-3675
All DDOT Projects	Finance/Accounting Contact	Connie Pugh	Budget Analyst	constance.pugh@dc.gov	202-671-2748
All DDOT Projects	Finance/Accounting Contact	Rose Mikell	Budget Analyst	rose.mikell@dc.gov	202-671-2731
All DDOT Projects	Procurement Contact	Jerry Carter	Chief Procurement Officer	jerry.carter@dc.gov	202-671-2288

APPENDIX A – Project Owner and Grant Management Contractor Points of Contact

WMATA

Project	Role	Name	Title	Email	Phone
All WMATA Projects	Primary POC	Jim Hamre	Director-Bus Planning	jhamre@wmata.com	202-962-2870
All WMATA Projects	Secondary POC	John Dittmeier	Planning Manager, Corridor Planning & Development	jdittmeier@wmata.com	202-962-1027
Real-time Passenger Information (Addison Road Corridor and VA-7 Leesburg Pike)	Project Manager	Dinesh Patel	Project Manager	dpatel@wmata.com	202-962-2462
	Installation Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
Addison Road Station Bus Bay	Project Manager	Dinesh Patel	Project Manager	dpatel@wmata.com	202-962-2462
	Lead Design Engineer	CV, Inc.	Sr. Design Engineer	cv@v-v-inc.com	
	Construction Manager	Eric Tombs	Interim Manager	ebtombs@WMATA.com	202-962-2749
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Southern Avenue Bus Bay	Project Manager	Dinesh Patel	Project Manager	dpatel@wmata.com	202-962-2462
	Construction Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Transit Signal Priority (VA-7 Leesburg Pike)	Project Manager	Dinesh Patel	Project Manager	dpatel@wmata.com	202-962-2462
	Lead Traffic Engineer	Eric Tombs	Bus Traffic Control Engineer	ebtombs@WMATA.com	202-962-2749
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Pentagon Station Bus Bay Improvements	Project Manager	Dinesh Patel	Project Manager	dpatel@wmata.com	202-962-2462
	Lead Design Engineer	Gerald Maragos	Sr. PM (Gannett Fleming Parsons)	gmaragos@gfnet.com	717-763-7212 x2063

Project	Role	Name	Title	Email	Phone
	ConstructionManager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
Franconia Springfield Station Improvements	Project Manager	Dinesh Patel	Project Manager	dpatel@wmata.com	202-962-2462
	Lead Design Engineer	Gerald Maragos	Sr. PM (Gannett Fleming Parsons)	gmaragos@gfnet.com	717-763-7212 x2063
	Construction Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
All WMATA Projects	Finance/Accounting Contact	Sheila Gudiswitz	Manager, Grants & OMBS Operations	sgudiswitz@wmata.com	202-962-1727
	Grant Management	Robyn Slack	Planning Grant Analyst	rslack@wmata.com	202-962-1507
All WMATA Projects	Procurement Contact	Heather Obora	Chief Procurement Officer	hobora@wmata.com	202-962-1412

APPENDIX A – Project Owner and Grant Management Contractor Points of Contact

SHA

Project	Role	Name	Title	Email	Phone
All SHA projects	Primary POC	Kate Mazzara	Chief - Engineering Systems Team	KMazzara@sha.state.md.us	(301)-513-7346
All SHA projects	Secondary POC	Lyn Erickson (MDOT)	Manager and Federal Liaison, Office of Planning and Capital Programming	lerickson@mdot.state.md.us	(410)-865-1279
Queue Jumps (University Blvd, US-1,and Veirs Mill Rd Corridors)	Project Manager	Claudine Meyers	Chief - Engineering Systems Team	cmyers1@sha.state.md.us	(301)-513-7467
	Design Engineer	Kevin Lee (Kittelson and Associates)	Assoc. Engineer, Kittelson	klee@kittelson.com	410-347-9610
	Prince George's County Contact	Abul Hassan	Chief , Division of Transit	AHassan@co.pg.md.us	(301)-883-5656
	Montgomery County Contact	Gary Erenrich	Special Assistant to the Director for WMATA Affairs at Montgomery County Department of Transportation	Gary.Erenrich@montgomerycountymd.gov	(240) 777 - 7170
Transit Signal Priority (University Blvd and US-1 Corridors)	Project Manager	Claudine Meyers	Chief - Engineering Systems Team	cmyers1@sha.state.md.us	(301)-513-7467
	Prince George's County Contact	Abul Hassan	Chief , Division of Transit	AHassan@co.pg.md.us	(301)-883-5656
	Montgomery County Contact	Gary Erenrich	Special Assistant to the Director for WMATA Affairs at Montgomery County Department of Transportation	Gary.Erenrich@montgomerycountymd.gov	(240) 777 - 7170

Project	Role	Name	Title	Email	Phone
Bus stop improvements (University Blvd Corridor)	Project Manager (on behalf of SHA)	Dinesh Patel	Project Manager	dpatel@wmata.com	(202) 962-2462
Real-time passenger information (University Blvd and Veirs Mill Rd Corridors)	Project Manager (on behalf of SHA)	Dinesh Patel	Project Manager	dpatel@wmata.com	(202) 962-2462
All SHA projects	Finance/Accounting Contact	Betty Conners	Director of Finance	BConners@sha.state.md.us	410-545-0030
All SHA projects	Procurement Contact	Bob Gay	Director of Procurement	RGay@sha.state.md.us	410-545-0433

APPENDIX A – Project Owner and Grant Management Contractor Points of Contact

MTA

Project	Role	Name	Title	Email	Phone
Takoma/Langley Transit Center	Primary POC	James Miller	Project Manager	Jmiller19@mta.maryland.gov	410-767-3816
	Secondary POC	Lyn Erickson (MDOT)	Manager and Federal Liaison, Office of Planning and Capital Programming	lerickson@mdot.state.md.us	
	Project Manager	James Miller	Project Manager	Jmiller19@mta.maryland.gov	410-767-3816
	Lead Design Engineer	Mark Lotz	Lead Design Engineer	mlotz@wtbco.com	410-363-0150
	Construction Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
	Finance/Accounting Contact	John Gasparine		jgasparine@mta.maryland.gov	
	Finance/Accounting Contact	Dalisay Nickels		DNickels@mta.maryland.gov	410-767-3732
	Procurement Contact	Gary Lockett	Chief of Procurement	GLockett@mta.maryland.gov	410-767-3360

APPENDIX A – Project Owner and Grant Management Contractor Points of Contact

City of Alexandria

Project	Role	Name	Title	Email	Phone
All City of Alexandria Projects	Program Manager / Primary POC	Marti Reinfeld	Transit Services Division Chief	marti.reinfeld@alexandriava.gov	703-746-4061
All City of Alexandria Projects	Secondary POC	Jim Maslanka	Manager of Capital Projects	Jim.maslanka@alexandriava.gov	703-746-4082
US-1 (VA) Transitway	Project Manager	Lee Farmer	Interim Potomac Yard Projects Manager	lee.farmer@alexandriava.gov	703.746.4146
	Lead Design Engineer	Michael Randolph	STV – Lead Designer	Michael.randolph@stvincl.com	571-633-2225
	Construction Manager	George Osgood	Lane Construction – CM	gwosgood@laneconstruct.com	240-882-9328
	QA/QC Manager	Michael Gales	RK&K- Project Engineer	mgales@rkk.com	410-952-7686
	Safety Manager				
Queue Jumps	Project Manager	Ravi Raut	Transportation Studies Engineer	Ravindra.raut@alexandriava.gov	703-838-4411, ext. 159
	Lead Traffic Engineer			TBD Upon Contract Award	
	Installation Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
TSP	Project Manager	Ravi Raut	Transportation Studies Engineer	Ravindra.raut@alexandriava.gov	703-838-4411, ext. 159
	Installation Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
SuperStops	Project Manager	Ravi Raut	Transportation Studies Engineer	Ravindra.raut@alexandriava.gov	703-838-4411, ext. 159
	Installation Manager			TBD Upon Contract Award	
	QA/QC Manager			TBD Upon Contract Award	
	Safety Manager			TBD Upon Contract Award	
All City of Alexandria Projects	Finance/Accounting	Tony Williams	Fiscal Officer II	Tony.williams@alexadriava.gov	703-746-4121

APPENDIX A – Project Owner and Grant Management Contractor Points of Contact

PRTC

Project	Role	Name	Title	Email	Phone
All PRTC Projects	Primary POC	Betsy Massie	Grants and Project Management Director	bmassie@omniride.com	703-580-6113
All PRTC Projects	Secondary POC	Cynthia Porter-Johnson	Transportation Project Manager	cporter-johnson@omniride.com	703-580-6147
Bus Replacement	Project Manager	Eric Marx	Operations and Planning Director	emarx@omniride.com	703-580-6117
	QA/QC Manager	Eric Marx	Operations and Planning Director	emarx@omniride.com	703-580-6117
Bus Security Cameras	Project Manager	Eric Marx	Operations and Planning Director	emarx@omniride.com	703-580-6117
CAD/AVL System	Project Manager	Carl Roeser	Manager of Information Technology	croeser@omniride.com	703-580-6191
	Installation Manager	Carl Roeser	Manager of Information Technology	croeser@omniride.com	703-580-6191
	QA/QC Manager	Carl Roeser	Manager of Information Technology	croeser@omniride.com	703-580-6191
Accounting Lead	Finance/Accounting Contact	Joyce Embrey	Finance & Administration Director	jembrey@omniride.com	703-580-6123
TIGER Project Oversight	Procurement Contact	Betsy Massie	Grants and Project Management Director	bmassie@omniride.com	703-580-6113

Foursquare ITP (Grant Management Contractor)

