



**REQUEST FOR PROPOSALS
SMART BUS AND RELATED INTELLIGENT TRANSPORTATION
SYSTEMS**

SEPTEMBER 13, 2010

TABLE OF CONTENTS

1	INSTRUCTIONS TO PROPOSERS	10
1.1	SUMMARY OF COLTS SMART BUS AND RELATED ITS SYSTEMS PROJECT	10
1.1.1	REQUIRED FUNCIONALITY.....	10
1.1.2	OPTIONAL FUNCTIONALITY.....	10
1.1.3	OPTIONAL QUANTITIES/AGENCIES.....	10
1.2	SUBMISSION INSTRUCTIONS.....	12
1.2.1	Due Date.....	12
1.2.2	Proprietary Information.....	12
1.2.3	Forms.....	12
1.2.4	Availability of Electronic Version of This Document.....	12
1.3	QUESTIONS CONCERNING THE PROJECT.....	13
1.3.1	Pre-Proposal Meeting.....	13
1.3.2	Verbal and Written Questions.....	13
1.4	ON-SITE INTERVIEWS.....	13
1.5	PROPOSAL FORMAT.....	13
1.5.1	General.....	13
1.5.2	Submission of Supplemental Material.....	14
1.5.3	Minimum Requirements – Technical Proposal.....	14
1.5.4	Cost Proposal.....	16
1.5.4.1	Cost Proposal Form.....	17
1.6	DISADVANTAGED BUSINESS ENTERPRISE.....	17
1.7	CONTRACT.....	17
1.7.1	Award of Contract.....	17
1.7.2	Contract Type.....	17
1.7.3	Time for Completion.....	17
1.8	EVALUATION METHODOLOGY.....	17
1.8.1	Evaluation Criteria.....	17
1.8.2	Evaluation Committee.....	18
1.9	PROPOSAL SUMMARY.....	18
1.9.1	Procurement Schedule (Tentative).....	18
2	OBJECTIVES	20
2.1	PROJECT GOALS.....	20
2.1.1.1	General Goals.....	20
2.1.1.2	Technical Goals.....	20

2.2	GENERAL SCOPE	20
2.2.1.1	Contractor Responsibilities	21
2.2.1.2	General Contractor Responsibilities.....	21
2.2.1.3	Specific Contractor Responsibilities	21
2.2.1.4	COLTS Responsibilities	22
2.2.1.5	Consultant Responsibilities	22
2.2.1.6	Background.....	23
2.2.1.6.1	Organizational Structure.....	23
2.2.1.7	Existing Communications System.....	25
2.2.1.8	Existing Communications Environment	25
2.2.1.9	Existing Computer Environment.....	25
3	RADIO/DATA COMMUNICATION	26
3.1.1.1	General	26
3.2	COMMUNICATIONS REQUIREMENTS	26
3.2.1.1	General	26
3.2.2	<i>Servers</i>	27
3.2.2.1	Mobile Equipment.....	27
4	FUNCTIONAL SPECIFICATIONS: GENERAL	29
5	SMART BUS	31
5.1	ON-BOARD SYSTEMS	31
5.1.1.1	General	31
5.1.1.2	Vehicle Area Network (VAN).....	31
5.1.2	<i>MDT</i>	31
5.1.2.1	MDT Hardware.....	31
5.1.2.1.1	General	31
5.1.2.1.2	Vehicle Logic Unit (VLU)	32
5.1.2.1.3	Vehicle Operator Terminal.....	32
5.1.2.1.4	Integrated GPS Receiver and Antenna.....	33
5.1.2.1.5	Interface with existing odometers	33
5.1.2.1.6	WLAN Card and Antenna.....	33
5.1.2.2	Installation	34
5.1.2.3	MDT Software	34
5.1.2.3.1	Logon and Logoff	34
5.1.2.3.2	Location reporting.....	34
5.1.2.3.3	Schedule adherence	35
5.1.2.3.4	Route adherence	35

5.1.2.3.5	Bulk data transfer	35
5.1.2.3.6	On-board device alarm reporting	35
5.1.3	<i>Automatic Passenger Counting</i>	36
5.1.3.1	APC controller	36
5.1.3.2	APC doorway sensors	38
5.1.3.3	Installation	39
5.1.3.4	Integration	40
5.1.4	<i>Automated Voice Annunciation System (AVAS)</i>	40
5.1.4.1	AVAS controller	40
5.1.4.2	Dynamic Message Signs (DMS)	42
5.1.4.3	Installation	44
5.1.4.4	Integration	44
5.2	CENTRAL SYSTEM	44
5.2.1	<i>General</i>	44
5.2.2	<i>Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) Software</i>	45
5.2.2.1	General	45
5.2.2.2	MDT Logon Verification and Run Download	45
5.2.2.3	Location Tracking	46
5.2.2.4	Route and Schedule Adherence Tracking	46
5.2.2.5	Location Playback	46
5.2.2.6	Transfer Connection Protection	46
5.2.2.7	Data Logging and Retrieval	47
5.2.2.8	Interfaces	47
5.2.2.8.1	Mobile data communication gateway software	47
5.2.2.8.2	Bulk data transfer support software	47
5.2.3	<i>APC Management Software</i>	47
5.2.3.1	Unprocessed Data	47
5.2.3.2	Post-Processed Data	47
5.2.3.3	Interfaces	48
5.2.3.4	Bulk Data Transfer Support Software	48
5.2.4	<i>AVAS Management Software</i>	48
5.2.4.1	Announcement Preparation	48
5.2.4.2	Trigger Zone Configuration	48
5.2.4.3	Interface: Bulk Data Transfer Support Software	49
5.2.5	<i>Mobile Data Communication Gateway Software</i>	49
5.2.5.1	Data Message Processing	49
5.2.5.2	Interfaces	49

5.2.6	Wireless Local Area Network	49
5.2.6.1	Hardware	49
5.2.6.2	Installation	49
5.2.7	Bulk Data Transfer Support Software.....	50
5.3	FAREBOX INTERFACE – HIGHLY DESIRABLE OPTIONAL ELEMENT	50
6	PREDICTIVE ARRIVAL SYSTEMS	51
6.1	VIDEO MONITORS	51
6.1.1	Hardware.....	51
6.1.1.1	Software	53
6.1.1.2	Installation	53
6.1.2	Central PAS Software	53
6.1.2.1	Website.....	54
6.1.3	Integration	55
6.1.3.1	AVL Software.....	55
6.1.3.2	Mobile Data Communications Gateway Support Software.....	55
6.2	TRIP PLANNING SYSTEM/GOOGLE INTERFACE – OPTIONAL ELEMENT	55
6.2.1	Google Data.....	55
6.3	REAL TIME LOCATION TRACKING.....	55
7	PROJECT MANAGEMENT	57
7.1	GENERAL	57
7.2	PROJECT STATUS TRACKING.....	57
7.3	BI-WEEKLY CONFERENCE CALLS	57
7.4	MINIMUM REQUIRED ONSITE WORK	58
7.5	INVOICING.....	58
8	DESIGN REVIEW	59
9	GENERAL INSTALLATION REQUIREMENTS	60
10	ACCEPTANCE TESTING	62
11	DOCUMENTATION AND TRAINING	64
11.1	GENERAL	64
11.2	TRAINING.....	64
11.3	MANUALS	65
12	MAINTENANCE AND WARRANTY	66
12.1	SPARE COMPONENTS	66
12.1.1	Support.....	66

12.2	WARRANTY	66
12.2.1	<i>Repair or Replacement of Faulty Components</i>	68
12.2.2	<i>System-wide Replacement</i>	68
13	GENERAL CONDITIONS	69
13.1	BID FORMS.....	69
13.2	BONDING REQUIREMENTS.....	69
14	APPENDIX A – REQUIRED FORMS AND CERTIFICATIONS	72
15	APPENDIX B – FUNCTIONALITY/COMPLIANCE MATRIX	95
16	APPENDIX C – COST PROPOSAL FORM	96
17	APPENDIX D – VEHICLE INVENTORY	97
18	APPENDIX E – THIRD PARTY CONTRACT CLAUSES	98
19	APPENDIX F- COLTS COMPLIANCE WITH TITLE VI	111

LIST OF ABBREVIATIONS AND ACRONYMS

AVAS	Automated Voice Annunciation System
ABD	As-Built Document
ADA	American With Disability Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AIL	Action Item List
APC	Automatic Passenger Counting
BT	Burn-In Testing
CMP	Change Management Plan
COTS	Commercial Off the Shelf
CP	Communications Plan
DMS	Dynamic Message Signs
DRD	Design Review Documentation
EPS	Electronic Payment System
FT	Factory Testing
GIS	Geographical Information System
GPS	Global Positioning System
COLTS	County of Lackawanna Transit
IDD	Installation Design Documentation
IT	Installation Testing
ITS	Intelligent Transportation Systems
LAN	Local Area Network
LCD	Liquid Crystal Display
LED	Light Emitting Diode
MDT	Mobile Data Terminal
MID	Message ID
MM	Maintenance Manuals
NSA	Next Stop Announcement
NTCIP	National Transportation Communications Interface Protocols
NTP	Notice To Proceed
ODBC	Open Database Connectivity
PAS	Predictive Arrival System
PA	Public Address
PID	Parameter ID
PRTT	Priority Request To Talk
QAP	Quality Assurance Plan
RDBMS	Relational Database Management System
RM	Requirements Matrix
RMP	Risk Management Plan
RR	Requirements Review
RTT	Request To Talk
SA	System Acceptance
SIP	System Implementation Plan
SM	Systems Manuals
ST	System Testing

TCP	Transfer Connection Protection
TP	Training Plan
TRD	Test Results Documentation
UM	User Manuals
VAN	Vehicle Area Network
VLU	Vehicle Logic Unit
WLAN	Wireless Local Area Network

REQUEST FOR PROPOSALS SMART BUS AND RELATED INTELLIGENT TRANSPORTATION SYSTEMS

County of Lackawanna Transit System (COLTS) in Scranton, PA is requesting proposals from qualified firms to provide a new turnkey ITS vehicle technology system (“Smart Bus”) for up to 33 fixed route transit buses. The base system will include GPS/GIS, predictive arrival, APC, Voice Annunciation, with options for an interface into the fare collection system and real time mapping/tracking, and other ITS components.

In addition, the Pennsylvania Department of Transportation (PENNDOT) is currently conducting a feasibility study to consolidate COLTS, Luzerne County Transportation Authority (LCTA) and Hazelton Public Transit (HPT). Therefore, as part of this RFP we are requesting that vendors fill out cost sheets for all three agencies that have been included in this RFP. This RFP will be used as the vehicle to procure the equipment at all three agencies whether or not the consolidation transpires. In the case that the consolidation is determined not to be feasible more than one bidder may be awarded a contract.

Prospective proposers are invited to attend a **mandatory** audio conference call Pre-Bid Meeting that will be held on October 4, 2010 at 10:00 AM at the offices of COLTS located at 800 North South Road, Scranton PA, 18504 where COLTS will present an overview of the project and field questions. **Proposers are alerted that they should send an email to Jennifer Honick at HonickJ@lackawannacounty.org expressing their interest to participate in the audio pre-bid conference call no later than 5 days before the meeting. COLTS will send call in information to all prospective proposers to participate in this meeting.**

All proposals and related documents will be subject to the financial assistance contract between the Federal Transit Administration (FTA), the Pennsylvania Department of Transportation (PennDOT), and COLTS. DBE/WBE participation is strongly encouraged.

Copies of the RFP package can be requested by email at HonickJ@lackawannacounty.org or by mail to COLTS, 800 North South Road, Scranton PA, 18504, or by telephone (570) 346-2061 Ext 1264. All questions regarding this RFP are to be directed to Jennifer Honick, Director of Grants and Finance.

One (1) unbound original and six (6) bound copies of the proposal should be submitted. Completed proposals are due at the offices of COLTS no later than noon (12:00 P.M. EST) on October 29, 2010. Proposals should be addressed to:

Jennifer Honick, Director of Grants and Finance
County of Lackawanna Transit
800 North South Road
Scranton, PA 18504

Proposals received later than noon (12:00 P.M. EST) on October 29, 2010 shall be rejected. The County of Lackawanna Transit reserves the right to reject any or all proposals.

1 Instructions to Proposers

1.1 SUMMARY OF COLTS SMART BUS AND RELATED ITS SYSTEMS PROJECT

COLTS has issued this Request for Proposals to solicit and procure the necessary hardware and software to provide the following functionality to its fleet:

1.1.1 REQUIRED FUNCIONTALITY

Automatic Passenger Counting
Automated Stop Annunciation
On Time Performance/Schedule Adherence Monitoring
Predictive Arrival
Real Time GPS Tracking/Mapping
Voice and Data Radio Communications

1.1.2 OPTIONAL FUNCTIONALITY

Application Service Provider (solution) ASP
SmartCard/Farebox interface
Google Maps/Trip Planner
Dial in IVR capabilities by stop

1.1.3 OPTIONAL QUANTITIES/AGENCIES

Luzerne County Transportation Authority
Hazelton Public Transit

The specifications outlined in the RFP provide the technical/functional elements for such a system. It should be noted that COLTS currently operates a fleet of thirty (33) buses within Lackawanna County in Pennsylvania. This fleet would be equipped with the Smart Bus system immediately following Notice to Proceed (NTP).

COLTS is also requesting that some of the elements be bid as optional and the cost proposal form clearly delineates these items. Prospective vendors must provide cost estimates for the optional items as shown on the form. If any of the optional items/functionality are included in other “non-optional” elements of the vendor’s system, the vendor must clearly state such in an

attachment to the cost proposal form along with a reference indicating such on the cost proposal form itself.

In addition, bidders are requested to provide cost for equipping two other agencies (LCTA and HPT) as shown on the cost proposal form.

1.2 Submission Instructions

1.2.1 Quantity

The proposer shall submit one (1) unbound original and six (6) bound copies of its proposal and, in a separate sealed envelope, one (1) unbound original and six (6) bound copies of its cost proposal. Any attachments or backup material will only require a single copy.

1.2.1 Due Date

In order to be considered, proposals must be received at the offices of COLTS by noon (12:00 PM EST) on Friday, October 29, 2010. Failure of the U.S. Postal Service, or other delivery service, to deliver proposal packages on time shall result in the proposal not being opened or considered. Proposals should be clearly marked Smart Bus and Related ITS Systems and delivered to:

Jennifer Honick, Director of Grants and Finance
County of Lackawanna Transit
800 North South Road
Scranton, PA 18504
(570) 346-2061 Ext 1264

1.2.2 Proprietary Information

Any information contained in the proposal that the proposer considers proprietary must be clearly identified as such. COLTS will respect requests for non-disclosure of proprietary information to the extent that information so restricted conforms to the Freedom of Information Act and Pennsylvania Sunshine Laws.

1.2.3 Forms

Appendix A of this solicitation contains certain forms that are mandatory in the proposal process. These forms must be executed and submitted in their exact format in order for the proposal to be considered responsive. Precise, unedited computer reproductions to expedite the proposal preparation process are acceptable.

1.2.4 Availability of Electronic Version of This Document

The Request for Proposals and all related forms contained herein are available electronically in word and Excel formats. Interested parties who desire an electronic copy of this document should contact Jennifer Honick (HonickJ@lackawannacounty.org). Files will be sent via e-mail to the requesting party. COLTS does not warrant the integrity or format accuracy of any file or document sent in this manner.

1.3 Questions Concerning the Project

1.3.1 Pre-Proposal Meeting

COLTS will conduct a *mandatory* audio pre-bid conference call on October 4, 2010 at 10:00 AM at the offices of COLTS located at 800 North South Road, Scranton PA, 18504 where COLTS will present an overview of the project and field questions.

Proposers are alerted that they should send an email to Jennifer Honick at HonickJ@lackawannacounty.org expressing their interest to participate in the audio pre-bid conference call no later than 5 days before the meeting. COLTS will send call in information to all prospective proposers to participate in this meeting.

The meeting is mandatory, all interested parties *must* participate in this meeting. The purpose of the pre-bid audio conference call will be to address issues and questions raised in our RFP by prospective proposers. A summary of issues raised in this meeting, and responses thereto, will be issued in writing to all proposers who attend the meeting. Failure to attend the meeting will result in automatic disqualification of proposers.

1.3.2 Verbal and Written Questions

Prospective proposers are encouraged to submit substantive questions, comments and concerns in writing prior to the pre-proposal conference. Written questions received no later than 3:00 P.M. on October 15, 2010 will be answered in writing and distributed via addendum to all attendees from the pre-proposal conference as well as those listed on the RFP distribution list. Questions should be addressed to Jennifer Honick of COLTS at the above address. Email questions will be considered as written however, no telephone solicitations will be honored.

