**REQUEST FOR PROPOSALS**

**FOR A**

**Smartcard and Mobile Ticketing System Procurement**



Interurban Transit Partnership

300 Ellsworth Ave SW

Grand Rapids, MI49503-4018

(616) 456-7514

Request For Proposal Issued Monday, August 3, 2015

Pre-Proposal Conference Wednesday August 5, 2015 @

2:00 p.m. local time (**Dial #: 866-951-1151; PIN: 123-485-512)**

Questions and Answers August 5, 2015 at 5:00 pm

Response To Q & A’s Issued August 12, 2015

Proposals Due Monday, September 14, 2015 at 2:00 pm local time

Interviews Sept. 29 – Oct. 1, 2015

ITP Board Meeting Wednesday, September 30, 2015

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**LIST OF ABBREVIATIONS AND ACRONYMS**

|  |  |
| --- | --- |
| ABD | As-Built Document |
| ACH | Automated Clearinghouse |
| AIL | Action Items List |
| ATP | Acceptance Test Procedures |
| BRT | Bus Rapid Transit |
| BT | Burn-In Testing |
| CAD/AVL | Computer Aided Dispatch/Automatic Vehicle Location |
| CDMS | Central Data Management System |
| CDR | Critical Design Review |
| CSN  | Card Serial Number |
| DSRC | Dedicated Short Range Communication  |
| DSS | Data Security Standards |
| EMV | Europay MasterCard Visa |
| EOD | End of Day |
| FDD | Final Design Document |
| FR | Fixed-Route |
| TVM | Ticket Vending Machine |
| GVSU | Grand Valley State University |
| IDD | Installation Design Documentation |
| IEC | International Electro-technical Commission |
| IEEE | Institute of Electrical and Electronics Engineers  |
| IP | Internet Protocol |
| ISO | International Organization for Standardization |
| IT | Installation Testing |
| ITP | Interurban Transit Partnership |
| LAN | Local Area Network |
| MDT | Mobile Data Terminal |
| MM | Maintenance Manuals |
| NEMA | National Electrical Manufacturers Association  |
| NFC | Near-field Communication |
| NTP | Notice To Proceed |
| ODBC | Open Database Connectivity |
| OM | Operator Manuals |
| OMGR | On-board Mobile Gateway/Router |
| PCI | Payment Cards Industries |
| PDD | Preliminary Design Document |
| PDR | Preliminary Design Review |
| RM | Requirements Matrix |
| RR | Requirements Review |
| SA | System Acceptance |
| SIP | Implementation Plan |
| SM | Systems Manuals |
| SOT | Sales Outlet Terminal |
| ST | System Testing |
| TCO | Total Cost of Ownership  |
| TP | Training Plan |
| TRD | Test Results Documentation |
| TRiM | Ticket Reader/Issue Machine  |
| UM | User Manuals |
| UPS | Uninterruptable Power Supply |
| WiFi | Wireless Fidelity |
| WLAN | Wireless Local Area Network |
| WPA | Wireless Protected Access  |

#

# SECTION I: PUBLIC NOTICE

**NOTICE**

**REQUEST FOR PROPOSAL**

**For A**

**Smartcard and Mobile Ticketing System Procurement**

Sealed proposals for the Purchase and Installation of a Smartcard and Mobile Ticketing System will be received in the offices of the Interurban Transit Partnership (ITP), 300 Ellsworth, S.W., Grand Rapids, Ml, 49503, until August 21, 2015 at 2:00 pm local time . Project specifications are available from the ITP Purchasing Manager.

Proposals shall be subject to all applicable State and Federal laws and subject to financial assistance contracts between the ITP Board and the United States Department of Transportation, under the Federal Transit Act of 1964, as amended, and the Michigan Department of Transportation. The successful contractor will be required to comply with all applicable Equal Employment Opportunity Laws and Regulations. All proposers will be required to certify that they are not on the Comptroller General's list of ineligible contractors.

The ITP Board hereby notifies all proposers that it will affirmatively insure, in regard to any contract entered into pursuant to this advertisement, that Disadvantaged Business Enterprises will be afforded full opportunity to submit proposals in response to this Request For Proposal and will be not discriminated against on the grounds of race, color, religion, sex, handicap, or national origin in consideration for an award.

The ITP Board reserves the right to postpone, accept or reject any and all proposals, in whole or in part, on such basis as the ITP Board deems to be in its interest to do so, subject to the rules and regulations set forth by the Federal Transit Administration and the Michigan Department of Transportation.

No proposal may be withdrawn for at least sixty (60) days after the scheduled closing time of the proposals. An original and six (6) electronic copies of the proposal should be submitted to the Purchasing Manager.

Mark Fedorowicz Interurban Transit Partnership

Purchasing Manager 300 Ellsworth S.W.

(616) 456‑7514 Grand Rapids, Ml 49503

# SECTION II: SCOPE OF WORK

# Document Organization

These specifications define the functional, performance, installation, integration and project implementation requirements for the deployment of a smartcard and mobile ticketing system for Interurban Transit Partnership (ITP), *The Rapid*.

This document includes the following sections:

* **Section 2** provides an overview of ITP’s existing services, system environment, and technical scope of this project;
* **Section 3** defines ITP’s information technology (IT) requirements;
* **Section 4** defines fare media and payment transaction requirements;
* **Section 5** defines requirements for on-board system components;
* **Section 6** defines requirements for wayside system components;
* **Section 7** defines requirements for central system components;
* **Section 8** defines project implementation requirements;
* **Section 9** defines warranty and maintenance requirements;
* **Appendix A** provides ITP fleet inventory;
* **Appendix B** provides ITP system overview diagram;
* **Appendix C** provides price proposal form; and
* **Appendix D** provides the compliance matrix.

# Background

## Service Overview

Interurban Transit Partnership (ITP), also known as The Rapid, is the authority that provides a variety of public transportation services for the Grand Rapids metro area and beyond. The Rapid operates fixed route and ADA complementary paratransit service (GoBus). Other services include car and vanpooling programs, a demand response service called Passenger Adaptive Service (PASS) which brings passengers into the fixed route service area and several other services based on contracts with local partners.

ITP launched a bus rapid transit (BRT) service, branded as the Silver Line, in August 2014. ITP is currently in the planning process of launching another BRT service called the Laker Line, scheduled to be implemented by 2018. Existing Fare Collection System Environment

### Existing Fare Structure

The ITP fare structure, updated on August 25, 2014 includes the following tickets and passes for The Rapid service:

|  |
| --- |
| **Single Ride Fares** |
| Adult cash fare | $1.50  |
| Children under 42 inches  | Free, with fare-paying adult |
| Senior/disabled cash fare  | $0.75  |
| **10-ride Farecards** |
| Adult 10-ride card —  | $11.50  |
| Student (K-College) 10-ride card  | $9.00  |
| Reduced Fare 10-ride card  | $7.50  |
| **Unlimited Ride Passes** |
| 31-day pass | $40.00  |
| 31-day pass (senior/disabled) | $26.00  |
| 7-day pass  | $14.00  |
| 1-day pass | $3.00  |

Currently, transfers are free within two hour transfer timeframe window from the time they are issued or for a maximum of three transfers, whichever comes first. 10-ride student cards are valid for only one hour transfer window or a single transfer only, whichever comes first.

GoBus and PASS tickets are sold as paper fare media with no magnetic strips or magnetic strip encoding.

### Fare Collection

#### On-board

ITP fixed-route vehicles are equipped with SPX-Genfare (formerly known as GFI) Odyssey fareboxes, installed over ten (10) years ago. These fareboxes accept cash and magnetic tickets. The fareboxes are also equipped with smartcard readers but those are not currently active since additional hardware and firmware upgrades is required. Please note that ITP will not be using fareboxes for smartcard payments for this project.

The fareboxes are also equipped with Ticket Reader/Issue Machine (TRiM) units for issuance or validation of magnetic ticket-based fare media.

#### Off-board

Silver Line BRT service offers off-board fare collection for faster boarding. This system requires riders to purchase and validate fare media before boarding the BRT vehicle. Riders must carry proof of payment while on-board. Scheidt & Bachmann Ticket Vending Machines (TVMs) (model: FareGo Sales ST|80; part number: 0031575) and platform validators (model: FareGo Val SV|80; part number: 0031576) are installed at all Silver Line bus stations.

## Fare Media Sale

### Online

Tickets and passes can be purchased online from the ITP website. ITP uses a third party payment gateway (Thawte SSL certificate) to provide this online payment capability for customers. Online transactions are accepted using credit cards only; debit cards are not accepted. These transactions are not verified in real-time. ITP forwards all credit card transaction data received via the website at end of day to (EOD) to its payment gateway, Vantiv, for payments processing.

Customers may elect to receive their purchased fare media via mail or by visiting a customer service window in person.

### Local Stores

Several grocery stores are used as point of sale (POS) locations. Reporting details related to sales in these locations is limited. Stores pay for the fare media up front and resell them to customers. Current retail outlets include:

* All area D&W Food Centers, Family Fare, and Meijer stores
* Grand Rapids City Hall Cashier's Office
* Grand Rapids Community College, Student Activity Center (31-day passes and 10-ride student farecards only)

### Ticket Vending Machines

ITP procured and installed TVMs from S&B in conjunction with the launch of SilverLine BRT service in August 2014. These TVMs are capable of accepting both cash and debit/credit cards. TVMs are connected to ITP’s central system servers and payment gateway via a Fiber connection. This connection enables all credit/debit card transactions to be verified in real-time.

Currently, the TVMs are configured to only dispense magnetic tickets. While the TVMs are capable of dispensing and loading/reloading smartcards, this feature is currently not active because the on-board fareboxes cannot accept smartcards.

ITP maintains two separate checking accounts for fare income deposits. One is used for cash received through on-board fareboxes and TVMs while the second is only used for credit/debit card transactions on TVMs.

ITP maintains a total of 39 S&B TVMs (there are 11 spare TVMs). These TVMs are installed at all BRT stations and at the Central Station. While a direct fiber connection is available at most stations, wireless tower-to-tower connectivity is available for three stations that do not have access to fiber.

The transaction data from the TVMs is encrypted. The connection between central servers and ITP’s payment processing services provider, Vantiv, is provided using a Secure Socket Layer (SSL) connection. Vantiv is a third party payment processor for banks, including Fifth Third Bank and provides the SSL connection.

## Existing Central Fare System Infrastructure

### SPX Genfare Data System

The SPX Genfare central infrastructure includes two main components:

1. Probes installed in the garage; and
2. A Windows XP-based system computer that is used to upload and download data to/from the fareboxes and to generate reports.

At ITP, the vehicles are typically probed in the fueling lane. ITP can also probe the buses elsewhere in the maintenance facility using laptops.

SPX Genfare Data System currently runs on a physical workstation running XP. The version is 2.05.06.01, last updated 2010. Fare collection data reports are available through the SPX Genfare software and Avail’s DataPoint interface.

Avail DataPoint is synchronized with SPX Genfare data system daily. The DataPoint reports provide details regarding cash and coin collections as well as ticket transactions. Accessing reports through DataPoint offers the added advantage of side-by-side comparison of revenue and ridership information collected by the automatic passenger counter (APC) system.

### S&B FareGo Data System

FareGo provides all the required back office needs for the TVMs and validators. Key components of the S&B FareGo system include the sales outlet terminals (SOTs) and a reporting interface. There are two SOTs installed in customer service. S&B maintains a third SOT at their support site for testing.

### Finance

For general ledger management, ITP is using in-house written IBM iSeries software. ITP is currently evaluating its options with respect to replacing the software. The new software will be expected to provide general ledger management along with account payable, account receivables, payroll, purchase order management and grants tracking using a windows-based software platform.

## Maintenance

### SPX System Maintenance

Most of the required maintenance for SPX Genfare fareboxes is performed in-house by ITP staff. ITP maintenance has developed a test bench using SPX Genfare components. Circuit boards are not maintained internally due to complexity and are maintained using “remove and replace” approach. Mechanics restock farebox ticket media three nights per week.

### S&B System Maintenance

TVM maintenance is performed by ITP employees trained by S&B. Day-to-day errors are monitored through email alerts and status monitoring screens generated by S&B FareGo software. ITP staff determines when to contact S&B based on the severity of the issue.

# Smartcard and Mobile Ticketing System Overview

## Scope Overview

ITP is planning to upgrade its decade-old fare collection system which is based on cash and magnetic ticket-based fare media. The replacement system is envisioned to allow at least the following:

* An interoperable automated fare collection (AFC) system based on an account-based architecture that can accept a range of fare media including but not limited to 1) ISO/IEC-14443 compliant media such as MIFARE smartcards, near field communication (NFC) –enabled smartphones/wearable and other NFC media (e.g., stickers); 2) quick response (QR) code-based tickets and printed barcodes, while continuing to accept current fare media.
* A central revenue management system that allows ITP to:
	+ Track sales and revenue by ITP fare media;
	+ Manage point of sales transactions;
	+ Issue fare media and monitor usage of fare programs operated by authorized partners (e.g. colleges and large local employers); and
	+ Manage relationships with Fifth/Third Bank and third-party payment gateway, Vantiv.
* Information reporting based on consolidated data from a variety of fare collection systems in use at ITP, including SPX Genfare fareboxes and its central system infrastructure, S&B TVMs, and data from new equipment and online fare media purchase system.

## Goals and Objectives

ITP wants to upgrade its existing fare collection system to improve the customer experience. Key goals of the fare collection system include:

* Streamline ITP’s fare collection system environment using new technologies and management tools;
* Enhance partnerships with local and regional partners (e.g., local schools/ employers);
* Enhance riders’ fare purchase/payment experience for existing and future services;
* Decrease dwell times at stops and improve the system’s overall on-time performance; and
* Reduce total cost of ownership of fare payment system.
* Reduce the need for ITP drivers to interact with the passenger for fare payment

## Key Stakeholder Needs

### Internal

ITP plans to make advancements in the current system infrastructure to meet the following needs:

#### Future-proof Payment Hardware

The system shall not only accept current fare media such as contactless smartcards, barcode-code based mobile payment, NFC, but also allow the capability to upgrade the device to accept upcoming and future payment standards (e.g., bankcard and EMV-based payment, and payments using dedicated short range communication [DSRC] and Bluetooth low energy [BLE] technologies) without any major hardware upgrades.

#### Reduce Reliance on Fare Media

The system shall include a centralized fare payment solution (i.e., account-based system) that allows fare payment using fare media compliant with ISO/IEC 14443 and other related standards. These fare media include currently prevalent contactless cards, and upcoming NFC-based devices and Europay Mastercard and Visa (EMV)-capable media.

The central database shall allow for the verification of unique identification (ID) associated with the fare instrument (e.g., card serial number) and allow payment using a payment account tied to that unique ID in the central database. This approach shall allow ITP to partner with large employers in the region (e.g., Spectrum Health or Grand Valley State University [GVSU]) and allow for HID cards MIFARE based student IDs to serve as fare media as discussed in Section 3.1.2.2.

#### Consolidate Back-office Infrastructure

ITP back-end infrastructure for fare payment systems is currently fragmented and includes the following components:

* S&B FareGo system
	+ SOT;
	+ Reporting and revenue management;
* SPX Genfare data system and probing infrastructure;
* Finance software; and
* Payment gateways for online and TVM transactions.

The new fare collection system shall consolidate the central infrastructure such that the central portal allows for comprehensive reporting and revenue management and interfaces with external entities such as financial institutions and large customers (e.g., GVSU and Spectrum Health). The central system shall be designed for scalability; allowing ITP to easily add expanded future capabilities.

#### Improve POS Capabilities

There is no system to track sales at local grocery stores or other partners who sell ITP fare media. Also, ITP’s partners such as GVSU have to rely on ITP to manage the student pass program (e.g., suspend/terminate privileges).

The new central system shall allow partners to manage their respective data and provide the ability to track sales of fare media/products by ITP’s retail partners.

#### Minimize Maintenance

The proposed solution shall minimize the maintenance of payment system hardware to reduce the total cost of ownership (TCO) of fare collection systems. Also, consolidated central infrastructure shall be scalable to allow enhancements to integrate with third party payment programs based on royalty free application programming interfaces (APIs).

#### Interoperability with other Regional Payment Programs

Apart from integrating with large local partners, ITP’s new system shall have the ability to integrate through a standard APIs with participating parking and tolling payment systems in the future. The integration of the parking system is envisioned to allow integration with the city parking system and payments at ITP park and ride lot locations using common payment media that is either issued by the City or by ITP.

Further, partnerships with local merchants located near major ITP stops are desired to allow riders to pay for ITP services and merchant goods/services simultaneously by leveraging standard vendor APIs.

### External

ITP has identified two key partners for the new smartcard and mobile ticketing system. These include GVSU and Spectrum Health. The current needs of these partners are highlighted in the sections below:

#### GVSU

GVSU has partnered with ITP to provide free on-campus transit services to GVSU students. To utilize services, students must present their student ID cards.

ITP is currently discussing the possibilities of integrating using MIFARE or other cards barcode-based (traditional 1-D barcodes, or 2-D barcodes such as QR code) payment instruments that students use for payments within the campus. GVSU has notified during initial discussions that barcode-based payment media are currently being used by students for the university library and meal plans.

The proposed account-based system shall allow back-end integration of ITP and GVSU payment systems as long as the payment hardware on ITP vehicles are capable of reading data on payment media presented by students. Current GVSU student IDs support only barcode-based payments but GVSU is interested in use of smartcards for student IDs in near future.

#### Spectrum Health

Spectrum Health employees carry HID Global proximity cards. In addition to an RFID chip, these cards feature printed with barcodes corresponding to employee ID numbers in Spectrum Health’s human resource information system (HRIS). These barcodes are used by employees for several purposes including payments inside Spectrum Health premises.

### Other Partners

ITP plans to leverage the capabilities of the account-based payments architecture to partner with other organizations in the future. These organizations include but are not limited to the following:

* Grand Rapids Community College;
* Kendall College;
* Aquinas College; and
* Calvin College.

## Summary of Key System Features

Key high-level technical features for the new smartcard and mobile ticketing payment system include:

* The on-board equipment and central infrastructure shall be based on account-based payment architecture and shall be capable of providing smartcard media (contactless cards, prepaid cards), mobile ticketing, and other future payment capabilities (e.g., NFC-based payment).
* The system shall allow the capability to use media issued by ITP partners (e.g., GVSU and Spectrum Health) if the media is ISO/IEC 14443 compliant.
* The payment systems shall be capable of being enhanced to provide additional capabilities in the future as follows:
* Integration with third party service providers in the area (e.g., Amtrak and Greyhound). This will allow customers to purchase combo tickets that can be used on different modes;
* Integration with bicycle and car-share programs in the service area; and
* Fare payment using reloadable gift cards.
* An on-board router shall be installed as part of this solution to allow for real-time validation of fare accounts as necessary. These routers shall provide the capability to communicate with central servers via cellular network in real time. Currently, Silver Line BRT vehicles have 10 such routers installed, manufactured by Cradlepoint to provide on-board WiFi.
* Apart from TVMs, revaluing of accounts shall be provided by an application accessible via internet-enabled devices (e.g., personal computers, smartphones). As customer profiles will already exist in ITP’s system, they shall be accessible and configurable online.
* A comprehensive reporting from various components in the ITP fare payment system environment (e.g., farebox, validator, TVMs, third party payment systems) shall be provided.

## Transit Vehicles

A list of ITP vehicles is provided in Appendix A.

## Technical Architecture

Figure 1 provides an overview of the envisioned ITP fare collection system that shall be developed using an account-based architecture. A high-level of overview of the system is as follows:

### On-board Components

On-board component will include a reader capable of reading smart fare media compliant with ISO/IEC 14443 Type A and Type B. The reader shall be capable of reading media based on other standards that are extension of ISO/IEC 14443 such as ECMA-340 and ISO/IEC 18092 (NFC standards). Also, the reader device shall be equipped with an optical reader to scan tickets issued in barcode format (e.g., QR code or printed barcodes).

Initial smart fare media will be credit-card-sized but the readers shall be capable of reading media in other form factors such as key fobs, smartphones, stickers and wearables (e.g., smart wristbands, smart watches and smart rings).

Readers shall be required to communicate with the central system in real-time to provide account validation capability. This connectivity shall be provided using a data connectivity device which shall utilize multiple subnets and Quality of Service (QoS) to allow more than one on-board systems (e.g., fare system and CAD/AVL systems) to use the same cellular data link.

ITP does not require the new reader to be interfaced with any other existing on-board equipment except mobile data terminals (MDTs) provided by Avail Technologies for driver interface and location data.

Existing SPX Genfare fareboxes will continue to function as they do today.



Figure 1. High-level Block Diagram of ITP Fare Collection System

### Wayside Component

Existing TVMs installed by S&B shall meet the account-based fare media/product sale and reloading requirements described in this document. Also, existing validators installed at BRT stations shall be able to validate smart fare media with respect to central customer accounts for smart media.

### Central Components

The key component of the new ITP fare collection system will be a central data management system (CDMS) that will integrate with the S&B FareGo Data System and SPX Genfare Data System products. Also, CDMS shall provide the account-based fare media sale, reloading and fare payment capabilities. Further, CDMS will facilitate validation of third party smart media as described in this document.

### Third party Components

Existing payment gateway infrastructure at ITP shall be used to complete bank card transactions with existing payment gateway.

Proposers shall provide their approach to accept smart media issued by ITP’s partners (currently, GVSU and Spectrum Health) so that CDMS can validate third party smart media when those are used by riders for fare payments on ITP vehicles or at off-board validators.

## Deployment Phasing

The fare system deployment shall be conducted in phases as follows:

* Phase 1: Deployment of contactless smartcard-based payment along with CDMS
* Phase 1A: Fare media sale and payment for ITP-issued media
* Phase 1B: Fare payment using ITP partner-issued media (e.g., GVSU or Spectrum Health per ITP’s choice)
* Phase 2: Mobile payment deployment
* Phase 2A: QR code-based media
* Phase 2B: NFC and other media
* Phase 3: Interface with other third party payment systems (future enhancement and not in current scope)

# Information Technology (IT) Requirements

## General

The selected vendor, referred to as the “Contractor” in the rest of this document, shall provide the hardware and configuration details of the proposed system installation at ITP.

All software applications to be installed in ITP application environment must utilize the Microsoft Operating System consistent with current ITP upgrades, patches and service packs on the servers and desktops. Current ITP environment details are provided in Table 1.

Table 1. ITP Software Infrastructure[[1]](#footnote-1)

| Category | Current ITP Environment |
| --- | --- |
| Server OS | Microsoft Windows Server 2008 R2 |
| Desktop OS | Microsoft Windows 7 |
| Productivity Software | Microsoft Office 2013 |
| Database | Microsoft SQL Server 2008 R2 |
| Domain Controller | Windows Active Directory |
| Website Infrastructure | Website is built using Linux, Apache, MySQL, PHP (LAMP) Stack with JavaScript front-end. Website hosting is outsourced. |
| Network Security | * Web payment gateway (Thawte SSL)
* Vantive payment gateway
 |

The Contractor shall notify ITP at least 90 days in advance of releasing new versions of installed products. Further, the Contractor shall notify ITP at least one (1) year in advance of the date beyond when installed products can no longer be supported and also provide a transition plan to continue to provide existing features.

The Contractor must comply with ITP’s change management process when making any changes to supported systems.

## Computer Hardware and Software Installation

The Contractor shall implement a test environment, with all software components installed on parallel hardware at ITP, where software updates and configuration changes can be tested prior to being implemented in the production system. Any future updates or upgrades must be tested in the test environment before being implemented on production servers.

All software upgrades or changes required by the Contractor must be made in an ITP test environment and certified prior to moving into a production environment.

The successful Contractor shall provide software and specifications for hardware that comprise the proposed central system, including the required number of licenses for all users. The cost of each component shall be provided per the instructions on the Price Proposal Form.

## Network Connectivity

Proposers shall provide a detailed system network diagram identifying how components within proposed solution will connect with each other and existing ITP system environment.