Project	Role	Name	Title	Email	Phone
All TIGER Projects	Primary POC	Lora Byala	President	lbyala@foursquareitp.com	301-774-4566 ext. 401
All DDOT, WMATA, and MDOT Projects	POC for DDOT, WMATA, and MDOT	Michael Weinberger	Transportation Planner	mweinberger@foursquareitp.com	301-774-4566 ext. 409
All City of Alexandria and PRTC Projects	POC for City of Alexandria and PRTC	Shana Johnson	Senior Transportation Planner	sjohnson@foursquareitp.com	301-774-4566 ext. 402

APPENDIX B – Individual Organizational Charts

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                        │     Prime Recipient      │
                        │        TPB/COG           │
                        └─────────────────────────┘
                                    │
                        ┌─────────────────────────┐
                        │   Grant Management       │
                        │      Contractor          │
                        │    Foursquare ITP        │
                        └─────────────────────────┘
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Sub-grantee	Sub-grantee	Sub-grantee	Sub-grantee	Sub-grantee
Washington Metropolitan Area Transit Authority	District Department of Transportation	City of Alexandria	Potomac and Rappahannock Transportation Commission	Maryland Department of Transportation

Implementing Agency

State Highway Administration

Implementing Agency

Maryland Transit Administration

APPENDIX B – Individual Organizational Charts

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District Department of Transportation (DDOT)

Program Manager / Primary POC
Jose Thomanna

Budget Analysts
Connie Pugh/Rose Mikell

Secondary POC
Anthony Foster

Chief Procurement Officer
Jerry Carter

Transit Signal Priority
Projects #2 – 16th Street, #5 – Wisconsin Avenue, #13 – T.R. Bridge, #14 – 14th Street Bridge

- **Project Manager** — Wasim Raja
- **Design Engineer** — Kevin Lee (Kittelson)
- **Installation Manager** — TBD
- **QA/QC Manager** — Tom Urbanik (Kittelson)
- **Safety Manager** — TBD

Queue Jumps
Projects #2 – 16th Street, Project #3 – Georgia Avenue

- **Project Manager** — Wasim Raja
- **Design Engineer** — TBD upon contract award
- **Installation Manager** — TBD
- **QA/QC Manager** — TBD
- **Safety Manager** — TBD

Bus Stop Improvements
Projects #2 – 16th Street, Project #3 – Georgia Avenue

- **Project Manager** — TBD upon contract award
- **Design Engineer** — TBD upon contract award
- **Construction Manager** — TBD upon contract award
- **QA/QC Manager** — TBD upon contract award

Real-time Passenger Information
Projects #2 – 16th Street, #3 – Georgia Avenue, #4 – H Street/Benning Road, #5 – Wisconsin Avenue

- **Project Manager** — Dinesh Patel (WMATA)
- **Installation Manager** — John Páez (Clear Channel)
- **QA/QC Manager** — Joe Kroeger (Exterior Concepts)

Exclusive Bus Lane
Project #3 – Georgia Avenue

- **Project Manager** — Richard Kenney
- **Lead Design Engineer** — Leverson Boodlal (KLS Engineering
- **Construction Manager** — TBD upon contract award
- **QA/QC Manager** — TBD upon contract award
- **Safety Manager** — TBD upon contract award

Security Cameras
Project #4 – H Street/Benning Road

- **Project Manager** — Harvey Alexander
- **Installation Manager** — TBD upon contract award

Signal Optimization
Projects #13 – T.R. Bridge, #14 – 14th Street Bridge

- **Project Manager** — Wasim Raja
- **Lead Traffic Engineer** — Venkat Vallamothu (Sabra Wang)
- **QA/QC Manager** — Keith Riniker (Sabra Wang)

Uninterruptable Power Supply
Projects #13 – T.R. Bridge, #14 – 14th Street Bridge

- **Project Manager** — Harvey Alexander
- **Lead Traffic Engineer** — TBD upon contract award
- **QA/QC Manager** — TBD upon contract award
- **Safety Manager** — TBD upon contract award

APPENDIX B – Individual Organizational Charts

Washington Metropolitan Area Transit Authority (WMATA)

Primary POC
Jim Hamre

Chief Procurement Officer
Heather Obora

Secondary POC
John Dittmeier

Grants & OMBS
Sheila Gudiswitz
Robyn Slack

Real-time Passenger Information	Addison Road Station Bus Bay	Southern Avenue Bus Bay	Transit Signal Priority	Pentagon Station Bus Bay Improvements	Franconia-Springfield Station Bus Bay Improvements
Projects #6 – Addison Road, #11 – VA-7 (Leesburg Pike)	Project #6 – Addison Road	Project #6 – Addison Road	Projects #11 – VA-7 (Leesburg Pike)	Projects #16a – Pentagon and Franconia-Springfield Station Improvements	Projects #16a – Pentagon and Franconia-Springfield Station Improvements
Project Manager Dinesh Patel	**Project Manager** Dinesh Patel	**Project Manager** Dinesh Patel	**Project Manager** Dinesh Patel	**Project Manager** Dinesh Patel	**Project Manager** Dinesh Patel
Installation Manager TBD upon contract award	**Lead Design Engineer** CV, Inc.	**Lead Design Engineer** TBD upon contract award	**Lead Traffic Engineer** Eric Tombs	**Lead Design Engineer** Gerald Varagos (Gannett Fleming)	**Lead Design Engineer** Gerald Varagos (Gannett Fleming)
QA/QC Manager TBD upon contract award	**Construction Manager** TBD	**Construction Manager** TBD upon contract award	**Installation Manager** TBD upon contract award	**Construction Manager** TBD upon contract award	**Construction Manager** TBD upon contract award
	QA/QC Manager TBD upon contract award	**QA/QC Manager** TBD upon contract award	**QA/QC Manager** TBD upon contract award	**QA/QC Manager** TBD upon contract award	**QA/QC Manager** TBD upon contract award
	Safety Manager TBD upon contract award	**Safety Manager** TBD upon contract award	**Safety Manager** TBD upon contract award	**Safety Manager** TBD upon contract award	**Safety Manager** TBD upon contract award

APPENDIX B – Individual Organizational Charts

APPENDIX B – Individual Organizational Charts

City of Alexandria

Primary POC
Marti Reinfeld

Finance
Tony Williams

Secondary POC
Jim Maslanka

US-1 Transitway	Queue Jumps	TSP	SuperStops
Projects #10 – Contruct Busway	Projects #12 – Van Dorn-Pentagon	Projects #12 – Van Dorn-Pentagon	Projects #12 – Van Dorn-Pentagon

US-1 Transitway

Project Manager
Lee Farmer

Lead Design Engineer
Michael Randolph (STV)

Construction Manager
George Osgood (Lane)

QA/QC Manager
Michael Gales (RK&K)

Queue Jumps

Project Manager
Ravi Raut

Lead Traffic Engineer
TBD upon contract award

Installation Manager
TBD upon contract award

QA/QC Manager
TBD upon contract award

TSP

Project Manager
Ravi Raut

Installation Manager
TBD upon contract award

QA/QC Manager
TBD upon contract award

SuperStops

Project Manager
Ravi Raut

Installation Manager
TBD upon contract award

QA/QC Manager
TBD upon contract award

APPENDIX B – Individual Organizational Charts

APPENDIX C – Real Time Passenger Information (RTPI) Display Matrix

Project Owner	Procurement	Testing/Installation	Maintenance
WMATA **TIGER Corridor Locations:** 1. Addison Road 2. VA-7	1. WMATA will procure three types of RTPI displays: Type A (according to TIGER Specifications); Type B (for implementation at WMATA Metro Rail Stations, at bus bays), and Type C RTPI signs (to implement at other regional "Transit Centers"). 2. WMATA will procure all three sign types through Luminator (WMATA selected vendor – who will design, supply and install pre-defined quantities of signs). 3. Contract has been modified to include a Rider Clause provision allowing jurisdictions to participate and ride on the contract in securing vendor services on their own.	1. An RTPI prototype will be developed. 2. Mounting of signs will have to be evaluated and will be designed based on shelter type. 3. WMATA will conduct a factory and system acceptance tests for both hardware and software. 4. WMATA will install display signs. Display signs will meet all ADA requirements including push button, braille signs, and audio. 5. Each Jurisdiction is responsible for providing data feed at the server locations for bus stops where other jurisdictions serve the bus stop besides WMATA.	1. WMATA will facilitate the maintenance of all RTPI displays and AVL data feed. 2. WMATA will procure and provide cellular service to support the operations of the RTPI signs. 3. The cost of (and provision for) electricity power at the bus shelters will be the responsibility of the shelter owners or jurisdictions. * 4. COG will facilitate the establishment of a Service Agreement between WMATA and all participating jurisdictions for operation and maintenance of signs.
DDOT **TIGER Corridor Locations:** 1. 16th Street 2. Wisconsin Avenue 3. Georgia Avenue 4. H Street/ Benning Road	1. WMATA will procure RTPI signs on behalf of DDOT per WMATA's contract. 2. MWCOG will coordinate with WMATA and DDOT to implement DDOT's RTPI project through a reimbursement plan.	1. An RTPI prototype will be developed. 2. Mounting of signs will have to be evaluated and will be designed based on shelter type. 3. WMATA will conduct a factory and system acceptance tests for both hardware and software. 4. WMATA, through its third party vendor, will install display signs through an agreement with Clear Channel. Display signs will meet all ADA requirements. Design enhancements such as push button, braille signs, and audio will be compatible with the existing shelter design.	1. WMATA will facilitate the maintenance of all RTPI displays and AVL data feed. 2. WMATA will procure and provide cellular service to support the operations of the RTPI signs. 3. The cost of (and provision for) electricity power at the bus shelters will be the responsibility of the shelter owners or jurisdictions. COG will facilitate the establishment of a Service Agreement between WMATA and all participating jurisdictions for operation and maintenance of signs.*

