



Request For Proposals

Metrorail Faregates

RFP No. : FQ18152

Date: 03/16/2018
Proposal Due Date: 04/16/2018

Washington Metropolitan Area Transit Authority
RFP: FQ18152

Date: 03/16/2018

SUBJECT: RFP No. FQ18152

Dear Sir/Madam:

The Washington Metropolitan Area Transit Authority (WMATA) requires a qualified contractor to provide Metrorail faregates to replace current faregates. This includes faregate deployment and hardware and software maintenance. This RFP contains a 3 percent DBE goal.

If you have any technical, contractual, or administrative questions, please e-mail them to wasres@wmata.com no later than close of business, 03/29/2018. WMATA will provide written answers by e-mail to all those who obtain the RFP and provide their e-mail addresses. If an amendment(s) is issued resulting from questions and answers, it will be posted on our website, and a copy will be mailed to all offerors so that they can acknowledge receipt.

Your proposal must be received with all required submittals as stated in the RFP, no later than **2:00PM, 04/16/2018**, at WMATA, Office of Procurement and Materials, 600 Fifth Street, NW, Room 3C-02, Washington, DC 20001-2651.

Sincerely,

Contracting Officer
Office of Procurement and Materials

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DIRECTIONS FOR SUBMITTING OFFERS

1. Read and comply with the solicitation instructions.
2. Envelopes containing technical and price proposals must be sealed and separately marked and addressed to:

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
600 5th Street, N.W.
Washington, DC 20001
Room 3C-02
Attn: Wondem Asres

ALL ENVELOPES OR PACKAGES MUST BE SEPARATELY MARKED WITH THE SOLICITATION NUMBER AS SPECIFIED HEREWITH.

PROPOSALS SHALL BE TIMELY MAILED OR HAND DELIVERED TO REACH WMATA BEFORE 2:00 P.M. (LOCAL TIME) 04/16/2018 ON DAY OF PROPOSAL CLOSING.

NOTICE TO OFFERORS

IN ORDER TO ENSURE THAT YOUR PROPOSAL COMPLIES WITH THE AUTHORITY'S PROCUREMENT REGULATIONS AND THAT IT WILL BE ACCEPTABLE TO THE AUTHORITY, THE FOLLOWING FORMS MUST BE COMPLETED & SUBMITTED AS SPECIFIED BELOW WITH YOUR OFFER:

- SOLICITATION, OFFER & AWARD FORM (Must be signed.) - VOLUME III
- PRICE SCHEDULE- VOLUME I
- REPRESENTATIONS AND CERTIFICATIONS- VOLUME III
- PRE-AWARD DATA- VOLUME III
- ACKNOWLEDGMENT OF AMENDMENTS (IF ANY)- VOLUME III
- TECHICAL PROPOSAL- VOLUME II
- PROOF OF INSURANCE ELIGIBILITY - VOLUME III
- APPENDIX B (IF APPLICABLE) - VOLUME III
- APPENDIX B-1 (IF APPLICABLE)-VOLUME III

FAILURE TO SUBMIT ANY PORTION OF THESE REQUIREMENTS AS SPECIFIED MAY CAUSE YOUR PROPOSAL TO BE CONSIDERED NONRESPONSIVE AND SUBSEQUENTLY REJECTED.

Questions concerning this Request for Proposals may be directed to Wondem Asres on 202 962 1806 and wasres@wmata.com.

NOTICE TO ALL VENDORS

Please be advised that all vendors and contractors who do business with the Washington Metropolitan Area Transit Authority (WMATA) must register in the WMATA Vendor Registration System. Registration is located at <http://www.wmata.com>

New Vendor Registration.

If you are a vendor or contractor and *HAVE* done business with WMATA in the past, please electronically request your company's User ID and Password at <http://www.wmata.com>
Forgot User Id/Password.

Registered Vendor Benefits:

- Visibility to WMATA contract administrators and/or purchasing agents during the purchasing decision period;
- Visibility to other 17,500 registered vendors for possible business opportunities;
- Opportunity to update online, company information such as an e-mail address or contact person on-line;
- Ability to sign up for electronic payment option; and
- Ability to electronically reset user id and password.

Any questions regarding registration may be sent to clm@wmata.com.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
 SUPPLY AND SERVICE CONTRACT RFP-CQ10-112ETD



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
SOLICITATION, OFFER AND AWARD

CONTRACT NO. FQ18152	SOLICITATION NO. RFP FQ18152 <input type="checkbox"/> ADVERTISED <input checked="" type="checkbox"/> NEGOTIATED	DATE ISSUED 03/16/2018	ADDRESS OFFER TO OFFICE OF PROCUREMENT Office of Procurement 600 Fifth Street NW Washington, DC 20001
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SOLICITATION

Sealed offer in original and Three (3) copies for furnishing the supplies or services in the schedules will be received at Authority until 2:00 P.M. Local time 04/16/2018
 (Hour) (Date)

CAUTION – LATE OFFERS: See paragraph 6 of Solicitation Instructions.

All offers are subject to the following:

1. The Solicitation Instructions that are attached.
2. The Terms and Conditions that are attached.
3. The Price Schedule included herein and/or attached hereto.
4. Such other provisions, representations, certifications, and specifications, as are attached or incorporated herein by reference.

Proposer's E-mail _____

Proposer's Phone Number _____

Proposer's Fax Number _____

SCHEDULE

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	(Continued on the attached pages)				\$

DUN & BRADSTREET ID NUMBER: _____

OFFEROR

Name and Address (Street, city, county, state, and zip code)	Name and Title of Person Authorized to Sign Offer (Print or Type)
<input type="checkbox"/> Check if remittance is different from above — enter such address in Schedule	Signature Offer Date

AWARD (To be completed by The Authority)

ACCEPTANCE AND AWARD ARE HEREBY MADE FOR THE FOLLOWING ITEM(S):

ITEM NO.	QUANTITY	UNIT	UNIT PRICE

The total amount of this award is \$ _____

Name of Contracting Officer (Print of Type)

WASHINGTON METROPOLITAN TRANSIT AUTHORITY

AWARD DATE

SOLICITATION, OFFER AND AWARD

CONTINUATION SHEET

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THE FOLLOWING AMENDMENTS

TO SOLICITATION RFP FQ18152

Amendment Number _____	Dated _____
Amendment Number _____	Dated _____
Amendment Number _____	Dated _____
Amendment Number _____	Dated _____
Amendment Number _____	Dated _____
Amendment Number _____	Dated _____

Failure to acknowledge receipt of all amendments may render the offer unacceptable.

Authorized Signature

Company Name

Date

PRICE SCHEDULE SHEET

Description	QTY	Unit Price	Extended Price
Mobilization			
Design Review			
CDR	LS		
PDR	LS		
FDR	LS		
Deployment Planning	LS		
Design Review Total			
Testing			
Factory Acceptance Testing	LS		
Environmental Testing	LS		
Functional Testing	LS		
System Integration Testing	LS		
Revenue Service Testing	LS		
Testing Total			
Training	LS		
Base System Faregates (Installed)			
ADA Faregate	128		
Installation	128		
ADA End	151		
Installation	151		
Standard	564		
Installation	564		
Standard End	278		
Installation	278		
Total QTY	1121		
Total Installed Faregates			
WMATA Training Lab and Other Facilities			
ADA Faregate	3		
Installation	3		
ADA End	6		
Installation	6		

Standard	3		
Installation	3		
Standard End	2		
Installation	2		
Total Installed Faregates			
Portable Station Manager Tablets Configured for Operation	250		
Station Terminals	126		
Faregate (Spares)			
ADA	3		
ADA End	3		
Standard	8		
Standard End	4		
Portable Station Manager Tablets	30		
Station Terminals	4		
Total Spare Devices			
Warranty			
90 day Faregate Maintenance	LS		
1 Year Parts Maintenance/Replacement	LS		
Base Warranty Total	LS		
Spare Parts	LS		
Software Maintenance			
3 Year Base Agreement	LS		
3 Year Banked Hours 2000 hrs	2000		
Total Software Maintenance			
TOTAL			
Contract Options			
Silver Line Faregates (Installed)			
ADA Faregate	6		
Installation	6		
ADA End	6		
Installation	6		
Standard	18		
Installation	18		
Standard End	6		

Installation	6		
Total QTY	36		
Total SL Installed Faregates			
Purple Line Faregates (Installed)			
ADA Faregate	4		
Installation	4		
ADA End	3		
Installation	3		
Standard	11		
Installation	11		
Standard End	3		
Installation	3		
Total QTY	21		
Total PL Installed Faregates			
Extended Faregate Maintenance			
Software Maintenance Option Year 1	LS		
Software Engineer/Programmer Bank Option 1	2000		
Software Maintenance Option Year 2	LS		
Software Engineer/Programmer Bank Option 2	2000		
Faregate Maintenance Option 1 (3 Years)	LS		
Faregate Maintenance Option 2 (one year)	LS		
Faregate Maintenance Option 3 (one year)	LS		
Faregate Parts Repair and Replacement Option 1	LS		
Faregate Parts Repair and Replacement Option 2	LS		
Faregate Parts Repair and Replacement Option 3	LS		
Faregate Parts Repair and Replacement Option 4	LS		
TOTAL Extended Warranty			
Grand Total			

 Authorized Signature

 Company Name

 Date

RFP SOLICITATION INSTRUCTIONS

1. INTRODUCTION

- (a) The Authority seeks to award a contract to provide Metrorail faregates to replace current faregates. This includes faregate deployment and hardware and software maintenance. To that end, it is issuing this Request for Proposals (RFP) to solicit proposals from qualified firms and individuals who can satisfy the requirements described herein.
- (b) Since this is a Best Value solicitation, award of a Contract hereunder shall be to the offeror whose proposal provides the best overall value to the Authority, based upon application of the evaluation criteria set forth herein.
- (c) Not Applicable
- (d) The Authority contemplates award of a Firm Fixed Price Contract that contemplates, at the Authority's sole discretion, possible performance incentives to be negotiated for an enhanced delivery schedule. Unless otherwise specified in the Price Schedule, the Authority reserves the right to make multiple awards pursuant to this solicitation.
- (e) **REQUIREMENTS CONTRACT**
Not Applicable
- (f) In the event that the Contractor is unable or otherwise fails to provide goods or services within the time frames required in this Contract, the Authority reserves the right to procure them from any other source and in any other manner it deems appropriate. Nothing contained herein shall be deemed to waive, modify or impair the Authority's right to treat such failure as a material breach of the Contractor's obligations pursuant to the "Default" article under this Contract, or to pursue any other remedy to which the Authority may be entitled pursuant to this Contract, at law or in equity.
- (g) **INDEFINITE QUANTITY**
Not Applicable

2. GOODS TO BE FURNISHED/SERVICES TO BE SUPPLIED

In preparing their proposals, offerors are advised that:

- (a) If "services" are to be performed pursuant to this solicitation, they must be provided in all respects as specified in the Contract and include the services to be furnished, together with any labor, materials or other work necessary for satisfactory and complete performance.
- (b) If "supplies" are to be provided pursuant to this solicitation, they must be delivered in all respects as specified in the Contract and include the items to be furnished, together with any labor, service or other work necessary for satisfactory and complete performance.
- (c) Contractor agrees that project property will remain available to be used for its originally authorized purpose throughout its useful life or disposition.

3. COMMUNICATIONS WITH THE AUTHORITY

Prospective offerors are advised that any and all communications with WMATA relating to this solicitation and made by, or on behalf of, a prospective offeror at any time between release of this Request for Proposals and Contract award , must be directed to the Contract Administrator as follows: wasres@wmata.com

A violation of this provision, deemed willful by the Authority, may result in a determination that an offeror is not responsible, and thus ineligible for award, for purposes of this and/or future Authority solicitations.

4. PREPARATION OF OFFERS

- (a) Offerors shall furnish all information requested by the solicitation and, in so doing, are expected to examine the Request for Proposals and all referenced documents carefully. Failure to do so will be at Offeror's risk.
- (b) The Offeror shall sign the solicitation and print or type its name on the Price Schedule and on each continuation sheet if an entry has been made. Erasures or other changes must be initialed by the person signing the offer.
- (c) Offerors must state a definite time for delivery of supplies or for performance of services unless otherwise specified in the solicitation
- (d) In preparing its proposal, an offeror should be aware that all prices for the work shall be deemed to include the cost of all work, labor and materials required by the Contract including, without limitation, delivery charges, insurance, bond premiums or any other expenses required by this Contract, as well as expenses associated with compliance with Federal, state or local laws or regulatory requirements. All prices are deemed to be F.O.B. Destination.

5. EXPLANATIONS TO OFFERORS

- (a) Any explanation desired by an offeror regarding the meaning or interpretation of the solicitation or Contract including, without limitation, the terms and conditions, technical specifications or Statement of Work, and Contract drawings, must be requested in writing with sufficient time allowed for a reply to reach all offerors before proposal closing. Absent extraordinary circumstances, all inquiries must be transmitted in a time frame to ensure the Contracting Officer's receipt at least ten (10) days prior to the date specified for proposal closing. All such requests must be submitted via e-mail or first class mail to the Contract Administrator identified in Paragraph 3. Include the RFP number and Contract title in any correspondence.
- (b) Any information that the Authority furnishes to a prospective offeror relating to the solicitation will be provided in writing to all prospective offerors in the form of an amendment if, in the Contracting Officer's judgment, the information is necessary to the preparation and/or submittal of proposals or the lack of such information would be otherwise prejudicial to other prospective offerors. Offerors must acknowledge receipt of all amendments on the form provided.
- (c) Offerors are advised that oral explanations, representations or instructions of any kind relating to the subject matter of this solicitation given at any time before award of the Contract by any employee, officer or agent of the Authority, will not be binding upon the

Authority. The Authority does not assume responsibility for the accuracy of any such communication.

- (d) The failure of a prospective offeror to request an explanation will serve to preclude it from claiming any ambiguity, inconsistency or error that should have been discovered by a reasonably prudent offeror.

6. PRE-PROPOSAL CONFERENCE

For the purpose of clarifying the terms, conditions, and requirements of this Request for Proposals, a pre-proposal conference will be held to respond to questions by prospective offerors. **This pre-proposal conference will be held at 10:00 a.m. on 04/04/2018, in the Lobby Level Meeting Room of the WMATA Jackson Graham Building, 600 5th Street, NW, Washington, DC 20001.** It is requested that offerors submit their questions in writing, whether in advance of the meeting or during the meeting. Questions from the floor, however, are permissible.

7. AMENDMENTS PRIOR TO DATE SET FOR RECEIPT OF PROPOSALS

- (a) The Authority reserves the right to amend any of the terms of this RFP or the Contract, prior to the date set for the proposal closing. Copies of any such amendments as may be issued will be furnished in writing to all prospective proposers.
- (b) If, in the Contracting Officer's judgment, any amendment(s) would require material changes to price proposals and/or other substantive element(s) of the proposals, the date set for proposal closing may be postponed for such period as, in the Contracting Officer's opinion, will enable offerors to revise their proposals. In such instances, the amendment will include an announcement of the new date for proposal closing.
- (c) In the event of an amendment, all other terms and conditions of the solicitation shall remain unchanged.

8. ACKNOWLEDGMENT OF AMENDMENTS

Offerors are required to acknowledge receipt of all amendment(s) to the solicitation on the designated form to be submitted with their proposal. Failure to do so may, at the Contracting Officer's discretion, jeopardize the offeror's right to have its proposal reviewed by the Authority.

9. SUBMISSION OF PROPOSALS

Proposals, and any revisions thereto, shall be enclosed in sealed envelopes and addressed to the office specified in the solicitation. Proposals shall show the hour and date specified in the solicitation for proposal closing, the solicitation number, and offeror's name and address on the face of the envelope. Faxed proposals will not be considered.

10. PROPOSAL FORMAT INSTRUCTIONS/REQUIREMENTS

Offerors shall submit proposals as follows:

(a) Proposal Format

The original of Volumes I and 2 shall be unbound, all copies of Volumes 1 and 2, as well as Volume 3 will be separately bound. All copies shall have the RFP number, the proposer's identity, volume number, and volume title printed on the cover page. Volumes shall be submitted in the following order:

- (1) Volume I – Cost/Price - One (1) original and one (1) copy of the cost/price proposal
- (2) Volume II – Technical - One (1) original and three (3) copies of the technical proposal (**Shall not include cost/price information**)
- (3) Volume III – Contractual - One (1) original and one (1) copy of the completed, signed solicitation documents to include Representations, Certifications, Pre-Award Data, Certificate(s) of Insurance, SBLPP requirements per Appendix C (if applicable).
- (4) **Electronic copy of the proposal Volume I, II and III (USB Flash Drive/Thumb Drive).**

(b) Cost/Price. All information relating to cost or pricing data must be included in Volume I. Under no circumstances shall cost or pricing data be included elsewhere in the proposal.

(c) Technical Proposal. The technical proposal should address the stated Evaluation Criteria in such a manner as to enable the Authority to engage in a thorough evaluation of its overall technical merit. Technical proposals shall be specific, detailed and complete and shall demonstrate that the offeror has a thorough knowledge and understanding of the Contract's requirements. Offerors shall avoid generalized statements that for example, paraphrase the specifications or attest that "standard procedures will be employed." The Authority wishes to be satisfied that the offeror maintains an understanding of the specific Contract requirements and maintains the means to fully satisfy them.

(d) Contractual. The Contractual volume shall contain a completed, signed Solicitation, Offer and Award form and include Representations, Certifications, Pre-Award Data, Certificate(s) of Insurance, DBE requirements per Appendix B (if applicable), SBE requirements per Appendix B-1 (if applicable) and any amendments. In the event that the offeror takes any exception to any of the Contract's terms and conditions, wishes to propose alternative Contract language or is otherwise unwilling or unable to satisfy any of the Contract's requirements such information should be clearly noted on the first page(s) of Volume III of the proposal. Failure to take exception shall constitute the offeror's acceptance.

11. LATE SUBMISSIONS AND REVISIONS OF PROPOSALS

(a) Any proposal or revision received at the office designated in the solicitation after the time specified for proposal closing will not be considered unless it was sent, properly addressed:

- (1) By registered or certified U.S. or Canadian mail not later than the fifth (5th) day before the date specified for proposal closing. (e.g. A proposal or revision relating to a solicitation with a closing date of the 20th of a month must have been placed in registered or certified mail by not later than the 15th of such month.);
- (2) By first class mail, if the Contracting Officer determines that the late receipt was due solely to the Authority's mishandling after delivery on its premises; or

- (3) By U.S. Postal Service, Express Mail, Next Day Service, not later than 5:00 p.m. at the place of mailing two (2) business days prior to the date specified for proposal closing; or
- (b) A revision submitted after the date and time set for proposal closing will only be accepted if the Contracting Officer authorizes it. A submission in the nature of a Best and Final Offer (“BAFO”) received after the time and date specified in the Contracting Officer’s request for BAFOs will not be considered unless received before award and, in Contracting Officer’s judgment, the late delivery was not attributable to the offeror’s acts or omissions.
- (c) The only acceptable evidence to establish the time of receipt by the Authority is the time/date stamp of that event on the proposal or any other documentary evidence of receipt maintained by the Authority.
- (d) A proposal received after proposal closing may be considered if it is the only proposal received for the solicitation, or if a late revision of any otherwise successful proposal makes its terms more favorable to the Authority.

12. WITHDRAWAL OF PROPOSALS

Proposals may be withdrawn by written notice received by the Authority before award. Proposals may be withdrawn in person by an offeror or an authorized representative, if the representative's identity is appropriately demonstrated and the representative signs a receipt for the proposal before award. A proposal may not be withdrawn after ninety (90) days from proposal closing without the Contracting Officer’s written approval.

13. RECEIPT AND REVIEW OF PROPOSALS BY THE AUTHORITY

- (a) There will be no public opening of proposals for this solicitation. Proposals will be opened by the designated Authority representative and copies of the three (3) volumes of the proposal will be distributed for review by Authority designated personnel only, as appropriate. All reasonable efforts will be made to ensure confidentiality of the information contained in the proposals, consistent with applicable provisions of law.
- (b) The Authority may award a Contract on the basis of the initial proposals as evaluated in accordance with the Evaluation Criteria, without discussions. Accordingly, the initial proposal should contain the offeror’s best terms from both a price and technical standpoint.
- (c) Notwithstanding a determination by the Authority to proceed without conducting substantive negotiations or discussions with offerors, the Authority may engage in communications with one (1) or more offerors relating to clarification(s) of their proposals.
- (d) The Contracting Officer may, in his or her discretion engage in oral or written discussions with one (1) or more offerors regarding the Authority’s understanding of the proposals and/or to discuss deficiencies in the initial proposals. In determining those offerors with whom he or she chooses to engage in discussions, the Contracting Officer shall first make a determination regarding the initial proposals that he or she deems to be within the competitive range for Contract award. The Contracting Officer shall conduct discussions with all offerors submitting proposals that are within the competitive range.

- (e) The Contracting Officer may, following such discussions, direct those offerors whose proposals are within the competitive range to submit Best and Final Offers (“BAFOs”). In such instances, the Contracting Officer shall award the Contract based upon his or her review of the BAFOs in accordance with the Evaluation Criteria. Nothing contained herein shall limit, modify or impair the Contracting Officer’s right to engage in any additional oral or written discussions or other communications relating to the solicitation that may, be consistent with the Authority’s best interests.
- (f) Not Applicable
- (g) Not Applicable
- (h) The Authority maintains the right to waive informalities and minor irregularities in proposals at any time during the solicitation process.

14. EVALUATION CRITERIA AND BASIS FOR AWARD

BEST VALUE

Introduction

Technical proposals for WMATA’s Faregate Acquisition will be evaluated based on their responsiveness to WMATA’s key objectives and requirements and demonstrated experience and qualifications to successfully delivery all Contract elements.

Proposals will first be evaluated on compliance with critical functionality to identify proposals that are unacceptable or non-responsive. Proposals that do not deliver critical requirements will be considered non-responsive and will not be considered further. For those critical requirements to which the Offeror provides an explanation in impact assessment of any work around for a critical requirement or functionality, WMATA will evaluate the supplemental information before assessing the proposal as non-responsive.

The Offeror shall be responsible for the design, delivery, testing and deployment of all system hardware including faregate cabinets, station terminals, station manager portable devices, central system hardware or modifications, and all connecting cables, tools and equipment needed to deliver and install the system. Offerors will have the option of proposing multiple faregate solutions for consideration as part of this procurement.

The principle project constraints are:

- Interfacing with WMATA’s current fare payment system;
- Meeting aesthetic requirements to be complementary to stations’ historical design which have landmark protections;
- Deploying equipment within WMATA’s existing power and communication raceways and interfaces;
- Interfacing with station emergency alarm system; and
- Deploying equipment without disrupting revenue service or creating transition issues for WMATA’s customers.

The desired vendor would have extensive experience and expertise in delivering large AFC programs and sufficient resources to mobilize the staff with specialized expertise to support the project.

Evaluation Criteria

Proposals will be awarded based on the best value to WMATA and evaluated based on responsiveness to technical requirements and costs with the greater consideration for superior technical proposal.

Proposals must demonstrate compliance with WMATA's critical requirements as follows:

1. Interface with WMATA's current fare payment system, accepting all current SmarTrip fare media, processing all fare schedule rules, and processing all list service transactions.
2. Comply with all applicable federal and industry standards including ADA, NFPA 130, PCI, and Title VI.
3. Provide secure data storage and communications that includes user and device authentication protocols.
4. Support local, central and portable faregate management.
5. Support emergency safety functionality including the automatic opening faregate barriers and activation of emergency lighting with the loss of power or with the triggering of WMATA's emergency alarm system and the automatic retraction or opening of barriers when obstructed
6. Process at least 35 ingress or egress transactions per minute.

Proposals that are responsive to WMATA's critical requirements will be evaluated on Offeror qualifications, responsiveness to WMATA's project objectives, efficiency and quality of deployment approach, and ability to meet all project requirements. Proposals will also be evaluated on their ability to provide enhanced functionality that is assessed as beneficial to WMATA customers, operations or overall safety.

Generic Evaluation Criteria

Proposers must have demonstrated experience delivering AFC solutions of similar size and complexity for rail environments. Proposal teams must include demonstrated experience in faregate design and manufacturing, AFC systems integration, program management, training, hardware installation, and maintenance.

Proposal teams must also comprise professional experience and expertise to meet all project requirements. Teams must provide an organizational structure and team qualifications that demonstrate the ability to implement and manage all aspects of the contract.

Key staff requirements and their minimum qualifications include:

- Project Manager – The Project Manager must have a minimum 15 years of professional experience, demonstrated AFC systems experience, and at least 5 of those 15 of years should be as a project management experience.
- Quality Manager – The Quality Manager must have a minimum 15 years professional experience and at least 5 years of quality management experience. The Quality Manager must not directly report to the Project Manager. The Quality Manager should be independent of the Project Manager.
- Technical Solution Manager – The Technical Solution Manager must have a minimum 10 years of professional experience and demonstrated expertise in delivery complex system solutions. The Technical Solution Manager must have expertise in AFC systems, software development, and systems integration and testing.
- Deployment Manager – The Deployment Manager must have a minimum 10 years of experience in systems installation and related construction expertise. The Deployment Manager must have demonstrated knowledge of electrical and communication infrastructure, OSHA standards, and construction scheduling and management.
- Deployment Quality Manager – The Deployment Quality Manager must have at least 15 years of construction and systems installation experience. The Quality Manager must have at least 10 years management or supervisory experience.
- Training Manager – The Training Manager must have at least 7 years of experience in designing and implementing technology training programs and materials.
- Maintenance Manager – The Maintenance Manager must be an experienced technician with at least 7 years of experience repairing and maintaining complex technological equipment and systems. The Maintenance Manager must also be fully training and certified in maintaining proposed faregate equipment.

- **Solicitation Specific Criteria**

Technical Proposals will be scored as follows:

	Evaluation Item	Evaluation Approach	Score Range	Minimum Acceptable Score
1.	Integration with Current Fare Payment System	The evaluation of the proposed integration with WMATA's current fare payment system will be based on proposal description of the proposed system interface and description of the supporting understanding and agreements to deliver the solution. Proposals will be evaluated based on the efficiency and effectiveness of the proposed system integration approach and on the demonstrated understanding of the effort required to implement the solution. The proposed solution will also be evaluated on the impact of the solution on WMATA operational and maintenance responsibilities and the overall utility of the solution to WMATA's business.	0 to 25	18
2.	Qualifications	Offeror qualifications will be evaluated on compliance with minimum past performance requirements and expertise in all areas of contract delivery including: project management, design, system integration, manufacturing, training, deployment and maintenance.	0 to 20	13
3.	Adherence to Requirements	Adherence to requirements will be evaluated based on description of proposed solution and responses to WMATA requirements compliance matrix. These will be evaluated based on Offeror's confirmation of delivery of requirements or equivalent functionality and demonstrated understanding of requirements.	0 to 20	13
4.	Deployment Approach	The proposal deployment approach will be evaluated based on the description of the proposed deployment approach, understanding of	0 to 20	13

		deployment requirements and system constraints and the impact of the deployment on WMATA operations and support requirements.		
5.	Design Aesthetic	The faregate design aesthetic will be evaluated on compliance with WMATA finishing requirements, the compatibility of accent coloring and designs with WMATA's historic design, and overall aesthetic quality.	0 to 5	3
6.	Power Saving	Power savings will be evaluated based on potential reduction of power usage to operate faregates. The proposed faregate power loads will be measured against the power loads of current equipment as described in Section 1.1.3 of the RFP.	0 to 5	3
7.	Enhanced Functionality	Proposed enhanced functionality will be evaluated based on the assessed utility of the enhancement to WMATA operations and the customer experience or impact on safety.	0 to 5	3

Each evaluation item must have be scored at or above the minimal score to be acceptable. A total overall score between 56 and 65 will be considered Marginal, a total score between 66 and 80 will be considered Acceptable and a total score above 80 will be considered exceptional. Proposals must be rated as Acceptable for further consideration.

Proposers may submit multiple solutions. Each proposed solution will be scored separately. Proposers may also include options within a single solution as long as there is no price variation associated with the selection of one option over another. For example, Offeror may propose two different designs for the design of faregate accent pieces. If the cost for both designs is the same, the proposal will be scored as a single solution. Alternatively, if the Offeror proposes two different grades of stainless steel and there is a cost difference between the two, then the Offeror should present these as two different options and should complete two separate cost proposals.

The Authority will award a contract to the responsible offeror whose proposal conforms to the solicitation and is judged to be the most advantageous to the Authority based on an overall assessment of technical merit and price in accordance with the Evaluation Criteria. In conducting this assessment:

Technical Considerations Most Important:

The Authority is more concerned with obtaining superior technical or business management features than with making an award at the lowest overall cost to the Authority. However, the Authority will not make an award at a significantly higher overall cost to achieve only slightly superior technical or management features.

15. RATINGS FOR PROPOSAL EVALUATION CRITERIA – (BEST VALUE ONLY)

Each criterion will be rated using the adjectival scoring method as follows:

Definition of adjectival rankings:

- | | |
|--------------|--|
| Exceptional | Exceeds specified performance or capability in a beneficial way to WMATA, and has no weakness. |
| Acceptable | Meets evaluation standards required under the technical provisions. Weaknesses are correctable. |
| Marginal | Fails to meet evaluation standard; however any significant deficiencies are correctable. Lacks essential information to support a proposal. |
| Unacceptable | Fails to meet an acceptable evaluation standard and the deficiency is uncorrectable. Proposal would have to undergo a major revision to become acceptable. Demonstrated lack of understanding of WMATA’s requirements or omissions of major areas. |

A rating of “Acceptable” or higher is required to be eligible for award consideration. Offerors are cautioned to be aware of this standard when preparing proposals.

16. RATINGS FOR ACCEPTABILITY CRITERIA (LOW PRICE, TECHNICALLY ACCEPTABLE, ONLY):

Not Applicable

17. PRICE PROPOSAL EVALUATION

- (a) The Contracting Officer will evaluate price proposals for reasonableness, completeness, and realism as appropriate. Costs will be evaluated in terms of the following:
- (1) Submittal of proposed prices for both the base year (s) and the option year(s), if any;
 - (2) Any offer that is materially unbalanced may be rejected. An unbalanced offer is one (1) that is based on prices that are significantly overstated for some items and understated for other items;
 - (3) The Contracting Officer will compare the price proposals to the Authority’s estimate and otherwise determine reasonableness by performing a price analysis, if adequate competition exists. If, in the Contracting Officer’s judgment, adequate price competition does not exist, he or she will conduct a cost analysis in order to ascertain whether the proposed price is fair and reasonable;
- (b) The offeror shall provide certified cost or pricing data if the Contracting Officer requests it.

18. TECHNICAL PROPOSAL EVALUATION

The Authority will evaluate the technical proposal in accordance with the “Evaluation Criteria” set forth in paragraph 14 and render an assessment as to the overall technical merit of the proposal.

The proposal's failure to demonstrate that it meets or surpasses an acceptable level with respect to any such element may result in a determination that the proposal is unacceptable and thus ineligible for award.

19. PRE-AWARD INFORMATION/CONTRACTOR RESPONSIBILITY

- (a) In order to be eligible for award of a Contract, a proposer must affirmatively demonstrate to the Contracting Officer's satisfaction that it is responsible for purposes of this solicitation. Such demonstration must include a showing that it maintains the requisite integrity, overall technical expertise and experience, (including prior performance on other Authority contracts or contracts with other government agencies), and sufficient financial resources to perform the Contract in a timely, satisfactory and appropriate manner. Failure to so demonstrate may result in rejection of the offeror as not responsible.
- (b) The Contracting Officer may conduct a pre-award survey and/or take other actions to obtain information regarding the proposer's responsibility, if its offer is in the competitive range or is otherwise under consideration for award. The proposer shall promptly supply information that the Contracting Officer requests regarding its responsibility in such manner and form as he or she requests.
- (c) Among other items, a proposer shall furnish the following when the Contracting Officer requests:
 - (1) A completed and signed "Pre-Award Evaluation Data" form (copy attached), including all referenced financial statements and information;
 - (2) Evidence of good standing in the System for Award Management (SAM) at www.sam.gov.
 - (3) Disadvantaged Business Enterprise data as set forth in Appendix B. The submittal of certain items and request for waiver (if applicable) are required if the proposal is \$150,000 or greater. Failure to submit forms B-12, B-13, and/or to request waivers (if applicable) may cause the proposal to be rejected. An offeror's failure to supply this information or otherwise fully cooperate with the Authority's inquiry may result in a determination that the offeror is not responsible for purposes of this solicitation and thereby ineligible for award.
 - (4) Small Business Enterprise (SBE) documentation (if applicable) as set forth in Appendix B-1. The offeror's failure to supply this information or otherwise fully cooperate with the Authority's inquiry may result in a determination that the offeror is not responsible for purposes of this solicitation and thereby ineligible for award.

20. PRE-AWARD MEETING

The Authority reserves the right to require that a pre-award meeting be held with the apparent successful offeror prior to Contract award in order to review the offeror's understanding of the Contract's requirements and/or further assist the Authority in determining the offeror's responsibility for purposes of award. The Contractor shall be represented at such meeting by individual(s) fully familiar with the Contractual requirements including, where so requested by the Contracting Officer, representative(s) of one or more major subcontractor(s).

21. SITE VISIT/INSPECTION OFFEROR'S FACILITIES

A successful Offeror must maintain sufficient facilities that will allow it to adequately perform Contract as specified herein. WMATA may make site visits prior to Contract award to examine the offeror's facilities. This is to verify that necessary equipment, supplies, etc. are readily available.

22. CONTRACT AWARD

- (a) At the conclusion of the technical and price evaluation processes, the Contracting Officer will award a Contract to the responsible offeror whose proposal conforms to the solicitation and is the most advantageous to the Authority based upon application of the Evaluation Criteria. Such determination shall be based upon the initial proposals received where the Contracting Officer determines not to conduct discussions or shall be based upon the BAFOs, if the Contracting Officer directs their submission.
- (b) A written award mailed or otherwise furnished to the successful offeror at any time prior to withdrawal of the proposal shall result in a binding Contract without further action by either party. Discussions conducted after receipt of an offer do not constitute the Authority's rejection or counteroffer.
- (c) The Authority reserves the right to reject and any all proposals received and decline to enter into a Contract pursuant to this solicitation, if it deems such action is in the Authority's best interests.

23. PERFORMANCE/PAYMENT BONDS

Not Applicable

24. DISADVANTAGED BUSINESS ENTERPRISES REQUIREMENTS

Attached as part of this solicitation are documents outlining the requirements for the Disadvantaged Business Enterprise (DBE) Program: **The DBE requirement/goal for this Contract is 3% unless a good faith waiver is requested and approved.**

- (a) If the proposal is over \$150,000, in order for the offeror to be considered responsible, the following documents (See Appendix B) shall be completed and submitted with the proposal:

Schedule of DBE Participation

Letter of Intent to Perform as Subcontractor/Joint Venturer
(If applicable)

DBE Unavailability Certification
(Where applicable)

Written request for waiver, when DBE participation is less than stated percentage.

- (b) If this Contract involves a Small Business Enterprise (SBE) set-aside, the provisions of Appendix B-1 are applicable. Appendix B-1 forms must be completed by each offeror to insure that its proposal is acceptable.

The provisions of Appendix B (if attached) do not become applicable and forms do not have to be completed, unless the total proposal price is \$150,000 or more. If the offer is \$150,000 or more and any portion of the submittal requirement is omitted, then the proposal may be found to be unacceptable and subsequently rejected. Appendix B forms and/or waivers must be completed with great care by each offeror to ensure that the proposal is acceptable.

25. OPPORTUNITY FOR DISADVANTAGED BUSINESS ENTERPRISES TO PROPOSE

The Washington Metropolitan Area Transit Authority hereby notifies all prospective offerors that it will affirmatively ensure that disadvantaged minority business enterprises will be afforded full opportunity to submit proposals in response to this solicitation and will not be discriminated against on the basis of race, color, creed, sex, religion, national origin, disability, sexual preference or gender identity in consideration for award.

26. WMATA'S TAX EXEMPT STATUS

- (a) Pursuant to Article XVI, Paragraph 78, of the Washington Metropolitan Area Transit Authority's Compact, as adopted by the State of Maryland, the District of Columbia, and the Commonwealth of Virginia, with the authorization and consent of the Congress of the United States, the Authority has been accorded exemption from taxes as follows:

"The Authority and the Board shall not be required to pay taxes or assessments upon any of the property acquired by it or under its jurisdiction, control, possession or supervision, or upon its activities in the operation and maintenance of any transit facility or upon any revenues therefrom, and the property and income derived therefrom shall be exempted from all Federal, State, District of Columbia, municipal, and local taxation. This exemption shall include without limitation, all motor vehicle license fees, sales taxes and motor fuel taxes."

- (b) By submission of its proposal, the offeror certifies that none of the taxes that the Authority is exempt from are included in its cost proposal.

27. RESTRICTION ON DISCLOSURE AND USE OF DATA

The Authority shall provide all reasonable precautions to ensure that proprietary, technical and pricing information remains within the review process. Offerors shall attach to any proprietary data submitted with the proposal the following legend:

- (a) "This data furnished pursuant to this RFP shall not be disclosed outside the Authority, be duplicated, or used, in whole or in part, for any purpose other than to evaluate the offer. If a Contract is awarded on the basis of this offer, the Authority shall have the right to duplicate, use, and disclose this data, in any manner and for any purpose whatsoever.
- (b) This information does not limit the Authority's right to use information contained in this data, if the Authority obtains it from another independent, legitimate source.

- (c) Except for the foregoing limitation, the Authority or its agents may duplicate, use, and disclose in any manner and for any purpose whatsoever, all data furnished in response to this solicitation."

28. ENGLISH LANGUAGE AND UNITED STATES CURRENCY

With respect to both this solicitation and the resultant Contract:

- (a) All communications (oral, written, electronic and otherwise including but, not limited to, software coding) shall be in the English language.
- (b) All pricing shall be in United States dollars.

29. BRAND NAME OR EQUAL

Not Applicable

30. REQUESTS FOR RECORDS

The Washington Metropolitan Area Transit Authority (WMATA), in the regular course of business, may receive from the public, including prospective vendors and bidders, requests for records on a variety of topics. It is WMATA's policy to make official agency records, including electronic records, available to the public, unless specifically prohibited by WMATA's policy or applicable laws.

- (a) "Records" means any existing writings, drawings, maps, recordings, tapes, film, microfilm, correspondence, forms, cards, photographs, optical disks, photo copies, and records stored by computer (electronic records) that are made or received by WMATA in connection with a public contract. A record does not include uncirculated personal notes, papers, electronic records and any other records that were created and retained solely as work papers for personal use of the Contracting Officer, Contract Administrator or other WMATA employee.
- (b) WMATA's contracting process allows for the release/posting of certain information concerning this Contract after its award. This includes the name of the successful offeror and the amount of the award. This information is available on WMATA's website under "Business with Metro" or directly from the Contract Administrator.
- (c) Upon WMATA's request, the successful offeror shall be required to provide a redacted copy of the successful technical and price proposals with confidential and proprietary information redacted.
- (d) After the award is announced, the winning proposal may be subject to release under WMATA's Public Access to Records Policy (PARP).
- (e) When WMATA determines that a successful proposal will be of wide public interest, WMATA will post the redacted proposal on its website. When WMATA receives three (3) or more requests for a successful proposal, WMATA will post the redacted proposal on its website.

- (f) Requests for Records that are not made available during the procurement process and that are not generally made available during the de-briefing process will be submitted in accordance with the PARP. Requests must be in writing and sent by mail to the Office of General Counsel, Washington Metropolitan Area Transit Authority, 600 Fifth Street, NW, Washington, D.C. 20001, or by electronic mail at parpprivreq@wmata.com or by facsimile to the attention of the PARP Administrator at (202) 962-2550. If a request for records is sent directly from the requestor to a Contract Administrator, department, or independent office, that entity shall immediately forward the request to the PARP Administrator in the Office of General Counsel. If records are subject to a PARP request, a member of the PARP team will contact the company to begin the PARP document review process, which includes providing detailed written justifications for any information for which exemptions are claimed.
- (g) Neither WMATA's proposal/debriefing process nor the PARP process generally allow for the release of information that would cause competitive harm to the proposers, other organizations, WMATA's employees, or interests. Information that will be withheld includes the following:
- (1) The names of unsuccessful offerors;
 - (2) The technical and price proposals of unsuccessful offerors;
 - (3) Personal information (this does not include education and qualifications which are released) about the successful offeror or its employees that is not available to the public on the website of the successful offeror;
 - (4) Unit price details of the successful price proposal (this does not include the bottom line price, which is released);
 - (5) WMATA's technical evaluation of any proposals submitted to WMATA pursuant to a solicitation;
 - (6) The names of the vendors who file a protest to the solicitation or its award;
 - (7) The written adjudication of any protests;
 - (8) Personal information concerning WMATA's employees; and
 - (9) Trade secrets and confidential commercial or financial information obtained from an offeror.
- (h) If your company's records are subject to a PARP request (i.e., if it is the successful offeror), a broad claim of confidentiality for the entire proposal or pages of the proposal is rarely acceptable, and will likely be rejected during the PARP process. Therefore, WMATA suggests that you narrowly identify your confidential/proprietary information based on the following guidance:
- (i) Information that may be withheld/redacted:
- (1) Detailed pricing except bottom line offer amounts;
 - (2) Trade Secrets;
 - (3) Unique proprietary solutions not publicly known;
 - (4) Employee/personnel names below the executive level; however, information regarding qualifications of employees is released; and
 - (5) Subcontractor/vendor identities, if not publicly known.

- (j) Public information subject to release:
 - (1) Any information on your company's website;
 - (2) Publicly known information (even if not on your company's website);
 - (3) General company background;
 - (4) Mere compliance with RFP requirement; and
 - (5) Anything standard to the industry.

31. NOTICE OF PROTEST POLICY

- (a) The Authority's procedure for the administrative resolution of protests is set forth in Chapter 17 of WMATA's Procurement Procedures Manual (PPM). The procedures contain strict rules for filing a timely protest, for responding to a notice that a protest has been filed, and other procedural matters.
- (b) The basis on which FTA will review a grantee's protest decision is defined in §17-8. FTA will generally exercise discretionary jurisdiction over cases deemed to involve issues important to the overall third party contracting program. FTA's decision to decline jurisdiction over a protest does not imply approval of or agreement with the agency's decision or that FTA has determined that this Contract is eligible for Federal participation.
- (c) Alleged violation must be submitted to the Contracting Officer who will administratively decide the protest.
- (d) The United States District Courts for the Districts of Maryland, Virginia and the District of Columbia, and the local courts in Maryland, Virginia and the District of Columbia have jurisdiction over court actions concerning protest decisions.

REPRESENTATIONS & CERTIFICATIONS

Instructions: Check or complete all applicable boxes or blocks on this form and submit it with your offer.

1. TYPE OF BUSINESS ORGANIZATION

By submission of this offer, the offeror represents that it operates as an individual, a partnership, a limited liability company, a joint venture, a nonprofit organization, or a corporation, incorporated under the laws of the State of _____.

Name	Signature
Title	Company
Date	

2. AFFILIATION AND IDENTIFYING DATA

Each offeror shall complete 2.1, 2.2 if applicable, and 2.3 below, representing that:

2.1 It is, is not, owned or controlled by a parent company. For this purpose, a parent company is defined as one that either owns or controls the activities and basic business policies of the offeror. To own another company, means that the parent company must own at least a majority, i.e., more than fifty percent (50%), of the voting rights in that company. To control another company, such ownership is not required. If another company is able to formulate, determine or veto the offeror's basic business policy decisions, such other company is considered the parent of the offeror. This control may be exercised through the use of dominant minority voting rights, use of proxy voting, Contractual arrangements or otherwise.

2.2 If the offeror is owned or controlled by a parent company, it shall insert in the space below the name and main office address of the parent company:

 Name of Parent Company

 Main Office Address (including ZIP Code)

2.3 If the offeror has no parent company, it shall provide in the applicable space below its own employer's identification number (E.I.N.), (i.e., number used on Federal tax returns or, if it has a parent company, the E.I. N. of its parent company).