1.4 On-Site Interviews

COLTS reserves the right to conduct on-site interviews with one or more of the top ranked proposers as part of the evaluation and selection process. Proposers should be advised that if interviews are held, they shall be conducted during the week of November 8, 2010.

1.5 Proposal Format

1.5.1 General

The Functional Specifications have described, from a functional standpoint, elements of the Smart Bus System with related ITS systems that would aid COLTS in their daily mission of providing quality transit service in an economical manner. The primary goals of this project are to improve data collection and analysis and to provide our customers with predictive arrival information. It is our intent to provide proposers the opportunity to offer proven products, customized only to the extent necessary to meet the project objectives. COLTS may not have addressed all functional elements of a particular vendor's product(s). Such omissions are not intended to mean that COLTS does not desire to have that functional element as part of the system to be purchased under this procurement. A full-featured, functionally diverse product is required.

1.5.2 Submission of Supplemental Material

Proposers will be permitted to submit any additional information they consider relevant to the project scope of work and the project at hand. Such supplemental materials, if submitted, should be in addition to the proposal, not contained in the proposal itself. Only one copy of any supplemental material should be submitted.

1.5.3 Minimum Requirements – Technical Proposal

At a minimum, each technical proposal should contain the following elements bound on the side and organized in the following fashion using tabbed, numbered separators.

- **Cover:** RFP Project Title and proposer's name.
- **Letter of Transmittal:** One (1) original and (1) copy bound in each copy of the proposal signed by an authorized officer of the proposer.
- **Table of Contents**
- **Proposal:** The proposal shall be a comprehensive, accurate and effective presentation. One unbound original and six (6) bound copies should be submitted. The proposal shall be submitted on 8 ½" X 11" paper with foldouts from this as required. No more than 50 sheets (100 pages) should be contained within the proposal and printing on both sides of the pages will be permitted. **(This does not include the requirements matrix.)**
- **Tab 1-Understanding of the Project** - Based on information contained in this RFP, as well as information obtained in subsequent addenda, pre-proposal meetings, and other materials available from COLTS, the proposer should indicate, in written narrative, how the product(s) proposed will facilitate COLTS' goals for implementation of this project. Proposers should demonstrate a thorough understanding of COLTS' overall objective of improving the quality of transportation services to its customers in implementing the technology plan.
- **Tab 2- System Description** – Proposers should fully describe the system being offered as part of this submission. Capabilities and features should be described in the context of the application to COLTS services and the benefits gained from installing and using the product. Proposers must list all components or modules necessary to fully implement the project, including third party software necessary to complete the total installation.

In the Functional Specifications of this RFP, COLTS provides an overview of the current operating environment. Proposers should carefully study this information and include in this section of their proposal any necessary hardware acquisition, upgrades, etc. necessary to operate the proposed Smart Bus and ITS system components.

- **Tab 3-Implementation Plan** – Proposers should fully describe the proposed implementation plan as described in Section 8 and elsewhere in this RFP, detailing all major milestones in the process. A proposed timeframe from notice-to-proceed (NTP) through live testing, de-bugging, and operation should be developed as an integral part of this proposal.

- **Tab 4 -Quality Assurance Plan** – Proposers should describe in detail their management strategies for overall quality assurance in the installation, start-up, and operation of the Smart Bus and related ITS system components. At a minimum, proposers should address:
 - *Project Management and Staffing* – Describe the proposed individuals and team approach used to successfully communicate with COLTS management staff throughout the project. If subcontractors are used for any part of the installation, customization, or maintenance of the proposed software system, this element of the approach must be identified here. Proposer should provide an organizational chart to illustrate the relationships in this section.
 - *Quality Control* – Describe steps and techniques employed by the proposer to ensure the integrity of data that may be required to be imported and/or converted for use in the proposed system.
 - *Maintenance, Support, and Upgrades* – Describe the proposers’ network of technical support during the project, focusing both on the critical initial implementation period as well as long-term operation. Describe procedures for rendering support, including the availability of technicians to provide on-site repairs and the ability to remotely access, diagnose and repair problems. Technical support policies and pricing must be explained in detail. Proposers should also describe its most recent three-year history in terms of system upgrades offered and pricing. Future system upgrade policies must be described and will be a factor in the award.

- **Tab 5-Training** – Proposers should provide a detailed schedule and course outline for the necessary training of COLTS staff on the proposed Smart Bus System. This section should identify the training course content, the number and type of training courses that will be required and the length of the training sessions, etc. Proposers should indicate when the training should be provided in the context of the overall implementation time schedule provided above. Qualifications of the staff providing the training should be listed.

- **Tab 6- COLTS Requirements Under the Project** – COLTS understands that successful implementation of this project requires a partnership between the Authority and the selected contractor. Although responsibilities of COLTS and vendor are defined in this RFP, the Proposer should identify key contributions from COLTS, the personnel in our organization responsible for providing the contribution, and an estimate of the time COLTS should be prepared to devote to the planning, installation, testing, and implementation stages of the project.

- **Tab 7- Experience** – Proposers should provide a corporate profile indicating their qualifications to provide the required systems and support necessary to achieve COLTS’ goals for the project. Proposers must submit a list of other transit systems where the proposed application(s) have been installed successfully. A separate list of the proposers’

last five (5) installations, along with a project contact, address, telephone number, facsimile number, and e-mail address must be provided.

- **Tab 8 -Firm Financial Statement** – Proposers shall submit the Firm’s bank reference, including the name, address and phone number of a contact person, or a letter of reference from the bank where the Firm holds a corporate account. Proposers also must submit the Firm’s most recent financial statement covering the past three (3) years of operation, or the most recent audited annual report.

- **Tab 9 - Required Forms and Certifications** – The proposer must indicate its compliance with certain Federal and state executive orders, laws, statutes, and regulations to be considered for award:
 - Integrity Certification
 - Access to Records
 - Commonwealth Of Pennsylvania Non-Discrimination Clause
 - Receipt of Addenda (submit whether or not any addenda are issued).
 - No Federal Government Obligations to Third-Parties
 - Program Fraud and False or Fraudulent Statements Related Acts
 - Buy America
 - Federal Changes
 - Civil Rights (EEO, Title VI & ADA)
 - DBE Certification
 - Incorporation of FTA Terms
 - Suspension and Debarment
 - Lobbying
 - Clean Air
 - Clean Water
 - Energy Conservation
 - Non-Collusion Affidavit

- **Tab 10-Compliance Matrix** – Proposers are required to indicate the compliance status relative to each individual requirement listed in the Functionality/Compliance Matrix (Appendix B). This Matrix is available in Microsoft Excel format.

1.5.4 Cost Proposal

Price proposals must be submitted in the format contained in Appendix C of the RFP. This Matrix is available in Microsoft Excel format.

Disclosure of Cost Information.

The information requested is required to support the reasonableness of the proposed cost and distribution of expenses and is for the review of the evaluation committee only. It will not be shared with other proposers or released to the general public except in the form of total contract value. The prices and rates for personnel, overhead and profit must be binding for the life of the contract if a NOTICE TO PROCEED is issued within ninety (90) days of submission. The "GRAND TOTAL" must be binding for this period and may become the "Not to Exceed" Amount issued with the Notice to Proceed.

1.5.4.1 Cost Proposal Form

The Cost Proposal Form is available in a Microsoft Excel format. Prospective proposers must utilize this format. All costs should fit within the major categories in the existing form so discrete elements (i.e.: automatic passenger counting) may continue to be isolated on the price proposal form. All items that are considered "options" are identified as such on the cost proposal form.

1.6 Disadvantaged Business Enterprise

If not addressed under subcontractors, please identify any participation in the project by disadvantaged business enterprise. A goal of 5 % DBE participation has been set on this contract.

1.7 Contract

1.7.1 Award of Contract

COLTS anticipates award of a contract at its regularly scheduled Board meeting on November 24, 2010. A Notice to proceed (NTP) is anticipated within one (1) month, following receipt of necessary documentation, such as insurance certificates, etc. from the selected vendor.

1.7.2 Contract Type

COLTS will enter into a firm, fixed price contract with the selected vendor.

1.7.3 Time for Completion

COLTS will negotiate with the highest ranked proposer to establish a project schedule based on the proposed schedule submitted in the proposal. The desired time for the implementation is six months. COLTS will take into consideration the requirements of its organization and personnel during the installation and implementation period in the development of the schedule that is mutually satisfactory to all parties.

1.8 Evaluation Methodology

1.8.1 Evaluation Criteria

Proposals for this project shall be evaluated by a committee using the following rank-ordered criteria with their respective weights:

- **Capability of the Proposed System to Meet COLTS Needs – 25%.** This category includes factors such as compliance with functional specifications; system life cycle, usability, expandability, and maintainability, measured in part by amount of use of standard, non-proprietary interfaces; proposed project management plan and project schedule; overall quality of the proposed training program; and minimization of risk by use of the most current, proven and available state-of-the-art technologies.
- **Prime Contractor – 20%** The number of successful installations and length of time system has been in place and working properly.
- **Experience, Personnel and Installation Base of the Proposer – 25%.** This category includes factors such as the breadth and depth of project experience with and past performance on similar projects; financial solvency and capacity; overall installation and deployment experience; project management team, key personnel, and results of customer references related to similar projects.
- **Cost – 30%.** This category includes factors such as costs that are comparative to similar systems/proposals for each element in the Pricing Proposal Form; unit prices that are comparable to similar unit prices in the industry; and inclusion of extraneous elements.

1.8.2 Evaluation Committee

COLTS shall form an Evaluation Committee for this solicitation. Proposers shall not contact any member of the Evaluation Committee during this procurement other than the contact names specified in the RFP.

Each committee member will review all proposals individually and complete an evaluation form. Once all forms are completed and tabulated, the committee will convene to recommend a vendor for the project to the COLTS Board of Directors. Interviews between the committee and finalists may or may not be necessary.

1.9 Proposal Summary

1.9.1 Procurement Schedule (Tentative)

Advertisement of Request for Proposals	September 8, 2010
Release Date for RFP	September 13, 2010
Pre-Bid Meeting (MANDATORY)	October 4, 2010
Deadline for written questions	October 15, 2010
Proposal due	October 29, 2010
Interviews	Week of November 8, 2010
Board approval to enter negotiations	Week of November 15, 2010

Contract Award/Notice-to-Proceed

by November 29, 2010

2 Objectives

2.1 Project Goals

2.1.1.1 General Goals

COLTS is currently upgrading all elements of the business to better leverage new technology. As part of this effort COLTS will be replacing the current AVL systems with a new state of the art AVL system providing customers with a new and improved predictive arrival system and to improve data collection and analysis capabilities. The goal of deploying the Smart Bus System at COLTS is to improve customer service by improving the predictability of fixed route service and providing detailed ridership and operating data for route analysis. This goal is approached both from an improvement in reliability and consistency of service, as well as an information accessibility standpoint for our customers. It is our intent to provide customers access to real time information by mobile device or by our website. This project will also provide COLTS staff with immediate, comprehensive information to improve service planning and customer service.

In addition, PENNDOT is currently conducting a study to consolidate the three transit agencies serving Luzerne and Lackawanna Counties (COLTS, Hazelton Public Transit and Luzerne County Transportation Authority). As part of the proposal we are asking for optional pricing to include the two additional transit agencies. Should the consolidation occur, the assumption is to be made that COLTS will be hosting the hardware or an Application Service Provider (ASP) will provide the hosting.

2.1.1.2 Technical Goals

The technical goals for implementing a Smart Bus System at COLTS include the following:

- Automatic Voice Annunciation/Signage
- Predictive Arrival
- Manage on-time performance
- Automatic passenger counting
- Improved voice and data communications

2.2 General Scope

The Scope of this project includes all installation of fully integrated on-board components. The following components were identified by COLTS as the most critical ITS technologies that would benefit COLTS and its customers. The complete list of ITS technologies to be deployed during the implementation includes:

- Automatic Passenger Counters

- Automated Voice Annunciation System
- Predictive Arrival System
- Google Interface/Trip Planning System
- IVR telephone stop information

2.2.1.1 Contractor Responsibilities

All Contractor responsibilities are outlined in this specification. However, the contract between the Contractor and COLTS shall describe the Contractor's responsibilities as they are agreed to by both parties. Please refer to Section 7 for a description of the Contractor's project management responsibilities.

2.2.1.2 General Contractor Responsibilities

Generally, the Contractor's responsibilities will include the following:

- Be an active partner with COLTS in assuring project success;
- Contractor is responsible for acquiring and implementing a stable and reliable integrated system able to provide COLTS with the functionality described herein.
- Provide experienced staff that understand the design, development, testing, integration, implementation and deployment of ITS systems for public transportation, best practices, project management methodology;
- Provide a project manager to act as the single point of contact for all communication regarding work under this Request for Proposal (RFP);
- Coordinate all tasks with the designated COLTS project manager; and
- Actively participate in and provide input to the development, tracking and updating of all project management documents.

2.2.1.3 Specific Contractor Responsibilities

Before commencing this project, the Contractor is responsible for preparing a detailed Work Plan, containing items in Section 8 of these specifications.

The Contractor is responsible for preparing a detailed schedule with a minimum of the following requirements:

- Must be in Microsoft Project and Excel;

- Include the following components in schedule: task ID, percent complete, task description, duration, start date, end date, predecessor tasks, resources required with percentage of time based on an eight-hour day and 40-hour week;
- Take into account COLTS working times and holidays;
- Relate tasks back to the appropriate detail in the Work Plan by using the same task number
- Establish project milestones identical to those shown in the Work Plan.

The Contactor shall provide detailed written status reports (see Section 7.3) to the designated COLTS project manager that include, but are not limited to work completed; work in progress; scope changes; schedule changes; and issues and delays.

The Contractor will document in writing all decisions made, recommendations, results of reviews, and meetings or other appropriate communications where information is exchanged. This may be accomplished by updating the detailed Work Plan or updating other documents as appropriate and agreed upon with the COLTS project manager.

The Contractor shall meet regularly with the COLTS project manager and other staff designated to review progress, critical risk factors that may affect the project schedule or other success factors, as well as unique issues that may surface (see Section 7).

The Contractor shall obtain signed COLTS acceptance for all deliverables, tasks and milestones as outlined and agreed upon in the project Work Plan.

The Contractor's staff shall dress in a professional manner.

2.2.1.4 COLTS Responsibilities

COLTS will:

- Provide a project manager who will act as the primary point of contact with the Contractor;
- Provide appropriate access to the premises, facilities, systems and COLTS staff members assigned to the project.
- Conduct joint project team and planning meetings;
- Facilitate for the Contractor, the setting up of required meetings.

2.2.1.5 Consultant Responsibilities

COLTS may use an ITS Consultant to assist in the implementation of this project. If such a consultant is used on this project, their responsibilities could include:

- Participate in overall project management;
- Update the specifications and monitor system development;
- Provide installation supervision assistance;
- Recommend to COLTS action(s) in response to each Contractor invoice (e.g., pay in full, pay in part, require resubmission);
- Track the overall invoicing and payment status for each payment milestone;
- Review the Contractor's design and documentation, including the following:
 - Review the detailed System Implementation Plan (SIP);
 - Participate in the design review(s);
 - Review Acceptance Test Plans;
 - Review training materials; and
 - Review documentation and manuals; and
- Participate in factory and field-level acceptance, including participating in factory and acceptance tests, making maintenance recommendations, and supporting the transition of all systems into full operations.

2.2.1.6 Background

2.2.1.6.1 Organizational Structure

The Executive Director is in charge of all day-to-day operations of the Authority. The senior staff is comprised Director of Grants and Finance, Manager of Human Resources and Operations Manager. A summary of COLTS', LCTA's and HPT's vehicle fleets that are to have new equipment installed is provided in Table 1-1. A more detailed vehicle inventory is provided in Appendix D.