		5. Each Jurisdiction is responsible for providing data feed at the server locations for bus stops where other jurisdictions serve the bus stop besides WMATA. 6. WMATA third party vendor will develop agreement and coordinate installation activities with Clear Channel. 7. DDOT, via Clear Channel, will provide electrical power to the shelters in a timely manner and will provide updates on monthly basis.	
City of Alexandria (CoA) **TIGER Corridor Locations:** 1. VA-7 2. Van Dorn-Pentagon Corridor 3. US-1 Transitway	1. **For VA-7 (WMATA Route 28A – on Leesburg Pike Corridor):** WMATA will procure and implement RTPI display signs per WMATA contract with Luminator. 2. **For CoA TIGER project:** The City has requested to ride on the RTPI vendor contract.	1. A RTPI prototype will be developed. 2. Mounting of signs will have to be evaluated and will be designed based on shelter type. 3. WMATA will conduct a factory and system acceptance tests for both hardware and software. 4. WMATA will install display signs. Display signs will meet all ADA requirements including push button, braille signs, and audio. 5. Each Jurisdiction is responsible for providing data feed at the server locations for bus stops where other jurisdictions serve the bus stop besides WMATA. 6. CoA will provide electrical power to the shelters in a timely manner and will provide updates on monthly basis.	1. WMATA will facilitate the maintenance of all RTPI displays and AVL data feed. 2. WMATA will procure and provide cellular service to support the operations of the RTPI signs. 3. The cost of (and provision for) electricity power at the bus shelters will be the responsibility of the shelter owners or jurisdictions.* 4. COG will facilitate the establishment of a Service Agreement between WMATA and all participating jurisdictions for operation and maintenance of signs.

SHA/Prince George's Co./ Montgomery Co **TIGER Corridor Locations:** 1. University Boulevard 2. Veirs Mill 3. Addison Road	1. SHA/MoCo/PGCo has stated a preference to have WMATA procure RTPI on their behalf. 2. MWCOG will coordinate with WMATA and SHA to implement SHA/MoCo/PGCo's RTPI project through a reimbursement plan.	1. A RTPI prototype will be developed. 2. Mounting of signs will have to be evaluated and will be designed based on shelter type. 3. WMATA will conduct a factory and system acceptance tests for both hardware and software. 4. WMATA will install display signs. Display signs will meet all ADA requirements including push button, braille signs, and audio. 5. Each transit operator is responsible for providing data feed at the server locations for bus stops where other jurisdictions serve the bus stop besides WMATA. 6. SHA will coordinate with WMATA, Montgomery and Prince George's County to coordinate directly with Pepco/BGE for power needs.	1. WMATA will facilitate the maintenance of all RTPI displays and AVL data feed. 2. WMATA will procure and provide cellular service to support the operations of the RTPI signs. 3. The cost of (and provision for) electricity power at the bus shelters will be the responsibility of the shelter owners or jurisdictions.* 4. COG will facilitate the establishment of a Service Agreement between WMATA and all participating jurisdictions for operation and maintenance of signs.
City of Falls Church (CoFC) **TIGER Corridor Locations:** 1. VA-7	WMATA will be procuring RTPI display signs per WMATA contract with Luminator.	1. A RTPI prototype will be developed. 2. Mounting of signs will have to be evaluated and will be designed based on shelter type. 3. WMATA will conduct a factory and system acceptance tests for both hardware and software. 4. WMATA will install display signs. Display signs will meet all ADA requirements including push button, braille signs, and audio.	1. WMATA will facilitate the maintenance of all RTPI displays and AVL data feed. 2. WMATA will procure and provide cellular service to support the operations of the RTPI signs. 3. The cost of (and provision for) electricity power at the bus shelters will be the responsibility of the shelter owners or jurisdictions.* 4. COG will facilitate the establishment of a Service Agreement between WMATA and all participating jurisdictions for operation and maintenance of signs.

		5. Each Jurisdiction is responsible for providing data feed at the server locations for bus stops where other jurisdictions serve the bus stop besides WMATA.	
Virginia Department of Transportation (VDOT) **TIGER Corridor Locations:** 1. VA-7	WMATA will be procuring RTPI display signs per WMATA contract with Luminator.	1. A RTPI prototype will be developed. 2. Mounting of signs will have to be evaluated and will be designed based on shelter type. 3. WMATA will conduct a factory and system acceptance tests for both hardware and software. 4. WMATA will install display signs. Display signs will meet all ADA requirements including push button, braille signs, and audio. 5. Each Jurisdiction is responsible for providing data feed at the server locations for bus stops where other jurisdictions serve the bus stop besides WMATA.	1. WMATA will facilitate the maintenance of all RTPI displays and AVL data feed. 2. WMATA will procure and provide cellular service to support the operations of the RTPI signs. 3. The cost of (and provision for) electricity power at the bus shelters will be the responsibility of the shelter owners or jurisdictions.* 4. COG will facilitate the establishment of a Service Agreement between WMATA and all participating jurisdictions for operation and maintenance of signs.

*Note: The shelter owners (either local/agency or third party owners) are responsible for the cost associated with the shelter electricity. WMATA will be installing the displays after shelters are electrified. WMATA will conduct a shelter assessment prior to the installation of the devices to determine condition.

APPENDIX C – Transit Signal Priority (TSP) On-Board Equipment Matrix

Project Owner	Procurement	Testing/Installation	Maintenance
WMATA **TIGER Corridor Locations:** 1. VA-7	WMATA will be procuring the Priority Request Communicator (PRC) and Priority Request Generator (PRG) devices through their vendor contract. WMATA's on board bus equipment has capability for PRG and PRC.	WMATA will handle the installation and testing of the on board equipment in conjunction with installation of PRS at wayside equipment along the VA-7 corridor.	WMATA will maintain on board equipment. WMATA will provide cellular service and will pay for it.
DDOT **TIGER Corridor Locations:** 1.16th Street 2. Wisconsin Avenue 3. TR Bridge to K Street 4. 14th Street Bridge	WMATA will be procuring the PRG and PRC devices for the transit system. WMATA has yet to determine if costs will be covered by WMATA or through Project Owner's TSP TIGER.	WMATA will handle the installation and testing of the on board equipment in conjunction with installation of PRS at wayside equipment by DDOT.	WMATA will maintain on board equipment. WMATA will provide cellular service and will pay for it.
City of Alexandria (CoA) **TIGER Corridor Locations:** 1. VA-7 2. Van Dorn-Pentagon Corridor 3. US-1 Transitway	WMATA will be procuring the Priority Request Communicator (PRC), Priority Request Generator (PRG). WMATA has yet to determine if WMATA or through Project Owner's TSP TIGER. Note: The CoA inquired on possible participation through Rider-Clause agreement with WMATA.	WMATA will handle the installation and testing of the on board equipment in conjunction with installation of PRS at wayside equipment by CoA.	WMATA will maintain on board equipment. WMATA will provide cellular service and will pay participating jurisdictions for operation and maintenance of signs.

SHA/ Prince George's Co./ Montgomery Co. **TIGER Corridor Locations:** 1. University Boulevard 2. Veirs Mill 3. US-1	WMATA will be procuring the PRG and PRC devices for the transit system. WMATA has yet to determine if costs will be covered by WMATA or through Project Owner's TSP TIGER.	WMATA will handle the installation and testing of the on board equipment in conjunction with installation of PRS at wayside equipment by SHA.	WMATA will maintain on board equipment. WMATA will provide cellular service and will pay participating jurisdictions for operation and maintenance of TSP interface.
City of Falls Church (CoFC)/VDOT **TIGER Corridor Locations:** 1. VA-7	WMATA will be procuring the PRG and PRC devices for the transit system. WMATA has yet to determine if costs will be covered by WMATA or through Project Owner's TSP TIGER.	WMATA will handle the installation and testing of the on board equipment in conjunction with installation of PRS at wayside equipment by CoFC/VDOT.	WMATA will maintain on board equipment. WMATA will provide cellular service and will pay participating jurisdictions for operation and maintenance of signs.

APPENDIX C – Transit Signal Priority (TSP) Wayside Equipment Matrix

Project Owner	Procurement	Testing/Installation	Maintenance
WMATA **TIGER Corridor Locations:** 1. VA-7	WMATA will be procuring the Priority Request Server (PRS) devices through their vendor contract.	1. The project corridor covers multiple jurisdictions. WMATA will work with each agency on the TSP implementation process. 2. WMATA will handle the installation and testing of the on board and wayside equipment along VA-7. 3. This testing will also support City of Alexandria's project on US 1, SHA and DDOT project. 4. WMATA vendor will complete evaluation of Intelligent Vehicle Network (IVN) system, cellular capabilities and coordinate activities with each jurisdiction per TSP Design Package.	1. Local jurisdictions will maintain the wayside equipment. 2. The monthly cellular service fee associated with the wayside equipment will be paid for by WMATA.
DDOT **TIGER Corridor Locations:** 1.16th Street 2. Wisconsin Avenue 3. TR Bridge to K Street 4. 14th Street Bridge	DDOT will be procuring the PRS wayside equipment for DDOT signals based on WMATA TSP design package. DDOT customized design package should be based on the approved WMATA TSP Design Specification Package.	WMATA will handle the testing of the wayside equipment on DDOT signals. DDOT will handle installation of the devices after test acceptance.	DDOT will maintain PRS wayside equipment. WMATA will provide cellular communications and will pay for it.