Offeror E.I. N.: _____ or, Parent Company's E.I. N.: _____

Name	Signature
Title	Company
Date	

3. PREVIOUS CONTRACTS AND COMPLIANCE REPORTS

This representation is applicable to federally assisted contracts. By submission of this offer, the offeror represents that:

- 3.1** It [] has, [] has not, participated in a previous contract or subcontract subject to either the Equal Opportunity Clause of this solicitation, or the clause contained in Parts II and IV of Executive Order 11246, as amended; that prohibits discrimination on the basis of race, color, creed, national origin, sex, age; and
- 3.2** It [] has, [] has not, filed all required compliance reports; and
- 3.3** Representations indicating submittal of required compliance reports signed by proposed subcontractors will be obtained prior to subcontract awards.

Name	Signature
Title	Company
Date	

4. DISADVANTAGED BUSINESS ENTERPRISE

This representation is applicable to federally assisted contracts. By submission of this offer, the offeror represents that:

- 4.1** It [] is, [] is not, a disadvantaged business enterprise.

"Disadvantaged Business Enterprise" means a for-profit small business concern that is at least fifty one percent (51%) owned by one or more individuals who are both socially and economically disadvantaged individuals or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one or more such individuals; and whose management and daily business operations are controlled by one or more socially and economically disadvantaged individuals who own it.

"Socially and Economically Disadvantaged Individual" is defined in Appendix B. Notice of Requirements for Disadvantaged Business Enterprise (DBE). By submission of this offer, the offeror represents that:

- 4.2** It [] is, [] is not, currently certified by Metropolitan Washington Unified Certification Program (MWUCP) as a disadvantaged business enterprise.
- 4.3** **Special Certification Requirements for Transit Vehicle Manufacturers.** Each transit vehicle manufacturer, as a condition of being authorized to bid or propose on FTA funded transit vehicle procurements, must certify that it has complied with the DBE requirements of 49 C.F.R. Part 26.

The offeror represents that it [] is or [] is not a transit vehicle manufacturer and [] has or [] has not complied with the DBE requirements of 49 C.F.R Part 26.

Name	Signature
Title	Company

5. SMALL BUSINESS ENTERPRISE (MAY 2015)

“Small Business Enterprise” means a for profit small business concern that is at least fifty one percent (51%) owned by one (1) or more individual(s) who are economically disadvantaged. “Economically Disadvantaged Individual” is defined in Appendix B-1, Definitions, in Notice of Requirements for Small Business Enterprise (SBE) Program.

5.1 It is, is not, a small business enterprise. A firm must be a small business as defined by the U.S. Small Business Administration (SBA) by applying current SBA business size standards found in 13 C.F.R. Part 121 that are applicable to the type of work the firm seeks to perform in USDOT assisted contracts. The fifty one percent (51%) owner must be a U.S. citizen or permanent resident. A firm must be organized for profit in order to be eligible for SBE certification. The firm’s average gross receipts cannot exceed the overall USDOT size standard for a small business [\$23.98 million averaged over the three (3) previous fiscal years or part of year that the business has been in existence.] Set forth in 49 C.F.R. § 26.65, at least fifty one percent (51%) of the firm’s ownership must be held by individuals who meet the personal net worth (PNW) cap of \$1.32 million as prescribed by 49 C.F.R. § 26.67.

5.2 It is, is not, currently certified by WMATA as a small business enterprise.

Name	Signature
Title	Company
Date	

6. AFFIRMATIVE ACTION COMPLIANCE

This representation is applicable to federally assisted contracts of \$50,000 or more that are awarded to contractors with fifty (50) or more employees. By submission of this offer, the offeror represents that:

- 6.1** It has a workforce of _____ employees.
- 6.2** It has developed and has on file, or has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 C.F.R. §§ 60.1 and 60.2), or
- 6.3** It has not previously had contracts subject to the written affirmative action program requirements of the rules and regulations of the U.S. Secretary of Labor.

Name	Signature
Title	Company
Date	

7. COVENANT AGAINST GRATUITIES

By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:

Neither it nor any of its employees, representatives or agents have offered or given gratuities (in the form of entertainment, gifts or otherwise) to any Board member, employee or agent of the Authority with the view toward securing favorable treatment in the awarding, or administration of this Contract.

Name	Signature
Title	Company
Date	

8. CONTINGENT FEES

By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:

- 8.1** It [] has, [] has not, employed or retained any company or persons (other than a full-time, bona fide employee working solely for the offeror) to solicit or secure this Contract, and
- 8.2** It [] has, [] has not, paid or agreed to pay any company or person (other than a full-time, bona fide employee working solely for the offeror) any fee, commission, percentage, or brokerage fee contingent upon or resulting from the award of this Contract.

Name	Signature
Title	Company
Date	

9. CLEAN AIR ACT AND CLEAN WATER ACT CERTIFICATION

This certification is applicable if the Contract will be federally assisted and the offer exceeds \$150,000, or the Contracting Officer believes that orders under an indefinite type Contract in any year will exceed \$150,000 or a facility to be used has been the subject of a conviction under the Clean Air Act [42 U.S.C. § 7413(c)(1)] or the Clean Water Act [33 U.S.C. § 1319(c)], is listed by the U.S. Environmental Protection Agency (EPA) as a violating facility, and the acquisition is not otherwise exempt:

- 9.1** Any facility to be utilized in the performance of this Contract [] is, or [] is not listed on the EPA's List of Violating Facilities;
- 9.2** Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communications from the Administrator, or a designee of the EPA, indicating that any facility that it proposes to use in the performance of this Contract is under consideration to be listed on the EPA's List of Violating Facilities; and
- 9.3** Offeror will include a certification substantially the same as this certification, including this paragraph, in every non-exempt subcontract.

Name	Signature
Title	Company
Date	

10. DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION

This certification is applicable to federally assisted contracts over \$25,000.

10.1 Primary Covered Transactions. This certification applies to the offer submitted in response to this solicitation and will be a continuing requirement throughout the term of any resultant Contract.

10.1.1 In accordance with the provisions of 2 C.F.R. Part 1200 and 2 C.F.R. Part 180, Subpart C, the offeror certifies to the best of its knowledge and belief that it and its principals:

10.1.1.1 are not currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or state department or agency;

10.1.1.2 have not, within a three (3) year period preceding this offer, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) transaction or contract under a public transaction; violation of Federal or state antitrust statutes, or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

10.1.1.3 are not currently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(ii) of this certification; and have not, within a three (3) year period preceding this offer, had one (1) or more public transactions (Federal, state, or local) terminated for cause or default.

10.1.2 Where the offeror is unable to certify to any of the statements in this certification, the offeror shall attach an explanation to this offer.

10.2 Lower Tier Covered Transactions. This certification applies to a subcontract at any tier expected to equal or exceed \$25,000 and will be a continuing requirement throughout the term of this Contract.

10.2.1 The prospective lower tier subcontractor certifies, by submission of this offer, that neither it nor its principals is currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal or state department or agency.

10.2.2 Where the prospective lower tier subcontractor is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

10.3 The Certification required by 10.2, above, shall be included in all applicable subcontracts and the Contractor shall keep a copy on file. The Contractor shall be required to furnish copies of certifications to the Contracting Officer upon his or her request.

Name	Signature
Title	Company
Date	

11. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION

11.1 By submission of its offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:

11.1.1 The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or with any other competitor;

11.1.2 Unless otherwise required by law, the prices that are quoted in this offer have not been knowingly disclosed by the offeror and will not be knowingly disclosed by the offeror prior to award (in the case of a negotiated procurement), directly or indirectly, to any other offeror or to any competitor; and

11.1.3 No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not to submit an offer, for the purpose of restricting competition.

11.2 Each person signing this offer certifies that:

11.2.1 He or she is the person in the offeror's organization responsible for the decision regarding the prices being offered herein and that he/she has not participated, and will not participate, in any action contrary to 11.1.1 through 11.1.3 above; or

11.2.2 He or she is not the person in the offeror's organization responsible for the decision regarding the prices being offered herein, but that he/she has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated; and will not participate, in any action contrary to 11.1.1 through 11.1.3 above; or and as their agent he or she does hereby so certify.

Name	Signature
Title	Company
Date	

12. CERTIFICATION OF NONSEGREGATED FACILITIES

This certification is applicable to federally assisted contracts over \$10,000.

- 12.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
 - 12.1.1** It does not and will not maintain or provide for its employees, any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control, where segregated facilities are maintained.
 - 12.1.2** The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in this Contract.
 - 12.1.3** As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise.
 - 12.1.4** It further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:
 - 12.2** Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;
 - 12.3** Retain such certifications in its files; and
 - 12.4** Forward the following notice to such subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Non-segregated Facilities must be submitted prior to award of a subcontract exceeding \$10,000 that is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for such subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually).

Name	Signature
Title	Company
Date	

13. NONDISCRIMINATION ASSURANCE

- 13.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, in connection with this procurement, that it will not discriminate on the basis of race, color, creed, religion, national origin, sex, age, disability, sexual preference and/or gender identity in the performance of this Contract. The offeror is required to insert the substance of this clause in all subcontracts and purchase orders. The Contractor's failure to carry out these requirements is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems

appropriate. The offeror further agrees by submitting this offer, that it will include this certification, without modification, in all subcontracts and purchase orders.

Name	Signature
Title	Company
Date	

14. CERTIFICATION OF RESTRICTIONS ON LOBBYING

This certification is applicable to federally assisted contracts if the offer exceeds \$150,000.

14.1 By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that to the best of his or her knowledge or belief:

14.1.1 No federally 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.

14.1.2 If any funds other than federally 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 Contract, the undersigned shall complete and submit Standard Form--LLL, "Disclosure of Lobbying Activities."

14.1.3 The undersigned shall require that the language of this certification be included in all sub-awards (including subcontracts, sub-grants and contracts under grants, loans and cooperative agreements) at all tiers and that all sub-recipients shall certify and disclose accordingly.

14.2 This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352, as amended. 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 \$150,000 for each such failure.

14.3 The Contractor 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.

Name	Signature
Title	Company
Date	

15. BUY AMERICA ACT CERTIFICATION

The Buy America Act requirements apply to federally assisted construction contracts, and acquisition of goods or rolling stock contracts valued at more than \$150,000.¹

15.1 By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement it will 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 Separate requirements for rolling stock are set out at 49 U.S.C. § 5323(j)(2)(C) and 49 C.F.R. § 661.11.

15.2 An offeror must submit to the Authority, the appropriate Buy America Act certification (below) with all offers on FTA funded contracts, except those subject to a general waiver. Offers that are not accompanied by a completed Buy America Act certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors. Mark the applicable certifications below:

15.2.1 Certification requirement for procurement of steel, iron, or manufactured products:

Certificate of Compliance with 49 U.S.C. § 5323(j)(1)
 The offeror hereby certifies that it will meet the requirements of 49 U.S.C. § 5323(j)(1) and the applicable regulations in 49 C.F.R. § 661.5.

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

15.2.2 Certification requirement for procurement of buses, other rolling stock and associated equipment:

Certificate of Compliance with 49 U.S.C. § 5323(j)(2)(C)
 The offeror hereby certifies that it will comply with the requirements of 49 U.S.C. § 5323(j)(2)(C) and the regulations at 49 C.F.R. § 661.11.

Certificate of Non-Compliance with 49 U.S.C. 5323§ (j)(2)(C)
 The offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. § 5323(j)(2)(C) and 49 C.F.R. § 661.11, but 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.

Name	Signature
Title	Company
Date	

¹ If the funding for this Contract comes from an FTA grant issued before December 26, 2014, then the limit is \$150,000.

16. CERTIFICATION OF NON-DELINQUENT TAXES

This certification is applicable to federally assisted contracts.

- 16.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
- 16.1.1** It has not been convicted over the past three (3) years of violating any Federal criminal tax law or failed to pay any tax.
 - 16.1.2** It has certified if it has been notified of an unresolved tax lien or any unsatisfied Federal tax delinquency in excess of \$3,000 and that it is paying tax debts through an installment agreement or has requested a collections due process hearing.
 - 16.1.3** The offeror agrees that a breach of this certification is a violation of the Federal Acquisition Regulation (FAR).
 - 16.1.4** As used in this certification, the term "tax delinquency" means an outstanding debt for which a notice of lien has been filed in public records.
 - 16.1.5** It further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:
- 16.2** Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the FAR.;
 - 16.3** Retain such certifications in its files; and
 - 16.4** Forward the following notice to such subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATION OF NON-DELINQUENT TAXES

A Certification of Non-Delinquent Taxes must be submitted prior to award of a subcontract exceeding \$150,000 that is not exempt from the provisions of the FAR. The certification may be submitted either for such subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually).

Name	Signature
Title	Company
Date	

17. DISCLOSURES OF INTERESTS OF WMATA BOARD MEMBERS

For purposes of this disclosure, terms in bold are defined by the Code of Ethics for Members of the WMATA Board of Directors a copy of which is available at www.wmata.com. Financial interests include ownership interests and prospective and actual income. Firm includes parents, subsidiaries and affiliates.

By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that to the best of its knowledge, information and belief in connection with this procurement:

17.1 [] No WMATA **Board member, household member or business associate** has a financial interest in this firm, in a **financial transaction** with the Authority to which this firm is a party or prospective party, or in an **actual or prospective business relationship with the Authority** to which this firm is a party.

17.2 [] The following WMATA **Board member(s), household member(s) or business associate(s)** has a financial interest in this firm, in a **financial transaction** with the Authority to which this firm is a party or prospective party, or in an **actual or prospective business relationship with the Authority** to which this firm is a party, Include in "Nature of Interest" below, a description of the financial interest and (1) for ownership interests, the value of the interest, the name and address of the firm in which the interest is held, and the total equity or equivalent interest of the firm; and (2) for income, the amount of all income received by the **Board member, household member or business associate** in the current and preceding fiscal year for services provided, and the name and address of the firm from which the income was received.

Name of Board Member Household Member or Business Associate	Nature of Interest
_____	_____
_____	_____
_____	_____

17.3 The certification required by 17.1 and 17.2 above shall be included in all subcontracts. The prime contractor shall furnish copies of certifications to the Contracting Officer and retain a copy for inspection upon his or her request.

Name	Signature
Title	Company
Date	

18. CRIMINAL BACKGROUND SCREENING CERTIFICATION (QUARTERLY)

By submission of this offer, the offeror certifies that:

18.1 It will contract with or engage a reputable third-party vendor to conduct, criminal background screenings of all Contractor personnel who will have access to WMATA's customers, WMATA's property, or WMATA's information in connection with this Contract. This requirement also applies to Contractors who engage with the general public on WMATA's behalf.

18.2 It will screen for criminal convictions, taking into consideration (1) the nature of the services or work being performed under the contract with particular regard for the individual's access to, and interaction with, WMATA's customers, property, and confidential information; (2) the nature or gravity of the offense or conduct resulting in a criminal conviction; and (3) the time that has

lapsed since the conviction and/or completion of the sentence, all Contractor personnel who will have access to WMATA's customers, the general public, WMATA's property, or WMATA's information and who work on this Contract during each calendar year within this Contract's period of performance. The Offeror will provide certification that it conducted these screenings to the Contracting Officer's Technical Representative (COTR) on a quarterly basis, on a form provided.

- 18.3** The Contractor shall submit to the COTR, a list of all employees and agents who will require Contractors' access badges not less than 7 days prior to the date on which access will be required.
- 18.4** The Offeror will determine that all Contractor personnel working on this Contract during the calendar year passed the Contractor's criminal background screening and will be in good standing and otherwise fit to work on this Contract.
- 18.5** The Offeror has not obtained or otherwise been made aware of any information about any Contractor personnel working on this Contract that contradicts or otherwise impacts the Contractor's determination that such persons passed the Contractor's criminal background screening and/or are fit to work on this Contract.
- 18.6** The Contractor will flow this requirement down to all of its subcontractors who will have access to WMATA's customers, the general public, WMATA's property, or WMATA's information within this Contract's period of performance.

Name	Signature
Title	Company
Date	

19. CERTIFICATION REQUIRED FOR ALL SAFETY-SENSITIVE² CONTRACTS.

- 19.1** By submission of this offer, the offeror represents and certifies that it will comply with the Federal Transit Administration (FTA) regulations, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations," 49 C.F.R. Part 655, and applicable provisions of the U.S. Department of Transportation (DOT) regulations, "Procedures for Transportation Workplace Drug and Alcohol Testing Programs," 49 C.F.R. Part 40.
- 19.2** Offeror agrees that its employees and agents, including but not limited to, safety-sensitive subcontractors will be enrolled in a drug and alcohol testing program that meets the policy and procedural requirements listed in Appendix A of this document.
- 19.3** Offeror understands that Washington Metropolitan Area Transit Authority (WMATA) will perform oversight during the contract's period of performance to ensure that the successful offeror complies with the DOT/FTA regulations.

² See the Combined Glossary for a definition of "safety-sensitive."

19.4 Failure to comply with this certification may result in WMATA issuing sanctions and pursuing available contractual remedies.

Name	Signature
Title	Company
Date	

PRE-AWARD EVALUATION DATA

PROJECT DESCRIPTION: _____

1. Name of firm _____

2. Address: _____

3. Individual Partnership Corporation Joint Venture

4. Date organized _____.

State where incorporated or organized _____.

5. Names of officers or partners:

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

6. How long has your firm been in business under its present name?

7. Attach as Schedule One (1) a list of similar current contracts that demonstrate your firm's technical proficiency, each with contract amount, name of contracting party, character or type of work and percentage of completion.

8. Attach as Schedule Two (2) a list of similar contracts, each with contract amount, name of contracting party, and character or type of work for similar contracts completed in the last two (2) years.

9. In the last two (2) years has your firm been denied an award where it was the offeror?

If the answer is yes, attach as Schedule Three (3) the full particulars regarding each occurrence.

10. Has your firm failed to complete, in the last two (2) years, any contract on which it was the offeror?

If the answer is yes, attach as Schedule Four (4), the full particulars regarding each occurrence.

11. Financial resources available as working capital for the Contract:

a. Cash on hand: \$ _____

- b. Sources of credit: _____
12. Attach as Schedule Five (5) financial statements and letters from banks regarding credit as required by the "Pre-Award Information" article.
 13. What percentage of work (Contract amount) does your firm intend performing with its own personnel? %.
 14. Attach as Schedule Six (6), a list of all principal subcontractors and the percentage and character of work (Contract amount) that each will perform. Principal items of work shall include, but not be limited to, those items listed in the "Pre-Award Information" article.
 15. If the Contractor or subcontractor is in a joint venture, submit "Pre-Award Evaluation Data" forms for each member of the joint venture.

The above information is confidential and will not be divulged to any unauthorized personnel.

The undersigned certifies to the accuracy of all information.

COMPANY: _____

SIGNATURE: _____

NAME: _____

TITLE: _____

DATE: _____

TERMS AND CONDITIONS

CHAPTER I – TERMS AND CONDITIONS

1. AGREEMENT

The work to be performed under this Contract may briefly be described as providing Metrorail faregates to replace current faregates. This includes faregate deployment and hardware and software maintenance, including all necessary or incidental work, labor and materials. The Contractor agrees to perform the work in accordance with requirements and terms and conditions set forth in this Contract. In consideration for the Contractor's complete, satisfactory and proper performance of the Contract, the Authority agrees to pay to the Contractor, and the Contractor agrees to accept as full compensation, the sums of money set forth in the Price Schedule at the time and in the manner and upon the terms and conditions set forth in this Contract.

2. ARRANGEMENT OF CONTRACTUAL PROVISIONS

For ease of reference, this Contract is divided into chapters, articles (also referred to as "clauses"), paragraphs and subparagraphs. While the chapters and articles are titled, it is understood that both the use of such titles and the manner and overall arrangement of the Contractual provisions are intended solely for the convenience of the parties and are without independent Contractual or legal significance.

3. ORDER OF PRECEDENCE

- (a) Any inconsistency in the Contract shall be resolved by giving precedence to the following order: (a) terms and conditions (b) the specifications or Statement of Work; (c) drawings, if any; (d) other documents, exhibits, and attachments generated by the Authority as part of the Contract; (e) the technical proposal, if any, and other Contractor submissions generated as part of the Contract. In the event of a conflict within or between provisions entitled to equal precedence, the more stringent requirement shall apply.
- (b) Notwithstanding paragraph (a), if this Contract is funded, in whole or part, through the Federal Government, all contract terms mandated for inclusion by the Federal Government shall be deemed to supersede any other conflicting or inconsistent provisions of this Contract.

4. REQUIREMENTS CONTRACT

Not Applicable

5. INDEFINITE QUANTITY CONTRACT

Not Applicable

6. ORDERING

Not Applicable

7. ORDER LIMITATIONS

Not Applicable

8. AUDIT, AVAILABILITY, AND INSPECTION OF RECORDS- FTA

- (a) Authorized persons. The Contracting Officer and his or her representatives, including representatives of the Authority's governing jurisdictions and any other Federal, state, or local entity providing funding for this Contract and the U.S. Comptroller General shall have access and inspection rights described in this article.
- (b) Examination of costs. The Contractor shall maintain, and the Contracting Officer shall have the right to examine and audit, all records sufficiently to properly reflect all costs incurred or anticipated to be incurred directly or indirectly in performance of this Contract. This right of examination shall include inspection of the Contractor's facilities engaged in performing this Contract at all reasonable times.
- (c) Cost or pricing data. If the Contractor is required to submit cost or pricing data in connection with any pricing action relating to this Contract, the Contracting Officer shall have the right to examine and audit all of the Contractor's records related to: (1) any proposal for the Contract, subcontract, or modification; (2) any clarifications or discussions conducted on the proposal; (3) pricing of the Contract, subcontract or modification; or (4) performance of the Contract, subcontract or modification.
- (d) Availability. The accounts, records and cost information required to be originated under this Contract, and together with all other accounts, records and cost information related to this Contract, shall be maintained and made available by the Contractor and subcontractor(s):
 - (1) At their offices at all reasonable times for inspection, audit, reproduction or such other purposes as the Contracting Officer or by anyone he or she authorizes may require or pursuant to any other provision of this Contract; and
 - (2) Except to the extent otherwise expressly set forth in this Contract, until three (3) years from the date of final payment under this Contract. If the Contract is completely or partially terminated, such records shall be maintained for a period of three (3) years from either the date of any resulting final settlement or the date of final payment, whichever is later. If a pricing adjustment is involved in any dispute or litigation related to this Contract, such records shall be maintained for a period equal to the later of three (3) years from the date of final payment or one (1) year following the final disposition of the dispute or litigation.
- (e) Subcontracts. The Contractor shall insert this article, in all subcontracts that exceed \$150,000.

9. AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR

Funds are not guaranteed for performance under this Contract beyond the current fiscal year that ends on June 30th. The Authority's obligation for performance of this Contract beyond that date is contingent upon the availability of funds from which payment for Contract purposes can be made. The Authority's legal liability for any payment cannot arise for

performance under this Contract, until funds are made available to the Contracting Officer for performance and until he or she notifies the Contractor of the availability, in writing. Any option exercised by the Authority that will be performed, in whole or in part, in a subsequent fiscal year is subject to availability of funds in that year and will be governed by the terms of this article.

10. CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)

- (a) The work will be conducted under the Contracting Officer's general directions. Authority will be delegated to the Contracting Officer's Technical Representative (COTR) to take the following actions;
- (1) Act as the principal point of contact with the Contractor. The COTR will submit a copy of each item of incoming correspondence and a copy of any enclosures to the Contract Administrator;
 - (2) Approve in writing, the Contractor's progress schedule and submittals when required;
 - (3) Inspect the work for compliance with this Contract;
 - (4) Review and approve invoices and payment estimates. The COTR will forward invoices and receipts to accounting. The COTR will bring any significant discrepancies in, or disputes concerning, Contractor invoices or payments to the Contracting Officer's attention. In those cases requiring release of final retained percentages of payment, the COTR will make his or her recommendations to the Contracting Officer in writing;
 - (5) Coordinate correspondence with the Contract Administrator, if its importance significantly impacts the Contractual terms and conditions;
 - (6) Evaluate the Contractor's technical letters and proposals for the Contracting Officer;
 - (7) Advise the Contracting Officer of potential problems that may affect Contract performance;
 - (8) Advise DBE Office, if DBE, SBE, or SBLPP issue(s) appear that may require investigation.
 - (9) Advise the Contracting Officer whenever the COTR has reason to believe that the Contractual not-to-exceed amount will be exceeded;
 - (10) Prepare the Authority's estimate for proposed Contract modifications. Participate in negotiations for modifications;
 - (11) Approve, in writing, the Contractor's progress schedule when required.
 - (12) Receive from the Contractor, monthly, if applicable, DBE status reports and forward them to the DBE Office;
 - (13) Receive from the Contractor certified payroll reports and prepare a log sheet indicating the following: (1) name of the Contractor and subcontractor; (2) the Contract number; (3) the certified payroll number (number for the payroll for the project starting with the number 1); (4) the time frame of the payroll period (i.e. 1/21/11-2/3/11); (5) the statement of compliance date (first page of the report); and (6) the date the report was received by WMATA;
 - (14) Maintain a comprehensive file/record of documents and correspondence concerning Contract activities and actions;
 - (15) Provide the Contract Administrator with a written notification after all supplies/services have been received with a statement that the COTR is not aware of any open issues that would preclude closeout of the Contract and that it is ready for closeout. The COTR will return the file, containing all records, correspondence, etc., to the Contract Administrator;

- (16) Execute Standard Form 1420, which contains a detailed performance evaluation of the Contractor. If, there are one (1) or more categories in which the Contractor is deemed unsatisfactory, these evaluations must be provided to it for comment;
 - (17) Provide the Contract Administrator with a written request (and requisition) to exercise option(s) (if any) a minimum of ninety (90) days prior to the time established in this Contract for exercise of the option; and
 - (18) The presence or absence of the COTR or his or her inspectors shall not relieve the Contractor from any requirements of this Contract.
 - (19) The COTR may not re-delegate or sub-delegate his or her authority to act on the Contracting Officer's behalf. If, for whatever reason the COTR is unable or unwilling to fulfill his or her responsibilities under this Contract, only the Contracting Officer can designate a new COTR.
- (b) The COTR's name and address will be provided after award.

CHAPTER II – TIME/DELAYS/LIQUIDATED DAMAGES

1. PERIOD OF PERFORMANCE

The period of performance for faregates is 24 months commencing on the date of award and three option periods for maintenance and four option periods for part repair and replacement maintenance.

The period of performance for software maintenance is a three year base commencing on the date of award and 2 one year option periods subject to all terms and conditions stated herein.

The Contracting Officer may exercise the option(s) (if any) by written notice to the Contractor prior to commencement of the option period. The Contracting Officer shall give the Contractor a preliminary notice of its intent to exercise an option within a reasonable time before the Contract expires. The preliminary notice does not commit the Authority to exercise an option.

1. OPTIONS- EVALUATION

In awarding this Contract, the Contracting Officer shall evaluate offers for any option quantities or periods contained in a solicitation in accordance with PPM §§ 4-21 through 4-23.

2. OPTIONS- EXERCISE

(a) When exercising an option, the Contracting Officer shall provide written notice to the Contractor within a reasonable amount of time before exercising the option.

(b) When the Contract provides for economic price adjustment and the Contractor requests a revision of the price, the Contracting Officer shall determine the effect of the adjustment on prices under the option before the option is exercised.

(c) In accordance with PPM § 4-23, the Contracting Officer may exercise options only after determining that—

- (1) Funds are available;
- (2) The requirement covered by the option fulfills an existing WMATA need;
- (3) The exercise of the option is the most advantageous method of fulfilling WMATA's needs, when price and other factors are considered.
- (4) Contractor is not listed in the System for Award Management's Exclusions (See www.sam.gov).
- (5) The Contractor's past performance evaluations on other Contract actions have been considered; and
- (6) The Contractor's performance on this Contract has been acceptable in that it received satisfactory ratings.

(d) The Contracting Officer, after considering price and other factors, shall make the determination on the basis of one (1) of the following:

- (1) A new solicitation fails to produce a better price or a more advantageous offer than that offered by the option. If it is anticipated that the best price available is the option price or that this is the more advantageous offer, the Contracting Officer should not use this method of testing the market.
 - (2) An informal analysis of prices or an examination of the market indicates that the option price is better than prices available in the market or that the option is the more advantageous offer.
 - (3) The time between the award of the Contract containing the option and the exercise of the option is so short that it indicates the option price is the lowest price obtainable or the more advantageous offer. The Contracting Officer shall take into consideration such factors as market stability and comparison of the time since award with the usual duration of Contracts for such supplies or services.
- (e) The determination of other factors under subparagraph (d):
- (1) Should take into account WMATA's need for continuity of operations and potential costs of disrupting operations; and
 - (2) May consider the effect on DBEs.
- (f) Before exercising an option, the Contracting Officer shall make a written determination for the Contract file that the exercise is in accordance with the terms of the option, and the requirements of this clause. To satisfy requirements for full and open competition, the option must have been evaluated as part of the initial competition and be exercisable at an amount specified in or reasonably determinable from the terms of this Contract, such as:
- (1) A specific dollar amount;
 - (2) An amount to be determined by applying provisions (or a formula) provided in this Contract, but not including renegotiation of the price for work in a fixed-price type Contract;
 - (3) In the case of a cost-type Contract, if—
 - (a) The option contains a fixed or maximum fee; or
 - (b) The fixed or maximum fee amount is determinable by applying a formula contained in this Contract;
 - (4) A specific price that is subject to an economic price adjustment provision; or
 - (5) A specific price that is subject to change as the result of changes to prevailing labor rates provided by the U.S. Secretary of Labor.
- (g) The Contract modification or other written document that notifies the Contractor of the exercise of the option shall cite this article as authority.

4. OPTION FOR INCREASED OR DECREASED QUANTITIES OF SUPPLIES

WMATA may increase or decrease the quantities of supplies called for in the Price Schedule, at the unit price specified. WMATA may also require the delivery of a numbered line item, identified in the Price Schedule as an option item, in the quantity and at the price stated in

the Price Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within a reasonable amount of time before exercising the option. Delivery of the added items shall continue at the same rate as the like items called for under the Contract, unless the parties agree otherwise.

5. OPTIONS TO EXTEND SERVICES

WMATA may require continued performance of any services within the limits and at the rates specified in this Contract. These rates may be adjusted only as a result of revisions to the prevailing labor rates provided by the U.S. Secretary of Labor. This option provision may be exercised more than once, but the total extension of performance thereunder shall not exceed six (6) months. The Contracting Officer may exercise the option by written notice to the Contractor within a reasonable amount of time exercising the option.

6. OPTION TO EXTEND THE TERM OF THE CONTRACT

- (a) WMATA may extend the term of this Contract by written notice to the Contractor within a reasonable amount of time before exercising the option, provided that WMATA gives the Contractor a preliminary notice of its intent to extend within a reasonable amount of time before the Contract expires. The preliminary notice does not commit WMATA to the extension.
- (b) If WMATA exercises this option, the extended Contract shall include this option clause.
- (c) The total duration of this Contract, including any options under this clause shall be reasonable as determined by the Contracting Officer in consultation with counsel (COUN).

7. OPTIONS EXERCISED OUT OF SEQUENCE

WMATA may exercise options at any time, including during the base period, and in any sequence, even if it varies from the sequence stated in the Price Schedule. The Contractor may be entitled to an equitable adjustment in the Contract price, if exercising the option out of sequence causes any undue delay in performance of this Contract. If options are extended during the base period or out of sequence, any previously agreed to economic price adjustment for exercise of the option may not apply, at the Contracting Officer's discretion.

8. LIQUIDATED DAMAGES FOR DELAY

- (a) *Time is of the essence to this Contract.* In the event of a delay under this Contract beyond the period of performance or beyond the period to which such time may be extended by the Contracting Officer, the Authority shall be paid damages for such delay. Since the amount of such damages and the loss to the Authority will be extremely difficult to ascertain, it is hereby expressly agreed that such damages will be liquidated and paid as follows:

Table 1 – Project Milestones and Durations

	Description	Start	End	LD
Mobilization	Onboarding resources and deliver of project planning deliverables	NTP	+ 45 days	No
Design Review	Delivery of design deliverables	NTP+30	+ 130 days	No
Testing	First Article Testing, Environmental Testing, Functional Testing and Systems Integration Testing	Design Review End	+ 120 days	Yes
Deployment Planning	Delivery of deployment deliverables	Design Review End	+60 days	No
Training	Maintenance Training, Station Manager Train-the-Trainer, and Other User Training	60 days before Deployment	+60 days	No
Equipment Deployment	System wide deployment of faregates and Supporting Systems (Does not include deployment planning)	30 days after Testing End	+300 days	Yes
Warranty/Spare Parts Delivery	System wide Maintenance	Deployment End	+ 90 days	No
Extended Parts Maintenance	Parts repair and replacement	Warranty Maintenance	+365 days	No
Software Maintenance	Software Updates, Software Patches and Directed Software Changes	Warranty End	+1095	No

The liquidated damages cost estimates are based on resource requirements and labor rates for WMATA support and contracted support to support system testing and to support system deployment.

Table 2 – Estimated Daily Liquid Damages for Extended Testing

Description	Cost Factor (Fully Loaded Labor Rates)		Amount
Project Manager	$\frac{1 \times \$192,920}{260}$	=	\$742
Assistant Project Manager	$\frac{.5 \times \$177,632}{260}$	=	\$342
AFC Engineering	$\frac{2 \times \$155,026}{260}$	=	\$596
AFC Maintenance	$\frac{2 \times \$129,038}{260}$	=	\$993

Senior Consultant Support	$\frac{2 \times 196,200}{260}$	=	\$755
Mid/Level Consultant Support	$\frac{1 \times 159,900}{260}$	=	\$1,509
Total			\$4,937
Recommended			\$4,500

Table 3 – Estimated Daily Liquid Damages for Extended Deployment Period

Description	Cost Factor (Fully Loaded Labor Rates)		Amount
Project Manager	$\frac{1 \times \$192,920}{260}$	=	\$742
Assistant Project Manager	$\frac{.5 \times \$177,632}{260}$	=	\$342
Construction Engineer	$\frac{1 \times \$175,644}{260}$	=	\$676
Office Engineer	$\frac{.25 \times \$123,200}{260}$	=	\$118
Chief Inspector	$\frac{.33 \times \$161,252}{260}$	=	\$205
Inspector	$\frac{3 \times \$128,856}{260}$	=	\$1,487
AFC Escorts	$\frac{3 \times \$129,038}{260}$	=	\$1,489
IT Escorts	$\frac{3 \times \$129,038}{260}$	=	\$1,489
AFC Engineering	$\frac{1 \times \$155,026}{260}$	=	\$596
Senior Consultant Support	$\frac{1 \times 196,200}{260}$	=	\$755
Mid/Level Consultant Support	$\frac{1 \times 159,900}{260}$	=	\$615
Total			\$8,514
Recommended			\$8,000

Liquidated damages for extended testing are recommended for each day of actual testing that is required beyond after the milestone period of performance has expired. The Contractor is required to successfully complete all testing through system integration testing within the period of 120 calendar days. The liquidated damages only apply to additional testing tasks. The liquidated damages also do not apply to Pilot tests, IRST (Initial Revenue Service Tests) tests, or system acceptance tests.

Liquidated damages for extended deployment are recommended for each work day that the deployment extends beyond the milestone period of performance of 300 calendar days.

- (b) The Authority shall have the right to deduct such liquidated damages from any monies due or which may become due to the Contractor under this Contract. If the amount that becomes due is less than liquidated damages due to the Authority, the Contractor shall pay the difference upon the Contracting Officer's demand.

9. EXTENSIONS OF TIME/FORCE MAJEURE

- (a) For purposes of this clause, the term "force majeure" shall mean an unforeseen event or circumstance, beyond the control of, and not occasioned by the fault or negligence of, the Contractor or the Authority, that gives rise to a delay in the progress of the Contract, including, without limitation, acts of God, acts of war or insurrection, unusually severe weather, fires, floods, strikes, freight embargoes or other events or circumstances of like nature.
- (b) Notwithstanding the provisions of the "Liquidated Damages" article of this Contract (if applicable), if the Contractor is delayed at any time during the performance of this Contract, by the Authority's negligence or by a force majeure event, then the Contracting Officer shall extend the time for completion and/or the affected delivery date(s) in the following circumstances:
 - (1) The cause of the delay arises after the award of the Contract and neither was nor could have been anticipated by the Contractor by reasonable investigation before such award;
 - (2) The Contractor demonstrates to the Contracting Officer that the completion of the work and/or affected deliveries will be actually and necessarily delayed;
 - (2) The delay cannot be avoided or mitigated by the exercise of all reasonable precautions, efforts and measures available to the Contractor, whether before or after the cause of delay; and
 - (4) The Contractor makes a written request and provides other information to the Contracting Officer, as described below.
- (c) If the Contractor will be delayed at any time or for any period by two (2) or more of the above-mentioned causes, the Contractor shall not be entitled to a separate extension for each cause, but shall be entitled to only one (1) period of extension for the cumulative effects of the delay.
- (d) The Contracting Officer may rescind or shorten any extension previously granted, if he or she subsequently determines that any information that the Contractor provided in support of a request for an extension of time was erroneous, if, accurate information would have resulted in a denial of the request for an excusable delay. The Contracting Officer will not rescind or shorten any extension previously granted, if the Contractor acted in reliance upon it and if, in his or her judgment, such extension was based on information that the Contractor submitted in good faith, even if it is later determined to be erroneous.
- (e) The request for an extension of time shall be made within ten (10) days after the Contractor knows or should know of any cause for which it may claim an excusable delay. The Contractor's request shall contain any potential basis for an extension of time, describing, as fully as possible, the nature and projected duration of the delay

and its effect on the completion of the work identified in the request. Within thirty (30) days after his or her receipt of all such information, the Contracting Officer shall advise the Contractor of his or her decision on such requested extension. Where it is not reasonably practicable for the Contracting Officer to render his or her decision in the thirty (30) day period, he or she shall, prior to the expiration of such period, advise the Contractor that he or she will require additional time and state the approximate date upon which he or she expects to render a decision.

- (f) In no event shall a delay in performance of the Contract occasioned solely by a force majeure event or the acts or omissions of any party outside of the Contractor's control be the basis for a termination for default pursuant to this Contract. In no event shall a subcontractor at any tier be deemed a party outside of the Contractor's control.

10. THE AUTHORITY'S DELAY

- (a) If the performance of all or any part of this Contract is delayed in a material manner or extent by the Authority's acts or omissions that are not expressly or impliedly authorized by this Contract or by applicable provisions of law, the Contracting Officer shall make an adjustment (excluding profit) for any increase in the cost of performance of this Contract caused by such delay and shall modify the Contract, in writing. The Contracting Officer shall make an adjustment to the delivery or performance dates and to any other Contractual provision, if such delay or interruption affected Contract compliance. The Contracting Officer shall make no adjustment under this Contract for any delay or interruption, if performance was or could have been delayed by any other cause, including, without limitation: (i) the fault or negligence of the Contractor or any subcontractor; (ii) an act constituting a force majeure event pursuant to this Contract; or (iii) any other cause for which an adjustment is provided under any other article of this Contract, at law or in equity.
- (b) An adjustment pursuant to paragraph (a) shall not be allowed:
 - (1) For any costs incurred more than twenty (20) days before the Contractor notifies the Contracting Officer, in writing, of the delay.
 - (2) Unless the claim, in a sum certain, is asserted in writing as soon as practicable after the termination of the delay. In no event, shall a Contractor assert a delay claim later than thirty (30) days after its termination. The delay claim shall be accompanied by appropriate documentation, specifically supporting the nature and extent of the claimed impact upon the cost and/or time required for performance. In any instance where it is not possible for the Contractor to fully project such impact within the thirty (30) day period, it shall support the claim with such documentation as is then reasonably available, along with a statement of the anticipated time frame when the Contractor expects to provide the additional materials. The Contracting Officer shall maintain the right throughout the process to request such additional materials as he or she shall reasonably require in consideration of the claim and shall be under no obligation to conclude his or her consideration of the claim prior to review of all relevant materials. Any adjustment to the Contract price pursuant this clause must be determined prior to final payment under this Contract.

11. NOTICE TO THE AUTHORITY OF LABOR DISPUTES

- (a) Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice thereof, including all relevant information with respect thereto, to the Contracting Officer.
- (b) The Contractor agrees to insert the substance of this article, including this paragraph (b), in any subcontract hereunder, if a labor dispute may delay the timely performance of this Contract.

12. NOTIFICATION OF BANKRUPTCY OR INSOLVENCY

In the event the Contractor becomes insolvent or files or has filed against it a petition in bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the Contract, written notification of such to the Contracting Officer. This notification shall be furnished as soon as possible, but in no event more than ten (10) days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of all WMATA Contract numbers for all WMATA contracts against which final payment has not been made. This obligation remains in effect until final payment under this Contract.

CHAPTER III – ACCEPTANCE/INSPECTIONS/DEFICIENCIES

1. INSPECTION OF SERVICES

- (a) The Contractor shall provide and maintain an inspection system acceptable to the Authority covering the services under this Contract. The Contractor shall maintain complete records of all inspection work it performs and make them available to the Authority during Contract performance in the manner and in accordance with the time periods set forth in the “Audit and Inspection of Records” article of this Contract.
- (b) The Authority has the right to inspect and test all services called for by this Contract, at all times and places reasonably practicable during the term of this Contract. The Authority shall perform inspection and tests in a manner that will not unduly delay the Contract.
- (c) If the Authority performs inspections or tests on the Contractor’s or subcontractor’s premises, the Contractor shall furnish, and shall require subcontractors to furnish, without cost, all reasonable facilities and assistance for the safe and convenient performance of such inspections or tests.
- (d) If any of the services performed do not conform to the Contract’s requirements, the Authority may require the Contractor to perform them again in conformity with the Contract’s requirements, without additional cost. When the defects in performance cannot reasonably be corrected by such further performance, the Authority may:
 - (1) Direct the Contractor to take necessary action to ensure that future performance conforms to this Contract’s requirements; and/or
 - (2) Reduce the Contract price to reflect the reduced value of the services performed.
- (e) If the Contractor fails to comply with the provisions of paragraph (d), the Authority may:
 - (1) By contract or otherwise, perform the services and charge to the Contractor any cost thereby incurred by the Authority; and/ or
 - (2) In the event that the Contracting Officer deems such failure to comply a material breach, terminate the Contract for default.
- (f) Nothing contained herein shall be deemed to preclude the Contracting Officer from reducing the Contract price due to the reduced value of nonconforming services to the Authority.

2. INSPECTION OF SUPPLIES

- (a) The Contractor shall provide and maintain an inspection system acceptable to the Authority covering supplies under this Contract and shall tender to the Authority for acceptance only supplies that have been inspected in accordance with the inspection

system and that the Contractor determines to be in conformity with this Contract's requirements. As part of the system, the Contractor shall prepare records evidencing the nature and result of all inspections. These records shall be made available to the Authority during the term of the Contract and thereafter in accordance with the "Audit and Inspection of Records" article of this Contract. The Authority may perform reviews and evaluations as reasonably necessary to ascertain compliance with this article. These reviews and evaluations shall be conducted in a manner that will not unduly delay the Contract. Reviews, whether exercised or not, do not relieve the Contractor of its obligations under this Contract.

- (b) The Authority has the right to inspect and test all supplies under this Contract, to the extent practicable, at all places and times, including during manufacturing, and before acceptance. The Authority shall perform inspections and tests in a manner that will not unduly delay the Contract. The Authority assumes no Contractual obligation to perform any inspection and/or test nor shall the Authority's failure to perform any inspection and/ or test relieve the Contractor of any obligation under this Contract.
- (c) If the Authority performs inspection(s) or test(s) on the Contractor's or subcontractor's premises, the Contractor shall furnish, and shall require subcontractors to furnish, without additional cost, all reasonable facilities and assistance for the safe and convenient performance of these inspections or tests.
- (d) When supplies are not ready at the time specified for inspection or testing, the Contracting Officer may charge the Contractor for any additional, associated costs. The Contracting Officer may also charge the Contractor for any additional costs of inspection or testing when prior rejection makes re-inspection or retesting necessary.