Table 1-1. Vehicle Fleet List

Fleet Composition

Property	Manufact	Total	Year	length	Eng Manu	Destination Signs
Colts	Gillig Phantom	13	99	35'	Detroit Diesel	Twin Vision
Colts	Optima Trolley	2	05	26'	Cummings Diesel	Electronic Scrol
Colts	Gillig Phantom	1	06	35'	Detroit Diesel	Twin Vision
Colts	Gillig Phantom	13	00	35'	Detroit Diesel	Twin Vision
Colts	Gillig Phantom	2	02	30'	Detroit Diesel	Illumnators
Colts	Gillig Low Floor	2	09	40'	Detroit Diesel	Twin Vision
HPT	Gillig	1		35'		
HPT	Gillig	4		30'		
HPT	Gillig low floor	3		30'		
HPT	Ford Cut away van	3		21'		
HPT	Chance Trolley	1		29'		
LCTA	Gillig Low Floor	3	10	35'	Cumming Hybrid	Twin Vision
LCTA	Gillig Low Floor	2	10	29'	Cummings Hybrid	Twin Vision
LCTA	Gillig Low Floor	2	09	35'	Cummings Diesel	Twin Vision
LCTA	Gillig Low Floor	3	09	35'	Cummings Hybrid	Twin Vision
LCTA	Gillig Phantoms	7	97	35'	Detroit Diesel	Illuminator
LCTA	Gillig Phantoms	10	04	35'	Detroit Diesel	Twin Vision
LCTA	Gillig Phantoms	10	06	35'	Cummings Diesel	Twin Vision
LCTA	Chance Trolley	1	02	29'	Cummings Diesel	Chance Roller

2.2.1.7 Existing Communications System

COLTS currently owns their radios and the system is monitored in the COLTS administrative offices. The Dispatcher responds to all radio calls during the normal work shifts. The proposer must work with the current provider(s) to design a system that will meet the needs of the AVL system as well as the needs of the voice communications system of COLTS. Currently, all buses have Motorola M120 mobile data radios. Colts would like to procure a new radio system regardless of the communication design.

2.2.1.8 . Existing Communications Environment

Although COLTS Smart Bus Implementation must provide accurate and timely vehicle location status and information while minimizing the use of radio communications for the transmission of vehicle location and status data. COLTS would like to replace the current radios regardless of the communication system chosen.

2.2.1.9 Existing Computer Environment

COLTS is upgrading the existing network infrastructure environment and relocating the hardware and support from the County of Lackawanna office to their offices at 800 North South Road. All desktops will be upgraded as part of this project.

COLTS will have approximate four servers and 20 PCs. The new operating environment will be Windows 7 utilizing Office 2010. Any new in-house servers must be capable of operating on the Windows 2008 platform and will be placed on the COLTS network.

3 Radio/Data Communication

The contractor is responsible for designing a complete voice and data network to meet the needs of a fully functioning system. The final design is subject to COLTS' approval.

3.1.1.1 General

The proposal shall describe any and all requirements for FCC license, cost, modifications, installation, optimization, testing, and maintenance of a fully integrated voice and mobile data communications system. The proposer is responsible for delivering a fully functional voice/data communication system for this project.

COLTS anticipates the system to be capable of sending AVL data (at least latitude, longitude, speed, time, date and direction of travel) from the vehicle to the central system at a minimum once every 90 seconds.

The end result of the design shall be a complete, functioning mobile voice and data communications system.

3.2 Communications Requirements

3.2.1.1 General

The contractor shall design and install all communications equipment necessary to have a fully functioning AVL system and voice communication system.

This includes any wiring/cabling for interfacing new equipment with COLTS' existing equipment. All installations shall be accomplished in accordance with good engineering practices. The end result will be a completely integrated and operating voice/data radio system.

COLTS shall provide space for the equipment. The Contractor shall install the equipment within this space and connect the units to commercial power as supplied by COLTS.

The Contractor shall remove (de-install) all existing radio equipment from COLTS vehicles and facilities that is being replaced or disabled by new equipment under this RFP. The Contractor shall return all existing equipment removed and any excess equipment to COLTS for storage or disposal.

Contractor shall cover and/or repair any holes or gaps as a result of removal of old equipment.

Installation cost for each particular equipment item shall and must include hardware, external wiring, ancillary devices, procedures, and services required to install and/or interface existing components or equipment to create an operating system which fulfills the requirements of this RFP. The Contractor is required to adhere to FCC Rules, local electrical code and building regulations, and perform all work in a manner consistent with good engineering practices.

The Contractor shall coordinate all installation and service cutover work with COLTS prior to commencement. COLTS' existing radio system is operational and provides critical

communications between transit vehicles and the dispatch office. The installation of any new MDTs shall be coordinated with COLTS to arrive at an agreeable cutover methodology and schedule to minimize disruption of radio service and transit operations. All mobile radio upgrades will be conducted in accordance with a COLTS-approved work plan.

The proposer may recommend a wireless network connection via the wideband wireless communication link such as commercial cellular mobile data or other medium but must clearly indicate how the call group capabilities will be available and the expected annual recurring charges of the medium. In addition, if a commercial cellular mobile data system is recommended to replace the radio system, the proposer must clearly indicate the carrier's wireless coverage area, and the model and type of the vehicular data modem, router, antenna that will be utilized. The vehicular modems must be capable of withstanding normal wear and tear and weather conditions associated with field use inside transit and supervisory vehicles. Every effort should be made to limit the number of modems, antennas, etc.

3.2.2 Servers

The AVL server equipment will be located in the COLTS administrative offices. Contractor should include any office modifications that might be needed to support their equipment in the designated location. The Contractor shall provide information regarding the scope and layout of all proposed equipment to COLTS within two months of notice to proceed. COLTS will be responsible for leasing the required telephone circuit based on Contractor specifications.

The Contractor shall be responsible for providing and installing surge suppressors and providing the appropriate connections from the telephone company to the AVL computer system and any outside communications designed by the Contractor. The Contractor shall provide surge suppression devices to prevent electrical surges from entering the equipment through leased lines. All servers shall operate on a Windows 2008 platform if the servers are being placed on the network.

3.2.2.1 Mobile Equipment

The Contractor shall provide and install a Mobile Data Terminal (MDT)/control head and vehicle logic unit (VLU) to provide the driver interface to the voice and data communication system. It is envisioned that the MDT's will be used for schedule adherence and user sign on to other ITS components

The Contractor shall coordinate with COLTS prior to proceeding with the removal of any old radio control heads (if required) and installation of the new MDTs.

The Contractor shall ensure that the mounting locations of radio unit, control head, and cables shall be in "protected" locations at least three inches above the floor to avoid water and chemical exposure during routine vehicle cleaning.

The proposer shall provide technical documentation of the proposed MDT, VLU and radio as part of their response. The proposer shall also provide a diagram depicting the proposed configuration and integration of the equipment.

If a commercial cellular mobile data system is recommended for all communications, the proposer must clearly indicate the model and type of the vehicular data modem, routers, antennas and other equipment that will be utilized. All the vehicular equipment must be capable of withstanding normal wear and tear and weather conditions associated with field use inside transit vehicles.

4 Functional Specifications: General

The proposer shall describe the planned system architecture for this deployment in their proposal, using a combination of descriptive text and diagrams. This architecture shall represent a fully interoperating collection of distinct systems, subsystems and components.

COLTS shall retain ownership rights to all data collected and generated by the system.

COLTS shall be granted an irrevocable, perpetual and royalty-free license to use all software provided by the Contractor, whether such software is provided directly by the Contractor or by a third party.

The Contractor shall supply all hardware, software, maintenance and support agreements necessary to deliver a fully functional system as specified in the requirements.

Components shall not drain vehicle battery when the vehicle is not running.

The Contractor shall present for COLTS review all proposed license, maintenance and support agreements and pricing, for hardware and software provided by the Contractor and any subcontractors and vendors. COLTS may require that any of these items be subject to finalization as part of the contract finalization process.

The Contractor shall recommend and provide options for hardware and software configurations that will accommodate initial needs and growth over at least a 5 year lifecycle.

All hardware, software, maintenance and support agreements must be approved by COLTS prior to acquisition.

The contractor shall cover all openings caused by the removal of old equipment in a manner acceptable to COLTS.

The Contractor design shall accommodate changes based on COLTS standards or other factors required to ensure the compatibility with the COLTS environment.

All hardware, software, maintenance and support agreements shall be procured on behalf of COLTS and become COLTS property at time of installation.

All system software and firmware that maintains a date and time shall be updated at least once per day to remain consistent with the date and time from the COLTS time server.

The proposer shall clearly describe the data security features of the proposed systems.

The proposer shall clearly describe the backup and recovery procedures for all databases that are part of the proposed system.

Proposers shall need to be familiar with the layout and resources available at COLTS administrative offices and clearly state the requirement for power, air conditioning and other resources in their proposal.

5 Smart Bus

5.1 On-board Systems

5.1.1.1 General

The Contractor shall be responsible for the overall integration of the on-board components into the overall transit ITS system.

5.1.1.2 Vehicle Area Network (VAN)

The vehicles shall be equipped with communications cabling compliant with the standard Society of Automobile Engineers (SAE) J-1708/1587 or J-1939, to form a VAN connecting the MDT with the following on-board equipment: (1) AVAS controller; (2) APC controller; (3) head sign; and (4) farebox.

The supported Message IDs (MID) and Parameter IDs (PID), available for communications with future on-board devices using the J-1708/1587 interface, shall be fully documented (or equivalent information for a J-1939 interface).

5.1.2 MDT

5.1.2.1 MDT Hardware

5.1.2.1.1 General

The vehicle operator terminal shall be connected with or integrated into the Vehicle Logic Unit (VLU), and the combination will be subsequently referred to as the MDT.

The Contractor shall provide identical in-vehicle MDTs for all vehicles.

MDTs shall be housed in enclosures that cannot readily be opened with standard hand tools.

MDTs shall turn on automatically when the vehicle power is turned on, and shall shut down at a programmable time after the vehicle power is turned off.

All 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 and future equipment.

Electronic data interfaces between each distinct module and subsystem shall be electrically isolated from all data input and output connectors.

All data inputs and outputs, whether serial or parallel, shall be protected against over-voltage and reverse polarity. This protection shall be designed to absorb “routine” over-voltages and reverse

polarity conditions, and to open respective circuits in the event of “extraordinary” conditions, sacrificing inexpensive and easily identifiable components when necessary to protect more expensive components or those less easy to troubleshoot.

MDTs shall be designed to operate in accordance with these specifications for ambient temperatures from -22 °F to 149°F (-30°C to +65°C).

MDTs shall be designed to operate in accordance with these specifications for ambient humidity from 5% to 95%, non-condensing.

MDTs and all other on-board components shall be designed to withstand the vibration and shock forces associated with transit vehicles.

MDTs and all other on-board components shall be sealed against dust and water intrusion, certified in compliance with the NEMA 4 or IP65 standard (or better).

MDTs shall be modular, with sensitive components sealed using conformal coating qualified to MIL-I-46058C.

MDTs shall conform to FCC part 15 Class B limits for conducted and radiated emissions of electromagnetic interference.

MDTs shall have low power consumption.

MDTs shall be tested and proven capable of withstanding power transients and radio frequency interference without degradation at levels that are known to exist in ordinary circumstances.

Power and communications lines and the MDT case may be exposed to electrostatic discharges from personnel, so the units shall be tested and proven resistant through testing in accordance with accepted industry procedures for testing computer equipment.

5.1.2.1.2 Vehicle Logic Unit (VLU)

VLU, which serve as the controlling computing device for the overall MDT, shall be capable of being locally configured and maintained using a laptop computer or to be updated wirelessly. These devices should be capable of performing diagnostic maintenance.

5.1.2.1.3 Vehicle Operator Terminal

The vehicle operator display of the MDT shall use a backlit display, readable by the vehicle operator from the seated position under the full range of ambient illumination conditions. This could be accomplished through the incorporation of such measures as vehicle operator-controlled brightness/contrast control, anti-glare coating and adjustable orientation mounting.

The MDT shall be able to be readable while wearing sunglasses.

The vehicle operator terminal shall allow the user to adjust the speaker volume at any time while the MDT is on.

The operator terminal application software shall be operated using either at least eight programmable function keys or touch screen programmable buttons. The MDT speaker shall provide audible feedback when a function key or on-screen key is pressed. Function keys shall also provide tactile feedback when pressed.

The vehicle operator shall not be able to manually shut off or disconnect the operator terminal power or manually shut down the application software.

5.1.2.1.4 Integrated GPS Receiver and Antenna

The MDT or the VLU shall incorporate an integrated GPS receiver.

GPS receivers shall report latitude, longitude, speed, time, direction of travel and whether the receiver has a GPS position lock.

GPS receivers shall be configurable as to the required threshold value for GPS lock given the current Horizontal Dilution of Precision.

The GPS receivers shall be parallel tracking receivers, capable of simultaneously tracking at least six GPS satellites in the best available geometry, while also serially tracking the four next best satellites and upcoming (rising) satellites.

The GPS receiver shall have a cold start solution time of two minutes or less and a re-acquisition time of 15 seconds or less.

The GPS equipment shall include multi-path rejection capabilities to help eliminate spurious signals caused by reflections of buildings or other structures.

Velocity measurements provided by the GPS equipment shall be accurate to within 0.1 meters per second.

The vehicle antenna shall be used for EV-DO backhaul, 802.11 and the GPS tracking. The antenna shall be a low-profile unit housed in a rugged and weather tight enclosure. The antenna shall be securely mounted on the exterior of the vehicle, clear of obstructions and interference-generating devices. The antenna location shall be determined in collaboration with COLTS staff. The antenna, mounting and sealants shall be impervious to physical and chemical attack by automatic bus washing equipment.

5.1.2.1.5 Interface with existing odometers

The MDTs shall be interfaced with the existing odometer, receiving the digital or analog signal and determining the distance traveled since the MDT was powered on.

5.1.2.1.6 WLAN Card and Antenna

Each MDT shall be capable of transmitting data via the vehicle-mounted external antenna, to allow bulk data transfer or real time transfer of data that is stored on-board under the control of the data transfer support software, when vehicles are at a WLAN-equipped facility.

The Contractor shall determine the appropriate number of WLAN access points needed and shall be responsible for installing the access points.

5.1.2.2 Installation

MDTs shall be replaceable as discrete units and identified by unique serial numbers. Each connector shall be keyed or otherwise configured so as to prevent incorrect wiring during MDT replacement.

Electrical power for MDTs and all other on-board components shall be drawn from vehicle unconditioned nominal power supply. All data inputs and outputs shall be designed to absorb “routine” intermittent low voltage, over-voltage and reverse polarity conditions, and to use inexpensive and easily replaceable components to open circuits in the event of “extraordinary” conditions (e.g., through the use of fuses, optical isolation).

MDTs shall be securely mounted in the interior of the vehicle, so as to avoid blocking vehicle operator sightlines to front and side windows. The location of and mounting method for the MDT units shall be determined in collaboration with COLTS staff.

5.1.2.3 MDT Software

5.1.2.3.1 Logon and Logoff

The MDTs shall allow vehicle operator logon using vehicle operator ID entry, a vehicle operator magnetic card swipe or a vehicle operator smart card, with any of these requiring the entry of an alphanumeric vehicle operator password.

The MDTs shall allow for a single logon for all on-board equipment including fareboxes, headsigns, APCs and the AVAS integrated over the vehicle network.

MDT’s shall allow maintenance personnel logon to track service on components.

Upon successful logon, the MDT software shall display a pre-trip inspection screen that shall be filled in by the vehicle operator after conducting their pre-trip inspection of the vehicle.

The MDT shall allow the vehicle operator to logoff by selecting the logoff key.

Both pre-trip and post-trip inspection reports shall be sent to the central system for use by administrative and maintenance personnel.

5.1.2.3.2 Location reporting

The MDT shall send a location report, indicating its current GPS location and odometer reading, once a programmable number of minutes have passed since the previous location report.

All transmitted data shall be stamped with following information: date and time, GPS location latitude and longitude, vehicle number, vehicle operator ID number, route number, trip number, and odometer reading.

The MDT shall store the most recent location received from the GPS receiver, so that if the GPS receiver is not able to report the location, the last known location will remain available.

The GPS location indicated in a report sent by an MDT to dispatch shall indicate whether the location is the current location from the GPS receiver or the last known GPS location.

5.1.2.3.3 Schedule adherence

When a vehicle operator is logged in to a run, the MDT shall display the name of the next upcoming timepoint, and the schedule adherence status as of the most recently passed timepoint or as of the current location.

The MDT shall send the most recent schedule adherence data as part of each location report.

The Contractor shall undertake field surveys or other appropriate methods to accurately identify the longitude and latitude for all current and planned COLTS stops (and other locations used as COLTS schedule timepoints), as well as any other field data needed for the operation of the AVL software (e.g., linear route distance between stops).

As part of conducting these surveys, the Contractor shall collaborate with COLTS staff to establish the preferred boundaries for the stop and the required format for the survey data. COLTS may also want to collect other stop attributes at this time.