City of Alexandria (CoA) **TIGER Corridor Locations:** 1. VA-7 2. Van Dorn-Pentagon Corridor 3. US-1 Transitway	**For VA-7:** WMATA will be procuring the Priority Request Server (PRS) devices through their vendor contract. **For CoA TIGER:** The City is determining their procurement process after WMATA contract award. City would like to purchase four PRS devices for TSP.	The testing conducted on VA-7 will cover the City's testing needs for US 1 and Van Dorn/Pentagon. Installation of the equipment after test acceptance is TBD.	**For VA-7:** Local jurisdictions will maintain the wayside equipment. The monthly cellular service fee associated with the wayside equipment will be provided by WMATA. **For CoA TIGER:** The City will maintain PRS wayside equipment. WMATA will provide cellular communications and will pay for it.
SHA/Prince George's Co./ Montgomery Co. **TIGER Corridor Locations:** 1. University Boulevard 2. Veirs Mill 3. US-1	SHA/MoCo/PGCo has requested WMATA procure the PRS wayside equipment for SHA/MoCo/PGCo signals. MWCOG will facilitate the transfer of fund from SHA to WMATA.	WMATA and SHA/MoCo/PGCo will facilitate the testing of the wayside equipment on SHA/MoCo/PGCo signals. SHA is responsible to test the prototype on their signal system and internal coordination with local entities in a timely manner. Dimensions of approved cellular device will determine whether device can be accommodated in the signal cabinet or function as stand-alone outside the cabinet. *Note* – SHA is in favor of proposed GTT technology for TSP.	SHA/MoCo/PGCo will maintain wayside equipment. WMATA will provide cellular communications and will pay for it.
City of Falls Church (CoFC)/VDOT **TIGER Corridor Locations:** 1. VA-7	WMATA will be procuring the Priority Request Server (PRS) devices through their vendor contract.	1. WMATA will work with each agency on the TSP implementation process. 2. WMATA will handle the installation and testing of the wayside equipment along VA-7. 3. WMATA vendor will complete evaluation of Intelligence Vehicle Network (IVN) system, cellular capabilities and coordinate activities with each jurisdiction per TSP Design Package.	1. Local jurisdictions will maintain the wayside equipment. 2. The monthly cellular service fee associated with the wayside equipment will be provided by WMATA.

APPENDIX D – Force Account Instructions

TIGER Grant Force Account Guidelines

Specific TIGER projects may warrant the use of in-house staff for implementation, thus requiring documentation for a FTA "force account" plan. A force account is the use of a grantee's (sub-recipient) labor force to carry out a capital grant project. Force account work may consist of design, construction, refurbishment, inspection, and construction management activities. Force account work does NOT include grant or project administration activities.

One of the following four conditions may warrant the use of a grantee's own labor forces:

1. Cost Savings
2. Exclusive Expertise
3. Safety and Efficiency of Operations
4. Union Agreements

Justification for a given condition should include the following:

1. **Cost Savings**
   Justification should include the present worth of the estimated costs for both the force account work and private sector contract options. Include the cost of preparing documents, cost of administration and inspection, cost of labor, materials and specialized equipment, cost of overhead, and profit for private contract, if applicable for private contract. Provide verification that costs presented are fair and reasonable.

2. **Exclusive Expertise**
   Justification should include the basis for a determination that no private sector contractor has the expertise to perform the work. Additionally, the required documentation must provide the basis for the grantee decision to use force account labor.

3. **Safety and Efficiency of Operations**
   Justification may be provided by a statement from the transit operator's safety officer stating that performing the work with private sector contractors would have an adverse effect on public safety. Efficiency concerns may be addressed by a present worth calculation, including an estimate of the value of lost transit operation efficiency.

4. **Union Agreement**
   Justification must provide relevant citations from labor union agreements and an analysis of how it pertains to the work in question.

Reference: FTA Circular 5010.1D

TIGER Grant Force Account Justification

Please complete the below for the TIGER project(s) that you anticipate using in-house workforce for implementation. Please submit additional supporting documentation as necessary.

|	
Project Owner	
Project Activity	
Description of Scope of Work (Provide a brief description of the scope of work(s) for project(s) that you anticipate using in-house workforce for implementation.)	
Condition for Use of In-House Workforce (Select from one of the four allowable conditions from the Force Account Guidelines.)	
Justification for Use of In-House Workforce (Provide justification based on condition requirements from the Force Account Guidelines.)	
Detailed Description of In-House Labor (Describe the tasks that will be performed in-house, include position titles and specific tasks performed by each position. Provide an analysis of force account labor availability, considering normal operations and maintenance activities, as well as other programmed and existing capital projects. This must be consistent with costs of labor, material, and specialized equipment.)	
Estimated In-House Workforce Hours (For the duration of the TIGER project)	
Estimated In-House Workforce Costs	
Estimated Private Sector Cost (If using Cost Savings or Exclusive Expertise as a Condition for Use)	

APPENDIX E – Schedules and Cross Project Contingencies and Critical Path Items

Original Timeframes from Grant Agreement

| Project Owner	#	Project Name	Activity Line Item	Original Project Timeframes
DDOT	2	**16th Street Bus Priority Corridor Enhancements**	Real Time Information Display Real Time Bus Information Prototype Transit Signal Priority Bus Stop Improvements	Jan 2011 - Oct 2011 Dec 2011 - Mar 2014 Mar 2011 - Jun 2013 Mar 2013 – Dec 2014
DDOT	3	**Georgia Avenue Bus Priority Corridor Enhancements**	Real Time Information Display Transit Signal Priority Bus Stop Improvements Exclusive Bus Lane	Dec 2011 - Mar 2014 Mar 2011 - Dec 2011 Mar 2013 – Dec 2014 Jan 2011 - Aug 2012
DDOT	4	**H Street/Benning Road Bus Priority Corridor Enhancements**	Real Time Information Display Security Cameras	Dec 2011 - Mar 2014 Jan 2013 – Dec 2013
DDOT	5	**Wisconsin Avenue Bus Priority Corridor Enhancements**	Real Time Information Display Transit Signal Priority	Dec 2011 - Mar 2014 Mar 2011 - Jun 2013
WMATA	6	**Addison Road Bus Priority Corridor Enhancements**	Real Time Information Display Addison Road Station Bus Bay Improvements Southern Avenue Station Bus Bay Improvements	Feb 2011 - Nov 2011 Feb 2011 - Nov 2011 Feb 2011 - Nov 2011
MDOT / SHA	7	**University Boulevard Bus Priority Corridor Enhancements**	Queue Jumps Bus Stop Improvements Real Time Information Display Transit Signal Priority	Jul 2011 - Nov 2012 Feb 2011 - Nov 2011 Mar 2011 - Mar 2013 Jul 2011 - Nov 2012
MDOT / SHA	8	**US 1 (MD) Bus Priority Corridor Enhancements**	Transit Signal Priority Queue Jumps	Jul 2011 - Nov 2012 Jul 2011 - Nov 2012
MDOT / SHA	9	**Veirs Mill Road Bus Priority Corridor Enhancements**	Queue Jump Real Time Information Display	Jul 2011 - Nov 2012 Feb 2012 - Sep 2012
City of Alexandria	10	**US 1 (VA) Transitway**	Construct Busway	Sep 2011 - Oct 2013
WMATA	11	**VA 7 (Leesburg Pike) Bus Priority Corridor Enhancements**	Real Time Information Display Transit Signal Priority	Feb 2011 - Sep 2011 Oct 2010 - Apr 2012

Project Owner	#	Project Name	Activity Line Item	Original Project Timeframes
City of Alexandria	12	Van Dorn - Pentagon Bus Priority Corridor Enhancements	Real Time Bus Information /Super Stops Transit Signal Priority Queue Jumps	Dec 2010 - Dec 2012 Nov 2011 - Dec 2012 Sep 2011 - Dec 2012
DDOT	13	T. Roosevelt Bridge to K Street Bus Priority Corridor Enhancements	Downtown Core Signal Optimization Transit Signal Priority Uninterruptible Power Supply	Mar 2011 - Jun 2014 Mar 2011 - Jun 2015 Mar 2011 - Jun 2012
DDOT	14	14th Street Bridge to K Street Bus Priority Corridor Enhancements	Downtown Core Signal Optimization Transit Signal Priority Uninterruptible Power Supply	Mar 2011 - Jun 2014 Mar 2011 - Jun 2015 Mar 2011 - Jun 2012
WMATA	16a	Pentagon and Franconia-Springfield Station Improvements	Pentagon Station Bus Bay Improvements Franconia-Springfield Bus Bay Improvements	Mar 2011 - Mar 2013 May 2011 - May 2013
PRTC	16b	PRTC Buses and ITS Technology	Purchase 13 Replacement buses Purchase CAD/AVL System Purchase and Install Bus Security Cameras	Apr 2011 - Dec 2012 Oct 2010 - Feb 2013 Mar 2006 - Aug 2010
MDOT / MTA	18	Takoma/Langley Transit Center	Construct Bus Terminal	Feb 2012 - Apr 2014