ITP’s system network diagram displaying connectivity between various ITP facilities and relevant network nodes is provided in Appendix B.

## Source-code Escrow

**The Contractor shall either provide their proposed system’s source code to ITP, establish an escrow account with the exact version of the source code being implemented at ITP, or provide an alternative solution to ensure that ITP has unrestricted access to and use of the source code in the event the Contractor ceases to exist, ceases to support the application, or otherwise terminates its relationship to and/or ownership of the product.**

## System Availability and Redundancy

The CDMS and all related system components shall meet the functional and performance requirements defined in this document and must perform without failure to attain 99% availability monthly and annually.

The Central system shall be setup in redundant configuration by default. So, if the primary system fails, the secondary system that is configured to run in hot-standby mode shall automatically start running as the primary system to ensure fail-safe operation.

Proposers shall provide a clear description of their approach for enabling redundant system configuration. The redundancy approach shall cover all aspects of the system that include but are not limited to power, network connectivity[[2]](#footnote-2), storage, server hardware and applications.

Proposers shall clearly describe their approach for ensuring failsafe operation for account-based payments on-board vehicles in the event of failures including when vehicles are temporarily outside cellular coverage and are offline.

## Information Security

### General

Proposers shall describe in their proposals the compliance of proposed solution with the required information security requirements in Section 4.6.

The Contractor shall comply with at least the following information security requirements:

* ITP IT security policy;
* Payment Card Industries (PCI) Data Security Standards (DSS); and
* Payment Applications (PA) Data Security Standards (DSS).

The Contractor shall provide a detailed description of information security compliance in the design documents. Please see detailed design documentation requirements in Section 9.2.

### IT Security

All proposed software applications must support role-based security.

Web-based applications shall provide secure data exchange via transport layer security (TLS)/ secure socket layer (SSL) protocol only and shall comply with TLS 1.2 or better.

Proposed web applications shall be digitally certified using common certification authorities (e.g., COMODO, DigiCert and Verisign/Symantec).

All software applications must have the ability to use Windows Authentication based upon Active Directory setup.

The methods used for encrypting stored passwords must be disclosed. Industry standard encryption methods utilizing at least 256 bit encryption techniques are required.

The Proposer must disclose the provisions to secure the database in its proposal.

Any vulnerabilities or exploits discovered by the Contractor or others for the proposed application must be reported to ITP immediately with a proposed mitigation strategy.

### Compliance with PCI-DSS

Systems and subsystems provided by the vendor that involve processing of credit, debit, prepaid cards (e.g., media sale components) shall be fully compliant with current Payment Card Industries (PCI) security standards through the system warranty.

The Contractor shall ensure that the proposed solution is compliant with requirements as mandated by the PCI Data Security Standards (DSS).

The Contractor shall perform monthly audits to ensure that systems (existing and proposed) associated with the ITP fare collection system are in full compliance with the current PCI standards and the approved information security plan. The information security plan shall be developed by the Contractor and presented to ITP along with design review documentation.

### PA-DSS Compliance

Vendor shall be fully compliant with Payment Application Data Security Standard (PA-DSS) for proposed system modules that involve processing of credit card and debit card transactions.

## Data Storage and Maintenance

All database-related components of the solution (e.g. tables, stored procedures, scripts, extensible markup language [XML] schema, and related information) shall be fully accessible and available for support and use by ITP and ITP staff.

Proposer’s solutions shall be developed and configured using prescribed standards for Microsoft SQL Server, and be flexible enough to run in consolidated database environments with other applications using different schemas and virtualization.

ITS data shall be retained in a read-only historical database for use by management and other ITP staff to plan and assess system performance, and to address inquiries, conflicts and related issues.

The system shall allow all such data to be retrieved, even if it has been archived.

All queries made to the database shall be logged for audit purposes. ITP shall have the ability to view these logs when required.

The online data storage system shall ensure data integrity in the event of a computer disk-drive failure.

In addition, the system shall include a means of archiving transaction data, or restoring data from an archive, while the system is in operation. It shall not be necessary to shut down the database to perform a successful backup operation.

The Contractor shall provide a data maintenance plan that is compliant with ITPs backup and archival policy. The system shall store data for at least seven (7) years in the database before archival.

Proposers shall determine and describe the need and procedure for an incremental, daily or other time frame-based backup of data. Other needs related to the archiving of data, such hardware and software, shall also be determined and described by each Proposer.

The system administrator (SA) account shall not be used with SQL server applications. If it is, the solution must allow ITP staff to change the SA password on a periodic basis without limitations.

The Contractor must provide the following:

* **Scripts in order to recreate database;**
* **An entity relationship diagram;**
* **Database schema with a data dictionary detailing all database entities (e.g., tables, columns, and attributes; and**
* **Recommended practices document for support and maintenance of the database.**

## Data Access for ITP and its Partners

The proposed system shall follow an open architecture model, providing the capability for ITP to independently develop system interfaces or enable integration with other internal or third-party systems. The use of standard network communication protocols (e.g., Transmission Control Protocol/Internet Protocol [TCP/IP] and system interfaces (e.g., Open Database Connectivity [ODBC] for databases) is required. The database structures and any proprietary interfaces shall be documented in the proposal. ITP shall be allowed royalty-free access to the database tables, and royalty-free use of the data and interfaces. If necessary, ITP shall be allowed to extend such access and use to third party vendors for integration purposes.

All system data shall be the property of ITP and shall be immediately available to ITP. The Contractor shall acknowledge in writing that ITP will own any and all data and the database where the data resides.

# Accepted Fare Media and Transaction Processing

## Fare Media

The proposed solution shall be account-based payment and shall accept contactless smart card media issued by ITP and ITP partners. The media shall be compliant with ISO/IEC 14443.

Apart from contactless card media, the proposed solution shall accept other smart media including mobile devices through visual barcodes and NFC via ITP-approved mobile applications.

The proposed solution shall be compliant with ISO/IEC 18092 that includes NFC communication for media/devices.

Smartcards, NFC, barcode-based media are collectively referred as “smart media” in this document hereon.

The contactless smart media shall be based on a closed-loop payment concept and shall be readable only by ITP approved devices.

Proposers shall describe the capability to enhance their proposed readers to accept bank-issued media.

The smart media shall have an ITP-configurable expiry date and shall be used as follows: 1) long term use (e.g., period pass for 7 days and 31 days); and 2) limited use (e.g., single ride, single day pass and special event pass).

Contactless smartcard media shall be credit card sized (3.370 × 2.125 × 0.030 in) and shall be compliant with physical characteristics defined in ISO/IEC 7810. The system shall be capable of being enhanced to read other form factors such as key fobs, stickers, and wearable (e.g., wristbands, rings etc.) compliant with the ISO/IEC 14443 standard.

Smart media in credit card form factor shall be constructed of laminated layers with the central layer being constructed of Polyethylene Terephthalate (PET) plastic and other layers may be constructed using Polyvinyl chloride (PVC) plastic. The laminated layer shall protect all pre-printed card graphics. The smart media shall comply with ISO/IEC 10373 and ASI INCITS 322 for durability.

The smart media shall be read only[[3]](#footnote-3) and shall include a microprocessor (“chip”) to provide non-volatile memory, short-range wireless contactless communication and built-in security. The media shall use 3DES/AES encryption or better and shall support 128 bit AES as provided in DESFire contactless smartcards.

The smart media chip shall be encoded with a read-only 20 digit serial number or unique ID, to be referred as card serial number (CSN) in this document. The fare media shall be verified for payments using this unique CSN with the central data management system (CDMS) as described in Section 8.1.

The account-media shall be reloadable only via approved ITP applications and at approved ITP preferred retail locations. All transactions shall be validated in real-time with CDMS.

Prepaid cards shall include barcodes and/or magnetic stripe for reloading at preferred retail locations that do not carry contactless smart card readers. Prepaid cards that feature magnetic stripe shall be compliant with ISO 7810.

ITP or its partners shall be able to print additional text and image data on the card, including but not limited to employee ID barcode, organizational logo, and cardholder’s photograph. ITP or its partners shall store information printed on cards in a secure database linked to the CSN.

Fare media shall utilize industry standard security schemas to ensure that the media cannot be counterfeited, cloned or altered through reverse engineering. These media shall employ Digital Encryption Standard (DES)/Advanced Encryption Standard (AES) or better algorithms to ensure compliance with advanced security standards.

Fare media distribution/sale shall be permitted only through the following channels:

* Existing and future ITP TVMs;
* ITP customer service locations using existing and future SOTs;
* ITP web portal for fare media to be provided as part of proposed solution;
* ITP’s partners; and
* ITP-authorized retail centers.

The Contractor shall describe details of smart media to be provided and these details must be approved by ITP. The information these details provide shall cover but not be limited to physical characteristics, processing details, encoding schema, security standard, manufacturer, and card construction material.

Smartcards shall be sourced from more than one supplier and the Contractor shall be fully responsible for ensuring the quality of the supplied cards.

The Contractor shall provide complete specifications for both long term use and limited use media to ITP for any future procurement of those cards to be conducted by ITP. These specifications and relevant documents shall become the property of ITP.

The fare media encoding schema and the media reader authentication schemas shall be described in the design documentation. The encoding schema shall become the property of ITP.

Card layout and any graphics schemes for cards shall be discussed at the design review. Details shall be provided for both long-term and limited-use media. The CDMS shall allow media layout design as described in Section 8.1.7.5.

Limited use cards physical characteristics shall be designed such that their cost is minimized (e.g., use of small thickness and reusable cards).

ITP partners such as GVSU and Spectrum Health shall be able to register their read-only contactless smartcard media with ITP. Once these cards are registered, the CDMS shall be able to verify validity of partner smartcard media when the media is presented to the on-board reader, off-board validator and TVM smartcard target or when customers try to load these cards via ITP web portal.

## Transaction Processing

### General

The Contractor shall provide detailed flowcharts that include steps involved in media sale/replenishment and payment processing. Such flowcharts shall be used to for conducting gap analysis (see Section 9.2.1) to determine any updates or upgrades required to the existing ITP fare system infrastructure, including all field and central fare system components. The contractor shall be responsible for providing such updates and upgrades.

Fare payment transactions and media sale/payment transactions that require interface with a financial institution (e.g., to complete media purchase) shall be performed in a secure manner. Any transactions that involve credit/debit and prepaid cards payments (for media sale) shall comply with PCI-DSS and PA-DSS as required in Section 4.6.

All fare payment transactions shall be performed using an account-based framework to be established for this system. The following fare payment transactions shall be supported:

* Postpaid (also known as “pay-as-you-go”): Such transactions shall be performed by charging customer accounts after rides are taken.
* Prepaid: Such transactions will occur when customers use prepaid media such as passes. This also includes pre-purchased stored-value and stored-ride account-based media.

In both postpaid and prepaid scenarios, transactions shall be performed by using the payment instrument (e.g., credit/debit cards) or stored funds (e.g., through in-person or electronic cash payments ) in CDMS.

The system shall support the following fare media sale transactions at ITP:

* Personal checks and cash at customer service locations;
* Cash payment at TVM and at customer service locations;
* Direct back account debit through automated clearinghouse (ACH);
* Credit card and debit card payments at TVMs, customer service locations, and ITP website; and
* Funds from partner employers or other institutions (e.g., GVSU and Spectrum Health).

Other fare media sale transactions to be performed by ITP’s local/regional partners and preferred retail locations shall be performed using their existing payment systems and gateways. Participation in ITP’s fare payment program using partner smart media shall not require any change in existing payment ecosystems at those partner organizations.

### Account Fund Management

One customer account shall be able to be linked to more than one fare medium (e.g., smartcard, mobile tickets).

CDMS shall be updated with a new account entry for every new fare media unit issued by ITP. Also existing accounts shall be updated when fare media is used for account replenishments.

Customer accounts shall provide the ability to store funds in the form of passes (e.g., 31 day pass) or stored value.

The system shall allow automatic replenishments at an ITP-configurable threshold on a periodic or automatic basis (e.g., every month or when value drops below amount required for 10 rides) and when authorized by customers. The system shall further allow customers to request replenishments on an ad-hoc basis.

Replenishment funds shall be added to the customer account immediately following the conformation of the replenishment payment action.

The registered customers shall be able to link a payment method (e.g., credit card or ACH) for automatic replenishments of their accounts. Customers shall be allowed to add up to two (2) replenishment sources.

Customers shall be able to replenish accounts anonymously through a credit/debit card transaction without requiring the ability to logon to their accounts.

ITP customer service shall be able to replenish accounts on behalf of those customers that do not have access to ITP’s web portal or application for fare payment. Customer service shall have the capability to input payments received from the customer in the form of cash.

The system shall automatically determine a list of accounts for which associated payment method is about to expire and notify those customers at configurable timeframe (e.g., least 30 days in advance). If a customer account does not have enough value to provide additional rides, the customer’s account shall be suspended until an alternate mode of payment is provided. Once the payment is made, the account shall be reactivated.

The registered customers shall have the ability to suspend automatic replenishments for a period of time when needed through the account management portal.

The registered customers shall be provided receipts of every sale transaction through their preferred mode of communication (e.g., email, text message or paper copy). At a minimum, the receipt shall contain the following details:

* Unique transaction number;
* Date and time of transaction;
* Type of fare media purchased (e.g., 31 day pass or 7 ride card);
* Mode of payment (e.g., automated payment by bank card or ACH, cash at counter, personal check at counter);
* Payment device ID for payments made at TVMs; and
* Amount paid.

### Transaction Speed

All smart media fare transactions on-board vehicles and at off-board validators shall be performed within a configurable duration (e.g., 300 milliseconds).

All CDMS transactions related to fund management that require credit and debit card transactions or ACH shall be performed in real-time and shall not take more than 5 seconds to process. If transactions cannot be processed in 5 seconds, transactions shall time out.

### Transaction Records

Each transaction shall be recorded in the system with a unique transaction ID to ensure any reconciliation and historical reporting can be performed as necessary. The transaction ID shall represent at least the following values:

* Origin device ID;
* Date and time; and
* Running sequence of transactions.

At a minimum, transaction record shall contain the following additional data:

* Amount;
* Type (e.g., fare payment, media sale);
* Origin device ID;
* Location;
* ITP vehicle, if applicable;
* Payment amount;
* Payment mode (cash, credit card, smart media);
* CDMS account number for customer;
* Origin time;
* Completion time;
* Status (e.g., failed or successful); and
* Failure code, if applicable.

# On-board System Components

## General

Equipment modules, cables, mounting hardware and connectors shall be designed to withstand the full range of operating environments found in the areas in which they are to be installed, and shall not interfere with the operation of existing onboard equipment.

Equipment shall be tested and revenue-proven, capable of withstanding power transients, electromagnetic interference, and radio frequency interference at levels encountered in typical transit operations without degradation.

Cabling and wiring shall be installed in accordance with these specifications while withstanding the vibration and shock forces encountered in typical transit operations.

Onboard equipment shall be specifically designed for the harsh transit environment and shall meet the requirements of this specification under all conditions encountered in typical transit operations.

The proposed equipment shall comply with operating and storage environment requirements listed in Table 2 and

Table 3. In the event proposed equipment is not compliant with required standards, proposers shall provide alternate compliance standards in their proposals.

Table 2. Operating Environment Requirements

|  |  |
| --- | --- |
| Characteristic | Operating Condition |
| Sunlight  | None to full, direct behind a glass windshield; Maximum solar radiation: 250 BTU/hr/ft2 |
| Storage Temperature | -22°F to + 140°F |
| Operating Temperature | 4°F to + 110°F (ambient) |
| Thermal Shock | Up to 50°F in 1 hour (non-condensing) |
| Relative Humidity | 5% to 95% relative humidity at maximum 104°F, non-condensing |
| Vibration and Shock | Compliant with SAE J1455 standards |
| Dust and Water | Compliant with NEMA4 or IP65 standard or better |

Table 3. Storage Environment Requirements

|  |  |
| --- | --- |
| Characteristic | Operating Condition |
| Storage Temperature | 25°F to + 110°F |
| OperatingTemperature | 40°F to + 95°F (ambient) |
| Thermal Shock | Up to 30°F in 1 hour (non-condensing)  |
| Relative Humidity | 20% to 95% relative humidity non-condensing |
| Radiated Emission | FCC Part 15, Subpart B Class A |

## Wireless Data Communication

Proposers shall describe the data communication infrastructure required to satisfy the following communication needs for this project:

* Wireless data communication between vehicles located at the garages and the central system; and
* Wireless data communication between the central system and fixed-route revenue vehicles.

Real-time communication between on-board devices and the CDMS shall be performed using cellular data connectivity.

Proposers shall identify the specific on-board and central hardware and software that will be required to establish wireless communication infrastructure.

Proposers shall identify the cellular data bandwidth requirements for their proposed solution.

### On-board Mobile Router/Wireless Gateway

On-board mobile routers shall be installed on all fixed-route revenue vehicles, except bus rapid transit (BRT) vehicles.

#### Hardware and Connectivity

The Contractor shall provide an On-board Mobile Gateway/Router (OMGR) for ITP vehicles to accomplish 1) wired connectivity with other on-board equipment; and 2) wireless connectivity with the central system.

The OMGR shall comply with on-board hardware requirements described in 6.1.

The OMGR shall provide the following connectivity capabilities:

* **Cellular Modem:** the OMGR shall be equipped with built-in modem card slots for cellular data connectivity, compliant with each major cellular carrier network available in the ITP service area. The OMGR shall have at least three (3) built-in card slots. The OMGR shall accept cards compliant with Peripheral Component Interconnect and Universal Serial Bus (USB) standards.
* **Wi-Fi**: The OMGR shall be equipped with built-in Institute of Electrical and Electronics Engineers (IEEE) 802.11n card for Wi-Fi Connectivity to an external access point. Please see Section 8.1.7 for further requirements for wireless data exchange at ITP garages.
* **Ethernet:** The OMGR shall be equipped with a built-in Ethernet adaptor for local area network (LAN) connectivity in-vehicle: The OMGR shall consist of at least four (4) built-in Ethernet ports and shall have the ability to extend to eight (8) Ethernet ports by utilizing an external network switch.

The OMGR shall be certified to be used on all major carriers available in the ITP service area that at least include AT&T, T-Mobile, Sprint, Verizon.

The OMGR shall have the ability to function as a mobile hotspot and shall be able to support up to 50 simultaneous users, while supporting real-time fare transaction requirement of 300 milliseconds.

The OMGR shall be equipped with at least two USB 2.0/3.0 connection ports.

The OMGR shall be equipped with at least one RS-232 connectivity port.

The OMGR shall have built-in information security capabilities (e.g., encryption) to protect the data routed over wired or wireless networks. The Contractor shall describe all built-in security capabilities. Please see Section 4.4 for additional data security requirements.

The OMGR shall be configurable locally (via Ethernet) or remotely (via wireless network).

The OMGR shall support port filtering/blocking and port forwarding capabilities.

##### Data Communications

The OMGR shall support QoS to ensure protected bandwidth for multiple sub-channels when multiple sub-channels are enabled for connectivity of individual on-board systems. ITP may use OMGR for at least the following additional on-board data:

* CAD/AVL data; and
* On-board Customer Wi-Fi.

The OMGR shall be configurable to control which on-board subsystem can perform outbound communication based on the speed of data connection available at a given time. Fare transaction and CAD/AVL data shall be given priority over other data.

The OMGR shall have the ability to configure the data rate limits for inbound and outbound data communications by on-board subsystem

The OMGR shall be able to automatically switch to an available network (cellular or Wi-Fi) based on the agency configuration. The configuration parameters shall include but shall not be limited to available network(s) and their priorities, time of day, current geographic location and ITP fleet type (e.g., fixed-route and BRT).

The OMGR shall have the capability to use port filtering/blocking to ensure only appropriate data traffic (e.g., fare transaction or CAD/AVL) is routed on an available wireless network.

The port forwarding feature shall allow a host application at the central system (e.g., video Playback Software) to connect to a desired on-board system (e.g., DVR).

The OMGR shall support Dynamic Host Control Protocol (DHCP) for connected devices and provide the capability to turn on and off the DHCP server as needed.

The OMGR shall have at least 10GB of built-in solid state flash storage to store application logs.

##### Mobile Data Terminal (MDT) Connectivity (Optional)

Existing MDTs shall be able to connect with the OMGR via Ethernet port for the following data exchange activities

* Sending and receiving of CAD/AVL data via available wireless networks (cellular or Wi-FI);
* Upload and download of data listed in Section 8.1.7 via WLAN at ITP garages.

Contractor shall coordinate with ITP CAD/AVL vendor to ensure required data connectivity is available.

## On-board Contactless Fare Media Reader

### General

The Contractor shall install a contactless smartcard reader on all ITP fixed-route vehicles, except BRT vehicles.

The readers shall be capable of reading ISO/IEC 14443 Type A and Type B cards, as listed in Section 5.

The readers shall function as standalone units. ITP does not require the Contractor to interface these readers with existing fareboxes.

The reader shall be able to communicate with the central system over a cellular data network using OMGR.

#### Rider Interface

Once driver logon is complete, the on-board reader shall be ready to perform fare transactions for the route and schedule information entered by the driver.

The on-board reader shall function even when driver logon is not available.

The Rider Unit shall display connectivity status using a visual indicator to indicate if the device is online.

##### Payment Processing Interface

The on-board reader shall include a color backlit graphical display, readable under the full range of ambient illumination conditions.

The display shall be able to display a total of 64 characters, up to one (1) inch high.

The on-board reader shall be able to read ITP smart media specified in Section 5.1.

##### Transaction Status Indicators

The on-board reader shall provide audio and visual indicators for transaction status. Distinct audio tones or voice-overs shall be used to communicate/indicate transaction status.

The on-board reader shall provide distinct indicators for different status (e.g., successful, invalid media, communication failure) of transactions.

### Smart Media Processing Unit

#### Contactless Smartcard

The processor shall be a contactless/proximity type which provides a reader target which can process a card when passed in the vicinity of the target.

The processor shall be able to read ISO/IEC 14443-compliant contactless smartcards.

The reader shall be able to decrypt data during card read process.

This scope of work (SOW) requires read-only operation on the cards presented by the riders. However, the processor shall have the ability to perform both read and write operation per the proximity range, power requirements and communication protocol requirements as described in ISO/IEC 14443 specifications.

Cards shall be read on first proper pass with an accuracy of not less than 99.99%, assuming each card is valid.

#### Barcode

The built-in optical reader shall be capable of reading and validating the barcode-based media such as tickets/passes purchased by customers using mobile phones and ITP smartphone application. These tickets shall be readable by the on-board reader using the optical reader to read barcode-based media.

The readers shall include common optical scanning techniques (e.g., laser scan) and shall have the capability to read both 1D and 2D barcodes (e.g., QR code, Data Matrix).

The readers shall be able to read secure barcodes that utilize AES encryption algorithms. 128 bit AES or better shall be supported.

The reader shall decode and provide information to the on-board reader for completing the fare payment transaction.

The readers shall have the first read accuracy of 99% of higher.

#### Other

The on-board reader shall have the built-in capability to read NFC media (e.g., mobile phone, NFC stickers and smart wearable) per ECMA-340 and ISO/IEC 18092. The readers shall be able to accept NFC-based fare payment via ITP-approved mobile applications or third party wallets such as Apple Pay or Google Wallet/Softcard.

The on-board reader shall be capable of accepting EMV media and shall be Level 2 certified. EMV functionality will be reserved for future use by ITP and shall have the capability to enable that functionality through a configuration update via ITP WLAN. Only a software/firmware upgrade shall be required to upgrade the readers to comply with upcoming standards of EMV. Also, any such upgrades shall be performed using ITP WLAN.

### Storage

The on-board media reader shall be equipped with built-in non-volatile flash storage. The built-in storage shall be designed or shall be expandable such that it can meet ITP’s requirements for the next 10 years.

The reader shall use this memory for storing system configurations, action lists and recording on-board transactions.

The storage shall also include valid list of operators and driver/vehicle schedule information to allow operator logons in the event vehicles are offline and cannot communicate with the CDMS.