5.1.2.3.4 Route adherence

The system shall download all GPS data with timestamps to compute whether a vehicle ran on-route or off-route. The MDTs on fixed route vehicles shall send a message to the central software when a vehicle is designated as having gone off-route or as having returned back on-route.

5.1.2.3.5 Bulk data transfer

The MDT shall support bulk data transfer through the WLAN while the vehicle is in the WLAN coverage area (within or within the vicinity of a vehicle garage).

The MDT software shall implement any on-board device software or firmware upgrades/patches or configuration data downloaded by the bulk data transfer server.

5.1.2.3.6 On-board device alarm reporting

The MDT shall report alarms generated by the MDT software, or received from integrated on-board equipment including wheelchair lifts, headsigns, interior and exterior dynamic message signs (DMS), silent alarm, radio equipment, farebox, and APC. The alarms shall be automatically sent or stored for reporting purposes.

5.1.3 Automatic Passenger Counting

5.1.3.1 APC controller

The APC system shall be integrated with the AVL system and the electronic farebox to provide COLTS with time, location and fare information.

The APC controller shall be designed to operate in accordance with these specifications for ambient temperatures from -22 °F to 149°F (-30°C to +65°C).

The APC controller shall be designed to operate in accordance with these specifications for ambient humidity from 5% to 95%, non-condensing.

The APC controller shall be designed to withstand the vibration and shock forces associated with transit vehicles.

The APC controller shall be sealed against dust and water intrusion, certified in compliance with the NEMA 4X or IP65 standard (or better).

The APC controller shall be modular, with sensitive components sealed using conformal coating qualified to MIL-I-46058C.

The APC controller shall conform to FCC part 15 Class B limits for conducted and radiated emissions of electromagnetic interference.

The APC controller shall be tested and proven capable of withstanding power transients and radio frequency interference without degradation at levels that are known to exist in ordinary circumstances.

Power and communications lines and the chassis may be exposed to electrostatic discharges from personnel, so the units shall be tested and proven resistant through testing in accordance with accepted industry procedures for testing computer equipment.

The APC controller shall be capable of being locally configured using a laptop computer, portable programming device or wireless device. These devices may also be used for performing routine diagnostic maintenance.

All 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 and future equipment.

Each connector in a given physical location shall be keyed or otherwise configured as to prevent incorrect wiring during installation or maintenance.

Each component/module/subsystem distinctly defined in these specifications shall be replaceable as a discrete unit.

Each electronically addressable component/module/subsystem shall be electronically identified by a unique serial number.

All data inputs and outputs, whether serial or parallel, shall be protected against over-voltage and reverse polarity. This protection shall be designed to absorb “routine” over-voltages and reverse polarity conditions, and to open respective circuits in the event of “extraordinary” conditions, sacrificing inexpensive and easily identifiable components when necessary to protect more expensive components or those that are less easy to troubleshoot.

The APC controller shall be interfaced with a wheelchair lift sensor, with the number of wheelchair lift operational cycles at each stop also recorded.

For each stop, a data record shall be created to store the number of boarding and alighting passengers for each doorway and the number of wheelchair lift activations.

Each data record shall also include the current GPS location latitude and longitude, as well as the current date/time, vehicle number, vehicle operator ID number, route number, trip number, direction of travel and odometer reading.

Data records may be stored in either the APC controller or the MDT, with sufficient on-board memory capacity to allow for storage of at least 72 hours of APC data.

On-board memory shall use non-volatile storage so that a power supply is not required to retain the stored APC data records.

Utility software shall be provided, for use on a laptop computer connected via a serial communications connection to either the APC controller or the MDT, which supports calibration of the doorway sensors and review of stored data records.

Upon command from the WLAN subsystem, data records shall be uploaded from the APC subsystem.

The APC subsystem shall not erase or allow the overwriting of data records until confirmation is received from the WLAN subsystem that the data records were successfully received.

Upon command from the WLAN subsystem, APC software or configuration data updates shall be downloaded to the APC subsystem and installed in the MDT or APC controller.

Upon successful receipt of a file from the WLAN subsystem, the APC subsystem shall provide an acknowledgement to the WLAN subsystem.

The APC subsystem shall provide a backup method (for use when the WLAN subsystem is temporarily unavailable) for bi-directional data transfer between vehicles and the central system, involving one or more portable devices that can be connected with the APC controller or MDT in each vehicle and with a reader device on the central system network (e.g., portable computer, memory cards).

The portable device(s) shall have sufficient memory capacity to carry data to be uploaded to all vehicles and up to 72 hours worth of APC data from all vehicles by the end of the shift.

5.1.3.2 APC doorway sensors

The doorway sensors shall be designed to operate in accordance with these specifications for ambient temperatures from -22 °F to 149°F (-30°C to +65°C).

The doorway sensors shall be designed to operate in accordance with these specifications for ambient humidity from 5% to 95%, non-condensing.

The doorway sensors shall be designed to withstand the vibration and shock forces associated with transit vehicles.

The doorway sensors shall be sealed against dust and water intrusion, certified in compliance with the NEMA 4X or IP65 standard (or better).

The doorway sensors shall be modular, with sensitive components sealed using conformal coating qualified to MIL-I-46058C.

The doorway sensors shall conform to FCC part 15 Class B limits for conducted and radiated emissions of electromagnetic interference.

The doorway sensors shall be tested and proven capable of withstanding power transients and radio frequency interference without degradation at levels that are known to exist in ordinary circumstances.

Power and communications lines and the chassis may be exposed to electrostatic discharges from personnel, so the units shall be tested and proven resistant through testing in accordance with accepted industry procedures for testing computer equipment.

All 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 and future equipment.

Each connector in a given physical location shall be keyed or otherwise configured as to prevent incorrect wiring during installation or maintenance.

Each component/module/subsystem distinctly defined in these specifications shall be replaceable as a discrete unit.

Each electronically addressable component/module/subsystem shall be electronically identified by a unique serial number.

All data inputs and outputs, whether serial or parallel, shall be protected against over-voltage and reverse polarity. This protection shall be designed to absorb “routine” over-voltages and reverse polarity conditions, and to open respective circuits in the event of “extraordinary” conditions,

sacrificing inexpensive and easily identifiable components when necessary to protect more expensive components or those that are less easy to troubleshoot.

The doorway sensors shall be able to count and differentiate between boarding and alighting passengers.

The doorway sensors for all doorways shall be connected to a single APC controller.

The doorway sensors shall calculate the number of passengers after each stop.

The doorway sensors shall be able to separately count successive passengers that are walking as close together as is practicable, either one behind the other or side by side.

The doorway sensors shall be able to count moving passengers with heights between one meter in height and the maximum height of the doorway.

The doorway sensors shall not register as multiple passengers the passage of a single passenger that reaches into or out of the doorway passage, or is swinging their arms, while passing through the sensor beams.

The doorway sensors shall not separately count objects carried by passengers, such as shopping bags or umbrellas.

Boarding and alighting counts shall only be recorded when the doorway is open. This will avoid any counting of passengers moving in the vicinity of the doorway passages between stops.

Boarding and alighting counts shall only be recorded when the vehicle MDT is logged in. If there is a breakdown and passengers need to transfer to a replacement vehicle, this will allow the passenger transfer to be done with both vehicles logged out so that the transferring passengers are not erroneously double-counted.

A sample of at least 50 observations shall be collected at various revenue service stops, for both boardings and alightings in each vehicle doorway, and the average percent error for the sample shall not exceed 7%.

5.1.3.3 Installation

APC sensors shall be mounted so as to avoid any protrusions into the doorway passage, with sealed windows for the infrared beams.

Cabling to the doorway sensors shall be shielded and routed to avoid sources of electromagnetic interference, such as fluorescent lighting ballasts.

The doorway sensors and APC controller shall be mounted in locations that are not accessible to the vehicle operator.

The alignment of the doorway sensors shall be calibrated after installation to establish the alignment settings for each vehicle that achieve the most accurate performance (and the calibration settings for each vehicle shall be documented for future COLTS reference).

5.1.3.4 Integration

The APC controller shall be integrated with the on-board MDT, based on the standard SAE J-1708/J-1587 or J-1939 VAN.

5.1.4 Automated Voice Annunciation System (AVAS)

5.1.4.1 AVAS controller

The AVAS controller shall be designed to operate in accordance with these specifications for ambient temperatures from -22 °F to 149°F (-30°C to +65°C).

The AVAS controller shall be designed to operate in accordance with these specifications for ambient humidity from 5% to 95%, non-condensing.

The AVAS controller shall be designed to withstand the vibration and shock forces associated with transit vehicles.

The AVAS controller shall be sealed against dust and water intrusion, certified in compliance with the NEMA 4X or IP65 standard (or better).

The AVAS controller shall be modular, with sensitive components sealed using conformal coating qualified to MIL-I-46058C.

The AVAS controller shall conform to FCC part 15 Class B limits for conducted and radiated emissions of electromagnetic interference.

The AVAS controller shall be tested and proven capable of withstanding power transients and radio frequency interference without degradation at levels that are known to exist in ordinary circumstances.

Power and communications lines and the chassis may be exposed to electrostatic discharges from personnel, so the units shall be tested and proven resistant through testing in accordance with accepted industry procedures for testing computer equipment.

The AVAS controller shall be capable of being locally programmed and maintained using a laptop computer, portable programming device or wireless device. These devices may also be used for performing routine diagnostic maintenance.

All 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 and future equipment.

Each connector in a given physical location shall be keyed or otherwise configured as to prevent incorrect wiring during installation or maintenance.

Each component/module/subsystem distinctly defined in these specifications shall be replaceable as a discrete unit.

Each electronically addressable component/module/subsystem shall be electronically identified by a unique serial number.

All data inputs and outputs, whether serial or parallel, shall be protected against over-voltage and reverse polarity. This protection shall be designed to absorb “routine” over-voltages and reverse polarity conditions, and to open respective circuits in the event of “extraordinary” conditions, sacrificing inexpensive and easily identifiable components when necessary to protect more expensive components or those that are less easy to troubleshoot.

The system shall meet or exceed all Americans with Disabilities Act (ADA) requirements found in 49CFR Parts 37.167 and 38.35, as well as the requirements of the current version of the ADAAG at the time of implementation.

The AVAS controller shall provide audio and visual announcements to on-board riders and those waiting to board. As each COLTS vehicle approaches a stop or other designated location, a digitally-recorded announcement shall be automatically made over the existing on-board public address (PA) system speakers and displayed on two DMS inside the vehicle to inform passengers about upcoming stops, major intersections and landmarks.

The volume of the announcements shall be automatically adjusted according to the noise level on the vehicle at the time, and the vehicle operator shall not be able to lower the announcement volume.

No vehicle operator interaction shall be required to operate the AVAS.

The vehicle operator shall have the ability to manually trigger the activation of any pre-recorded announcements if needed.

Vehicle operator use of the on-board PA system shall override any automated announcements, but the operator should not be able to disable the automated announcement.

The location information announced/displayed shall provide the stop name, transfer opportunities and other information to be determined at a later date (e.g., nearby points of interest).

The AVAS controller shall use the vehicle location information from the AVL system to trigger the appropriate announcements on-board the vehicle whenever the vehicle enters a “trigger zone.” A trigger zone is a user-defined area that is located just prior to each stop location. For

example, the trigger zone may begin 800 feet before a stop as well as at selected other announcement locations. Trigger zones will be pre-defined by the central software and downloaded to the controller.

The controller shall be capable of making time-based, location-based and vehicle operator-initiated announcements/displays.

Time-based announcements/displays shall be programmed to be made on-board the vehicle at specific times of the day or at a set frequency within specified time periods, on specific days of the week.

Location-based announcements/displays shall be programmed to be made on-board the vehicle when that vehicle passes any designated location(s).

Vehicle operator-initiated announcements/displays (e.g., safety-related announcements) shall be programmed to be made at the vehicle operator's discretion.

The system shall be able to store up to a total of 1000 announcements/displays on the MDT, based on announcements of up to 20 seconds duration.

Automated announcements shall continue to operate normally when the MDT is in silent alarm mode.

In the event that a vehicle is operating off-route, the automated announcements/displays shall not be made.

Once the route is reacquired, the system shall automatically determine and announce the next valid bus stop or other designated location. Off-route and on-route detection and recovery shall be automatic and not require vehicle operator intervention or action.

As the doors are opened for passenger boarding, a route number/destination announcement shall be made outside the COLTS vehicle.

The volume of the external announcements shall be automatically adjusted according to the noise level outside the vehicle at the time.

5.1.4.2 Dynamic Message Signs (DMS)

As each COLTS vehicle approaches a stop or other designated location, variable text as determined by the controller shall be displayed on one DMS inside the vehicle.

Each sign shall consist of one row providing at least twenty Light Emitting Diode (LED) variable characters with height of at least two inches.

The sign face and variable characters shall comply with the requirements of the current version of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) at the time of

implementation¹, to maximize readability distance. Compliance shall involve the selection of sign face and variable character features including contrasting black background, high-intensity LEDs, and character font selection, number of pixels per character, character aspect ratio and number of pixels separating characters. Optional pricing should be provided for one color and multi-color LED signs (as indicated on Cost Proposal form)

Maximum LED intensity shall be along the axis perpendicular to the sign face and at least 50% of this maximum intensity shall be maintained within a cone spanning 22 degrees in any direction from this axis.

Sign messages shall be readable by a person with 20/20 corrected vision within the cone of maximum intensity at up to 20 feet from the sign face under the full range of ambient illumination conditions.

Signs shall be designed to operate in accordance with these specifications for ambient temperatures from -22 °F to 149°F (-30°C to +65°C).

Signs shall be designed to operate in accordance with these specifications for ambient humidity from 5% to 95%, non-condensing.

Signs shall be designed to withstand the vibration and shock forces associated with transit vehicles.

Signs shall be sealed against dust and water intrusion, certified in compliance with the NEMA 4X or IP65 standard (or better).

Signs shall be modular, with sensitive components sealed using conformal coating qualified to MIL-I-46058C.

Signs shall conform to FCC part 15 Class B limits for conducted and radiated emissions of electromagnetic interference.

Signs shall be tested and proven capable of withstanding power transients and radio frequency interference without degradation at levels that are known to exist in ordinary circumstances.

Power and communications lines and the sign chassis may be exposed to electrostatic discharges from personnel, so the units shall be tested and proven resistant through testing in accordance with accepted industry procedures for testing computer equipment.

¹ See Section 4.30.3 and 4.4.2 of Appendix A to Part 37 – Standards for Accessible Transportation Facilities, pages 45696 and 45665, respectively, of Federal Register, Vol. 56, No. 173, Friday, September 6, 1991, Part IV Department of Transportation, 46 CFR Parts 27, 37 and 38, Transportation for Individuals with Disabilities; Final Rule.

All 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 and future equipment.

Each connector in a given physical location shall be keyed or otherwise configured as to prevent incorrect wiring during installation or maintenance.

Each component/module/subsystem distinctly defined in these specifications shall be replaceable as a discrete unit.

Each electronically addressable component/module/subsystem shall be electronically identified by a unique serial number.

All data inputs and outputs, whether serial or parallel, shall be protected against over-voltage and reverse polarity. This protection shall be designed to absorb “routine” over-voltages and reverse polarity conditions, and to open respective circuits in the event of “extraordinary” conditions, sacrificing inexpensive and easily identifiable components when necessary to protect more expensive components or those that are less easy to troubleshoot.

5.1.4.3 Installation

DMS shall be installed so as to be visible from a seated or standing position from any location within the vehicle passenger compartment. Actual location of DMS installation shall be approved by the COLTS staff for each vehicle type.

5.1.4.4 Integration

The AVAS controller shall be integrated with the on-board MDT, based on the standard SAE J-1708/J-1587 or J-1939 VAN.

The AVAS controller shall be integrated with the existing PA system speakers for the purpose of providing the audible announcements.

5.2 Central System

5.2.1 General

All software shall use a commercial-off-the-shelf (COTS) relational database management system (RDBMS) for all database applications.

All software shall provide a comprehensive purge capability that minimizes database storage requirements and purges archived records from online storage, so as to satisfy COLTS records management policies.

The Contractor shall be responsible for resolving any compatibility issues between software and any other existing installed software.

The Contractor shall implement all applicable and available software upgrades and patches during the implementation and warranty periods, and be responsible for resolving any compatibility issues with other parts of the overall system due to such upgrades or patches. All software and operating systems shall be at the current release version.

The Contractor shall provide an acceptable archiving and purging process of data.

Proposals must identify how the product(s) is licensed, as well as how many copies of the product(s) are being recommended, the type and cost of each product (cost shall be indicated on the Pricing Proposal Form), and the annual support cost (also shall be indicated on the Pricing Proposal Form).