APPENDIX E – Schedules and Cross Project Contingencies and Critical Path Items
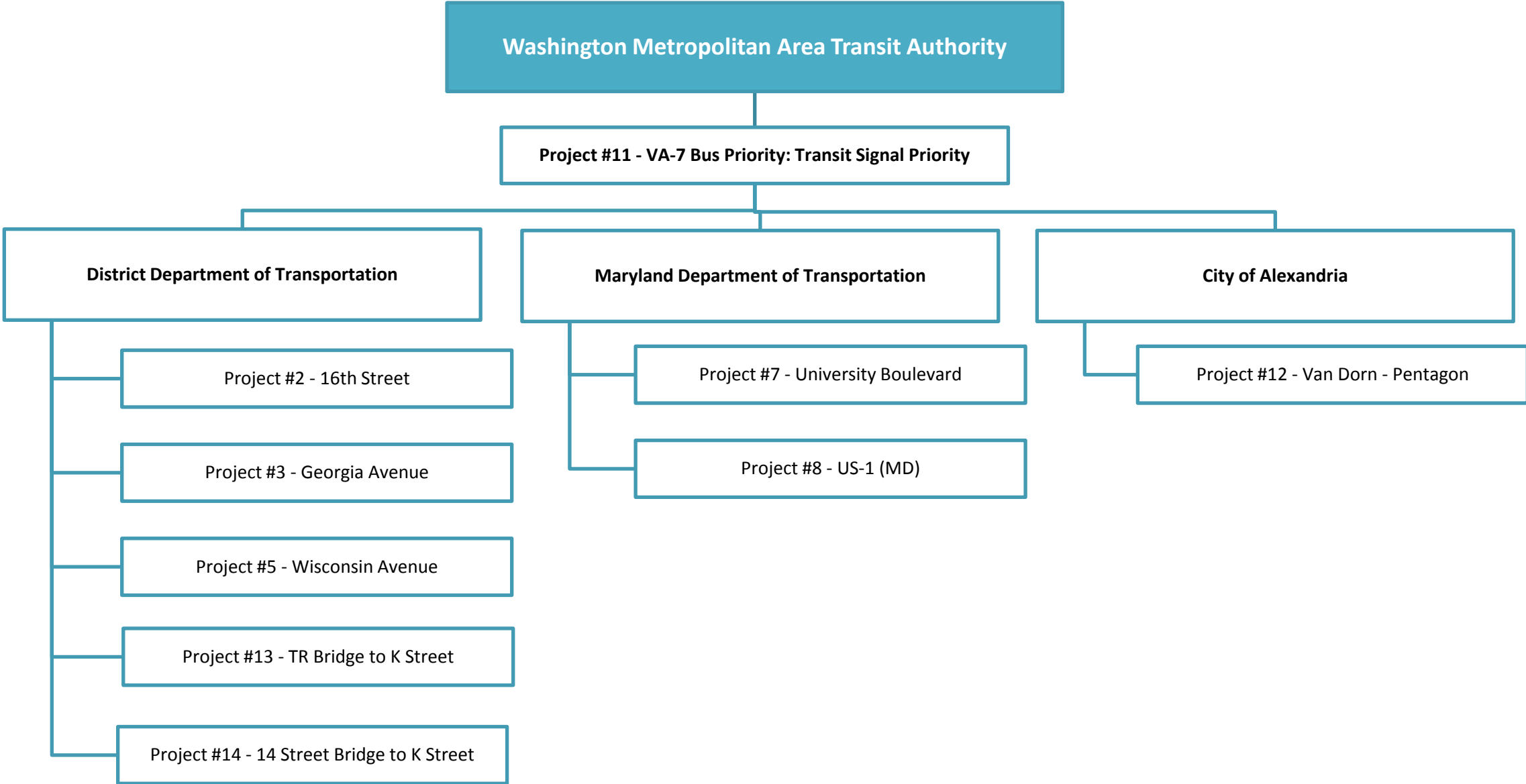
Note: See Appendix A for contact information for each Project Owner.

Cross Project Contingencies and Critical Path Items
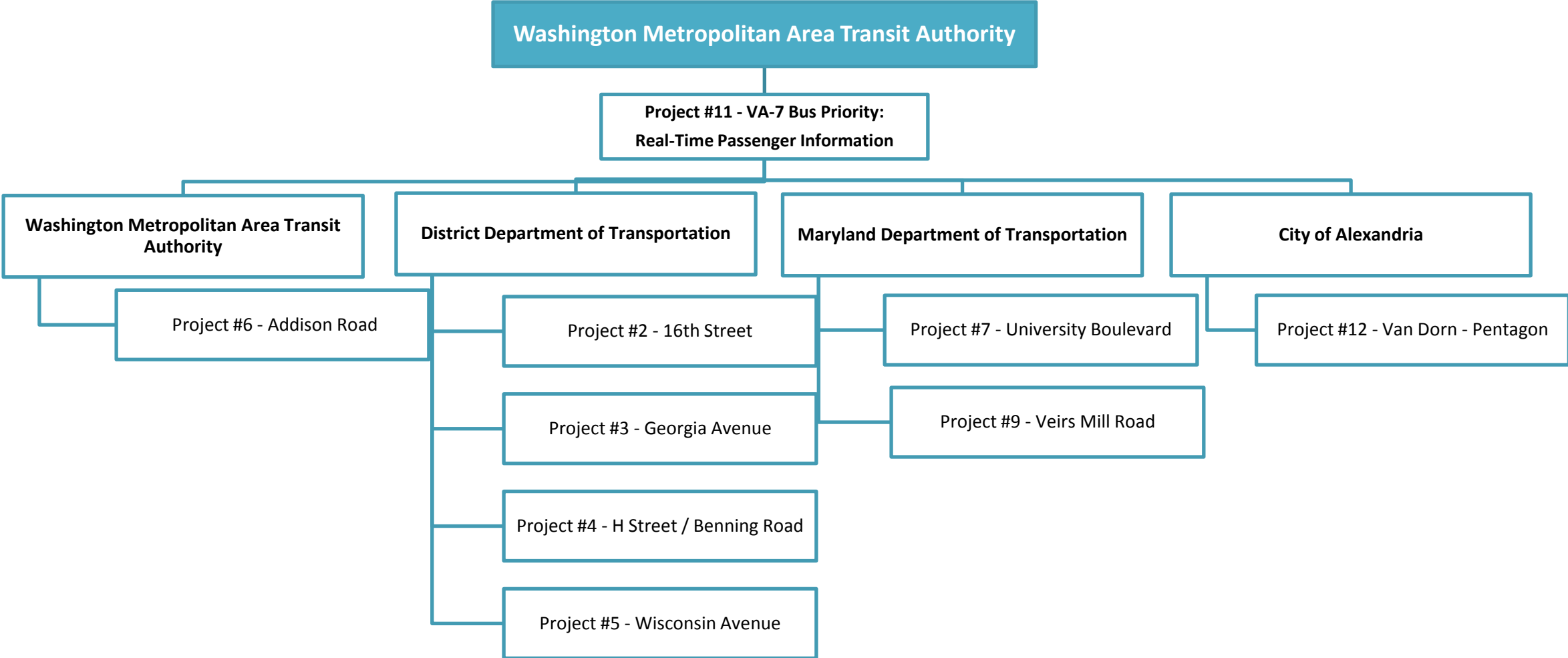
Note: See Appendix A for contact information for each Project Owner.

APPENDIX F

Example Monthly Form

TIGER Monthly Sub-Recipient Form		
TIGER: Priority Bus Transit in the National Capital Region		
Reporting Period :	**April 2011**	
Project Owner :	**District Department of Transportation**	
Submitted By:		
Wisconsin Avenue Corridor Enhancement (DDOT)		
Project Activity	Transit Signal Priority	Nextbus RTPI
Activity Line Item	11.36.20	11.33.20
Project Award Amount	$ 345,000	$ 400,000
Total Project Cost	$ 400,000	$ 400,000
INVOICED/ EXPENDITURES (THIS MONTH)		
TIGER Share of this Month's Invoices/ Expenditures	$ -	$ -
Infrastructure Expenditures	$ -	$ -
Infrastructure Justification		
TOTAL INVOICES/ EXPENDITURES (CUMULATIVE)		
Total TIGER Share of Invoices/ Expenditures	$ -	$ -
Total Infrastructure Expenditures	$ -	$ -
CURRENT MILESTONES		
RFP/ IFB Issued	June 1, 2011	August 1, 2011
Contract Award	September 1, 2011	November 1, 2011
Project Complete	June 30, 2013	June 30, 2012
REVISED MILESTONES		
RFP/ IFB Issued		
Contract Award		
Project Complete		
Justification for Milestone Revision		
ACTUAL MILESTONES		
RFP/ IFB Issued		
Contract Award		
Project Complete		

CONTRACTS		
Number of contracts advertised for bid this month		
Estimated TIGER funds associated with contracts advertised for bid this month	$ -	$ -
Number of contract solicitations awarded this month		
Amount of TIGER funds associated with contracts that were awarded this month	$ -	$ -
How many of the total awarded contracts have begun work this month?		
Amount of TIGER funds associated with contracts that have begun work this month.	$ -	$ -
Number of contracts completed this month		
Amount of TIGER funds associated with contracts that were completed this month	$ -	$ -
UNLIQUIDATED OBLIGATION		
TIGER Share of Unliquidated Obligations	$ -	$ -
JOBS		
Job Hours Created This Month		
Job Hours Retained This Month		
Total Job Hours This Month	0	0
Total Number of Jobs This Month	0	0
Total Cost of Job Hours This Month	$ -	$ -
Description of Jobs		
PROJECT UPDATE		
Significant Activities this Month		
Project Issues		
Project Accomplishments		

APPENDIX G
Grant Reporting and Invoicing Process and Schedule

Day of Month	Reporting	Invoicing
1st	**Grant Management Contractor** contacts Project Owners to remind them of the upcoming deadline and see if they have questions or anticipate issues in completing their invoicing and reporting forms	
8th	**Contractor** provides TPB/COG draft 1512 report (quarterly). **Contractor** responds to Project Owners with any issues or clarifications needed on the report forms	
10th	**COG/DTP PM** submits 1512 report (quarterly).	
11th		**COG/DTP Budget Analyst** and **Contractor** verify invoices, invoice summary sheets, and staff summary sheets. COG/DTP Budget Analyst then provides invoice packages for each Project Owner including the invoice, invoice summary sheets, staff summary sheets, and Form 43 to COG/DTP PM for review and signature.
12th	**Contractor** submits monthly status reports to TPB/COG.	**COG/DTP PM** reviews and approves invoices and forms (Form 43, Invoice Summary Sheet, Staff Summary Sheet).
15th		**COG/DTP PM** submits signed Form 43s, invoices, invoice summary sheets, and staff summary sheets to COG/DTP Budget Analyst. COG/DTP Budget Analyst submits document to COG Contracting Officer.
17th		**COG Contracting Officer** sends invoices to Grants Manager.
19th – 27th	**Contractor** uploads monthly Excel forms for coming month and read-only version of previous month **Contractor** provides TPB/COG draft FFR and MPR (quarterly).	**COG Grants Manager** approves and sends invoices to COG Accounts Payable.
		COG Accounts Payable processes invoices and enters data into Costpoint Accounting system.
		COG Senior Staff Accountant conducts final invoice review and posts data in Accounting System.
	COG/DTP Budget Analyst reviews monthly status reports.	**COG Accounting Operations Manager** generates final grant reports (Progress Status Report and Monthly Report) and provides them to COG/DTP Budget Analyst.