Additionally, the system shall use this storage to store any logs generated by the reader. These logs shall include enough information to allow troubleshooting during maintenance and support activities. ITP shall have the ability to automatically archive and delete logs after a configurable amount of time (e.g., logs older than 10 days).

### Action List

The media reader shall store a list of acceptable and unacceptable CSNs reported by CDMS along with other information provided by CDMS, necessary to complete offline transactions. The media reader shall use this list to approve or disapprove transactions in the event no cellular connectivity is available to connect with CDMS. ITP may also choose to approve of card validation based on the action list to minimize the number of real-time transactions.

The action list shall be refreshed at a configurable amount of time (e.g., every hour).

### System Diagnostics

The on-board reader shall have built-in diagnostics to determine system health issues with each of the built-in components (e.g., smart media processor).

The diagnostics data shall be stored in the built-in storage and shall be downloaded using ITP WLAN when vehicles are located near WLAN access point. The CDMS shall process such log and provide reports as necessary to authorized ITP staff.

The reader shall allow authorized staff to perform any maintenance (e.g., firmware upgrade, log download) using a maintenance laptop through a local diagnostics port (e.g., Ethernet port) or remotely via a secure wireless network.

### MDT Interface

The contractor shall interface with Avail MDTs to provide driver logon/logoff interface. Proposers may suggest an alternate approach that meets the requirements in this section but additional hardware shall not be required.

The Contractor shall be fully responsible for any expense and contractual relationships associated with developing a reliable driver interface that meets the requirements in this section.

MDT interface shall be developed using standard interface protocols and connectors(e.g., (SAE) J1708/1587 or Ethernet).

#### Location Data

The MDT shall provide latitude and longitude data to the reader using existing GPS receivers at every scheduled stop or when requested by the reader.

Proposers shall describe how system handles the event when GPS data is not available.

#### Driver Interface

##### Logon and Logoff

The MDT shall allow drivers to perform a single-point logon using their driver ID and run to the reader using MDT driver interface. Upon successful logon, the MDT shall provide block, run, driver ID, route, and direction information to the reader. Also, drivers shall be able to select the correct fareset.

Drivers shall be able to logoff the reader using the MDT.

Driver logon and logoff events shall be recorded by the on-board reader and sent to the CDMS via cellular network in real-time. After, successful logon, the on-board reader shall be connected with CDMS for fare transactions.

The MDT shall allow maintenance/training mode logon to perform any required non-revenue activities on the on-board reader.

##### Transaction Status Indictors

Driver terminals shall provide audio and visual indicators for fare transactions performed on the Rider Unit.

# Wayside Systems

## TVM

Current TVMs installed at ITP facilities are equipped with smartcard media dispenser and smartcard targets. The Contractor shall coordinate with the supplier of existing TVMs to ensure that the following requirements are met.

* The dispenser and reader module are equipped with required hardware/firmware and are to vend/dispense contactless smartcard media.
* The smart card reader target unit in TVM shall be able to sell and load fare product into account of existing card that is presented for the transaction.

The Contractor shall ensure that smart media targets on TVMs comply with the account-based architecture required for this solution.

The dispenser shall be able to perform transactions based on CSN. Proposers shall describe what other data is required to be read from the cards.

## Station Validators

ITP BRT stations are equipped with fare validators provided by S&B. Contractor shall ensure that fare validators are able to read smart media described in Section 5.1 and validate the card either in real-time with CDMS or using the action list obtained from the CDMS.

Contractor shall ensure that existing station validators comply with the account-based architecture required for the new fare collection system. In the event fare validators are not compliant with these requirements, Contractor shall upgrade existing fare validators to meet these requirements or provide an alternate approach that does not require card-based transactions.

# Central System Specifications

## Central Data Management System (CDMS)

### General

The Contractor shall provide a CDMS that will serve as the consolidated data system for all back-office needs related to the new fare payment system.

The CDMS application shall be accessible over a web browser via a secure web connection as required in Section 4.6.

The CDMS shall perform at least the following functions:

* Fare payment support
* E-commerce application for media sales
	+ Customer account management
	+ Customer account funds management
* Third party programs/transactions
	+ Smart media management by ITP partners
	+ Sponsor program management
	+ Preferred vendor sale program
	+ Bankcard processing for customer account transactions via existing payment gateway
* Management of an action list
* Data management
	+ Data warehousing
	+ Reporting
* System administration
	+ Fare table management
	+ Device management
	+ System monitoring
	+ Fare media management

### Fare Payment Support

The CDMS shall process all transaction requests from media readers installed on-board ITP vehicles in real-time.

The CDMS shall verify the transactions as follows to ensure card validity:

* Verify if the card presented to the reader is valid and not expired.
* Perform additional checks to ensure that the card transaction initiated by the reader is not fraudulent. Business rules for checking the fraudulent nature of transaction shall be documented by the Contractor in the design review and shall be approved by ITP.

After validity has been performed, the CDMS shall use the CSN to process the transaction as follows:

* For prepaid accounts such as period passes and stored value cards, immediately approve fare payment transaction if passes are still valid.
* For postpaid accounts, charge/invoice customers for the rides.

### Customer Service/E-Commerce (CSE) Application

#### General

The Contractor shall provide a customer service/e-commerce (CSE) application that provides at least the following features:

* Capability for ITP customers to create and manage their accounts;
* Capability for ITP customers to perform payment transactions to buy and reload fare media and review past transactions;
* Capabilities for authorized ITP partners to (e.g., employers, universities) to create and manage accounts and perform transactions on behalf of ITP customers; and
* Capabilities for ITP staff to perform actions on behalf of customers, generate reports, and perform system maintenance and administration.

ITP maintains a customer database as part of its real-time information system provided by Avail Technologies. The Contractor shall be required to determine if a consolidated customer registration can be developed to avoid registration by customers for multiple systems and provide the consolidated interface.

Proposers shall provide a clear description of applications that will be accessed by ITP staff, its customers and its partners as part of the proposed fare system.

Proposed application shall be accessible via common web browsers over a secure connection (e.g., hypertext transfer protocol secure [HTTPS]).

Proposed application design shall be modular and scalable such that it can be enhanced to accommodate future capabilities desired by ITP.

In the event third party components or plug-ins are used for developing and/or running the application, vendors shall include the cost of those third party components in the proposed application cost. No separate licensing with third parties shall be required for ITP to deploy and run the proposed application.

#### Customer Profile Management

The CSE application shall allow ITP customers to register and create their profiles.

Customers shall be able to register by providing the following:

* Unique user name;
* A strong password;
* First, middle, and last name;
* Mailing address;
* Email address;
* Phone number and phone number type (mobile or non-mobile); and
* Communication preference (e.g., email or phone).

If the proposed application requires customers to fill additional details, required information shall be indicated to customers (e.g., with an “\*” sign).

The registration interface shall include mechanisms such as CAPTCHA and reCAPTCHA to prevent the misuse of the registration interface.

Once customers are able to register successfully, they shall be sent the registration confirmation in an email with a unique customer identification number (CIN). Customers shall be asked to electronically verify the receipt of confirmation email to ensure the validity of the email address.

Once customers successfully login using their user id and password, they shall be allowed to manage their profile to perform at least the following actions:

* Change password;
* Change customer profile details;
* Link one or more of ITP fare media;
* Manage ITP fare media configurations; and
* Link one or more payment method for account replenishments as the following:
	+ Bank debit or credit card
	+ Automated Clearinghouse (ACH) payment source (e.g., bank checking account)

The system shall ensure that the user passwords meet industry standards for strong passwords.

#### Web Payments and Product purchase

CSE shall provide a product purchase portal that shall list smart media/products available for sale.

Customers shall be able to use their accounts to select and purchase fare media/products from the purchase portal. Customers shall be able to make a payment using bankcards or ACH transactions. Customers shall be able to save payment information in their profile for future use.

Cards shall be delivered to the customer at their shipping address or customers shall be able to pick up those cards at ITP customer service locations.

Amounts paid by customers for media/product purchase shall be automatically added to the customer account funds.

#### User Interface

The CSE application shall be accessible via desktop and mobile browsers. The application shall automatically detect the browser type and provide an appropriate interface to the customer.

The CSE shall provide an ADA and Section 508 compliant web interface which is accessible via common screen reader software (e.g., JAWS).

Proposers shall provide details of the user interface accessible on mobile devices (e.g., smartphones, tablets).

#### Mobile Ticket Purchase

Customers registered with the CDMS shall be able to purchase tickets on their smartphones via a secure application. If customers are not registered, the mobile application shall provide a simple interface for registration that shall not require more than 3 steps. The only required information for mobile registration shall be as follows:

* Customer first and last names;
* Billing and shipping address;
* Payment information;
* Email address; and
* Contact phone number.

Once transaction is completed, the CDMS shall create an entry for the customer in the database and record mobile ticket details in their account.

Customers shall be able to complete mobile ticketing transactions in 10 seconds or less.

Once purchased, the application shall allow customers to see the mobile ticket in the form of a secure 2D barcode (e.g., QR code and Data Matrix) or other machine readable format (e.g., Microsoft Tag) along with the date and time of purchase. The barcodes must be secure and use AES encryption. The built-in security measures shall prevent cloning, alterations and counterfeits of mobile tickets.

Customers shall be able to purchase media for future use and the barcode shall include fare media effective date and expiry date.

Mobile tickets shall be available for purchase for the fare type available from ITP.

Mobile tickets shall have a predefined validity (e.g., 7 days, 30 days) and shall remain valid from the time they are activated.

The system shall provide the capability to issue and email receipts to the customers on request. Receipts shall be issued for every financial transaction.

Payments shall be handled by the CDMS through the registered customer accounts.

Mobile tickets shall be secure and non-transferable. However, ITP may allow customers to buy tickets on behalf of other riders. Proposers shall define their capabilities in ensuring the misuse of mobile tickets.

Proposals shall describe their approach to allow customers to store issued mobile tickets in third party wallets such as Apple Pay and Google Wallet/Softcard for NFC-based payments.

### Third Party Transactions

#### Management of Third Party Smart Media

The CDMS shall provide a secure access to a list of authorized staff at ITP’s partner location to register smart media on behalf of the members of their organizations.

The partners shall be able to store at least the following information:

* Card serial number;
* Rider first and last name;
* Fare media type (e.g., pass or select number of rides);
* Fare media status (e.g., active, suspended); and
* Card expiry date.

The CDMS shall notify customers via their preferred notification method if their registered card is about to expire at predefined threshold (e.g., 30 days in advance).

If cardholder is terminated or their ridership privileges are suspended for any reasons, ITP partners shall be able to update that information in CDMS database. Similarly, once the ridership privileges are reactivated, CDMS shall be reflected with that information.

The CDMS shall allow partners to purchase media and assign those to appropriate accounts/CSNs on behalf of cardholders.

The Contractor shall develop an interface with ITP partners’ card management/payment system so that the cardholder information is automatically refreshed daily.

#### Sponsor Programs

The CDMS shall provide the ability for employers to purchase and provide smart media to their employees. This shall include purchase of new cards or replenishments of already existing cards.

The CDMS shall maintain a list of employee and employer details. Employers shall be able to provide such information in Contractor-determined format for automatic upload (e.g., a CSV template).

The CDMS shall store preferred smart media to be purchased for employees (e.g., smartcards, mobile tickets).

The CDMS shall store a preferred mode of payment for employees for fare media purchase.

When an employee is terminated, employers shall be able to terminate the ridership privileges for their cards. In addition, CDMS shall allow employers to modify, suspend or reactivate privileges for their employees.

#### Preferred Vendor Sales Program

ITP shall allow certain retail stores in its service area to able to sell cards on behalf of ITP. The Contractor shall coordinate with ITP to determine retailer locations and finalize the list and include that in the design document.

The Contractor shall develop and manage interfaces with third party retailer POS systems to enable ITP smart media sale through interface with CDMS.

#### Bankcard Processing

The CDMS shall allow processing of credit and debit cards for fare media sale and replenishments.

The CDMS shall utilize the existing payment gateway with ITP current transaction processer, Vantiv. The Contractor shall coordinate with ITP to determine the best approach for transaction completion (e.g., real-time or end of day (EOD) batch transaction completion).

The CDMS shall accept Visa, Mastercard, Discover and American Express.

The CDMS shall maintain a list of bankcards that are unacceptable for processing due to fraudulent activities and use that list to reject bankcard transactions. Proposers shall describe their approach to determine this list.

All payment transactions for bankcard processing shall be completed within 5 seconds. If transaction cannot be completed, transaction shall timeout and CDMS shall reverse the transaction.

#### Application Programming Interface (API) for Third Party Interfaces

ITP intends to allow at least the following third party transactions through third parties in near future:

* Parking systems installed at parking facilities owned by ITP or the City
* Payment systems installed at bike-sharing facilities
* Smart media (long term or limited use) in partnership with local merchants and large event organizers such as Art Fair and Van Andel Arena to allow customers to use the same payment instrument with multiple merchants in addition to ITP

The Contractor shall provide a CDMS API for third parties to enable payments for ITP and third party services (parking and bike-sharing) through common payment media. Proposers shall provide their approach for accomplishing third party interfaces for CDMS and details of such API.

### Card Reader Action List

The CDMS shall maintain a master database of all cards that includes at least the following information for each CSN:

* CSN
* Status of card (e.g., active or suspended)
* Status of stored funds or pass (e.g., low stored value, pass nearing completion)

Also, the action list shall contain the following recommendation for on-board media readers to complete fare payment transactions:

* Cancel and reject the fare transaction; and
* Complete the fare transaction and track all usage

The CDMS shall also maintain an action list for ITP partners and other third parties. Third-parties shall be responsible for providing the current status of those media through a Contractor-provided and ITP-approved web-based portal. Proposers shall describe their approach to providing such web-based portal that allows third parties to upload the current card status information CDMS

The CDMS shall broadcast the action list at least to all field devices at a predefined interval (e.g., at least every hour). Also, if status of any media is changed (e.g., updated account value for a medium, account replenishment), the CDMS shall immediately broadcast the changed master list to all field devices.

### Data Management

#### Interfaces with Legacy Systems

The CDMS shall interface with the following existing/legacy systems:

* SPX Data System to import revenue, ridership and media sale information at least daily
* S&B FareGo Data System to
	+ Import revenue, ridership and media sale information at least daily;
	+ Media sale transactions through TVM;
	+ Payment transactions on validators; and
	+ Media sale transactions performed on SOTs.
* Schedule Masters to import route, stop information and driver schedule information. Proposers may propose alternative sources to import this information into CDMS.

#### Data warehouse

The CDMS shall include a central information data warehouse to provide reporting on all back-office components related to the ITP fare collection system. The CDMS data warehouse shall integrate with at least the following databases:

* S&B FareGO; and
* SPX Genfare Data System.

Proposers shall describe their experience in integrating with these two databases on earlier projects.

#### Reporting

The CDMS shall provide comprehensive revenue, ridership and transaction reporting capabilities by consolidating data from both existing fare system components (S&B and SPX Genfare) and proposed system components.

The system shall provide the ability to automatically email reports to authorized ITP staff per predefined time-intervals (e.g., daily, weekly, and monthly).

At the least the following standard reports shall be available:

* System revenue;
* System ridership and ridership by route and other operational parameters such as run and trip;
* Boardings by route and stop and vehicles;
* Number of failed transactions by device;
* Number of communication failures by device and vehicle;
* Media sale by fare type;
* Fare media usage;
* Summary and details of driver activity on ITP vehicles;
* List of registered media;
* List of partner media and their usage;
* List of media sold by preferred retail locations and their usage;
* List of unsuccessful transactions by media type;
* List of suspected fraudulent transactions by media type;
* List of denied transactions; and
* List of bank transactions with their status

The CDMS shall allow ITP to modify standard reports to change reporting layout and data fields.

The CDMS shall allow ITP to generate custom reports either using existing reporting views or by writing new SQL queries.

### System Administration

#### Fare Table Management

The CDMS shall provide the ability to create and manage configuration tables in its database that represent ITP’s current and at least one future fare structure and allowed transactions and pricing per fare type and media type.

The CDMS shall allow changes to these fare tables due to changes in ITP service or due to changes in ITP fare policy/structure.

The CDMS shall ensure that fare tables in FareGO and SPX Genfare data systems are in sync with the fare tables in CDMS database.

#### Device Management

The CDMS shall allow ITP to manage configurations of on-board devices remotely.

The CDMS shall allow ITP to upload and download data to those devices wirelessly.

The CDMS shall allow ITP to restart devices remotely.

#### System Monitoring

The CDMS shall have the ability to monitor the current status of all system components.

The CDMS shall report alarms received from proposed on-board devices.

For all servers, the CDMS shall provide their current status and immediately notify ITP staff when a server goes down.

#### Fare Media Management

The CDMS shall maintain an inventory of all smart media issued by ITP and its partners. ITP shall be able to manage these media based on their unique CSN.

The inventory shall categorize media by status, including but not limited to the following:

* In stock but not issued to customer;
* Issued to customer by in-house sale;
* Managed by third party retail;
* Managed by partners;
* Reported as lost by customers; and
* Issued earlier but now returned to ITP

The CDMS shall provide the capability to categorize certain CSN as “bad list” and update the action list when fraudulent activity is automatically detected by the CDMS or reported by ITP staff or ITP partners.

Accounts associated with cards reported as lost or stolen must be suspended immediately.

In the event a customer requests a refund for an account tied to media, the CDMS shall allow ITP to perform that transaction.

#### Media Layout Design

The CDMS shall allow ITP to design, create and modify the layout of their smart media prior to sending the design for manufacturing. The design tool shall allow changing of graphics, color scheme, and font size, font type and character spacing for any text.

The CDMS shall allow ITP to create and save multiple layouts.

## Wireless Local Area Network (WLAN) Data Exchange

### General

Wireless communication between vehicles and the central system will be provided by the Contractor at the central ITP garage location using Institute of Electrical and Electronics Engineers (IEEE) 802.11n (Wi-Fi) standards.

The Contractor shall install WLAN access points at the ITP facility to upload and download data when vehicles are coming in or out of service, as necessary.

The Contractor shall conduct the survey of the ITP garage facility to determine the accurate number of wireless access points required.

The service set identifier (SSID) for access points shall be not broadcast publicly and must be accessible to only ITP vehicles. The access points shall avoid significant signal availability outside of the intended coverage area.

The Contractor shall survey indoor and outdoor parking areas at the ITP garage for fixed-route vehicles to determine the number of access points. The access points shall be installed such that all vehicles parked at the garage can connect to ITP Wi-Fi while parked at their designated spots.

### Access Point Hardware

The WLAN access points shall support the Wireless Protected Access 2 (WPA2) security standard, or an approved alternate superior security standard ratified by the time of implementation.

ITP shall have the ability to independently adjust the signal strength of each WLAN access point.

ITP shall approve the specifics of proposed access point locations, signal levels and antenna type/orientations for an acceptable balance between expected coverage in outlying parts of the intended coverage area and minimizing signal availability outside the facility. WLAN access points shall meet or exceed the following environmental capabilities:

* Non-operating (storage) temperature: -40 to 185°F (-40 to 85°C);
* Operating temperature: -4 to 131°F (-20 to 55°C); and
* Operating humidity: 5 to 97 percent (non-condensing).

WLAN access points must be National Electrical Manufacturers Association (NEMA) 4 or IP65 rated for dust and water resistance.

### WLAN Data Transfer Support Software

The WLAN data transfer support software (either a separate application or part of CDMS) shall manage the WLAN data transfers between vehicles and the central software using the new garage WLAN. Wi-Fi hotspots will be required at the ITP garage to upload/download the following information to ITP vehicles:

* Configurations, firmware upgrades, and patches to vehicles; and
* Transaction data and logs from vehicles.

# Project Implementation

## Project Management

### Project Status Tracking

#### System Implementation Plan

The Contractor shall prepare a System Implementation Plan (SIP), including the detailed implementation activities/schedule, roles and responsibility of parties in the proposed project team, progress milestones/status and assigned staff.

The initial draft of the SIP shall be provided to ITP within two weeks from Notice to Proceed (NTP). Proposers shall provide sample SIPs along with their proposals.

The Contractor shall also include a Safety Management Plan in their SIP, which shall detail their responsibilities and procedures for safety during the different phases of the project, including (1) conducting pre-installation surveys to identify potential project safety hazards; (2) identifying project hazard control procedures, including occupational (worker) and public hazards; (3) providing project safety orientation and training to its subcontractors and ITP staff who will be involved in the project; and (4) furnishing procedures and training for project accident reporting and investigations,

The revised SIP, addressing comments from the first onsite meeting, shall be provided to ITP within two weeks after this meeting.

The SIP must be approved and accepted by ITP before it can become effective.

An updated SIP shall be submitted to ITP at the beginning of each month.

The SIP shall include the following content:

* Project team details;
* System roll out plan;
* A detailed schedule in Gantt chart format with lists of each project task, start and end times for those tasks, and resource needs;
* Roles and responsibilities associated with each task, including assistance needed from ITP staff;
* High-level plan for testing and system acceptance;
* High-level plan for quality assurance and quality control; and
* Identification of risks and risks mitigation strategies, as applicable.

The SIP shall include a rollout plan for all ITP and contractor vehicles.

#### Action Items List

The Contractor shall maintain an Action Items List (AIL), indicating for each item the following: (1) item number; (2) date generated; (3) item priority; (4) brief item descriptive title; (5) assigned person with lead resolution responsibility; (6) date resolved; and (7) ongoing dated notes on resolution status.

The AIL shall be sorted, primarily by unresolved vs. resolved items, priority, and date the item was generated.

Items shall not be closed unless authorized by ITP.

### Bi-Weekly Conference Calls

The Contractor shall participate in bi-weekly conference calls with the ITP Project Manager, other ITP staff, and outside consultants as determined by the ITP Project Manager. If necessary, the ITP Project Manager may request to conduct weekly meetings.

The agenda for these meetings shall be to discuss the most current status of and plans related to all issues identified in the recent releases of the SIP and AIL.

ITP reserves the right to identify for discussion any additional issues beyond those in the SIP and AIL.

A status report shall be issued to ITP at least two days prior to each conference call, including (1) an agenda for the upcoming conference call highlighting key discussion items; and (2) an updated AIL with the updates incorporating the discussions of the previous bi-weekly conference call as well as other subsequent developments since the previous AIL release.

The Contractor shall be represented in these conference calls by at minimum its Project Manager, as well as any additional Contractor staff necessary to properly address the current issues and project status.

ITP will be represented by its designated implementation management representatives.

Conference call facilities will be arranged and paid for by the Contractor.

The Contractor shall submit minutes within two days of each conference call.

### Invoicing

The Contractor shall only submit an invoice once a fully-signed Acceptance Certificate is generated by ITP indicating that a progress payment milestone has been achieved.

The Contractor shall provide “percent-complete” status for the project with each invoice.

ITP will withhold 10% retainage on each invoice.

Total retainage amount held from each invoice shall be released by ITP after Final System Acceptance.