Proposals should offer descriptions and pricing options for the full range of technical support agreements alternatives offered. Proposals must describe the Contractor's support system (e.g., website, phone or other), the exact hours of support, and any/all fees associated with the support (indicate fees on the Pricing Proposal Form).

5.2.2 Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) Software

5.2.2.1 General

The AVL software shall be initially installed on two workstations at COLTS and on one workstation in the each service provider's office. A "thin client" shall be provided that allows authorized workstations on the COLTS network to access the CAD/AVL software, with location tracking, schedule adherence monitoring and location playback functionality only, without needing to have the full application software installed on the workstation.

5.2.2.2 MDT Logon Verification and Run Download

The system shall receive incoming messages from MDTs. The incoming message types are logon, logoff, location and schedule/route adherence reports and device alarm messages.

The system shall log all outgoing and received data in a historical database, including date/time, vehicle number, vehicle operator ID number, route number, trip number, and odometer reading, GPS location latitude and longitude, schedule adherence, message type, and message content. The historical database shall be read-only. Historical data shall be available in a format that is directly accessible by or importable into common database management and analysis tools.

Upon successful logon, the system shall send the vehicle operator work assignment to the MDT via the mobile data system. If the logon is not successful (vehicle operator ID received is not valid or vehicle operator is not using the assigned vehicle), a corresponding error message shall be sent to the MDT.

All vehicle operator assignments shall be uploaded into the CAD/AVL software from a spreadsheet (in Microsoft Excel format) used by the COLTS.

5.2.2.3 Location Tracking

The system shall display on the map the last reported location for all vehicles, using an icon indicating route direction and labeled with the vehicle ID, route ID or vehicle operator ID as selected by the user.

The display shall provide an indication if the last reported location is older than the reporting interval.

5.2.2.4 Route and Schedule Adherence Tracking

Based on configurable thresholds, the system shall use the reported schedule adherence data to designate when vehicles are “early,” “late” or “on time.”

Based on thresholds configurable by COLTS, the system shall designate when vehicles are deemed off-route.

The system shall highlight the vehicle IDs of those vehicles that are operating early, late or off-route, using tabular and map displays to indicate their current schedule and route adherence status. The tabular display entries and the map display symbols for these vehicles shall use distinct and configurable color codes for early, late and off-route status.

The system shall provide a real-time output of the current location and schedule adherence for all fleet vehicles, for use by the next stop prediction software. The Contractor shall document and provide to COLTS the communications protocols, command sets and message formats used in this interface.

5.2.2.5 Location Playback

COLTS shall be able to review on the map display the chronological sequence of reported locations for a specified vehicle over a specified time period.

The software shall provide controls to view the entire sequence of reported locations from the beginning of the time period or to step through the sequence incrementally forward or backward.

5.2.2.6 Transfer Connection Protection

The AVL system shall operate in conjunction with the MDT software to provide TCP. TCP is triggered when an incoming vehicle operator makes a transfer request for a specific outgoing route, which the vehicle operator enters via the MDT.

The system shall, without any need for dispatcher intervention, hold the outgoing vehicle to allow the connection, if it would not need to be held more than a configurable time based on the estimated arrival time of the incoming vehicle.

The system shall notify the incoming vehicle via the MDT whether or not the outgoing vehicle will be held.

The system shall notify the outgoing vehicle via the MDT if it is to hold, what time and for what route.

RFP respondents are not limited to the system description above, and may propose alternatives that accomplish at least these COLTS TCP objectives

5.2.2.7 Data Logging and Retrieval

All vehicle location and status data shall be maintained online for a period of six months for retrieval, analysis, display and printing.

This historical information shall include all data transmitted from vehicles (log-on/log-off data, emergency alarms, vehicle system alarms, location data, and data transmitted from other equipment on-board the vehicles); and all user logons and logoffs.

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 or restore operation.

Historical data shall be read-only with modification only permitted to individual pre-defined fields.

5.2.2.8 Interfaces

5.2.2.8.1 Mobile data communication gateway software

The system shall be interfaced with the mobile data communications gateway support software to exchange data in real-time with vehicles or to be downloaded at a later time.

5.2.2.8.2 Bulk data transfer support software

The system shall be interfaced with the data transfer support software to exchange bulk data with vehicles while they are in range of the WLAN.

5.2.3 APC Management Software

5.2.3.1 Unprocessed Data

Unprocessed APC data received from vehicles shall be stored without alteration in database tables. The system shall retain unprocessed APC data after post-processed APC data has been developed.

5.2.3.2 Post-Processed Data

The system shall associate each unprocessed APC record with the correct nearest stop, based on an algorithm that uses the recorded GPS latitude and longitude, the route, and the stops assigned to preceding and following data records.

If the latitude and longitude recorded for a stop are not within 50 meters of a stop on the current route/trip, a stop ID shall not be added to the data record.

The system shall initially flag in the unprocessed data (1) any “outlying” data; (2) instances where the calculated vehicle occupancy becomes negative; and (3) instances where the total number of boardings and alightings over the course of a route are not equal.

The software shall allow the user to set and adjust parameters controlling the automatic flagging of “outlying” data.

The system shall allow the user to review the flagged data and offer post-processing options. At a minimum, these options will include (1) eliminating or adjusting “outlying” data; (2) proportionally adjusting boarding and alighting counts data to avoid a negative occupancy condition; and (3) proportionally weighting boarding and alighting counts to equalize the total number of boardings and alightings.

The system shall store the post-processed version of the APC data received from vehicles in a database table.

5.2.3.3 Interfaces

All database tables shall be made available in an ODBC-compliant format, with the data dictionary provided to COLTS, so that COLTS can import this data for analysis and reporting purposes into a common database management and analysis tool (e.g., Microsoft Access).

5.2.3.4 Bulk Data Transfer Support Software

The system shall be interfaced with the bulk data transfer support software to exchange bulk data with vehicles while they are in range of the WLAN.

5.2.4 AVAS Management Software

5.2.4.1 Announcement Preparation

The system shall allow the user to create on-board next stop announcement text messages, record audio announcements and associate these with a specific stop.

5.2.4.2 Trigger Zone Configuration

A trigger zone is a user-defined area that is located just prior to each stop location. The system shall provide a utility that allows the user to configure next stop announcement trigger zones on a global basis (e.g., 800 feet before each stop) and set or adjust trigger zones individually by stop.

The system shall also allow for the creation of trigger zone locations to be downloaded to the MDT software as timepoints to support schedule adherence monitoring.

In addition to defining the trigger zone geographical area, the utility shall allow a system action to be defined for trigger zone entry or exit.

5.2.4.3 Interface: Bulk Data Transfer Support Software

The system shall be interfaced with the bulk data transfer support software to exchange bulk data with vehicles while they are in range of the WLAN.

5.2.5 Mobile Data Communication Gateway Software

5.2.5.1 Data Message Processing

The gateway shall ensure that the specific mobile data communications method used is transparent to the server and application software implemented.

The wireless gateway shall incorporate a firewall and authentication security services to ensure that messages can only be exchanged with designated radio modems.

5.2.5.2 Interfaces

The system shall be interfaced with the existing COLTS Local Area Network

5.2.6 Wireless Local Area Network

5.2.6.1 Hardware

The WLAN shall provide mutual authentication to ensure that only authorized vehicles and access points can participate in the WLAN.

The WLAN shall employ supplementary encryption for all WLAN communications using a dynamic session encryption key.

The WLAN shall have the capability to communicate in both point-to-point and point-to-multipoint configurations.

The interface between the WLAN and the rest of the COLTS network shall be protected by a firewall with port and IP address filtering.

5.2.6.2 Installation

The WLAN shall include multiple access points, sufficient to communicate successfully with a vehicle in any portion of the vehicle maintenance/storage facility. The selection of access point installation locations shall be coordinated with and acceptable to COLTS staff, providing for (1) ready access for maintenance, (2) protection from vandalism, and (3) protection from accidental damage.

5.2.7 Bulk Data Transfer Support Software

The bulk data transfer software shall use file transfer software and a WLAN to complete a daily bulk data transfer process when each vehicle is at the COLTS facility. The bulk data transfer system shall be capable, at a minimum, of the following tasks: (1) download software updates/patches for on-board devices; (2) download all updated schedule and trigger zone locations data required for operation of the MDT fixed route application software; (3) upload APC data; and (4) download updated trigger zones locations and announcement sign messages for automated annunciation systems on-board announcements;(5) download all device and maintenance alarms;(6) download all timestamp GPS data.

The software shall be configurable to determine frequency and types of data transfers.

The bulk transfer system shall automatically initiate WLAN communications with any vehicle once it arrives within communications range of the bulk data transfer system at the COLTS facility, without any vehicle operator interaction being required.

Once WLAN communications is established with the vehicle, the bulk data transfer system shall automatically initiate all required file transfers.

A validation process shall ensure multiple attempts are made to complete all required file transfers until acknowledgement has been received that the file transfer was successfully completed

5.3 Farebox Interface – Highly Desirable OPTIONAL ELEMENT

COLTS is investigating the possibility of teaming with the University of Scranton to use the existing student ID's to allow students to ride on the bus. The University currently uses a magnetic stripe card for their ID. This is a highly desirable option for COLTS. COLTS currently has a magnetic stripe reader on the farebox and has not researched the possibilities of its use.

This bidder shall allow for the following options.

The ability to read University of Scranton student ID's.

Allow for the capture of farebox and/or magnetic stripe data to be integrated with APC and GPS information

Allow for the integrated reporting of such data.

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6 Predictive Arrival Systems

6.1 Video Monitors

6.1.1 Hardware

The Contractor shall provide and install three (3) LCD video monitors for COLTS at Hyland Hall and O'Hara Hall located at the University of Scranton and one at View Mont Mall in Scranton on RT 6. The Contractor shall also provide cost information to provide and install one (1) liquid crystal display (LCD) video monitor for HPT at Church Street Station located at HPT's administrative office.

The video monitor shall be at least 32".

The video monitor shall display a minimum of 30 characters per line

The Mean Time Between Failures for video monitor shall be at least 50,000 power-on hours.

The video monitor must be protected using vandal-resistant enclosures.

The Contractor shall submit the following information for the video monitor proposed:

- Dimensions of display area;
- Enclosure dimensions and construction/material details;
- Recommended installation method;
- Requirements for and dimensions of all installation hardware;
- Weight of monitor and associated installation hardware;
- Power requirements (voltage, peak and average current draw);
- Communications method between video monitor and control software workstation;
- Character height for the required number of lines and the number of characters per line;
- Viewing distance of characters based on the maximum and minimum sizes of characters;
- Available display colors; and
- Available enclosure colors.

The sign face and variable characters shall comply with the requirements of the current version of the ADAAG at the time of implementation² to maximize readability distance. Compliance shall include character features, character font selection, number of pixels per character, character aspect ratio and number of pixels separating characters.

The video monitor shall be readable by a person with 20/20 corrected vision within the cone of maximum intensity at up to 120 feet from the sign face under the full range of ambient illumination conditions.

The video monitor shall be designed to operate in accordance with these specifications for ambient humidity from 5% to 95%, non-condensing.

The video monitor shall be sealed against dust.

The video monitor shall be modular, with sensitive components sealed using conformal coating qualified to MIL-I-46058C.

Power and communication lines and the sign chassis may be exposed to electrostatic discharges from personnel, so the units shall be tested and proven resistant through testing in accordance with accepted industry procedures for testing computer equipment.

The signs shall be capable of being locally programmed and maintained using a laptop computer, portable programming device or wireless device. These devices may also be used for performing routine diagnostic maintenance on the signs/monitors.

All 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 equipment.

Each connector in a given physical location shall be keyed or otherwise configured as to prevent incorrect wiring during installation or maintenance.

Each component/module/subsystem distinctly defined in these specifications shall be replaceable as a discrete unit.

Each electronically addressable component/module/subsystem shall be electronically identified by a unique serial number.

All data inputs and outputs, whether serial or parallel, shall be protected against over-voltage and reverse polarity. This protection shall be designed to absorb “routine” over-voltages and reverse polarity conditions, and to open respective circuits in the event of “extraordinary” conditions,

² See Section 4.30.3 and 4.4.2 of Appendix A to Part 37 – Standards for Accessible Transportation Facilities, pages 45696 and 45665, respectively, of Federal Register, Vol. 56, No. 173, Friday, September 6, 1991, Part IV Department of Transportation, 46 CFR Parts 27, 37 and 38, Transportation for Individuals with Disabilities; Final Rule.

sacrificing inexpensive and easily identifiable components when necessary to protect more expensive components or those that are less easy to troubleshoot.

6.1.1.1 Software

Next arrival prediction messages shall be generated automatically, based on the incorporation of variable arrival time prediction data received from the PAS into a standard message template resident in the sign for that stop.

The format of the message template shall be “ARRIVING (destination) XX MINUTES” or an approved alternative format agreed to by COLTS.

When the sign receives a message from the PAS software indicating that current prediction data is not available, the sign shall display an approved alternate message approved by COLTS.

Signs shall be capable of displaying messages on multiple sequential “pages”. For example, displaying a next arrival message and a general message with a one row sign would use an alternating sequence of two one row message “pages.”

The signs shall include ongoing self-diagnostics and shall send an alarm message to the PAS in the event that a diagnostic fault is identified.

Next arrival prediction messages shall be generated automatically, based on the incorporation of variable arrival time prediction data received from the PAS into a standard message template resident in each sign. The format of the message template for each incoming route shall be “(route number) (route name) TO (destination) XX MINUTES” or “(route number) (route name) TO (destination) APPROACHING”, or an approved alternative format agreed to with COLTS.

Audio sign messages shall be constructed in real-time by the sign in a manner than avoid the need to send audio data over the radio system, by concatenating a prerecorded message segments for the numeral selected based on the variable arrival time prediction data received from the PAS, with prerecorded message segments for route numbers, route names, destinations and fixed wording within the message templates.

6.1.1.2 Installation

Signs shall be mounted at a location to be designated by COLTS.

Signs shall be mounted using hardware that allows the vertical and horizontal orientation to be adjusted as part of and subsequent to installation.

The Contractor shall connect the signs to the local power supply provided by COLTS at each sign location.

6.1.2 Central PAS Software

The PAS shall combine schedule adherence data from the AVL system with other relevant data to continuously update predictions on when the next vehicle will arrive at each stop.

COLTS requires proposers to submit in their proposals a description of the algorithm(s) that would be utilized to determine next bus arrival predictions, including the data used as input and the outputs provided.

The information required by the algorithm(s) shall be manually entered into a prediction support database by the Contractor. The system shall allow the user to configure the prediction support database values.

The percent error for next vehicle arrival time predictions at a given stop shall be calculated as: absolute value of (predicted time to next arrival minus observed time to next arrival) divided by (observed time to next arrival). For example, if the observed time to next arrival was 7 minutes relative to a predicted time to next arrival of 8 minutes, the percent error would be 1/7 (i.e., 14%).

The system shall provide current next vehicle arrival information to the signs through an automated process at the rate of an update to each sign at least once per minute. All data transmitted from the PAS to the signs shall be recorded in a database with storage capacity for up to three months data.

The system shall detect when the current next vehicle for a stop arrives within the defined stop zone and command the sign to change the message to indicate that the vehicle is approaching.

The system shall detect when the current next vehicle for a stop departs the defined stop zone and change the current next vehicle to which the prediction refers.

The system shall allow an authorized user to add one or more additional text messages of 30 characters or less.

Messages about arrival predictions where multiple routes approach a stop, or additional text messages, shall be displayed on multiple sign rows where available or in an alternating manner for a single row sign.

The system shall allow the user to adjust the time period for which each part of an alternating message sequence is shown.

The system shall display any alarm messages received from the signs to the dispatcher using the tabular display.

6.1.2.1 Website

Contractor should interface with COLTS' web site to provide "real-time" information to the Public.

The website shall allow customer to choose a stop and display the next arrivals for route(s) serving that stop.

Real-time data shall also be available to customers through cell phones and PDAs.

6.1.3 Integration

6.1.3.1 AVL Software

The PAS shall be interfaced to receive schedule adherence data from the AVL system in real-time. The Contractor shall document and provide to COLTS the communications protocols, command sets and message formats used in this interface.

6.1.3.2 Mobile Data Communications Gateway Support Software

The system shall be interfaced with the mobile data communications gateway support software to exchange data in real-time with signs at a stop.