Day of Month	Reporting	Invoicing
		COG/DTP Budget Analyst provides final grant report to COG CFO and DTP Director for signature.
28th		**COG CFO and DTP Director** sign final grant report and provide it to COG/DTP Budget Analyst. **COG/DTP Budget Analyst** provides final grant report to COG Accounting Operations Manager. **COG Accounting Operations Manager** enters reimbursement information into ECHO to request drawdown.
29th		**COG Accounts Payable** makes payments to Project Owners (must be within 3 days of drawdown). **COG Accounting Operations Manager** provides copies of web payment reports to COG/DTP Budget Analyst and **COG/DTP PM**.
30th	**COG** submits final FFR and MPR to FTA (quarterly).	**COG/DTP PM** enters final numbers into TEAM.
No Later than the 30th of the month TPB/COG submits monthly FTA report to FTA.		
Last Day*	**Project Owners** submit monthly Excel form for previous month to Contractor for review. **Contractor** moves all completed forms into "read only" mode at 5:00 pm.	**Project Owners** submit invoices, invoice summary sheet, and staff summary sheet to COG Contracting Officer, TPB/COG Budget Analyst, and Contractor via tigerinvoices@mwcog.org and copies the Contractor. Any that are not submitted by 5:00 pm will not be included in that month's invoice payment process. **COG Contracting Officer** completes the Form 43 for each invoice and sends to COG/DTP Budget Analyst.

*If the last day of the month falls on a weekend or Federal holiday, invoices and forms will be due on the next weekday.
If the 10th or 30th of the month falls on a weekend or Federal holiday, the federal reports must be submitted on the previous weekday.

Participants in Reporting and Invoicing Process

Role	Name
Grant Management Contractor	Foursquare Integrated Transportation Planning
COG DTP Director	Ron Kirby
COG/DTP Project Manager (PM)	Eric Randall
COG/DTP Budget Analyst	Barbara Brennan
COG CFO (Interim)	Paul Beriault
COG Contracting Officer	Tom Savoie
COG Accounting Operations Manager	Rosita Chambus
COG Grants Manager	LaTonya Coleman
COG Accounts Payable	Robin Burroughs
COG Senior Staff Accountant	Laura Feng

APPENDIX H – Project Owner Invoicing and DBE Checklist Instructions

Cover Letter Submission:

1. A cover letter must be submitted, on letterhead, with the summary sheets and invoices submitted for the month. Refer to the **TIGER Invoice Cover Letter Example** for details on the information needed for the cover letter.

Invoice Submission:

1. Invoices must be sent electronically to tigerinvoices@mwcog.org by 5:00 p.m. on the last day of each month; if the last day occurs on a weekend, they must be sent the following Monday by 5:00 p.m.

   Any invoices received after that deadline until the *7th of the next month* will be processed but reimbursement may be delayed, however any project hours and funding expenditures recorded after the end of the month should be reported in the *next month's reporting cycle (in the monthly forms).* Invoices received after the 7th of the month will be deferred until the end of the month and next submission period.

2. Invoices must be accompanied with the MWCOG-provided **Invoice Summary** document, which itemizes each contractor/vendor, the contractor invoice number, the associated project activity, and the amount invoiced.

3. The invoices can be packaged by vendor, Activity Line Item, project, or as one document, provided that the Invoice Summary itemizes all of the invoices for the month by vendor.
   a. Further information about supporting documentation for invoices is provided in the **Invoice Document Requirements** document.
   b. In the event that one vendor's invoice is for multiple project activities, you will need to breakdown the invoice summary to expenditures for each activity. To do this, select "Multiple Project Activities" from the drop-down box and list the various project activities on the subsequent lines, providing a dollar amount for each project activity (see example on **Invoice Summary** document).

4. If you are billing internal staff hours to the TIGER grant, you must complete the MWCOG-provided **Staff Summary** document and provide the project activity (Activity Line Item), the total staff hours billed to that activity, and the dollar amount associated with the staff hours. Refer to the **Invoice Document Requirements** document for details on the backup information needed for charging staff hours. Note: If internal staff hours are planned to exceed $100,000, you must establish a force account to be submitted to MWCOG.

5. The summary sheet(s) must correspond with the submitted invoices and staff hour documents.

DBE Checklist:

1. For every month that a project owner submits a TIGER Invoice Cover Letter, there must be an attached and completed **DBE Checklist**. This form is located on SharePoint in the subrecipient folders.

2. MWCOG will be requesting a verified list of the date(s) and amount(s) of payments made by prime contractors to both DBE and non-DBE subcontractors. This could be provided through copies of cancelled checks or other record of payments to subcontractors and will be requested for review at the semi-annual site visits conducted by MWCOG.

3. Please make sure that MWCOG/FITP has an up to date listing of all the DBE Prime and Subcontractor vendors associated with any TIGER project past or present. This can be accomplished by providing a spreadsheet listing all DBE and non-DBE firms associated with the project.

4. When new firms, primes or subcontractors, are added to the project, please indicate their DBE status in your **TIGER Invoice Cover Letter**.

5. If any DBE firms, primes or subcontractors, were removed from a contract add a written justification for the removal of a DBE firm. In the justification, please indicate if the firm was replaced with a DBE or non-DBE firm.

Reimbursement:

1. Upon approval of the invoice submission, it is processed by MWCOG and a paper check will be issued for payment by the end the month.

APPENDIX H – Project Owner Invoicing and DBE Checklist Instructions

TIGER DBE Checklist

Reporting Period (Month and Year):   Click here to enter text.

Name of Project Owner: Click here to enter text.

Contract: Click here to enter text.
(Please include one contract per form)

Tiger Project(s):   Click here to enter text.

Activity Line Item (ALI):   Click here to enter text.

Invoice Number(s):   Click here to enter text.

Invoice Period (Month and Year):   Click here to enter text.

Name of document/policy	Status
Information Update: Are there any updates regarding the DBE status and/or compliance of the DBE contractor since last invoice submitted? If yes, please address in your monthly reimbursement cover letter.	☐ Yes ☐ No ☐ N/A
DBE Removal Documentation: Have any DBE subcontractors been removed from a contract? If so, please submit a written justification for the removal of a DBE subcontractor. In the justification, please indicate if the contractor was replaced with a DBE or non-DBE subcontractor.	☐ Completed ☐ Incomplete ☐ N/A
Contractor List and Invoice Reimbursement: When preparing your reimbursement cover letter, please identify the contractor's DBE status when requesting payment for both DBE and non-DBE contractors and subcontractors.	☐ Completed ☐ Incomplete ☐ N/A
Payment Tracking: Please submit a verified list of the date(s) and amount(s) of payments made in this reporting period to both DBE and non-DBE subcontractors following receipt of payment by COG. *Note:* This could be provided through a cancelled check to a vendor.	☐ Completed ☐ Incomplete ☐ N/A

APPENDIX I – Sample Reports

Federal Financial Report (FFR)

TIGER: Priority Bus Transit in the National Capital Region

Reporting Period: **July 2012 - September 2012**

Line	Transactions	This Period	Cumulative Dollar Amount
A.	Federal Cash on Hand at Beginning of Period:	$ -	$ -
B.	Federal Cash Receipts:	$ 2,663,327	$ 3,555,219
C.	Federal Cash Disbursements:	$ 2,663,327	$ 3,555,219
D.	Federal Cash on Hand at End of Period:	$ -	$ -
E.	Total Federal Funds Authorized		$ 58,838,000
F.	Federal Share of Expenditures:	$ 625,504	$ 4,140,878
G.	Recipient Share of Expenditures:	$ -	$ -
H.	Total Expenditures: (F+G)	$ 625,504	$ 4,140,878
I.	Federal Share of Unliquidated Obligation:		$ 16,333,680
J.	Recipient Share of Unliquidated Obligation:		$ -
K.	Total Unliquidated Obligations: (I+J)		$ 16,333,680
L.	Total Federal Share: (F+I)		$ 20,474,558
M.	Unobligated Balance of Federal Funds: (E-L)		$ 38,363,442
N.	Total Recipient Share Required		$ -
O.	Remaining Recipient Share to be Provided:		$ -
P.	Federal Program Income on Hand at Beginning of Period:		$ -
Q.	Total Federal Program Income Earned:		$ -
R.	Federal Program Income Expended in Accordance with Deduction Alternative:		$ -
S.	Federal Program Income Expended in Accordance with Addition Alternative:		$ -
T.	Federal Program Income Expended on Allowable Tranist Capital and Operating Expenses:		$ -
U.	Federal Unexpended Program Income: (P+Q-R)		$ -