3. ACCEPTANCE OF SUPPLIES

- (a) The Authority shall accept or reject tendered supplies as promptly as practicable after delivery, unless otherwise provided in this Contract. The Authority's failure to inspect and/or accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability upon the Authority, for nonconforming supplies.
- (b) The Authority's acceptance shall be deemed conclusive, except for latent defects, fraud, willful misconduct, gross mistakes amounting to fraud or as otherwise provided in this Contract. In such instances, the Authority, in addition to any other rights and remedies it has under this Contract, at law or in equity, shall have the right:
 - (1) To direct the Contractor, at no increase in Contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or, if the Contracting Officer determines, at the Contractor's facility, in accordance with a reasonable delivery schedule as may be agreed upon between the parties. The Contracting Officer may reduce the Contract price, if the Contractor fails to meet such delivery schedule; or
 - (2) Within a reasonable time after the Contractor's receipt of a Notice of Defects or Nonconformance, the Contracting Officer may reduce the Contract price, as is equitable under the circumstances, if he or she elects not to require

correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the costs of transportation.

4. NEW MATERIAL [SUPPLIES]

Unless this Contract specifies otherwise, the Contractor represents that any supplies and components to be provided under this Contract are new (not used or reconditioned, and not of such age or so deteriorated as to impair their usefulness or safety). If at any time during the performance of this Contract, the Contractor believes that furnishing supplies or components that are not new is in the Authority's best interests, the Contractor shall notify the Contracting Officer immediately in writing. The Contractor's notice shall include the reasons for the request, along with any proposed price reduction, that the Authority may take if the Contracting Officer agrees to authorize such supplies or components. The Contracting Officer's authorization to use such supplies or components shall be final and binding and not subject to further review pursuant to the "Disputes" article of this Contract or otherwise.

5. WARRANTY OF SUPPLIES

 Please refer to the Scope of Work

6. WARRANTY OF SERVICES

(a) Definitions.

 "Acceptance," as used in this clause, means the act(s) of WMATA's authorized representative by which WMATA approves specific services, in partial or complete performance of the Contract.

(b) Notwithstanding inspection and acceptance by WMATA or any provision concerning the conclusiveness thereof, the Contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects in workmanship and conform to the requirements of this contract. The Contracting Officer shall give written notice of any defect or nonconformance to the Contractor within thirty (30) days from the date of acceptance by WMATA. This notice shall state either --

(1) That the Contractor shall correct or re-perform any defective or nonconforming services; or

(2) That WMATA does not require correction or re-performance.

(c) If the Contractor is required to correct or re-perform, it shall be at no cost to WMATA, and any services corrected or re-performed by the Contractor shall be subject to this clause to the same extent as work initially performed. If the Contractor fails or refuses to correct or re-perform, the Contracting Officer may, by contract or otherwise, correct or replace the services with similar services and charge the Contractor with the cost, or make an equitable adjustment to the Contract price.

(d) If WMATA does not require correction or re-performance, the Contracting Officer shall make an equitable adjustment to the Contract price.

Please refer to the Scope of work for additional information

7. CORRECTION OF DEFICIENCIES

- (a) The Contractor must replace materials or correct workmanship not conforming to the Contract's requirements at no additional cost to WMATA. In addition, the Contractor is subject to any liquidated damages specified in this Contract or actual damages incurred by WMATA. If the Contractor fails to correct deficiencies, the Contracting Officer, may take specific action as follows:
- (1) Replace or correct the item or work at the Contractor's expense. This may be accomplished by award of a new contract or by use of WMATA's own resources.
 - (2) Accept the items with a reduction in price. This action will be accomplished by formal modification to this Contract. The reduced price will be based upon the reasonable value of the item, considering the possible cost of correcting the item.
 - (3) Terminate this Contract for default. If the item or work must be re-procured, the Contractor is normally liable for excess costs incurred by WMATA in accordance with the "Termination for Default" article of this Contract.

8. FIRST ARTICLE INSPECTION

Please refer to the Scope of Work.

9. F.O.B. DESTINATION

- (a) Unless otherwise specified, the Contractor shall furnish all supplies to be delivered under this Contract "F.O.B. Destination." As used herein, "F.O.B. Destination" means:
- (1) Free of expense to WMATA on board the carrier's conveyance, at a specified delivery point where WMATA's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located; and
 - (2) Supplies shall be delivered to WMATA's warehouse unloading platform, or receiving dock, at the Contractor's expense. WMATA shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery of the supplies to the destination, unless such charges are caused by WMATA's acts or omissions, acting in its Contractual capacity. If the Contractor uses a rail carrier or freight forwarder for less than full carload shipments, the Contractor shall assure that the carrier will furnish tailgate delivery, if transfer to truck is required to complete delivery to WMATA.
- (b) The Contractor shall:

- (1) Pack and mark the shipment to comply with this Contract's specifications;
- (2) In the absence of specifications, prepare the shipment in conformance with carrier requirements;
- (3) Prepare and distribute commercial bills of lading;
- (4) Deliver the shipment in good order and condition to the delivery point specified in the Contract;
- (5) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by WMATA at the delivery point specified in the Contract;
- (6) Furnish a delivery schedule and designate the mode of delivering carrier; and
- (7) Pay and bear all charges to the specified point of delivery.

10. QUALITY ASSURANCE/QUALITY CONTROL

The Contractor shall be responsible for quality assurance and for assuring that the work conforms to the requirements of this Contract. The Contractor shall maintain an effective and economical quality control program planned and developed in conjunction with other Contractor functions necessary to satisfy this Contract's requirements. The quality control program shall establish and implement procedures to ensure that only acceptable supplies or services are tendered to the Authority for acceptance, and shall demonstrate both recognition of the Contract's quality requirements and an organized approach to satisfying them. The program shall ensure that quality requirements are satisfied throughout all phases of Contract performance, including, as applicable, design development, purchasing, fabrication, processing, assembly, inspection, testing, packaging, delivery, and storage and shall provide for the early detection of actual or potential deficiencies, trends, or conditions that could result in unsatisfactory quality.

CHAPTER IV—CHANGES/ PRICING ADJUSTMENTS

1. CHANGE ORDERS

- (a) The Contracting Officer may at any time, by a written order, and without notice to the sureties, if any, direct and implement change orders, within the general scope of this Contract, including but not limited to one or more of the following:
 - (1) Nature and/or extent of services to be performed or supplies to be furnished;
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.); or
 - (3) Place of performance of the services or delivery of the supplies.
- (b) If, in the Contracting Officer's judgment, any change causes an increase or decrease in the cost of, or the time required for, the performance of any part of this Contract, whether or not directly changed by the order, he or she shall make an equitable adjustment to the Contract price, the delivery schedule, or both, and shall modify the Contract, in writing, accordingly.
- (c) In any instance where the Contractor asserts a right to an adjustment in the Contract price or time required for performance as the result of a change, it must submit a written claim advising the Authority within thirty (30) days from the date of receipt of the written order directing the change. The claim shall be accompanied by appropriate documentation, supporting the nature and extent of the claimed impact upon the Contract price and/or time required for performance. In any instance where it is not reasonably practicable fully project such impact within the thirty (30) day period, the Contractor shall accompany its claim with such supporting documentation as is then reasonably available as along with a statement of the anticipated time frame when the Contractor expects to provide the additional materials. The Contracting Officer shall maintain the right throughout the process to request such additional materials as he or she shall reasonably require in consideration of the claim and shall be under no obligation to conclude his or her consideration of the claim prior to review of all relevant materials. Any adjustment to the Contract price pursuant to this article must be agreed upon or otherwise determined prior to final payment.
- (d) If the Contractor's proposed price adjustment includes the cost of property rendered obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of property disposition.
- (e) Disagreement regarding either party's right to any adjustment in price or time for performance as the result of a change implemented pursuant to this article shall be subject to adjudication in accordance with the "Disputes" article of this Contract. Notwithstanding the pendency of any such dispute, the Contractor expressly acknowledges that it shall remain fully obligated to perform the Contract as so changed.
- (f) The Contractor shall promptly notify the Contracting Officer of matters, whether implemented as change orders or otherwise, that the Contractor believes may reasonably result in either an increase or decrease in the Contract price or the time

required for performance of any part of the Contract and shall take action as the Contracting Officer directs. The Contractor's failure to provide such notification shall constitute a waiver of its right to seek an adjustment in the Contract price or time required for such performance.

- (g) In no event shall the Contractor be entitled to payment for change orders, additional or extra supplies or services or other modifications to this Contract, unless the Contracting Officer authorizes, it in writing.

2. PRICING OF ADJUSTMENTS

- (a) The parties agree that, notwithstanding any interpretation of contract cost principles to the contrary, the Authority will not be liable for interest, however represented, on or as a part of any claim, request, proposal or adjustment, including equitable adjustments, whether it arises under the Contract or otherwise.
- (b) As part of its proposal for any Contract modification requiring a price adjustment in excess of \$150,000, the Contractor shall submit to the Contracting Officer, cost or pricing data under the conditions described in this paragraph and certify that, to the best of its knowledge and belief, the cost or pricing data submitted is accurate, complete and current as of the date submitted. At the Contracting Officer's discretion, the Contractor, may be required to submit cost or pricing data for price adjustments less than \$150,000.
- (c) The Contractor shall ensure that this article is included in all subcontracts at any tier, if the value of the subcontracted work exceeds \$150,000.

3. ACCOUNTING AND RECORD KEEPING FOR ADJUSTMENTS

- (a) *Applicability.* This article shall apply to any adjustment in the Contract price initiated by the Contractor or the Authority.
- (b) *Forward Price Adjustments.* Unless waived in writing, the Contractor shall furnish to the Contracting Officer, a proposed price adjustment in advance of performance of any work for which the price adjustment is requested. The Contractor shall generate such records as are necessary to substantiate all elements of the proposed adjustment, which records shall be specifically segregated and identified in the Contractor's accounting system as being applicable to the pricing adjustment request.
- (c) *Post Price Adjustments.* This paragraph shall be applicable to price adjustments that either (i) are expected to exceed \$50,000; or (ii) arise in connection with a Contract with a base sum in excess of \$1,000,000. In addition to the records required pursuant to paragraph (b) above, if pricing of an adjustment under this Contract is not agreed upon between the parties prior to the commencement of work for which the pricing adjustment is requested, the Contractor and any subcontractor engaged in work for which the pricing adjustment is requested, shall maintain accounts and original cost records specifically segregated and identified by job order or other appropriate accounting categories that the Contracting Officer approves for all incurred, segregable costs related to the work for which the pricing adjustment is requested. The Contractor shall maintain accounts and records that segregate and account for the

costs of all work associated with that part of the Contract for which the pricing adjustment is requested. The Contractor shall allocate the costs so accumulated between: (1) work required under the base Contract; (2) work requested to be reimbursed under the pricing adjustment; and (3) work claimed or determined to be related to other actual or proposed adjustments, including but not limited to, changes orders, differing site conditions, and the like. The accounts and records so established shall accumulate such costs under logical costs groups, such as material, labor, equipment, subcontracts, field overhead and the like. The Contractor shall record these costs on a form approved by the Contracting Officer.

- (e) *Access to Records.* As a condition to the Authority's obligation to consider any claim for a potential price adjustment under any provision of this Contract, the Contractor shall grant the Authority access to review and ascertain the validity of the accounting records being maintained for segregation of costs, including base cost records, and to audit any such costs as the Contracting Officer deems appropriate.

- (f) *Limitation on Price Adjustments.* If the Contractor or any subcontractor fails to generate, maintain, or make available any records required under this Contract, in addition to any rights to which the Authority may be entitled, the Contracting Officer shall determine whether such failure is willful, deliberate or otherwise precipitated by the Contractor's bad faith, in which case the Contractor shall not be entitled to any price adjustment for the work in question. Where the Contracting Officer determines that the failure was not the result of the Contractor's bad faith, he or she shall determine the reasonable direct costs of the work for which records are not available, and add a single mark-up for indirect expenses not to exceed ten percent (10%) of the direct costs based on:
 - (1) An audit of the Contractor's or subcontractor's records made available to the Authority; and/or
 - (2) The Authority's estimate as the Contracting Officer adopts or modifies

- (a) In no event shall the Contractor and/or subcontractor be allowed any profit on claimed work for which records are not made available in accordance with its obligations under this Contract.

- (h) *Flow-down clause.* The Contractor shall ensure the inclusion of this article in all subcontracts issued under this Contract, modified as necessary, for proper identification of the contracting parties and the Contracting Officer.

CHAPTER V – INVOICES/PAYMENTS/ DEDUCTIONS

1. BILLING AND PAYMENT

- (a) The Authority shall pay and the Contractor shall accept the amounts set forth in the Price Schedule as full compensation for all costs and expenses of completing the this Contract, including, but not limited to, all labor and material required to be furnished under this Contract, all overhead, expenses, fees and profits including the cost of providing storage yards or facilities; all risks and obligations set forth in this Contract; any applicable fees or taxes; and all expenses due to any unforeseen difficulties encountered in the prosecution of the work.
- (b) Payments will be made following acceptance of the services or supplies to be provided under this Contract and after receipt and acceptance of a properly completed invoice. WMATA will accept the submittal of invoices in one of the following methods:
- (1) Email: Invoices may be submitted through email at: apinvoice@wmata.com. Please submit one (1) invoice and supporting documentation per PDF attachment. You may submit more than one PDF attachment per email.
 - (2) Fax: Invoices may be submitted via the following number: 1-866-534-9063. Please submit one (1) invoice and all supporting documentation for this invoice per fax.
 - (3) Regular Mail: Invoices may be submitted via U.S. Postal Service to the following address:

WMATA-Accounts Payable
PO Box 1910
Beltsville, MD 20704-1910

Note: This address is only for vendor invoices. Correspondence should not be sent to this address.
- (c) Invoices shall contain the vendor's name, a unique invoice number for each shipment or service, invoice date, payment terms, total invoice amount, "remit to" address, purchase order number, freight terms, description of each item being invoiced, quantity, unit item cost, extended cost by item, total freight/handling costs, and contact name and email address. Final invoices must clearly be marked "Final" and cite the amount of this Contract, amount previously paid, and the balance due.
- (d) The Authority shall remit payment, generally within thirty (30) days of its receipt and acceptance of an invoice satisfying the requirements of paragraphs (b) and (c), at the prices stipulated in the Contract for supplies delivered and accepted or services rendered and accepted, less any applicable deductions.

2. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS

If the Contracting Officer determines that any price, including profit or fee, previously negotiated in connection with any modification to this Contract involving changes in cost plus applicable profit in excess of \$150,000 was based upon the Contractor's or subcontractor's cost or pricing data that was not complete, accurate or current, such that the amount the Authority paid to the Contractor for such price adjustment was greater than the Contractor would have been entitled based upon accurate and complete data, the Authority shall be entitled to an adjustment in an amount equal to such overpayment. The Authority's rights hereunder shall be in addition to any other rights it may have under this Contract, at law or in equity.

3. SUBCONTRACTOR PAYMENTS

- (a) The Contractor shall, under this Contract, establish procedures to ensure timely payment of amounts due pursuant to the terms of its subcontracts. The Contractor shall pay each subcontractor for satisfactory performance of its contract, or any billable portion thereof, no later than ten (10) days from the date of the Contractor's receipt of payment from the Authority for work by that subcontractor. The Contractor shall also release, any retention withheld from the subcontractor within ten (10) days of satisfactory completion of all work required by that subcontractor.
- (b) The Contractor shall certify on each payment request to the Authority that payment has been or will be made to all subcontractors in accordance with paragraph (a) above. The Contractor shall notify the Contracting Officer with each payment request, of any situation where scheduled subcontractor payments have not been made.
- (c) In the event of a claim by any subcontractor that the Contractor has failed to comply with the terms of this article, the Contractor agrees to fully cooperate in any Authority investigation, and, if deemed appropriate by the Authority, to implement appropriate remedial measures to ensure future compliance.
- (d) The Contractor agrees that the Contracting Officer may provide information that he or she deems appropriate in response to inquiries from subcontractors seeking to determine the status of the Authority's payments to the Contractor.
- (e) Nothing contained in this article or elsewhere in this Contract shall create a Contractual relationship between the Authority and any subcontractor, shall make the subcontractor an intended beneficiary of this Contract or shall alter or affect traditional concepts of privity of contract.

4. GARNISHMENT OF PAYMENTS

Payments under this Contract shall be subject to any garnishment, attachment orders, and/or levies issued pursuant to the laws of the United States, Maryland, Virginia, and the District of Columbia.

CHAPTER VI – CONTRACT TERMINATION/STOP WORK ORDERS/DISPUTES

1. STOP WORK ORDERS

- (a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part of the work for a period of up to ninety (90) days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a “Stop Work Order” (“SWO”) issued under this article. Upon receipt of the SWO, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the SWO during the period of work stoppage. Within a period of ninety (90) days after an SWO is delivered to the Contractor, or within any extension of that period to which the parties agree, the Contracting Officer shall either:
- (1) Cancel the SWO; or
 - (2) Terminate the work covered by the SWO as provided in this Contract, as appropriate.
- (b) If a SWO is cancelled or expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment to the delivery schedule or Contract price, or both, and shall modify the Contract in writing if, in his or her judgment:
- (1) The SWO results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Contract; and
 - (2) The Contractor submits a written claim for such adjustment within thirty (30) days after the end of the period of work stoppage. At the Contracting Officer's discretion, the Authority may act upon any claim submitted at any time before final payment under this Contract.
- (c) If an SWO is not cancelled and the work covered by the Contract is terminated for the convenience of the Authority, the Contracting Officer shall allow reasonable costs, if any, resulting from the SWO in arriving at the termination settlement pursuant this Contract.

2. TERMINATION FOR DEFAULT- FTA

- (a) The Contractor shall be in default if it commits a breach of any of its obligations under this Contract deemed material by the Contracting Officer. In addition to those instances specifically referred to in this Contract, the Contractor shall be in default in the following circumstances:
- (1) It fails to begin, or abandons, the work of the Contract in accordance with the contractual requirements;
 - (2) It fails to deliver the supplies or perform the services within the time specified in this Contract or any extension that the Contracting Officer approves;

- (3) It fails to make progress in a manner that the Contracting Officer deems unreasonable so as to endanger performance of this Contract; or
 - (4) In the view of the Contracting Officer, the Contractor is willfully violating this Contract or is not executing it reasonably and in good faith.
- (b) In the event the Contractor's material breach pursuant to paragraph (a), the Contracting Officer is authorized to direct a written notice (a "Notice to Cure") to the Contractor, specifying the nature of the breach and stating that the Contractor has ten (10) days to cure the breach or such additional time as the Contracting Officer authorizes. If the Contractor fails to cure the breach in the time specified in the Notice to Cure, the Contracting Officer may terminate this Contract, in whole or designated part, for default after providing written notice to the Contractor.
- (c) Upon receipt of a "Notice of Default," the Contractor shall immediately cease performance of the work so terminated. The Authority shall have the right to take any action necessary to complete the work, including performing the work itself, or contracting with another party to do so. In the event the work is completed directly by the Authority or by a third party, the Contractor shall be liable for the additional costs and expenses necessary to complete the work, including, without limitation, labor, material costs, plant costs, tooling expenses, and equipment and property costs. The Authority may deduct the costs and expenses so charged and pay them out of any monies otherwise payable to the Contractor. Nothing contained herein shall be deemed to relieve the Contractor of its continuing obligation to perform any portion of this Contract that was not terminated.
- (d) The Contracting Officer may, at his or her sole discretion, waive a default by the Contractor, but such waiver shall not be deemed a waiver of any subsequent default.
- (e) Upon any termination for default, the Contracting Officer may require the Contractor to transfer title and deliver to the Authority, any completed or partially completed supplies, components (including data and intellectual property) and Contract rights that the Contractor has specifically produced or acquired for the terminated portion of this Contract. At the Contracting Officer's direction, the Contractor shall also protect and preserve property in its possession in which the Authority may have an interest.
- (f) Upon any termination for default, the Authority shall pay for supplies delivered and accepted and/or services rendered and accepted in accordance with the terms of this Contract. The Authority may also compensate the Contractor for actions that it reasonably takes at the Contracting Officer's direction for the protection and preservation of property. The Authority may withhold from these payments any sum that the Contracting Officer determines to be necessary to protect the Authority against loss because of outstanding or claimed liens, or pending or anticipated claims under the Contract.
- (g) If, at any time following the Authority's issuance of a termination for default hereunder, it is determined that the Contractor was not in default or that the default was excusable, the termination shall be converted to a termination for convenience and the rights and obligations of the parties shall be determined in accordance with the "Termination for Convenience" article of this Contract.

- (h) Any dispute or disagreement regarding any issue arising under this article shall be subject to adjudication in accordance with the “Disputes” article of this Contract. In no event shall the Authority’s issuance of a “Notice to Cure” pursuant to paragraph (b) be the basis of a dispute pursuant to the “Disputes” article or otherwise be subject to further review under this Contract or otherwise. The pendency of any dispute shall not constitute a basis for the delay or suspension of, or otherwise affect the Authority’s right to proceed in accordance with this article, including without limitation, its right to complete the work or its right to insist that the Contractor complete any portion of the Contract that was not terminated.
- (i) The Authority’s rights and remedies in this article are in addition to any other rights and remedies provided under this Contract, at law or in equity.

3. TERMINATION FOR CONVENIENCE- FTA

- (a) The Contracting Officer may terminate this Contract in whole, or in part, if he or she determines that a termination is in the Authority’s interest. The Contracting Officer shall terminate by delivering a “Notice of Termination” to the Contractor specifying the extent of termination and its effective date.
- (b) Upon receipt of a Notice of Termination, except as the Contracting Officer otherwise directs, the Contractor shall immediately:
 - (1) Stop work as specified in the Notice of Termination;
 - (2) Complete performance of the work not terminated;
 - (3) Place no further subcontracts or orders for materials, services, or facilities, except as necessary to complete the remaining portion of the Contract;
 - (4) Terminate all subcontracts to the extent that they relate to the work terminated;
 - (5) Assign to the Authority, as directed by the Contracting Officer, all of the Contractor’s right(s), title, and interest(s) under the subcontracts terminated. The Authority shall have the right to settle or pay any termination costs arising out of the subcontracts and have no further liability to the Contractor for the work that was the subject of such subcontracts;
 - (6) With the Contracting Officer’s approval, settle all outstanding liabilities and settlement costs arising from the termination of subcontracts;
 - (7) As the Contracting Officer directs, transfer title and deliver to the Authority:
 - (i) Parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated; and
 - (ii) The completed or partially completed plans, drawings, information and other property that would have been required to be furnished to the Authority, if the Contract had been completed.

- (8) Take any action that may be necessary, or as the Contracting Officer may direct, for the protection and preservation of the property related to this Contract that is in the Contractor's possession and in which the Authority has or may acquire an interest;
- (9) Use its best efforts to sell, as the Contracting Officer authorizes, any property of the types referred to in paragraph (b)(7). The Contractor is not required to extend credit to any purchaser and may acquire the property under the conditions that the Contracting Officer prescribes. The proceeds of any transfer or disposition will be applied to reduce payments to be made by the Authority under this Contract, credited to the price or cost of the work, or paid in any other manner that the Contracting Officer directs.
- (c) The Contractor shall submit complete termination inventory schedules not later than one hundred twenty (120) days from the effective date of termination, unless the Contracting Officer extends the time in writing.
- (d) As soon as reasonably practicable, and not later than twenty (20) business days following the Authority's issuance of a "Notice of Termination" pursuant to paragraph (a), the Contractor shall submit a termination settlement proposal (TSP) to the Contracting Officer in the form that he or she prescribes, detailing the costs to which it asserts entitlement pursuant to this article. If the Contractor fails to submit the TSP within the time prescribed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due to the Contractor as a result of the termination and shall pay the amount so determined.
- (e) Following submission of the Contractor's TSP pursuant to paragraph (d), the parties shall agree upon the whole, or any part, of the amount to be paid or remaining to be paid as a result of the termination. The amount may include a reasonable allowance for profit on work completed. In no event shall the total amount to be paid to the Contractor pursuant to this article exceed the total Contract price as reduced by (1) payments previously made and (2) the Contract price of the remaining work, not terminated.
- (f) If the parties disagree on the whole amount to be paid because of the termination, the Contracting Officer shall pay the Contractor the amounts that he or she determines as follows, but without duplication of any amounts agreed upon under paragraph (e):
 - (1) The Contract price for completed supplies or services that the Authority accepted [or sold or acquired under paragraph (b)(9)] not previously paid for, adjusted for any saving of freight and other charges.
 - (2) The total of:
 - (i) The costs incurred prior to termination in the performance of the work terminated, including initial costs and preparatory expenses allocable thereto, but excluding any costs attributable to items compensated or to be paid for under subparagraph (f)(1);

- (ii) Termination costs under terminated subcontracts that are properly chargeable to the terminated portion of this Contract, if not excluded in subparagraph (f)(2)(i); and
 - (iii) A sum, representing profit on the items described in subparagraph (f)(2)(i) that the Contracting Officer determines to be fair and reasonable pursuant to Section 49.202 of the Federal Acquisition Regulation (FAR), in effect on the date of this Contract. If it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, the Contracting Officer shall allow no profit under this subparagraph and shall reduce the settlement to reflect the projected rate of loss.
- (3) The reasonable indirect costs of settlement of the work terminated, including:
 - (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of TSP(s);
 - (ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and
 - (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (g) Except for normal spoilage, and except to the extent that the Authority expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (f), the fair value, as he or she determines of property that is unavailable or damaged and undeliverable to the Authority or to a third party.
- (h) The cost principles and procedures of FAR Part 31 in effect on the date of this Contract, shall govern all costs claimed, agreed to, or determined under this article, except that the Authority shall not be obligated to pay interest, however represented, on any claimed costs.
- (i) The Contractor shall have the right to appeal, under the "Disputes" article, from the Contracting Officer's determination under paragraphs (d) or (f). The Contractor's failure to submit the TSP within the time provided in paragraph (d), or to timely request an extension thereof, shall constitute a waiver of its right to appeal the Contracting Officer's determination pursuant to the "Disputes" article or any otherwise applicable Contractual, legal or equitable remedy.
- (j) In determining any sum due to the Contractor under this article, there shall be deducted:
 - (1) All unliquidated advances or other payments to the Contractor under the terminated portion of this Contract;
 - (2) The value, as the Contracting Officer, reasonably determines, of any claim that the Authority has against the Contractor under this Contract, including

any third-party claim, if the Contracting Officer is not satisfied that sufficient insurance coverage is in place; and

- (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other items that the Contractor procured or sold under this article, not recovered by or credited to the Authority.
- (k) If the Contractor asserts that any partial termination has rendered enforcement of the remainder of this Contract at the remaining Contract price inequitable, the Contractor may file a proposal with the Contracting Officer for an adjustment to the price(s) for the continued portion of this Contract. Such proposal shall be submitted within ninety (90) days from the effective date of termination, unless the Contracting Officer extends it in writing, and shall be accompanied by appropriate supporting documentation.
- (l) The Contractor's responsibilities and obligations under this article shall remain in full force and effect notwithstanding the pendency of any dispute or other delay relating to determination of the appropriate price adjustment or any other issue arising from the termination for convenience.
- (m) Unless otherwise provided in this Contract or by statute, the Contractor and all subcontractors whose work is encompassed in the termination settlement shall maintain all records and documents relating to the terminated portion of this Contract for three (3) years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this Contract. The Contractor shall make these records and documents available to the Authority, its governing jurisdictions and any other Federal, state, or local entities providing funding for this Contract, and to the U.S. Comptroller General or the agents or representatives of any of them, at the Contractor's office, at all reasonable times, without any direct charge.

4. ASSIGNMENT- FTA

- (a) Except as otherwise provided in this article, the Contractor shall not transfer any of its rights and obligations under this Contract to third parties without the Contracting Officer's prior, written consent. The Contracting Officer may recognize a third party as successor in interest to this Contract in the event of a transfer of all or substantially all of the Contractor's assets, a change in a division of the Contractor involved in the performance of this Contract, or if a parent company provides performance guarantee(s) under this Contract, (i.e., sales of assets, transfer of assets pursuant to merger or consolation, or incorporation of a proprietorship or partnership). Such recognition shall be at the Contracting Officer's discretion after review of the facts and circumstances surrounding each request. The Contracting Officer, at his or her discretion, may conduct an evaluation of the successor party's capability to perform this Contract in the same manner and to the same extent that he or she conducted a responsibility determination as part of the original solicitation for this Contract. Should the Contracting Officer, for any reason, not recognize such a successor in interest, he or she may terminate this Contract.
- (b) Any attempt to transfer by assignment that the Contracting Officer does not authorize shall constitute a material breach of this Contract and the Contracting Officer may

terminate this Contract in accordance with the "Termination for Default" article set forth in this Contract.

- (c) Nothing contained herein shall be deemed to preclude the Contractor's assignment of claims for monies due or to be become due to it under this Contract to a bank, trust company or other financing institution, including any Federal lending agency, upon written notice of such assignment to the Contracting Officer.

5. DISPUTES- FTA

- (a) Any dispute concerning a question of fact arising under or related to this Contract that is not disposed of by agreement, shall be decided by the Contracting Officer, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The Contracting Officer's decision shall be final and conclusive unless, within thirty (30) calendar days from the date of its receipt, the Contractor mails or otherwise furnishes to the Contracting Officer, a written notice of appeal addressed to the Authority Board of Directors. Such notice must indicate that an appeal is intended and must reference the decision and Contract number. The decision of the Board of Directors or its duly authorized representative for the determination of such appeals shall be final and conclusive, unless in proceedings initiated by either party for review of such decision in a court or board of competent jurisdiction, it determines that the decision was fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In any appeal under this article, the appellant shall be afforded an opportunity to be heard and offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of this Contract in accordance with the Contracting Officer's decision. The Armed Services Board of Contract Appeals (ASBCA) is the Board of Directors' authorized representative for final decisions on an appeal.
- (b) This "Disputes" article does not preclude consideration of questions of law in connection with decisions provided for in paragraph (a) above. Nothing in the Contract, however, shall be construed as making final, the decisions of the Board of Directors or its representative on questions of law.

6. EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS FOR CONSTRUCTION ACTIVITIES- FTA

- (a) When undertaking "construction" as recognized by the U.S. Department of Labor (U.S. DOL), the Contractor agrees to comply with U.S. DOL regulations "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Part 60, and Executive Order 11246 "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246, Relating to Equal Employment Opportunity," 42 U.S.C. § 2000 (e) note.

CHAPTER VII – INDEMNIFICATION/INSURANCE/RISK OF LOSS

1. INDEMNIFICATION

- (a) Contractor shall indemnify, defend and hold harmless the Authority, its Board members, employees and agents, from all liabilities, obligations, damages, penalties, claims, costs, charges and expenses (including reasonable attorneys' fees), of whatsoever kind and nature for injury, including personal injury or death of any person or persons, and for loss or damage to any property, including the property of the Contractor and the Authority, occurring in connection with, or in any way arising out of the use, occupancy and performance of the work and/or any acts in connection with activities to be performed under this Contract, unless the loss or damage is due to the sole negligence of the Authority. Nothing in the preceding sentence shall be deemed to relieve Contractor from ultimate liability for any of its obligation under this Contract.
- (b) Contractor shall indemnify, defend and hold harmless the Authority, its Board members, employees and agents, against any and all claims, liabilities, losses, demands, damages, penalties, costs, charges, remedial costs, environmental claims, fees or other expenses including attorneys' fees, related to, arising from or attributable to any effluent or other hazardous waste, residue, contaminated soil or other similar material discharged from, removed from, or introduced on, about or under the job site. The foregoing indemnity does not apply to loss or damage due to preexisting conditions, whether known or unknown.
- (c) If any action or proceeding relating to this indemnification is brought against the Authority, then upon written notice from the Authority to the Contractor, the Contractor shall, at its own expense, resist or defend such action or proceeding by counsel approved by the Authority in writing. No approval of counsel shall be required where the cause of action is resisted or defended by counsel of any insurance carrier obligated to resist or defend the same. The Authority reserves the right to use its own counsel under this indemnity at Contractor's sole cost and expense.
- (d) Contractor understands and agrees to its responsibility to provide indemnification to the Authority pursuant to this clause. The provision of insurance, while anticipated to provide a funding source for this indemnification, is in addition to any indemnification requirements. The failure of Contractor's insurance to fully fund any indemnification shall not relieve the Contractor of any obligation hereunder.

2. INSURANCE REQUIREMENTS

If you do not currently carry all of the required insurance for this RFP, a current certificate of insurance (COI) evidencing the insurance you do carry and a letter from your insurance agent/broker stating that 'if our client (you) are awarded the contract, the required coverage will be provided' will suffice.

EXHIBIT A

I. MINIMUM REQUIRED INSURANCE: MINIMUM LIMITS OF INSURANCE

INSURANCE TYPE	LIMITS	BASIS
Workers' Compensation	Statutory	
Employers' Liability	\$500,000	Each Accident
	\$500,000	Disease Policy Limit
	\$500,000	Disease Each Employee
Commercial General Liability		
	\$2,000,000	Each Occurrence Limit
	\$4,000,000	General Aggregate Limit
	\$2,000,000	Products-Completed Operations Limit
Business Auto Liability		
	\$1,000,000	Combined Single Limit
Railroad Protective Liability Insurance (RRP)		
	\$2,000,000	Each Occurrence Limit
	\$6,000,000	Aggregate Limit
Professional Liability		
	\$5,000,000	Each Claim
Technology Errors & Omissions Liability		
	\$5,000,000	Each Claim

II. MINIMUM REQUIRED INSURANCE: MINIMUM INSURANCE COVERAGES AND COVERAGE PROVISIONS

- 1) Contractor is required to maintain the prescribed insurance outlined in this Exhibit A during the entire period of performance under this contract. Notice to Proceed (NTP) will not be issued until all required insurance has been accepted by WMATA.
- 2) The prescribed insurance coverage and limits of insurance are minimum required coverages and limits. Contractor is encouraged, at its sole cost and expense, to purchase any additional insurance coverages and or limits of insurance that Contractor deems prudent and necessary to manage risk in the completion of this contract.
- 3) Upon written request from WMATA, contractor shall provide copies of any requested insurance policies, including applicable endorsements, within five (5) business days of such request.
- 4) Receipt, review or communications regarding certificates of insurance (COI), insurance policies, endorsements, or other materials utilized to document compliance with these Minimum Insurance Requirements does not constitute acceptance by WMATA.
- 5) Insurance companies must be acceptable to WMATA and must have an A. M. Best rating of at least A- VII.
- 6) Unless otherwise noted, "Claims Made" insurance policies are not acceptable.

- 7) Any insurance policy utilizing a Self-Insured Retention (SIR) requires written approval from WMATA.
- 8) Contractor must incorporate these Minimum Insurance Requirements into contract requirements of all subcontractors of every tier; however, Contractor, at its sole peril, may amend these Minimum Insurance Requirements for its subcontractors, but doing so does not relieve Contractor from its respective liability to WMATA.
- 9) Compliance with these Minimum Insurance Requirements does not relieve Contractor from Contractor's respective liability to WMATA, even if that liability exceeds the Minimum Insurance Requirements.

III. COVERAGE-SPECIFIC REQUIREMENTS

Commercial General Liability

- 1) Commercial General Liability (CGL) shall be written on ISO Occurrence Form CG0001 (12/04) or its equivalent. Equivalency determination shall be made in WMATA's sole and unreviewable discretion.
- 2) Required minimum limits of coverage may be achieved through a combination of the aforementioned CGL coverage form and an Umbrella/Excess Liability coverage form(s), provided that the Umbrella/Excess Liability coverage form(s) provides the same or broader coverage than the prescribed CGL coverage form.
- 3) Policy shall be endorsed with Additional Insured Endorsement(s) in compliance with the "Additional Insured" Section below.
- 4) Policy shall be endorsed with a Waiver of Subrogation Endorsement(s) in compliance with the "Waiver of Subrogation" section below.
- 5) The definition of "Insured Contract" shall be modified to provide coverage for contractual liability for any contracts involving construction or demolition operations that are within 50 feet of a railroad, and sidetrack agreements. Evidence of this modification shall be provided to WMATA along with all other required documents.
- 6) Defense Costs (Allocated Loss Adjustment Expense) must be included and outside of the policy limits for all primary liability and Umbrella/Excess Liability policies.

Business Auto Liability

- 1) Business Auto Liability insurance shall be written on ISO Business Auto Coverage Form CA 00 01 03 06, or its equivalent. Equivalency determination shall be made in WMATA's sole and unreviewable discretion.
- 2) Policy shall be endorsed with Additional Insured Endorsement(s) in compliance with the "Additional Insured" Section below.
- 3) Policy shall be endorsed with a Waiver of Subrogation Endorsement(s) in compliance with the "Waiver of Subrogation" section below.
- 4) Business Auto Liability minimum Combined Single Limit requirements may be obtained through the combination of a primary business auto liability policy and an Umbrella/Excess Liability policy provided that the Umbrella/Excess Liability policy complies with items 2 and 3 above.
- 5) MCS-90 Endorsement for work involving the transportation or disposal of any hazardous material or waste off of the jobsite. If the MCS-90 Endorsement is required,

minimum auto liability limits of \$5,000,000 per occurrence are also required as is form CA 99 48, broadened coverage for pollution liability.

- 6) on-Owned Disposal Site (NODS) Endorsement providing coverage for the Contractor's legal liability arising out of pollution conditions at the designated non-owned disposal site.

Railroad Protective Liability

Railroad Protective Liability Insurance is required for any work within 50 feet of WMATA railroad tracks or work within WMATA rail stations.

- 1) The Railroad Protective Liability (RRP) policy must be on a policy form and with an insurance company that is acceptable to WMATA.
- 2) WMATA shall be the Named Insured.
- 3) The original RRP policy shall be sent to WMATA at following address:

Washington Metropolitan Area Transit Authority
Office of Insurance, Room 8F
600 Fifth Street, NW
Washington, DC 20001

WMATA Blanket RRP Program Option

WMATA may offer to waive the requirement for the Contractor to procure RRP if 1) the work qualifies for coverage under WMATA's blanket RRP program, and 2) the Contractor prepays the RRP premium which shall be determined by the rate schedule promulgated by the insurer in effect as of the effective date of this Contract.

Professional Liability Insurance

WMATA may require professional liability insurance (Errors and Omissions) for the work of Permittee or its subcontractors for certain types of consulting services.

Technology Errors and Omissions Insurance

Contractor must procure and maintain Technology Errors and Omissions insurance covering actual or alleged negligent acts, errors or omissions committed by the Contractor in the provision of information technology services performance of activities under this agreement, regardless of the type of damages. If the insurance is on a claims made basis, Contractor shall maintain continuous insurance coverage during the term of this agreement. The policy retroactive date must coincide with or precede the effective date of Contractor's services under the agreement and shall continue until the termination of the agreement. The policy must allow for reporting of circumstances or incidents that might give rise to future claims, and an extended reporting period of at least one year must be purchased in the event ongoing coverage is not maintained.

IV. OTHER

Additional Insured

- 1) Contractor and subcontractors of every tier are required to add WMATA and WMATA Board of Directors as additional insured on all required insurance including excess liability policies, with the exception of Workers' Compensation and Professional Liability.
- 2) Coverage provided to Additional Insured shall be primary and non-contributory to any other insurance available to the Additional Insured, including coverage afforded to the WMATA as an additional insured by subcontractors, and from other third parties.
- 3) Coverage provided to any Additional Insured shall be for claims arising out of both ongoing operations and products and completed operations hazard.

- 4) Coverage available to any Additional Insured under the products and completed operations hazard can only be limited to the applicable statute of repose in the jurisdiction(s) where the contract scope of work takes place.
- 5) Commercial General Liability and Umbrella/Excess Liability forms must provide defense coverage for additional insureds. The Additional Insured Endorsement shall provide coverage for Ongoing as well as Products and Completed Operations with no limitation on when claims can be made.

Waiver of Subrogation

Contractor and subcontractors of every tier are required to have all insurance policies except Professional Liability endorsed to waive the respective insurance company's rights of recovery against WMATA, and the WMATA Board of Directors.

- 1) Waiver shall be provided on an endorsement that is acceptable to WMATA.

Certificate of Insurance (COI)

Contractor shall provide WMATA an ACORD Certificate of Insurance (COI) and copies of all required endorsements as evidence that the insurance requirements of this Section have been satisfied. Certificates of Insurance shall be sent to WMATA.

The Certificate Holder box should read:

Washington Metropolitan Area Transit Authority
Office of Insurance, Room 8F
600 Fifth Street, NW
Washington, DC 20001

Additionally:

- 1) Proposed material modifications to required insurance, including notice of cancellation, must be received by WMATA in writing at least 30 days prior to the effective date of such change or cancellation.
- 2) WMATA's receipt of copies of any COI, policy endorsements or policies does not relieve Contractor of the obligation to remain in compliance with the requirements of this Section at all times. Contractor's failure to comply with these insurance requirements shall constitute a material breach of this Contract.
- 3) Receipt of the COI does not constitute acceptance of the insurance outlined above.

3. TITLE AND RISK OF LOSS

- (a) Unless this Contract specifically provides for earlier passage of title to deliverables (including documents, reports, and data) or other items resulting from this Contract, title shall pass to the Authority upon acceptance, regardless of when or where the Authority takes physical possession. Risk of loss, theft, destruction of, or damage to, such deliverables or other items remains with the Contractor, until the transfer of title or at the time when the Authority takes physical possession, whichever is later.
- (b) In the event of loss or damage to any deliverable or other item of work, prior to the time when the Authority takes physical possession, the Contractor agrees to repair or replace it as soon as reasonably possible to restore the item to the same condition that pre-existed the loss or damage, in accordance with all requirements of this

Contract, without cost to the Authority. Nothing contained herein shall be deemed to require the Contractor's repair or replacement of any loss or damage caused solely by the Authority's acts or omissions.

- (c) The following clause applies, if and when the Contractor performs work on its own property.
 - (1) WMATA retains title to all WMATA-furnished property, including, but not limited to _____. WMATA furnished property shall not become a fixture, or lose its identity as personal property by being attached to any real property. The Contractor shall use WMATA's property, furnished under this Contract, only for performing this Contract, unless the Contracting Officer approves otherwise. Modifications or alterations of WMATA property are prohibited, unless they are (i) Reasonable and necessary due to the technical specifications for this Contract; (ii) Required for normal maintenance; or (iii) Otherwise authorized by the Contracting Officer. Risk of loss is on the Contractor for WMATA-furnished property, i.e. the Contractor is liable for loss, theft, damage or destruction to WMATA property while it is in the Contractor's possession or control. The Contractor shall take all reasonable actions necessary to protect WMATA's property from loss, theft, damage or destruction. The Contractor shall do nothing to prejudice WMATA's rights to recover against third parties for any loss, theft, damage or destruction to WMATA's property.

3. TRANSIT EMPLOYEE PROTECTIVE ARRANGEMENTS – FTA

- (a) The Contractor agrees to comply with applicable transit employee protective requirements as follows:
 - (1) *General Transit Employee Protective Requirements.* To the extent that FTA determines that transit operations are involved, the Contractor agrees to carry out the transit operations work on this Contract in compliance with terms and conditions determined by the U.S. Secretary of Labor to be fair and equitable to protect the interests of employees employed under this Contract and to meet the employee protective requirements of 49 U.S.C. § 5333(b), and U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the letter of certification from the U.S. DOL to FTA applicable to WMATA's grant from which Federal assistance is provided to support work on this Contract. The Contractor agrees to carry out that work in compliance with the conditions stated in that U.S. DOL letter. The requirements of this subsection, however, do not apply to any Contract financed with Federal assistance provided by FTA either for projects for elderly individuals and individuals with disabilities authorized by 49 U.S.C. § 5310(a)(2), or for projects for non-urbanized areas authorized by 49 U.S.C. § 5311. Alternate provisions for those projects are set forth below.
 - (2) *Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a)(2) for Elderly Individuals and Individuals with*

Disabilities. If this Contract involves transit operations financed, in whole or in part, with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for the state and the public body sub-recipient for which work is performed on this Contract, the Contractor agrees to carry out the project in compliance with the terms and conditions determined by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333 (b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the U.S. DOL's letter of certification to FTA, the date of which is set forth in WMATA's grant agreement. The Contractor agrees to perform transit operations in connection with this Contract in compliance with the conditions stated in that U.S. DOL letter.