6.2 Trip Planning System/Google Interface – OPTIONAL ELEMENT

6.2.1 Google Data

Google Transit is becoming an invaluable tool for public transportation. As an optional element of this proposal, COLTS requests that the contractor provide an interface to allow automatic creation of files to upload schedule/route data to Google Transit. This interface will provide COLTS with a mechanism to maintain current information in an acceptable format to Google Transit and transmit that information in a timely manner.

6.3 Real Time Location Tracking

COLTS is requesting that the contractor provide functionality and costs for such, to send and display real time vehicle location information to a tracking/mapping system. Such data can be displayed “live” and will meet the following specifications:

The system shall display on the map the last reported location for all vehicles, using an icon indicating route direction and labeled with the vehicle ID, route ID or vehicle operator ID as selected by the user.

The display shall provide an indication if the last reported location is older than the reporting interval.

Based on configurable thresholds, the system shall use the reported schedule adherence data to designate when vehicles are “early,” “late” or “on time.”

Based on thresholds configurable by COLTS, the system shall designate when vehicles are deemed off-route.

The system shall highlight to the user the vehicle IDs of those vehicles that are operating early, late or off-route, using tabular and map displays to indicate their current schedule and route adherence status. The tabular display entries and the map display symbols for these vehicles shall use distinct and configurable color codes for early, late and off-route status.

The system shall provide a real-time output of the current location and schedule adherence for all fleet vehicles, for use by the next stop prediction software. The Contractor shall document and provide to COLTS the communications protocols, command sets and message formats used in this interface.

7 Project Management

7.1 General

The Contractor shall, for all deliverables, include the filename in the document footer and include in the filename the file release date.

The Contractor shall prepare all deliverables in both Microsoft Office (Word, Excel or PowerPoint) and Adobe PDF formats, with COLTS granted full rights to reprint as needed.

7.2 Project Status Tracking

The Contractor shall prepare a System Implementation Plan (SIP), including the detailed implementation activities/schedule, progress milestones/status and assigned staff.

The initial draft of the SIP shall be provided to COLTS within two weeks from Notice to Proceed (NTP).

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

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

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

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

The AIL shall be sorted, primarily by unresolved vs. resolved items and secondarily by the date

7.3 Bi-Weekly Conference Calls

The Contractor shall participate in bi-weekly conference calls with the COLTS Project Manager, other COLTS staff and outside consultants as determined by the COLTS Project Manager.

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

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

A status report shall be issued to COLTS 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 their Project Manager, as well as any additional Contractor staff necessary to properly address the current issues and project status.

COLTS will be represented by their 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.

7.4 Minimum Required Onsite Work

At the first onsite meeting, the Contractor shall be prepared to discuss COLTS feedback on draft SIP and conduct Requirements Review.

At the second onsite meeting, the Contractor shall be prepared to discuss COLTS feedback on draft Design Review documentation.

During the third onsite effort, the Contractor shall install system and conduct acceptance testing. These onsite installation and testing efforts will occur over an extended period, and will likely involve several different onsite trips and a range of different Contractor staff.

7.5 Invoicing

The Contractor shall only submit an invoice once a fully-signed Acceptance Certificate is generated by COLTS indicating that a progress payment milestone has been achieved. COLTS will withhold 10% retainage on each invoice. Upon acceptance by COLTS of each stage of the project, the total retainage for that stage will be paid to the Contractor.

8 Design Review

The Contractor shall participate in the Design Requirements Review (DRR), as part of the first onsite meeting. The RR meeting shall discuss, for each contract requirement, the following: (1) the COLTS design intent; (2) the intended Contractor design approach; and (3) the general Contractor approach to demonstration through the acceptance testing process.

The Contractor shall submit draft Design Review Documentation (DRD) within four weeks of the RR meeting.

The DRD shall include the following materials: (1) an overview of the equipment, system and configuration proposed for implementation; (2) detailed technical documentation for each equipment item; (3) detailed technical documentation on all software, addressing 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 COLTS prior to system customization/configuration; and (4) a table detailing the approach taken in the design to address each individual contract requirement (subsequently referred to as the Requirements Matrix (RM)).

The Contractor shall prepare all deliverables in both Microsoft Office (Word, Excel or PowerPoint) and Adobe PDF formats, with COLTS granted full rights to reprint as needed.

The Contractor shall for all deliverables include the filename in the document footer and include in the filename the file release date.

The second onsite meeting will include discussions with COLTS on their feedback on the DRD, and shall occur within four weeks after the draft DRD has been submitted.

The Contractor shall submit the updated DRD within three weeks of the second onsite meeting.

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

9 General Installation Requirements

Installations shall be performed between the hours of 8:30 A.M. and 4:30 P.M. on weekdays. At the request of the Contractor and with at least two days advance notice, COLTS may permit installations at other times.

The Contractor shall install and configure the entire system, including COLTS-provided computer hardware and integration with existing systems.

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 their 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 COLTS vehicles and existing AC electrical power at fixed facilities. If existing power arrangements are unsatisfactory, the Contractor must specify proposed alterations.

The Contractor shall submit Installation Design Documentation (IDD), for COLTS 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 (5) supervision and quality assurance procedures.

COLTS reserves the right to allow no more than 2 of its vehicles to be out of service within any given 24 hour period to accommodate vehicle installations.

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

The capabilities or availability of existing infrastructure affected by or to be integrated into the new system, such as the COLTS LAN, WAN and WLAN facilities, shall not be reduced at any time by system implementation.

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

All spare components must be delivered before COLTS will allow equipment installation.

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. COLTS will provide space for the Contractor to establish secure storage facilities adjacent to each installation area.

COLTS will provide space for central system installations and vehicle installations.

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

COLTS will provide sufficient staff to move vehicles to and from the installation locations.

COLTS will complete agreed upon modifications to existing infrastructure required to support the installations.

The Contractor shall prepare all deliverables in both Microsoft Office (Word, Excel or PowerPoint) and Adobe PDF formats, with COLTS granted full rights to reprint as needed.

The Contractor shall for all deliverables include the filename in the document footer and include in the filename the file release date.

10 Acceptance Testing

The Contractor shall submit an Acceptance Test Procedures document (ATP), for COLTS 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 COLTS 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 Contractor shall prepare all deliverables in both Microsoft Office (Word, Excel or PowerPoint) and Adobe PDF formats, with COLTS granted full rights to reprint as needed.

The Contractor shall for all deliverables include the filename in the document footer and include in the filename the file release date.

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

The ATP shall incorporate the following distinct testing stages for each deployment stage: (1) Factory Testing (FT); (2) Installation Testing (IT); (3) System Testing (ST); and (4) Burn-In Testing (BT).

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

FT shall be witnessed by COLTS representatives (COLTS staff and/or designated support consultants).

IT shall be completed after each installation, and deficiencies shall be rectified before the initiation of ST.

IT may be witnessed by COLTS representatives.

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

ST shall include the testing of all spare components.

ST shall be witnessed by COLTS representatives.

BT shall involve revenue service use of the system over a 30-day period after the completion of ST for each deployment stage, and deficiencies shall be rectified before COLTS will grant System Acceptance (SA) for that deployment stage.

COLTS may authorize the Contractor to proceed to the next testing stage with certain deficiencies not yet resolved.

The Contractor shall provide written notice to COLTS at least five days 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 COLTS witnessing representatives cannot be present or if other circumstances prevent testing from taking place.

The Contractor shall provide written Test Results Documentation (TRD) within one week of 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 TRD must be approved before COLTS will grant SA for a deployment stage.

SA will not be granted for a deployment stage until all contract requirements have formally demonstrated through AT.

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.

11 Documentation and Training

11.1 General

The Contractor shall prepare all deliverables in both Microsoft Office (Word, Excel or PowerPoint) and Adobe PDF formats, with COLTS granted full rights to reprint as needed.

The Contractor shall for all deliverables include the filename in the document footer and include in the filename the file release date.

11.2 Training

The Contractor shall provide training courses for at least:

Two equipment installers/maintainers;

Two trainers for vehicle operators;

Three users of the AVL software;

One applications/systems administrator.

The Contractor shall provide all training materials in both Microsoft Office and Adobe PDF formats on compact disc (CD) and digital videodisc (DVD) with a permission to reproduce copies later on.

The Training Plan (TP), including the training schedule and course outlines, must be provided to COLTS for review at least three weeks in advance of the start of training.

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

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 COLTS, either before or during the training, the Contractor shall provide a suitable replacement within five business days of receiving such notice from COLTS.

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

The Contractor shall provide additional training to the original trainees after SA for each deployment stage 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.

11.3 Manuals

The Contractor shall provide an As-Built Document (ABD) to COLTS at the completion of each deployment stage.

The Contractor shall provide all manuals in both Microsoft Office and Adobe PDF formats on CD or DVD with a permission to reproduce copies later on.

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, 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) documenting use of all functions of the software.

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.

12 Maintenance and Warranty

12.1 Spare Components

The Contractor shall provide an initial supply of spare components to COLTS for all installed hardware (e.g., MDT, APC sensors, data modem, DMS), with a quantity of at least 15% 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 and model numbers.

Storage provisions, such as shelving, bins or racks, for the spare components shall be included, and the components shall be delivered to COLTS already organized and labeled such that they can be readily identified and found. The storage provisions, organization and labeling must be approved by the COLTS 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.

At any time during the warranty period, COLTS shall have the option to purchase additional spare components. The price proposal shall include the price for COLTS optional purchase of each spare component.

These additional spare components 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. These additional spare components will also be covered by the warranty.

12.1.1 Support

The Contractor shall arrange for support from one or more qualified firms to be available on a four-hour response basis, when needed by COLTS to assist with fault diagnosis or component replacement beyond the warranty period and through the projected useful life of the equipment.

The proposal shall include a list of the support firms, their support responsibilities and the response arrangements.

If a support firm does not respond within the agreed response timeframe, or when a support firm is not able to provide the needed support, the Contractor shall provide supplementary support in accordance with an agreed escalation procedure for at least two years beyond the end of the warranty period. 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 procedure.

12.2 Warranty

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

The Contractor shall offer an option to extend the warranty period for each deployment stage for one, two or three additional years. The Contractor 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 COLTS has made all inquiries necessary such that the Contractor is fully aware of COLTS' 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 the COLTS 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 COLTS 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, COLTS may 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.

During the warranty period, the Contractor shall, at no cost to COLTS, 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 upgrades, fixes, updates, or version changes at no cost to COLTS during the warranty period.

In addition to the foregoing warranties, the Contractor shall assign to COLTS, and COLTS 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 COLTS; (2) agree that such warranties and representations shall be enforceable by COLTS in its own name; and (3) furnish documentation on the applicable warranties to COLTS.

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

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

12.2.1 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. COLTS 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, COLTS 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 COLTS 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 COLTS, 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.

12.2.2 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.

13 General Conditions

13.1 Bid Forms

Bids must be submitted on forms provided. Bidders may replicate the forms (i.e.: for the purpose of word processing the entire document) but replicated forms must exactly match the originals. Replicas that do not match the original form will result in the submission being found non-responsive and rejected.

13.2 Bonding Requirements

The following bonding requirements apply to this Contract:

1. Awarded Proposer shall furnish to COLTS, one or more bonds, conditioned upon its faithful performance of all its obligations hereunder and upon its payment for all labor, materials, and other things used in the performance of Work from a surety acceptable to COLTS, in such form and amount as COLTS may prescribe. The bond(s) shall be approved as to form by COLTS' Executive Director, executed by the Proposer as principal and by a corporation licensed to issue such bonds on the State. The premiums for all such bonds which are required by law or which have been requested by COLTS prior to the time of awarded Proposer's execution of any Contract resulting from this proposal or required by the contract documents shall be deemed to be included in the contract price, and no additional compensation shall be payable to the awarded Proposer with respect to such bonds. The Performance Bond shall be in a sum equal to fifty percent (50%) of the total amount of the project.
2. Such bonds are required to be submitted to COLTS with the executed contract.
3. Time of Delivery and form of Bonds: The awarded Proposer shall deliver any additional required bonds to COLTS not later than sixty (60) days after receipt of written notification of order, as required by COLTS throughout the term of any Contract resulting from this proposal.
4. A cash deposit, certified check or other negotiable instrument will not be accepted by the COLTS in lieu of performance bond.
5. An irrevocable letter of credit (LOC) in a sum equal to fifty percent (50%) of the total amount of the project would satisfy the requirement for a bond. A Letter Of Credit, the terms of which are no more restrictive than as indicated below, shall be approved as to form by COLTS' General Manager.

SAMPLE LETTER OF CREDIT

We hereby open our Irrevocable Letter of Credit No. (INSERT NO.) effective on (DATE), in your favor for the account of _____, for a sum not to exceed \$ _____, available by your sight drafts on (NAME OF BANK) (hereinafter called "Bank").

This letter of credit is for the installation of a Smart Bus System and related Intelligent Transportation Systems and/or other improvements for COLTS . Drafts hereon shall be promptly honored when accompanied by documents specified below:

- 1. A statement signed by a member of COLTS stating that the Proposer has not satisfactorily constructed and/or completed the installation and implementation and/or other improvements contained in the Proposal submitted by (NAME OF PROPOSER) in accordance with the detailed requirements of the Request For Proposals issued by COLTS, and that the drawing is for the explicit purpose of providing for the completion of said improvements.*
- 2. All drafts must bear the clause "Drawn under Letter of Credit No. (INSERT NO.) dated (DATE OF ISSUE) issued by (NAME OF BANK)."*

We hereby engage with drawers, endorsers and bona fide holders that all drafts drawn in compliance with the terms of this Letter of Credit shall be duly honored upon presentation and delivery of the documents. This Irrevocable Letter of Credit shall remain in full force and effect from the effective date for a period of not less than six (6) months after all components of the various systems have successfully met the Final Testing and Acceptance procedure as defined by COLTS. At any time during which the Letter of Credit is in full force and effect, COLTS may draw up to the full amount of the sum when the draft is accompanied by the aforesaid statement that the _____ (THE PROPOSER) has not completed the project through Final Testing and Acceptance process.

This Irrevocable Letter of Credit shall be terminated by a written release from COLTS stating that (THE PROPOSER) has well and truly performed and fulfilled its obligations of constructing and installing and implementing the required improvements as specified on the aforementioned Proposal and that the improvements have been completed in accordance with the detailed Final Testing and Acceptance requirements submitted with said proposal and in accordance with the provisions of COLTS. This Irrevocable Letter of Credit is non-transferable or assignable by the issuer, beneficiary or customer.

Bank does hereby specifically agree that any actions brought on account of this Letter of Credit shall be brought in the Court of Common Pleas of Lackawanna County, Pennsylvania, which shall have jurisdiction to hear any and all actions which may be brought to enforce the obligations contained in this Letter of Credit and the Bank does hereby appoint the Secretary of the Commonwealth of Pennsylvania as its agent for the

acceptance of service of any Complaint or other legal process filed in the Court of Common Pleas of Lackawanna County, Pennsylvania, to enforce the obligations contained in this Letter of Credit. Bank does further agree that all obligations in this Letter of Credit shall be interpreted pursuant to the laws of the Commonwealth of Pennsylvania. It is also further agreed that the application of International Standby Practices-ISP98 is expressly waived and excluded from this Letter of Credit.

Attest: _____ (NAME OF BANK) _____.

By : _____ (SEAL) By _____

(TITLE) (TITLE)

14 APPENDIX A – REQUIRED FORMS AND CERTIFICATIONS

Please be sure to execute each of the following affidavits, certifications, and assurances. Failure to do so will render your proposal non-responsive and it will not be granted further consideration.

- Access to Records
- Integrity Certification
- Commonwealth Of Pennsylvania Non-Discrimination Clause
- Receipt of Addenda (submit whether or not any addenda are issued).
- No Federal Government Obligations to Third-Parties
- Program Fraud and False or Fraudulent Statements Related Acts
- Buy America
- Federal Changes
- Civil Rights (EEO, Title VI & ADA)
- DBE Certification
- Incorporation of FTA Terms
- Suspension and Debarment
- Lobbying
- Clean Air
- Clean Water
- Energy Conservation
- Non-Collusion Affidavit
- County of Lackawanna Transit System’s Protest Procedure

Access to Records

49 U.S.C. 5325
18 CFR 18.36 (i)
49 CFR 633.17

1. Where the Purchaser is not a State but a local government and is the FTA Recipient or a sub grantee of the FTA Recipient in accordance with 49 C. F. R. 18.36(i), the Contractor agrees to provide the Purchaser, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C. F. R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

2. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

3. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until the Purchaser, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i)(11).

4. FTA does not require the inclusion of these requirements in subcontracts.

Authorized Official of Firm

Title of Authorized Official

Date

INTEGRITY CERTIFICATION

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
AND OTHER RESPONSIBILITY MATTERS**

(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.