Items provided in addition to TEAM requirements

APPENDIX I – Sample Reports

			Milestone/ Progress Report (MPR)														
			TIGER: Priority Bus Transit in the National Capital Region														

Reporting Period: January 2011 - March 2011

			Milestone Status														
			RFB Issued			**Contract Award**			**Project Complete**			**1st Vehicle Delivered**			**All Vehicles Delivered**		
Scope	Activity Line Item	Project Activity	ORIGINAL Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	ORIGINAL Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	ORIGINAL Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	Original Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	Original Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date
PRTC- Buses and ITS																	
111-16	11.12.01	Buy Replacement 40-ft Buses	6/5/08	-	6/5/08	4/30/11	-	4/30/11	12/30/12	-	-	11/1/12	11/30/12	-	11/30/12	12/30/12	-
111-16	11.42.09	Bus Security Cameras	3/26/06	-	3/26/08	10/23/08	-	10/23/08	8/31/10	-	8/31/10	-	-	-	-	-	-
111-16	11.62.20	CAD/ AVL System	10/31/10	-	3/18/11	4/30/11	9/30/11	-	2/28/13	-	-	-	-	-	-	-	-
DDOT - 16th Street Corridor Enhancements																	
112-02	11.33.20	Nextbus Real Time Information Display	1/1/11	8/1/11	-	4/30/11	11/1/11	-	10/31/11	10/31/12	-	-	-	-	-	-	-
112-02	11.33.20	Bus RTPI Prototype Development	12/1/11	9/1/11	-	3/31/12	11/1/11	-	3/31/14	3/1/12	-	-	-	-	-	-	-
112-02	11.33.20	Curb Extensions	1/1/11		-	3/31/11		-	9/30/11	-	-	-	-	-	-	-	-
112-02	11.63.20	Transit Signal Priority	3/1/11	6/1/11	-	3/30/11	9/1/11	-	6/30/13	12/31/11	-	-	-	-	-	-	-
DDOT - Georgia Avenue Corridor Enhancements																	
112-03	11.23.20	Exclusive Bus Lane	1/1/11	5/2/11	-	3/31/11	6/30/11	-	8/31/12	10/12/12	-	-	-	-	-	-	-
112-03	11.33.20	Next Bus RTPI	1/1/11	8/1/11	-	3/31/12	11/1/11	-	3/31/14	8/31/12	-	-	-	-	-	-	-
112-03	11.33.20	Curb Extensions	1/1/11	4/4/11	-	3/31/11	6/1/11	-	9/30/11	-	-	-	-	-	-	-	-
112-03	11.63.20	Traffic Signal Priority	3/1/11	7/1/11	-	6/30/11	8/1/11	-	12/31/11	-	-	-	-	-	-	-	-
DDOT - H Street/ Benning Road Corridor Enhancements																	
112-04	11.23.20	Emergency Call Boxes	12/1/10	5/31/11	-	3/31/12	6/30/11	-	3/31/14	6/30/12	-	-	-	-	-	-	-
112-04	11.33.20	Nextbus RTPI	12/31/11	8/1/11	-	3/31/12	11/1/11	-	3/31/14	6/30/12	-	-	-	-	-	-	-
DDOT - Wisconsin Avenue Corridor Enhancements																	
112-05	11.33.20	Nextbus RTPI	12/31/11	8/1/11	-	3/31/12	11/1/11	-	3/31/14	6/30/12	-	-	-	-	-	-	-
112-05	11.36.20	Transit Signal Priority	3/31/11	2/28/12	-	6/30/11	4/30/12	-	6/30/13	-	-	-	-	-	-	-	-
WMATA - Addison Road Corridor Enhancements																	
112-06	11.33.20	Nextbus RTPI	2/28/11	10/1/11	-	6/31/11	1/1/12	-	11/30/11	7/1/13	-	-	-	-	-	-	-
112-06	11.34.02	Addison Road Station Busbay	2/28/11	10/1/11	-	3/31/11	1/1/12	-	11/30/11	4/1/12	-	-	-	-	-	-	-
112-06	11.34.02	Southern Avenue Station Busbay	2/28/11	1/1/13	-	3/31/11	3/1/13	-	11/30/11	7/1/13	-	-	-	-	-	-	-
MDOT - University Boulevard Corridor Enhancements																	
112-07	11.33.20	Queue Jumps	7/31/11	3/31/12	-	11/30/11	6/30/12	-	11/30/12	12/31/12	-	-	-	-	-	-	-
112-07	11.33.20	Bus Stop Improvements	2/28/11	1/1/12	-	3/30/11	4/1/12	-	11/30/11	9/1/12	-	-	-	-	-	-	-
112-07	11.33.20	Nextbus RTPI	3/31/11	10/1/11	-	4/30/11	1/1/12	-	3/31/11	11/1/12	-	-	-	-	-	-	-
112-07	11.63.20	Transit Signal Priority	7/31/11	7/1/11	-	11/30/11	10/1/11	-	11/30/12	7/1/13	-	-	-	-	-	-	-

Milestone Progress Report

APPENDIX I – Sample Reports

Milestone/ Progress Report (MPR)

TIGER: Priority Bus Transit in the National Capital Region

Reporting Period: January 2011 - March 2011

Milestone Status

Scope	Activity Line Item	Project Activity	RFB Issued			Contract Award			Project Complete			1st Vehicle Delivered			All Vehicles Delivered		
			ORIGINAL Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	ORIGINAL Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	ORIGINAL Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	Original Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date	Original Estimated Completion Date	Revised Estimated Completion Date	Actual Completion Date
MDOT - US-1 Corridor Enhancements																	
112-08	11.33.20	Queue Jumps	7/31/11	3/31/12	-	11/30/11	6/30/12	-	11/30/12	12/31/12	-	-	-	-	-	-	-
112-08	11.63.20	Transit Signal Priority	7/31/11	7/1/11	-	11/30/11	10/1/11	-	11/30/12	7/1/13	-	-	-	-	-	-	-
MDOT - Veirs Mill Corridor Enhancements																	
112-09	11.33.20	Nextbus RTPI	2/28/12	10/1/11	-	3/31/12	1/1/12	-	9/30/12	11/1/12	-	-	-	-	-	-	-
112-09	11.33.20	Queue Jumps	7/1/11	3/31/12	-	11/30/11	6/30/12	-	11/30/12	12/31/12	-	-	-	-	-	-	-
City of Alexandria- US-1 Transitway																	
112-10	11.23.01	Construct Busway	9/30/11	7/1/11	-	1/31/12	10/31/11	-	10/31/13	12/31/13	-	-	-	-	-	-	-
WMATA- (Leesburg Pike) Corridor Enhancements																	
112-11	11.34.02	Nextbus RTPI	2/28/11	10/1/11	-	3/31/11	1/1/12	-	9/30/11	5/1/13	-	-	-	-	-	-	-
112-11	11.34.02	Transit Signal Priority	10/1/10	7/1/11	-	2/28/11	10/1/11	-	4/30/12	7/1/13	-	-	-	-	-	-	-
City of Alexandria- Van Dorn-Pentagon Corridor Enhancements																	
112-12	11.33.20	Queue Jump Lanes	9/30/11	10/31/11	-	10/31/11	2/29/12	-	12/31/12	-	-	-	-	-	-	-	-
112-12	11.33.20	Next Bus RTPI/Super Stops	12/31/10	10/31/11	-	2/28/11	2/29/12	-	12/31/12	-	-	-	-	-	-	-	-
112-12	11.63.20	Transit Signal Priority	11/30/11	12/31/11	-	1/31/12	2/29/12	-	12/31/12	12/31/12	-	-	-	-	-	-	-
DDOT- TR Bridge to K Street Corridor Enhancements																	
112-13	11.53.20	UPS for Signals	3/31/11	7/1/11	-	6/30/11	9/30/11	-	6/30/12	5/31/12	-	-	-	-	-	-	-
112-13	11.63.20	Optimize Downtown Core Signals	3/31/11	1/11/11	-	6/30/11	-	-	6/30/14	-	-	-	-	-	-	-	-
112-13	11.63.20	Transit Signal Priority	3/31/11	6/1/11	-	6/30/11	9/1/11	-	6/30/15	-	-	-	-	-	-	-	-
DDOT- 14th Street to K Street Corridor Enhancements																	
112-14	11.53.20	UPS for Signals	3/31/11	5/1/11	-	6/30/11	-	-	6/30/12	10/31/12	-	-	-	-	-	-	-
112-14	11.63.20	Downtown Signal Optimization	3/31/11	1/1/11	-	6/30/11	-	-	6/30/14	-	-	-	-	-	-	-	-
112-14	11.63.20	Transit Signal Priority	3/31/11	6/1/11	-	6/30/11	9/1/11	-	6/30/15	6/30/15	-	-	-	-	-	-	-
WMATA- Pentagon -Franconia Springfield Station Improvements																	
113-16	11.34.02	Pentagon Station Busbay Improvements	3/31/11	10/1/11	-	4/30/11	1/1/12	-	3/31/13	2/1/15	-	-	-	-	-	-	-
113-16	11.34.02	Franconia and Springfield Station Improvements	5/31/11	1/1/12	-	7/30/11	4/1/12	-	5/30/13	2/1/14	-	-	-	-	-	-	-
MDOT- Takoma/ Langley Transit Center																	
113-18	11.33.03	Construct Bus Terminal	2/28/12	-	-	4/30/12	8/31/12	-	4/30/14	9/30/14	-	-	-	-	-	-	-
Metropolitan Washington Council of Governements																	
117-00	11.71.03	Project Management - 3rd Party	11/15/10	-	12/3/10	12/20/10	-	2/14/11	3/31/16	-	-	-	-	-	-	-	-
117-00	11.72.03	Force Account - Project Management	9/1/10	-	9/14/10	10/1/10	-	9/14/10	9/30/16	-	-	-	-	-	-	-	-