(3) *Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Non-urbanized Areas.* If this Contract involves transit operations, financed, in whole or in part, with Federal assistance authorized by 49 U.S.C. § 5311, the Contractor agrees to comply with the terms and conditions of the Special Warranty for the Non-urbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

(a) The Contractor also agrees to include any applicable requirements in each subcontract involving transit operations financed in whole or in part with Federal assistance provided by FTA.

5. VETERANS PREFERENCE – FTA

A veterans preference, as provided by 49 U.S.C. §5325(k), to the extent practical, (1) Will give a hiring preference to veterans, as defined in 5 U.S.C. §2108, who have the skills and abilities required to perform construction work required under a third party contract in connection with a Capital Project supported with Federal assistance appropriated or made available for 49 U.S.C. chapter 53, and (2) Will not require an employer to give a preference to any veteran over an equally qualified applicant who is a member of any racial or ethnic minority, female, and individual with a disability, or former employee.

6. INAPPLICABILITY OF CLAUSES REQUIRING UNAUTHORIZED OBLIGATIONS

(a) Except where the Chief Procurement Officer specifically agrees in writing, when any supply or service acquired under this Contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), Master Agreement, Terms and Conditions or similar legal instrument or agreement, that includes any clause requiring WMATA to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability or that would create an unauthorized obligation, the following shall govern:

(i) Any such clause is unenforceable against WMATA.

- (ii) Neither WMATA nor any authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an “I agree” click box or other comparable mechanism (e.g., “click-wrap” or “browse-wrap” agreements), execution does not bind WMATA or any WMATA authorized end user to such clause.
 - (iii) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.
- (b) When any supply or service acquired under this Contract is subject to any End Use License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, any clause requiring WMATA to pay pre-judgment interest, taxes to which it is exempt, or automatic fines is void and without effect.

CHAPTER VIII – INTELLECTUAL PROPERTY RIGHTS

1. PATENT INDEMNITY

The Contractor shall indemnify the Authority and its Board members, agents and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. § 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property under this Contract. If the Contractor is not the original equipment manufacturer (OEM) for a manufactured product purchased under this Contract, it will ensure that the patent holder provides indemnity to WMATA under this article. This indemnity shall not apply unless the Contractor is informed as soon as practicable by the Authority of the suit or action alleging such infringement, and is given such opportunity as is afforded by applicable laws, rules, or regulations to participate in the defense thereof. Such indemnity shall not apply to:

- (1) An infringement resulting from compliance with the Contracting Officer's specific written instructions directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner or performance of the Contract not normally used by the Contractor;
- (2) An infringement resulting from addition to, or change in, such supplies or components furnished or construction work performed that was made subsequent to delivery or performance by the Contractor; or
- (3) A claimed infringement that is unreasonably settled without the Contractor's consent, unless required by final decree of a court of competent jurisdiction.

2. SET-OFF

The Authority has common law, equitable and statutory rights to set-off. These rights shall include, but are not limited to, the Authority's right to set-off any monies due to the Contractor under this Contract, by any amounts due and owing to the Authority with regard to, any Contract with the Authority, plus any amounts due and owing to the Authority for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The Authority shall exercise its set-off rights in accordance with applicable laws and practices, including, in cases of set-off pursuant to an audit, the finalization of such audit by the Authority, its representatives, or the Federal Government.

3. RIGHTS IN TECHNICAL DATA- LIMITED

Not Applicable

4. RIGHTS IN TECHNICAL DATA – UNLIMITED

- (a) The term technical data as used in this article means technical writings, computer software, sound recordings, pictorial reproductions, drawings, or other graphic representations and works of a technical nature, whether or not copyrighted, that are specified to be delivered pursuant to this Contract. The term does not include

financial reports, cost analyses, and other information incidental to Contract administration. "Computer software" as used in this article means computer programs, computer data bases, and documentation thereof.

- (b) The Authority or its designated representative shall have the right to use, duplicate or disclose technical data, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so that is contained in or derived from:
 - (1) Any manuals, instructional materials prepared for installation, operation, maintenance or training purposes;
 - (2) Technical data pertaining to end items, components or processes that were prepared for the purpose of identifying sources, sizes, configurations, mating and attachment characteristics, functional characteristics and performance requirements ("form, fit and function" data such as , specification control drawings, catalog sheets, and outline drawings Except for the computer software, it means data identifying sources, functional characteristics, and performance requirements, but specifically excludes the source code, algorithms, processes, formulae, and flow charts of the software.);
 - (3) Other technical data that the Contractor or subcontractor , normally furnishes without restriction;
 - (4) Other specifically described technical data that the parties have agreed will be furnished without restriction;
 - (5) All computer software regardless of whether it is technical data as defined in this article, including the source code, algorithms, processes, formulae, and flow charts, that the Contractor developed or materially modified for the Authority or for which the Authority is required by Federal law or regulation to provide a royalty-free, irrevocable and nonexclusive license to the Federal government.

- (c) The Authority shall have the right to use, duplicate, or disclose technical data other than as defined in paragraph (a), in whole or in part. Such technical data shall not, without the written permission of the party furnishing such technical data, be:
 - (1) Released or disclosed, in whole or in part, outside of the Authority,
 - (2) Used, in whole or in part, by the Authority for manufacturing, or
 - (3) Used by a party other than the Authority except for: (i) emergency repair or overhaul, (ii) where the item or process concerned is not otherwise reasonably available to the Authority to enable timely performance of this work, or (iii) administration of this Contract or the inspection of any products produced under it, where the third party has a written contract with the Authority to perform these efforts. In all cases described in this subsection, the release or disclosure outside of the Authority shall be subject to a nondisclosure agreement.

- (d) Technical data provided in accordance with paragraph (c) shall be identified with a legend that suitably recites this limitation. This article shall not impair the Authority's right to use similar or identical data acquired from other sources.

- (e) Where any item is purchased as a separate line item in this Contract, that purchase includes all integral parts of that item, including any computer software, source code, algorithms, processes, formulae, and flow charts. The Authority has full rights to use, duplicate or disclose any or all parts of the item, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so. Should disclosure of the computer software be required only under this paragraph, then the Contracting Officer may waive the provisions of this paragraph if he or she certifies in writing that the item is commercially available from multiple sources and will be fully compatible with existing Authority property.
- (f) Material covered by copyright:
 - (1) The Contractor grants to the Authority, and to its Board members, agents and employees acting within the scope of their official duties, a royalty-free, nonexclusive and irrevocable license throughout the world for the Authority's purposes to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others so to do, all technical data and computer software covered by subsection (b) (5) now or hereafter covered by copyright.
 - (2) No such copyrighted matter shall be included in (i) technical data or (ii) computer software covered by subsection (b) (5) furnished hereunder without the written permission of the copyright owner for the Authority to use such copyrighted matter in the manner above described.
 - (3) The Contractor shall report to the Authority promptly and in reasonable written detail each notice or claim of copyright infringement it receives regarding any technical data or computer software covered by subsection (b)(5) provided to the Authority.
- (g) Relation to patents: Nothing contained in this article shall imply a license to the Authority under any patent, or be construed as affecting the scope of any license or other right otherwise granted to the Authority under any patent.
- (h) Any dispute under this article shall be subject to the "Disputes" article of this Contract.
- (i) The Contracting Officer may retain from payment up to ten percent (10%) of the Contract price until final delivery and acceptance of the technical data defined in this Article and as required to be furnished by the Price Schedule or the Contract's specifications.

5. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT [SUPPLIES]

- (a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on this Contract once the Contractor is notified thereof.
- (b) In the event of any claim or suit against the Authority based on any alleged patent or copyright infringement arising out of this Contract or out of the use of any supplies furnished or services performed hereunder, the Contractor shall furnish to the

Contracting Officer, all evidence and information in its possession pertaining to such suit or claim. Such evidence and information shall be furnished at the Contractor's expense since the Contractor has agreed to indemnify the Authority for such infringement claims.

(c) This article shall be included in all subcontracts.

6. ROYALTY INFORMATION

Not Applicable

CHAPTER IX – ADDITIONAL COVENANTS/LEGAL REQUIREMENTS

1. NONDISCRIMINATION ASSURANCE- FTA

- (a) *Nondiscrimination Assurance.* In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. §2000 (d), section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. §6102, section 202 of the American with Disabilities Act of 1990, 42 U.S.C. §12132, D.C. law and Federal transit law at 49 U.S.C. §5332, the Contractor, sub-recipient, or subcontractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, religion, national origin, sex, age, sexual preference, gender identity and/or disability. In addition, the Contractor, sub-recipient, or subcontractor agrees to comply with applicable Federal implementing regulations and other regulations that FTA may issue.
- (b) *Equal Employment Opportunity.* The following equal employment opportunity requirements apply to this Contract:
- (1) *Race, Color, Creed, National Origin, Sex.* In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. §2000(e), and Federal transit laws at 49 U.S.C. §5332, the Contractor agrees to comply with all applicable equal opportunity requirements of the U.S. Department of Labor (U.S. DOL) including, but not limited to "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Part 60 *et. seq.*, [implementing 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. § 2000(e) 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 this Contract. 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 that FTA may issue.
- (2) *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 that FTA may issue.
- (3) *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 that FTA may issue.

- (c) The Contractor also agrees to include all of 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.
- (d) Failure by the Contractor, sub-recipient, or subcontractor to carry out these requirements is a material breach of this Contract, that may result in the termination or such other remedy as the Authority deems appropriate.

2. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT- OVERTIME COMPENSATION

This Contract, to the extent that it is of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), is subject to the following provisions and to all other applicable provisions and exceptions of such Act and the regulations of the U.S. Secretary of Labor thereunder.

- (a) *Overtime requirements.* No Contractor or subcontractor contracting for any part of the Contract work that may involve the employment of laborers, mechanics, apprentices, trainees, watchmen, and guards shall require or permit any such employee in any workweek in which he or she is employed to work in excess of forty (40) hours in such work week on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such employee receives compensation at a rate not less than one and one-half (1 ½) times his or her basic rate of pay for all hours worked in excess of forty (40) hours in such work week.
- (b) *Violation.* Liability for Unpaid Wages - Liquidated damages. In the event of any violation of paragraph (a) the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for his or her unpaid wages. In addition, such Contractor and subcontractor shall be liable to the Authority for liquidated damages. Liquidated damages shall be computed with respect to each individual laborer, mechanic, apprentice, trainee, watchman or guard employed in violation of paragraph (a) in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of his or her standard work week of forty (40) hours without payment of the overtime wages required by paragraph (a).
- (c) *Withholding for unpaid wages and liquidated damages.* The Contracting Officer may withhold from the Contractor, such sums as he or she determines to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in paragraph (b).
- (d) *Subcontracts.* The Contractor shall insert this article in all subcontracts at any tier. Contractor shall also require subcontractors to include this clause in any lower tier subcontracts. The Contractor shall be responsible for compliance by any and all subcontractors at every tier.

- (e) *Records.* The Contractor shall maintain payroll records containing the information specified in 29 C.F.R. § 516.2(a). Such records shall be preserved for three (3) years from the completion of this Contract.

3. WALSH-HEALEY PUBLIC CONTRACTS ACT

If this Contract is for materials, supplies, or equipment in an amount that may exceed \$10,000 and is subject to the Walsh-Healey Public Contracts Act, as amended (41 U.S.C. §§ 35-45) the following terms and conditions apply:

- (a) All stipulations required by the Act and regulations issued by the U.S. Secretary of Labor (41 C.F.R. Part 50) are incorporated by reference. These stipulations are subject to all applicable rulings and interpretations of the U.S. Secretary of Labor that are now, or may hereafter, be in effect.
- (b) All employees whose work relates to this Contract shall be paid not less than the minimum wage prescribed by the U.S. Secretary of Labor (41 C.F.R. § 50-202.2). Learners, student learners, apprentices, and certain handicapped workers may be employed at less than the prescribed minimum wage (41 C.F.R. § 50-202.3) to the same extent that such employment is permitted under Section 14 of the Fair Labor Standards Act (41 U.S.C. § 40).

4. DAVIS-BACON ACT- FTA

- (a) Under 49 U.S.C. § 533(a), Davis-Bacon Act prevailing wage protections apply to laborers and mechanics employed on FTA assisted construction, alteration or repair projects in excess of \$2,000.00, The Davis-Bacon Act requires that the Contractor pay wages to laborers and mechanics at a rate of not less than the minimum wages specified in the wage determinations made by the U.S. Secretary of Labor, at least one (1) time per week, without subsequent deductions or rebate on any account, except such payroll deductions as permitted by the U.S. Secretary of Labor. The Contractor understands that Contract award is conditioned upon its acceptance of U.S.DOL's prevailing wage determinations that are attached to the solicitation. The Contractor agrees to comply with the Davis-Bacon Act, 40 U.S.C. § 3141, *et. seq.* and implementing DOL regulations "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction. 29 C.F.R. Part 5.
- (b) WMATA may upon its own action or upon written request of an authorized representative of the U.S. Department of Labor, withhold or cause to be withheld from the Contractor under this Contract, or any other Federal contract that the Contractor has with WMATA, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, so much of the accrued payments or advances as may be necessary to pay laborers and mechanics, including apprentices, trainees, and helpers employed by the Contractor or any subcontractor, the full amount of the wages required by this Contract. In the event that the Contractor fails to pay any laborer or mechanic, including any apprentice, trainee or helper employed or working on the jobsite, all or part of the wages

required by this Contract, WMATA may, after written notice to the Contractor, suspend further payments or advances or guarantees until such violations have ceased.

- (c) The Contractor shall maintain payrolls and basic records relating thereto during this Contract and for three (3) years thereafter. The Contractor shall submit weekly for each week in which any Contract work is performed, a copy of all payrolls to the COTR, for transmission to FTA. The payrolls shall contain all information required by 29 C.F.R. Part 5. Each payroll submitted shall be accompanied by a "Statement of Compliance" signed by the Contractor or subcontractor. Falsification of any required certification may subject the Contractor or subcontractor to criminal prosecution or a civil suit pursuant to 18 U.S.C. § 1001 and/or 31 U.S.C. § 23, respectively. The Contractor or subcontractor shall make the records required under this article available to authorized representatives of FTA or U.S. DOL and shall permit such representatives to interview employees during working hours on the jobsite. If the Contractor or subcontractor fails to submit the required records or make them available, the Federal agency may take further action to cause the suspension of payments, advances or guarantee of funds. Failure to submit the required records may be grounds for suspension or debarment.
- (d) The Contractor or subcontractor shall insert the clauses contained in 29 C.F.R. § 5.5(a) and such other clauses that FTA may require in all subcontracts issued hereunder. The Contractor shall require subcontractors to include these clauses in lower tier subcontracts. The Contractor will be responsible for the compliance by any subcontractor with all of the clauses contained in 29 C.F.R. § 5.5.
- (e) Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general "Disputes" article of this Contract. Such disputes shall be resolved in accordance with U.S. Department of Labor procedures set forth in 29 C.F.R. parts 5, 6 and 7. Disputes within the meaning of this article include disputes between the Contractor (or any of its subcontractors) and WMATA, the U.S. Department of Labor or any of its employees or representatives.
- (f) By entering into this Contract, the Contractor certifies that neither it nor any person or firm who has an interest in the Contractor's firm is a person or firm that is ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis- Bacon Act of 29 C.F.R. § 512.

5. COPELAND ANTI-KICKBACK ACT – FTA

- (a) The Contractor agrees to comply with section 1 of the Copeland "Anti-Kickback Act," 18 U.S.C. § 874 that prohibits anyone from inducing, by any means, any person employed on construction, prosecution, completion or repair of a Federally assisted building or work, to give up any part of his or her compensation to which he or she is entitled. Contractor further agrees to comply with section 2 of the Act, 40 U.S.C. § 3145, as amended, and implementing U.S. DOL regulations, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part, by Loans or Grants from the United States." Contractor agrees to comply with 29 C.F.R. Part 3 which imposes record keeping requirements for all such contracts in excess of \$2,000.

- (b) Contractor shall insert this clause in all subcontracts, and require that subcontractors insert this clause in any and all of their subcontracts, at any tier.

6. CONVICT LABOR

- (a) Except as provided in paragraph (b), the Contractor shall not employ in the performance of this Contract any person undergoing a sentence of imprisonment imposed by any court of the Federal Government, a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam or the U.S. Virgin Islands.
- (b) The Contractor is not prohibited from employing persons:
 - (1) On parole or probation to work at paid employment during the term of their sentence;
 - (2) Who have been pardoned or who have served their terms; or
 - (3) Confined for violation of the laws of the Federal Government, the states, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if—
 - (a) The worker is paid or is in an approved work or training program on a voluntary basis;
 - (b) Representatives of the local union's central bodies or similar labor union organizations have been consulted;
 - (c) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades where there is a surplus of available gainful labor in the locality, or impair existing contracts or services;
 - (d) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality where the work is being performed; and
 - (e) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

7. COVENANT AGAINST CONTINGENT FEES

- (a) The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide, established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach of this warranty, the Authority shall have the right to terminate this Contract without liability or, in its discretion, to deduct from the Contract price, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee, if no fraud is suspected.
- (b) If fraud is suspected, the Authority's only remedy prior to final adjudication by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any agency providing funding under

this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

8. SEAT BELT USE POLICY

The Contractor agrees to comply with terms of Executive Order No. 13043 "Increasing Seat Belt Use in the United States" and is encouraged to include these requirements in each subcontract awarded for work relating to this Contract.

9. SENSITIVE SECURITY INFORMATION

The Contractor must protect, and take measures to assure that its subcontractors at each tier protect, "sensitive information" made available during the course of administering an Authority contract or subcontract in accordance with 49 U.S.C. § 40119(b) and implementing U.S.DOT regulations, "Protection of Sensitive Security Information," 49 C.F.R. Part 15, and with 49 U.S.C. § 114(s) and implementing Department of Homeland Security regulations, "Protection of Sensitive Security Information," 49 C.F.R. Part 1520.

10. LAWS AND REGULATIONS

The Contractor shall be responsible to comply with any applicable State of Maryland, Commonwealth of Virginia, District of Columbia, Federal and local laws and regulations governing the services and/or supplies to be provided under this Contract. Further, the Contractor shall be responsible to obtain, at its own cost and expense, any and all licenses/permits required to transact business in any political jurisdictions where work will be performed.

11. HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA

- (a) The Contractor agrees to submit a Material Safety Data Sheet (U.S. Department of Labor Form OSHA-20), as prescribed in Federal Standard No. 313B, for all hazardous materials five (5) days before delivery of the material, whether or not listed in Appendix A of the Standard. This obligation applies to all materials delivered under this Contract that involve exposure to hazardous materials or items containing these materials.
- (b) "Hazardous material," as used in this clause, is defined in Federal Standard No. 313B, in effect on the date of this Contract.
- (c) Neither the requirements of this clause nor the Authority's acts or omissions shall relieve the Contractor of any responsibility or liability for the safety of Authority's, personnel or property.
- (d) Nothing contained in this article shall relieve the Contractor from complying with applicable Federal, state, and local laws, codes, ordinances, and regulations (including the requirement to obtain licenses and permits) in connection with hazardous materials.
- (e) The Authority's rights in data furnished under this Contract regarding hazardous materials are as follows:

- (1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to (a) apprise personnel of the hazards that they may be exposed to in using, handling, packaging, transporting, or disposing of hazardous materials (b) obtain medical treatment for those affected by the materials; and (c) have others use, duplicate, and disclose the data for the Authority for these purposes.
- (2) To use, duplicate, and disclose data furnished under this article in precedence over any other provision of this Contract providing for rights in data.
- (3) The Authority is not precluded from using similar or identical data acquired from other sources.
- (4) The data shall not be duplicated, disclosed, or released outside of the Authority, in whole or in part, for any acquisition or manufacturing purpose, if the following legend is marked on each piece of data to which this clause applies -

"This data furnished under this Contract shall not be used, duplicated, or disclosed for any acquisition or manufacturing purpose without the Contracting Officer's permission. This legend shall be marked on any reproduction of this data."
- (5) The Contractor shall not place any restrictive legend on any data that (i) the Contractor or any subcontractor previously delivered to the Authority without limitations; or (ii) should be delivered without limitations under the "Rights in Technical Data" clause.
- (6) The Contractor shall insert this article including this paragraph, with appropriate changes in the designation of the parties, in subcontracts at any tier (including purchase designations or purchase orders) under this Contract involving hazardous materials.

12. **LIVING WAGE**

- (a) The Authority's Living Wage Policy and implementing regulations apply with respect to all contracts for services (including construction) awarded in an amount that exceeds \$150,000 in a twelve (12) month period. If this Contract meets those criteria, the following requirements are applicable:
- (b) The Authority's living wage rate is \$13.85 per hour, and may be reduced by the Contractor's per-employee cost for health insurance.
- (c) The Contractor shall:
 - (1) Pay the Authority's living wage rate, effective during the time the work is performed, to all employees who perform work under this Contract;
 - (2) Include this "Living Wage" article in all subcontracts that exceed \$150,000 in a twelve (12) month period awarded under this Contract;

- (3) Maintain payroll records, in accordance with the requirements of this Contract, and include a similar provision in affected subcontracts that requires the subcontractor to maintain its payroll records for the same length of time; and
 - (4) Certify with each monthly invoice that the Authority's living wage rate was paid to affected employees, or if applicable, certify prior to Contract award or Contract extension, if any, that one or more of the exemptions in paragraph (d) below applies.
 - (5) The Contractor shall not split or subdivide this Contract, pay an employee through a third party, or treat an employee as a subcontractor or independent contractor to avoid compliance with this "Living Wage" article
- (d) Exemptions to this "Living Wage" article include:
- (1) Contracts and agreements subject to higher wage rates required by Federal law or collective bargaining agreements;
 - (2) Contracts or agreements for regulated utilities;
 - (3) Emergency services to prevent or respond to a disaster or imminent threat to public health and safety;
 - (4) Contractor employees who work less than full time; and
 - (5) Contractors who employ fewer than ten (10) employees.
- (e) The Authority may adjust the living wage rate effective in January of each year. The adjustment will reflect the average living wage rate among Metro's Compact jurisdictions with living wage rates. If after Contract award the living wage rate increases, the Contractor is entitled to an equitable adjustment to the Contract price in the amount of the increase for employees who are affected by the escalated wage.
- (f) Failure to comply with the Authority's Living Wage Policy shall result in the Authority's right to exercise available contract remedies, including contract termination, where no fraud is suspected.
- (g) If fraud is suspected, the Authority's only remedy prior to adjudication by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

13. METRIC SYSTEM

To the extent the Federal Government directs, the Contractor agrees to use the metric system of measurement in its Contract activities, in accordance with the Metric Conversion Act, as amended by the Omnibus Trade and Competitiveness Act, 15 U.S.C. § 205 (a) *et. seq.*; Executive Order No. 12770, "Metric Usage in Federal Government Programs," 15 U.S.C. § 205(a) note; and applicable U.S. DOT or FTA regulations in accordance with applicable Federal directives. As practicable and feasible, the Contractor agrees to supply products and services with dimensions expressed in the metric system of measurement. Metric usage shall not be required to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms.

14. MANDATORY DISCLOSURE

The Contractor shall timely disclose, in writing, to WMATA's Office of the Inspector General (OIG), with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of this Contract or any subcontract hereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed—

- (a) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or
- (b) A violation of the civil False Claims Act (31 U.S.C. §§ 3729-3733).
 - (1) WMATA, to the extent permitted by law and regulation, will safeguard and treat information obtained pursuant to the Contractor's disclosure as confidential where the information has been marked "confidential" or "proprietary" by the company. To the extent permitted by the law and regulation, such information will not be released by WMATA to the public pursuant to a Public Access to Records (PARP) request. WMATA may transfer documents provided by the Contractor to any department or agency within the state, Federal or local government, if the information relates to matters within the organization's jurisdiction.
 - (2) If the violation relates to an order against a government-wide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the Contractor shall notify the OIG of the ordering agency and the OIG of the agency responsible for the basic contract.

15. WHISTLEBLOWER PROTECTION – FEDERAL

- (a) The Contractor and its subcontractors shall encourage their employees and independent contractors to report information without fear of actual or threatened discrimination, retaliation or reprisal that they in good faith reasonably believe is evidence of gross mismanagement; gross misuse or waste of public resources or funds; fraud; violation of law; abuse of authority in connection with the conduct of WMATA operations or contracts; or a substantial and specific danger to health, security or safety. The Contractor and its subcontractors shall notify their employees that they may make reports under this paragraph to:
 - (1) WMATA's Office of Inspector General (OIG), in person, in writing, through the OIG Hotline (888-234-2374) or email wmata-oig-hotline@verizon.net or by any other reasonable means;
 - (2) WMATA's Metro Transit Police Department (MTPD), in person, by telephone (202-962-2121) or by any other reasonable means, or to the OIG, if the information constitutes a potential violation of criminal law;

- (3) WMATA's Chief Safety Officer, in person, in writing, through the SAFE Hotline (202-249-7233) or email safety@wmata.com, or by any other reasonable means; or
 - (4) Any other official, office or agency within WMATA or outside WMATA that the employee or independent contractor reasonably believes has the authority to act on the matter.
- (b) The Contractor, its employees, independent contractors and subcontractors shall cooperate with any inquiry or review by an authorized official of WMATA, or by the Federal government or any other governmental entity with jurisdiction over WMATA, regarding a matter that would constitute a report under paragraph (a) or a violation of this or any whistleblower provision of this Contract, and with any enforcement or judicial proceeding arising from such inquiry or review.
- (c) The Contractor and its subcontractors shall not interfere with or deny the right of any employee or independent contractor of either the Contractor or any of its subcontractors to make a report under paragraph (a). The Contractor and its subcontractors shall not recommend, take or threaten to take any action having a negative or adverse impact on any employee or independent contractor of either the Contractor or any of its subcontractors because he or she:
- (1) Made or is perceived to have made a report under paragraph (a);
 - (2) Sought a remedy under applicable law after making a report under paragraph
 - (3) Participated in or cooperated with an inquiry or review by an authorized official of WMATA, or by the Federal government or any other governmental entity with jurisdiction over WMATA, regarding a matter that would constitute a report under paragraph (a) or a violation of this or any whistleblower provision of this Contract, or with an enforcement or judicial proceeding arising from such inquiry or review;
 - (4) Refused to obey an order that would violate law; or
 - (5) Refused to work or authorize work when a hazardous safety or security condition presents an imminent danger of death or serious injury, there was no reasonable alternative to refusal, there was not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, notified the Contractor or subcontractor of the condition and of his or her intent not to perform or authorize work.
- (d) The Contractor shall include, or shall cause to be included, the substance of this article, including this paragraph (d), in its subcontracts at all tiers.
- (e) The Contractor and its subcontractors shall comply with the National Transit Systems Security Act (NTSSA) 6 U.S.C. §1142, which prohibits discharging, demoting, suspending, reprimanding or in any other way discriminating against an employee as a reprisal for the employee lawfully and in good faith:
- (1) Reporting a hazardous safety or security condition;

- (2) Refusing to work when a hazardous safety or security condition presents an imminent danger of death or serious injury, there is no reasonable alternative to refusal, there is not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, has notified the Contractor or subcontractor of the condition and of his or her intent to not perform work;
 - (3) Refusing to authorize the use of any safety or security related equipment, track or structures, if the individual is responsible for their inspection or repair and reasonably believes they are in a hazardous safety or security condition, there is no reasonable alternative to refusal, there is not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, has notified the Contractor or subcontractor of the condition and of his or her intent not to authorize use of hazardous equipment or infrastructure unless corrected;
 - (4) Providing information for or directly assisting in an investigation of conduct that the individual reasonably believes to be in violation of Federal law regarding safety, security or fraud, waste or abuse of funds intended for safety or security;
 - (5) Refusing to violate or assist in violation of Federal public transportation safety or security law;
 - (6) Cooperating with a safety or security investigation by the U.S. Secretary of Transportation, U.S. Secretary of Homeland Security or the National Transportation Safety Board;
 - (7) Furnishing information to law enforcement agencies relating to an accident or incident resulting in damage to property, injury or death; or
 - (8) Filing a complaint under the NTSSA (6 U.S.C. §1142), or testifying regarding such complaint.
- (f) The Contractor shall notify the Authority of any instance, related to this Contract, of a report under subparagraph (e)(1) or refusal under subparagraphs (e)(2), (3) or (5).
- (g) The enforcement, filing and investigation of complaints, and remedies under this clause shall be governed by the NTSSA (6 U.S.C. §1142), applicable Federal regulations and Federal law.
- (h) This article shall be interpreted in accordance with the NTSSA (6 U.S.C. §1142). If any provision is found to be in conflict with the NTSSA, the NTSSA shall govern.
- (h) The Contractor shall include, or shall cause to be included, this article, including this paragraph, in its subcontracts at all tiers.

16. WORKPLACE VIOLENCE/ZERO TOLERANCE

Pursuant to Metro Policy/Instruction 7.8.3, all Metro Contractors must: (1) establish zero tolerance for acts of workplace violence for their employees and those of subcontractors at

any tier, and (2) not retaliate against any of their employees or independent contractors for cooperating with investigations.

17. DRUG AND ALCOHOL TESTING (FOR SAFETY SENSITIVE FUNCTIONS ONLY) – FTA

- (a) Contractors who perform safety sensitive functions shall be subject to compliance with a drug and alcohol testing program according to Federal guidelines published in FTA regulations. The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 C.F.R. Parts 40 and 655, produce any documentation necessary to establish its compliance with these regulations, and permit any authorized representative of the U.S. Department of Transportation or its operating administrations, applicable state oversight agency, or the Authority to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 C.F.R. Part 655 and review the testing process. The Contractor further agrees as follows:
- (b) To certify its compliance with 49 C.F.R. Parts 40 and 655 and to submit a Management Information System (MIS) report, as required by Federal regulations, to WMATA's Medical Compliance Monitor (MCM) and the Contracting Officer before February 15th of each year. To certify compliance, the Contractor shall use the "Alcohol and Controlled Substances Testing" certification contained in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," that is published annually in the Federal Register.
- (c) To submit to the MCM and the Contracting Officer before February 15th of each year, a copy of the policy statement developed to implement its drug and alcohol testing program.
- (d) To provide to the MCM and the Contracting Officer before February 15th of each year the following:
 - (1) Employee and supervisor training documentation;
 - (2) The name and location of the collection site(s), laboratory(ies), Medical Review Officer(s), Breath Alcohol Technician(s), Collector(s), and Substance Abuse Professional(s); and a description of their random selection drug and alcohol testing process.
- (e) The Contractor further agrees to submit quarterly management reports summarizing test results to the MCM and the Contracting Officer by the 15th of the month following the end of each quarter.
- (f) Contractors are required to flow this clause down to all of their safety sensitive subcontractors and agents.

18. EMPLOYMENT RESTRICTION WARRANTY

- (a) The Contractor warrants that it will not offer employment to, solicit or discuss prospective employment with, or otherwise engage in substantive employment related discussions or communications with, any present or former Board member of

the Authority who has been involved, directly or indirectly, in any matter of financial interest to the Contractor until at least two (2) years after the Board member has ceased involvement in the matter. The post-employment restriction on former Authority employees is one (1) year from the date of their last employment with WMATA. The Contractor shall not knowingly engage in communications of the nature described above with any immediate family member or member of the household of any Authority employee or Board member during the period when such employee or Board member is involved in any matter of financial interest to the Contractor.

- (b) If a former Board member or employee of the Authority is eventually hired, the Contractor shall ensure that the former Board member or employee is not involved in negotiating or otherwise dealing with the Authority on any particular matter over which he or she had responsibility during his or her tenure.
- (c) Should the Contractor fail to comply with the provisions hereof, and no fraud is suspected, the Contracting Officer shall have the right to withhold payment under this Contract in an amount not to exceed two percent (2%) of the total Contract amount as liquidated damages to the Authority, such withholding to be in addition to any other withholding or retainage under this Contract. Any dispute shall be settled in accordance with the "Disputes" clause of this Contract.
- (d) If fraud is suspected, the Authority's only remedy prior to a final decision by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

19. GRATUITIES

- (a) In connection with performance of this Contract, or any changes or modifications relative thereto, the giving of or offering to give gratuities (in the form of entertainment, gifts or otherwise) by the Contractor, or any agent, representative or other person deemed to be acting on behalf of the Contractor, or any supplier or subcontractor furnishing material to or performing work under this Contractor, to any Board member, employee or agent of the Authority; with a view toward securing this Contract or securing favorable treatment regarding this Contract is expressly forbidden. The terms of this "Gratuities" clause shall be strictly construed and enforced in the event of violations hereof.
- (b) Reported instances of the giving or offering to give gratuities within the context of this "Gratuities" article will be investigated by the Authority's Board of Directors or its duly authorized representative. A preliminary investigation will be made to determine whether there is probable cause to suspect that a violation of this article exists. If such probable cause exists, the Board of Directors, or its duly authorized representative, shall formally notify WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

- (c) The rights and remedies of the Authority provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided under this Contract, at law or in equity.

20. OFFICIALS NOT TO BENEFIT

- (a) No member of or delegate to the U.S. Congress, resident commissioner or member of a state or local public body shall be admitted to any share or part of this Contract, or to any benefit that may arise therefrom during his or her tenure or for two (2) years thereafter, unless his or her interest in the business entity that is awarded this Contract is placed in a blind trust in accordance with the rules and regulations of the U.S. Office of Government Ethics (OGE).
- (b) Enforcement of this clause shall be consistent with 18 U.S.C. § 431.

21. ORGANIZATIONAL CONFLICTS OF INTEREST

- (a) An organizational conflict of interest (OCI) exists when the nature of the work to be performed under a proposed contract or a subcontract may, without some restriction on future activities result in an unfair competitive advantage to the Contractor or subcontractor; because of (1) unequal access to information, (2) biased ground rules or (3) impaired objectivity. An unequal access to information OCI may exist if in performing a Contract, a Contractor obtains access to non-public information that provides it with a competitive advantage in a later competition. A biased ground rules OCI may exist if the Contractor has a role in setting rules for a source selection in which it will compete. An impaired objectivity OCI may exist if, in performing a Contract, a Contractor is called upon to evaluate an offer from or performance by, itself or an affiliated entity.
- (b) In the event that the Contractor believes that it or any of its potential subcontractors may have an OCI, it shall notify the Contracting Officer, in writing, within five (5) working days after it becomes aware of the potential or actual OCI. The written notification shall identify the nature and circumstances of the perceived conflict and propose appropriate measures to eliminate or mitigate the OCI. The Contracting Officer will review the circumstances and the proposed mitigation plan and notify the Contractor stating whether: (1) no mitigation is required; (2) the conflict cannot be mitigated; or (3) the conflict can be mitigated and he or she accepts the proposed measures, or recommends additional measures.
- (c) The Contractor's failure to identify such perceived conflicts may result in the Contract being rescinded or terminated.
- (d) Should the Contractor identify or become aware of a conflict during the term of this Contract, including any extension thereof that it could not reasonably anticipate prior to award, it shall notify the Contracting Officer in accordance with paragraph (b), or request an exception to the restriction with supporting rationale. The Contracting Officer shall consider the Contractor's proposed measures to mitigate or eliminate the conflict, or the request for an exception.

- (e) If the proposed measures are not determined to be feasible or are otherwise not acceptable to the Contracting Officer, he or she may terminate this Contract. If the Contracting Officer does not grant a request for an exception, and this Contract is not terminated, the Contractor shall be notified in writing and be given ten (10) days from the date of the written notification to take all necessary actions to comply with this clause.
- (f) If the proposed measures are determined to be acceptable to the Contracting Officer, he or she may grant a specific exception to this restriction, when in the Contracting Officer's judgment, the exception will not create a conflict between the Contractor's duties and obligations under this Contract and the duties and obligations imposed on the Contractor under another contractual or other relationship.
- (g) If the Contractor fails to comply with the terms of this article, and no fraud is suspected, the Contracting Officer, may withhold payments due under this Contract until such time as the Contractor is in compliance or, should the noncompliance remain uncorrected at the expiration of ten (10) days from the Contracting Officer's written notice as provided in paragraph (b), terminate the contract for default pursuant to this Contract.
- (h) If fraud is suspected, the Authority's only remedy prior to a final determination by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.
- (i) The Contractor, in performing this Contract, shall avoid any conduct that might result in or give the appearance of creating for Board members or employees of the Authority in their relationship with the Contractor, any conflicts of interest or favoritism and/or the appearance thereof and shall avoid any conduct that might result in a Board member, or employee failing to adhere to any Code of Ethics or standards of conduct adopted by the Authority's Board of Directors.
- (j) The Contracting Officer's determination under this article shall be final and shall be considered a question of fact within the meaning of the "Disputes" article of this Contract.

22. CONTRACTOR PERSONNEL

- (a) The Authority may direct the replacement of the Contractor's employees reasonably deemed to be unsuitable by the Contracting Officer, or whose continued participation in the work is deemed contrary to the best interests of the Authority. Except in circumstances deemed exigent by the Contracting Officer, the reason for replacement will be discussed between the Contractor and the Authority before a replacement directive is issued. Upon receipt of a written replacement directive from the Authority specifying the date by which the replacement must occur, the Contractor shall proceed with the replacement and shall do so in a manner that minimizes, to the greatest extent practicable, any impact upon the Contract.

- (b) Contractor personnel required to work on WMATA's property must obtain a WMATA vendors' badge and successfully complete the mandatory safety training that must be renewed yearly. The Contractor must advise its affected personnel that, to obtain a vendor's badge, a signed waiver to perform a background check is required.

23. FALSE STATEMENTS, CLAIMS OR SUBMISSIONS

- (a) The Contractor acknowledges its responsibility to undertake its obligations under this publicly funded Contract with full integrity and, to take all reasonable steps to ensure that statements, claims and submissions made pursuant to this Contract are provided in good faith and with a reasonable belief as to their truthfulness, accuracy and completeness.
- (b) In the event that it is finally determined by a court of competent jurisdiction that any statement, claim, submission, or certification made by or on behalf of the Contractor pursuant to a material element of the Contract was knowingly false, fictitious or fraudulent, the Authority shall be entitled to recover from the Contractor, an amount equal to not more than three (3) times the monetary value of the benefit derived or sought to be derived by the Contractor through its false statement, claim or submission. For purposes hereof, an element of the Contract shall be deemed material if it impacted or could reasonably have been intended to impact the disposition of any claim, dispute, proposed or implemented change order, proposed pricing or schedule adjustment of any nature, or other substantive issue directly affecting the rights of the parties under the Contract.
- (c) The Authority's only remedy prior to a final determination by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.
- (d) The Authority's rights set forth in this article are in addition to any contractual, legal or equitable rights that may arise upon the Contractor's submission of a false claim or statement, including without limitation, the Authority's right to terminate the Contract for default once fraud is finally determined by a court of competent jurisdiction. The provisions of this clause shall not serve in any respect to limit, waive or modify any civil or criminal liability, of the Contractor or any of its officers, agents or employees that such conduct may precipitate.

CHAPTER X – MISCELLANEOUS ADDITIONAL PROVISIONS

1. FEDERAL, STATE, AND LOCAL TAXES

- (a) Except as may be otherwise provided in this Contract, the Contract price shall be deemed to include all applicable Federal, state and local taxes and duties.
- (b) If a statute, court decision, written ruling or regulation regarding any Federal excise tax or duty on the transactions or property covered by this Contract takes effect after the Contract date, and:
 - (c) Results in the Contractor being required to pay or bear the burden of any such Federal excise tax or duty or rate increase that would not otherwise have been payable on such transactions or property, the Contract price shall be increased by the amount of such tax or duty or rate increase, if the Contractor warrants in writing that no amount for such newly imposed Federal obligation was included in the Contract price as a contingency reserve or otherwise; or
 - (d) Results in the Contractor not being required to pay or bear the burden of, or in its obtaining a refund or drawback of, any Federal excise tax or duty that would otherwise have been payable on such transactions or property or that was the basis of an increase in the Contract price, the Contract price shall be decreased by the amount of the relief, refund, or drawback, or that amount shall be paid to the Authority, as the Contracting Officer directs. If the Contractor fails to follow the Contracting Officer's instructions, it will be required to pay or bear the burden of, any such Federal excise tax or duty through a decrease in the Contract price.
- (e) Paragraph (b) above shall not be applicable to social security taxes or to any other employment tax.
- (f) No adjustment of less than \$250 shall be made in the Contract price pursuant to paragraph (b).
- (g) As used in paragraph (b), the term "Contract date" means the date the Contract was executed by the Authority. As to additional services, supplies or construction procured by modification to this Contract, the term "Contract date" means the effective date of such modification.
- (h) The Contractor shall promptly notify the Contracting Officer of matters that may result in either an increase or decrease in the Contract price under this clause and shall take action as the Contracting Officer directs. The Authority shall be entitled to a reduction in the Contract price reflecting such amount and a refund of monies paid related to such taxes, plus applicable interest.

2. PUBLIC COMMUNICATION

The Contractor shall not issue communications to the media, place advertisements, nor publicize through any means the services, goods or construction that it is providing to WMATA under this Contract, without prior written consent of the Contracting Officer. The

Contractor shall not publish, in print or online, any communications products such as newsletters, press releases, blogs or other communications without the Contracting Officer's prior, written consent. Approval of any such requests shall be at the Contracting Officer's sole discretion.

3. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

- (a) This Contract shall be deemed to be executed in the District of Columbia, regardless of the domicile of the Contractor and shall be governed by and construed in accordance with the laws of the District of Columbia except to the extent, if any, superseded by Federal law.
- (b) The parties agree that any and all claims asserted by or against the Authority arising hereunder or related hereto shall be heard and determined either in the courts of the United States located in the District of Columbia, the State of Maryland or the Commonwealth of Virginia or in the courts of the District of Columbia, State of Maryland or Commonwealth of Virginia that maintain jurisdiction over such claims and where venue properly resides.

4. SEVERABILITY

If the Contract contains any unlawful provisions, the same shall be deemed of no effect, and shall upon the application of either party be stricken from the Contract without affecting the binding force of the Contract as it shall remain after omitting such provision.

5. SURVIVAL

Any provision expressly set forth as surviving the expiration or termination of this Contract, shall be deemed to survive any such expiration or termination.

CHAPTER XI – ADDITIONAL FEDERAL PROVISIONS

1. NOTIFICATION OF FEDERAL PARTICIPATION- FTA

This project is being funded in whole or part with Federal funds.

2. ALL NECESSARY FEDERAL PROVISIONS DEEMED INCLUDED- FTA

It is the intent of the parties that each and every provision of law required to be inserted in this Contract should be and is hereby inserted herein.

3. ACCESS TO THIRD PARTY CONTRACT RECORDS- FTA

(a) The Contractor agrees to provide the Authority, the FTA Administrator, the U.S. Comptroller General 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. The Contractor also agrees, pursuant to 49 C.F.R. §633.17 to provide FTA Administrator or his or her authorized representatives including any Project Management Oversight (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) 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.

(c) The Contractor agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three (3) years after the date of termination or expiration of this Contract. In the event of litigation or settlement of claims arising from the performance of this Contract, the Contractor agrees to maintain such records until the Authority, the FTA Administrator, the U.S. Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. [See 49 C.F.R. § 18.39(i)(11)].

4. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY – FTA

(a) The Contractor agrees that it will operate public transportation services in compliance with 42 U.S.C. § 12101 *et seq.*; DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)" using facilities and equipment that comply with 49 C.F.R. Part 37; and Joint ATBCB/DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38. Private entities must comply with the requirements of 49 C.F.R. Part 37 applicable to public entities with which they contract to provide public transportation services.

(b) Facilities to be used in public transportation service must comply with 42 U.S.C. § 12101 *et seq.*; DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37; and Joint ATBCB/DOT regulations,

“Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles,” 36 C.F.R. Part 1192 and 49 C.F.R. Part 38.