Table 4. Required Timeline of Activities in Terms of Weeks From Notice to Proceed (NTP) Date(highlighted items to be repeated for each phase, if applicable)[[4]](#footnote-4)

| Item | Description | Time Since NTP |
| --- | --- | --- |
| 1 | Notice to Proceed |  |
| 2 | Revised SIP Submission | 2 Weeks |
| 3 | Requirements Review Meeting ***(Meeting at ITP)*** | 6 Weeks |
| 4 | Preliminary Design Document Submission | 10 Weeks |
| 5 | Preliminary Design Review Meeting ***(Meeting at ITP)***  | 14 Weeks |
| 6 | Final Design Document Submission | 17 Weeks |
| 7 | Critical Design Review Meeting ***(Meeting at ITP)*** | 20 Weeks |
| 8 | Design Document Approval | 23 Weeks |
| 9 | Acceptance Test Procedures (ATP) for Factory Test | 27 Weeks |
| 10 | Factory Test (FT) (Meeting at Vendor Facility) | 30 Weeks |
| 11 | FT Results Document and FT Approval | 32 Weeks |
| 12 | Training Manuals | 35 Weeks |
| 13 | Training | 36 Weeks |
| 14 | Pilot Test ATP | 38 Weeks |
| 15 | Pilot Test (Meeting at ITP) | 41 Weeks |
| 16 | PT Results Document and PT Approval | 43 Weeks |
| 17 | System Test ATP | 47 Weeks |
| 18 | System Test (ST) ***(Meeting at ITP)*** | 50 Weeks |
| 19 | ST Results Document and ST Approval | 52 Weeks |
| 20 | Burn-in/Rigorous Test (BT) ***(Meeting at ITP)*** | 56 Weeks |
| 21 | ST Results Document and ST Approval | 58 Weeks |
| 22 | Final System Acceptance | 60 Weeks |

## System Design Reviews

### Gap Analysis

The Contractor shall review the current system environment at ITP and prepare a gap analysis report as part of the design phase. The gap analysis shall include but not be limited to the following:

* Existing fare structure;
* Existing interface with Vantiv payment gateway;
* Integration with S&B and SPX system components;
* Integration with ITP website;
* Existing ticket and smart card vending machines;
* Existing off-board validators;
* Existing ITP networking infrastructure and connectivity between relevant ITP devices; and
* Computer hardware infrastructure.

### Requirements Review

The Contractor shall participate in the Requirements Review (RR), as part of the first onsite meeting. The RR will initialize the Requirements Matrix and the Contractor will use this Matrix to produce the draft Design Document for conducting the Preliminary Design Review (PDR) at the second on-site meeting.

The RR meeting shall discuss the following for each contract requirement: (1) the ITP design intent; (2) the intended Contractor design approach; and (3) the general Contractor approach to demonstration through the acceptance testing process.

A traceability matrix with finalized contract requirements will be prepared by ITP after the RR meeting and has been referred to as Requirements Matrix (RM) hereafter.

ITP will maintain the RM through the deployment process.

### Preliminary Design Review

The Preliminary Design Document (PDD) shall include the following materials:

* A conceptual diagram illustrating all elements in the system and data flows between those elements;
* A detailed system network diagram identifying all network nodes and connectivity;
* An overview of the equipment, system and configuration proposed for implementation;
* Detailed technical documentation for each equipment item;
* Details on servers, workstation and networking infrastructure;
* Detailed technical documentation on all software, including the functions of each module, the format of all user interface screens, the format of all reports, the data fields to be included in all data exchange interfaces and any other software aspects warranting advance agreement with ITP prior to system customization/configuration;
* A table providing cross-references for each section of the PDD to the appropriate element of the RM.

The RR and PDR meetings shall include a review of the facility and available resources that may need to be updated to accommodate the added technologies. The Contractor shall determine and detail the exact demand of resources required of ITP.

The Contractor shall update the PDD base on ITP feedback and submit the updated documentation as the final design document (FDD).

The FDD shall include the following materials: (1) updated PDD incorporating ITP feedback and comments; (2) final list of equipment to be procured; (3) final design and configurations of the system to be built including all customizations to be made to the system; and (4) an updated table providing cross-references between sections is the FDD and elements of the RM.

### Final Design Review

The Contractor shall conduct the Final/Critical Design Review (CDR) four weeks after the FDD has been submitted.

The PDD and FDD are intended only to reduce the chance of any misunderstandings on the design intent or interpretation of the contract requirements. The PDR and CDR shall not alter the need for the successful formal demonstration of each requirement through the Acceptance Testing process.

Once the CDR is complete, the Contractor shall provide a detailed list of equipment for the system.

The Contractor shall provide a detailed list of system configurations for individual system components, as applicable.

The Contractor shall document configurations of the fixed-end computer hardware and networking infrastructure (e.g., list of IP addresses).

### Installation

#### General

The Contractor shall install and configure the entire system, including any ITP provided computer hardware and integration with existing systems at ITP’s central facility.

The Contractor shall specify rack space needed for hardware as needed for the proposed solution. The Contractor shall comply with ITP’s naming conventions and and networks configuration standards.

The Contractor shall provide all necessary personnel, tools, test equipment, transportation, hardware and supplies for the successful and complete installation of all equipment and software.

The Contractor shall be responsible for its own and subcontractors' performance and safety.

Installations shall be performed in accordance with all Federal, State, and local laws and regulations.

The Contractor shall supply any electrical equipment necessary to operate system components using existing DC electrical power available on ITP vehicles and existing AC electrical power at fixed facilities. If existing power arrangements are unsatisfactory, the Contractor must specify proposed alterations.

The Contractor shall supply any network cabling (Cat6 or Fiber) necessary to operate system components including any UPS.

The capabilities of existing infrastructure affected by or to be integrated into the new system, such as ITP’s local area network(s) (LAN) and wide area network(s) (WAN) shall not be reduced at any time by system implementation.

The Contractor shall only be authorized to undertake installations after ITP approval of a pre-installation inspection for each installation site, documenting the existing condition of any existing infrastructure that may be affected by the installation.

The Contractor shall be in-charge of removing and recycling any existing ITP equipment replaced by equipment provided by the Contractor. The equipment removal and recycling details shall be documented in the IDD and approved by ITP.

After installations, the Contractor shall be responsible for restoring the condition of any affected existing infrastructure at the installation sites to their pre-installation condition.

The Contractor shall be responsible for the security of equipment prior to installation.

#### Vehicle Installations

Installations shall be performed at specific times during the day and as approved by ITP. The Contractor shall be required to perform installations over nights and weekends, and installations may need to be performed at the vehicle’s home base.

ITP reserves the right to limit no more than 5% of its vehicle fleet to be out of service within any given 24-hour period to accommodate vehicle installations. ITP reserves the right to allow less of its vehicle fleet to be out of service if necessary in order to avoid disruption to revenue service in conjunction with maintenance requirements.

The Contractor shall ensure that all vehicles made available for overnight installation work are ready for revenue service by the start of the next service day.

Equipment shall be properly grounded, with onboard equipment connected as directly as possible to the chassis ground.

Equipment components shall be replaceable as discrete units and identified by unique serial numbers.

Equipment inputs and outputs shall be protected, to absorb “routine” electrostatic discharges, over-voltages and reverse polarity conditions. In the event of “extraordinary” conditions, equipment shall be designed to sacrifice inexpensive and easily identifiable components when necessary to protect more expensive components or those less easy to troubleshoot.

Equipment shall be housed in enclosures that cannot be opened with standard hand tools, and resist damage from vandalism.

Onboard equipment shall operate from the vehicle electrical system, between 9 and 35 volts.

Onboard equipment shall be securely mounted in the interior of the vehicle, clear of obstructions and interference-generating devices. The installed location of onboard components shall be determined in collaboration with ITP staff.

#### Installation Design Document

The Contractor shall submit Installation Design Documentation (IDD), for ITP approval prior to undertaking any installations.

The IDD shall provide text, drawings, illustrations and images using adequate detail to allow for quality installation by a technician without further training in conjunction with other installation instructions provided by the vendors of individual equipment components.

The IDD shall include details on (1) equipment installation locations/mounting; (2) routing, conductors, color-coding, labeling, and connectors for power, communications and vehicle ground circuits; (3) connections with, any required modifications to and restoration of existing infrastructure; (4) work area and equipment storage requirements (5) methods and quality standards; and (6) supervision and quality assurance procedures.

The IDD shall include procedures for pre- and post-installation checklists for tests to be performed by installers. The installations shall not be considered complete unless ITP provides signoff on the pre and post installation checklist for each vehicle.

#### Accessibility

Customer-facing equipment shall meet or exceed all ADA requirements found in 49CFR Parts 37.167 and 38.35, as well as the requirements of the current version of the ADA Accessibility Guidelines (ADAAG) at the time of implementation. Compliance involving readability distance shall involve the selection of character features, including background contrast, high character brightness, character font selection, number of pixels per character, character aspect ratio and number of pixels separating characters.

### ITP Responsibilities

ITP shall provide space for the Contractor to establish secure storage facilities adjacent to each installation area. The Contractor shall provide details on the space required for equipment storage and vehicle installation.

ITP shall provide building access and parking.

ITP shall provide remote access to relevant virtual servers/network.

ITP shall provide conference rooms/training rooms for on-site testing/training.

ITP shall provide space for central system installations and vehicle installations.

ITP shall provide light and electrical service at all installation locations, as well as access to compressed air at vehicle installation locations.

ITP shall provide staff to move vehicles to and from the installation locations.

## Acceptance Testing

### Acceptance Test Procedures

The Contractor shall submit an Acceptance Test Procedures document (ATP), for ITP approval prior to undertaking any testing.

The ATP shall clearly address: (1) how each testable specification requirement will be demonstrated, including the method for performing the test; (2) the results that will constitute success for each test; (3) responsibilities of both Contractor and ITP’s representatives during each test; and (4) a cross-reference to which contract requirements from the RM are being addressed by each test procedure.

The ATP shall include an updated RM from the DRD, to include the test stage at which each contract requirement will be demonstrated; and a cross-reference to the test procedure(s) that serve to address each contract requirement.

The ATP shall be submitted to ITP at least three weeks in advance of any intended testing.

ITP shall approve all ATPs prior to any required testing listed in this section is performed.

The ATP shall incorporate the following distinct testing stages for the proposed system: (1) Factory Acceptance Test (FAT); (2) Pilot Testing (Pilot); (3) System Testing (ST); and (4) Burn-In Testing (BT).

ITP may authorize the Contractor to proceed to the next testing stage with certain deficiencies not yet resolved after the Contractor provides an action plan to resolve outstanding issues from a test stage.

The Contractor shall provide written notice to ITP at least two weeks in advance of any testing, indicating the specific tests to be completed as well as the date, time and location.

The Contractor shall be required to reschedule testing if ITP witnessing representatives cannot be present or if other circumstances prevent testing from taking place.

### Test Stages

#### Factory Test

FAT shall be completed before the equipment and software is shipped to ITP for installation, and deficiencies shall be rectified before shipping to ITP for installation.

The Contractor shall specify any testing to be performed in FAT against test data or in a different manner of electronic transmission than ITP uses. In such case, ITP shall approve and stipulate additional testing to be performed as part of Pilot Testing.

FAT shall be witnessed by ITP’s representatives that include ITP staff and designated support consultants.

#### Pilot Test

Pilot shall be completed for at least one vehicle of each type in ITP’s fleet, for any on-board systems. Pilot test shall also include ITP staff and customers to verify the functional aspects of the installed system.

Pilot test shall verify integration with third party systems (e.g., SPX, Avail , and S&B).

Pilot test shall not be performed until ITP employees have been trained on installed systems.

Pilot test shall be performed after a settling period of 2 weeks after the installation.

Any deficiencies observed in a four-week period following Pilot shall be rectified before the initiation of ST, i.e. vehicles used during Pilot will be in operation for four weeks to observe issues that arise in daily operations.

Pilot shall be witnessed by ITP representatives.

#### System Test

ST shall be completed after the entire system has been installed, and deficiencies shall be rectified before the initiation of BT.

ST shall be witnessed by ITP representatives.

#### Burn-in Test

BT shall involve revenue service use of the system over a 90-day period after the completion of ST, and deficiencies shall be rectified before ITP will grant Final System Acceptance (SA) for the system.

During BT, ITP shall record issues reported by ITP drivers and other staff, and customers in a punchlist.

ITP shall perform data audit during BT to determine any issues with the data and reports generated by the system installed by the contractor. Any issues discovered during BT shall be included in the BT punchlist and must be resolved by the Contractor.

The Contractor shall resolve all issues in the BT punchlist before acceptance can be granted for BT.

#### Acceptance Criteria

The Contractor shall provide written Test Results Documentation (TRD) after completing each stage of testing.

The TRD shall document the results of each ATP procedure and provide an updated RM that indicates which contract requirements have been demonstrated.

The RM shall be used as a “punch list” to track which requirements have not yet been demonstrated at each stage of testing.

A requirement classified as having been “demonstrated” during a certain AT stage can be subsequently redefined as having been “not demonstrated” if compliance issues emerge prior to SA

The TRD must be approved before ITP grants the SA.

SA will not be granted for the system until all contract requirements have formally demonstrated through BT.

## Documentation

The Contractor shall provide an As-Built Document (ABD) to ITP for approval.

The ABD shall include: (1) an inventory of all components supplied including supplier, model number, serial number and installation location; (2) an inventory of all spare parts supplied including supplier, model number, serial number and storage location; (3) all reference and user manuals for system components, including those components supplied by third parties; (4) all warranties documentation, including that for components supplied by third parties; (5) a diagram indicating the as-built interconnections between components; and (6) the version number of all software and license counts, including that supplied by third parties.

The Contractor shall provide Maintenance Manuals (MM) documenting (1) how the system components were installed; (2) how to install and configure spare components; and (3) the schedule/procedures for preventative maintenance, inspection, fault diagnosis, component replacement and warranty administration on each system component.

The Contractor shall provide User Manuals (UM) for the CDMS system components and other relevant applications.

The Contractor shall provide Vehicle Operator Manuals (OM) documenting use of the MDTs and on-board equipment.

The Contractor shall provide a Systems Manuals (SM), documenting (1) the configuration and topology of central systems hardware and software; (2) central systems software functions and operations; (3) scheduled maintenance required for the central systems; and (4) database structure and data dictionary.

The Contractor shall provide disaster recovery documentation highlighting how system can function and prevent any data loss in the event of a natural disaster or other unexpected events.

## Training

The Contractor shall provide training courses for at least:

* Vehicle equipment installers/maintainers;
* Added modules to existing S&B and other systems;
* Trainers for vehicle operators;
* Users of the CDMS and other system components/interfaces;
* Users of the reporting software; and
* Applications/systems administrators.

The Contractor shall ensure that trainers are knowledgeable about the components for which they are providing the training and have prior experience in delivering similar training sessions.

The Contractor will describe the necessary pre-requisite computer skills and knowledge expected for each of the training courses in order to develop training classes based on user skill level.

The Contractor shall provide all training materials in both Microsoft Office and Adobe PDF formats on compact disc (CD) and DVD with a permission to reproduce copies later on. Additionally, the Contractor shall perform visual recording of training sessions for future reference of training videos by trainees.

The Training Plan (TP), including the training schedule and course outlines, must be provided to ITP for review at least three weeks in advance of the start of training. At least the following topics must be included in the TP for each training session:

* Course objective;
* Topics to be covered;
* Required ITP staff;
* Time required for training;
* Resources required from ITP;
* Follow-up need (in-person or webinar);
* Prerequisites for trainees; and
* Evaluation procedure for students.

The TP must be approved by ITP before the start of any training.

Proposers shall provide a sample TP in their proposals.

Proposers shall provide the number of training classes by each training course included in their proposals.

The Contractor shall furnish all special tools, equipment, training aids, and any other materials required to train course participants, for use during training courses only.

The instructors shall demonstrate a thorough knowledge of the material covered in the courses, familiarity with the training materials used in the courses, and the ability to effectively lead students in a classroom setting.

If any instructor is considered unsuitable by ITP, either before or during the training, the Contractor shall provide a suitable replacement within five business days of receiving such notice from ITP.

The Contractor shall provide brief refresher versions of each training course to the original trainees between three to six months after SA for the system at no additional cost.

The Contractor shall provide additional training to the original trainees after SA for the system at no additional cost if major modifications are made to the system after the initial training due to system upgrades or changes made under warranty; and/or SA occurs at least three months after the completion of training, due to delays for which the Contractor is responsible.

# Warranty and Maintenance Support

## Equipment Warranty

The warranty period for the system shall run concurrently for all system components, through to two years from the date of SA.

The Contractor shall offer an option to extend the warranty period for additional years for up to five years from the date of SA. The Proposers shall document any differences in the warranty terms for these option years in their proposal.

The Contractor shall warrant that it has reviewed and evaluated all information furnished by ITP and has made all inquiries necessary such that the Contractor is fully aware of ITP's business requirements and intended uses of system, as set forth or referenced in the Request for Proposals and any Addenda, Amendments or Final Proposal Requests, as well as in discussions during the Pre-proposal Conference.

The Contractor shall warrant that the system satisfies the foregoing requirements in all material respects and will be fit for such intended uses.

The Contractor shall warrant that the design, materials, construction, software and workmanship of the equipment shall reflect the intended use of the equipment as a component of the overall transit management system in ITP environment.

The Contractor shall warrant that equipment and software, including the initial supply of spare components, (1) is free from defects in design, material and workmanship, and shall remain in good working order, and (2) function properly and in conformity with this Contract.

The Contractor shall warrant that the documentation provided shall completely and accurately reflect the operation and maintenance of the equipment and software, and provide ITP with all information necessary to maintain the system.

If there is a change in the production configuration of any equipment or software being installed prior to SA, ITP will require that all previously installed equipment and software be upgraded to match the updated configuration.

The Contractor shall warrant compliance with all applicable laws and regulations relating to the project.

The Contractor shall warrant that its employees, agents and subcontractors assigned to perform services under this contract shall have the proper skill, training and background to perform in a competent and professional manner and that all work will be so performed. ITP reserves the right to remove any subcontractors if their work is deemed incompetent or unprofessional.

During the warranty period, the Contractor shall, at no cost to ITP, furnish such materials, labor, equipment, software, documentation, services and incidentals as are necessary to maintain the system in accordance with the warranty.

The Contractor shall provide any software updates and patches for the current software version at no cost to ITP during the warranty period.

In addition to the foregoing warranties, the Contractor shall assign to ITP, and ITP shall have the benefit of, any and all Subcontractors', Suppliers', and Vendors' warranties and representations with respect to the deliverables provided.

In its agreements with Subcontractors, Suppliers and Vendors, the Contractor shall require that such parties (1) consent to the assignment of such warranties and representations to ITP; (2) agree that such warranties and representations shall be enforceable by ITP in its own name; and (3) furnish documentation on the applicable warranties to ITP.

The Contractor shall provide a single point of contact for all warranty administration during the warranty period.

The Contractor shall warrant that ITP shall acquire permanent title to all equipment and non-proprietary software provided under the Contract, free and clear of all liens and encumbrances.

## Customer Support

Software support during the warranty period shall include technical support for all proposed hardware and software, with a 24x7 support line, as well as providing, licensing, installing and integrating all released software patches and updates for the proposed solution.

The Contractor shall provide, during the warranty period, supplementary support in accordance with an agreed-to escalation procedure. The escalation procedure can initially involve telephone support, but must culminate in the Contractor providing on-site support if needed. The proposal must define the proposed support escalation procedures.

ITP must be able to view the status of their support request(s) at any time through an online tracking system to be provided by the Contractor.

## Follow-up Analysis

The Contractor shall provide one week of onsite follow-up analysis at six-month intervals during the warranty period, including a written report on the findings of each analysis. Each report shall describe how the system is being used and if there are any additional training or system enhancement needs. Further, any required adjustments in the system configurations must be performed based on the system review.

The first follow-up support effort shall be completed no earlier than six months but no later than nine months after Final System Acceptance.

## Software Maintenance Updates/Upgrades

Proposers must describe their maintenance update and upgrade approaches in their proposals. Proposers shall describe the difference in processes and costs associated with updates and upgrades.

The Contractor is required to notify ITP at least 90 days in advance of the installation when new software releases become available.

The Contractor is required to notify ITP at least six months in advance when it is expected that the current releases and related systems will no longer be supported.

The Contractor shall ensure that all existing software configurations are protected after the system has been upgraded or updated for the entire duration of the time when ITP uses the product.

The Contractor must comply with ITP’s change management process when making any changes to supported systems. These changes must be reported to the ITP project manager.

## Repair or Replacement of Faulty Components

During the warranty period, the Contractor shall repair or replace any faulty components, with the cost included in the warranty price. ITP will ship each faulty component to the Contractor, who shall return a new or repaired component within one week of originally receiving it.

If the Contractor determines that a returned component is not faulty, ITP shall receive the original component back in working order within two days of the Contractor originally receiving the returned component.

All components received back at ITP from the Contractor will be tested in accordance with the original ATP, and returned to the Contractor if faulty accompanied by a certification.

The Contractor shall pay all shipping charges to and from ITP, and any duties associated with the repair or replacement of faulty units.

Returned or replaced spare components shall be packaged, organized and labeled in the same manner as the original supply of spare components.

## System-wide Replacement

If at least 25% of a given component requires repair or replacement within the two-year warranty period, the component shall be deemed to warrant system-wide replacement.

System-wide replacement shall require the Contractor to replace all units of the suspect component throughout the system, whether or not they have exhibited any fault.

Even if the system-wide replacement activity extends beyond the end of the two-year warranty period, the Contractor shall be obligated to complete it if the need was documented before the end of the warranty period.

## Spare Components

The Contractor shall provide an initial supply of spare components to ITP for all installed hardware, with a quantity of at least 10% of the installed quantity (with a minimum quantity of 1).

The proposal shall include a list of the spare components and quantities to be provided, including manufacturer, model numbers and unit prices. At any time during the warranty period, ITP shall be able to purchase additional spare components at the unit price stated in the price proposal form.

Spare components shall be delivered to ITP already organized and labeled such that they can be readily identified and found. The organization and labeling must be approved by ITP’s Project Manager.

Spare components shall be packaged to protect their reliability, including providing for them to be identified, inspected, stored for long periods, and endure multiple inventories without damage or degradation.

Additional spare components purchased during the warranty period shall be packaged, organized and labeled in the same manner as the original supply of spare components, although additional storage provisions will not need to be provided.

# SECTION III: CONTENTS OF PROPOSAL

# PROPOSAL SUBMITTAL REQUIREMENTS

## 3.1 Procurement Process and Evaluation Criteria

Proposals for the ITS System will be received and evaluated by ITP, in accordance with the procedures set forth herein.

## 3.2 Proposal Preparation and Submission

### 3.2.1 Interpretation of RFP or Proposed Contract Documents

Clarification of any part of the RFP or Proposed Contract Documents may be submitted in writing to the Contracting Officer for ITP. Any interpretation of the RFP or Proposed Contract Documents will be made only by Addendum duly issued by the Contracting Officer or his designee. A copy of such addendum will be mailed, or emailed or delivered to each person receiving a Request for Proposal. Oral explanation will not be binding. Proposer will submit the receipt of addenda form acknowledging receipt of each Addendum at the time of proposal submission.

Deviations to Section VI -Terms and Conditions shall be submitted at the time of response to the RFP, and are subject to negotiations. Failure to submit deviations will constitute an acceptance.

### 3.2.2 Proposal Submission

The proposer shall prepare and submit an original (printed on one side) one paper copy and six (6) thumb drive copies of its proposal. A proposer may not submit more than one main proposal. The proposal is to be executed as follows: If proposer is a corporation, an officer of the corporation, shall execute the original of the proposal. The corporation shall affix its seal on all pages requiring signature in the original copy.

If proposer is a Partnership or Joint-Venture, all partners or joint-venture’s shall execute all copies of the proposals unless one partner or joint venturer has been authorized to sign for the Partnership or Joint-Venture, in which case, evidence of such authority satisfactory to the Purchasing Agent shall be submitted with the proposal. If proposer is a Sole Proprietor, he/she shall execute the proposal.

Response to the RFP should follow the format described in this section. The required elements should be presented in clear, factual statements and supported by any necessary attachments regarding individual components. The proposal should be typed on 8 1/2 x 11 inch paper with binding on the left hand side. Unnecessarily elaborate presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Elaborate artwork, expensive paper and bindings and expensive visual and other presentation aids are neither necessary nor wanted.

Proposers are advised to adhere to proposal requirements. Firms that fail to organize their proposal in adherence with Sections 4.2, and 10.5 as provided in the RFP shall have points subtracted from their total score. Proposals shall be tabbed based on the major sections in the table of contents. Also, firms are reminded that their proposal will be evaluated on a section-by-section basis. If vital information that ought to appear in a given section does not appear in the required section, the appropriate number of points may be subtracted for that section.