Milestone Progress Report

APPENDIX I – Sample Reports

Section 1512 Report

TIGER: Priority Bus Transit in the National Capital Region

Reporting Period: January 2011 - March 2011

Project Information	
Project Status	Less than 50% completed
Total Federal Amount of ARRA Funds Received/ Invoiced	$ -
Total Number of Payments to Vendors less than $25,000	0
Total Amount of Payments to Vendors less than $25,000	$ -
Total Number of Jobs	1.89
Description of Jobs Created	This grant has funded jobs in program administration. The grant will also fund positions responsible for the physical and technological improvements for bus operations and customer service, including real-time passenger information signs, traffic signal priority for buses, dedicated bus lanes and other roadway improvements for buses, and a new and expanded bus stations. As a result, technolgical vendors will be able to continue to employ professional technical staff and electronics workers in developing software and installing hardware technolgical components. Roadway and bus station construction crews will be employed to build projects funded under this grant, include equipment operators, construction staff, electricians, and other building trades.
Quarterly Activities/ Project Descriptions	A consultant firm was contracted for program administration. Sub-recipients are developing bid documents for various projects and identifying opportunities for project collaboration.
Total Federal Amount of ARRA Expenditure	$ 199,148
Total Federal ARRA Infrastructure Expenditures	$ 199,148
Infrastructure Purpose and Rationale	The TIGER grant will allow to National Capital region to invest in transportation, environmental protection, and other infrastructure that will provide long term economic benefits. The grant funds infrastructure for dedicated bus lanes, enhanced pedestrian access at rail stations, enhanced bus stops, and a new transit center. These improvements will increase the efficiency and effectiveness of bus operations and will provide high-quality amenities and improve safety for bus customers. Buses will be faster, more reliable, and more accessible, while customers will benefit from new and improved bus stops and transit center. These investments will also contribute to preserving and maintaining jobs and promoting economic recovery in the planning, construction, electrical, and vehicle manufacturing industries.

Sub-Recipient Information			Sub-Award Information		
Sub-Recipient	Sub-Recipient DUNS	Sub Award Number	Sub Recipients Congressional District	Amount of Sub Award	Total Sub Award Funds Disbursed
DDOT	003880940	11-034	11-034	$ 13,091,190	$ -
MDOT	878137462	11-031	11-031	$ 14,119,880	$ -
PRTC	621125699	11-033	11-033	$ 9,365,525	$ 104,865
City of Alexandria	074853250	11-030	11-030	$ 8,856,913	$ -
WMATA	048855423	11-032	11-032	$ 11,068,550	$ -

Section 1512 Report

Section 1512 Report					
TIGER: Priority Bus Transit in the National Capital Region					

Reporting Period: January 2011 - March 2011

Project Vendor Information					
Sub-Recipient	Vendor DUNS	Vendor Name	Vendor HQ Zip Code + 4	Product and Service Description	Vendor Payment
PRTC	174710520	Apollo Video	98052-8437	Video Camera Installtion	$ 104,865
COG	624113721	Foursquare ITP	20852-4222	TIGER Grant Mgmt	$ 37,260
					$ -
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Section 1512 Report

APPENDIX J – Site Visit Guide

TIGER Site Visit Guide

Name of Project Owner: _____

Location of Site Visit: _____

Date of Site Visit: _____

Project Owner Representatives: _____

Contractor Representatives: _____

Documents and Policies on SharePoint

Name of document/policy	Is there a copy on SharePoint?	Date of copy on file	Has the document /policy been updated?
Document Control and Maintenance of Records Policy	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Construction Change Order Procedure	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Quality Assurance and Quality Control Procedures	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Material Testing Policy and Procedure	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Cost and Schedule Control Procedures	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Testing and Start-up Criteria and Procedures	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Procurement Certifications			
Lobbying Certification (All procurements over $100,000)	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Buy America Certification form for rolling stock, steel, iron, or manufactured goods over $100,000	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Debarment Certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
DBE certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Vehicle Purchase Documentation			
Pre-award Purchaser's Certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Post-award Purchaser's Certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Federal Motor Vehicle Safety Standards (FMVSS) Certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Buy America Pre-award Certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Buy America Post-award Certification	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No
Altoona Testing Report	☐ Yes ☐ No ☐ N/A		☐ Yes ☐ No

TIGER Grant Site Visit Checklist

1

Site Visit Guide

#	Topic	Follow-Up Required *(internal use only)*
	Review of Project Schedules	
1.	Are projects on schedule as of the last detailed schedule submission? ☐ Yes ☐ No	
	a. If not, which projects are not on schedule and why?	
	b. How will schedule slippage be resolved?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	
	Review of Project Budgets	
2.	Are projects within budget as of the last budget submission? ☐ Yes ☐ No	
	a. If not, which projects are over budget? How will budget overage be resolved?	
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	☐ Yes ☐ No

Procurement Documentation		
3.	Are all of the procurement documents for advertised projects on SharePoint? ☐ Yes ☐ No	
	a. If not, which are missing? When will they be uploaded to SharePoint?	☐ Yes ☐ No
4.	Are all of the signed contracts for awarded projects on SharePoint? ☐ Yes ☐ No	
	a. If not, which are missing? When will they be signed and uploaded to SharePoint?	☐ Yes ☐ No
5.	Are there signed Lobby Certifications for all procurements over $100,000? ☐ Yes ☐ No	
	a. If not, which procurements are missing the certification? When will they be signed and uploaded to SharePoint?	☐ Yes ☐ No
6.	Are there signed debarment certifications for all procurements? ☐ Yes ☐ No	
	a. If not, which procurements are missing the certification? When will they be signed and uploaded to SharePoint?	☐ Yes ☐ No
7.	Is there a signed Buy America Certification for rolling stock, steel, iron, or manufactured goods over $100,000? ☐ Yes ☐ No ☐ N/A	
	a. If not, which projects are missing the certification? When will they be signed and uploaded to SharePoint?	☐ Yes ☐ No
8.	Are there Pre-award and Post-delivery Certifications for rolling stock purchases? ☐ Yes ☐ No ☐ N/A	
	b. If not, which projects are missing the certifications? When will they be signed and uploaded to SharePoint?	☐ Yes ☐ No

	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	
9.	Have Disadvantaged Business Enterprise (DBE) goals been set for all procurements (if the project owner sets their goal by race-conscious methods) and/or is there a DBE Certification in each procurement? ☐ Yes ☐ No	
	a. If not, which projects are missing DBE goals and/or certifications? How will the required participation be obtained?	☐ Yes ☐ No
	b. Has a DBE form been submitted which requests information about the DBEs associated with each contract, for all projects that have been awarded or completed? ☐ Yes ☐ No	
Document Control and Maintenance of Records		
10.	Does the organization have a written document control and maintenance of records policy? ☐ Yes ☐ No	
	a. If yes, has the policy been updated since the date shown on the front page of this checklist? ☐ Yes ☐ No	
	i. Is the project owner following the policy for the implementation of the TIGER projects? ☐ Yes ☐ No	
	b. If not, what process does the project owner follow for document control and maintenance of records?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	

Change Order Procedures		
11.	Does the organization have a written construction and design change order procedures? ☐ Yes ☐ No	
	a. If yes, have the procedures been updated since the date shown on the front page of this checklist? ☐ Yes ☐ No	
	i. Is the project owner following the procedures for the implementation of the TIGER projects? ☐ Yes ☐ No	
	b. If not, what process does the project owner follow for construction change order procedures?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	
Quality Assurance and Quality Control Procedures		
12.	Does the organization have a written quality assurance and quality control procedures? ☐ Yes ☐ No	
	a. If yes, has the procedure been updated since the date shown on the front page of this checklist? ☐ Yes ☐ No	
	i. Is the project owner following the procedure for the implementation of the TIGER projects? ☐ Yes ☐ No	
	b. If not, what process does the project owner follow for quality assurance and quality control?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	

5

Material Testing Policies and Procedures		
13.	Does the organization have a written material testing policy and procedure? ☐ Yes ☐ No	
	a. If yes, have the policies and procedures been updated since the date shown on the front page of this checklist? ☐ Yes ☐ No	
	i. Is the project owner following the policies and procedures for the implementation of the TIGER projects? ☐ Yes ☐ No	
	b. If not, what process is being followed for material testing?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	
Cost and Schedule Control Procedures		
14.	Does the organization have a written cost and schedule control procedure? ☐ Yes ☐ No	
	a. If yes, has the procedure been updated since the date shown on the front page of this checklist? ☐ Yes ☐ No	
	i. Is the project owner following the procedure for the implementation of the TIGER projects? ☐ Yes ☐ No	
	b. If not, what process is being followed for cost and schedule control?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	

Testing and Start-Up Criteria and Procedures		
15.	Does the organization have written testing and start-up criteria and procedures? ☐ Yes ☐ No	
	a. If yes, have the criteria and procedures been updated since the date shown on the front page of this checklist? ☐ Yes ☐ No	
	i. Is the project owner following the procedures for the implementation of the TIGER projects? ☐ Yes ☐ No	
	b. If not, what process is being followed for testing and start-up?	☐ Yes ☐ No
	Follow-Up Action ☐ Required: ☐ Recommended: Other comments:	

APPENDIX K – Budget Revision Template

#X – Project Name		
[Insert Name of ALI]		
Activity Line Item #		
Original Budget		
Revised Budget		
	Original Milestones	**Current Milestones**
RFP Issued		
Contract Award		
Project Complete		
Original Scope/Budget		
Revised Scope/Budget		