5. RIGHTS IN DATA AND COPYRIGHTS — FTA

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

- (b) The following restrictions apply to all subject data first produced in the performance of this contract:
 - (1) Except for its or WMATA's own internal use, the Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Contractor authorize others to do so, without the written consent of the U.S. 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, does not apply to agreements with academic institutions;

 - (2) In accordance with 49 C.F.R. § 18.34 and 49 C.F.R. § 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, the following subject data for its purposes:
 - (i) Any subject data developed under this contract whether or not a copyright has been obtained; and

 - (ii) Any rights of copyright to which the contractor purchases ownership with Federal assistance.

- (c) When the Federal Transit Administration (FTA) provides financial assistance for a planning, research, development, or a demonstration project, it is FTA's general intention to increase mass transportation knowledge, rather than limit the benefits to participants in the project. Therefore, unless FTA determines otherwise, the Contractor agrees that, in addition to the rights set forth in subsection (b)(2) of this article, FTA may make available to any FTA recipient, sub-recipient, third party contractor, or third party subcontractor, either FTA's license in the copyright to the subject data derived under this Contract or a copy of the subject data first produced under this Contract. If this Contract is not completed for any reason whatsoever, all data developed under this Contract shall become subject data as defined in subsection (a) and shall be delivered as the Federal Government may direct.

- (d) Unless prohibited by state law, the Contractor agrees to indemnify, save, and hold harmless WMATA and the Federal Government, their officers, agents, and employees acting within the scope of their official duties against any liability,

including costs and expenses, resulting from the Contractor's willful or intentional violation 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 Contract. The Contractor shall not be required to indemnify WMATA and the Federal Government for any such liability arising out of the wrongful acts of their employees or agents.

- (e) Nothing contained in this article shall imply a license to WMATA or the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to WMATA or the Federal Government under any patent.
- (f) The requirements of paragraphs (b) and (c), do not apply to material furnished by the Authority to the Contractor and incorporated in the work carried out under the contract provided that the Contractor identifies the incorporated material at the time of delivery of the work.
- (g) Any dispute arising under this article shall be subject to the "Disputes" article of this Contract.
- (h) Notwithstanding any other payment provision in this Contract, the Contracting Officer may retain from payments due and owing the Contractor up to 10 percent (10 %) of the contract price until final delivery and acceptance of the subject data defined in this article and as required to be furnished by the Price Schedule or the Contract's specifications.

6. PATENT RIGHTS – FTA

- (a) Depending on the nature of the project, the Federal Government may acquire patent rights when the Contractor produces a patented or patentable invention, improvement or discovery. The Federal Government's rights arise when the patent or patentable information is conceived, or first reduced to practice. When a patent is issued or patentable information becomes available, the Contractor will report the same to the Authority, to enable it to notify FTA and provide a detailed report satisfactory to FTA.
- (b) Unless the Federal Government determines otherwise in writing, regardless of the status of any contractor, WMATA will transmit the Federal Government's patent rights to FTA as specified in 35 U.S.C. § 200, *et. seq.* and the Department of Commerce's regulations "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts, and Cooperative Agreements," 37 C.F.R. Part 401.

7. BUY AMERICA ACT- FTA

- (a) The Buy America Act requirements apply to the following types of contracts: construction contracts, the acquisition of goods or rolling stock valued at more than \$150,000.00³

³ If the federal grant that funds this procurement was issued prior to 12/2014, then this amount is \$150,000.00.

- (b) 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 fifteen (15) passenger vans and fifteen (15) passenger wagons produced by the 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 sixty-five percent (65%) domestic content.
- (c) Contractor is responsible for flowing down these requirements to subcontractors at every tier. The dollar threshold only applies to the prime contract. All subcontracts thereunder are subject to the Buy America Act requirements.
- (c) An offeror must submit to WMATA the appropriate Buy America Act certification with all offers on FTA funded contracts, except those subject to a general waiver. Offers that are not accompanied by the appropriate Buy America Act certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

8. PRE-AWARD AND POST DELIVERY AUDIT REQUIREMENTS – FTA

The Contractor agrees to comply with 49 U.S.C. § 5323(l) and FTA's implementing regulations at 49 C.F.R. Part 663 and to submit the following certifications:

- (a) *Buy America Act Requirements.* The Contractor shall complete and submit a declaration certifying either compliance or noncompliance with the Buy America Act. If the offeror certifies compliance with the Buy America Act, it shall submit documentation that lists 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and cost; 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.
- (b) *Solicitation Specification Requirements.* The Contractor shall submit evidence that it will be capable of meeting the proposed specifications.
- (c) *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 vehicles will not be subject to FMVSS regulations.

9. CHARTER BUS REQUIREMENTS- FTA

Not Applicable

10. SCHOOL BUS REQUIREMENTS- FTA

Not Applicable

11. BUS TESTING- FTA

Not Applicable

12. CARGO PREFERENCE- FTA

The Contractor agrees:

- (a) To utilize privately owned United States flag commercial vessels to ship at least fifty percent (50%) of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to this Contract if such vessels are available at fair and reasonable rates for United States flag commercial vessels;
- (b) To furnish within twenty (20) working days following the date of loading for shipments originating within the United States, or within thirty (30) working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a) above to WMATA (through the Contractor in the case of a subcontractor's bills-of-lading) and to the Office of Cargo Preference, Maritime Administration (MAR-590), 400 Seventh Street SW, Washington, DC 20590;
- (c) To include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, material, or commodities by ocean liner.

13. CLEAN AIR ACT- FTA

- (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. §§ 7401-7671. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.
- (b) The Contractor will comply with U.S. EPA Regulations "Control of Air Pollution from Mobile Sources," 40 C.F.R. Part 85; "Control of Emissions from New and In-Use Highway Vehicles and Engines," 40 C.F.R. Part 86; "Fuel Economy and Greenhouse Gas Exhaust Emissions of Motor Vehicles," 40 C.F.R. Part 600, as well as any applicable State Implementation Plans (SIP), and EPA regulations "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs and Projects Developed, Funded or Approved Under Title 23 U.S.C. or Federal Transit Laws" 40 C.F.R. Part 93, along with other applicable Federal regulations.
- (c) Flow-down requirement. The Contractor also agrees to include this article in each subcontract exceeding \$150,000 financed, in whole or in part, with Federal assistance provided by FTA.

14. CLEAN WATER ACT- FTA

- (a) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Water Act, as amended, 33 U.S.C. §§1251-1377. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- (b) The Contractor will protect underground sources of drinking water in compliance with the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. §§300 (f)-(j).
- (c) The Contractor will comply with the notice of violating facility provisions in section 508 of the Clean Water Act, as amended, 33 U.S.C. § 1368.
- (d) The Contractor will facilitate compliance with Executive Order 11738, "Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants or Loans," 42 U.S.C. §7606 note.
- (e) Flow-down requirement. The Contractor also agrees to include this clause in each subcontract exceeding \$150,000 financed, in whole or in part, with Federal assistance provided by FTA.

15. RECOVERED MATERIALS/ RECYCLED PRODUCTS- FTA

- (a) 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 C.F.R. Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.
- (b) Flow-down requirement. The Contractor also agrees to include these requirements in each subcontract financed, in whole or in part, with Federal assistance provided by FTA.

16. RETAINAGE

- (a) *Alternate Security in lieu of Retainage.*
Not Applicable
- (b) *Final Payment Only Retainage.*
Not Applicable
- (c) *No Retainage.* No provision of this Contract shall serve to deny Contractor's entitlement to full payment for properly performed work or suitably stored materials. No amounts shall be withheld from any payment request submitted by Contractor based on percentage of the work performed during the period of performance and no

amounts shall be assigned to the line items, other than as assigned by Contractor in its payment requests.

17. ENERGY CONSERVATION- FTA

- (a) The Contractor agrees to comply with mandatory standards and policies relating to the energy efficiency which are contained in the applicable state energy conservation plan issued in compliance with the National Energy Policy and Conservation Act, as amended, 42 U.S.C. § 6321, *et. seq.*
- (b) The Contractor agrees to perform an energy assessment for any building constructed, reconstructed or modified with FTA funds as required under FTA regulations, "Requirements for Energy Assessments." 49 C.F.R. Part 622.
- (c) The Contractor must include this clause in all subcontracts and sub-agreements at every tier.

18. CHANGES TO FEDERAL REQUIREMENTS- FTA

- (a) Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Agreement (Form FTA MA (22) dated October 1, 2015) between the Authority and FTA, as they may be amended or promulgated during the term of this Contract. Contractor's failure to so comply shall constitute a material breach of this Contract.
- (b) Flow-down requirement. The Contractor agrees to include this Article in each subcontract financed in whole or in part with Federal Assistance provided by FTA. It is further agreed that the Article shall not be modified, except to identify the subcontractor who will be subject to its provisions.

19. FLY AMERICA REQUIREMENTS- FTA

- (a) The Contractor agrees to comply with 49 U. S. C. § 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 C.F.R. § 301-10, which provide that recipients and sub-recipients of Federal funds and their contractors are required to use U. S. Flag carriers for U. S. Government financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. If a foreign air carrier was used, the Contractor shall submit an appropriate certification or memorandum adequately explaining why service by a U. S. flag carrier was not available or why it was necessary to use a foreign air carrier and shall provide a certificate of compliance with the Fly America requirements.
- (b) Flow-down requirement. The Contractor agrees to include the requirements of this article in all subcontracts that may involve international air transportation.

20. PAYMENT DEDUCTIONS - NONCOMPLIANCE WITH DBE REQUIREMENTS- FTA

- (a) For Federally funded contracts that exceed \$150,000 and to which the Disadvantage Business Enterprise (DBE) Requirements (Appendix B) apply, the failure to perform in accordance with requirements of Appendix B may result in a partial or full suspension of payment, including progress payments, if applicable.
- (b) If the Contractor is found to be in noncompliance with the DBE requirements of Appendix B, the progress of the work shall also be deemed to be unsatisfactory, and an amount equal to the DBE participation in the Contract shall be retained from payment (or progress payments, if any) made to the Contractor.
- (c) If the contract value is over \$150,000, the prime contractor will be responsible for submitting a monthly report of the status of its DBE subcontractors as outlined in Appendix B to the Contracting Officer.
- (d) If the Contractor fails to submit the required monthly DBE reports, the Contracting Officer may suspend payment (or progress payments) until such time as the monthly reports are submitted and accepted by the Authority.

21. GOVERNMENT-WIDE DEBARMENT OR SUSPENSION- FTA

- (a) The Contractor is bound by its certification contained in its offer to the Authority that neither the Contractor its principals, or affiliates, are excluded or disqualified, from Federal contracting. The certification is a material representation of fact, relied upon by the Authority in entering into this Contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, in addition to remedies available to the Authority, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Contractor agrees to comply with the requirements of 2 C.F.R, part 180, subpart C as adopted and supplemented by U.S. DOT regulations at 2 C.F.R, part 1200 "Nonprocurement Suspension and Debarment," including any amendments thereto, Executive Orders Nos. 12549 and 12689 "Debarment and Suspension" 31 U.S.C. § 6101 note, and other applicable Federal laws, regulations or guidance regarding participation with debarred or suspended contractors throughout the term of this Contract.
- (b) Flow-down requirement. The Contractor agrees to include this article in all subcontracts at all tiers under this Contract requiring lower tier contractors to comply with Federal suspension and debarment requirements, and review the System for Award Management (SAM) at www.sam.gov in order to comply with U.S. DOT regulations at 2 C.F.R, Part 1200 prior to awarding any subcontract under this Contract.

22. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

- (a) The preceding provisions include, in part, certain standard terms and conditions required by the U.S. Department of Transportation (DOT), whether or not expressly set forth in other Contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F and FTA Master Agreement (23) October 1, 2016 or any revision thereto, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all DOT or FTA mandated terms shall be deemed to

control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any of the Authority's requests that would cause the Authority to be in violation of the FTA terms and conditions.

- (b) Flow-down requirement. The Contractor agrees to include this 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 the provisions.

23. NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES- FTA

- (a) The Authority and the Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of this Contract, absent the express written consent by the Federal Government, it is not a party to this Contract and shall not be subject to any obligations or liabilities to the Authority, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from this Contract.
- (b) Flow-down requirement. The Contractor agrees to include this 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.

24. FALSE STATEMENTS OR CLAIMS CIVIL AND CRIMINAL FRAUD- FTA

- (a) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U. S. C. § 3801 *e.t seq.* and U. S. DOT Regulations, "Program Fraud Civil Remedies," 49 C.F. R. Part 31, apply to its actions pertaining to this Contract. Upon execution of this Contract, the Contractor certifies and affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to this Contract or FTA assisted project for which this Contract 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 that it 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) Flow-down requirement. The Contractor agrees to include this 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 the provisions.

25. LOBBYING- FTA

- (a) The Contractor agrees that it will not use Federal funds to influence any officer or employee of a Federal agency, member of Congress or an employee of a member of Congress or an officer or employee of Congress on matters that involve this Contract or the underlying grant or agreement, including any award, extension or modification.
- (b) Contractor agrees that it will comply with 31 U.S.C. § 1352, as amended, U.S. DOT regulations "New Restrictions on Lobbying" 49 C.F.R, Part 20, to the extent consistent with 31 U.S.C. § 1352, as amended and other applicable Federal laws, regulations and guidance prohibiting the use of Federal funds for any activity concerning legislation or appropriations designed to influence the U.S. Congress or a state legislature unless an exception exists in current Federal law.
- (c) Flow-down requirement. The Contractor agrees to include these requirements in all subcontracts at all tiers under this Contract.

26. NATIONAL INTELLIGENT TRANSPORTATION SYSTEMS ARCHITECTURE AND STANDARDS-FTA

The Contractor agrees to:

- (a) Conform to the National Intelligent Transportation Systems (ITS) Architecture requirements of 23 U.S.C. § 517(d), as amended by MAP-21, unless it obtains an exemption from those requirements;
- (b) Follow:
 - (1) FTA Notice, "PTA National ITS Architecture Policy on Transit Projects," 66 Fed. Reg. 1455, January 8, 2001, and
 - (2) All other applicable Federal guidance, and
- (c) Flow this provision down to all applicable subcontracts.

27. CONTRACTS INVOLVING FEDERAL PRIVACY ACT REQUIREMENTS- FTA

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:

- (a) 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. § 552 (a). Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

- (b) The Contractor also agrees to include these requirements in each subcontract involving the administration of any system of records on behalf of the Federal government financed, in whole or in part, with Federal assistance provided by FTA.

28. PROGRESS PAYMENTS

When satisfactory progress has not been achieved by a Contractor during any period for which a progress payment is to be made, a percentage of the progress payment may be retained. Retainage should not be used as a substitute for good contract management, and the Contracting Officer should not withhold funds without cause. Determinations to retain and the specific amount to be withheld shall be made by the Contracting Officer on a case-by-case basis. Such decisions will be based on the Contracting Officer's assessment of past performance and the likelihood that such performance will continue. The amount of retainage withheld shall not exceed ten percent (10%) of the approved, estimated amount in accordance with the terms of this Contract and may be adjusted as the Contract approaches completion to recognize better than expected performance, the ability to rely on alternative safeguards, and other factors. Upon completion of all Contract requirements, retained amounts shall be paid promptly.

29. BONDING FOR CONSTRUCTION PROJECTS EXCEEDING \$150,000 – FTA

The Contractor agrees to comply with applicable bonding requirements as follows:

- (a) *Proposal Security.* A proposal bond must be issued by a fully qualified surety company acceptable to WMATA and listed as a company currently authorized under 31 C.F.R. Part 223 as possessing a Certificate of Authority as described thereunder.
- (b) *Rights Reserved.* In submitting its offer, it is understood and agreed by offeror that the right is reserved by WMATA to reject any and all offers, or part of any offer. It is also understood and agreed that if the offeror refuses or is unable to enter into this Contract, or refuses or is unable to furnish adequate and acceptable performance bonds and labor and material payments bonds, or refuses or is unable to furnish adequate and acceptable insurance, it shall forfeit its security to the extent of WMATA's damages occasioned by such withdrawal, or refusal, or inability to enter into an agreement, or provide adequate security therefore.

It is further understood and agreed that to the extent that the defaulting offeror's proposal bond, certified check, cashier's check, treasurer's check, and/or official bank check (excluding any income generated thereby that was retained by WMATA) shall prove inadequate to fully compensate WMATA for the damages occasioned by default, then the offeror agrees to indemnify WMATA and pay over to WMATA the difference between the proposal security and WMATA's total damages, so as to make WMATA whole.

- (c) *Performance and Payment Bonding Requirements (Construction).* The Contractor shall be required to obtain performance and payment bonds as follows:
 - (1) *Performance bonds.* The penal amount of performance bonds shall be one hundred percent (100%) of the original Contract price, unless WMATA determines that a lesser amount would be adequate for its protection.

- (2) WMATA may require additional performance bond protection when the Contract price is increased. The increase in protection shall generally equal one hundred percent (100%) of the increase in Contract price. WMATA may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
- (d) *Payment bonds.* The penal amount of the payment bonds shall equal:
 - (1) Fifty percent (50%) of the Contract price, if it is not more than \$1,000,000.
 - (2) Forty percent (40%) of the Contract price, if it is more than \$1,000,000, but not more than \$5,000,000; or
 - (3) Two and one half million (\$2,500,000), if the Contract price is more than \$5,000,000.
- (1) If the original Contract price is \$5,000,000 or less, WMATA may require additional protection, if the Contract price is increased.

30. BONDING REQUIREMENTS – GENERAL

- (a) *Performance and Payment Bonding Requirements (Non-Construction).* The Contractor may, as a condition to the issuance of a Notice to Proceed, be required to obtain performance and payment bonds on forms acceptable to the Authority when necessary to protect the WMATA's interests. The following situations may warrant a performance bond:
 - (1) WMATA's property or funds will be provided to the Contractor for use in performing the Contract or as partial compensation (as in retention of salvaged material).
 - (2) If Contractor sells assets to or merges with another concern, and WMATA, after recognizing the latter concern as the successor in interest, desires assurance that it is financially capable.

Substantial progress payments will be made before the delivery of end items begins.
 - (3) This Contract is for dismantling, demolition, or removal of improvements.
- (b) When it is determined that a performance bond is required, the Contractor shall be required to obtain performance bonds, as follows:
 - (1) The penal amount of performance bonds shall be one hundred percent (100%) of the original Contract price, unless WMATA determines that a lesser amount would be adequate for its protection.
 - (2) WMATA may require additional performance bond protection when the Contract price is increased. The increase in protection shall generally equal one hundred percent (100%) of the increase in Contract price. WMATA may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

- (c) A payment bond is required only when a performance bond is required, and if the use of payment bond is in WMATA's interests. When it is determined that a payment bond is required, the Contractor shall be required to obtain payment bonds as follows:
- (1) Fifty percent (50%) of the Contract price, if it is not more than \$1,000,000;
 - (2) Forty percent (40%) of the Contract price, if it is more than \$1,000,000, but not more than \$5,000,000; or
 - (3) Two and one half million (\$2,500,000), if the Contract price is increased.
- (d) *Advance Payment Bonding Requirements.* The Contractor may be required to obtain an advance payment bond, if the Contract contains an advance payment provision and a performance bond is not furnished. WMATA shall determine the amount of the advance payment bond necessary to protect it.
- (d) *Patent Infringement Bonding Requirements (Patent Indemnity).* The Contractor may be required to obtain a patent indemnity bond, if a performance bond is not furnished and the financial responsibility of the Contractor is unknown or doubtful. WMATA shall determine the amount of the patent indemnity required to protect it.
- (f) *Warranty of the Work and Maintenance Bonds.* The Contractor warrants to WMATA, the architect and/or engineer that all materials and equipment furnished under this Contract will be of highest quality and new, unless WMATA specifies otherwise, free from faults and defects and in conformance with the Contract. All work not conforming to these standards shall be considered defective. If required by the Project Manager, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- (1) The work furnished must be of first quality and the workmanship must be the best obtainable in the various trades. The work must be safe, substantial and durable in all respects. The Contractor hereby guarantees that the work will not contain defective materials or faulty workmanship for a minimum period of one (1) year after final payment by WMATA. The Contractor shall replace or repair any defective materials or equipment or faulty workmanship during the period of the guarantee at no cost to WMATA. As additional security for these guarantees, the Contractor shall, prior to the release of final payment, furnish separate maintenance (or guarantee) bonds in a form acceptable to WMATA written by the same corporate surety that provides the performance bond and labor and material payment bond for this Contract. These bonds shall secure the Contractor's obligation to replace or repair defective materials and faulty workmanship for a minimum period of one (1) year after final payment and shall be written in an amount equal to one hundred percent (100%) of the Contract amount, as adjusted.

31. SEISMIC SAFETY – FTA

Not Applicable

CHAPTER XII-WMATA POLICIES

1. SAFETY REQUIREMENTS

- (a) The Contractor shall be responsible for ensuring compliance with the most stringent provisions of the applicable statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision where the work is being performed, as well as the METRO Construction Safety and Environmental Manual (1984, as amended) issued by the Authority, and the U.S. Department of Labor OSHA standards pertaining to the safe performance of the work. In the absence of a specific construction industry standard, the Contractor is required to comply with either an established OSHA General Industry Standard, National Institute for Occupational Safety and Health (NIOSH) guidelines, American Conference of Governmental Industrial Hygienists (ACGIH) guidelines, American National Standards Institute (ANSI) guidelines, the WMATA System Safety Program Plan, the WMATA Construction Safety and Environmental Manual, or the Metrorail Safety Rules and Procedures Handbook. For contracts where work will be performed on, or will interface with the Metrorail System, the Contractor shall also comply with the publication entitled "Metrorail Safety Rules and Procedures Handbook." In the event of a conflict between these guidelines and applicable Federal, State or local health and safety laws, regulations or standards, the more stringent standard shall apply. Further, the Contractor shall ensure that all methods of performing the work do not involve danger to the personnel working at the site, and the public and private property, whether or not these methods are cited or indicated in the Contract. The Contractor shall immediately provide to the Contracting Officer, a copy of all citations and/or warnings of safety violations received from any Federal, State or local jurisdiction or agency thereof, and/or all notifications of safety violations from insurance companies. The Contractor shall also provide to the Contracting Officer, copies of any and all subpoenas, complaints or other documents relating to any law suit alleging safety violations.
- (b) The Contractor shall employ and assign a full-time Safety Superintendent for Contracts involving "safety sensitive" functions. (See Combined Glossary attached hereto for a definition). The Safety Superintendent shall have a minimum of three (3) years of construction safety experience and hold an OSHA thirty (30) hour course card. He or she shall have the ability to develop and conduct safety training courses. He or she shall be familiar with industrial hygiene equipment and testing as required for the protection of all employees. The Safety Superintendent shall be employed exclusively for the purpose of supervising the safety of persons on or about the worksite and the property affected thereby. The Safety Superintendent shall also be responsible for providing first aid at the worksite and must have a current Red Cross First Aid Certificate. The Contractor shall notify the Contracting Officer a reasonable amount of time beforehand, any time that the Safety Superintendent will not be on site during work hours. If, at any time, the worksite is without the services of an approved Safety Superintendent for a period of three (3) calendar days or more, the work may be closed down at the Contracting Officer's discretion. The Safety Superintendent must be acceptable to the Contracting Officer and his or her performance will be reviewed on a continuing basis. If the Safety Superintendent's effectiveness is below standard, the Contractor shall provide immediate replacement at the Contracting Officer's direction. Once employed, the Safety Superintendent shall not be changed

without the Contracting Officer's permission. The Safety Superintendent can be terminated at any time, at the Contracting Officer's discretion.

- (c) The Contractor shall provide, at the site of the work, a first aid kit which shall be fully equipped to meet the needs of the anticipated work force.
- (d) The Contractor shall follow all appropriate RAIL Operational Rules, Operational Administrative Procedures (OAPs), Standard Operational Procedures (SOPs) and General and Special Orders while on the operational railroad and all Start-Up Rules and Manager's Notices when in declared start-up areas.

2. CRIMINAL BACKGROUND CHECK REQUIREMENT

- (a) As a prerequisite to eligibility for a WMATA-issued identification and access badge ("One Badge"), access to WMATA's customers, property, or confidential information, and in consideration for this Contract, the Contractor shall have the sole responsibility for, and shall assure, adequate criminal background screenings on a routine basis of all of its personnel who are or will be working on WMATA's premises (whether they receive a One Badge or not) or otherwise have access to WMATA's customers, property, or confidential information.
- (b) Contractor shall implement, not later than notice to proceed, a criminal background check screening of the Contractor's personnel that shall take into consideration (1) the nature of the services or work being performed under the contract with particular regard for the individual's access to, and interaction with, WMATA's customers, property, and confidential information; (2) the nature or gravity of the offense or conduct resulting in a criminal conviction; and (3) the time that has lapsed since the conviction and/or completion of the sentence.
- (c) The Contractor shall contract with, or otherwise engage, a reputable third-party vendor to conduct the required criminal background screenings, and shall provide the vendor with a copy of its criminal background check screening policies and procedures.
- (d) The Contractor shall not place any person on or engage any person under this Contract, unless that person passes the Contractor's criminal background screening. At the end of each calendar quarter, the Contractor shall certify to the Contracting Officer's Technical Representative on a form provided, its compliance with this criminal background screening requirement and confirm that all persons required to be screened passed the contractor's criminal background screening before working on this Contract. For the sole purpose of monitoring the Contractor's compliance, WMATA reserves the right to request additional documents or perform its own criminal background screening of Contractor's personnel. The Contracting Officer will inform the Contractor, in writing, of any proposed action within a reasonable time before such action is taken.
- (e) The Contractor shall indemnify and hold WMATA harmless from any and all claims, demands, damages, costs and expenses, including attorneys' fees and other costs and expenses associated with any claims, demands, requests for relief, and/or other liabilities arising out of or resulting from the contractor's criminal background screening obligations and processes.

- (f) The Contractor will include this requirement in all subcontracts under this Contract, and receive certifications from their subcontractors to ensure that its subcontractors' personnel who are or will be working on WMATA's premises (whether they receive a One Badge or not) or otherwise have access to WMATA's customers, property, or confidential information undergo the required criminal background checks.

3. WORKPLACE VIOLENCE/ZERO TOLERANCE

Pursuant to Metro Policy/Instruction 7.8.3, all Metro Contractors and subcontractors at any tier must: (1) establish zero tolerance for acts of workplace violence for their employees and independent contractors, and (2) not retaliate against any of their employees or independent contractors for cooperating with investigations.



MID-ATLANTIC COOPERATIVE RIDER CLAUSE

The Mid-Atlantic Purchasing Team (MAPT) is the agreement between the Metropolitan Washington Council of Governments (“MWCOCG”) and the Baltimore Metropolitan Council (“BMC”) to aggregate the public entity and non-profit purchasing volumes in the Maryland, Virginia and Washington, D.C. region (“region”).

Format

A lead agency format is used to accomplish this work. The Lead Agency in this procurement has included this MAPT Cooperative Rider Clause in this solicitation indicating its willingness to allow other public entities to participate pursuant to the following Terms and Conditions:

1. Terms
 - 1.1 Participating entities, through their use of the Cooperative Rider Clause, agree to the terms and conditions of the resulting contract to the extent that they can be reasonably applied to the participating entity.
 - 1.2 Participating entities may also negotiate additional terms and conditions specific to their local requirements upon mutual agreement between the parties.
2. Other Conditions - Contract and Reporting
 - 2.1 The contract resulting from this solicitation shall be governed by and "construed in accordance with the laws of the State/jurisdiction in which the participating entity officially is located;
 - 2.2 To provide to MWCOCG and/or BMC contract usage reporting information, including but not limited to quantity, unit pricing and total volume of sales by entity, as well reporting other participating entities added on the contract, on demand and without further approval of contract participants;
 - 2.3 Contract obligations rest solely with the participating entities only;
 - 2.4 Significant changes in total contract value may result in further negotiations of contract pricing with the lead agency and participating entities.

In pricing and other conditions, vendors are urged to consider the broad reach and appeal of MAPT with public and non-profit entities in this region.

A list of the participating members of the Mid-Atlantic Purchasing Team can be found at the following web links www.mwcog.org/purchasing-and-bids/cooperative-purchasing/member-links/ and <http://www.baltometro.org/our-work/cooperative-purchasing/brcpc-representatives>

BOND FORMS

PERFORMANCE BOND	
Contract No.:	Contract Date:
Penal Sum of Bond:	
Date Bond Executed:	
<p>KNOW ALL MEN BY THESE PRESENTS, that we, the Principal and Sureties hereto, are firmly bound to the Washington Metropolitan Area Transit Authority (hereinafter called the Authority) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: Provided, that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.</p> <p>THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into the contract identified above:</p> <p>NOW, THEREFORE, if the Principal shall perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Authority, with or without notice to the Sureties, and during the life of any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Sureties being hereby waived, then the above obligation shall be void and of no effect.</p> <p>IN WITNESS WHEREOF, the Principal and Sureties have executed this performance bond and have affixed their seals on the date set forth above.</p> <p style="text-align: center;">Principal(s)</p>	
1. Firm Name and Address: Signature: _____ Name and Title:	Corporate Seal State of Inc.:
2. Firm Name and Address: Signature: _____ Name and Title:	Corporate Seal State of Inc.:
3. Firm Name and Address: Signature: _____ Name and Title:	Corporate Seal State of Inc.:

PERFORMANCE BOND – Page 2

Corporate Sureties				
Surety A	Surety Name and Address: Signature: _____ Name and Title:		Liability Limit \$	(Seal)
			State of Inc.:	
Surety B	Surety Name and Address: Signature: _____ Name and Title:		Liability Limit \$	(Seal)
			State of Inc.:	
Surety C	Surety Name and Address: Signature: _____ Name and Title:		Liability Limit \$	(Seal)
			State of Inc.:	
Attach additional pages as needed.				
	Bond			
	Premium			
	Schedule	Total Premium	\$	
Instructions				
1.	This form is authorized for use in connection with contracts for construction work or the furnishing of supplies and services.			
2.	The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.			
3.	Corporation executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "Corporate Sureties".			
4.	Corporations executing the bond shall affix their corporate seals.			
5.	The name of each person signing this performance bond should be typed in the space provided.			
6.	The date this bond is executed must be the same date as the contract execution date.			

PAYMENT BOND

Contract No.

Contract Date:

Penal Sum of Bond:

Date Bond Executed:

KNOW ALL MEN BY THESE PRESENTS, that we, the Principal and Sureties hereto, are firmly bound to the Washington Metropolitan Area Transit Authority (hereinafter called the Authority) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: Provided, that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into the contract identified above:

NOW, THEREFORE, if the Principal shall promptly make payment to all claimants as hereinafter defined supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Sureties being hereby waived, then the above obligation shall be void and of no effect, otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the CONTRACT.
2. The above-named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due the claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to the Principal within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal at any place where he maintains an office or conducts business, or his residence or such notice shall be served in any manner in which legal process may be served in the state or District of Columbia in which the aforesaid project is located, save that such service need not be made by a public officer.
 - b. After the expiration of one (1) year following the date of final settlement of said CONTRACT, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - c. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

PAYMENT BOND page 2

IN WITNESS WHEREOF, the Principal and Sureties have executed this payment bond and have affixed their seals on the date set forth above.

Principal(s)

1. Firm Name and Address: Signature: Name and Title:	State of Inc.:	Corporate Seal
2. Firm Name and Address: Signature: Name and Title:	State of Inc.:	Corporate Seal
3. Firm Name and Address: Signature: Name and Title:	State of Inc.:	Corporate Seal

Corporate Sureties

	Surety Name and Address:	Liability Limit	(Seal)
A	Signature:	\$	
	Name and Title:	State of Inc.:	
B	Signature:	\$	
	Name and Title:	State of Inc.:	
C	Signature:	\$	
	Name and Title:	State of Inc.:	

Attach additional pages as needed.
Instructions

1. This form is authorized for use in connection with contracts for construction work or the furnishing of supplies and services.
2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.
3. Corporation executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "Corporate Sureties".
4. Corporations executing the bond shall affix their corporate seals.
5. The name of each person signing this payment bond should be typed in the space provided.
6. The date this bond is executed must be the same date as the contract execution date.

PROPOSAL SECURITY (PROPOSAL BOND FORM)
Submit with Price Proposal

Request for Proposal No.: _____ Proposal Date: _____
 Penal Sum of Bond: _____ 5% of Offered Price or Amount, \$:
 Date Bond Executed: _____

KNOW ALL MEN BY THESE PRESENTS, that we, the Principal and Sureties hereto, are firmly bound to the Washington Metropolitan Area Transit Authority in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: Provided, that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the proposal identified above:

NOW, THEREFORE, if the Principal, upon acceptance by the Authority of his proposal identified above, within the period specified therein for acceptance (ninety [90] days if no period is specified), shall execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the proposal as accepted within the time specified (ten [10] days if no period is specified) after receipt of the forms by him, or in the event of failure so to execute such further contractual documents and give such bonds, if the Principal shall pay the Authority for any cost of procuring the work which exceeds the amount of his proposal, then the above obligation shall be void and of no effect.

Each Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for acceptance of the proposal that the Principal may grant to the Authority notice of which extension(s) to the Sureties being hereby waived provided that such waiver shall apply only with respect to extensions aggregating not more than ninety (90) calendar days in addition to the period originally allowed for acceptance of the proposal.

Principal(s)

	Corporate Seal
1. Firm Name and Address: Signature: _____	State of Inc.: _____
	Corporate Seal
2. Firm Name and Address: Signature: _____	State of Inc.: _____
	Corporate Seal
3. Firm Name and Address: Signature: _____	State of Inc.: _____

PROPOSAL SECURITY (PROPOSAL BOND FORM) - Continued - page 2

Corporate Sureties				
Surety A	Surety Name and Address: Signature: _____ Name and Title:		Liability Limit \$ _____ State of Inc.:	(Seal)
Surety B	Surety Name and Address: Signature: _____ Name and Title:		Liability Limit \$ _____ State of Inc.:	(Seal)
Surety C	Surety Name and Address: Signature: _____ Name and Title:		Liability Limit \$ _____ State of Inc.:	(Seal)
Attach additional pages as needed.				
Instructions				
<ol style="list-style-type: none"> 1. This form is authorized for use whenever a proposal guaranty is required in connection with construction work or the furnishing of supplies and services. 2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished. 3. The penal sum of the bond shall be expressed as either a percentage of the proposal price or in dollars and cents. 4. Corporation executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "Corporate Sureties". 5. Corporations executing the bond shall affix their corporate seals. 6. The name of each person signing this proposal bond should be typed in the space provided. 				

PART III TECHNICAL SPECIFICATIONS- STATEMENT OF WORK

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1 Scope SUMMARY

1.1 Overview

The Washington Metropolitan Area Transit Authority (WMATA, or Metro) is soliciting proposals to support the acquisition, deployment and maintenance to replace current faregates. The objectives of this effort are to:

- Modernize WMATA's faregates;
- Improve the customer experience;
- Improve operational interfaces;
- Increase faregate reliability;
- Reduce opportunity for fare evasion;
- Reduce power consumption;
- Provide a pleasing design that is complementary to WMATA's historic design aesthetic. and
- Implement hardware that works with the current fare payment application.

Faregates shall replace current faregates across WMATA's 86 Metrorail stations, 118 Metrorail Mezzanines and 13 mini-Mezzanines (exits away from station kiosks) in Washington DC, Maryland and Virginia. This effort will replace WMATA's existing faregate cabinets and expand the number of faregates on some mezzanines. Additionally, WMATA may, as a contract option, supply faregates and supporting equipment to nine new Metrorail Mezzanines that are being constructed as part of the Purple Line (3) and Silver Line (6) expansion.

WMATA currently uses contactless smart card technology for fare payment and to interface with faregate entry and exit controls. New faregates shall continue to provide a barrier to mezzanine entry and exit until a passenger presents valid fare media. Faregates shall interface with WMATA's current payment application (part of the Cubic supplied Nextfare[®] 5 platform) and facilitate controlled entry and exit, in accordance with WMATA's fare tariff.

Faregate control and management shall be supported from centralized and local applications. Station equipment shall include Station Terminals and Station Manager Portable Devices that support faregate management and have the capability to read WMATA fare media to assist customers with fare media issues. The faregate solution shall provide hardware and software solutions to support local and centralized faregate management, access controls, system monitoring and reporting, remote faregate diagnostics and web accessed status dashboard reporting.

In addition to station devices, the Contractor shall provide and install equipment for WMATA's AFC Engineering Simulation Lab, Maintenance Training Lab, Revenue Facility, and Maintenance Repair Shop.

Faregates shall be designed and configured to be ergonomically acceptable and to allow the greatest number of passengers to pass through from either direction. Faregates shall be designed to operation in a wide range of environmental conditions, including outdoor environments and cold and hot temperatures. Faregate design shall also include design features that are modern and aesthetically pleasing while including coloring and design accents that are complementary to WMATA's historic design.

Faregates and associated mezzanine equipment shall utilize the WMATA communication networks MetroNet wide area network and MetroNet Wi-Fi communications infrastructure to support system interfaces. WMATA's MetroNet utilizes a fiber optic backbone to each Metrorail station mezzanine that is controlled and operated by WMATA.

The Contractor will be responsible for the delivery of a turnkey solution and will be responsible for coordination with WMATA's current fare payment system provider. This coordination includes legal agreements and responsibility for delivery of software modifications to the current fare system to support the system integration needed to deliver a solution where faregate functionality interfaces with the current fare payment application which manages WMATA's fare tariff and the distribution of web sales transactions, refunds, "hot listed" fare media, and transit benefit data to devices.

The Contractor shall be responsible for the delivery of all system hardware including faregate cabinets, station terminals, and station manager portable devices, central system hardware or modifications, and all connecting cables, tools and equipment needed to deliver and install the system. Offerors have the option of proposing multiple faregate solutions for consideration as part of this procurement.

The Contractor shall be responsible for the deployment of faregates and all supporting systems at rail stations and other WMATA facilities. This includes the storage of new equipment and the removal of current faregates. The Contractor shall also be responsible for infrastructure modifications as described in Section 4 needed to deploy equipment within the WMATA environment and station existing conditions.

In preparation for this effort WMATA has verified that all current faregates have consistent power and that there is an Ethernet cable that extends from each faregate cabinet to a panel inside the kiosk. Each kiosk will be equipped with data switch and connectivity to WMATA's communication network. Metrorail existing conditions are further described in section 1.1.3.

The Contractor shall be responsible for training WMATA's front line employee trainers, maintenance technicians, and back end system users. The Contractor shall provide all system maintenance until 90 days after the last device is installed. The Contractor shall also provide a one year warranty on parts and equipment and five years of software maintenance. This warranty period will begin after the 90 day parts and maintenance period ends.

Additionally, at WMATA's request (as a contract option) the Contractor shall provide continuing faregate maintenance services for up to 5 years after system delivery.

1.1.1 WMATA Fare Structure and Current Payment Application

WMATA Metrorail fare structure distance based fare structure varies based on time of day and day of week or user categories. The current fare system supports both bus and rail fare payments and supports adaptable fare discounts and payment sharing for bus and rail transfers as well as inter-jurisdictional transfers and cost sharing. The current system also supports multiple pass products and zone restrictions. WMATA’s current fare tariff, Number 28, is publically available using this URL:

https://www.wmata.com/about/records/public_docs/upload/Tariff-on-Fares-Annotated-2-12-18.pdf

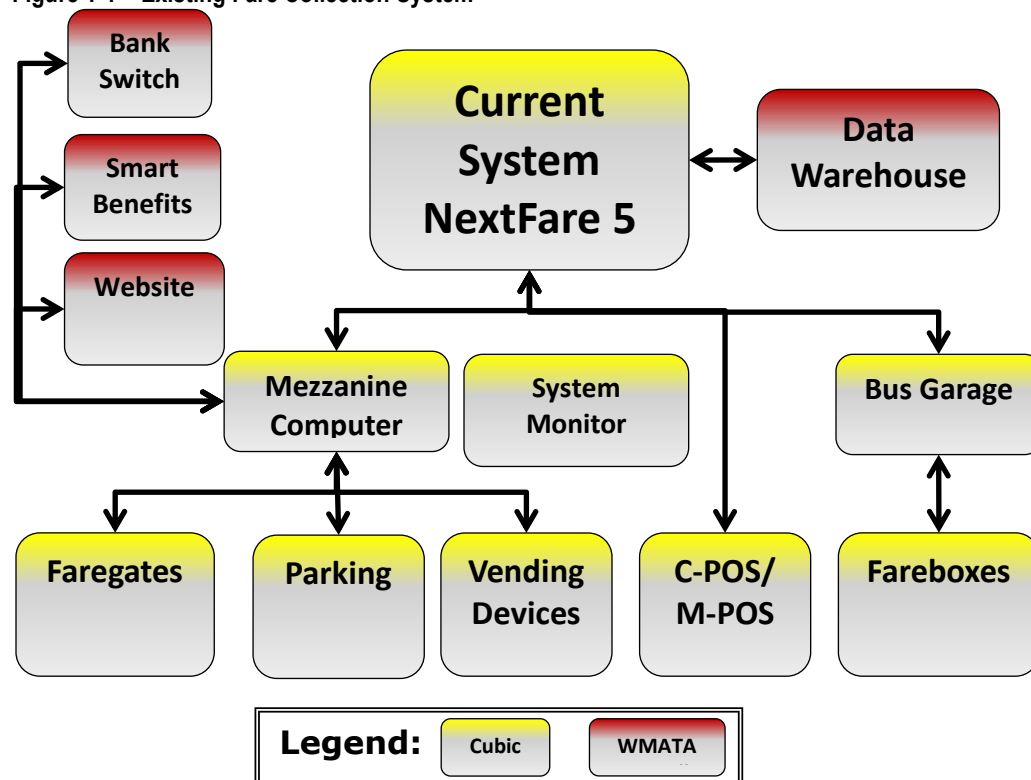
In conjunction with Tariff #28, the Ridership Rules and Guidelines are available using this URL:

https://www.wmata.com/about/records/public_docs/upload/Tariff-Ridership-Rules-6-21-17.pdf

WMATA’s Metrorail fare structure is part of an integrated regional fare platform that provides seamless fare payment and transfer across 8 transit operators in the National Capital Region. WMATA currently operates an electronic Automated Fare Collection (AFC) system based on Cubic-supplied Nextfare® 5 software and hardware. This system operates the faregates, fare vending devices, and other pieces of equipment that utilize contactless media for fare payment and employee identification.

WMATA’s automated fare collection system architecture is depicted in Figure 1.1.

Figure 1-1 – Existing Fare Collection System



WMATA’s fare system is comprised of systems that are part of the Nextfare® 5 platform and systems that interface with the current system to support fare payment and device management. Ridership and payment data is compiled by the current system and is stored to the WMATA Data Warehouse, where most of WMATA’s routine operational reports are generated. The current

system also supports a system monitoring application that allows authorized users to monitor the operating status and key event data of Metrorail devices and centrally control faregates.

WMATA's current system supports list services to identify fare media that is reported as lost or stolen. These "hot list" are uploaded to device payment targets to restrict access. WMATA's fare application also supports web sales, employer transit benefits and other customer service account management transactions. These transactions loaded to local devices and written to customers registered fare media via the payment target.

1.1.2 WMATA Fare Media

WMATA is currently operating MiFare Plus-based contactless smart cards that are configured with a Cubic security application. WMATA’s fare system also accepts the Cubic Go Card smartcard, an older smart card designed to interface with the Cubic payment target. WMATA may advance to the MiFare DESfire platform in the future.

1.1.3 Existing Conditions

Faregate replacement must take into consideration existing station conditions and implementation plans must take into account the constraints of WMATA’s existing infrastructure. Existing conditions that could impact faregate deployment include:

- physical conditions at stations;
- existing communications and data network;
- existing power circuits; and
- location, size and equipment of facilities that support and maintain the existing fare system.

Mezzanine layouts and supporting power and communication infrastructure vary across the system, but faregate power and data raceways are typically configured in the same way. Current faregates have incorporated within its housing a two-position power switch, which are used to power down and power up the faregate. Each faregate cabinet except the fare end cabinet has two electrical receptacles. Each faregate has incorporated within its housing a two-position power switch, which shall be used to power down and power up the faregate. WMATA requires faregates to be powered from individual power receptacles, have power switch, and provide emergency lighting that is powered from emergency power source.