All costs incurred in the preparation and/or presentation of this proposal shall be wholly absorbed by the respondent. Any supporting documentation and/or manuals submitted will become the property of ITP.

### 3.2.3 Cover Letter

This is to be a document which details your firm's understanding of the purpose of the requested systems. The cover letter must be signed by a representative of the proposing firm, authorized to negotiate with ITP. The document must include a brief statement of understanding and approach of work not to exceed five (5) pages. This should include:

* An overview of the proposed methodology of providing systems to ITP.
* Approach in determining equipment and systems selection.
* Identification of any potential problems or obstacles which may be encountered.
* Additional applicable information as necessary.
* Company name, address, contact person, telephone number and e-mail address.

### 3.2.4 Proposal

The Proposal shall be organized with the following sections:

* **Cover Letter** – as described in section 1.2.3;
* **Understanding of Requirements** – proposer will clearly describe their understanding of ITP’s services and operational objectives related to proposed ITS system design, implementation and operation;
* **Qualifications of Firm** – proposer will clearly and specifically describe relevant qualifications of firm or team to undertake the requested services;
* **Relevant Firm Experience** - proposer will clearly and concisely document similar projects successfully completed by the firm or team. Proposer must identify project name, client contact, services performed, and completion date;
* **Project Staffing and Management** - proposer will identify the key personnel who will be assigned to the project. For each person, the proposer will identify number of years of relevant experience, role on this project, and experience and role on similar projects. Proposer will provide a project management organization chart identifying the project manager, QA/QC responsibility and show the roles proposed for key staff;
* **Staff Experience** – proposer will provide resumes for all staff assigned to the project;
* **System Design and Implementation Proposal** – proposer will clearly and concisely describe the initial design of the proposed ITS system including identifying ITS capabilities to be supported, system components, integration and a system implementation plan proposal. Proposer will provide a technical response matrix addressing proposer’s response to all technical requirements (Sections 4-17) of the RFP as described below;
* **Price Proposal** – the proposer will complete the price proposal sheets attached and submit same with proposal; and
* **Required Forms and Certifications** – the proposer must complete and submit all required certifications and forms identified herein.

If a potential proposer wishes to raise an objection to any provision of the RFP, it must be done, in writing, no later than ten (10) days prior to the date responses to the RFP are due.

The proposer must use Appendix C-Price Proposal Form to provide cost information as part of their proposal.

The proposer must respond to the Compliance Matrix provided in Appendix D – Compliance Matrix.

### 3.2.4.1 Proposal Delivery

Proposals shall be submitted no later than Friday, August 21, 2015 at 2:00 p.m. All prospective proposers shall submit proposals in sealed packages to ITP. The following information shall be stated on the face of the envelope: proposer's name, address, subject matter of proposal, including identifying numbers, and proposal due date.

The proposers shall also provide electronic copies of proposals.

### 3.2.4.2 Withdrawal of Proposals

Proposers may withdraw their proposals at any time prior to the date and hour specified in the advertisement for the receipt of proposals. However, the proposal pricing must be valid for a period of one hundred eighty (180) calendar days from submission date. No proposer shall withdraw or cancel his proposal for a period of one hundred eighty (180) calendar days after said advertised date and hour for the receipt of proposals.

### 3.2.4.3 Refusal of Proposal

ITP reserves the right to refuse to accept any proposal from any person, firm or corporation that is in arrears or is in default to ITP upon any debt or contact, or that is a defaulter, as surety or otherwise, upon any obligations to ITP, or had failed to perform faithfully any previous contract with ITP.

### 3.2.4.4 Consideration of Proposals

Failure to comply with the instructions of this RFP may be cause for rejection of your proposal. ITP reserves the right to extend the proposal due date and to excuse informalities in the proposal process when, in the judgment of ITP, the best interests of ITP will be served and the spirit of competition will be maintained.

### 3.2.4.5 Acceptance of Proposals

ITP will notify one proposer of award in writing or reject all proposals within 90 days from the date of opening of proposals, unless the preferred proposer, upon request of the Contracting Officer or designee, extends the time of acceptance. The contract shall not be in force and effect until the Contracting Officer of ITP, or his designee has affixed his signature to the contract document, or a limited notice to proceed stating a specific task and dollar amount has been executed by the Contracting Officer.

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# SECTION IV: EVALUATION OF PROPOSALS

## 4.0 Evaluation of Proposals

Submittals shall be reviewed for responsiveness by ITP’s Procurement Department prior to evaluation. Respondents must meet all of the following to be considered:

* Submittal meets ITP’s deadline.
* Organization of proposal. Proposals submitted as required in Section 4.
* Completeness of proposal. All required forms, questionnaires, and information are complete, signed and dated.
* The required DBE participation has been obtained or evidence of a good faith effort is provided.

Proposers may be asked to submit additional information if needed.

The core of the evaluation process is the scoring of the technical proposal. ITP's prime objective in the evaluation process will be to identify those firms capable of submitting the best overall proposal. These firms will then be considered to be in the competitive range and will be invited for negotiations.

All proposals will be evaluated by ITP staff or others that ITP decides to include in the evaluation process. Evaluation will be based primarily on the written proposal. ITP reserves the right to negotiate with one or more of the firms responding to this RFP solely upon its assessment of the qualifications and abilities of the firm and content of the proposal submitted relative to the required work. ITP also reserves the right to award a contract based on the original submittal, without negotiation, with any offeror.

Proposals will be evaluated based on the criteria listed in section 4.1 thru 4.4. Criteria are ranked in the relative order of importance, section 4.1 being the highest and section 4.4 being the lowest.

## 4.1 Excellence of Proposed System Design

Sub-criteria:

* Compliance with functional specifications
* System life cycle: usable, expandable, maintainable over an extended period of time, measured by amount of use of standard, non-proprietary interfaces;
* Minimization of risk by use of proven components;
* Use of the most current and available state-of-the-art technologies;

## 4.2 Performance Capabilities

Sub-criteria:

Financial solvency based on a review of financial statements.

* Past performance

Customer references identified or otherwise known to ITP will be checked to determine their level of satisfaction and how well the Proposer performed on similar work.

* Breadth and depth of project experience with and past performance on similar projects

The number, magnitude and similarity of projects identified or otherwise known to ITP will be considered to determine the level of project experience.

* Proposed project managed plan and project schedule;

Resumes, personnel availability, project schedule and the proposed management plan. ***Note: Substitution of team members prior to or after contract issuance is expressly prohibited without prior approval from the ITP Project Manager.***

* Installation and system integration team experience
* Land mobile radio manufacturer experience
* Overall quality of the proposed training program (sample training plan must be provided)

## 4.3 Evaluation of Price Proposal

## 4.4 Qualifications of Proposed Personnel Assigned to the Project

Sub Criteria

* Project management team experience
* Personnel Experience
* Availability of Key Personnel

## 4.5 Basis of Award

ITP will make award to the responsible offeror whose offer conforms to the solicitation and is most advantageous to ITP, based on cost or price and technical factors listed in the evaluation criteria.

## 4.6 Failure to Execute Contract or To Furnish Bond or Insurance

In the event the selected proposer fails to execute the contract or to furnish the performance and insurance requirements within ten (10) working days after acceptance of the proposal, the contract award may be annulled by ITP.

All businesses which submit proposals and all businesses awarded contracts by ITP are notified that no contract, modification, amendment, change order or extension, if any, shall be effective, or in any way obligate ITP, until it has been executed by ITP signatory duly authorized by ITP’s Regulations, Bylaws, and Procedures.

## 4.7 Evaluation Process

Step 1: The evaluation procedure will be a two-step process. All initial proposals received will be scored by an evaluation committee. Those proposals which are judged to be the strongest will be short-listed. Short listing will not be arbitrary. Those firms that have a reasonable expectation of winning the competition will be advanced to the second step of the process. Those proposers who lack sufficient points will be rejected at the end of Step 1.

Step 2: Those short listed firms will be allowed to make oral presentations to the evaluation committee. *An additional 30 points will be awarded based on the presentation and response to staff questions*. A Best and Final Offer may also be requested. Each presentation will be scored by the committee. The firm which receives the highest combined score from both the proposal and the presentation will be judged to be the most technically qualified.

This contract will be a fixed price contract.

# SECTION V: INSTRUCTIONS TO PROPOSERS

**Instruction To Proposers**

*EQUIPMENT & SERVICES - RFP*

**1) FUNDING**

This Project will be funded with the assistance of capital improvement grants from the Federal Government under the Federal Transit Act and the Michigan Department of Transportation (MDOT). The successful bidder will be required to comply with all terms and conditions prescribed for third party contracts in a grant contract between the United States of America and ITP. This grant contract is available for examination by prospective bidders at the ITP offices.

**2) PROJECT BUDGET**

The budget for this Project will be funded through financial assistance grants from the Federal Transit Administration (FTA) and Michigan Department of Transportation (MDOT). The total Project budget will be determined by the final negotiated price between ITP and the successful bidder.

**3) PRE-PROPOSAL CONFERENCE**

A Pre-Proposal Conference will be held for all interested bidders on Wednesday, \_August 5, 2015 at \_\_\_2:00 pm local time at the ITP Administrative Offices. **Proposers can use the following teleconference information to dial in: Dial #: 866-951-1151; PIN: 123-485-512**. ITP reserves the right to postpone answers to any questions raised at this meeting until a later date. Any oral explanations provided by ITP during this meeting will not be binding upon ITP until they are reduced to a written form by ITP and given to all interested bidders. Bidders seeking a written response by ITP to their questions at the Pre-Proposal Conference are requested to submit their questions in writing to ITP in advance. ITP will make every effort available to respond at the Pre-Proposal Conference. Attendance at the Conference is not mandatory, but is encouraged by ITP.

**4) TYPE OF CONTRACT**

The Contract for this Project shall be a **firm fixed price type**. / fixed price with economic price adjustment type. /cost plus fixed fee type.

**5) PROJECT NUMBER(S)**

All bidders and Contractors will include the FTA Project Number in all correspondence with ITP and with the FTA. The FTA Project Number for this Project is \_\_**2015-17.**

**6) USE OF "INTERURBAN TRANSIT PARTNERSHIP" NAME IN CONTRACTOR ADVERTISING OR PUBLIC RELATIONS**

ITP reserves the right to review and approve any advertising copy related to this Project in any way prior to publication. The successful bidder will not allow such copy to be published in their advertisements or public relations programs until submitting such copy and receiving prior written approval from ITP. The successful bidder agrees that published information relating to this Project will be factual and in no way imply that ITP endorses the successful bidder's firm, service or product.

**7) INTENT OF SPECIFICATIONS**

It is the intent of these specifications to provide completed Project of substantial and durable construction in all respects, which will be most suitable and advantageous for ITP. Experimental or unproven equipment, materials or design will not be accepted without prior review and written acceptance by ITP.

**8) APPROVED EQUALS AND DEVIATIONS**

All Proposals must be in strict compliance with the requirements and provisions of these specifications, including the provisions herein regarding "approvals", "approved equals", and "deviations". Where a feature, component or item is specified by brand name in these specifications, the words "or approved equal" will apply. Where the approval of ITP is specifically required by these specifications in connection with a particular feature, or if the bidder proposes to submit a proposal containing "approved equals" or "deviations" from specific requirements of these specifications, the bidder must obtain such approval, confirmed in writing, prior to the date for the receipt of proposals. With respect to "approved equals" or "deviations", the details of same and the reasons and justifications therefor must be submitted to ITP, including a statement whether the bidder has previously furnished or offered to furnish the item in question, is herein specified. Proposals may be submitted containing such "approvals", "approved equals", or "deviations", as are specifically approved by ITP, confirmed in writing, prior to the date for receipt of proposals. Each proposal must be accompanied by documentation regarding any such approvals granted by ITP for the proposal. Notice of any such approvals required by and/or granted to a bidder shall be furnished by ITP to other prospective bidders prior to the date for receipt of proposals. Any unapproved deviations, exceptions, substitutions, alternates, or conditional qualifications contained in a proposal may be cause for its rejection. The decision of ITP, as represented by the Executive Director, shall be final with respect to whether any proposed deviations form the specifications are acceptable. It should be understood that specifying a brand name, components, and/or equipment in this specification shall not relieve the supplier from his responsibility to produce the product in accordance with the performance warranty and contractual requirements. The supplier is responsible for notifying ITP of any inappropriate brand name, component, and/or equipment that may be called for in the specifications, and to propose a suitable substitute for consideration.

**9) PROTEST PROCEDURES**

The following terms, conditions and appeal procedures will apply:

(a) ITP reserves the right to postpone the bid opening or receipt of proposals for its own convenience.

(b) Changes to the specifications will be made by addendum only.

(c) Prime Contractors and subcontractors may make appointments to discuss the Project specifications. This, however, does not relieve them from the written documented requests required by paragraphs (d) and (f), following.

(d) Requests for approved equals, clarification of specifications, and protest of specifications must be received by ITP in writing not less than nine (9) working days before the date of the scheduled bid opening or closing date for receipt of proposals. Any request for an approved equal or protest of the specifications must be fully supported with technical data, test results or other pertinent information as evidence that the substitute offered is equal to or better than the specification requirement.

(e) ITP's replies to requests under paragraph (d) above will be postmarked at least four (4) working days before the date scheduled for the bid opening or receipt of proposal.

(f) A protest by any adversely affected person regarding restrictive specifications or alleged improprieties in the solicitation must be made in writing and received by the ITP Purchasing Manager two (2) working days before the date scheduled for bid opening or receipt of proposal. The formal written protest shall state the name of the protester, a description of the Project, and the facts and law upon which the protest is based, and a statement as to what relief is requested.

(g) Upon receipt of a protest, ITP shall immediately determine if the date for the bid opening or closing date for receipt of proposals should be postponed. If the bid opening or closing date is postponed, ITP will contact all Contractors and subcontractors who were furnished a copy of the specifications by ITP that an appeal has been filed and that the bid opening or receipt of proposals is postponed until a decision has been issued. Notice of the postponement will be made in writing by addendum.

(h) Representatives of ITP and the protester shall meet within twenty-four (24) hours after receipt of the protest or at such a time as mutually agreed, to discuss all substantive issues raised in the protest. Upon completion of discussion between ITP and the protester, the ITP Executive Director will transmit a final decision in writing to the protester within five (5) working days. The final decision will respond to each substantive issue raised in the protest. If the written decision cannot be issued within this time period, the protester will be notified in writing of the time extension. Upon issuance of the written decision, ITP will then issue appropriate addendum to reschedule the date for the bid opening or closing date for the receipt of proposal.

(i) Protests by any adversely affected person for reasons other than for restrictive specifications or alleged improprieties in the solicitation must be made in writing and received by the ITP Purchasing Manager not more than three (3) working days after the posting of the Notice of Award is made to the participating bidders. Upon receipt of a protest after Contract award, ITP shall immediately determine if work on the protested Project should be suspended until such time as the protest is resolved.

(j) Representatives of ITP and the protester shall meet within twenty-four (24) hours after receipt of the protest or at such time as mutually agreed to by both parties to discuss the protest. Upon completion of discussions between ITP representatives and the protester, ITP will issue a written decision to the protester within five (5) working days. If the written decision cannot be issued within this time period. the protester will be notified in writing of the time extension.

(k) Except as noted in paragraph (l), ITP will not open bids, receive proposals or award a contract if a formal written protest has been received and no final decision has been issued by the ITP Executive Director. After the issuance of a final decision, ITP will wait a minimum of five (5) working days before opening bids or proposals or before awarding a Contract for a Project.

(l) ITP may open bids, receive proposals and award a Contract for a Project while a protest is pending final disposition when the ITP Executive Director determines that:

\* The items to be procured are urgently required;

\* Delivery or performance will be unduly delayed by failure to make an award promptly; or,

\* Failure to make prompt award will otherwise cause undue harm to ITP or the Federal Government.

(m) Protester may request a reconsideration after a final decision has been issued by the ITP Executive Director within five (5) working days after the issuance of a final decision if new data or information becomes available that was not previously known, or there has been an error of law or regulation.

(n) The provisions of Chapter V of FTA Circular 4220.1E. (11/01/2008), are hereby incorporated and made part of the rules of ITP. Protests to the FTA by a protester must be made in accordance with FTA Circular 4220.1E. FTA will only consider a protest that alleges failure of ITP to have a written protest procedure or failure to follow such procedure. Alleged violations of a specific Federal requirement that provides an applicable complaint procedure shall be submitted and processed in accordance with that Federal regulation.

Any appeal or protest may be withdrawn at any time

**10) SUBMISSION OF PROPOSALS**

Sealed proposals will be accepted until \_\_Friday, August 21, 2015at 2:00 PM\_ local time. They shall be submitted to:

Mark R. Fedorowicz

Purchasing Manager

ITP - The Rapid

300 Ellsworth Ave. SW

Grand Rapids, MI 49503

Proposals submitted to ITP shall include one (1) original , one copy and 6 electronic copies.

**11) SEALED PROPOSAL LABEL**

The bidder should complete the enclosed "Sealed Proposal" label and attached it to the envelope containing the bid or proposal. ITP assumes no responsibility for the premature opening of sealed bids or proposals which do not have this label attached to the outside of the envelope. Template for label attachment B. **If label is not included please mark envelope "Sealed Proposal and Project number” or request label at contract@ridetherapid.org.**

**12) MAILING BIDS/PROPOSALS**

Bids or proposals submitted by mail shall be mailed a minimum of three (3) days prior to the bid opening date or date scheduled for receipt of proposals. Postmarks by the U.S. Postal Service or other mail delivery service is required. Postage meter dates are not acceptable. Bids or proposals which are not mailed in a timely manner and received after the scheduled bid opening or proposal submittal date will not be accepted.

**13) DURATION OF OFFER**

All bids or proposals shall remain in effect for a minimum of \_\_\_90\_\_ days from the bid opening date or scheduled date for receipt of proposals. Offers that allow less than \_\_\_\_\_90\_\_\_\_\_ days for acceptance by ITP will be considered non-responsive and will be rejected.

**14) PROPOSAL PRICE**

(a) Proposal prices shall be submitted in the prescribed form. Prices submitted in any other form may be considered non-responsive and may be rejected.

(b) Proposal prices shall be based on F.O.B. ITP, Grand Rapids, Michigan.

The price stated in any proposal submitted shall include all items of labor, materials, equipment, tools and other costs necessary to fully complete and deliver this Project pursuant to the specifications. It is the intention of these specifications to provide and require a complete Project of the type prescribed. Any item or items omitted from such specifications which are clearly necessary for the completion of such Project and its appurtenances shall be considered a portion of such Project although not directly specified or called for in these specifications.

**15) TAX EXEMPTION**

The ITP is exempt from payment of all Federal, State, and local taxes in connection with this Project. Said taxes shall not be included in the bid or proposal prices. The ITP will provide necessary tax exemption certificates. This provision does not relieve the Contractor from the responsibility to pay all applicable taxes for goods, services, and labor acquired in the performance of this Project.

**16) DISCOUNTS**

Prompt payment discounts will not be considered in the evaluation of proposals or bids. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the bidder. As an alternative to offering a prompt payment discount in conjunction with the offer, bidders awarded Contracts may include prompt payment discounts on individual invoices.

**17) PAYMENT TERMS**

ITP will make payment within thirty (30) days after delivery and final acceptance of the project. The Contractor may submit invoices to ITP prior to or upon delivery. Payment will not be made without an invoice.

**18) PROJECT COMPLETION DATE**

Bidders shall state in the bid or proposal the earliest possible date offered for completion of the Project. The date cannot exceed \_\_\_N.A.\_\_\_\_ calendar days from the date of the Notice to Proceed with the Project.

**19) LATE PROPOSALS OR WITHDRAWAL OF PROPOSALS**

a) Any proposal received at the ITP offices designated in the solicitation after the time specified for receipt of proposals will not be considered and will be returned to the bidder unopened.

A proposal may be withdrawn in person by the bidder or their authorized representative, provided their identity is made known and a receipt is signed for the proposal, and only if the withdrawal is made prior to the time specified for receipt of proposals.

**20) DETERMINATION OF SUCCESSFUL PROPOSER**

In determining the successful proposer, consideration is given to the proposer's qualification, content of proposal, and financial proposal as described in the evaluation criteria. The Contract award for this Project will be made to the proposer making the best and most advantageous offer to ITP, price considered.

**21) PROPOSER QUALIFICATIONS**

In order to be eligible for award, bidders must be responsive and responsible.

(a) Responsive offers are those complying in all material aspects of the solicitation, both as to the method and timeliness of submission and as to the substance of the resulting Contract. Bids or proposals which do not comply with all the terms and conditions of the solicitation may be rejected as non-responsive.

(b) Responsible bidders are those prospective Contractors who, at a minimum, must:

1) Have adequate financial resources, as required during performance of the Contract.

2) Are able to comply with the required or proposed delivery or performance schedule, taking into consideration all existing business commitments.

3) Have a satisfactory record of past performance.

4) Have necessary technical capability to perform.

5) Provide evidence satisfactory to ITP that the bidder will comply with the DBE requirements.

6) Certify that they are not on the U.S. Comptroller General's list of ineligible Contractors.

7) Are qualified as a manufacturer or regular dealer of the items being offered.

8) Are otherwise qualified and eligible to receive an award under applicable laws and regulations.

All prospective bidders may be requested to submit written evidence verifying that they meet the minimum criteria necessary to be determined a responsible Contractor. Refusal to provide requested information may cause rejection of the bid or proposal.

**22) ACCEPTANCE OF PROPOSAL**

Each proposal shall be submitted with the understanding that the acceptance in writing by ITP of the offer to furnish any or all goods or services described therein shall bind the bidder on his part to furnish and deliver at the proposal price, in accordance with the conditions of said accepted proposal and specifications

**23) WITHHOLDING AWARD**

This solicitation for bids or proposals does not commit ITP to award a contract, pay any costs incurred in preparation of bid or proposals in response to this solicitation, or to procure or contract for good or services. Bidder shall be responsible for all costs incurred as part of their participation in the pre-award process.

**24) PROPOSAL ACCEPTANCE, REJECTION, AND POSTPONEMENT**

ITP reserves the right to postpone, accept, or reject any and all proposals in whole or in part, on such basis as the ITP Board deems to be in its best interest to do so, subject to the rules and regulations set forth by the U.S. Department of Transportation. Also, ITP reserves the right to accept an original offer or proposal without negotiation or without calling for a "best and final" offer.

**25) USDOT/FTA CONCURRENCE FOR CONTRACT AWARD**

The award of a Contract for this Project may be subject to review and concurrence by the U.S. Department of Transportation, Federal Transit Administration

**26) SINGLE BID RESPONSE**

If only one (1) bid is received in response to the Invitation For Bids, a detailed cost proposal may be requested of the single bidder. A cost/price analysis and evaluation and/or audit may be performed of the cost proposal in order to determine if the price is fair and reasonable.

**27) DBE PARTICIPATION**

In connection with the performance of this Contract, the successful bidder agrees to cooperate with ITP in meeting its commitments and goals with regard to maximum utilization of Disadvantaged Business Enterprises (DBE). The policy and obligations for maximum utilization of DBE's are herein set forth:

(a) Policy - It is the policy of the Department of Transportation that Disadvantaged Business Enterprises, as defined in 49 CFR, Part 26, shall have the maximum opportunity to participate in the performance of contracts financed in whole or apart with Federal funds under this Agreement. Consequently, the DBE requirements of 49 CFR, Part 26 apply to this Agreement.

(b) DBE Obligation - ITP or its Contractor agrees to ensure that Disadvantaged Business Enterprises, as defined in 49 CFR, Part 26, have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this Agreement. In this regard, ITP or its Contractors shall take all necessary and reasonable steps in accordance with 49 CF, Part 26, to ensure that Disadvantaged Business Enterprises have the maximum opportunity to compete for and to perform contracts. ITP and its Contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted contracts.