(If the lower tier covered participant (applicant for an FTA grant, or cooperative agreement, or potential third party contractor) is unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.)

THE LOWER TIER COVERED PARTICIPANT (APPLICANT FOR AN FTA GRANT OR CO-OPERATIVE AGREEMENT, OR POTENTIAL CONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT), _____, 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 ET SEQ. ARE APPLICABLE THERETO.

Signature & Title of Authorized Official

The undersigned chief legal counsel for the _____ (Contractor) hereby certifies that the _____ (Contractor) has authority under State and Local law to comply with the subject assurances and that the certification above has been legally made.

Signature of Contractor's Attorney

Date

(Applies to Contractor/Subcontractors with contracts in excess of \$25,000)

(Failure to complete this form and to submit it with your bid will render the bid non-responsive).

**COMMONWEALTH OF PENNSYLVANIA
NON-DISCRIMINATION CLAUSE**

1. Contractor shall not discriminate, against any employee, applicant for employment, independent contractor or any other person because of race, color, religious creed, national origin, age or sex.

Contractor shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age or sex. Such affirmative action shall include, but is not 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.

Contractor shall post in conspicuous places, available to employees, agents, applicants for employment and other persons, a notice to be provided by the contracting agency setting forth the provisions of this non-discrimination clause.

2. Contractor shall in advertisements or requests for employment placed by it or on its behalf state that all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age or sex.

3. Contractor shall send each labor union or workers' representative with which it has a collective bargaining agreement(s) or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this non-discrimination clause. Similar notice shall be sent to every other source of recruitment regularly utilized by Contractor.

4. It shall be no defense to a finding of noncompliance with the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission or this non-discrimination clause that the Contractor has delegated some of its employment practices to any union, training program or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the Contractor was not on notice of the third-party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.

5. Where the practices of a union or any training program or other source of recruitment will result in the exclusion of minority group persons, so that the Contractor will be unable to meet its obligations under the Contractor Compliance Regulations issued by the Pennsylvania Human Relations Commission, or this non-discrimination clause. The Contractor shall then employ and fill vacancies through other non-discriminatory employment procedures.

6. The Contractor shall comply with the Contract Compliance Regulations of the Pennsylvania Human Relations Commission, 16 PA Code Chapter 49 and will all laws prohibiting discrimination in hiring or employment opportunities. In the event of Contractor's non-compliance with the non-discrimination clause of this contract or with any such laws, this contract may, after hearing and adjudication, be terminated or suspended, in whole or in part, and the Contractor may be declared temporarily ineligible for further Commonwealth contracts, and such other sanctions may be imposed and remedies invoked as provided by the Contract Compliance Regulations.

7. The Contractor shall furnish all necessary employment documents and records to, and permit access to its books, records and accounts by, the contracting agency and the Human Relations Commission, for purposes of investigation to ascertain compliance with the provisions of the Contractor Compliance Regulations, pursuant to PA Code Chapter 49.35 of these regulations. If the Contractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting agency or the Commission.

8. The Contractor shall actively recruit minority Subcontractors or Subcontractors with substantial minority representation among their employees.

9. The Contractor shall include the provisions of this non-discrimination clause in every subcontract, so that such provisions will be binding upon each Subcontractor.

10. The terms used in this non-discrimination clause shall have the same meaning as in the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission, 16 PA Code Chapter 49.

11. Contractor obligations under this clause are limited to the Contractor's facilities within Pennsylvania or where the contract is for purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.

Wherever herein above the word Contractor is used it shall also include the word Engineer, consultant, Researcher, or other Contracting Party as may be appropriate.

Name of Individual, Partnership, or Corporation

Address

Authorized Person

Signature

Title

Date

RECEIPT OF ADDENDA

Certification of Receipt of Addenda to the Request for Proposal

Failure to submit this form in a properly executed manner will result in the bid/proposal being found non-responsive and rejected. This certification required for all procurements.

Acknowledgement of Receipt of Addenda

The undersigned hereby acknowledges receipt of the following addenda to the above referenced RFP:

Addendum Number: _____, dated: _____

Addendum Number: _____, dated: _____

Addendum Number: _____, dated: _____

Name of Individual, Partnership or Corporation:

Address:

Name of Authorized Person:

Signature:

Title of Authorized Person:

Date:

No Federal Government Obligations to Third-parties

(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.

Authorized Official of Firm

Title of Authorized Official

Date

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

(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.

Authorized Official of Firm

Title of Authorized Official

Date

BUY AMERICA REQUIREMENTS

49 U.S.C. 5323(j)
49 CFR Part 661

The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. 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 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification (below) with all bids or offers 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.

Sign applicable certification below – sign only one

Certificate of Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.5.

Date _____

Signature _____

Company Name _____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

Federal Changes

49 CFR Part 18

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 [Master Agreement](#) 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.

Authorized Official of Firm

Title of Authorized Official

Date

Civil Rights (EEO, Title VI & ADA)

29 U.S.C. § 623, 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.

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:

(a) 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.

(b) 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.

(c) 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.

(3) 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.

Authorized Official of Firm

Title of Authorized Official

Date

Disadvantaged Business Enterprises (DBEs)

49 CFR Part 26

a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is **4.2 %**. A separate contract goal of **4.2 %** DBE participation has been established for this procurement.

b. The contractor 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 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as County of Lackawanna Transit System deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

c. Bidders/offerors are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. Award of this contract is conditioned on submission of the following concurrent with and accompanying an initial proposal:

1. The names and addresses of DBE firms that will participate in this contract;
2. A description of the work each DBE will perform;
3. The dollar amount of the participation of each DBE firm participating;
4. Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal;
5. Written confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment; and
6. If the contract goal is not met, evidence of good faith efforts to do so.

[Bidders][Offerors] must present the information required above as a matter of responsiveness with initial proposals (see 49 CFR 26.53(3)).

d. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the County of Lackawanna Transit System. In addition, the contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.

e. The contractor must promptly notify County of Lackawanna Transit System, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of County of Lackawanna Transit System.

Authorized Official of Firm

Title of Authorized Official

Date

Incorporation of FTA Terms

[FTA Circular 4220.1E](#)

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 4220.1E](#) 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 County of Lackawanna Transit System requests which would cause the County of Lackawanna Transit System to be in violation of the FTA terms and conditions.

Authorized Official of Firm

Title of Authorized Official

Date

Suspension and Debarment

49 CFR Part 29
Executive Order 12549

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by the County of Lackawanna Transit System. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to the County of Lackawanna Transit System, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Authorized Official of Firm

Title of Authorized Official

Date

Lobbying

31 U.S.C. 1352
49 CFR Part 19
49 CFR Part 20

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The undersigned certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq.*, *apply* to this certification and disclosure, if any.

Authorized Official of Firm

Title of Authorized Official

Date

Clean Air

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

(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.

Authorized Official of Firm

Title of Authorized Official

Date

Clean Water

33 U.S.C. 1251

(1) 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.

(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.

Authorized Official of Firm

Title of Authorized Official

Date

Energy Conservation

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

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

Authorized Official of Firm

Title of Authorized Official

Date

NON-COLLUSION AFFIDAVIT

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

1. This Non-Collusion Affidavit is material to any contract awarded pursuant to this Bid. According to the Pennsylvania Anti- bid-Rigging Act, 73 P.S. 1611 et sec., governmental agencies may require Non-Collusion Affidavits to be submitted together with bids.
2. This Non-Collusion Affidavit must be executed by the member, officer or employee of the bidder who makes the final decision on prices and the amount quoted in the bid.
3. Bid rigging and other efforts to restrain competition, and the making of false SWORN statement in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the associated approval or submission of the bid.
4. In the case of a bid submitted by a joint venture, each party to the venture must be identified in the Bid Documents, and an Affidavit must be submitted separately on behalf of each party.
5. The term "Complementary Bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or non-competitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
6. Failure to file an Affidavit in compliance with these instructions may result in disqualification of the bid.

NON-COLLUSION AFFIDAVIT

FOR BID FOR _____

(name of project or item being bid upon)

State of _____

County of _____

I state that I am _____ of _____

(Title)

(Name of my Firm)

and that I am authorized to make this affidavit on behalf of my firm, and its Owners, Directors, and Officers. I am the person responsible in my firm for price(s) and the amount of this bid.

I state that:

1. The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or non-competitive bid or other form of competitive bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other non-competitive bid.
5. _____, its affiliates,
(Name of my firm)
subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal Law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

I state that _____ understands and
(Name of my firm)

acknowledges that the above representations are material and important, and will be relied on
by _____ in awarding the contract(s) for which this bid

(Name of my firm)

is submitted. I understand and my firm understands that any misstatement in this affidavit is and
shall be treated as fraudulent concealment from _____

(Name of public entity)

of the true facts relating to the submission of bids for this contract.

(Name) (Company Position)

SWORN TO AND SUBSCRIBED

BEFORE ME THIS _____ DAY OF _____, 20_____.

Notary Public

My Commission Expires

County of Lackawanna Transit System's Protest Procedure

If a bidder/proposer perceives that a segment of the specifications is either too restrictive for competition or if the bidder/proposer perceives any improprieties in the solicitation or specifications, a written protest must be filed with the COLTS Executive Director at least five (5) business days prior to bid opening or the due date for proposals. Any protests concerning the award of a contract after the bid opening, or after a public announcement by COLTS of a contractor selection decision, or after an evaluation of proposals submitted under an RFP, must be made within five (5) days after the bid opening, or public announcement in the case of an RFP, in order to permit COLTS the opportunity to resolve the issue prior to contract award.

Contents of Protest to COLTS

A bidder or proposer filing a protest with COLTS must submit the protest in writing, via certified United States mail with a return receipt request, to County of Lackawanna Transit System (COLTS) c/o Executive Director, 800 North South Road, Scranton, PA 18504. The protest must include:

1. The name and address of the bidder;
2. Project number and the number of the solicitation;
3. A detailed and factual statement of the grounds for protest and any supporting documentation. The documentation submitted to COLTS must be fully supported to the extent possible;
4. The desired relief, action or ruling from COLTS.

Following an adverse decision by the Executive Director, the bidder or proposer may file a protest with FTA Regional Office III for resolution.

FTA Review of Protest: A protester must exhaust all administrative remedies with COLTS before pursuing a protest with FTA. Review of a protest by FTA will be limited to:

- (1) COLTS' failure to have or follow its protest procedures, or its failure to review a complaint or protest; or
- (2) Violations of Federal law or regulation.

Following any adverse decision by the Executive Director, the bidder may file a protest if there has been a violation in connection with 1 and 2 above. An appeal to FTA must be received by

the U. S. Department of Transportation, Federal Transit Administration (“FTA”), Region III, 1760 Market Street, Suite 500, Philadelphia, PA 19103, within five (5) working days of the date the protester learned or should have learned of an adverse decision by the Executive Director or other basis of appeal to FTA.

Contents of Protest to FTA

A bidder filing a protest with FTA must submit the protest in writing, via certified United States mail with a return receipt request, to the U. S. Department of Transportation, Federal Transit Administration (“FTA”), Region III, 1760 Market Street, Suite 500, Philadelphia, PA 19103. The protest must include:

1. The name and address of the bidder;
2. Identification of the grantee (COLTS), project number and the number of the solicitation;
3. A detailed and factual statement of the grounds for protest and any supporting documentation. The documentation submitted to FTA must be fully supported to the extent possible;
4. A copy of the protest filed with COLTS, and a copy of the COLTS decision, if any; and
5. The desired relief, action or ruling from FTA.

FTA will not consider any data that was not submitted to COLTS. If new data becomes available after the exhaustion of administrative remedies with COLTS, that data should be submitted to COLTS with a request for reconsideration. If the request is denied or if the protestor’s administrative remedies with COLTS are again exhausted, the protestor may then submit the new data to FTA.

No formal briefs or other technical forms of pleading or motion are required, but a protest and other submission should be concise, logically arranged, and clear.

Bid protests must be filed with FTA no later than five (5) days after the exhaustion of administrative remedies with COLTS is known or should have been known, whichever is earlier.

Authorized Official of Firm

Title of Authorized Official

Date

15 APPENDIX B – FUNCTIONALITY/COMPLIANCE MATRIX

(attached as separate document, Excel spreadsheet)

Instructions for filling out the matrix

The proposer is required to indicate the compliance status relative to each individual requirement listed in the Functionality/Compliance Matrix. For each requirement, the proposer must indicate if their proposed system will either comply ((**Y**)es); not comply ((**N**)o); or comply only if COLTS adopts a proposed modified version of the requirement ((**M**)odified).

A response of “M” should only be used to indicate that the proposer will comply if the requirement wording is changed to the specific alternate text that must be provided by the proposer in the column provided. The “M” will be equivalent to a response of “Y” if COLTS opts to change the requirement as proposed, or equivalent to a response of “N” if COLTS opts to not change the requirement. If alternate requirement wording is not proposed in conjunction with an “M” response, this will be treated as an “N” response.

No additional commentary shall be provided for responses of “Y” or “N”.

16 APPENDIX C – COST PROPOSAL FORM

(attached as separate document, Excel spreadsheet)

Instructions for filling out the matrix

Proposed costs must be submitted on the spreadsheet provided. Bidders may replicate the form (i.e.: for the purpose of word processing the entire document) but replicated forms must exactly match the original. Replicas that do not match the original form exactly, will result in the submission being found non-responsive and rejected.

Note there are Four (4) tabs to the spreadsheet, the first tab is for the combined agencies, the second tab is for COLTS' current fleet of 33 vehicles and related ITS infrastructure, optional elements and warranty. The second and third tab is for the fleet for Hazelton and Luzerne County.

Contractors are required to indicate all costs associated with the "Combined agencies" and the Colts fleet of 33 vehicles on the first and second tabbed spreadsheet. **THE COMBINED AGENCIES AND THE COLTS TABS MUST BOTH BE FILLED OUT.** In the COMBINED AGENCY TAB do NOT include new radios for COLTS unless they are needed as part of the solution. Please include 33 requested new radios in the COLTS tab.

All costs associated Hazelton and Luzerne installation of the 50 vehicles must be shown on the second and third tabbed spreadsheet. Where no additional costs will be incurred, contractors are to indicate such by entering a zero (0) in the appropriate boxes. Any boxes left blank on this spreadsheet will be assumed to be no additional cost for that item.

Contractors are encouraged to provide any accompanying documentation deemed necessary to fully explain any proposed costs.

17 APPENDIX D – VEHICLE INVENTORY

TO BE PROVIDED AS AN ADDENDUM

18 APPENDIX E – THIRD PARTY CONTRACT CLAUSES

The following clauses are part of this and all contracts.

1. Notice of Federal Requirements

This procurement is subject to a financial assistance contract between the Federal Transit Administration (FTA) and COLTS. The contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed herein, 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.

2. No Government Obligation to Third Parties

a. 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.

b. 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.

3. Civil Rights

a. Equal Employment Opportunity - "In connection with the execution of this contract, the contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin.

The contractor shall take affirmative actions to insure that applicants employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, or national origin. Such actions 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."

b. Disadvantaged Business Enterprise - In connection with the performance of this contract, the Contractor will cooperate with the project sponsor in meeting his commitments and goals with regard to the maximum utilization of disadvantaged business enterprises (DBE's) and will use its best efforts to ensure that DBE's shall have the maximum practicable opportunity to compete for subcontract work under this contract.

(1) Policy - It is the policy of the Department of Transportation that disadvantaged business enterprises as defined in 49 C.F.R. Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or part with Federal funds under this agreement. Consequently, the DBE requirements of 49 C.F.R. Part 23 apply to this agreement.

(2) DBE Obligation - The supplier or contractor agrees to ensure that disadvantaged business enterprises as defined in 49 C.F.R. Part 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or part with Federal funds provided under this agreement. In this regard all recipients or contractors shall take necessary and reasonable steps in accordance with 49 C.F.R. Part 23 to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. Recipients and their Contractors shall not discriminate on the basis of race, creed, color, national origin, age or sex in the award and performance of DOT-assisted contracts.

(3) DBE Non-Discrimination - The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract or agreement. The

requirements of C.F.R. Part 23 and the Recipient's U.S. DOT-approved disadvantaged business enterprise (DBE) program (where required) are incorporated in this contract or agreement by preference. Failure by the Contractor, Subrecipient or Subcontractor to carry out these requirements is a material breach of the contract or agreement, which may result in the termination of this contract or agreement or such other remedy as the recipient deems appropriate.

c. Title VI of the Civil Rights Act of 1964 - During the performance of this contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

Compliance with Regulations: The Contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, religion, color, sex, age or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

Solicitations for Subcontractors, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, religion, color, sex, age or national origin.