The power loads for current faregate equipment is as follows:

	Idle w/Heater Off	Idle w/Heater On	Initializing w/Heater On
Standard Faregate	1.28 A (153.6 WATTS)	4.28 A (513.6 WATTS)	6.32 A (758.4 WATTS)
ADA Faregate	1.35 A (162 WATTS)	4.35 A (522 WATTS)	6.32 A (758.4 WATTS)

Current faregates data cabling includes a single home run cable twisted pair cable from each faregate cabinet to the Station Operator Computer (SOC) and multiple interconnect cables between faregate cabinets that are connected by an underfloor duct that runs the length of the array. Both the electrical and data underfloor duct run under the foot print of the faregates and cabling is accessed with stub up connectors.

WMATA has undertaken a program to inspect faregate ducts, and in some instances, the power and/or data underfloor duct has sections that are damaged. In those cases a second underfloor duct has been installed outside the foot print faregate and rigid conduit is installed between the duct and the faregate to support data cabling. This will impact the interconnect cable length requirements where this outside duct is needed.

Each current faregate cabinet has a single Ethernet cable that is connected to a patch panel under the kiosk. The patch panel is connected to a switch that links AFC equipment to WMATA’s MetroNet fiber network. Metrorail mezzanines are equipped with Wi-Fi access points which can

be leveraged to support mobile devices as long as interfaces conform to WMATA security guidelines.

Current faregates interface with the station emergency alarm system via the fare system SOC which is housed inside the kiosk. The SOC supports an emergency alarm delay application that helps to prevent false alarms from automatically opening faregates. The SOC also connects fare system to the central data system via WMATA's MetroNet and supports localized fare system applications include opening faregates and assessing fare media anomalies.

Some Metrorail stations have mini-mezzanines that are in a location away from the kiosk and in some instances on the station platform level (train level). The data cabling to these devices in some instances have fiber optic cable and data convertors to connect fare devices to the kiosk SOC. Deployment of replacement faregates to these mini-mezzanines may require specialized access and confined place certified technicians.

Additionally, there are a few station (not more than 12 mezzanines that are not accessible by elevator. Special lifts with weight restrictions will be needed to move equipment and materials using station escalators.

Faregate deployments will have to adapt to these existing conditions. Deployment planning must include provisions to work within the constraints of station conditions and infrastructure. If faregate delivery cannot be adapted, deployment planning will need to include provisions for special riggers to deliver equipment from special trains and lift them to station platforms.

1.1.4 Constraints

The principle project constraints are:

- Interfacing with WMATA's current fare payment system;
- Meeting aesthetic requirements to be complimentary to station's historical design which have landmark protections;
- Deploying equipment within WMATA's existing power and communication raceways and interfaces;
- Interfacing with station emergency alarm system; and
- Deploying equipment without disrupting revenue service or creating transition issues for WMATA's customers.

WMATA is not replacing its current back-end operating software system or payment application with this initiative. Therefore the faregate delivery must include implementing an interface with Cubic Nextfare® 5 software and Cubic payment processing targets PPT or alternative payment target that is adapted to support WMATA's current fare media. Currently, the Cubic payment targets store the fare system security encryption keys WMATA's SmarTrip cards interface with the Payment Target with a Cubic application.

Many of WMATA's Metrorail stations are considered historical landmarks and changes to the stations are subject to review by regional historical groups. The introduction of new gates must take into consideration impacts on the historical aesthetics of the location. Faregate finishing should include accents that are complementary this aesthetic.

Faregates overall footprint and height shall match the current faregates to ensure compliance with ADA and be complementary to the historic visual appearance of the originally designed faregates array.

Metrorail station mezzanines power and communication are supported by three under floor ducts (communication, main power, and emergency power). Conduit stub-ups bring wires and cables

from the kiosk to each faregate. Faregates that introduce a different foot print will have to mitigate adjustments to power and communication infrastructure. Current faregate cabinets have a width of 11 inches, regular aisles are 22 inches, and ADA aisles are 36 inches.

Current faregates are powered by two 120 volt twist lock power receptacles (one supports faregate primary power needs and the second is connected to WMATA's station emergency power and supports emergency barrier opening and emergency lighting). WMATA's safety regulations requires faregate maintainers to be able to disconnect faregates from station power. The twist lock receptacles reduce the risk of faregates losing power. The stub-ups and power receptacles typically sit about 4 inches above the floor and the location of the stub-up vary within the faregate. Faregate deployments will have to adapt to WMATA's site conditions.

Faregates support emergency egress and the barriers must open on conditions of loss of power, detection of power fault, or the activation of WMATA's emergency alarm system. The emergency alarm system is activated when a fire alarm condition is detected within a station. The emergency alarm system sends a voltage to the current station SOC, which is equipped to handle a voltage in the range of 3 to 30 volts a/c or dc. The SOC in turn sends an "Open all Barriers" signal to all faregates. This open command is sent over the current communication lines from the SOC to the faregates. The SOC also supports a 45 second delay and alarm override for those instances in which a false alarm is activated.

The new faregate local controller must be able to constantly monitor the state of the station emergency alarm system signal and be able to send the "Open All Barriers" signal to all faregates, when a voltage in the range of 3 to 30 volts a/c or dc is detected from the emergency alarm system. The new faregate local controller must also be adaptable to a change in WMATA's emergency protocol and be able to be configured so that it will activate the "Open all Barriers" signal when it senses the absence of a voltage as opposed to the sensing of a voltage from the emergency alarm system.

New faregates must be deployed without impacting revenue service. Faregate deployment in most instances will be done during the third shift and all deployment tasks that impact customer egress and ingress must start of Metrorail stations close and be completed and fully operational before the station opens. At WMATA's discretion, some daytime installations may be scheduled. In the event it is necessary to reduce emergency egress below acceptable levels, Fire Watch Protection must be put in place. Metrorail deployments require escort support from WMATA personnel. Contractors should assume that WMATA will support deployment in up to three station mezzanines per night.

1.2 Qualifications

Offerors must have demonstrated experience delivering AFC solutions of similar size and complexity for rail environments. Offerors teams must include demonstrated experience in faregate design and manufacturing, AFC systems integration, program management, training, hardware installation, and maintenance.

Offeror teams must also comprise professional experience and expertise to meet all project requirements. Teams must provide an organizational structure and team qualifications that demonstrate the ability to implement and manage all aspects of the contract.

Key staff requirements and their minimum qualifications include:

- Project Manager – The Project Manager must have a minimum 15 years professional experience, demonstrated AFC systems experience, and at least 5 of those 15 years should be as a project management experience.

- Quality Manager – The Quality Manager must have a minimum 15 years professional experience and at least 5 years of quality management experience. The Quality Manager must not directly report to the Project Manager. The Quality Manager should be independent of the Project Manager.
- Technical Solution Manager – The Technical Solution Manager must have a minimum 10 years professional experience and demonstrated expertise in delivery complex system solutions. The Technical Solution Manager must have expertise in AFC systems, software development, and systems integration and testing.
- Deployment Manager – The Deployment Manager must have a minimum 10 years of experience in systems installation and related construction expertise. The Deployment Manager must have demonstrated knowledge of electrical and communication infrastructure, OSHA standards, and construction scheduling and management.
- Deployment Quality Manager – The Deployment Quality Manager must have at least 15 years of construction and systems installation experience. The Quality Manager must have at least 10 years construction or installation related experience.
- Training Manager – The Training Manager must have at least 7 years of experience in designing and implementing technology training programs and materials.
- Maintenance Manager – The Maintenance Manager must be an experienced technician with at least 7 years of experience repairing and maintaining complex technological equipment and systems. The Maintenance Manager must also be fully training and certified in maintaining proposed faregate equipment.

1.3 Technical Proposal Requirements

Proposals must show that the team is able to deliver a faregates and a system solution that responds to WMATA's key objectives and requirements. Proposals must include the following:

- **Past Experience:** Proposals shall include a list of projects within the past 5 years for both the prime contractor and sub-contractors that demonstrate the experience and expertise needed to meet contract requirements. Past experience shall include the contracting agency, project descriptions, start and end dates, relevance to this project, and contact information for the contracting agency.
- **Key Staff Resumes:** Proposals shall include resumes for key staff including: Project Manager, Quality Manager, Technical Manager, Deployment Manager, Deployment Quality Manager, Training Manager, and Maintenance Manager.

- **Team Description and Project Organizational Chart:** Proposals shall include a description of the proposed team, roles and responsibilities of sub-contractors and key team members and a project organization chart depicting the relationships between key staff and sub-contractors if applicable.
- **Equipment and System Descriptions demonstrating Responsiveness to WMATA Key Objectives:** Offerors shall provide description of the proposed faregate solution and how the proposed solution addresses WMATA's key project objectives to:
 - Modernize WMATA's faregates;
 - Improve the customer experience;
 - Improve operational interfaces;
 - Increase faregate reliability;
 - Reduce opportunity for fare evasion;
 - Reduce power consumption;
 - Provide a pleasing design that is complementary to WMATA's historic design aesthetic;
 - Implement hardware that works with the current fare payment application; and
 - Improve list management services.

Modernize Faregates: Proposals shall include information on how recent technology advancements are utilized in faregates and supporting devices and illustrate how the proposed solution includes the best available technology and is representative of the best and most advanced industry practices.

Improve Customer Experience: Proposals shall include a description of faregate customer interfaces and illustrate how faregate messaging, displays and safety features support customers and help to provide a safe and positive customer experience.

Improve User Interfaces: Proposals shall include a description of faregate and supporting system user interfaces: including faregate status monitoring, faregate control and management, faregate maintenance, and customer fare media support.

Increase Reliability: Proposals shall include device performance information including MTBF (Mean Time Between Failures) and MTTR (Mean Time To Repair) for devices and key device components.

Reduce The Opportunity for Fare Evasion: Proposals shall include a description of faregate functionality and features help to prevent payment fraud and mitigate various means of fare evasion.

Reduce Power Consumption: Proposals shall include power load requirements for faregate and supporting devices and identify any power saving features or strategies included in the proposed solution.

Pleasing Design that is Compatible with WMATA's Historic Design Aesthetic: Proposals shall include images of proposed faregate structure,

finish, and coloring. Proposals shall also describe how use of color and finishing complements WMATA's historic aesthetic and brand.

Interface with Current Fare Payment System a: Proposals shall include a description of the system interfaces for a faregate solution that works with WMATA's current fare payment application. Faregates are anticipated to have a useful life that is longer than the current fare payment back-end system and will need to be adapted to work with an alternative fare payment application. Proposals shall also include a description of system changes that will be needed to interface with an alternative, yet to be determined, fare payment application.

Additional documentation shall include:

- **Equipment Data Sheets:** Proposals shall include data sheets for proposed faregates, station terminals, portable devices and any system peripherals.
- **Enhanced Functionality** – Proposals should include descriptions of faregate and faregate system functionality that are over and above solicitation requirements and that potentially deliver improved system capabilities that will have a positive impact on the WMATA customer experience, system maintenance, and/or system operations.
- **Deployment Approach:** Proposals shall include a description of the deployment approach. This includes a description of major deployment tasks, anticipated staffing levels, and approach to installing new equipment without leaving more than one faregate aisle out of service. The deployment approach shall also describe faregate compatibility with WMATA infrastructure and identify any special adaptations that will be needed to install faregates in Metrorail mezzanines. Should the deployment tasks include the repositioning of electrical receptacles, the deployment description should verify that deployment teams will include licensed electricians.
- **Project Schedule:** Proposals shall include a project schedule that includes anticipated durations for each line item in the pricing sheet.
- **Requirements Compliance Confirmation:** Proposals shall include a completed compliance confirmation matrix that confirms the proposal adherence to solicitation requirements and comments or alternative functionality for requirements that are not met by the proposed solution. The Requirements Matrix is provided as an excel attachment in the RFP.

2 faregate Requirements

2.1 General Requirements

The Contractor shall furnish faregates that are fully integrated with WMATA's current fare payment system. Faregates shall comply with payment security requirements and support all current WMATA fare media as well as have the functionality to support NFC (near field communication) based payment in the future.

Faregates shall be accessible to customers with disabilities and limited English proficiency. Faregates shall adhere to the accessibility guidelines of the Americans with Disabilities Act of 1990 and Title VI of the Civil Rights Act of 1964.

Faregate aisles are formed by a pair of faregates and support standard and ADA aisles.

- A standard faregate aisle, reversible in direction, with an aisle width matching the present standard aisle width of 22"; and
- An "ADA" faregate aisle that is reversible in direction and fully ADA compliant through which physically challenged Customers shall be able to pass. The width for an ADA aisle is 36" the full length of the faregate.

Both types of faregates shall operate in the same manner and providing the same functionality with the only differences being ADA specific design parameters. The faregates shall operate with or without communication to a central computer system only if there is a failure in communications. In the event that WMATA MetroNet communication is unavailable, faregates shall operate in an orphan mode. While in orphan mode, faregates shall perform all fare payment transactions and maintain local connectivity to the Station Terminal and emergency system.

Multiple faregates aligned in a row shall constitute a faregate array. Faregates shall be monitored and controlled centrally and locally. Release of faregate barriers for passage through a faregate aisle shall be controlled by the Payment Processing Target (PPT) when a successful payment transaction is completed; from the station manager device when manually activated by the Station Manager; from a tactile emergency button inside the station kiosk; and, remotely from the Rail Operations Control Center (ROCC) or other authorized user workstation. Faregates shall also be interfaced with WMATA's emergency system and automatically open under emergency alarm system or power loss.

At least one ADA faregate shall be furnished and installed at each station mezzanine to permit Customers with disabilities and others who cannot use the standard faregate to move between the unpaid and paid areas of the station. It shall also serve as a service gate, emergency exit gate, and as a backup to the regular faregate array, when required.

All design submittals identified within this Section apply to all faregates needed to provide the identified faregate aisles.

Faregate PPTs shall communicate with WMATA's current fare payment application (Cubic supplied Nextfare®) for all payment transaction applications including fare tables and fare payment rules, Nextfare® central account directives for Autoload and invalid media messages. Faregate communications to the faregate central system shall interface via WMATA's wide area network.

2.2 Standards

The following standards and codes in effect at Preliminary Design Review shall be followed as applicable during the design, development, construction and installation of the system, including all components and devices. The Contractor shall also comply with all applicable Federal, state and local codes.

Government Requirements and Industry Standards	
1.	Americans with Disabilities Act (ADA) of 1973
2.	ADA Standards for Transportation Facilities
3.	ANSI/IEEE Standard 828 Standard for Software Configuration Management Plans
4.	ANSI/IEEE Standard 1012 -for Software Verification and Validation
5.	ANSI/IEEE 730, Standard for Software Quality Assurance Plans
6.	FTA –IT-90-5001-02.1 Quality Guidelines
7.	IEC-801-2 pertaining to electrostatic discharge
8.	IEC 60695-11-10 1999 (Amended 2003), Fire hazard testing: part 11-10: test flames: 50 W horizontal and vertical flame test methods
9.	IEC 61000-4-2, Electromagnetic Compatibility (EMC) - Part 4: Testing and measurement techniques - Electrostatic discharge immunity test
10.	IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering
11.	IEEE 802.11 n standard for wireless data communications
12.	IEEE 802.11i standard for wireless data network security
13.	IEEE Standard 1058, Software Project Management Plans
14.	IEEE P1588 Standard for Software Documentation for Rail Equipment and Systems
15.	IEC529, Definition of Protection Grades
16.	ISO 9001, International Standards for Quality Management
17.	ISO/IEC 10373, Identification Cards – Test Methods
18.	ISO/IEC 14443 Parts 1 through 4 – Contactless Smart Card Standard
19.	ISO/IEC 18092 / ECMA-340 – Near Field Communication Interface and Protocol-1 (NFCIP-1)
20.	ISO 27001, Information Technology - Security Techniques - Information Security Management Systems - Requirements
21.	MIL-STD 105, Sampling Procedures and Tables for Inspection by Attributes
22.	MIL-STD-461E
23.	MIL-STD-810F
24.	National Electrical Code (NFPA 70)
25.	National Electrical Safety Code (ANSI C2)
26.	National Fire Protection Association (NFPA) 130 – Standard for Fixed Guideway Transit and Passenger Rail Systems
27.	National Fire Protection Association (NFPA) 72 – Fire Alarm Code
28.	Payment Application Data Security Standard (PA-DSS)
29.	Payment Card Industry Data Security Standard (PCI DSS)
30.	Section 508 of the Rehabilitation Act of 1973

Government Requirements and Industry Standards			
31.	Society of Automotive Engineers	J-1113-13	Electrostatic Discharge
32.	Society of Automotive Engineers	J1708, J1587, J1939	
33.	Society of Automotive Engineers	SAE J1455	Vibration and Shock
34.	Title VI of the Civil Rights Act	1964	
35.	Transit Communication Interface Profiles	(TCIP)	
36.	UL 1053 Standard for Safety Ground-Fault Sensing and Relaying Equipment		
37.	UL 50 3R Water Ingress Test		
38.	UL 60950, UL Standard for Safety of Information Technology Equipment		
39.	UL 969 Standard for Safety Marking and Labeling Systems		
40.	Worldwide Interoperability for Microwave Access (WiMAX)	(based on IEEE 802.16)	
41.	3rd Generation Partnership Project (3GPP)'s Long Term Evolution (LTE)		
42.	State, county and local building, electrical and construction codes, as applicable		
43.	WMATA Manual of Design		

Where reference is made in the Contract Documents to publications or standards issued by associations or societies, the intent shall be to specify the current edition of such publications or standards in effect on the date of Contract Award, notwithstanding any reference to a particular date or version

In the case of conflict between provisions of codes, laws, and ordinances, the more stringent requirement shall apply. The Contractor shall identify all local, state, or national codes, ordinances. WMATA’s jurisdiction includes Maryland, Virginia and the District of Columbia, code and requirements must meet or exceed requirements for each jurisdiction.

Until Final Acceptance of the entire project, the Contractor shall identify all changes to all applicable codes and laws, and notifying WMATA.

2.2.1 PCI Compliance

WMATA is currently a Level 1 merchant for PCI-DSS compliance. Faregates will interface with WMATA’s fare system and all components of the faregates (hardware, software, and firmware) shall be in full compliance with Payment Card Industry (PCI) standards at the time of Final Design approval. Faregates shall not store data locally in a format that would require faregates to be part the PCI zone. Steps to achieve compliance certification will be flexible enough for future upgrades as standards and requirements evolve over time.

Contractor shall furnish documentation at the Preliminary Design Review and Final Design Review to provide full details for the faregates and ancillary systems compliance with all aspects of PCI-DSS. **CDRL 2.1**

2.2.2 ADA Compliance

Contractor shall furnish documentation at the Preliminary Design Review and Final Design Review of all faregate ADA certifiable items and confirm faregate design compliance with all listed design items. The Contractor shall also provide certification of ADA compliance from a qualified independent contractor at Factory Acceptance Testing stage of the project. **CDRL 2.2**

Further, ADA certifiable measures will be included in Installation Acceptance Testing plans and verified at the time of installation.

2.2.3 Title VI Compliance

Faregate messaging must comply with Title VI guidelines for customers with limited English proficiency. The faregate customer facing messages and proposed device signage shall be compiled into a document for Title VI compliance review. This will be provided as part of PDR and FDR. **CDRL 2.3**

2.3 Faregate Functionality

Faregates functionality shall include the following:

- A. Provide egress and ingress control and limit customer throughput to one customer per transaction;
- B. Provide continuous operation when network communications are not available;
- C. Be configurable to support bi-directional egress and ingress control;
- D. Provide safety controls to automatically retract barriers when obstructed to prevent injury or damage;
- E. Provide sensing capability to limit customer throughput to one customer per transaction and to distinguish support animals and baggage from other means of fare evasion;
- F. Provide configurable visual and audible alarms to identify instances of potential fare evasion or other anomalies;
- G. Issue audible messages to indicate successful payment transaction and alarms to indicate unsuccessful transaction
- H. Provide local and centralized faregate management; ;
- I. Interface with the WMATA's emergency alarm system to automatically open barriers in an emergency alarm event;
- J. Support local and system faregate controls to place faregates in and out of revenue service;
- K. Support local and centralized faregate controls to adjust the directional configuration of faregate aisles;
- L. Maintain error event logs, transaction counts by type, and maintenance log data and upload data to faregate central system to support system monitoring and reporting;
- M. Support local and centralized system diagnostics;
- N. Provide a hierarchal faregate control protocol;
- O. Provide access controls and access authentication for faregate management and maintenance;
- P. Interface with WMATA's current fare payment application to download fare tables (fare payment rules) and list service data and upload transaction data;
- Q. Support the needs of all existing and future categories of Customers, including programs for specific types of Customers (students, customers with disabilities, employees, etc.) and fare structures, and fare products;

- R. Quickly and efficiently verify the validity of all fare media and provide the necessary payment communication to support faregate customer interfaces and the current system payment application;
- S. Provide an ISO 14443 A and B compliant payment target that both will securely support an alternative payment interface in addition to current fare media supported by WMATA current payment application.
- T. Securely accommodate and process fare media offered and/or distributed by WMATA or approved third parties;
- U. Process WMATA Autoload transactions for web sales, transit benefits, and refunds;
- V. Reject fare transactions from fare media that has been “hot listed” by WMATA;
- W. Provide pass-back control to prohibit unlimited use media from being used for more than one customer per trip;
- X. Distinguish concession fare products and discounted fare media and initiate visual indicator for the transaction;
- Y. Process transactions when communication connectivity to WMATA’s fare payment application and other back end systems is not available;
- Z. Support secure commination to the faregate central system and payment application central system when communication is restored;
- AA. Display transactional information to customers including balance information, valid fare media, and error or event data;
- BB. Provide secure local data storage and upload data to central system to support centralized faregate monitoring and dashboard reporting;
- CC. Support secure manual transfer of stored data to an approved device if needed;
- DD. Provide independent connectivity to station terminal and emergency button for faregate management and emergency release;
- EE. Support direct interface with WMATA emergency alarm system to automatically open all faregates upon activation; and

2.4 Be equipped with ground fault interrupt safety device Design Requirements

Faregates shall be the result of rigorous industrial design process and constructed in a manner that is easy and intuitive to use, functional, safe, and NFPA 130 and ADA compliant. Additionally, all faregate equipment and components shall be of tamperproof design and shall facilitate easy access by authorized service and maintenance personnel yet prevent any unauthorized access to equipment components. Faregates shall be aesthetically pleasing and messaging and labels shall be highly visible and easy to understand.

Faregates finish materials shall be durable, impact and scratch resistant and available in each of the following finishes or a combination of them:

1. Baked Enamel Federal Standard 595 Color FS 20040 (Metro Brown);
2. Stainless Steel No. 4 Brushed Finish; and
3. Stainless Steel Grade 316L or better.

Faregates shall be robustly designed for non-stop continuous operation for its intended purpose in a public transportation environment and to meet the system life requirements. Industrial

Designs Reviews shall be conducted throughout the design review process to ensure compatibility with the specification requirements.

2.4.1 Conceptual Design Review (CDR)

The purpose of the Conceptual Design Review (CDR) is for the Contractor to seek the Authority's early agreement on the approach to the design. The CDR shall be based on and be consistent with this Specification and the Contractor's Final Proposal Revision. It shall provide such additional details as necessary to fully present the design approach, to eliminate ambiguities, and to narrow alternatives as system vendors are selected. The CDR shall be accomplished progressively on a system-by-system basis. Separate CDR Sessions may be scheduled as required. **CDRL 2.4** The CDR package (or packages) shall address the following topics at a minimum:

- Top-level description of the functional flow for all hardware and software requirements as proposed by the Contractor and sub-supplier(s).
- Architectural view of the high-level layout including reasoning for choosing each component and design methodology
- A narrative description of each proposed device, various proposed software applications, and requirements
- Overview system block diagram
- Identification of all interfaces between the major systems and subsystems
- Proposed manufacturer technical specifications, drawings and data
- Status review of all CDRLs scheduled for delivery during this phase
- Reflect 30% of final design

2.4.2 Preliminary Design Review (PDR)

A formal Preliminary Design Review (PDR) shall be conducted to summarize progress made with the selected design approach, evaluate its adequacy, and assess its compliance with the Specification. The PDR shall represent approximately 60% completion of the total engineering effort required for all the proposed materials to be supplied and shall be held at a location determined by the Authority. **CDRL 2.5** The PDR package (or packages) shall address the following topics at a minimum:

- Detailed functional interface descriptions and drawings, including mounting arrangements, installation methods, and performance requirements
- Detailed proposed system designs
- Detailed sufficient maturity in the proposed design approach prior to FDR

- Proof of Concept (POC) of the design
- Proof of interoperability with other systems
- Proposed final manufacturer specifications and data for components and hardware
- List of special tools required for each subsystem
- Status review of all CDRLs scheduled for delivery during this phase
- Reflect 60% of final design

2.4.3 Final Design Review (FDR)

The Final Design Review (FDR) shall be conducted incrementally as the detailed design of each subsystem is completed, as software is finalized, and the production drawings are ready for release. The FDR shall confirm that the design of the system/subsystem under review satisfies the contract requirements. **CDRL 2.6.** The FDR package (or packages) shall address the following topics at a minimum:

- Final Design narrative
- Latest revisions of the drawings and documentation submitted for PDR
- Review the system and sub-systems specifications, test plan, product specifications
- System interface diagrams depicting all physical connections and data, signal, and power interfaces
- Established Quality Assurance plan requirements
- Technical Documentation, Manuals, Maintenance Requirements, and Parts
- Spare Parts and Life-Cycle Maintenance
- Software documentation
- Assembly drawings down to the lowest level replaceable unit
- Electrical Schematics and wiring diagram
- Inspection and test procedures
- Status review of all CDRLs scheduled for delivery during this phase
- Reflect 100% of final design

2.5 Transaction Processing

The faregate and faregate barriers shall be designed so that individuals are not able to traverse the aisles without a proper fare transaction having been completed. The standard faregate shall be able to process Customers at a minimum rate of 35 per minute for valid media transactions and support emergency egress of not less than 50 customers per minute.

Faregates shall process all acceptable WMATA SmarTrip fare media. Each time that the SmarTrip media is read by the faregate, a transaction record shall be stored by the faregate and immediacy uploaded to the legacy fare system. Faregates shall also have the capability to process WMATA issued non-SmarTrip media. The functionality to read non-SmarTrip media shall be a secure selectable option that is controlled by WMATA where transactions from this media is maintained by the faregate central system. Faregate transactions shall be processed as follows:

- When the fare media is presented to the PPT in the unpaid area to ascertain validity of the Smart Media and confirm that minimum value is available to support a fare transaction. Trip data shall be stored within PPT and written to the presented fare media;
- When the fare media is presented to the PPT in the paid area, data from the media will be used to complete the transaction and deduct the transaction value from the presented fare media. Transaction data shall be forwarded to the current fare payment application central computer for account reconciliation and fare payment data management; and
- In the instance that non SmarTrip approved WMATA media is presented to the PPT, the trip data shall be stored and written to fare media in the same manner as SmarTrip fare media, but transaction data will only be stored accounted for separately from SmarTrip transactions and uploaded to the faregate central system.

All entry and exit transaction data shall be retained by the individual faregates until the data is completely and successfully transferred for central storage.

Invalid fare media lists and central auto load transactions will be stored locally and shall be used to determine the validity of presented fare media deny entry or to initiate Autoload transactions to fare media. The faregate memory shall store not less than 2 million of each list element.

For achieving enhanced throughput, the faregate logic shall permit a configurable number of fares (not less than five) to be banked in a single direction when fare media is used to traverse the faregate aisle. This shall be configurable by the Station. Each faregate aisle shall be capable of being set to any of the following operational modes via local or central controls:

- Active: Presents a physical barrier to impede Customer movement in both directions. Permits one entry/exit (valid fare shall be verified), in either direction;
- Free Fare: Permits entry and/or exit, no fare or fare media required;
- Intermediate: Actively controls Customer flow in one direction, while allowing free fare in the opposite direction.

The structure and layout of all transaction records shall be subject to WMATA review and approval as part of the Preliminary and Final Design Review Packages.

2.6 Faregate Operation, Control and Configuration Management

The service status and configuration settings of each faregate aisle shall be capable of being set locally at the faregate through a simple setting secured within the faregate but with the function only accessible by authorized personnel. In addition, local and central system control shall be provided to quickly set all faregates in an array to any of the operational modes.

Faregate management functions shall be executable remotely from various WMATA facilities and locally from the station terminal or portable device.. Faregates emergency open command shall also be supported by a tactile button inside the kiosk, the station console or portable device, and by the central system that, when initiated, shall place all faregates in a mode to

accommodate, through the faregate aisles, emergency egress from and prohibit access to the platform by Customers.

Failure of the faregate barriers to properly open or to fully return to the closed position, shall be sensed and reported as an alarm to the local and central system immediately upon the occurrence of such sensing. A distinct audible tone shall also sound upon this occurrence. Unique and distinct event messages shall be provided for each such failure event type.

When a faregate barrier strikes an obstruction in the aisle it shall immediately reverse and attempt another barrier closing. This shall occur until the faregate closes properly or closing has been attempted up to a WMATA-settable number of times (settable from one to 10). If the faregate fails to close after this defined number of attempts, the barriers shall remain open and the faregate shall go out of service and forward the appropriate messages to the central and local systems.

2.7 Customer Interfaces

Customer interfaces shall provide messaging to understand faregate processing of fare media, the status of the transactions and other relevant information and feedback. For this purpose, the following shall be incorporated into the faregate:

- Fixed Graphics;
- Illuminated Displays;
- Customer Display; and
- Audible Tones

Contractor shall submit the text and fixed graphics to be used for WMATA review at the Preliminary Design Review and approval at the Final Design Review.

2.7.1 Fixed Graphics

Fixed graphics shall be provided on each faregate to clearly depict and guide Customers to the locations and correct use of the PPT. Fixed graphics must be approved by WMATA as part of the Title VI review.

2.7.2 Illuminated Displays

Illuminated displays shall be provided which are easily observable and understood from each end of the faregate. Status displays shall provide information identifying the status of the faregate and adjacent aisle to the left. For these status messages one of the two following displays shall be illuminated and the other latent to indicate faregate status:

- A symbol for “Usage Prohibited” to alert the Customer not to use that particular aisle;
- A symbol for “Usage OK” to inform the Customer to use that particular aisle to enter or exit the system.

If a console goes out of service due to a malfunction which inhibits operation of barrier components that affects both aisles controlled by the console, then those aisles shall be unusable by passengers and the proper indicator display shall be illuminated.

An indicator light shall also be provided as a visual signal that reduced fare Smart Media or an invalid SmarTrip media is being used for entry or exit at the faregate aisle. This indicator light

shall be installed on each end of the faregate, or as a part of the status display, facing both the paid and unpaid areas.

The indicator light shall illuminate to alert station personnel standing on both the unpaid and paid sides of the faregate array that reduced Smart Media has been used in a successful entry transaction. The indicator light shall remain lit until the faregate times out and returns to idle mode or a subsequent fare is processed.

2.7.3 Customer Displays

Variable message displays shall be provided on the top of each faregate in each direction of passage to provide information to a customer regarding faregate readiness, faregate aisle usability, transaction success or failure, and fare media status.

The Customer display shall be programmable to display various greetings and messages based on fare media validity, event occurrence and other WMATA operational needs. Preprogrammed messages shall be provided for each of the situations sensed. A utility shall be provided that will enable WMATA to remotely change the messages from the faregate central system without Contractor intervention.

The brightness of the customer display shall be automatically adjustable based on ambient light conditions.

Wording of messages to be displayed to the customers shall be defined at the Preliminary Design Review, subject to Title VI evaluation, and finalized at the Final Design Review.

2.7.4 Audible Tones

Each fare media transaction at the faregate shall result in a directed local audible tone that alerts the Customer and nearby WMATA personnel of the status of the transaction. Each transaction shall result in one of three distinct tones signifying one of the following conditions:

- Smart Media accepted, proceed through faregate;
- Smart Media not accepted, passage not permitted; or
- Reduced-fare fare media accepted, proceed through faregate.

Each tone shall be programmable for both activation (“on”, “off”) and volume levels. At a minimum, these tones shall be clearly audible and distinguishable at a distance of not less than thirty (30) feet in an unenclosed environment. Proposed tones and volumes are to be submitted to WMATA for review and approval at the Preliminary Design Review.

2.7.5 Payment Processing

The faregate shall fully interface with WMATA’s current fare payment system. Communication with the current fare application central system shall be an integral element of the faregate. Communications between the faregates and the current central system is required for uploading payment transaction data and for downloading fare schedules, invalid fare media lists “hot lists”, and Autoload list service transactions (web sales transactions, refunds, Smart Benefits value loads, etc).

The PPT shall interface with faregate controller and customer interface applications to provide seamless interface between fare payment and faregate operational controls.

The PPT shall be integral to the faregate and shall be housed within the faregate cabinet in such a manner as to not inhibit its required read range as defined in ISO 14443 A and B communication standard and so as to facilitate part replacement with 15 minutes should the unit fail.

The PPT shall support all WMATA-issued SmarTrip media and support an option for a non-SmarTrip secure ISO 14443 A and B media. This option to process transactions for this media shall be dormant and only activated under the direction of WMATA.

If the faregate is unable to process fare payment, the Customer display on the faregate shall display “Out of Service” and the “Usage Prohibited” illuminated display on the effected end of the faregate aisle shall be lit until the PPT failure has been cleared or faregate directional configuration is changed.

The faregate shall also be designed to support a second PPT. Faregate power, wiring, and communication ports shall be fabricated so that a second PPT can be easily installed in the faregate. Faregate structural design shall include locations for punch out bezels and mounting hardware for the potential implementation of the second PPT. Design review documents will include design for this second payment target and First Article Testing will include demonstration of second PPT functionality.

2.7.6 Directional Sensors

LED directional sensors shall be provided to detect the passage and direction of travel of all authorized and unauthorized Customers between the unpaid and the paid areas. Attempted and actual passage through the aisle shall trigger generation and central storage of an alarm message.

The faregate shall also be programmable by WMATA to sound an alarm at the faregate for invalid passages. The volume and duration of the alarm annunciation shall be adjustable from within the faregate, and through local and central system applications. This volume shall be individually settable by faregate aisle and the method of volume control shall be provided for WMATA review and approval at the Preliminary Design Review.

Contractor shall identify location and operation of all Customer sensors and their function to ensure proper processing at the aisle for WMATA review at the Preliminary Design Review and approval at the Final Design Review.

2.8 Control System

Each faregate shall include one or more microprocessors to control and monitor all functions of the faregate and its associated aisle. The failure of any component in any faregate shall affect only the associated faregate aisle and its controls.

Software and data uploads and downloads shall be controlled centrally. This includes updates to local system software and uploads of system data. This shall be used to facilitate faregate central operational controls and software uploads and downloads, and to down load all entry data, exit data, faregate status messages, configuration, control, and parameter information as well any additional information required by the Contractor’s system to support successful operation of faregates.

There shall be no dependency on maintaining communication with the current system fare payment central system or faregate central system for normal faregate operation. If communication is interrupted, the faregate shall continue to operate in orphan mode, processing transactions and storing data locally until communication is restored.

Each faregate shall have an internally maintained calendar/clock. This shall synchronize with the current fare system central system for all time-related transaction data.

The faregate aisle and its faregates shall be able to be configured by the central system through the downloading of operational and configuration data. All functions available for each faregate and faregate aisle shall be selectable from a menu when setting up the operation of the faregate aisle or aisles.

All configuration information sets shall be saved by the central system and at the faregate. Local modifications to these settings shall be immediately communicated to the central system. Data stored at the faregate shall be stored in non-volatile memory.

The faregate shall be provided with the ability to be activated by a set of external dry contacts. Activation of the dry contacts shall simulate a complete payment fare transaction cycle (open/close barriers). The faregate shall automatically return to normal operational mode following the complete cycle. Downloading

Downloading from the current fare system payment application to the faregate PPT shall be used to:

- Synchronize the clocks;
- Download fare tables;
- Provide lists and updates of lists of invalid media;
- Download SmarTrip media Autoload transactions;
- Provide firmware updates; and
- Provide other data communication to ensure proper fare payment transactions.

All clocks shall be synchronized with the WMATA NTP (National Time Protocol) server.

The centralized interface shall be used to:

- Execute commands
- Provide updated software;
- Poll equipment for operational status;
- Provide firmware updates;
- Download changes to system and equipment parameters; and
- Provide other data communication to ensure proper operation of the faregates.

Data communications methodology and information transferrable with the central system applications and shall be identified and provided to WMATA for review at the Preliminary Design Review and approval at the Final Design Review.

2.8.1 Uploading

All transactional data shall be stored locally and shall be transmitted to the current fare payment system in real time or near real time and upon request from the central system. Non- fare transaction data shall also be stored locally and uploaded to the faregate central system in a scheduled manner and upon request.

2.8.2 Data Storage

All data shall be stored in the faregate memory until it has been transferred to the central systems. In the event communications cannot be established with central systems for an extended period, data shall be retained locally, with storage for a minimum of 100,000 Customer

transactions plus an equal number of event, audit and alarm transactions. Any locally stored data that is subject to PCI management shall be encrypted.

Customer Transaction Data

- All completed transactions, which have occurred at the device;
- All incomplete transactions, including reason for rejection;
- Additional information required to provide a complete audit trail for revenues and Smart Media.

Operational Data and Events (stored as transactions)

- All events and alarms sensed;
- All events and alarms cleared, including the identification of the user which cleared the alarm;
- All changes in status of the device or any module incorporated;
- All configuration changes;
- All successful communications;
- All communication failure;
- Power failures and restorations;
- All accesses to the interior of the device;
- All commands issued by the maintenance, revenue service and other personnel; and
- Additional information required to provide a complete audit trail for events and device access.

2.8.3 Pass back Control

Each faregate shall monitor all fare media usages to prevent use of any unlimited ride media products for more than one concurrent trip within a defined time period at a station. All fare media shall be verified against this pass back rule.

The control of the anti-pass back function shall be based on all usages and attempted usages. When this parameter is set to zero, pass back shall be deactivated and shall charge for each trip taken, regardless of the time between Smart Media taps. The pass back timer shall be configurable by smart media product and can be zero if required.

2.8.4 Servicing Display and Keypad

An internal control mechanism, consisting of a display and keypad, shall be installed in the faregate in a user-friendly location to assist troubleshooting of the faregate and for servicing, control and access needs. The display shall have a minimum of two lines, each with a minimum of 16 characters, and a minimum character height of one-quarter inch. All locally settable parameters shall be accessed and entered through the display/keypad.

Safeguards shall be employed to assure that changes to the software cannot be performed through the display/keypad. Failure codes, which shall provide diagnostic information regarding problems to a subassembly level, shall be displayed upon addressing by means of the keypad. Diagnostics shall be continuous and automatic. Requests to perform each diagnostic test shall also be possible through the display/keypad.

2.8.5 Diagnostics

The faregate shall be capable of detecting basic internal malfunctions. This malfunction detection shall cover at least failure of power circuitry, control circuitry, opening of an access panel, interface failure, and any failure of any module within the faregate.

Internal diagnostic programs shall check the faregate and its interfaces for proper performance each time it is turned on and after every maintainer login. When performance is not according to specification, the faregate shall go out of service and indicate this to the maintainer, both audibly and visually.

The detected malfunction shall be recorded in the faregate memory for transferred to the faregate central system. Any failure that occurs apart from the diagnostic check shall also be stored and transferred. When it is not possible to record the deficiency or failure, the occurrence shall be identified on the operator's display until acknowledged by the operator.

Out-of-service conditions shall be annunciated by the faregate. The information displayed shall indicate the type of failure that caused the faregate to shut down. All such messages shall be configurable by WMATA at the central system.

A visual indication shall be provided on each faregate to indicate that the faregate has suffered a major fault.

All conditions sensed shall be reviewable and have configurable priorities set by WMATA with the text used for describing these conditions by WMATA. Method for changing this text and for setting priorities shall be provided.

A push button shall be provided on the inside of the gate enclosure, away from the public and accessible by maintenance personnel when they open the barrier cabinet. This push button shall simulate an acceptable fare transaction and cycle the faregate one time (i.e. cause the barriers to open and close in the normal mode of operation)

Diagnostic events shall be identified as exceptions and alarm messages shall be sent immediately to the central system upon occurrence. The maintenance technician must be properly signed into the device to activate this functionality.

2.9 Communication System

Faregates shall communicate with the current fare payment application via and back end systems via CAT 6 Ethernet from the faregates to WMATA's LAN and WAN infrastructure. The Contractor will be responsible implementing current system modifications to support this connectivity and for coordination with WMATA to establish IP addressing within WMATA's network. Faregates communication shall include secure authentication protocols with all faregate central system and payment application central system.

In the event of loss of communication, downloading and uploading of all stored information and operational data shall be possible on a local basis for an individual faregate through the use of a compact flash RAM with a minimum capacity of 8GB. The compact flash RAM shall utilize a standard USB port.

Upon successful re-connection of network operations, all stored transaction data (e.g., alarm, event, sales) shall be automatically transmitted to the current central system and to the faregate central system.

2.10 Structure and Finish Requirements

2.10.1 Faregate Cabinet

The faregate shall be constructed of stainless steel, or other revenue service proven and durable material as approved by WMATA Architecture, to meet of WMATA's Design Criteria and Standard Specifications. The baseplate of the faregate shall be of stainless steel, Grade 316L or better, as approved by WMATA.

Faregate cabinets shall be constructed with a rigid frame to which all exterior panels and interior components shall be attached. Cabinets of monocoque construction with integral structural members shall also be acceptable. Frames, panels, and doors shall be constructed with appropriate tooling that allows for complete interchangeability of all like panels, covers, and doors with consistent fits. All faregate cabinets of the same type shall have identical exterior dimensions and identical appearance.

Faregate cabinets shall have hinged doors providing direct access to all internal modules. Doors shall be equipped with devices to hold them in the fully open position. Doors on the top of the faregate shall not penetrate an adjacent faregate aisle when fully opened. Hinges shall be concealed and shall not protrude beyond the outer surface. The closing joints shall prevent unauthorized entry, as well as dirt, dust, and moisture from entering the cabinet.

The interior of the faregate cabinet shall be illuminated when the access panel is opened for maintenance. The illumination shall be provided by a commercially available and replaceable LED device(s). All cables inside the faregate cabinet shall be labeled on both ends of the cable with machine printed labels. A copy of up to date schematics and shop drawing shall be provided inside each faregate enclosure

All doors and access covers shall be secured using limited distribution Security Star/Torx bolts/screws or locks as approved by WMATA. The security Star/Torx tool/key shall be unique to the WMATA faregate and shall not be widely available on the open market. The Contractor shall authorize WMATA to purchase additional tools/keys directly from the lock manufacturer.

Strength of equipment cabinets, including the base, shall be as identified in Section 2. Plexiglas used to cover displays, photocells and pictograms, plus the displays themselves, shall be excluded from these requirements but shall be revenue service proven.

Faregates shall be designed to provide adequate air circulation and ventilation. In addition, one or more heaters shall be provided to maintain a minimum operable temperature. These heaters shall be thermostatically controlled and automatically activate and deactivate.

Faregate shall be powered from the a 120-volt duplex outlet inside the faregate cabinet. If needed emergency power shall also be powered from the 120-volt emergency power outlet.

Faregate Barrier

The barrier mechanism shall accommodate high Customer volumes and shall be a bi-parting barrier or paddle barrier design. Barrier panels shall minimize potential fare evasion. There shall be no gap of greater than two (2) inches between any panel and the faregate cabinet or between two panels within the faregate aisle.

The faregate barrier shall be designed to minimize injury to customers if the faregate barrier closes on a customer. The contractor shall calculate and determine the safe closing force and ensure that the closing force does not exceed this value. This closing force analysis shall be submitted for review and approval to WMATA. Each half of the barrier shall move simultaneously. The time required for the barrier panel to move through its full path of travel shall be not more than 700ms. This time shall be configurable and calibrated locally at each faregate.

Closed barriers shall be able to sustain impacts in both directions of travel without permanent deformations or damage to either the barrier or the mechanisms. The impact shall be equivalent to a 300 lb. Customer moving at 3 mph and striking the barrier at the point where both panels meet.