Requirements and goals for Disadvantaged Business Enterprise participation in this Project are as follows:

A minimum of ten percent (10%) of the total contract price, as awarded. shall be established as a goal to be made available to certified DBE's. Compliance with the percentage goal may be fulfilled by DBE's performing as either:

1) A member of a joint venture as a prime contractor;

2) An approved subcontractor;

3) An owner-operator of equipment;

4) A renter of equipment to a prime contractor;

5) A firm manufacturing and supplying goods used in the project;

6) A firm supplying goods used in the project (when supplying goods, only 60 percent (60%) will be counted).

Prior to Contract award, the apparent successful bidder shall submit a written assurance of meeting the above goals and shall include names of DBE subcontractors, addresses of contact persons, a description of work to be performed and dollar values of each proposed DBE subcontract. This information shall be submitted on the attached ‘DBE Participation Form” furnished with this solicitation.

If the goals were not met, the bidder must demonstrate that sufficient good faith efforts were made to meet the DBE contract goals and shall document the steps he has taken to obtain DBE participation.

Failure to provide required documentation of good faith efforts may be reason for disqualification of the Bid / Proposal.

Bidders good faith efforts will include the following actions.

Soliciting through all reasonable and available means the interest of all certified DBE’s who have the capability to perform work under the contract. This shall include attendance at pre-bid meetings, advertising and /or written notices. the bidder shall allow sufficient time to allow the DBE’s to respond to the solicitation.

Selecting portions of the work to be performed by DBE’s.

Providing interested DBE’s with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

Negotiations in good faith with interested DBE’s. It will be the responsibility of the bidder to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or materials consistent with the available DBE’s. Evidence of negotiations shall include the names, addresses, and telephone numbers of DBE’s that were considered and a description of the information provided regarding the plans and specifications for the work selected for subcontractors, and evidence as to why additional agreements could not be reached for DBE’s to perform the work.

Not rejecting DBE’s as being unqualified without sound reasons based on a thorough investigation of their capabilities.

Efforts to assist interested DBE’s in obtaining bonding, lines of credit, or insurance as required.

Efforts to assist interested DBE’s in obtaining necessary equipment, supplies, materials, or related assistance or services.

Use of services of available minority/women community organizations; minority/women contractors’ groups; local, state, and federal minority/women business assistance offices; and other organizations that provide assistance in the recruitment and placement of DBE’s.

The prime contractor agrees not to terminate for convenience a DBE subcontractor, and then perform the work of the terminated subcontract with its own forces or those of an affiliate, without ITP’s prior written consent. When a DBE subcontractor is terminated, or fails to complete its work on the contract for any reason, the prime contractor agrees to find another DBE subcontractor to substitute for the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated.

**28) DEBARMENT AND SUSPENSION**

Bidders shall complete and submit as part of their bid, the Certification of Primary Contractor Regarding Debarment, Suspension, And Other Responsibility Matters for all projects when the total aggregate value of the contract exceeds $25, 000. The bidder shall also submit a list of subcontracts and subcontractors which will have a financial interest in this Project which exceeds $25,000 or will have a critical influence on or a substantive control over the Project. A Certification Of Lower-Tier Participants Regarding Debarment, Suspension, And Other Ineligibility And Voluntary Exclusions shall be submitted by the bidder to ITP for each listed subcontractor prior to contract award.

During the term of the Contract the successful bidder will be required to immediately notify ITP of 1) any potential subcontractor that is subject to this provision and to submit the appropriate certification prior to award of a subcontract, 2) any information that its certification or certification of its subcontractors was erroneous when submitted, 3) any information that certifications have become erroneous by reason of changed circumstances.

**29) LOBBYING CERTIFICATION**

Bidders shall complete and submit as part of their bid the Certification of Restrictions on Lobbying for all projects when the total aggregate value of the contract exceeds $100,000. The Contractor shall also submit a list of subcontracts and subcontractors which will exceed $100,000. A Certification of Restrictions on Lobbying shall be submitted by the bidder to ITP for each listed subcontractor prior to contract award.

**30) PRODUCT DESCRIPTION**

Bids or proposals must be accompanied by a comprehensive description of bidder's product. This description shall include drawings, overall dimensions and photographs which show the construction characteristics and explain the operation of the bidder's product. The descriptive literature shall also include information on design details, components, performance characteristics, methods of manufacture and assembly. The descriptive literature is required for the purpose of evaluation and award. Failure of the descriptive literature to show that the product proposed conforms to the specifications and other requirements of this solicitation may result in rejection of the bid or proposal. Additionally, failure to submit the descriptive literature will require rejection of the bid or proposal. The quality of standard components not covered by the language of these specifications will be a factor in determining an award. No advantage shall be taken by the bidder or manufacturer in the omission of any part or detail which goes to make the product complete and ready for service, even though such part is not mentioned in this specification. All units or parts not specified shall be Contractor's standard units or parts and shall conform in materials, design and workmanship to the best practices known in the industry. All parts will be new and in no case will used, reconditioned, or obsolete parts be accepted without prior review and written acceptance by ITP.

**31) DEMONSTRATION**

Bidder may be requested to demonstrate to ITP the capability of their proposed product to perform and function as herein called for by this specification. The demonstration shall be at no expense to ITP in compliance with provisions outlined in the technical specifications contained herein.

**32) PAYMENT TERMS (Not Applicable)**

ITP will make payment in accordance with the following payment schedule, unless specified elsewhere.

50% within 30 days of delivery

20% within 30 days of installation

30% within 30 days after acceptance

The Contractor shall submit invoices to ITP prior to or upon delivery. Payment will not be made without an invoice. Partial payments do not constitute acceptance.

# SECTION VI: TERMS AND CONDITIONS

**CONTRACT PROVISIONS**

*EQUIPMENT AND SERVICES*

*(to be completed once contract is executed)*

**1) DURATION OF CONTRACT**

This Contract shall become effective on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and shall remain in effect through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This Contract may be extended for up to two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with the concurrence of both parties.

**2) PROJECT STARTUP**

 The Contractor agrees to commence work on this Project immediately upon the signing of this Contract by both parties and the issuance of a Notice to Proceed by ITP

**3) PROJECT COMPLETION (ITP Board)**

This Project shall be completed \_\_\_\_\_\_\_\_\_\_ days after execution of this Contract by both parties and issuance of a Notice to Proceed by ITP.

**4) PROJECT COMPLETION (Notice to Proceed)**

This Project shall be completed \_\_\_\_\_\_\_\_\_\_ days after Contract award by the ITP Board.

**5) CONTRACT AMOUNT AND PAYMENT (Lump Sum)**

ITP agrees to pay and the Contractor agrees to accept as payment in full the amount of $ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**6) CONTRACT AMOUNT AND PAYMENT (Payment in Full)**

ITP agrees to pay and the Contractor agrees to accept as payment in full the amounts shown in Exhibit \_\_\_\_\_\_\_\_\_\_, Payment Schedule.

**7) CONTRACT AMOUNT AND PAYMENT (Payment Schedule)**

ITP agrees to make payments for this Project in accordance with the Payment Schedule included as Exhibit \_\_\_\_\_\_\_\_\_\_. The Contractor agrees to accept these amounts as payment in full.

**8) PAYMENT DOES NOT IMPLY ACCEPTANCE OF WORK**

The granting of any progress payment or payments by ITP, or the receipt thereof by the Contractor, shall not constitute in any sense acceptance of the work of any portion thereof, and shall in no way lessen the ability of the Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may not have been apparent or detected at the time such payment was made. Material, components or workmanship which does not conform to the instruction of these Contract requirements and specifications, or are not equal the samples submitted to and approved by ITP will be rejected and shall be replaced by the Contractor without delay.

**9) LIQUIDATED DAMAGES**

In the event of delay in the completion of deliveries of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ beyond the dates specified in the Contract

 (Description of item or product)

And not subject to the Contract's Unavoidable Delay provision, ITP shall assess, as liquidated damages, $100.00 per calendar day. These damages shall be deducted from any monies due, or which may thereafter become due to the Contractor under this Contract. Further, the Contractor agrees that sums assessed as liquidated damages shall not be considered penalties but reflect the cost to ITP for

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 (state basis for determining damages)

**10) AGREEMENT CHANGES**

Additions, deletions or modifications to this Agreement may be made only in accordance with a written agreement between the parties, signed on behalf of ITP by its Executive Director or the Project Manager.

**11) DISPUTES**

Except as otherwise provided in the Contract, any dispute concerning a question of fact arising under the Contract which is not disposed of by agreement shall be decided by the ITP Project Manager who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the ITP Project Manager shall be final, unless determined by a court of competent jurisdiction to have been fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute thereunder, the Contractor shall proceed diligently with the performance of the Contract and in accordance with ITP Project Manager's decision.

This clause does not preclude consideration of law questions in connection with decisions provided for in this clause, provided that nothing in this Contract shall be construed as making final the decision of any administrative official, representative or board on a question of law.

**11) PATENT, TRADEMARK, COPYRIGHT, AND TRADE SECRET INFRINGEMENT**

The Contractor warrants that the goods and services do not infringe on any patent, trademark, copyright or trade secret of any third parties and agrees to defend, indemnify and hold ITP, its officers, agents, employees, trustees and its successors and assigns, harmless from and against any and all liabilities, loss, damage or expense, including, without limitation, court costs and reasonable attorneys' fees, arising out of any infringement or claims of infringement of any patent, trade name, trademark, copyright or trade secret by reason of the sale or use of any goods or services purchased under this Contract. ITP shall promptly notify the Contractor of any such claim. ITP makes no warranty that the production, sale or use of goods or services under this Contract will not give rise to any such claim and ITP shall not be liable to the Contractor for any such claim brought against the Contractor.

**12) INDEMNIFICATION**

The Contractor agrees to indemnify and hold ITP, its officers, agents, employees and/or trustees, harmless from and against any and all claims or causes of action brought against ITP and from any and all damages, losses, expenses, attorneys' fees, costs and liabilities sustained by ITP arising out of any claimed defect in the goods or services supplied by the Contractor, any claimed improper manufacture, design, design drawings, specifications, materials or repairs provided by the Contractor pursuant to the Contract, and any claim by a third party for patent, trademark, copyright, or trade secret infringement. The Contractor's obligation under this paragraph shall include the obligation to indemnify and hold ITP harmless for its own negligence whether active, passive or concurrent, in the performance of ITP's duties and obligations pursuant to the Contract.

**13) PATENT RIGHTS**

If any invention, improvement, or discovery of the Contractor is conceived or first actually reduced to practice in the course of or under this Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Contractor shall notify ITP immediately and provide a detailed report. The rights and responsibilities of ITP, the Contractor, and FTA with respect to such invention, improvement, or discovery will be determined in accordance with applicable Federal laws, regulations, policies, and any waiver thereof.

**14) RIGHTS IN DATA**

The Contractor agrees to comply with the following provisions:

(a) The term "subject data" used in this section means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under this Agreement. The term includes graphic or pictorial delineations in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term does not include financial reports, cost analyses, and similar information incidental to Project administration.

(b) The following restrictions apply to all subject data first produced in the performance of this Agreement:

(1) Except for its own internal use, ITP may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may ITP authorize others to do so, without the written consent of the Government, until such time as the Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to Agreements with academic institutions.

(2) As authorized by 49 CFR Part 18.34, the Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:

a) Any subject data developed under a grant, cooperative agreement, sub-grant, sub-agreement, or third party contract, irrespective of whether or not a copyright has been obtained; and

b) Any rights of copyright to which ITP, sub-recipient, or a third party contractor purchases ownership with Federal assistance.

c) When FTA provides assistance to ITP for a project involving planning, research, development, or a demonstration, it is FTA's intent to increase the body of mass transportation knowledge, rather than to limit the benefits of the Project to those parties that have participated therein. Therefore, unless FTA determines otherwise, the recipient of FTA assistance to support planning, research, development, or a demonstration financed under the Federal Transit Act as amended, understands and agrees that, in addition to the rights set forth in paragraph (b)(2) of this Agreement, FTA may make available to any FTA recipient, sub-recipient, third party contractor, or third party subcontractor, either FTA's license in the copyright to the subject data derived under this Agreement or a copy of the subject data first produced under this Agreement. In the event that the Project, which is the subject of this Agreement, is not completed for any reason whatsoever, all data developed under that Project shall become subject data as defined in paragraph (a) of this Agreement and shall be delivered as the Government may direct. Paragraph (a) of the Agreement, however, does not apply to adaptations of automatic data processing equipment or programs for ITP’s use which costs are financed with capital funds (Sections 3, 9, 16, 18, or 25 of the Federal Transit Act, as amended, or Title 23 capital funds).

d) Unless prohibited by State law, ITP agrees to indemnify, save and hold harmless the Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by ITP of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use or disposition of any data furnished under this Agreement. ITP shall not be required to indemnify the Government for any such liability arising out of the wrongful acts of employees or agents of the Government.

e) Nothing contained in this section shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

Paragraphs (2)b), (2)c), and (2)d) of this Agreement do not apply to material furnished to ITP by the Government and incorporated in the work carried out under the Agreement; provided that such incorporated material is identified by ITP at the time of delivery of such work.

**15) COVENANT AGAINST GRATUITIES**

The Contractor warrants that he or she has not offered or given gratuities (in the form of entertainment, gifts, or otherwise) to any official or employee of ITP with a view toward securing favorable treatment in the awarding, amending, or evaluating performance of Contract.

**16) ASSIGNABILITY**

The terms and provisions of the Contract documents shall be binding upon ITP and the Contractor and their respective partners, successors, heirs, executors, administrators, assigns and legal representatives. The rights and obligations of the Contractor under the Contract may not be transferred, assigned, sublet, mortgaged, pledged or otherwise disposed of or encumbered in any way without ITP's prior written consent. The Contractor may subcontract a portion of its obligations to other firms or parties but only after having first obtained the written approval by ITP of the subcontractor.

ITP may assign its rights and obligations under the Contract to any successor to the rights and functions of ITP or to any governmental agency to the extent required by applicable laws or governmental regulations or to the extent ITP deems necessary or advisable under the circumstances.

**17) PRICE WARRANTY AND COMMISSIONS**

The price to be paid by ITP shall be that stated in this Contract which the Contractor warrants to be no higher than the Contractor's current prices on orders by others for goods similar to those covered by this Contract for similar quantities under similar conditions and methods of purchase. In the event the Contractor breaches this warranty, the prices of the items shall be reduced to the Contractor's current prices on orders by others, or in the alternative at ITP's sole discretion, ITP may cancel this Contract without liability to the Contractor for breach. The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for commission, percentage, brokerage or contingent fee excepting bona fide employees of bona fide established commercial or selling agencies maintained by the seller for the purpose of securing business. For breach or violation of this warranty, ITP shall have the right in addition to any other rights, to cancel this Contract without liability and to deduct from the Contract price or otherwise recover form the Contractor the full amount of such commission, percentage, brokerage or contingent fee.

**18) RECORD RETENTION**

During the course of the Project and for three (3) years thereafter, the Contractor agrees to retain intact and to provide any data, documents, reports, records, contracts, and supporting materials relating to the Project as the Government may require. Reporting and record keeping requirements for governmental recipients are set forth in 49 CFR Part 18. Reporting and record keeping requirements for private nonprofit and for-profit recipients, are set forth in OMB Circular A-110. Project close out does not alter these requirements.

**19) CONTRACTOR'S LIABILITY INSURANCE**

The Contractor shall maintain such insurance as will protect it from claims under Workers' Compensation Acts and other employee benefit acts; from claims for damages because of bodily injury, including death, to its employees and all others and from claims for damages to property; any or all of which may arise out of or result from the Contractor's operations under the Contract, or from any subcontractor or anyone directly or indirectly employed by either of them. This insurance shall be written for not less than the limits specified below. ITP shall be named as additionally insured in respect to all liability insurance policies. All policies shall contain an endorsement that written notice shall be given to ITP prior to termination, cancellation or reduction in coverage in the policy. Certificates of such insurance shall be filed with ITP prior to the start of the Contract.

(a) Worker's compensation insurance shall be in the amount and coverage required by the State of Michigan to protect it from claims under the Worker's Compensation Act and other employee benefit acts.

(b) General comprehensive liability insurance, including bodily injury and death, and property damage insurance in the minimum amount of $1,000,000 per occurrence.

 Automobile liability and garage keepers liability, including bodily injury and property damage, insurance in the minimum amount of $2,000,000 per occurrence.

**20) UNAVOIDABLE DELAYS**

If delivery of completed Project under this Contract should be unavoidably delayed, the ITP Project Manager will extend the time for completion of the Contract for the determined number of days of excusable delay. A delay is unavoidable only if the delay was not reasonable expected to occur in connection with or during the Contractor's performance; was not caused directly or substantially by acts, omissions, negligence or mistakes of the Contractor, the Contractor's suppliers or their agents; was substantial and in fact caused the Contractor to miss delivery dates and could not adequately have been guarded against by contractual or legal means.

**21) NOTIFICATION OF DELAY**

The Contractor will notify the Project Manager as soon as the Contractor has, or should have, knowledge that an event has occurred which will delay completion of this Project. Within five (5) working days, the Contractor will confirm such notice in writing, furnishing as much detail as is available.

**22) REQUEST FOR EXTENSION**

The Contractor agrees to supply, as soon as such data are available, any reasonable proofs that are required by the ITP Project Manager to make a decision on any request for extension. The ITP Project Manager will examine the request and any documents supplied by the Contractor and will determine if the Contractor is entitled to an extension and the duration of such extension. The ITP Project Manager will notify the Contractor of the decision in writing. It is expressly understood and agreed that the Contractor will not be entitled to damages or compensation, and will not be reimbursed for losses on account of delays resulting from any cause under this provision.

**23) CONTRACTOR’S REPRESENTATIVE**

Prior to the start of Contract performance, the Contractor shall advise ITP in writing of the primary and alternate representatives (including phone numbers) who will have management responsibility for the total Contract effort to receive and act on technical matters and resolve problems of a contractual nature.

**24) INTERURBAN TRANSIT PARTNERSHIP'S REPRESENTATIVES**

Prior to the start of Contract performance, the ITP Project Manager will furnish a letter to the Contractor indicating the personnel who will represent ITP in the administration of this Contract to insure successful performance. Such letter shall include the specific duties of each individual and their limits of authority.

**25) INSTRUCTIONS BY UNAUTHORIZED THIRD PERSONS**

In accordance with the Contract Changes provision of the Contract, The ITP Project Manager or his/her authorized representative are the only persons authorized to make changes within the general scope of the Contract.

Any instructions, written or oral, given to the Contractor by someone other than the ITP Project Manager or his/her authorized representative, which are considered to be a change in the Contract, will not be considered as an authorized Contract Change. Any action on the part of the Contractor taken in compliance with such instructions will not be grounds for subsequent payment or other consideration in compliance with the unauthorized change.

**26) TERMINATION OF AGREEMENT**

This agreement may be terminated for reasons of convenience or default.

a) Termination For Convenience: ITP may terminate this Agreement, in whole or in part, at any time by written notice to the Contractor. The Contractor shall be paid its costs, including Contract closeout costs and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to be paid the Contractor. If the Contractor has any property in its possession belonging to or paid for by ITP, the Contractor will account for same, and dispose of it in the manner ITP directs.

b) Termination For Default: If the Contractor does not deliver the complete Project in accordance with this Agreement or if the Contractor fails to comply with any other provisions of the Agreement, ITP may terminate, revoke or rescind this Agreement for default. Termination, revocation or rescission shall be effected by serving notice on the Contractor setting forth the manner in which the Contractor is in default. The Contractor will only be paid the Contract price for the portions of the Project furnished, accepted, and found in compliance with the terms and conditions of this Agreement.

If it is later determined by ITP that the Contractor has an excusable reason for not performing, such as a strike, fire or flood, events which are not the fault of, or are beyond the control of the Contractor, ITP, after setting up a new delivery or performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

Termination, revocation or rescission of this Agreement for default shall not affect or impair any rights or claims of ITP to damages for breach of any covenants of this Agreement by the Contractor. Further, should the Contractor fail to comply with the conditions of the Agreement or fail to complete the specified work or furnish the specified services as stipulated in the Agreement, ITP reserves the right to purchase on the open market, or to complete the required work at the expense of the Contractor and to pursue all other recoveries available to ITP under Michigan law.

In the event of a dispute under this Agreement, ITP and the Contractor agree that proper venue for purposes of litigation shall be Kent County, Michigan.

**27) INTEREST OF MEMBERS OF OR DELEGATES TO CONGRESS**

No member of or delegate to the Congress of the United States shall be admitted to any share or part of this Contract or to receive any benefit therefrom.

**28) DBE PARTICIPATION**

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breech of this contract, which may result in the termination of this contract or such other remedy as ITP deems appropriate.

A minimum of \_\_\_0\_\_\_\_ percent of the total contract price, as awarded, shall be awarded to certified DBE's by the Contractor.

**29) DEBARMENT AND SUSPENSION**

The Contractor agrees to comply with U. S. Department of Transportation regulations, "Government Debarment and Suspension (Non-procurement)", 49 CFR Part 29, and otherwise comply with the requirements of those regulations. This includes the requirement of the bidder to submit the Certification Of Primary Contractor Regarding Debarment, Suspension, And Other Responsibility Matter for all projects when the total aggregate value of the Contract exceeds $25,000 and to submit a Certification Of Lower Tier Participation Regarding Debarment, Suspension, And Other Ineligibility And Voluntary Exclusions for each subcontractor which will have a financial interest in this Project which exceeds $25,000 or will have a critical influence on or a substantive control over the Project.

During the term of the Contract the Contractor agrees to immediately notify ITP of 1) any potential subcontractor that is subject to this provision and to submit the appropriate certification prior to award of a subcontract, 2) any information that its certification or certification of its subcontractors was erroneous when submitted, 3) any information that certifications have become erroneous by reason of changed circumstances.

The Contractor shall submit with each request for payment a list of all subcontractors to this contract which have a financial interest in this Project which exceeds $25,000 or have had a critical influence on or substantive control over the Project and submit evidence that the appropriate certificate has been submitted and that they remain valid.

ITP will not make payment to the Contractor or a subcontractor which 1) does not comply with this contract provisions, or, 2) is not in compliance with the above-cited federal requirements.

**30) ENVIRONMENTAL, RESOURCE CONSERVATION, AND ENERGY REQUIREMENTS**

Environmental Protection. The Contractor agrees to comply with applicable requirements of the National Environmental Policy Act of 1969, as amended, 42 USC §§ 4321 et seq.; section 14 of the Federal Transit Act, as amended, 49 USC app. §§ 1610; Council on Environmental Quality regulations, 40 CFR Part 1500 et seq.; and joint FHWA/FTA regulations, “Environmental Impact And Related Procedures” at 23 CFR Part 771 and 49 CFR Part 622.Air Quality. The Contractor agrees to comply with applicable requirements of EPA regulations, “Conformity To State Or Federal Implementation Plans Of Transportation Plan, Programs, And Project Developed, Funded Or Approved Under Title 23 USC Or The Federal Transit Act”, 40 CFR Part 51, Subpart T; and “Determining Conformity Of Federal Actions To State Or Federal Implementation Plans”, 40 CFR Part 93. To support the requisite air quality conformity finding for the Project, the Contractor agrees to implement each air quality mitigation and control measure incorporated in the Project. The Contractor agrees that any Project identified in an applicable State Implementation Plan (SIP) as a Transportation Control Measure, will be wholly consistent with the description of the design concept and scope of the Project set forth in the SIP.EPA also imposes requirements pertaining to the Clean Air Act, as amended, that may apply to transit operators, particularly operators of large transit bus fleets. Thus, the Contractor should be aware that the following EPA regulations, among others, may apply to its Project; “Control Of Air Pollution From Motor Vehicles And Motor Vehicle Engines”, 40 CFR part 85; “Control Of Air Pollution From New And In-Use Motor Vehicles And New And In-Use Motor Vehicle Engines: Certification And Test Procedures”, 40 CFR Part 86; and “Fuel Economy Of Motor Vehicles”, 40 CFR Part 600.Use Of Public Lands. No publicly owned land from a park, recreation area, or wildlife or waterfowl refuge of national, Sate, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, State, or local significance may be used for the Project unless specific findings required by 49 USC § 303 are made by U.S. DOT. Historic Preservation. The Contractor agrees to assist the Government (FTA) to comply with section 106 of the National historic Preservation Act, 16 USC § 470f, involving historic and archaeological preservation by:

a) Consulting the State Historic Preservation Officer on the conduct of investigations, in accordance with Advisory Council on Historic Preservation regulations, “Protection of Historic And Cultural Properties”, 36 CFR Part 800, to identify properties and resources listed in or eligible for inclusion in the National Register Of Historic Places that may be affected by the Project, and notifying the Government (FTA) of the existence of any such properties; and,

b) Complying with all Federal requirements to avoid or mitigate adverse effects upon such properties.