Information and Reports: The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, account, other sources of information, and its facilities as may be determined by the Recipient or the Federal Transit Administration (FTA) to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information is required or a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the Recipient, or the Federal Transit Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.

Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, the Recipient shall impose such contract sanctions as it or the Federal Transit Administration may determine to be appropriate, including, but not limited to:

- a. Withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
- b. Cancellation, termination or suspension of the contract, in whole or in part.

Incorporation of Provision: The Contractor shall include⁹⁹the provisions of paragraph (1) through (6) of this section in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Contractor shall take such action with respect to any subcontract or procurement as the Recipient or the Federal Transit Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or Supplier as a result of such direction, the Contractor may request the Recipient, and in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

d. Access Requirements for Individuals with Disabilities COLTS agrees to comply with, and assure that any subrecipient, or third party contractor under this Project complies with all applicable requirements of the Americans with Disabilities Act of 1990 (ADA), 42 U.S.C. 12101 et seq. and 49 U.S.C. 322; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794; Section 16 of the Federal Transit Act, as amended, 49 U.S.C. app. 1612; and the following regulations and any amendments thereto:

(1) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;

(2) 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;

(3) U.S. DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 49 C.F.R. Part 38;

(4) Department of Justice (DOJ) regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;

(5) DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;

(6) General Services Administration regulations, "Construction and Alteration of Public Buildings," "Accommodations for the Physically Handicapped," 41 C.F.R. Part 101-19;

(7) Equal Employment Opportunity Commission (EEOC) "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;

(8) 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

(9) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609.

4. Commonwealth of Pennsylvania Non-Discrimination Clause - COLTS is a contract recipient of funds from the Commonwealth of Pennsylvania. As a condition for the receipt of the funds, COLTS must certify its compliance with the Non-Discrimination Clause and COLTS must require all subcontractors certify their compliance with the Non-Discrimination Clause.

5. Termination (For contracts of \$10,000 or greater)

Termination for Convenience: COLTS may terminate this contract, in whole or in part, at any time by written notice to the Contractor. 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 COLTS to be paid the Contractor. If the Contractor has any property in its possession belonging to COLTS, the Contractor will account for the same, and dispose of it in the manner COLTS directs.

Termination for Default: 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, COLTS 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 COLTS 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, COLTS, 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 for Cost Type Contracts: COLTS may terminate this contract, or any portion of it, by serving a notice of termination on the Contractor. The notice shall state whether the termination is for convenience of COLTS 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 COLTS, or property supplied to the Contractor by COLTS 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 COLTS and the parties shall negotiate the termination settlement to be paid the Contractor.

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

6. Breaches and Dispute Resolution (Relevant to Contracts in excess of \$100,000)

All contracts in excess of \$100,000 shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. COLTS may include provisions for bonding, penalties for late or inadequate performance, retained earnings, liquidated damages or other appropriate measures.

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 COLTS. 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 Board of Directors. 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 Board of Directors shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by COLTS, 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 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 or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between COLTS 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 Commonwealth of Pennsylvania.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available hereunder 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 COLTS or its

representative 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.

7. Lobbying (For contracts of \$100,000 or greater) - Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to COLTS.

8. Interest of Members of 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 any benefit arising therefrom."

9. Interest of Public Officials - "No member, officer, or employee of the public body or of a local public body during his tenure or for one year thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof."

10. Debarred Bidders - "Neither Contractor nor any officer or controlling interest holder of Contractor is currently, or has been previously, on any debarred bidders list maintained by the U.S. Government."

11. Cargo Preference - Pursuant to 46 C.F.R. Part 381, the following clauses are in effect for any contracts under which equipment, materials or commodities may be transported by ocean vessel in carrying out the contract:

The Contractor agrees:

(1) To utilize privately owned United States flag commercial vessels to ship at least 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 this section, to the extent such vessels are available at fair and reasonable rates for United States flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States, or within 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 (1) above to the Recipient (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 St. S.W., Washington, D.C. 20590, marked with appropriate identification of the Project.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

12. Buy America Procurements of \$100,000 or more for Iron, Steel or Manufactured Products and Rolling Stock (Service Type Contracts are Exempt)-Procurements of \$100,000 or more are subject to the Federal Transit Administration (FTA) Buy America Requirements in 49 C.F.R. 661. A Buy America Certificate must be completed and submitted with a bid. A bid which does not include the certificate will be considered non-responsive. A waiver from the Buy America Provision may be sought by COLTS if grounds for a waiver exist. Section 165(a) of the Surface Transportation Act of 1982, as amended, permits FTA participation in this contract only if iron, steel or manufactured products used in the contract are produced in the United States. Section 165(b)(3) of the Surface Transportation Act of 1982, as amended, permits FTA participation in this contract for Rolling Stock only if 60% of the cost of the componentry is of U.S. manufacture and the final assembly occurs in the U.S.

13. Pre-Award and Post-Delivery Audit Requirements (Procurement of Rolling Stock Only) - The Contractor agrees to comply with 49 U.S.C. 5323(1) and FTA's implementing regulation at 49 C.F.R. Part 663 and to submit the following certifications:

(1) Buy America Requirements: The Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Bidder/Offeror certifies compliance with Buy America, it shall submit documentation which lists 1) component and subcomponent parts of rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

(2) Solicitation Specification Requirements: The Contractor shall submit evidence that it will be capable of meeting the bid specifications.

(3) Federal Motor Vehicle Safety Standards (FMVSS): The Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

14. Debarment and Suspension (Integrity Certification - Contracts over \$100,000)

Federal Regulations prohibit COLTS from entering into contracts in excess of \$100,000 for goods and services from contractors which have been suspended or debarred from receiving Federally-assisted contracts. COLTS imposes this same regulation upon contractors to require that their subcontractors (in excess of \$100,000) not be suspended or debarred.

Contractors with contracts in excess of \$100,000 and their subcontractors with contracts in excess of \$100,000 shall each certify that they are not debarred or suspended from receiving federally-assisted contracts. It is the contractor's responsibility to submit the certifications of any of its subcontractors who meet the \$100,000 threshold. The contractor and subcontractors shall each submit both of the certificates included in the bid document.

a. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transaction (Third Party Contracts over \$100,000)

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.

Instructions for Certification

1. By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out above .

2. 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, COLTS may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to COLTS 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.

4. 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 COLTS for assistance in obtaining a copy of those regulations.

5. 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 COLTS.

6. 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.

7. 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 Non-procurement List issued by U.S. General Service Administration.

8. 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.

9. 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, COLTS may pursue available remedies including suspension and/or debarment.

b. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transaction (Third Party Contracts over \$100,000)

(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.

15. Environmental, Resource Conservation, and Energy Requirements

COLTS recognizes that many Federal and State statutes imposing environmental, resource conservation, and energy requirements may apply to the Project. Some, but not all, of the major Federal laws that may affect the Project include: the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq.; the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. and scattered sections of 29 U.S.C., the Clean Water Act, as amended, scattered sections 33 and 12 U.S.C.; the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901 et seq.; and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. 9601, et seq. COLTS recognizes that the Environmental

Protection Agency (EPA), the Federal Highway Administration (FHWA) and other agencies of the Federal Government have issued and are expected in the future to issue requirements in the form of regulations, guidelines, standards, orders, or other directives that may affect the Project.

Accordingly, COLTS agrees to adhere to, and impose on its subrecipients, any such Federal requirements, as the Government may now or in the future promulgate. Listed below are requirements of particular concern to the FTA. COLTS expressly understands that this list does not constitute COLTS' entire obligation to meet Federal requirements.

a. Environmental Protection - To the extent applicable, the Contractor agrees to comply with the requirements of the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 et seq.; Section 14 of the Federal Transit Act, as amended, 49 U.S.C. app. 1610; the Council on Environmental Quality regulations, 40 C.F.R. Part 1500 et seq.; and the joint FHWA/FTA regulations, "Environmental Impact and Related Procedures," at 23 C.F.R. Part 771 and 49 C.F.R. Part 622.

b. Air Pollution - The Contractor agrees to comply with the joint FHWA/FTA regulations, "Air Quality Conformity and Priority Procedures for Use in Federal Aid Highway and 49 C.F.R. Part 623. The Contractor agrees to obtain satisfactory assurances that any facilities or equipment acquired, constructed, or improved as a part of the Project are or will be designed and equipped to limit air pollution as provided in accordance with the following EPA regulations: "Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines," 40 C.F.R. Part 85; and "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines: Certification and Test Procedures," 40 C.F.R. Part 86; and "Fuel Economy of Motor Vehicles," 40 C.F.R. Part 600; in accordance with applicable Federally-approved State Implementation Plan(s) (in particular, the Transportation Control Measures); and in accordance with applicable Federal regulations, directives and other standards.

c. Use of Public Lands - No publicly owned land from a park, recreation area, or wildlife or waterfowl refuge of national, State, 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 U.S.C. 303 are made by the U.S. DOT.

d. Historic Preservation - The Recipient agrees to assist the Government to comply with Section 106 of the National Historic Preservation Act, 16 U.S.C. 470f, involving historic and archaeological preservation by:

(1) 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 C.F.R. 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

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

e. Energy Conservation - COLTS and its third party contractors 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 U.S.C. 6321 et seq.

f. Mitigation of Adverse Environmental Effects - Should the proposed Project cause adverse environmental effects, COLTS and its third party contractors agree to take all reasonable steps to minimize such effects pursuant to 49 U.S.C. app.1610, all other applicable statutes, and the procedures set forth in 23 C.F.R. Part 771 and 49 C.F.R. Part 622. COLTS and its third party contractors agree 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 agreements, and statements required by 49 U.S.C. 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. If some or all mitigation

measures are deferred, as soon as the Government and COLTS agree on those measures, those agreed-upon measures will be incorporated into this Agreement. Such mitigation measures may not be modified or withdrawn without this express written approval of the Government.

16. Clean Water Requirements (Relevant to Contracts in Excess of \$100,000)

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.

17. Clean Air Requirements (Relevant to Contracts in Excess of \$100,000)

a. 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.

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.

18. Recycled Products (Relevant to Recycled Products Contracts in Excess of \$100,000)

a. The Recycled Products requirements apply to all contacts for items designated by the EPA, when the contractor procures \$10,000 or more of one of these items during the fiscal year or the previous fiscal year with federal funds.

b. 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.

19. Air Pollution (This Clause Relates to Vehicle Purchases Only) - The Contractor and suppliers must submit evidence to COLTS that the governing air pollution criteria will be met. This evidence and related documents will be retained by COLTS for on-site examination by FTA.

20. Motor Vehicle Safety Standards(This Clause Relates to Vehicle Purchases Only)-The motor vehicles purchased with COLTS funds will comply with the Motor Vehicle Safety Standards as established by the U.S. Department of Transportation. The Contractor shall provide a letter with such a certification.

21. Motor Vehicle Pollution Requirements(This Clause Relates to Vehicle Purchases Only)

When new motor vehicles are purchased with COLTS funds, then COLTS must obtain from the Contractor a certification in writing that:

a. The horsepower of the vehicle is adequate for the speed, range and terrain in which it will be required and also to meet the demands of all auxiliary power equipment.

b. All gases and vapors emanating from the crankcase of a spark ignition engine are controlled to minimize their escape into the atmosphere.

c. Visible emission from the exhaust will not exceed No.1 on the Ringleman Scale when measured six inches from the tail pipe with the vehicle in steady operation.

d. When the vehicle has been idles for three minutes and then accelerated to 80% of rated speed under load, the opacity of the exhaust will not exceed No.2 on the Ringleman Scale for more than five seconds, and not more than No.1 on the Ringleman Scale thereafter.

22. Patent Rights (Planning, Research, Development & Demonstration Projects Only)- If any invention, improvement, or discovery of the Recipient or any of its third party contractors 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 Recipient agrees to notify the FTA immediately and provide a detailed report. The rights and responsibilities of the Recipient, third party contractors and the Government with respect to such invention, improvement, or discovery will be determined in accordance with applicable Federal laws, regulations, policies, and any waiver thereof.

23. Rights in Data (Planning, Research, Development & Demonstration Projects Only)

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 punch 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, the Recipient may not publish or reproduce such data in whole or in part, or in any manner or form, nor may the Recipient 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 C.F.R. Section 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 work 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 a Recipient, subrecipient, or a third party contractor purchases ownership with Federal assistance.

c. When the FTA provides assistance to a Recipient for a Project involving planning, research, development, or a demonstration, it is generally the FTA's intent to increase the body of mass transit knowledge, rather than to limit the benefits of the Project to those parties that have participated therein. Therefore, unless the 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 (2) above, the FTA may make available to any FTA Recipient, Subrecipient, Third Party Contractor, or Third Party Subcontractor, either the 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 such a Project, is not completed, for any reason whatsoever, all data developed under that Project shall become subject data as defined in (a) of this agreement and shall be delivered as the Government may direct. This subsection, however, does not apply to adaptations of automatic data processing equipment or programs of for the Recipient's

use which costs are financed with capital funds (Section 3, 9, 16, 18 of the Federal Transit Act, as amended, or Title 23 funds).

d. Unless prohibited by State law, the Recipient 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 the Recipient 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. The Recipient 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 on rights in data 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.

f. The requirements of subsections (b),(c) and (d) of the above do not apply to material furnished to the Recipient by the Government and incorporated in the work carried out under the agreement; provided that such incorporated material is identified by the Recipient at the time of delivery of such work.

24. Privacy Act (Contracts involving federal privacy act 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. 522a. Among other things, the Contractor agrees to COLTS in 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. Program Fraud and False or Fraudulent Statements

a. 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.

b. 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.

c. The Contractor agrees to include the above two clauses in each sub- contract 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.

26. Contract Work Hours and Safety Standards Act
(Non-Construction Contracts in excess of \$2,500)

The following clauses are specifically mandated under Department of Labor regulation 29 CFR Part 5.5.

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 workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

b. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (a) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a) of this section.

c. **Withholding for unpaid wages and liquidated damages.** COLTS 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 paragraph (b) of this section.

d. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in this section 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 this section.

e. **Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborer or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the

registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

27. Access to Records

a. The Contractor agrees to provide the Purchaser, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307,5309 or 5311.

b. Where any Purchaser which is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302 (a)1) through other than competitive bidding, the Contractor shall make available records related to the contract to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

c. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

d. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case the Contractor agrees to maintain same until the Purchaser, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(l)(11).

19 APPENDIX F- COLTS COMPLIANCE WITH TITLE VI

COUNTY OF LACKAWANNA TRANSIT

NOTICE TO PUBLIC REGARDING COMPLIANCE WITH TITLE VI

County of Lackawanna Transit is in compliance with Title VI of the Civil Rights Act of 1964. As such:

Any person who is riding, or seeks to ride any public vehicle which is operated as a part of service provided by County of Lackawanna Transit shall be given the same access, seating, and other treatment with regard to the use of such vehicle as other persons without regard to their race, color, or national origin.

No person who is, or seeks to be, an employee of County of Lackawanna Transit or its lessees, concessionaires, contractors, licensees, or any organization furnishing public transportation service shall be treated less favorably than any other employee or applicant with regard to hiring, dismissal, advancement, wages, or any other conditions and benefits of employment, on the basis of race, color, or national origin.

No person or group of persons shall be discriminated against with regard to the routing, scheduling, or quality of transportation service furnished by County of Lackawanna Transit on the basis of race, color, or national origin. Frequency of service, age and quality of vehicles assigned to routes, quality of stations serving different routes, and location of routes may not be determined on the basis of race, color, or national origin.

The location of projects requiring land acquisition and the displacement of persons from their residences and businesses may not be determined on the basis of race, color, or national origin.

Additional information regarding County of Lackawanna Transit's nondiscrimination obligations may be obtained by contacting County of Lackawanna Transit at 800 North South Road, Scranton PA, 18504, or by telephone ((570) 346-2061 Ext. 1264).

Individuals or organizations who believe they have been denied the benefits of, excluded from participation in, or subject to discrimination on the grounds of race, color, or national origin by County of Lackawanna Transit can file a written complaint with County of Lackawanna Transit at 800 North South Road, Scranton PA, 18504, or by telephone ((570) 346-2061 Ext 1264); or with the Federal Transit Administration's Office of Civil Rights under Title VI of the Civil Rights Act of 1964. The complaint must include the complainant's name, address, and telephone number; date of the alleged act of discrimination; name of alleged discriminating official; basis of the complaint; and a statement of the facts and circumstances of the alleged discrimination.