Upon loss of primary power, or receipt of the appropriate signal from the fire control system, the faregate shall stop processing fares and barriers shall automatically open, permitting – unrestricted exit from the paid area by Customers or as otherwise identified by NFPA 130 or other appropriate District, State or Federal requirement. Upon restoration of power, the faregate shall return to its normal operating state without manual intervention within not more than five (5) minutes.

The barriers shall part to provide an open aisle when a command is sent to the faregate from the Station Manager via the station terminal at the individual station mezzanine or when a command is sent from the Rail Operations Control Center (ROCC) or other WMATA remote workstation. This command shall be able to be sent to a single faregate or to all faregates in an array at the station mezzanine when issued by the Station Manager or other authorized central user. This command shall also be able to be sent to a single faregate or to all faregates at selected stations, a particular group of stations, and system wide when issued by a Central System workstation. If communication fails between a faregate and the Station Terminal, the Station Manager shall be able to activate a command locally within the faregate cabinet, after securely accessing the faregate cabinet to have the barriers part to provide an open aisle and remain open. Upon restoration of normal operation, the barriers shall automatically return to the closed position, prohibiting passage through the aisle without proper fare payment.

2.11 ADA Faregate

The ADA faregate shall be identical to the standard faregate, operate in the same manner and provide the same reporting, sensing and functionality with the exception of the following:

- The faregate aisle shall have a minimum clear opening to meet ADA requirements.
- Six (6)PPTs shall be installed on the following locations (three in each direction of a reversible ADA faregate aisle):
 - a) Top-right-side of the faregate cabinet
 - b) Inner Right-side vertical face of the faregate cabinet
 - c) Inner Left-side vertical face of the faregate cabinet

The position of the right- and left-side PPT installations shall conform to the ADA requirements.

- The ADA faregate shall permit the Customer throughput to be set to accommodate from five (5) to thirty (30) Customers per minute. This shall be a parameter that is settable by WMATA from the CDS. As delivered, the ADA faregate shall provide for a throughput of not more 20 Customers per minute and not less than 15 Customers per minute.
- The faregate barrier shall have a smooth surface on both sides.

- The faregate barrier shall be of sufficient height and width to provide the necessary access and egress control between the paid and unpaid areas.
- A "wheelchair" sign shall be affixed to both ends of the faregate.
- The ADA faregate shall sense the direction of travel through the faregate aisle. The ADA faregate shall sound an audible alarm if more than one customer passage is detected when only a single passage is permitted, based on the operating rules of WMATA and as reported by the central system. The alarm shall be adjustable in duration by software control between five and thirty seconds, and should be able to be reset or temporarily disabled from a local terminal. This alarm condition shall also be transmitted to the central system.
- The ADA faregate shall sense an open condition and shall transmit a message to the central system when the faregate opening has exceeded the allowable time. The allowable time shall be adjustable in duration by software control, between one and sixty seconds. The alarm should be able to be reset or temporarily disabled from the central system Workstation. The ADA faregate shall transmit a faregate-closed message upon closure of the faregate.
- The sound level of all local alarms shall be 80 dBA minimum measured 10 feet from the barrier with adjustment possible from within the faregate or through software control. An externally accessible key switch shall be provided to deactivate the alarm. When this key is used, the appropriate alarm message shall be stored by the faregate and immediately transmitted to the CDS.
- The ADA faregate shall not require that the clamshell barrier be closed before accepting the next fare in the same direction of travel.

The design of the ADA faregate and barrier shall be approved by WMATA at the Preliminary Design Review.

Each station shall be equipped with at least one ADA faregate to suit operational requirements. Additional ADA faregates shall be installed where necessary to accommodate structural or other station configuration needs.

ADA faregates shall be capable of being installed adjacent to a wall and still provide for maintenance access. Servicing or maintenance access and activity shall not require the closing of any adjacent aisle.

The ADA faregate base shall be provided with mounting holes for securing the cabinet to the floor. Any specialized mounting devices shall be provided by the Contractor.

All ADA faregates shall be installed with WMATA-furnished power and communications connections supplied from conduit within the floor. The use of ramps or any other configuration to conceal cabling on or above the floor is prohibited.

Installation drawings and prerequisites for installation of each faregate type shall be provided to WMATA for review at the Preliminary Design Review and approval at the Final Design Review.

2.12 System Security

The Contractor shall provide WMATA with a complete, high-security method for operating and managing faregates equipment and supporting systems. The Contractor shall ensure that all system passwords shall be safeguarded and resettable under WMATA control, and that no "back doors" or means of unauthorized entry are designed into the system.

The ability to remove or add users authorized to access the faregate operational and maintenance systems shall be restricted to designated users. Additional password authorization shall be required to perform this function. At no time shall any password be displayed on any screen. The system shall interface with WMATA's central directory to maintain a current list of WMATA employees.

A system security plan shall be developed and presented as part of the preliminary and final design package. **CDRL2.7**

This system security plan shall include password systems and administration, communications security measures, operating systems and program security, and data encryption methods, and shall be submitted in conjunction with the system architecture submission.

2.13 Product Supply and Availability

Faregates and all associated components and software shall, unless more stringently specified, conform to industry standards as specified within the Sections of these Technical Specifications. Components supplied shall be based on standard products by established fare collection and financial payment industry suppliers with documented experience producing and supplying such components.

In the event that a component becomes obsolete or discontinued prior to completion of initial System implementation, the supplier shall provide the latest generation of that component.

Wherever possible, components, spare parts and supplies shall be available from two or more U. S. based suppliers, neither of whom shall be the equipment supplier or Contractor. Non-standard, prototype, obsolete or discontinued products, or components shall not be utilized. For each deployment phase, components shall be of current manufacture.

2.14 Service Proven

Faregates shall be identical to or derived from existing designs or prototypes slated for an operating environment equal to or more severe than that which shall be experienced in WMATA's service area. Performance in a laboratory environment is insufficient for meeting this requirement.

2.15 Fault Tolerance and Recovery

Faregates shall be designed to quickly recover from power, communications and/or software failures, automatically returning to the operating state it was in prior to the experienced fault without loss of data.

2.16 Modular Design

Faregates shall be designed with modular components, which shall permit easy field replacement of inoperative modules to quickly return the equipment to service. Repair and adjustment of modules shall be performed in shop facilities.

Faregate design shall support the "fingertip maintenance concept." This shall provide individual modules that are fixed in unitized frames, rails, or slides with fast latching devices, captive

fasteners, or other means that do not require the use of tools to remove and replace modules. Where specified, modules shall also be secured by keys or electronic locks to prevent unauthorized removal.

Modules shall be connected together with uniform control and power supply lines. Internal control and power connections shall be made via clearly identified plug-in connections. Plugs and receptacles shall be keyed to prevent a module from being inserted into the wrong receptacle. Each module shall be designed so that it can only be installed in one correct position, and that orientation shall be readily apparent to trained maintenance and servicing personnel. All sources of electrical interference shall be suppressed within the respective module to eliminate all potential EMI-generated deficiencies.

2.17 Maintenance/Test Mode

Faregates shall incorporate a test mode. In this mode, faregates shall only produce and process test Smart Media. Non-test fare media shall be unaffected but shall be reported as “invalid” both at the field device and by the Central System when used at equipment in maintenance/test mode.

When test media is processed, all functions shall be performed for that fare type, except that the transaction data shall not be included in revenue summaries but shall be separately identified. This identification shall not permit the test data to be included in the normal revenue data reports but this shall be reported separately. Test Smart Media shall be invalid and not be processed when the equipment is in the normal operating mode.

If an item of equipment is in this mode and all access doors have been closed properly, and the maintainer has not placed the equipment back in revenue service, the faregates shall automatically return to the normal operating mode after a WMATA-settable time period. This time period shall be settable from zero (0) seconds to sixty (60) minutes and changeable at the discretion of WMATA.

2.18 Human Factors

Principles of human factors engineering shall be applied throughout the design to facilitate ease of use and safety for Customers, employees, and service personnel.

Faregates shall provide Customers with displays, graphics and signage, controls and mechanisms that are simple to use, easy to understand, and conveniently located. All Customer interfaces shall be user-friendly; that is, safe, predictable, simple to use, and in accordance with other applicable human engineering principles.

Faregates shall accommodate a broad range of potential Customers. These shall include, but not be limited to, commuters, shoppers, accompanied children, occasional users traveling to and from special events, the elderly, Customers with motor and/or sensory impairments (e.g., Customers in wheelchairs, with limited dexterity, or who are hearing or sight impaired) and Customers with limited communication skills and customers with limited English proficiency.

2.19 Environmentally Friendly Design

Faregates shall be designed with an emphasis on the principles of energy efficiency, sustainable design, usage of post-consumer materials, usage of non-polluting and non-hazardous materials for manufacture, and other similar important aspects of the design, development, manufacture, implementation, and operation. Where available, high efficiency components shall be incorporated into the equipment.

Information supporting these design concepts shall be provided for WMATA understanding at each design review. This information shall include identification of specific methods to meet the

important environmentally-friendly needs. Compliance with the RoHS directive shall also be provided.

Should WMATA identify suitable environmentally friendly elements and components, best efforts shall be provided by the Contractor in order to maximize these elements, without adverse impact on system deployment.

2.20 Safety

Faregates shall be free from safety hazards. Exterior surfaces shall have no sharp edges or burrs. Cabinets, consoles and other equipment housings shall have no protrusions beyond the base that could impede the progress of a Customer. Customer control and display components shall not by design present a pinching hazard.

Faregates shall be stainless steel or other revenue service proven finish, as approved by WMATA.

All interior surfaces and components with which Customers or personnel could come in contact shall also be free of sharp edges, burrs and other hazards. Throughout the interior of the machine, there shall be no pinching hazards when the modules are moved or removed, including contact with the trays and slides provided for the movement of modules.

All components shall be electrically grounded and shall prevent electrical leakage or static charge, in accordance with all local and national codes and applicable published standards. Electrical components shall have highly visible warning graphics indicating the voltage present and other hazards. Samples of these graphics shall be included in Preliminary Design and Final Design Review packages for approval by WMATA.

2.21 Locks and Security

Faregates shall be constructed to provide maximum protection for equipment. All equipment shall be designed to be vandal resistant to the greatest extent possible, and shall not suffer damage as a result of reasonably foreseeable conditions.

The design and installation of faregates shall discourage and minimize the effects of vandalism and theft, prevent unauthorized access to the interior of the equipment, and prevent unauthorized removal of the equipment from its installed location. Several, separate levels of security access shall be provided for access to the interior of the equipment for:

- A. Maintenance personnel,
- B. Station managers; and
- C. ROCC representatives or other operations personnel.

Access to the equipment by authorized personnel equipped with proper Employee IDs, keys and individual access code(s) shall be provided without undue delay.

Locks and their components shall be manufactured of non-corrosive material, such as brass. Once placed in normal revenue service, there shall be no corrosive effects displayed by the locks or the area surrounding these locks.

Commencing with initial implementation of faregates, all locks, keyways, and key codes shall be assigned to WMATA and shall become the exclusive property of WMATA thus giving WMATA the ability to rekey as necessary.

Faregate doors shall incorporate sensing to identify when a door, panel, or cover is opened and store an event message (with proper log on) or transmit an alarm without proper log on).

2.22 Faregate Access

Fare media issued as employee ID shall be used to identify a technician to faregates being accessed. The fare media ID shall be read and verified against an internal list, stored within the device. This list shall be updated from WMATA's active directory.. If the fare media ID is not identified on the internal list, an alarm shall be immediately sent to the central system and reported as an intrusion.

If the Smart Media is identified on the internal list, the technician shall enter their Personal Identification Number (PIN). The Smart Media/PIN pair shall be checked against an internally stored list for verification. This internal list shall also identify those functions for which the technician is authorized.

Verification of fare media/PIN as authentic and valid shall be performed before access to interior components of the machine is permitted without issuing an alarm. The PIN shall provide for a maximum of eight (8) characters to be entered for the PIN, and require a minimum of four (4) for a valid PIN. When fewer than the maximum number of characters are used for the PIN, leading zeros and trailing zeros shall be ignored when validating the PIN.

2.23 Useful System Life

Faregates shall be designed to provide a minimum usable life of fifteen (15) years subject to proper maintenance being performed in a timely manner.

Contractor shall also maintain availability of spare parts for faregates through the devices useful life, including upgraded components if a device or component is discontinued or declared obsolete during the system life. Such upgraded components shall be backwards compatible with other elements of the faregate. Faregates shall also be capable of incorporating technology upgrades without undue redesign of components or modules, extensive software revisions or other similar excesses.

Faregates shall be forward-compatible with a different fare payment application should WMATA choose to change its fare payment application. The parameters for faregate future compatibility with alternative fare payment applications should be described in faregate CDR, PDR and FDR design packages.

2.24 Station- and Facilities-Based Equipment

Faregates shall be installed in locations that may not be environmentally controlled. The following climatic factors shall be used as design guidelines and shall be required. The Contractor shall also advise WMATA if there are any special environmental factors to which its equipment may be sensitive that are identified below. The Contractor shall ensure that no equipment damage occurs during manufacture, storage, and shipment as a result of climatic conditions that differ from those below.

Sunlight

The equipment shall be designed to operate with a solar radiation loading of not less than 275 BTU/hr/ft². Some in-station equipment may be installed in glass-enclosed areas exposed to unfiltered sunlight.

Components sensitive to ultraviolet radiation shall be protected at all times, and the equipment shall be resistive to damaging effects from this type of radiation, including when the front door is open for maintenance and servicing activities.

All light-sensitive sensors shall be protected against the intrusion of light when the door is opened. Should the opening of the door cause light to activate a light-sensitive sensor, this shall not impact equipment operation or data but an event message shall be stored for each occurrence.

Environmental Contaminants

Suitable enclosures and filtering shall be provided inside the equipment for sensitive components such as printed circuit boards and memory storage devices to prevent malfunction resulting from dust particles that could be as small as 1 to 200 microns, with a maximum concentration of 0.248 mg/cubic centimeters. Where possible, positive air pressure and appropriate filtering shall be used to reduce the dust intake.

Local Climate

All station-based and facilities-based equipment shall be designed to operate reliably in the following environmental conditions, singularly and in any combination:

- | | | |
|----|------------------------|--|
| A. | Sunlight: | None to full, direct |
| B. | Storage Temperature | -22°F to 150°F |
| C. | Operating Temperature: | 0°F to 122°F |
| D. | Thermal Shock: | Up to 50°F in 2 hours |
| E. | Relative Humidity: | 13% to 99% R.H., including condensation |
| F. | Rainfall/Snowfall: | Up to 6 inches rainfall/20 inches snowfall per hour (may occur simultaneously and in the worst case include wind) |
| G. | Airborne Dust: | Up to 180 micrograms per cubic meter, with iron and salt particles |
| H. | Wind Speed: | Up to 90 mph, any direction |
| I. | Freezing Precipitation | Up to 3 inches per hour |
| J. | Water/Solvents | Water spray on equipment from cleaning floors and walls, industrial cleaning solvents and standard cleaning chemicals used by WMATA, rain, mud, snow and slush will come in contact with equipment |

In addition to the specific items identified above, all faregates and supporting equipment shall also operate as specified in the atmosphere commonly found in rail station environments and the WMATA service region.

Equipment enclosures shall comply with International Electrotechnical Commission Standard 529 (IEC529) to level IP34 as a minimum.

Vibration

Faregates and all supporting systems shall withstand the vibrations common to the installation environment, including proximity to both slow and fast moving Customer and freight trains. The testing for these various types of equipment shall include verification that the equipment operates properly at the completion of each of the testing cycles without modification or adjustment. Requirements for vibration testing shall conform to EEIG 97s0665- ERTMS/ETCS Environmental Requirements, and Track Side Equipment – Vibration, in accordance with the power spectral density (PSD), Vibration: 0.23g rms, frequency range 0 to 200Hz.

Shock

Components, which are sources of vibration, shall be sufficiently damped to eliminate externally-audible resonance or affect the integrity of other internal components.

Requirements for shock testing shall conform to the EEIG 97s0665-ERTMS/ETCS Environmental Requirements with Operational requirements Track (line side) and track side equipment. Test requirements shall conform to the MIL-STD 810F, Method 516.5, with the following changes:

The half sine shock pulse shall have a peak value (A) of 5g and a duration (D) of 20 milliseconds.

This shall be executed with all the internal components.

Electromagnetic Interference

Electrical and electronic components shall be immune to radiated electromagnetic and radio frequencies fields, conducted electromagnetic and radio frequency energy, electronic fast transients, and electrostatic discharge. Transmissions from equipment components, either radiated or conducted, shall not cause interference to other WMATA systems.

Components shall not be adversely affected by any electromagnetic frequency and shall not interfere with the transmission and reception of the following established frequencies:

- A. Audio frequencies for overlay track circuits, highway crossing approach and island circuits, and electrical lock circuits;
- B. Audio frequency code overlay for ATC system;
- C. Signal power;
- D. Cab signals;
- E. Radio frequencies (MHz).

Faregates and all ancillary system operations shall not be adversely affected by the electromagnetic fields generated by the 750 Volt DC traction power system. The system shall conform to the following requirements:

- A. FCC Part 15, Subpart B Class A (Conducted emissions), pertaining to conducted susceptibility;
- B. FCC Part 15, Subpart B Class A (Radiated emissions), pertaining to radiated susceptibility;
- C. SAE J-1113-13 pertaining to electrostatic discharge.

Vandalism

Faregates shall also meet the requirements as identified in this Section 2.26. Contractor shall provide documentation for the requirements of Section 2.26 at the Conceptual Design Review for WMATA review and approval.

If such documentation is not approved by WMATA, these requirements shall be verified as part of the Environmental testing.

Rain, Moisture & Humidity

Faregates may be installed in outdoor conditions with limited protection from the elements. In addition, the equipment base can be expected to become wet and accumulate salt, mud, and moisture. The equipment shall function and not suffer any degradation of operation under these conditions.

Shock

Faregate equipment shall comply with SAE J1455 for shock.

Vibration

Faregates shall comply with SAE J1455 for vibration.

2.25 General Electrical Requirements

Faregates components shall conform to the requirements of the National Electrical Code (NEC) and Underwriters Laboratories, Inc. (UL) and all applicable electrical codes. All equipment provided shall be UL certified and copies of these certifications shall be provided to WMATA at the completion of the First Article Test.

Faregates shall be electrically grounded, conforming to NEC requirements. All electrical infrastructure and components installed to faregates shall facilitate electrical power distribution in accordance with these Technical Specifications.

All installation activities shall proceed in stages, in accordance with the WMATA approved Installation and Deployment Schedule.

All Contractor installation activity scheduling and proposed installation drawing submittals shall be submitted in accordance with provisions of Section 4 for WMATA approval.

The electronics shall be solid state, assembled on reinforced printed circuit boards. These boards shall be modular (plug connected) and removable for inspection and/or maintenance. The components mounted on the board shall be securely soldered in place. For those items that must be easily and often removed, high quality sockets with retainers shall be used. Where electronic circuit boards are employed and where they are to be inserted and/or removed by means of board guides, they shall be provided with lifting tabs.

All major electrical/electronic subassemblies and devices shall be interconnected also by means of mating connectors with positive retention devices. All contacts and connections shall be of non-corrosive materials. Wires and multi-conductor cables shall be color coded or permanently marked to permit positive identification. It shall not be possible to improperly insert a plug-in component into a connector.

Fuses, circuit breakers, or other protective devices shall be employed to protect the electronics, motors, and other components from overload and damage. Where used, they shall be accessible without disassembly of components. Location shall permit inspection and/or replacement through normal maintenance access doors or panels.

Where required to ensure that there is no corrosion of electric terminals or connectors exposed to the environment, WMATA-approved environmentally sealed connectors shall be used. All plug-in components shall be retained with a positive force holding them in position to ensure they do not work loose with the vibration that can be expected from trains traveling through the station.

2.26 General Structural and Material Requirements

The faregates shall be constructed to meet the following structural and material requirements:

- A. With the exception of bases for equipment installed in an outdoor location, all faregate external equipment shall be constructed of non-rusting stainless steel (Grade 316L) with No. 4 brush finish or other finish as approved by WMATA. FVD bases and faregate baseplates shall be constructed of Grade 316L stainless steel or better;
- B. Fastenings shall be concealed wherever possible. Exposed corners shall be rounded or mitered, welded, and ground smooth. Stainless steel shall be formed around corners so that edges are folded and concealed from patrons' views when doors are closed;
- C. Faregate cabinets shall be designed to form an integrated structure capable of resisting, without permanent deformation, fatigue, failure, or undue wear, and other stresses inherent in the type of service for which this equipment is intended, including remaining operational and undamaged after experiencing a kick, punch, or other impact resulting in a concentrated load of 300 pounds to one square inch to any part of the enclosure;
- D. Faregates including all its installed components shall remain in operation and survive impacts resulting in loads of 1g peak with an approximate duration of 10 milliseconds along each of three mutually perpendicular axes;
- E. Faregates including all its installed components shall remain in operation and survive vibration of 1 Hz to 6 Hz at acceleration of 0.1g along each of three mutually perpendicular axes;
- F. Faregates shall be arranged to distribute the equipment weight over the mounting base evenly;
- G. Where dissimilar metals come in contact, the joint both inside and out shall be plated or painted with an approved coating to exclude moisture from the joint, and provide a suitable insulating barrier separating the metals. Dissimilar metals are defined as those metals, which are incompatible with one another in the presence of moisture, as determined from their relative positions in the Electrochemical Series, or from test data.

2.27 Vandalism Protection

For protecting against vandalism the following requirements shall be met:

- A. All latches shall be secure and robust.
- B. No external screws shall be used without the written approval of WMATA. When external screws are necessary, they shall be tamperproof.
- C. All fasteners used to secure equipment shall be concealed and tamperproof.
- D. All hinges for the front door and external access panels shall be concealed.
- E. Security locks with profile catches shall be used. All security locks shall capture and hold the key whenever the lock is open.
- F. Locks and keepers shall be drill-resistant stainless steel, and be mounted flush with the outside surface of the access door.
- G. The cabinet designs shall hinder any use of burglary tools.
- H. All gaps between doors/access panels and the cabinet shall be consistent along each edge and shall not exceed 0.05 inches when the door/access panel is latched.
- I. Reinforcement shall be provided at the positions where there is the possibility of burglary.

2.28 Software Requirements

All software and firmware shall be provided by the Contractor fully debugged and documented, with documentation to include all test plans and reports and shall include all revisions introduced up to the time of Final Acceptance. All deployed software shall be the final release version. No beta or release candidate software shall be accepted unless specifically approved by WMATA, in writing.

Where the software is a derivative based on a previous system, the Contractor shall ensure that all software patches and modifications have been applied prior to commencement of installation. Versions of third party commercially available software shall be approved at Final Design Review.

2.28.1 Operating Systems and Languages

Software may be written in a high or low-level language although high-level languages are preferred. The language, and its implementation for the selected microprocessor system, shall be commercially available in English. All languages and operating systems must have an acceptable installed base and be approved by WMATA.

All source code, including comments and development tools, shall be in English. Source code shall be well structured, modular, and clearly documented to allow easy comprehension and straightforward traceability to the Software Design Description documents. Software comments shall also include explanations of all significant memory addresses such as interrupt vectors, I/O addresses, and memory locations for RAM, ROM and other memory devices. All source code for the faregate components and the faregate application shall be delivered to WMATA.

2.28.2 Commercially Available Software

Some software supplied under this procurement may be commercially available to a wide variety of users. Examples include operating systems supplied by chip manufacturers and database software for wayside fault analysis.

For commercially available software, software documentation requirements are limited to the original data storage/transfer media, functional and usage details, all provider manuals, and licenses required for WMATA site use. The Contractor shall incorporate training on how the software is to be used in the specific situation for which it was provided, as part of the Training Program.

2.28.3 Redundant Data

All data shall be stored in two physically separate locations within each device to provide for the best data security and data redundancy. Data shall be maintained in these physically separate locations until that data has been successfully transferred to and stored centrally. Where files are maintained for specific intervals, such as daily files by faregates or Workstation Terminals, data shall be redundantly stored until these files have been successfully transferred to the central data repository.

2.28.4 Communication

Software shall be capable of supporting operations over multiple, disparate telecommunications/data networks. The Faregate System shall include manual data access, upload, download, and backup procedures with associated data security to sustain full operations during periods of complete or partial communication outages.

2.28.5 Version Control

The Contractor shall implement a procedure for identifying the version number for each software module for WMATA to review and approve as part of the QA submission. The version control procedure shall maintain a record of the current release and each previous release, with a detailed description of each modification. As a minimum, version control shall include:

- A. The automatic identification of the version number of each item of hardware and software for each device;
- B. The automatic reporting of this information when any version number changes;
- C. Unique, sequential version numbers for each software and hardware module.
- D. A detailed description of what has been changed/modified.

At any time desired by WMATA, a report shall be able to be generated from the Central System to provide version information for any, all or selected items of equipment and systems throughout the Faregate System.

2.28.6 Configuration Management

The Contractor shall devise and implement a procedure for management of the addition, alteration, or deletion of hardware, software, or telecommunications.

It shall allow WMATA to change and test configurations before being deployed throughout the system. This method shall also allow the ability to back out and return to original software configurations.

The Contractor shall develop and maintain a Software Configuration Control Plan that describes all software and firmware that supports the fare system and continues via updates to track changes and version numbers as updates and patches are implemented. This plan shall be submitted at the Final Design Review for approval by WMATA. The Contractor shall include in the plan a database system capable of maintaining the history of all software and status changes making it possible to determine which versions currently resides in which equipment. **CDRL 2-8**

All software shall be identified by a name, part number and a version number. The name shall identify the equipment into which the software is installed. Every change to software shall be reflected in an update to the version number.

2.28.7 Software Documentation

For non-commercially available software, thorough and accurate software documentation submittals and WMATA approval of these submittals are required. WMATA shall be provided with sufficient documentation to fully comprehend and analyze the operation of the equipment in which the software is to be installed; and to enable WMATA to maintain and modify the software to correct problems, adapt it to changing requirements, add features, and port it to a new hardware platform.

All software documentation from all suppliers shall be in a common format. This format shall use a consistent set of graphic and texts (techniques, formatting) to fully describe the software functionality and implementation. Software documentation shall include interface protocols and definitions of message structure. Software documental shall also include documentation of final software configuration. **CDRL 2.9**

2.28.8 Testability

All features and functions of software systems shall be testable on a systems level. Specific approval by WMATA is required for any feature, which is not testable on a systems level. For features, which are only testable with special equipment, all such equipment shall be supplied by the Contractor as test equipment, and become the property of WMATA. This equipment shall provide the logic, sequencing, and emulation necessary to verify that the software functions as intended. All software utilities and test tools developed for testing and/or performance measurement shall be provided to WMATA with appropriate documentation.

Type tests of all processor systems shall verify the proper operation of all software features, including diagnostics.

All Test Plans and Procedures shall be submitted for approval prior to conducting the tests in accordance to requirements in Section 4.

2.28.9 Software Updates

All faregates and supporting equipment and systems shall be able to accept software revisions/updates downloaded from the Central System through the applicable data exchange process. All processes for downloading software shall be reviewed and approved by WMATA at PDR. **CDRL 2-10**

When the download is complete and the equipment has acknowledged the receipt of the download, the Central System shall indicate in its database that the update has been completed.

Attempts to install an update shall only be performed after the complete software has been received and accepted by faregates or supporting equipment and systems. Incomplete updates shall be retained by the equipment and upon a retry of data upload to the device, the update shall resume from the point of communication interruption.

2.29 Required CDRLs

The following CDRL items are referenced in this Section:

CDRL No.	Description	Section	Due	Approval Required
CDRL 2-1	PCI-DSS Compliance Assessment	2.3	PDR, FDR	No
CDRL 2-2	ADA Certifiable Items Assessment	2.4.1	FDR	Yes
CDRL 2-3	Title VI Compliance Assessment	2.4.2	FDR	Yes
CDRL 2-4	Conceptual Design Package	2.5.1	NTP + 60	Yes
CDRL 2-5	Preliminary Design Package	2.5.2	NTP + 100	Yes
CDRL 2-6	Final Design Package	2.5.3	NTP + 140	Yes
CDRL 2-7	System Security Plan	2.12	NTP + 140	No
CDRL 2-8	Software Configuration Control Plan	2.29.1.6	FDR	Yes
CDRL 2-9	Software Documentation	2.29.2	FDR	Yes
CDRL 2-10	Processes for downloading software updates	2.3.20	PDR, FDR	Yes

End of Section 2

3 Station terminal and Portable Station Manager Devices

3.1 General Requirements

Faregates will be supported locally by station terminals that supports local faregate control and supports a Station Manager override of the emergency alarm system and portable station manager devices that supports faregate management and customer support services from multiple locations within the station mezzanine via the station's MetroNet Wi-Fi.

Both devices shall be comprised of commercially available electronic devices and the portable devices shall be equipped with protective casings that provide protection from predictable environmental impacts. The devices shall be configured or equipped with hardware that will read WMATA fare media and allow Station Managers to see fare media entry/exit status, account balance, and any stored value fare media.

Devices shall be delivered with all necessary attachments and auxiliary equipment to support power, battery charging and secure communication connectivity.

3.2 Functional Requirements

3.2.1 Station Terminal

- A. Secure log-in and authentication for authorized users and communication interfaces;
- B. Capability to read WMATA issued fare media and employee identification cards;
- C. Faregate configuration control to place faregates in and out of revenue service;
- D. Faregate configuration management to select entry/exit configuration for each faregate;
- E. Faregate commands to open or close faregate barriers individually, by array or by station; and
- F. Faregate commands to control alarms, adjust lightings and activate and deactivate concession fare indicator lights;
- G. Fare card reading capability for customer support inquiries;
- H. Support fare configurable emergency alarm delay and override to prevent faregates from opening when a false alarm is initiated;
- I. Data management to track log-on and log-off tasks; error messages; device status; and
- J. Secure connectivity to faregate independent of WMATA WAN and LAN Networks.

3.2.2 Portable Station Manager Device

Portable station manager devices shall have software and hardware to enable the following functionality:

- A. Secure log-in and authentication for authorized users and communication interfaces;
- B. Capability to read WMATA issued fare media to support customer service inquiries;
- C. Faregate configuration control to place faregates in and out of revenue service;
- D. Faregate configuration management to select entry/exit configuration for each faregate;
- E. Faregate commands to open or close faregate barriers individually, by array or by station; and
- F. Data management to track log-on and log-off tasks; error messages; and device status.
- G. Secure Wi-Fi connectivity to WMATA's MetroNet station Wi-Fi; and
- H. Initial battery life of at least 10 hours.

The functional description and concept of operations for the station manager terminal portable station manager devices shall be provided at Conceptual Design Review. **CDRL 3-1**

The hardware design, faregate management and fare media application functionality and user interface displays, operating system and application software documentation shall be subject to WMATA review and approval at the Preliminary and Final Design Reviews. **CDRL 3-2**

3.3 Device Requirements

3.3.1 Station Terminal

Station terminals shall be compact computers with touch screen displays and keyboard to support secure log-in, faregate management applications, and dashboard displays of device events and transactions.

3.3.2 Portable Station Manager Device

Portable station manager devices shall be similar to that of a typical electronic device shall weigh about 16oz ounces, including batteries. The protective casing shall be designed to support easy hand held use and minimizes impacts of predictable hazards including falling to the ground, contact with hard surfaces and minor spills.

3.3.2.1 Case and Ruggedness

The portable station manager device shall be designed and engineered to protect the device against drops, shocks, spills, vibration, dust, liquid and more. The device shall be tested against MIL-Std-810G and IP-67 standards. A multi-function rotatable hand straps shall be included and office docks

3.3.2.2 Operating System

The Portable Station Manager Device shall utilize a handheld or mobile operating system such as:

- Windows Phone 10 (or later);
- Android 8.0 (or later); or

- iOS 11 (or later)

The version of the operating system that is utilized shall be the one most recently released for commercial use. Alternatively, the version may be an earlier one released for commercial use within the last two years and revenue-proven to be a stable platform for its intended use.

3.3.2.3 Processor and Memory

The device shall be a minimum of *single core CPU module with 1GHz*, commercially available and specifically designed for its intended use, that being continuous operation in a mobile device. The device shall contain a minimum of 1 GB RAM and no less than 1 GB of Flash memory. The device shall contain one or more expansion slots to accommodate a Secure Digital High Capacity (SDHC) expansion media card.

3.3.2.4 Applications

The device shall include applications to faregate controls and fare media customer support. Faregate control applications shall include placing faregates in and out of service, changing the entry/exit directional configuration of faregates, opening and closing faregate, and monitoring faregate alarms and events. Customer support applications include reading and displaying the content of WMATA fare media including, stored entry/exit transactions, account balances, and valid fare products.

Portable devices shall also be configured so that additional WMATA approved applications can be stored and operated from the devices. This may include WMATA's ride-guide and next bus applications, commercially available applications, or newly developed applications.

Devices shall also be equipped with user authentication and log-in applications and device authentication applications to support system interfaces.

3.3.2.5 Display

The display shall be a color touch-screen (capacitive) display measuring at least 7 inch (diagonal). The display shall supply a minimum resolution of 1280 x 800 pixels.

The surface of the touch-screen display shall be a durable, scratch-resistant material that shall withstand daily continuous taps and strokes from a stylus or user fingertip from normal usage, over the life span of the device, without the need for replacement of the touch-screen.

The display shall provide users with instructions, prompts, and transactional information. The display shall meet the following minimum requirements:

- The display shall be easily read under all conditions of ambient light throughout the day and night. If necessary, a backlight shall be provided.
- Displayed messages shall be easily modifiable by WMATA once the system is in operation.

3.3.2.6 Batteries

The device shall be capable of operating for no less than ten (10) continuous hours on a single charge of the internal battery, with the media processor and any backlight activated no less than 50% of the time. Device batteries shall be commercially available and replaceable by WMATA.

When the device has been inactive for a WMATA-configurable period (initially set to 5 minutes), it shall revert to a sleep mode requiring depression of a designated key to activate the unit. User logon shall not be again required if the portable device is in sleep mode as described below.

Once the device has reverted to sleep mode, after a WMATA-adjustable period in that mode (initially set to 30 minutes), the device shall shut down completely, and shall require the user to log on after power is restored.

The device shall provide visual indication to inform the Operator of a low battery condition. This indicator shall illuminate when less than 15% of power remains. To conserve power, the activation of the battery low indication shall be a parameter settable by WMATA.

3.4 Media Reading

The portable station manager device shall have a commercially available ISO/IEC-14443 compliant Type A and B contactless Payment Processing Target (PPT) or equivalent fare media reader. The SMP shall be either an integral component of the device or a separate accessory that attaches directly to the PSMGC. As a separate accessory, the PPT shall lock into place into the device casing so as to prevent unintentional disconnection. Placement of the PPT shall not inhibit use of other features of the device.

It is understood that the design life of consumer grade PPTs and MSRs, are of relatively short duration and replacement/upgraded models are provided for these devices on a semi-regular basis by the manufacturers. If the models of these devices are not available at time of the approval of the Final Design, Contractor shall have the responsibility to provide equivalent devices that meet industry standards and all functional requirements at the time of Final Design.

3.5 Communications

The device shall communicate with the backend to suit the needs of the WMATA. This shall include, as a minimum, communication via:

- Local Wireless System (MetroNet Wi-Fi).
- Local Area Network (MetroNet LAN)

The device shall be equipped to handle communications with either system at any time. In the event that both systems are available concurrently, the PSMGC shall automatically defer to communication on the Local Wireless System. The Contractor will work with WMATA to establish the configuration of devices for MetroNet connectivity.

In the event of loss of communication, downloading and uploading of all stored information and operational data shall be possible on a local basis for an individual device through manual insertion in the expansion slot of a compact flash RAM with a minimum capacity of 8GB.

3.6 Device Security

Devices shall not be operational until a proper logon has been made to the device by a valid user. To activate the portable station manager device for use, the user shall logon to the device with, as a minimum, a username, and password. Employee identification smart cards may also be used as part of the logon process but a portion of the logon shall require data entry by the user.

3.6.1 Log-on

The device shall remain inactive and unable to perform any functions unless a proper logon has been completed as follows:

- The user will enter their unique user ID, a minimum of 6 characters, or present employee fare media card and press the “ENTER” key. The device shall display the entered user ID. The device shall then display “Password.”
- The user will enter their unique password, a minimum of 6 characters, and press the “ENTER” key. The device shall not display the typed characters of the password, but shall display only symbols in place of the actual characters entered.
- If the combined user ID and password is invalid, then the device shall display "Invalid logon" on the first line of the display and “User ID” with prompt, on the second and third lines of the display. This process shall be repeated until a valid user ID and password combination is entered or three attempts have been made. After the third unsuccessful attempt, the device shall not permit logon until it has been reset by an authorized user via communication with the backend.

A transaction record shall be stored for each successful logon, and each unsuccessful logon.

3.6.2 Log-off

The following log-off procedure shall be used by the Operator:

- The user shall press the appropriate log-off key or key combination. The device shall display “Log-Off?” and a prompt.
- The user shall enter “Y” and press the “ENTER” key.
- The device shall close all files and deactivate itself.

A transaction record shall be stored for each successful log-off and aborted log-off. Automatic log off shall also occur prior to the data transfer process with the backend as well as after a WMATA-definable time period of no activity of from one minute to eight hours.

3.6.3 Device Administration

All user level administrative functions on the device shall be executed only when an administrative level user name and password have been entered and authenticated by the backend.

3.6.4 Data Entry and Storage

The device shall not operate without the memory module properly installed. Each record shall incorporate a unique number and shall be date/time stamped. Each record shall be stored in the device memory for transfer to the backend. Data shall be stored for alarms and events, incidents of status change, data communication incidents and inspector logons and log-offs.

Data to be stored and transferred to the backend by the device shall include as a minimum:

- All events and alarms sensed;
- All events and alarms cleared, including the identification of the user which cleared the alarm;
- All changes in status of the device or any module incorporated;
- All log-in and log off for the system; and
- All configuration changes.

3.7 Reporting

In reports provided with the mobile applications, the central system shall generate reports upon request by the user. The central system shall be able to produce the following types of reports to support the operation of the fare collection. All reports shall be uniquely serialized.

- Maintenance Report – A listing of all maintenance issues, which have arisen since maintenance was last performed for the device. This listing shall also include “count to date” of the number of occurrences of each type recorded by the device.
- Supervisor Report – A listing of all users who have logged on to the device. This will also include logon failures and other similar transactions.

A minimum of five additional reports shall be provided by the Contractor, as defined by WMATA at the completion of the First Article Test.

The Contractor shall provide samples of these reports for WMATA review and approval at the Preliminary and Final Design Reviews. **CDRL 3-3**

3.8 Required CDRLs

The following CDRL items are referenced in this Section:

CDRL No.	Description	Section	Due	Approval Required
CDRL 3-1	Provide device conceptual description and drawings	3.2	CDR	Yes
CDRL 3-2	Provide hardware and software design, the functions	3.2	PDR, FDR	Yes
CDRL 3-3	Sample reports	3.3	PDR, FDR	Yes

End of Section 3

4 Testing

4.1 Faregate Test Program

The objective of the Test Program is to ensure that all hardware, software, interfaces, supporting equipment, and other system elements furnished under this Contract meet all specified requirements within this document. The Contractor shall conduct all testing and maintain responsibility for satisfactory completion of the testing and system implementation.

WMATA and/or its designated representatives will witness any and all tests, as determined by WMATA. WMATA and/or its representatives may, at any time during the duration of this contract, perform additional testing as determined by WMATA.

4.1.1 Test Methodology

The Contractor shall plan, perform, monitor, and document all tests described herein. These tests shall be designed to document, verify, and prove that the requirements for faregates and system integration with current fare payment systems. No testing by the Contractor or any Party or Agent acting on behalf of the Contractor shall commence until all design documentation affecting the respective equipment and relevant to the stage of the design has been reviewed and approved by WMATA, and WMATA has reviewed and accepted all related testing procedures and documents as defined here.

Testing and verification of the operation and functionality of the faregates shall commence using First Articles and production-ready versions of software, all of which shall be based on the final design of the system as agreed upon and documented from the Final Design Review meetings.

4.1.2 Test Program Plan

The Contractor shall develop and submit a comprehensive test program plan for WMATA's review and approval. As part of this plan, the Contractor shall prepare applicable procedures, which shall govern the conduct of activity, surveillance, direction, and methods of observing and recording the pertinent data including handling of failures of equipment and inaccuracies of reports. The following elements at a minimum shall be included in the Test Plan for each of the tests required:

- A. Tests to be performed up to Final Acceptance;
- B. Sequence of tests and, for each test, test prerequisites;
- C. Identification of the Contractor's personnel to be involved in each test and a summary of their qualifications and duties;
- D. Identification of the support, calibration instrumentation, test equipment and tools to be used for each test;
- E. Technical publications and standards referenced;
- F. Spares and consumables available for utilization during the testing;
- G. Location of each test;
- H. Staffing levels for maintenance and other personnel available during the testing, including a schedule;
- I. Specific data to be collected during the test;
- J. Test report format, including the method for reporting and summarizing the test results;

- K. Method and format of record keeping for the failures identified during the testing; and
- L. Corrective action procedures to be followed when failures and inaccuracies occur.

This test program plan shall be submitted to WMATA at the Preliminary Design Review and must be approved by WMATA prior to submittal of any test procedures specified within this Section. **CDRL 4-1**

4.1.3 Test Waiver Requests

At WMATA's sole discretion, portions of the Environmental tests may be waived upon written request from the Contractor **CDRL 4-2** based on the waiver providing sufficient supporting information to demonstrate that:

- A. The equipment has previously passed similar tests;
- B. The equipment in the test documentation provides all the same functions as WMATA system;
- C. The operating environment is substantially similar to WMATA environment;
- D. Test documentation provided is from a certified testing lab.;
- E. Tests performed are identical or functionally equivalent to the required WMATA test for which the waiver is requested; and
- F. The cost savings, which will be realized by WMATA if the waiver is granted.

The Contractor shall identify those tests for which waivers may be requested at the Conceptual Design Review, including all information as identified above to support the requested waiver and the time by which the waiver is to be provided to the Contractor so as not to impact implementation.

Waivers not identified at the CDR may not be requested at a later date unless they apply to new requirements. Waived tests will not constitute a change to the contract or system functionality.

4.1.4 Test Procedures

The test procedures shall be provided separately for all tests and their component tests and shall include, as a minimum, the following:

- A. Objectives of test, referencing the technical requirements that are being tested;
- B. Test environmental conditions;
- C. Detailed descriptions of test specimens including drawings, part numbers, inspection and test records, maintenance records and calibration records;
- D. Detailed procedures of each test and test element;
- E. Personnel (Contractor and WMATA) required for performing the test, and their duties;
- F. Test equipment to be used. Include any measuring equipment and/or any equipment aiding in the performance of the tests;

- G. The level and schedule of preventive maintenance to be permitted during the test;
- H. Pass/Fail criteria;
- I. Procedure for Test Failure Resolution;
- J. Test data sheet format;
- K. A breakdown of the day-to-day schedule for performing the test;
- L. A layout of the testing facilities to be used;
- M. Test Reports;
- N. Summary of testing activities;

The test procedures shall be provided to WMATA 45 days prior to the scheduled date for each test, including each of the First Article Test to ensure that WMATA will be able to review and approve the test procedures 15 days in advance of the test. Where required by WMATA, the Contractor shall update test procedures and resubmit them to WMATA.

4.1.5 Test Results Reports

Test reports shall be prepared in accordance with the test procedure and signed by all responsible witnessing parties. The test reports shall be submitted to WMATA for approval of test completion within one week of completion of associated testing. WMATA shall either accept or reject the test report, with reasons, within 21 days after receipt of test results.

If WMATA decides not to witness, or to not have a representative witness a test or tests, test reports shall nevertheless be submitted to WMATA for approval.

4.2 Component and System Level Testing

The Contractor shall subject all components of the faregates and the fully integrated system to a rigorous testing regimen. The Contractor shall plan for, perform, monitor, and document all tests required to prove the design and acceptability of the faregates and the current system payment application interface, including all elements, subsystems, and the system as a whole, as well as the level of functionality required for deployment. The Contractor shall furnish equipment that meets the criteria specified for all tests. Testing shall not commence until all designs affecting the faregates and all supporting system and all related testing procedures have been approved by WMATA.