Energy Conservation. The Contractor shall comply with mandatory standards and policies relating to energy efficiency that are contained in applicable State energy conservation plans issued in compliance with the Energy Policy And Conservation Act, 42 USC §§ 6321 et seq.

Mitigation of Adverse Environmental Effects. Should the proposed Project cause adverse environmental effects, the Contractor agrees to take all reasonable steps to minimize such effects pursuant to 49 USC app. § 1610, all other applicable statutes, and the procedures set forth in 23 CFR Part 771 and 49 CFR Part 622. The Contractor agrees to undertake all environmental mitigation measures that may be identified as commitments in applicable environmental documents (such as environmental assessments, environmental impact statements, memoranda of agreement, and statements required by 49 USC § 303) and with any conditions imposed by the Government as part of a finding of no significant impact or a record of decision; all such mitigation measures are incorporated in and made part of this Agreement by reference. As soon as the Government and the Contractor reach agreement on any mitigation measures that have been deferred, those measures will then be incorporated into this Agreement. Such mitigation measures may not be modified or withdrawn without the express written approval of the Government.

**31) LABOR PROVISIONS: NON-CONSTRUCTION CONTRACTS**

Pursuant to regulations set forth in 29 CFR, Part 5, the Contractor agrees to comply with applicable labor provisions for non-construction contracts. Requirements for compliance are as follows.

a) Overtime Requirements: No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any work week in which he or she is employed on such work to work in excess of forty (40) hours in such work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1 1/2) times the basic rate of pay for all hours worked in excess of forty (40) hours in such work week.

b) Violation; Liability For Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in Subparagraph (b)(1), 29 CFR, Section 5.5, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a Territory, to such District or such Territory) for liquidated damages. Such liquidated damages shall be computed with respect to each employed in violation of the clause set forth in Subparagraph (b)(1) of 29 CFR, Section 5.5, in the sum of $10 for each calendar day in which such individual was required or permitted to work in excess of the standard work week of forty (40) hours without payment of the overtime wages required by the clause set forth in Subparagraph (b)(1) of 29 CFR, Section 5.5.

c) Withholding For Unpaid Wages And Liquidated Damages: FTA or ITP shall, upon its own action or upon written request of an authorized representative of the Department of Labor withhold, or cause to be withheld from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other Federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in Subparagraph (b)(2) of 29 CFR, Section 5.5.

d) Subcontracts: The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in Subparagraph (a) through (d) of this provision and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in Subparagraphs (a) through (d) of this paragraph. Non-Construction Contracts: The requirements clauses contained in 29 CFR, Section 5.5 (b) or paragraphs (a) through (d), are applicable to any contract subject to the overtime provisions of the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR, Section 5.1. The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three (3) years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, Social Security Number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records to be maintained under this paragraph shall be made available by the Contractor or subcontractor for inspection, copying or transcription by authorized representatives of FTA, DOT, or the Department of Labor, and the Contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

**32) TITLE VI COMPLIANCE OF THE CIVIL RIGHTS ACT OF 1964**

The Contractor agrees to comply with, and assure the compliance by its subcontractors under this Project, with all requirements of Title VI of the Civil Rights Act of 1964, 42 USC § 2000d; U.S. DOT regulations, “Nondiscrimination In Federally-Assisted Programs Of The Department Of Transportation -- Effectuation Of Title VI Of The Civil Rights Act”, 49 CFR Part 21.

**33) COMPLIANCE WITH LAWS AND REGULATIONS**

The Contractor warrants that it is and will remain in compliance with all federal, state, and local laws, regulations, and ordinances relating to the manufacture, sales, and delivery of the goods and services sold to ITP in connection with this Contract.

**34) NOTICE OF FEDERAL REQUIREMENTS**

The Contractor understands that Federal laws, regulations, policies, and related administrative practices applicable to this Agreement on the date an Agreement was executed may be modified from time to time. The Contractor agrees that the changed requirements will apply to the Project as required. All standards or limits set forth in this Agreement to be observed in the performance of the Project are minimum requirements.

**35) PROHIBITED INTEREST**

No ITP employee, officer, or agent, including any member of an evaluation committee for a ITP project, may participate in the selection, award, or administration of a ITP contract if a real or apparent conflict of interest would exist. Such a conflict would exist when any of the parties set forth below has a material financial or other interest in a firm selected for award:

any employee, officer, or agent of ITP; any member of his/her immediate family;

his/her partner; or an organization employing or about to employ any of the above.

Any interest as owner or stockholder of one percent (1%) or less in such a firm shall not be deemed to be a material financial interest, but serving as Director, officer, consultant, or employee of such an organization would be deemed a material interest.

**36) AUDIT AND INSPECTION**

For contract awards not based on competitive bidding procedures as defined by the Secretary Of Transportation, the Contractor agrees to permit the Secretary Of Transportation and the Comptroller General of the United States, or their duly authorized representative, to inspect all work, materials, payrolls, and other data and records involving that contract, and to audit the books, records, and accounts involving that contract as it affects the Project.

**37) EQUAL EMPLOYMENT OPPORTUNITY**

In implementing the Project, the Contractor may not discriminate against any employee or applicant for employment because of race, color, creed, sex, disability, age, or national origin. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, sex, disability, age, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall insert the foregoing provision (modified only to show the particular contractual relationship) in all its third party contracts for Project implementation, except contracts for standard commercial supplies or raw materials and construction contracts, and shall require all such contractors to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

**38) LOBBYING CERTIFICATION**

During the term of this Contract the Contractor agrees to comply with the provisions of 31 USC section 1352, which prohibit the use of Federal funds for lobbying by any official or employee of any Federal agency, or member of employee of Congress; and requires the Contractor to disclose any lobbying of any official or employee of any Federal agency, or member or employee of Congress in connection with Federal assistance. The Contractor agrees to comply with U.S. DOT regulations, “New Restrictions On Lobbying”, 49 CFR Part 20 and include these requirements in any subcontract which exceeds $100,000.

The Contractor and all subcontractors in receipt of contracts exceeding $100,000 shall submit Standard Form LLL quarterly to ITP. The Contractor shall also submit with each request for payment 1) a list of each contractor and subcontractor that is subject to the Lobbying Certification, 2) certifications or evidence of certification for all subcontractors, 3) information regarding material changes in the previous certifications or disclosures, and, 4) Standard Form LLL or evidence that the form was previously submitted to ITP.

ITP will not make any payment to the Contractor or a subcontractor which 1) does not comply with this contract provisions, or, 2) is not in compliance with the above-cited federal requirements.

**39) Americans With Disabilities Act**

The Contractor agrees to and assures that any subcontractor under this Project complies with all applicable requirements of the Americans With Disabilities Act of 1990 (ADA), 42 USC § 12101 et seq.; section 504 of the Rehabilitation Act of 1973, as amended, 29 USC § 794; section 16 of the Federal Transit Act, as amended, 40 USC app. § 1612; and the following regulations and any amendments thereto:

U.S. Dot regulations, “Transportation Services For Individuals With Disabilities (ADA)”, 49 CFR Part 37;

U.S. Dot regulations, “Nondiscrimination On The Basis Of Handicap In Programs And Activities Receiving Or Benefiting From Federal Financial Assistance”, 49 CFR Part 27;

U.S. DOT regulations, “Americans With Disabilities (ADA) Accessibility Specifications For Transportation Vehicles”, 49 CFR Part 38;

Department Of Justice (DOJ) regulations, “Nondiscrimination On The Basis Of Disability In State And Local Government Services”, 28 CFR Part 35;

DOJ regulations, “Nondiscrimination On The Basis Of Disability By Public Accommodations And In Commercial Facilities”, 28 CFR Part 36;

General Services Administration regulations, “Accommodations For The Physically Handicapped”, 41 CFR Subpart 101-19;

Equal Employment Opportunity Commission, “Regulations to Implement The Equal Employment Provisions Of The Americans With Disabilities Act”, 29 CFR Part 1630;

Federal Communications Commission regulations, “Telecommunications Relay Services And Related Customer Premises Equipment For The Hearing And Speech Disabled”, 47 CFR Part 64, Subpart f; and,

FTA regulations, “Transportation For Elderly And Handicapped Persons”, 49 CFR Part 609.

**40) PRIVACY**

The Contractor agrees:

a) To comply with the Privacy Act of 1974, 5 USC § 552a, and regulations thereunder, when performance under the Project involves the design, development, or operation of any system of records on individuals to be operated by the Recipient, its third party contractors, subrecipients, or their employees to accomplish a Government function;

b) To notify the Government when the Contractor, subcontractor, or their employees anticipate operating a system of records on behalf of the Government in order to implement the Project, if such system contains information about individuals retrievable by the individual’s name or other identifier assigned to the individual. A system of records subject to the Act may not be used in carrying out this Project until the necessary and applicable approval and publication requirements have been met. The Contractor, subcontractor, and their employees agree to correct, maintain, disseminate, and use such records as required by the Act, and to comply with all applicable terms of the Act;

c) To include in every solicitation and in every third party contract and sub-agreement when the performance of work under that proposed third party contract or sub-agreement may involve the design, development, or operation of a system of records on individuals to be operated under that third party contract or sub-agreement to accomplish a Government function, a Privacy Act notification informing the third party contractor, or subrecipient that it will be required to design, develop, or operate a system of records on individuals to accomplish a Government function subject to the Privacy Act of 1974, 5 USC § 552a, and Federal agency regulations, and that a violation of the Act may involve the imposition of criminal penalties.

**41) REMEDIES / BREACH OF CONTRACT**

If the Contractor breaches any provision in this Contract, the Contractor agrees to reimburse ITP for all damages suffered, including but not limited to incidental, consequential and other damages, as well as lost profits. The remedies in this Contract shall be cumulative and in addition to any other remedies allowed to ITP under applicable law. No waiver by ITP of any breach or remedy shall be a waiver of any other breach or remedy.

**42) DBE SUBCONTRACTOR’S PAYMENT & REPORTING REQUIREMENTS**

A) Prompt Payment

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 10 days from the receipt of each payment the prime contractor receives from ITP. The prime contractor agrees further to return retainage payments to each subcontractor within 10 days after subcontractor’s work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of ITP. This clause applies to both DBE and non-DBE subcontractors.

B) Contractor Reporting Requirements

The prime contractor agrees to count only the value of the work actually performed by the DBE firm toward its overall DBE goal. When a DBE performs as a participant in a joint venture, the prime contractor agrees to count the portion of the work of the contract that the DBE performs with its own forces toward its DBE goal only if the DBE is performing a commercially useful function of the contract. The factors listed in 49 CFR Part 26 will be used to determine whether a DBE trucking firm is performing a commercially useful function. The prime contractor understands that expenditures with DBEs for materials or supplies toward DBE goals will be counted according to the factors listed in 49 CFR Part 26. The prime contractor agrees to meet with the ITP DBE Liaison Officer for the purpose of verifying contractor reporting requirements prior to the signing of a contract.

C) Legal and Contract Remedies

The prime contractor agrees to report quarterly to the ITP DBE Liaison Officer on all payments made to DBE subcontractors. Further, the contractor shall provide all copies of canceled checks made to DBE subcontractors showing proof of actual payment. The prime contractor understands that failure to report quarterly to the ITP DBE Liaison Officer may result in the termination of this contract or such other remedy as ITP deems appropriate.

The prime contractor understands that ITP will bring to the attention of the Department of Transportation any false, fraudulent, or dishonest conduct in connection with the program, so that DOT can take the steps (e.g. referral to the Department of Justice for criminal prosecution, referral to the DOT inspector General, action under suspension and debarment of Program Fraud or Civil Penalties rules) provided in 26.109. The prime contractor understands that ITP will consider similar action under their own legal authorities, including responsibility determinations in future contracts.

**43) OSHA REQUIREMENTS**

The Contractor expressly warrants that all materials, supplies, and equipment provided under this Contract are provided in full compliance with the Occupational Safety and Health Act of 1970, as amended, and all standards, rules, regulations and orders issued pursuant thereto, and all other federal and state safety and health statutes. All sales of hazardous materials as defined in Title 29 of the cost of Federal Regulation, Chapter VII, parts 1501-1503, shall be accompanied by a completed U.S. Department of Labor "Materials Safety Data Sheet", Form OHFA-20 by the Contractor for each good sold to ITP.

**44) CARGO PREFERENCE**

Pursuant to 46 CFR, Part 381, the Contractor agrees:

a) To utilize privately owned United States flag commercial vessels to ship at least fifty percent (50%) of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials or commodities pursuant to 46 CFR, Part 381, to the extent such vessels are available at fair and reasonable rates for United States flag commercial vessels.

 To furnish within twenty (20) days following the date of loading for shipments originating within the United States, or within thirty (30) working days following the date of loading for shipment originating outside the United States, a legible copy of a rated, "on-board" commercial ocean Bill-Of-Lading in English for each shipment of cargo described in paragraph (a) above to ITP (through the prime Contractor in the case of subcontractor Bills-Of-Lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, 400 Seventh Street SW, Washington, DC, 20590, marked with appropriate identification of the Project.

 To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Contract.

**45) BUY AMERICA**

The Contractor agrees to comply with Section 165 of the Surface Transportation Assistance Act of 1982, as amended, “Buy America Requirements - Surface Transportation Assistance Act Of 1982”, 49 CFR Part 661, and 49 CFR, Part 663, and any amendments thereto and any implementing guidance issued by FTA.

**46) CHANGE ORDERS**

ITP's Project Manager, at any time by written order and without notice to the sureties, may make changes within the general scope of this Contract in (i) drawings, designs or specifications where the supplies to be furnished are to be specially manufactured for ITP in accordance therewith; (ii) method of shipment of packing; (iii) place of delivery. If any such change causes an increase or decrease in the cost of or the time required for performance of this Contract, whether changed or not changed by such order, an equitable adjustment shall be made by written modifications of the Contract. Any claim by the Contractor for adjustment under this clause must be asserted within thirty (30) days from the date of receipt by the Contractor of the notification of change; provided that ITP's Project Manager, if he decides that the facts justify the action, may receive and act upon any such claim. Nothing in this clause shall excuse the Contractor from proceeding with the Contract as changed.

**47) PRODUCT WARRANTY**

The Contractor expressly warrants that the goods provided under this Contract shall conform to all specifications, drawings, and other descriptions of the goods made by the Contractor or contained in specifications furnished to the Contractor by ITP, and shall be free from all defects in material, design and workmanship. The Contractor also expressly warrants that the goods are merchantable and fit for the particular purpose intended by ITP. The warranties of the Contractor contained in this Contract extend to future performance of the goods sold under this Contract. The Contractor further agrees not to attempt to limit or to exclude any remedies for damages, whether incidental, consequential or otherwise.

**48) WARRANTY AND GUARANTEE**

The Contractor hereby warrants to ITP that all of the equipment furnished under the procurement shall be free from defects in material and workmanship under normal operating use and service. The Contractor shall provide such a Warranty beginning at the time of final acceptance of the system and continuing for a period of one (1) year on all equipment. The Warranty shall cover all parts and labor costs during the Warranty period. The remedial work to correct any of the potential deficiencies shall include the repair or replacement, at the Contractor's option, of equipment, components, devices and/or material. It is expressly understood that this Warranty covers all parts and labor costs necessary and that all cost for the necessary labor and material during the Warranty period shall be borne by the Contractor and not by ITP except as provided for herein.

The Contractor also agrees to provide all labor and material to replace, during the period of this Warranty, without expense to ITP, any and all parts which may be damaged due to defects in, or failure of such parts or of any other part or parts of the equipment furnished under the procurement. ITP shall maintain the equipment in accordance with the Contractor's instructions in order to maintain this Warranty, and the Contractor shall be responsible for all shipping charges.

Contractor shall be solely responsible for all materials and workmanship, including all specialties and accessories, whether manufactured by it or others, used in the equipment and for adequate installation and connection of all equipment, accessories, specialties and components. Under no conditions shall Contractor delegate this responsibility to suppliers or other sources.

Any apparatus, device or material which, in the sole opinion of ITP, requires excessive service during its operation, shall be brought to the attention of the Contractor by ITP at the conclusion of the first year but prior to the expiration of the Warranty. The Contractor shall be required to repair or replace the apparatus, device or material (at his or her determination of the problem and its cause) at no expense to ITP. Should a "class failure" be involved, the Contractor may be required by ITP to extend the Warranty on that item until the requirement for excessive service is eliminated. Excessive service is defined as three (3) failures (an event or failure of a given device and/or component in a unit or units which renders the unit or units inoperative and/or unsuitable for the intended purpose) or malfunctions (an event or failure of a given device and/or component in a unit or units which causes a degraded performance of the equipment, but does not render the equipment inoperative) during the Warranty period. A "class failure" is a failure of a given component and/or device in five percent (5%) of the equipment provided during the Warranty period. The determination of a "class failure" shall be by ITP and shall assume that all equipment within its respective category has these defects and shall ultimately experience these same failures.

In the event the Contractor fails to comply within ten (10) working days to a request by ITP to repair, replace or correct damaged or defective work, materials, specialties, equipment and accessories, ITP shall, upon written notice to the Contractor, have authority to deduct the cost of labor and material incurred by ITP itself in making such repairs from any compensation due or to become due the Contractor. In the event the Contractor has been paid, the Contractor agrees to reimburse ITP for the cost thereof. It is understood, however, that the said Warranty or Guarantee will not apply to any equipment which has been repaired or altered without the knowledge or consent of the Contractor and which repair or altering affected its stability and/or reliability; nor will said Warranty or Guarantee apply if the equipment has been subjected to other than normal use under conditions which prevail in ITP service. The burden of proof for any negligence on the part of ITP shall rest with the Contractor. Temperature, humidity, bus vibration and ambient electric conditions shall be considered normal operating conditions for this equipment. The Warranty shall not cover the replacement and maintenance items (such as light bulbs) made in connection with normal maintenance service.

Labor costs for ITP to diagnose and to exchange faulty components, subassemblies or equipment and the shipping costs to return such items to a service location nominated by the Contractor for repair or replacement as provided for herein shall be at the expense of the Contractor. The shipping costs, including packing and insurance, to ship repaired or replaced items to ITP shall be at the expense of the Contractor.

Contractor guarantees that a stock of replacement parts for the equipment and all components thereof, will be available for a period of not less the fifteen (15) years after the date of acceptance of the completed system under this Contract by ITP.

The above Warranties are in addition to any statutory implied Warranties or Remedies imposed on the Contractor.

**49) INTERCHANGEABILITY**

All units and components procured under this Contract, whether provided by suppliers or manufactured by the Contractor shall be duplicates in design, manufacture and installation to assure interchangeability among items in this procurement. This interchangeability shall extend to the individual components as well as to their locations in the unit.

**50) TITLE**

Title to goods acquired by ITP under this Contract shall pass to ITP when such goods are delivered, installed and accepted by ITP. The Contractor shall bear all risk of loss until passage of title, or adequate documents for securing title shall be provided to ITP by the Contractor.

**51) INSPECTION**

(a) ITP reserves the right and shall be at liberty to inspect all materials and workmanship at any time during the manufacturing or installation process; provided, however, it is under no duty to make such inspection, and no inspection so made shall relieve Contractor from any obligation to furnish materials and workmanship strictly in accordance with the instructions, Contract requirements and specifications.

Any work or material found to be in any way defective or unsatisfactory shall be corrected or replaced by the Contractor at its own expense at the order of ITP notwithstanding that it may have been previously overlooked or passed by an inspector. Inspection shall not relieve the Contractor of its obligations to furnish materials and workmanship in accordance with this Contract and its specifications.

**52) PREAWARD/POSTDELIVERY AUDIT**

The Contractor shall comply with any regulations that may be issued to implement section 12(j) of the Federal Transit Act, 49 USC app. § 1608(j), and Federal Regulation 49 CFR, Part 663.

**53) BUS TESTING**

The Contractor shall comply with the bus testing requirements as set forth in section 12(h) of the Federal Transit Act, 49 USC app. § 1608(h), and any implementing regulations that may be issued thereunder.

**54) ASSUMPTION OF RISK OF LOSS**

ITP shall assume risk of loss of the vehicle after delivery to its facility. Prior to this delivery or release, the Contractor shall have risk of loss of the vehicle, including any damages sustained during the common carrier drive-away operation. Drivers shall keep a maintenance log enroute and it shall be delivered to ITP with the vehicle.

# SECTION VII: FEDERAL CLAUSES AND CERTIFICATES

**FTA REQUIRED CLAUSES**

*PROCUREMENT (GOODS)*

"The supplier of goods or services must adhere to the following Federal Transit Administration requirements.  The burden is on the supplier to read and understand each requirement based on the information provided.  Execution of the contract implies agreement with the attached Federal Clauses and Certifications."

**2) BUY AMERICA REQUIREMENTS**

*49 U.S.C. 5323(j) 49 CRF Part 661*

**APPLICABILITY TO CONTRACT**

Applies only to Contracts over $100,000 in value.

**FLOW DOWN**

The Buy America requirements flow down from FTA recipients and subrecipients to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractor, are in compliance.

**REQUIREMENTS**

The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, microcomputer equipment, software, and small purchases (currently less than $100,000) made with capital, operating, or planning funds. Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock not subject to a general waiver must be manufactured in the United States and have a 60 percent domestic content. A bidder or offeror must submit to the ITP the appropriate Buy America certification (below) with all bids on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

**5) CARGO PREFERENCE REQUIREMENTS**

*46U.S.C.1241 46 CFR Part 381*

**APPLICABILITY TO CONTRACT**

Applies ONLY to contracts for equipment, vehicles, materials, or commodities which may be transported by ocean vessels.

**FLOW DOWN**

The Cargo Preference requirements apply to all contracts subcontracts when the subcontract may be involved with the transport of equipment, materials, or commodities by ocean vessels.

**REQUIREMENTS**

The contractor agrees:

To use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;

B. To furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of -lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the ITP (through the contractor in the case of a subcontractor's bill-of-lading.)

C. To include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material or commodities by ocean vessel.

**6) SEISMIC SAFETY REQUIREMENTS**

*42 U.S.C. 7701 et seq.49 CFR Part 41*

**APPLICABILITY TO CONTRACT**

Construction of new buildings or additions to existing buildings.

**FLOW DOWN**

The Seismic Safety requirements flow down from FTA recipients and sub recipients to first tier contractors to assure compliance with the applicable building standards for Seismic Safety including the work performed by al sub contractors.

**REQUIREMENTS**

The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

**7) ENERGY CONSERVATION REQUIREMENTS**

*42 U.S.C.6321 et seq. 49 CFR Part 18*

**APPLICABILITY TO CONTRACT**

The contractor agrees to comply with all of the mandatory standards and policies relating to energy efficiency that are contained in the respective State Energy Conservation plan issued in compliance with the Energy Policy and Conservation Act.

**8) CLEAN WATER REQUIREMENTS**

*33 U.S.C 1251*

**APPLICABILITY TO CONTRACT**

Applies only to Contracts over $100,000 in value.

**FLOW DOWN**

The Clean Water requirements flow down to FTA recipients and sub recipients at every their.

**REQUIREMENTS**

A) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

B) The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

**13) FEDERAL CHANGES**

*49 CFR Part 18*

**APPLICABILITY TO CONTRACT**

Applies to all contracts.

**FLOW DOWN**

The Federal Changes requirement flows down appropriately to each applicable change requirement.

**REQUIREMENTS**

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Agreement (Form FTA MA (2) dated October, 1995) between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

**15) CLEAN AIR**

*42 U.S.C.7401 et seq 40 CFR 15.61 49 CFR Part 18*

**APPLICABILITY TO CONTRACT**

Applies only to Contracts over $100,000 in value.)

**FLOW DOWN**

The Clean air requirements flow down to all sub contracts which exceed $100,000.

 **REQUIREMENTS**

1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended 42 U.S.C. §§ 7401 ET seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

2. The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

**16) RECYCLED PRODUCTS**

*42 U.S.C.6962 40 CFR Part 247 Executive Order 12873*

**APPLICABILITY TO CONTRACT**

All contracts for items designated by the EPA, when the purchaser or contractor procures $10,000 or more of one of these items during the fiscal year, or has procured $10,000 or more of such items in the previous fiscal year.

**FLOW DOWN**

These requirements flow down to all contractor or sub contractor tiers.

 **REQUIREMENTS**

The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

**20) NO GOVERNMENT OBLIGATION TO THIRD PARTIES**

**APPLICABILITY TO CONTRACT**

To all contracts.

**FLOW DOWN**

Not required by statue or regulation for either primary contractors or sub contractors, this concept should flow down to all levels to clarify to all parties to the contract, that Federal Government does not have contractual liability to third parties, absent specific written consent.

**REQUIREMENTS**

1. The Purchaser and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

2. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

**21) PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS**

*31 U.S.C.3801 et seq. 49 CFR Part 31 18 U.S.C.1001 49 U.S.C.5307*

**APPLICABILITY TO CONTRACT**

To all contracts.

**FLOW DOWN**

These requirements flow down to contractors and sub contractors who make, present, or submit covered claims and statements.

**REQUIREMENTS**

1. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

2. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

3. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

**22) TERMINATION**

*49 U.S.C. Part 18 FTA Circular 4220.1F*

**APPLICABILITY TO CONTRACT**

Contracts with nonprofit organizations and institutions of higher education in excess of $100,000 and all other contracts in excess of $10,000.

**FLOW DOWN**

Flow down to all contracts in excess of $10,000, with exception of contracts with nonprofit organizations of higher learning.

**REQUIREMENTS**

1. Termination for Convenience (General Provision) The ITP may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to ITP to be paid the Contractor. If the Contractor has any property in its possession belonging to the ITP, the Contractor will account for the same, and dispose of it in the manner the ITP directs.

2. Termination for Default [Breach or Cause] (General Provision) If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the ITP may terminate this contract for default. Termination shall be effected by serving a notice of termination on the contractor setting forth the manner in which the Contractor is in default. The contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by the ITP that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the ITP, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

Opportunity to Cure (General Provision) The ITP in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions.

If Contractor fails to remedy to ITP's satisfaction the breach or default or any of the terms, covenants, or conditions of this Contract within [ten (10) days] after receipt by Contractor or written notice from ITP setting forth the nature of said breach or default, ITP shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude ITP from also pursuing all available remedies against Contractor and its sureties for said breach or default.

4. Waiver of Remedies for any Breach In the event that ITP elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by ITP shall not limit ITP's remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

5. Termination for Convenience (Professional or Transit Service Contracts) The ITP, by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the ITP shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

6. Termination for Default (Supplies and Service) If the Contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the ITP may terminate this contract for default. The ITP shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the ITP.

7. Termination for Default (Transportation Services) If the Contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the ITP may terminate this contract for default. The ITP shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of default. The Contractor will only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while the Contractor has possession of the ITP’s goods, the Contractor shall, upon direction of the ITP, protect and preserve the goods until surrendered to the ITP or its agent. The Contractor and ITP shall agree on payment for the preservation and protection of goods. Failure to agree on an amount will be resolved under the Dispute clause.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the ITP.

8. Termination for Default (Construction) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, the ITP may terminate this contract for default. The ITP shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the ITP may take over the work and compete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the ITP resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the ITP in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if-

A. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the ITP, acts of another Contractor in the performance of a contract with the ITP, epidemics, quarantine restrictions, strikes, freight embargoes; and

B. The contractor, within [10] days from the beginning of any delay, notifies the ITP in writing of the causes of delay. If in the judgment of the ITP, the delay is excusable; the time for completing the work shall be extended. The judgment of the ITP shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the ITP.

9. Termination for Convenience or Default (Architect and Engineering). The ITP may terminate this contract in whole or in part, for the ITP's convenience or because of the failure of the Contractor to fulfill the contract obligations. The ITP shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process.

If the termination is for the convenience of the ITP, the Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

If the termination is for failure of the Contractor to fulfill the contract obligations, the ITP may complete the work by contact or otherwise and the Contractor shall be liable for any additional cost incurred by the ITP.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the ITP.

10. Termination for Convenience of Default (Cost-Type Contracts) The ITP may terminate this contract, or any portion of it, by serving a notice or termination on the Contractor. The notice shall state whether the termination is for convenience of the ITP or for the default of the Contractor. If the termination is for default, the notice shall state the manner in which the contractor has failed to perform the requirements of the contract. The Contractor shall account for any property in its possession paid for from funds received from the ITP, or property supplied to the Contractor by the ITP. If the termination is for default, the ITP may fix the fee, if the contract provides for a fee, to be paid the contractor in proportion to the value, if any, of work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the ITP and the parties shall negotiate the termination settlement to be paid the Contractor.

If the termination is for the convenience of the ITP, the Contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a notice of termination for default, the ITP determines that the Contractor has an excusable reason for not performing, such as strike, fire, flood, events which are not the fault of and are beyond the control of the contractor, the ITP, after setting up a new work schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

**23) GOVERNMENT-WIDE DEBARMENT AND SUSPENSION NON-PROCUREMENT)**

**APPLICABILITY TO CONTRACT**

Certification regarding Debarment, Suspension, and Other Responsibility Matters Lower Tier Covered Transactions Third Party Contracts over $25, 000.

**FLOW DOWN**

Contractors are required to pass this requirement on to subcontractors seeking subcontracts over $25, 000. Thus, the terms “lower tier covered transaction” include both contractor and subcontractors and contract and subcontracts over $25, 000.

**REQUIREMENTS**

Instructions for Certification

1. By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out below.

The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, ITP may pursue available remedies, including suspension and/or debarment.

2. The prospective lower tier participant shall provide immediate written notice to ITP if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

3. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," :"participant," "persons," "lower tier covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 [49 CFR Part 29]. You may contact ITP for assistance in obtaining a copy of those regulations.

4. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized in writing by ITP.

5. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List issued by U.S. General Service Administration.

6. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

7. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to all remedies available to the Federal Government, ITP may pursue available remedies including suspension and/or debarment.

"Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction"

(1) The prospective lower tier participant certifies, by submission of this bid or proposal, that neither it nor its "principals" [as defined at 49 C.F.R. § 29.105(p)] is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) When the prospective lower tier participant is unable to certify to the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**24) PRIVACY ACT**

*5 U.S.C. 552*

**APPLICABILITY TO CONTRACT**

When a contractor maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier.

**FLOW DOWN**

Flow down to each third party contractor and their contract at every tier.

**REQUIREMENTS**

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

(1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

(2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

**25) CIVIL RIGHTS REQUIREMENTS**

*29 U.S.C 632, 42 U.S.C. 2000 42 U.S.C. 6102, 42 U.S.C. 12112*

*42 U.S.C. 12132 , 49 U.S.C. 5332 29 CFR Part 1630 , 41 CFR Parts 60 et seq.*

**APPLICABILITY TO CONTRACT**

Apply to all contracts.

**FLOW DOWN**

Flow down to all third party contractors and their contracts at every tier.

**REQUIREMENTS**

The following requirements apply to the underlying contract:

1. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

2. Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:

Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

**26) BREACHES AND DISPUTE RESOLUTION**

*49 CFR Part 18 FTA Circular 4220.1F*

**APPLICABILITY TO CONTRACT**

Applies only to Contracts over $100,000 in value

**FLOW DOWN**

Flow down to all tiers.

**REQUIREMENTS**

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of ITP's [title of employee]. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the [title of employee]. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the [title of employee] shall be binding upon the Contractor and the Contractor shall abide be the decision.

Performance During Dispute - Unless otherwise directed by ITP, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury of damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the ITP and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the ITP in which the ITP is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the ITP, (Architect) or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

**27) PATENT AND RIGHTS IN DATA**

*37 CFR Part 401 49 CFR Parts 18 and 19*

**APPLICABILITY TO CONTRACT**

Applies ONLY apply to research projects in which FTA finances the purpose of the grant is to finance the development of a product or information.

**FLOW DOWN**

Apply to all contractors and their contract at every tier.

**REQUIREMENTS**

CONTRACTS INVOLVING EXPERIMENTAL, DEVELOPMENTAL, OR RESEARCH WORK.

A. Rights in Data - The following requirements apply to each contract involving experimental, developmental or research work:

(1) The term "subject data" used in this clause means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to contract administration.

(2) The following restrictions apply to all subject data first produced in the performance of the contract to which this Attachment has been added:

(a) Except for its own internal use, the Purchaser or Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Purchaser or Contractor authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any contract with an academic institution.

(b) In accordance with 49 C.F.R. § 18.34 and 49 C.F.R. § 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for "Federal Government purposes," any subject data or copyright described in subsections (2)(b)1 and (2)(b)2 of this clause below. As used in the previous sentence, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.

1. Any subject data developed under that contract, whether or not a copyright has been obtained; and

2. Any rights of copyright purchased by the Purchaser or Contractor using Federal assistance in whole or in part provided by FTA.

(c) When FTA awards Federal assistance for experimental, developmental, or research work, it is FTA's general intention to increase transportation knowledge available to the public, rather than to restrict the benefits resulting from the work to participants in that work. Therefore, unless FTA determines otherwise, the Purchaser and the Contractor performing experimental, developmental, or research work required by the underlying contract to which this Attachment is added agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of that contract, or a copy of the subject data first produced under the contract for which a copyright has not been obtained. If the experimental, developmental, or research work, which is the subject of the underlying contract, is not completed for any reason whatsoever, all data developed under that contract shall become subject data as defined in subsection (a) of this clause and shall be delivered as the Federal Government may direct. This subsection (c), however, does not apply to adaptations of automatic data processing equipment or programs for the Purchaser or Contractor's use whose costs are financed in whole or in part with Federal assistance provided by FTA for transportation capital projects.

(d) Unless prohibited by state law, upon request by the Federal Government, the Purchaser and the Contractor agree to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Purchaser or Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. Neither the Purchaser nor the Contractor shall be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.

(e) Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.

(f) Data developed by the Purchaser or Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying contract to which this Attachment has been added is exempt from the requirements of subsections (b), (c), and (d) of this clause, provided that the Purchaser or Contractor identifies that data in writing at the time of delivery of the contract work.

(g) Unless FTA determines otherwise, the Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

(3) Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status i.e., a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), the Purchaser and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.

(4) The Contractor also agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

B. Patent Rights - The following requirements apply to each contract involving experimental, developmental, or research work:

(1) General - If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under the contract to which this Attachment has been added, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Purchaser and Contractor agree to take actions necessary to provide immediate notice and a detailed report to the party at a higher tier until FTA is ultimately notified.

(2) Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the Purchaser and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.

(3) The Contractor also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

**29) DISADVANTAGED BUSINESS ENTERPRISE (DBE)**

*49 CFR Part 26*

**REQUIREMENTS**

The Federal Fiscal Year goal has been set by the ITP in an attempt to match projected procurements with available qualified disadvantaged businesses. The ITP’s goals for budgeted service contracts, bus parts, and other material and supplies for Disadvantaged Business Enterprises have been established by the ITP as set forth by the Department of Transportation Regulations 49 C.F.R. Part 23, March 31, 1980, and amended by Section 106(c) of the Surface Transportation Assistance Act of 1987, and is considered pertinent to any contract resulting from this request for proposal.

If a specific DBE goal is assigned to this contract, it will be clearly stated in the Special Specifications, and if the contractor is found to have failed to exert sufficient, reasonable, and good faith efforts to involve DBE's in the work provided, the ITP may declare the Contractor noncompliant and in breach of contract. If a goal is not stated in the Special Specifications, it will be understood that no specific goal is assigned to this contract.

(a) Policy - It is the policy of the Department of Transportation and the ITP that Disadvantaged Business Enterprises, as defined in 49 CFR Part 23, and as amended in Section 106(c) of the Surface Transportation and Uniform Relocation Assistance Act of 1987, shall have the maximum opportunity to participate in the performance of Contract financed in whole or in part with federal funds under this Agreement. Consequently, the DBE requirements of 49 CFR Part 23 and Section 106(c) of the STURAA of 1987, apply to this Contract.

The Contractor agrees to ensure that DBEs as defined in 49 CFR Part 23 and Section 106(c) of the STURAA of 1987, have the maximum opportunity to participate in the whole or in part with federal funds provided under this Agreement. In this regard, the Contractor shall take all necessary and reasonable steps in accordance with the regulations to ensure that DBEs have the maximum opportunity to compete for and perform subcontracts. The Contractor shall not discriminate on the basis of race, color, national origin, religion, sex, age or physical handicap in the award and performance of subcontracts.

It is further the policy of the ITP to promote the development and increase the participation of businesses owned and controlled by disadvantaged. DBE involvement in all phases of the ITP’s procurement activities are encouraged.

(b) DBE obligation - The Contractor and its subcontractors agree to ensure that disadvantaged businesses have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds provided under the Agreement. In that regard, all Contractors and subcontractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 as amended, to ensure that minority business enterprises have the maximum opportunity to compete for and perform contracts.

(c) Where the Contractor is found to have failed to exert sufficient reasonable and good faith efforts to involve DBE's in the work provided, the ITP may declare the contractor noncompliance and in breach of contract.

(d) The Contractor will keep records and documents for a reasonable time following performance of this contract to indicate compliance with the ITP’s DBE program. These records and documents will be made available at reasonable times and places for inspection by any authorized representative of the ITP and will be submitted to the state upon request.

(e) The ITP will provide affirmative assistance as may be reasonable and necessary to assist the prime contractor in implementing their programs for DBE participation. The assistance may include the following upon request:

Identification of qualified DBE

Available listing of Minority Assistance Agencies

Holding bid conferences to emphasize requirements

DBE Program Definitions, as used in the contract:

Disadvantaged business “means a small business concern”:

Which is at least 51 percent owned by one or more socially and economically disadvantaged individuals, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

Which is at least 51 percent owned by one or more women individuals, or in the case of any publicly owned business, at least 51% of the stock of which is owned by one or more women individuals; and

Whose management and daily business operations are controlled by one or more women individuals who own it.

“Small business concern” means a small business as defined by Section 3 of the Small Business Act and Appendix B – (Section 106(c)) Determinations of Business Size.

“Socially and economically disadvantaged individuals” means those individuals who are citizens of the United States (or lawfully admitted permanent residents) and States (or lawfully admitted permanent residents) and who are black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans, or women, and any other minorities or individuals found to be disadvantaged by the Small Business Administration pursuant to section 8(a) of the Small Business Act.

“Black Americans”, which includes persons having origins in any of the Black racial groups of Africa;

“Hispanic Americans”, which includes persons of Mexican, Puerto Rican, Cuba, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

“Native Americans’, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

“Asian-Pacific Americans”, which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S. Trust Territories of Pacific, and the Northern Marianas;

“Asian-Indian Americans”, which includes persons whose origins are from India, Pakistan, and Bangladesh.

**30) STATE AND LOCAL LAW DISCLAIMER**

**APPLICABILITY TO CONTRACT**

This disclaimer is applies to all contracts.

**FLOW DOWN**

The Disclaimer has unlimited flow down.

**REQUIREMENTS**

The use of many of the suggested clauses are not governed by Federal law, but are significantly affected by State law. The language of the suggested clauses may need to be modified depending on state law, and that before the suggested clauses are used in the ITP’s procurement documents, the grantees should consult with their local attorney.

**31) INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS**

*FTA Circular 4220.1F*

**APPLICABILITY TO CONTRACT**

Applies to all contracts.

**FLOW DOWN**

The incorporation of FTA terms has unlimited flow down.

**REQUIREMENTS**

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, dated 11/01/2008 are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any ITP requests which would cause the ITP to be in violation of the FTA terms and conditions.

**32) FLY AMERICA**

*49 U.S.C. 40118 41 CFR Part 301-10*

**APPLICABILITY TO CONTRACT**

Applies ONLY to contracts involving international air transportation of persons or materials.

**FLOW DOWN**

The Fly America requirements flow down from FTA recipients and sub recipients to firs tier contractors, who are responsible for ensuring that lower tier contractors are in compliance.

**REQUIREMENTS**

The Contractor understands and agrees that the Federal Government will not participate in the costs of international air transportation of any persons involved in or property acquired for the Project unless that air transportation is provided by U.S.-flag carriers to the extent services by U.S.-flag carriers is available, consistent with the requirements of the International Air Transportation Fair Competitive Practices Act of 1974f. as amended, 49 U.S.C. § 40118, and U.S. General Services Administration (U.S. GSA) regulations “Use of United States Flag Air Carriers.” 41 C.F.R. §§ 301.131 through 301.143.

**34) ENVIRONMENTAL PROTECTION**

**REQUIREMENTS**

The Contractor agrees to comply with all applicable requirements of the National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 et seq. consistent with Executive Order No. 11514, as amended, "Protection and Enhancement of Environmental Quality," 42 U.S.C. § 4321 note; FTA statutory requirements on environmental matters at 49 U.S.C. § 5324(b); Council on Environmental Quality regulations on compliance with the National Environmental Policy Act of 1969, as amended, 40 C.F.R. Part 1500 et seq.; and joint FHWA/FTA regulations, "Environmental Impact and Related Procedures," 23 C.F.R. Part 771 and 49 C.F.R. Part 622.

1. **ACCESS REQUIREMENTS FOR PERSONS WITH DISABILITIES (ADA)**

**REQUIREMENTS**

The Contractor agrees to comply with the requirements of 49 U.S.C. § 5301(d) which expresses the Federal policy that the elderly and persons with disabilities have the same right as other persons to use mass transportation service and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement those policies. The Contractor also agrees to comply with all applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps, and with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 et seq., which requires the provision of accessible facilities and services, and with the following Federal regulations, including any amendments thereto:

U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;

U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;

Joint U.S. Architectural and Transportation Barriers Compliance Board/U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;

U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;

U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;

U.S. GSA regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;

U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;

U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and

FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609; and

Any implementing requirements FTA may issue.

**36) NOTIFICATION OF FEDERAL PARTICIPATION**

**APPLICABILITY TO CONTRACT**

Applies ONLY to contracts for goods and services, including construction, valued at over $500, 00.

**REQUIREMENTS**

In the announcement of any third party contract award for goods or services (including construction services) having an aggregate value of $500,000 or more, the Contractor agrees to specify the amount of Federal assistance to be used in financing that acquisition of goods and services and to express the amount of that Federal assistance as a percentage of the total cost of that third party contract.

# SECTION VIII: FEDERAL CERTIFICATES

Instruction for filling out this form are on other side

DBE PARTICIPATION FORM

Separate information is required for each DBE subcontractor. This form may be duplicated as necessary.

1. DBE Firm Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Dollar amount awarded:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Description of work to be

 performed : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **CONTRACTOR’S COMMITMENT TO USE DBE FIRM**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is committed to utilize the DBE contractor to utilize the above named

(Name of Contractor)

DBE subcontractor/supplier in the manner and amount described on this form.

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Authorized Signature)

1. **DBE’S COMMITMENT TO PARTICIPATE**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, as a DBE firm, is committed to

(Name of subcontractor/supplier)

perform the work as described above for the amount specified.

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Authorized Signature)

1. **NO SUBCONTRACT OPPORTUNITIES, AVAILABLE.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, has no subcontractor opportunities

(Name of subcontractor/supplier)

 available for work to be performed.

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Authorized Signature)

DBE PARTICIPATION FORM

BLANK forms are NOT acceptable. If DBE subcontractor opportunities are available please fill out sections 1 thru 5.If no subcontractor opportunities available fill out section 6.Signatures are required.

Separate information is required for each DBE subcontractor. This form may be duplicated as necessary.

Sub contractor name and address

1. DBE Firm Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Amount awarded to Sub contractor

2. Dollar amount awarded: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Description of work to be

 Performed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Work description.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Prime contractor fills out.

1. **CONTRACTOR’S COMMITMENT TO USE DBE FIRM**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is committed to utilize the DBE

(Name of Contractor)

contractor to utilize the above named DBE subcontractor/supplier in the manner and amount described on this form.

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Authorized Signature)

Sub contractor fills out.

1. **DBE’S COMMITMENT TO PARTICIPATE**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, as a DBE firm, is committed to

(Name of subcontractor/supplier)

perform the work as described above for the amount specified.

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Authorized Signature)

Prime contractor fills out.

1. **NO SUBCONTRACT OPPORTUNITIES, AVAILABLE.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, has no subcontractor opportunities

(Name of subcontractor/supplier)

 available for work to be performed.

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Authorized Signature)



**CERTIFICATION OF LOWER-TIER PARTICIPANTS (SUBCONTRACTORS) REGARDING DEBARMENT, SUSPENSION, AND OTHER INELIGIBILITY AND VOLUNTARY EXCLUSION**

The Lower Tier Participant (Subcontractor to the Primary Contractor), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

If the above named Lower Tier Participant (Subcontractor) is unable to certify to any of the statements in this certification, such participant shall attach an explanation to this proposal.

The Lower-Tier participant (Subcontractor), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification and understands that the provisions of 31. U.S.C. Sections 3801 etseq. are applicable thereto.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Signature and Title of Authorized Official***

BUY AMERICA CERTIFICATE

Pursuant to Section 165 of the Surface Transportation Assistance Act of 1982, as amended by Section 337 of the Surface Transportation and Uniform Relocation Assistance Act of 1987, FTA regulations at 49 CFR, Part 661, and at 49 CFR, Part 663, and guidance issued by FTA, all bidders shall submit the following certificate with their bid or proposal. Failure to submit this certificate will automatically disqualify the bidder from consideration of a Contract award for this Project. An exemption from the "Buy America" requirements may be sought by ITP if grounds for an exemption exist.

CERTIFICATE OF COMPLIANCE WITH SECTION 165(a)

The bidder hereby certifies that *it will comply* with the requirements of Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations in 49 CFR, Part 661.11

DATED:

COMPANY:

SIGNATURE:

TITLE:

CERTIFICATE OF NON-COMPLIANCE WITH SECTION 165(b)(3)

The bidder hereby certifies that *it cannot comply* with the requirements of Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, but it may qualify for an exception to the requirements consistent with Section 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act, as amended, and regulations in 49 CFR, Part 661.7.

DATED:

COMPANY:

SIGNATURE:

TITLE:


# Appendix A: Fleet Inventory

# Appendix B: System Network Diagram

# Appendix C: Price Proposal Form

# Appendix D: Compliance Matrix

1. ITP will be transitioning from Microsoft Windows 7 to Microsoft Windows 10 by 2016. ITP is also planning to upgrade to Microsoft Windows Server 2012 R2 by 2017. [↑](#footnote-ref-1)
2. Current system availability and redundancy for network connectivity is maintained for TVM credit card payment through a failover that allows ITP to use either iServ or Comcast as the internet provider. iServ is ITP’s primary managed business internet. Comcast is used as redundant business internet. [↑](#footnote-ref-2)
3. The new ITP fare system is being designed using account-based architecture so only read-only media are required. However, on-board readers shall have both read and write capability and ITP may choose to support card-based transactions in the future, if necessary, particularly for limited use media issued by ITP or its partners and prepaid media sold by ITP’s retail partners. [↑](#footnote-ref-3)
4. Table 1 identifies minimum number of onsite visits. Proposers shall include all onsite visits as necessary in their proposal. [↑](#footnote-ref-4)