Testing shall be conducted to coincide with the major implementation phases of the project. Work on any succeeding phase of the project without satisfactory completion of testing in a prior phase shall be at the Contractor's risk.

Central system testing shall validate the system's performance under an expected stress-case daily operational scenario. This test shall be designed to incorporate and test the centralized capabilities and all, interfaces with current fare payment application. The system capacity stress test shall be performed at the beginning of the Reliability, Maintainability and Accuracy Test (RMAT).

4.3 Testing Phases

The functionality of faregates and supporting systems shall be tested to:

- Verify that the hardware meets all environmental requirements (initially and when modifications are made to accommodate additional functionality);
- Verify that the system performs as defined by WMATA; and
- Ensure that there is no performance degradation when additional functions are implemented (rigorous regression testing shall be provided).

When new functionality is introduced, at least 10% of the previous functions tested shall be retested to ensure that the modifications to the system had no impact to system operation, function or performance. WMATA shall approve all regression testing items.

4.4 Communication Testing

Faregates shall interface with current fare payment application, and provide centralized controls and reporting capability. Portable Station Manager Devices shall interface with WMATA's LAN and Wi-Fi communications. All communications interfaces and system hardware shall be fully installed and tested prior to deployment. This testing shall be performed for all portions of the communications network.

Testing shall verify that the interface with the current fare applications, network and communication systems can fully support and operate as specified.

The Contractor's plan for this test shall be provided for WMATA approval. This test plan shall identify all aspects of the testing to be performed as well as the test equipment and procedures to be used.

Communication tests shall be performed to demonstrate all the network systems and all related sub-systems have been properly configured and optimized; and that they will operate fully and properly without a major system failure. Communication Test Procedure **CDRL 4-3** is due 90 days before planned test.

All instances of performance, which do not meet the specified requirements, shall be identified by the Contractor, and included in the test report. The test report shall also include a plan for resolution of these issues. The test report shall be provided not more than twenty-one (21) days after completion of the network testing. **CDRL 4-4**.

Corrections required as a result of the testing and verification shall be performed by the Contractor prior to delivery of any additional faregates.

4.5 First Article Test (FAT)

The purpose of this test shall be to demonstrate that the system furnished and installed provides all functions, features and requirements as specified. The FAT shall be performed at the Contractor's facility in the United States. Successful completion of this test shall serve as the prerequisite for beginning production of system equipment. The FAT shall be considered successfully completed when all functionality has been verified, without exception.

At this level of testing, the equipment tested shall be equal to the final production devices. The individual tests comprising the FAT shall include:

- A. Functional Test
- B. Environmental Tests
 1. Vibration Test

2. Shock Test
 3. Electromagnetic Effects Test
 4. Radiation and Electromagnetic Interference Test
 5. Temperature/Humidity/Voltage
 6. Water Intrusion
 7. Dust Test
-
- C. First Article Enclosure Integrity Test
 - D. Maintainability Test
 - E. Central System Software Verification Test
 - F. System Interface Test
 - G. Application Verification Test
 - H. Cycling Test
 - I. Report Generation Test

Included for the FAT with all equipment being tested shall be the Simulator Lab. As a part of the First Article Testing, the operation of the Simulator Lab shall be verified to ensure that it can perform its proper function. This shall include all functions required to verify software changes to the equipment, tariff changes, configuration changes and other functions as identified throughout these Technical Specifications. FAT Test Procedures **CDRL 4-5** are due 90 days prior to the start planned tests and test results **CDRL 4-6** are due 21 days after tests are completed.

4.5.1 Functional Test

The Contractor shall provide functional test procedures that satisfactorily demonstrate all equipment functions according to these specifications and that all performance requirements will be met.

The purpose of this test shall be to demonstrate correct operation for each type of equipment including all of the functions specified throughout this document, and all limiting conditions. A Faregate, ADA Faregate and Station Manager Device shall be required to successfully execute all hardware and software functions as defined and identified in the specifications, and any further definitions or clarifications made during the ensuing design process.

All performance level criteria requirements shall be tested and verified during these tests. The procedures for handling maintenance (trouble shooting, and correcting faults) and service functions (extracting data) shall also be successfully demonstrated, ensuring adherence to contractual requirements and shall be included in the test procedures identified above.

Each unit of equipment shall have passed the functional test before the environmental tests listed below are started.

4.5.2 Environmental Tests

The testing to be performed shall be as identified in the following subsections. The Contractor may suggest alternative testing protocols, standards and procedures for any or all of the defined environmental tests, but no waiver, exclusion, or modification shall be deemed granted by the Contractor in the design of the system or any of its components. Should a waiver not be granted or substitution not be permitted, the system shall meet all of the environmental requirements

defined herein without change or modification to these technical requirements or associated other requirements.

All equipment software for the environmental test shall be identical to that which was exercised during previous tests.

4.5.2.1 Vibration Test

The Contractor shall ensure that all equipment and mounting hardware/fixtures proposed are both resilient and protected from vibration conditions expected in their intended environments.

The purpose for this test is to ensure that all equipment and mounting hardware/fixtures can withstand the vibrations common to the installation environment, including proximity to both slow and fast moving passenger and freight trains. The testing for these various types of equipment shall include verification that the equipment operates properly at the completion of each of the testing cycles without modification or adjustment.

4.5.2.2 Shock Test

The purpose for this test is to ensure that the equipment can withstand the intermittent shocks common to the installation environment including proximity to both slow and fast moving passenger and freight trains, passenger abuse on the platform and attempts at intrusion and vandalism. Requirements for shock testing shall conform to the following:

The Contractor shall ensure that all equipment proposed shall be tested per MIL-STD 810F, Method 516.5, Section 4.5.2.3, Procedure 1, with the following changes:

- The half sine shock pulse shall have a peak value (A) of 5g and a duration (D) of 20 milliseconds.

The equipment shall operate normally after the shock tests and shall not have experienced broken or loosened components as a consequence of these tests.

4.5.2.3 Electromagnetic Effects Test

The Contractor shall ensure that all equipment proposed shall be tested for electromagnetic interference as applicable per the following:

- A. Susceptibility to Radiated Electromagnetic Energy - The equipment shall be tested for susceptibility to radiated electromagnetic energy per the requirements of MIL-STD-461E for radiated emissions, electric field. The equipment shall not sustain any permanent damage as a result of the exposure to these electromagnetic fields nor shall it lose its data in RAM and non-volatile data storage. Loss of data relative to a transaction during the exposure is undesirable.
- B. Susceptibility to Conducted Electromagnetic Energy - The equipment shall be tested for susceptibility to conducted electromagnetic energy per the procedures of MIL-STD-461E, Requirement CS116, utilizing the 400 volt, 5 microsecond pulse of both positive and negative polarity. The equipment shall not sustain any permanent damage as a result of application of the pulse energy nor shall it lose its data in RAM storage.

- C. Radiation of Electromagnetic Interference – All equipment shall comply with applicable Federal Communication Commission regulations (i.e., FCC Rules, Part 15, Subpart J) concerning conducted and radiated radio frequency energy and shall provide certification or test results verifying compliance.

- D. The following criteria shall also be considered for verification of testing as identified within this Section. The Contractor shall identify to which of these requirements their equipment shall conform and WMATA shall approve the voltages, timings and other pertinent testing criteria:
 - 1. IEC 1000-4-6 (= EN 61000-4-6) pertaining to conducted susceptibility;
 - 2. IEC 61000-4-3 (= EN 61000-4-3) pertaining to radiated susceptibility;
 - 3. IEC 61000-4-2 (= EN 61000-4-2) pertaining to electrostatic discharge;

- E. The following criteria shall also be considered for verification of testing as identified within this Section:
 - 1. FCC Part 15, Subpart B Class A (Conducted emissions), pertaining to conducted susceptibility;
 - 2. FCC Part 15, Subpart B Class A (Radiated emissions), pertaining to radiated susceptibility;
 - 3. SAE J-1113-13 pertaining to electrostatic discharge.

4.5.2.4 Temperature/Humidity/Voltage Test

The temperature and humidity requirements for these tests are as identified in Table 4-1. Once the specified temperature and humidity levels have been reached in the test chamber for a particular test, the equipment undergoing testing shall be placed in the chamber and allowed to stabilize for a minimum of two hours prior to test commencement. The number of test cycles to be performed during each test and for each type of equipment shall be identified by the Contractor in the test plan and procedures, and subject to approval by WMATA prior to test commencement.

Faregates shall be subjected to the following environmental test for Temperature/Humidity/Voltage. The equipment shall be allowed to stabilize for a period of two hours at each given environmental condition setting. Thereafter, the number of transactions to be processed shall be as indicated in Table 4-1 and the equipment cycled as per procedures established for Cycling Tests.

Table 4-1 – Environmental Test Conditions

Run No.	Exterior Temperature	Exterior RH (%)	Solar Loading	Input Voltage	# Transactions
1	Minimum per Section 2	20-40		nominal +5%	250

Run No.	Exterior Temperature	Exterior RH (%)	Solar Loading	Input Voltage	# Transactions
2	Maximum per Section 2	50	Maximum per Section 2	nominal power	250
3	80° F	95		Maximum per Section 2	250
4	80° F	95		Minimum per Section 2	250
5	32° F	80		Nominal -5%	250

Successful completion of this phase of the Environmental Test requires no more than one relevant failure.

4.5.2.5 Water Intrusion Test

Faregates shall be subjected to and successfully pass UL 50 3R Water Ingress testing. In addition, a water ingress test shall be conducted, in which worst-case rain and wind conditions as specified in Section 2, shall be simulated.

4.5.2.6 Dust Test

Faregates, shall be subjected to and successfully pass a test that will verify whether suitable enclosures and filtering are provided to protect the equipment and its sensitive components from malfunction resulting from dust particles. Type 1 general-purpose Portland cement is to be used for the test media as it has a controlled maximum particle size (.0381mm to .0737mm). The air velocity at the outlet of the blower shall be at least 1000 feet (305 m) per minute, with the blower cycled for 15 seconds on and 30 seconds off, for the duration of the test. Where possible, positive air pressure and appropriate filtering shall be used to reduce the dust intake. This dust test shall include varying lengths of exposure as identified Table 4.2.

Table 4-2 – Dust Exposure Test

Duration of Test	Fixed Location Equipment
One Minute	X
Fifteen Minutes	X
Thirty Minutes	X
Sixty Minutes	X

4.5.3 First Article Enclosure Integrity Test

Upon successful completion of the First Article Configuration Inspection (FACI), the First Article faregates shall be installed to a concrete floor in a manner identical to the proposed and WMATA-approved installation method. Each enclosure shall then be subjected to the maximum forces as defined in Section 2 in the following manner:

- A. In preparation for the test, each faregate shall be leveled and fully secured.

- B. Each faregate shall have the maximum horizontal force applied at the top of the enclosure, perpendicular to each of the enclosure's four sides. The force shall be applied for 30 seconds in each direction. For each force application, when the force is removed, the cabinet shall be inspected for deformations and inclination from perpendicular. Any deformations or deviation from perpendicular shall constitute test failure.
- C. The faregate shall have its door opened to between 90 and 120 degrees and the maximum weight applied to the edge of the door for 30 seconds. After the weight is removed, the enclosure shall be inspected for deformation and inclination from perpendicular. Any deformations or deviation from perpendicular shall constitute test failure.

4.5.4 Maintainability Test

The Contractor shall conduct a Maintainability Test of faregates. The purpose of this test is to determine that the equipment tested conforms to the maintainability requirements specified. Specific faults shall be introduced as test cases and the time required for a trained technician to correct the fault, successfully returning the equipment to revenue service, shall be recorded. WMATA shall select the failures at the commencement of the Maintainability Test.

The Contractor shall prepare a test outline for the Maintainability Test plan that shall identify the sample size⁴ and a list of all faults to be introduced into the equipment. This list shall represent every known failure mode for each unit of equipment, and all functionality.

The test shall be conducted in the following steps:

- A. The Contractor shall provide no fewer than three faregates to introduce failed components, miss-adjustments and incorrect settings. The simulated failures shall be introduced in proportion to their expected failure rate.
- B. The Contractor's maintenance personnel shall be unaware of the simulated failures and shall be assigned to repair the equipment.
- C. The repair times shall be recorded and MTTR shall be compared, individually and collectively, with the advance list provided by the Contractor. All results shall be approved by WMATA. Repair times shall be measured from the time the maintenance personnel arrive at the equipment to the time the equipment is placed back into revenue service.

4.5.5 Faregate Software Verification Test

The Contractor shall conduct a Software Verification test. The purpose of this test is to prove that each of the functions provided by each of the application servers operate as specified.

For this test, at least one of each type of faregate cabinet and all supporting field equip is required so the functionality can be proven. The functions covered shall include all functions provided by the faregate and all fare payment media and fare products. For example:

- All functions centrally controlled applications;
- System setup, including security accesses, including network address allocation;

⁴. The sample size shall be statistically valid and provides a high degree of confidence.

- System monitoring;
- Alarm generation and reporting;
- Base fare transactions;
- Pass product fare transactions;
- Autoload fare transactions;
- Low balance fare transaction;
- In-valid media transactions;
- Fare revision;
- Query and report generation and execution;
- Automatic generation of daily summary tables;
- Data archiving and recovery;
- Emergency conditions;
- Station workstation overrides;
- Local faregate configuration management;
- Remote faregate configuration management
- Local faregate log-in and log-out
- Remote faregate log-in and log-out.

All instances of performance, which do not meet the specified requirements, shall be identified by the Contractor and included in the test report. Corrections required as a result of the testing shall be approved by WMATA and performed by the Contractor prior to delivery of any additional equipment.

4.5.6 Faregate Current Fare Payment Application System Interface Test

The Contractor shall design and conduct the System Interface test to evaluate how well and accurately the equipment and software provided interfaces with the current fare payment application. The individual tests within this Section shall be performed under varying conditions, using a statistically valid sample that will demonstrate all functions as specified for all fare payment applications and accepted WMATA fare media and fare products. The interfaces to be tested shall include all interfaces between the faregates, PPTs and the current fare payment system in WMATA's AFC simulation laboratory.

As a part of the System Interface test, verification of the proper interoperation with those external interfaces shall also be proven. These interfaces shall include but not be limited to:

- Entry and exit fare transactions;
- Pass product and special user class fare transactions;
- Autoload transactions;
- Fare table updates;
- Invalid media attempted transactions;
- Customer interfaces;
- Software updates; and
- Data polling.

The software tested shall be complete and ready for delivery to WMATA. All potential functions and operational situations shall be included in the test in order to demonstrate that the interfaces meet all of the system requirements.

All instances of performance, which do not meet the specified requirements shall be identified by the Contractor, and included in the test report. Corrections required as a result of the testing shall be approved by WMATA and performed by the Contractor prior to delivery of any additional equipment.

4.5.7 Cycling Test

The cycling test shall be conducted. The cycling tests shall be conducted at a minimum, as shown in Table 4.3. WMATA, at its sole discretion, may opt to provide an enhanced Cycle Test Requirements list during the design Review Phase. Additional Cycle Tests may be necessary as a result of design review meetings and proof of design.

A mix of fare types shall be used for the cycle test including, but not limited to, fare media configured as Adult, Child, Senior, Disabled and Employee categories.

Table Key for Media Type:

- SM – WMATA issued smart media and Partner issued smart media;
- Bankcard - Contactless credit/debit smart media and Open Payment smart media.

In addition, the cycle test shall also include not less than 10% additional transactions with invalid media. The invalid media shall be verified against each type of equipment, which reads and verifies smart media as valid for a particular mode of transportation service. Issue of smart media shall include the storage of the validity information in the CDS account. Cycling Test Plan **CDRL 4-4** is due 90 days before planned testing.

Table 4-3 – Minimum Cycle Test Requirements

Trial #	Media Type	Transaction Description	Qty.	Tests
Faregate / ADA Faregate				
66	SM	Pass Usage	100	2
67	SM	Pass Usage	100	2
68	Present	Pass Usage	100	2
69	SM	SVC payment	50	2
71	SM	Accept One Way Media	25	2
72	SM	Accept Round Trip Media (outbound)	25	2
73	SM	Reject insufficient stored value	25	2
75	SM	Reject depleted/expired/used OW/RT Media	25	2
76	SM	Reject depleted/expired/used OW/RT Media	25	2

4.5.8 Report Generation Test

The system shall be provided with test data simulating WMATA database for purposes of this test. Throughout this test, the date and time shall be modified a minimum of ten times incorporating dates from a minimum of five different years.

These functions shall include, but not be limited to, the following:

- A. Alarm transmission and all other device/component monitoring functions (for all devices);
- B. Data transmission to and from the central system);
- C. Data transmission from the central system (for all faregates and station workstations ;
- D. Fare Table modification, download and verification simultaneously to all devices;
- E. Configuration modifications from all faregates; and
- F. Automatic report generation.#

The Contractor shall identify each integrated function in its Test Procedures, including the boundary conditions and security provisions.

All data transmissions shall be inspected and tested for accuracy. Inaccurate data transmissions shall be recorded as a failure. The Contractor shall take any corrective action necessary to ensure the proper performance of all functions.

Samples of all reports available shall be generated. Format, layout, page and column headers, data, and all other information shall be reviewed to confirm compliance with the designs approved at the Final Design Review subject to any subsequent agreements. Successful completion of the test requires no discrepancies between report contents and known data as well as proper formats.

4.6 Production Acceptance Test (PAT)

This test will be performed by the Contractor at its North American facility to verify faregates are consistently manufactured, and fully complies with final functional requirements and hardware configuration. This test will occur for all equipment that will be part of both the Initial Revenue Service Test (IRST) and RMAT testing. Successful completion of the PAT is a prerequisite for delivery of equipment to WMATA's sites for additional testing.

Once this test is successfully completed, the equipment shall be available for shipment. The Contractor shall provide to WMATA certification in writing, in addition to providing the actual test results for review, when the FAT Functional Test has been passed. WMATA will identify, when necessary, required modifications to be made and demonstrated before approving release for shipment. WMATA shall have, at their discretion, the right to provide on-site oversight of the PAT. PAT Test Procedure **CDRL 4-7** is due 90 days before scheduled testing and test results **CDRL 4-8** are due 21 days after the completion of testing.

4.7 Pre-Installation Checkout (PIC)

Prior to commencement of the IRST, a Pre-Installation Checkout (PIC) shall be conducted at the storage warehouse. WMATA will select five faregates from each delivery. The test objectives are:

- A. To confirm that there was no visible damage in the delivered equipment;
- B. To visually inspect a random sample of mobile equipment for conformance with specifications;

- C. To determine by these procedures if installation can begin or corrections and/or adjustments are needed followed by a retest before installation can begin.

PIC Checklist and Procedure **CDRL 4-9** is due 90 days before scheduled delivery of faregates.

4.8 Pilot and Installation Checklist

This test will be performed by the Contractor at an observed by WMATA or its appointed representative to verify that the equipment, which successfully completed PAT testing, continues to perform as expected after it has been installed and to verify that all safety certifiable and ADA certifiable items are in compliance prior to revenue service. This test will occur for all equipment. The Installation Checklist is in addition to Installation Acceptance Tests, which are part of the Installation Plan.

A three faregate pilot deployment at three different mezzanines will be done prior to faregate installation to verify that faregates and central system applications perform according to requirements. One of the three pilot faregates shall be an ADA faregate.

Pilot faregates will remain in service for not less than 21 days and until all faregate functionality, transaction processing, and faregate local and central management and reporting functionality has been verified. The Pilot will be considered complete when all system functionality is verified and faregates are operational without failure for 10 days.

Successful completion of the Pilot is a prerequisite to placing devices into revenue service and starting the Initial Revenue Service Test. Pilot and Installation Checklist **CDRL 4-10** are due 90 days before the planned installation of pilot devices. Pilot performance and events will be reported weekly and the final Pilot Test Report **CDRL 4-11** is due 21 days after the completion of testing.

4.9 Initial Revenue Service Test

This test shall be performed after successful completion of the IAT on a predetermined set of installed faregates. The test shall be conducted with a population of devices equal to no less than 10% of the quantity of faregates or 15 station mezzanine installations.

The IRST shall be conducted for a period of not less than five consecutive weeks. The testing is designed to verify the system is operating in a reliable and accurate manner when subjected to actual in-service revenue conditions. The IRST period shall be completed when faregates and all supporting systems and applications run without incident for 14 days and all corrective actions impacting revenue service are closed. WMATA reserves the right to stop faregate deployment if there are significant system failures or events that impact WMATA's ability to collect fare payments or operate faregates.

The first seven days of the IRST shall be designated as a settling period, but with all normal operations for revenue service carried out and accuracy and reliability data documented. Prior to this period, a Failure Review Board (FRB) shall be set up. The FRB shall review the reported failures, categorizing them for inclusion into the IRST statistics. For each reported failure, the Contractor shall provide a plan as to the corrective actions necessary to repair the defect. The FRB shall review all failures and provide an analysis for the cause of the malfunction. At the end of the settling period, the IRST shall begin and shall be conducted over the next 28 days. The Contractor shall be responsible for performing all maintenance actions during IRST. IRST

Test Procedure **CDRL 4-12** is due ninety days before planned start of faregate deployment and IRST Test Report **CDRL 4-13** is due 21 days after the test is completed.

4.10 Required CDRLs

CDRL No.	Description	Section	Due	Approval Required
CDRL 4-1	Test Program Plan	4.1.3	PDR, FDR	Yes
CDRL 4-2	Test Waiver Request	4.1.2	PDR	Yes
CDRL 4-3	Communication Test Procedure	4.3	90 days before planned tests	Yes
CDRL 4-4	Communication Test Results	4.3	21 days after test completion	Yes
CDRL 4-5	FAT Test Procedures	4.5	90 days before planned tests	Yes
CDRL 4-6	FAT Test Report	4.5	21 days after test completion	Yes
CDRL 4-7	PAT Test Procedures	4.6	90 days before planned tests	Yes
CDRL 4-8	PAT Test Report	4.6	21 days after test completion	Yes
CDRL 4-9	PIC Procedure and Checklist	4.7	90 days prior to the delivery of faregates	Yes
CDRL 4-10	Pilot Test Procedures and Installation Checklist	4.8	90 days before planned tests	Yes
CDRL 4-11	Pilot Test Report	4.8	21 days after test completion	Yes
CDRL 4-9	IRST Test Procedure	4.9	90 days prior to deployment	Yes
CDRL 4-10	IRST Test Report	4.9	21 days after the IRST period	Yes

5 Deployment

This section covers the deployment planning and installation requirements of faregates and supporting equipment. The Contractor shall ensure that all Federal, State, District and municipal requirements, insurance, regulations and standards are met during the implementation, including obtaining right-of-way access in accordance with WMATA Construction and Safety requirements. All such elements shall be incorporated into the deployment planning deliverables.

5.1 Deployment Plan

WMATA requires that faregates be deployed so that revenue service is not disrupted and that current faregates are removed only as new faregates are deployed. WMATA requires that no more than one faregate aisle be left out of service at any mezzanine while new faregates are installed unless otherwise approved. In instances, in which WMATA's emergency egress levels are impacted, deployment plans must include contingencies for Fire Watch Protection or strategies to complete faregate installation without leaving an aisle out of service.. The Contractor shall be required to develop a Deployment Plan that details the deployment approach and compliance with all WMATA safety and security requirements. The Deployment Plan shall be developed 180 days prior to the planned deployment start. **CDRL 5.1**

The Contractor shall be responsible for the delivery, storage and safekeeping of all faregates until faregates are fully installed and accepted.

5.2 General Installation Requirements

All equipment removal and installation work shall be performed in accordance with WMATA standard requirements and standard operating procedures listed below:

- Construction Safety and Environmental Handbook;
- MetroRail Safety Rules and Procedures Handbook;
- Safety and Security Certification Program Plan;
- WMATA Contractor Safety Vest Specifications; and
- System Safety Program Plan.

Where the requirements below are in conflict with or are less restrictive than the WMATA standard requirements, the WMATA standard requirements shall take precedence.

5.2.1 Safety Certification Project Plan

The Contractor shall submit a Safety Certification Project Plan in accordance to WMATA's Safety and Security Certification Program Plan detailing faregates safety item and faregate installation safety certifiable elements. **CDRL 5-2**. The Contractor shall obtain written approval from the Authority's Safety Department that the Contractor demonstrates compliance with WMATA's and Safety and Security Certification Program Plan before any work can commence.

5.2.1.1 Installation and Interface Plan

The Contractor shall submit to WMATA for review and approval an Installation and Interface Plan (IIP). The IIP shall indicate the method of installation and connections, the installation schedule for each station mezzanine, as well as installation testing and any support requested of

WMATA to properly install the equipment. The IIP shall include provisions for the installation of test faregates in WMATA's AFC Lab and Maintenance Training Facilities.

The IIP shall provide information on the personnel assigned to the installation, their duties, and the on-site project manager for the Contractor for this phase of the project. The IIP shall include installation instructions and drawings for each type of faregate equipment that is to be installed. The Contractor shall be responsible for the removal of current faregates and for delivery, installation and testing of all new faregate cabinets.

The IIP shall include a description of the step by step procedures to be followed for the installation, finishing, and communication interface with back end systems.

The Contractor shall submit the IIP for WMATA review at the Preliminary Design Review. The Final IIP shall be submitted for WMATA's review and approval at the Final Design Review.

CDRL 5.3.

5.2.1.2 Contractor/WMATA Work Site Responsibility Limits

Metrorail station/mezzanine site work responsibility limits between the Contractor and WMATA are as follows:

- A. WMATA shall furnish, install, terminate and test one CAT6 Ethernet cables from the mezzanine Ethernet switch to the current faregate to support new faregate communication interface. At the equipment/component-end, Contractor shall tag and connect the CAT6 (RJ45).
- B. WMATA shall furnish and install the mezzanine Ethernet switch and terminate the CAT6 cables to the switch. .
- C. WMATA shall furnish, install, terminate and test the fiber optic cable from the mezzanine Ethernet switch to the Communications Equipment Room (CER).
- D. WMATA shall provide the CER Ethernet connection to the MetroNet network.
- E. As required, WMATA shall furnish and install new power cables from the electrical panel board to the kiosk to be used if new power circuits are required to support new faregates (it is anticipated that new faregates will use power circuits and receptacles that support current faregates).
 1. Spare cables shall be cut to ample length, and be provided without any type of end connector. Contractor shall tag and terminate power cables to their equipment if needed.
- F. WMATA shall handle and manage all power circuits at the mezzanine/station's electrical panel board(s).
- G. WMATA shall maintain operation of all existing AFC System equipment and connection cabling at the station.
- H. WMATA shall perform all floor tiling repair work, however if tiles are damaged at the time of installation, the Contractor is responsible for ensuring that the site is free of tripping or other safety hazards while tile repair work is coordinated.
- I. Contractor shall be responsible for any damage incurred to the cables or the cable infrastructure.

5.2.1.3 Site Access and On-Site Work

Faregate installation work will be completed during non-revenue hours Monday through Friday (Monday 3rd shift starts at 10:00 pm Sunday evening). Contractors will have access to rail stations from 10:00 pm to 5:00 am, but installation tasks that impact customers cannot begin until the station closes unless otherwise approved by WMATA. Stations closing times vary and according to the time the last service train reaches the station and the last customer exit the station.

The Contractor shall plan and execute safe access to the work site for on-site work. Such safe access shall be afforded to construction equipment, vehicles, and personnel in accordance with WMATA requirements.

Access dates will be subject to revision as delivery, testing and installation of faregates progresses. Therefore, the Contractor shall incorporate flexibility into the installation schedule.

5.2.2 Site Specific Work Plan and Supplemental Site Work Plans

The Contractor shall develop a Site Specific Work Plan (SSWP) that details work requirements that need for faregate deployment at each station mezzanine. The SSWP shall provide WMATA with a detailed description and breakdown of all construction and installation requirements necessary for any given location, including a detailed narrative that expands upon the Contractor's approach as defined in their Technical Proposal, as finally accepted.

The SSWP shall provide detailed demolition and construction drawings to sufficiently outline equipment removal and installation of equipment, conduit, cabling, and any other materials are part of this project. In addition, the SSWP shall address all phasing of efforts at any given location, including with sub-contractors as well as with other efforts undertaken by WMATA. The SSWP must be approved by WMATA's Safety Department before any faregate deployment or demolition work can begin.

The SSWP shall include details for trash and waste removal and contingency plans for how repairs will be made to WMATA facilities and stations in the event that damage results from equipment removal, construction, or installation. This information includes the types of products (material, manufacturer, grade, color) and methods that are to be used to match the surrounding existing conditions.

The SSWP shall provide a description of work and a breakdown of labor force that outlines labor, equipment, and responsibilities of each party, including WMATA support labor. As part of this, the Contractor shall provide a time scaled hourly logic network that provides an hour-by-hour breakdown of the Contractor's and others related activity.

The SSWP shall include plans for equipment and tool delivery and storage. Plans shall include barriers and/or other protections to secure equipment and minimize impact on customer ingress and egress during revenue service hours.

The SSWP shall include verification of NFPA 130 equipment compliance. This includes verification that faregates automatically open in conditions where there is a large of power, ground fault, emergency alarm, and activation by manual switch. The SSWP shall also include plans and procedures for Fire Watch Protection if needed.

Supplement work plans will be developed for sites that require additional planning and coordination or special tasks for the delivery and installation of equipment specific for that location. This includes requirements for work done on the platform level may require track foul time access rights and confined space certified worker) or locations that do not have elevator access to the mezzanine level and require special support for the delivery of equipment. Depending on site attributes, supplemental work plans may require details for:

- Requirements for a Contractor's watchperson;
- Required WMATA flagging and support;
- Requirements for specialized escalator supports to move equipment;
- Requirements for specialized lifts are riggers (if equipment weight and size exceeds limits of escalator lifts);
- WMATA main and support department(s) escort(s) identified
- All related construction methods;
- Arrangements for emergency clearing and restoration of service;
- Sketches for defining the configuration other operational elements at completion of work.

In addition, the Contractor may need to foul a section of track or require a complete service outage for work done on the platform level. The Supplemental work plan shall address all requirements for outage, including time and duration. While the SSWP shall address any potential fouling or outages that will occur, it does not supersede or replace the need for an Outage or Fouling Request.

The Contractor shall submit an outline of the SSWP for WMATA review at the Preliminary Design Review. The system wide SSWP shall be submitted no less than 120 days prior to the commencement of work. **CDRL 5.4**

Supplemental work plans shall be submitted no less than 90 days before the commencement of work at those locations. No work shall begin at a location until the related SSWP and Supplemental Work Plans have been submitted by the Contractor and approved by WMATA. The SSWP and/or Supplemental Work Plans shall be updated as necessary and resubmitted to WMATA for subsequent review and approval. **CDRL 5.5**

Not later than 60 calendar days before the planned work begins, the final approved SSWP and where applicable Supplement Work Plans shall be distributed to all parties and be available on-site during faregate installation.

The SSWP and Supplemental Work Plans will be approved by all departs that are impacted by or that have responsibility for interfacing systems related to planned work. WMATA's Safety and Environmental Management Department has the final approval for these submittals. The approved SSWP and Supplemental Work Plans must be distributed to all parties and available on site at all times.

The Contractor shall not perform any of the work required until written approval has been received from WMATA. WMATA will not grant track outages, powers outages, or track occupancy until the Contractor's SSWP has been reviewed by the Authority Representative and approved in writing. The Contractor is advised that WMATA reserves the right to cancel or re-schedule an approved outage in the event of an operating emergency (derailment, system failure, power failure, etc.) in which support/protection personnel may not be available.

As applicable, the Contractor and/or subcontractors requiring entry into the rail revenue operating system, including rail maintenance yards, for performance of Contract work shall provide such employees requiring entry with photo identification cards issued by the Authority. The Contractor shall obtain and be responsible background checks and badge request documentation in accordance with WMATA policies.

ROW Safety Training, administered by the Authority, will be required for Contractor and Sub Contractor employees that require access to the Metrorail system prior to working on the system.

The Contractor's Safety Superintendent shall schedule the ROW Safety Training through the WMATA's Safety Department.

The Contractor and Sub Contractors shall not begin work on any day until authorized to do so by the Authority's Safety Representative or an appointed designee.

The Contractor shall coordinate and schedule all work with the Authority to ensure that the Contractor's activities do not interfere with the operation of or access to the Authority's facilities.

5.2.3 Contractor Employee Safety Management Program

The Contractor and/ or Sub-Contractor responsible for the installation of faregates shall provide documentation of company's safety program and adherence to: OSHA Regulations and Standards applicable to the scope of work defined within this Section and these Technical Specifications;

- WMATA specific Work Site Safety Requirements; and
- All other governmental agencies having jurisdiction over the work.

The Contractor shall be required to assure that all employees, subcontractors, and suppliers/vendors, while on any WMATA work site and/or in the conduct of the Contract, comply with the provisions of these safety regulations and standards.

The Contractor's ESMP, which, at a minimum, shall include but not be limited to provisions for the following:

- A. Construction Orientation;
- B. OSHA Inspection and Compliance;
- C. General and Site Specific Safety;
- D. Workmen's Compensation Reporting;
- E. Fall Protection/Personal Protective Equipment;
- F. Confined Space;
- G. Hazardous Materials;
- H. Trenching and Excavation;
- I. Electrical Protection;
- J. Drug and Alcohol;
- K. Public and Passenger Protection; and
- L. Blood pathogens.

The Contractor shall identify a qualified safety officer who shall be responsible for all safety-related activities until the completion of the work at each WMATA work site. The safety officer shall report all on-the-job injuries at once to WMATA and submit all documentation pertaining to such injuries, as required.

The Contractor's ESMP shall provide a detailed description and breakdown of practices and procedures for the following Regulatory and Safety requirements:

- A. General Safety Requirements;
- B. Emergency Procedures;
- C. Protection of WMATA Facilities;
- D. Storage and Handling of Materials;

- E. Environmental Protection, including but limited to:
- F. Protection of Natural Resources;
- G. Erosion and Sediment Controls;
- H. Toxic Substances;
- I. Control and Disposal of Chemical and Sanitary Wastes;
- J. Dust Control;
- K. Protection of Existing Water and Sewer Lines.

The Contractor's ESMP shall also provide a detailed description and breakdown of practices and procedures for the following additional requirements:

- A. Responsibility for Work Site Operations;
- B. Contractor Personnel including Contractor's Protection Assurance Representative;
- C. Right of Way Restrictions;
- D. Electrical/Third Rail/Overhead Wires Safety;
- E. Emergency Guidelines.

The Contractor shall submit an outline of all ESMP for WMATA review at the Preliminary Design Review. Final ESMP shall be submitted for WMATA's review and approval at the Final Design Review and not less than 120 days prior to the start of planned installation tasks. **CDRL 5-6**

5.2.4 Existing Equipment Removal

The Contractor shall supply all of the labor, supervision, and materials required for the proper and complete removal of the existing faregates that the equipment to be furnished under this contract will replace. Such removal shall be accomplished without damage to the removed equipment, or facility from which it was removed, or any equipment remaining on the vehicle or at the facility.

The Contractor shall leave the site from which equipment was removed in a safe condition, and remove or correct all hazards to the Customer, which shall include at a minimum flush filling of any holes and removal of any exposed conduit stub-ups and wiring.

WMATA does not anticipate major or significant demolition activities to be necessary in the removal of existing equipment. However, the Contractor shall repair any damage or unsightly conditions that result from equipment being removed. As part of this, any repair or replacement work shall match existing finishes and conditions. This shall be accomplished through the use of commonly utilized products and procedures and shall be subject to WMATA's review and approval.

The Contractor shall describe demolition task in the SSWP and in the Deployment Plan. The Contractor shall document the equipment serial number, WMATA asset number, and date of removal for all current equipment removed from the site and document serial number for faregates and key components of installed devices. **CDRL 5-7** The Contractor will be responsible for storage equipment unit WMATA has completed its asset retirement process or up to 90 days after all equipment has been removed. .

5.2.4.1 Removed Equipment Storage

The Contractor shall place the removed WMATA faregates at a Contractor-provided local storage location (within the limits of WMATA service area) for review by WMATA.

After the implementation for the phase has been accepted, WMATA shall be provided the opportunity to review the removed equipment, identify equipment, modules and other components it wishes to retain and remove those components from the storage location.

The Contractor will be responsible for storage equipment until WMATA has completed its asset retirement process or up to 90 days after all equipment has been stored. WMATA will be responsible for the final disposal of removed equipment.

After WMATA has completed this review and removal, all remaining materials at the storage location shall become the property of the Contractor.

5.2.5 Faregate Installation

The Contractor shall supply all labor, supervision, and materials required for installation of all new faregates and supporting equipment. Installation of the new faregates shall include fastening and anchoring the equipment, and, if necessary, the repositioning of electrical receptacles and the extension of power circuits from the kiosk to a faregate cabinet. WMATA will provide power in the vicinity of the communications cabinet. Following NTP, the Contractor shall document all power requirements for the faregates and supporting equipment, and shall provide detailed justification for any power requirements in excess of one (1), 110VAC, 60 Hz, single phase, 15A, circuit.

It is anticipated that the Contractor will use existing power twist lock receptacles inside the current faregates. In the current faregate configuration, some end gates do not require power inside the cabinet. If in the new faregate configuration, power is required to a cabinet that is not equipped with a power receptacle the Contractor will be required to install the replacement power circuit. WMATA will provide wiring for the electrical circuit between the electrical panel and the kiosk. The Contractor will be responsible for extending the wiring to the faregate and terminating the receptacle.

Additionally, the power receptacles inside the current faregate cabinets have a profile above the floor of approximately 4 inches. If the positioning of the power receptacles are not compatible with the new faregates, it will be the Contractor's responsibility to reposition the receptacles to conform to the faregate design.

The Contractor shall document all power requirements for the field devices not less than 120 days prior to planned installation of devices. **CDRL 5-8**

Faregate mounting shall be in a secure, robust, and vandal- and burglar-proof manner. Cabinet mountings within the station shall be by means of four (as a minimum) stainless steel, anchor bolts, to be provided by the Contractor, which shall be embedded in the concrete platform by the Contractor according to the bolt manufacturer's instructions.

Documents and drawings detailing design and installation of equipment at each Metrorail Station shall be submitted for WMATA review at the Conceptual Design Review and for approval at the Preliminary Design Review.

5.2.6 AFC Simulator Lab and Other Facility Installations

The Contractor shall submit an installation plan for faregates and all supporting equipment to be installed in the AFC Simulation Lab, Maintenance Training Facilities, Revenue Facility and Parts Repair Shop. Installation requirements may include construction of raised platform to support device wiring. The Contractor shall furnish the platforms onto which hardware shall be

installed. The Simulation Lab shall include cabinets for one ADA faregate aisle and 3 regular aisles. The Maintenance Training Facility and Shop shall include cabinets for one ADA aisle and 2 regular aisles. The Revenue facility shall include cabinets for one regular aisle. Installation plans shall document all power and environmental requirements for each facility. **CDRL 5-9**

5.3 Required CDRLs

The following CDRL items are referenced in this Section:

CDRL No.	Description	Section	Due	Approval Required
CDRL 5-1	Deployment Plan and Deployment Schedule.	5.1	Within 180 days of planned deployment start	Yes
CDRL 5-2	Safety Certification Program Plan and Safety Certification Checklist	5.3.1	Within 120 days of planned deployment start	Yes
CDRL 5-3	Faregate Interface Plan (IIP)	5.2.1.1	PDR, FDR	Yes
CDRL 5-4	Site Specific Work Plan (SSWP)	5.2.2.2	Within 120 days of planned deployment start	Yes
CDRL 5-5	Supplemental Work Plans	5.2.3	Within 60 days of planned site installation	Yes
CDRL 5-6	Installer Employee Safety Management Program	5.3.6	Within 120 days of planned deployment start	Yes
CDRL 5-7	Equipment Asset Documentation	5.3.5	Updated monthly through deployment	No
CDRL 5-8	Equipment Power Requirements	5.3.7	FDR	Yes
CDRL 5-9	Simulation Lab and Training Facility Installation Plan	5.3.7	FDR	Yes

End of Section 5

6 Training

The Contractor shall provide a comprehensive Training Program to educate and train WMATA to operate, service, support, and maintain faregates and supporting systems at Final Design Review.

The primary objective of the Training Program shall be to provide the Transit Agency with the materials, knowledge, skills, and information necessary to correctly operate, maintain, and troubleshoot the installed faregates.

This training program shall incorporate two training methodologies:

- A. Training sessions provided by the Contractor directly to designated staff to enable Transit Agency training staff to perform subsequent training in a train-the-trainer manner; and
- B. Training sessions provided by the Contractor directly to designated personnel.

Training courses shall include the following:

- Maintenance training including system monitoring, preventative maintenance, field corrective maintenance and bench level parts maintenance;
- Operations training including station level faregate operation and management centralized faregate management; and
- Faregate system reporting.

6.1 General Training Requirements

The Contractor shall be responsible for the following:

- A. Course development and modification;
- B. Providing qualified instructors;
- C. Generating and supplying handouts, presentations, manuals, classroom aids and training aids;
- D. Supplying training materials for each trainee for each training session;
- E. Conducting the necessary training sessions for each phase of deployment;
- F. Providing training tests to verify proficiency;
- G. Providing follow-up training sessions as required prior to completion of training for each phase;
- H. Documenting, via DVD, a minimum of one of each of the different training sessions provided.

Training shall be provided by the Contractor to bring WMATA-designated personnel to the level of proficiency required for performing their respective duties.

WMATA training personnel who will be responsible for training other WMATA-designated personnel shall also receive instruction designed to enable them in turn to provide training of all types of WMATA-designated individuals.

The Contractor shall assume no knowledge of the features of the faregates and supporting systems on the part of the WMATA-designated personnel, and shall design the training program to bring the level of student knowledge to one fully adequate for the objective. The Contractor may assume that all personnel possess the basic qualifications of their positions.

All training materials shall be in English and shall use English measurements. Classes will be split covering both Theory of Operation, emphasizing element interrelation and element design, in the classroom, and practical “hands-on” training using the actual equipment, systems, and software where appropriate. Hands-on training shall be provided for all lessons that involve all aspects of the system operation, maintenance, troubleshooting, setup, modification, and other similar functions that are required for faregate operation and maintenance.

Instruction shall be tailored to the specific needs of each class of personnel to be trained or familiarized on the system and equipment; e.g., maintenance-related emphasis for technicians; station operations related emphasis on faregate operation and site configuration; general overview for executive management.

6.2 Instructor Qualifications

The Contractor shall provide experienced and qualified instructors to conduct all training sessions at locations designated by WMATA and agreed with the Contractor.

All instructors conducting these training courses shall be familiar with the relevant technical information and able to utilize proper methods of instruction, training aids, audiovisuals and other materials to provide for effective training. Instructors shall have performed similar training for other transit clients and shall have a proven, positive record of accomplishment.

6.3 Training Program Plan

The Contractor shall submit a Training Program Plan for review by WMATA at the start of the Preliminary Design Review for the initial deployment phase and not less than 90 days prior to commencement of deployment of additional functionality in subsequent phases. **CDRL 6-1** The training program plan shall include the following information, as a minimum:

6.3.1 Program Description

The Contractor shall provide a narrative description of the overall approach to the training program, including the following:

- A. General description of the training program;
- B. Identification of all training courses to be provided;
- C. Summary course descriptions;
- D. Targeted trainees of each session;
- E. Maximum number of trainees for each session;
- F. Objectives of each class;
- G. Sequence of training activities;
- H. Training schedule;
- I. Equipment required to facilitate each training session.

6.3.2 Training Schedule

A schedule shall be included in the training program plan. It shall take into account the training sequence, hours of instruction required for each class, number of personnel to instruct and desired classroom size, and the requirements identified in Section 6.1.

Classes shall be planned for the following user groups:

- Field Maintenance Technicians;
- Bench Level Maintenance Technicians;
- Station Managers; and

Other Users (Managers, ROCC Supervisors, IT Applications)

Field Maintenance classes shall include all faregate preventative and corrective maintenance skills as well as faregate management and system monitoring applications. The classes shall be conducted on both day shift and evening shift. Classes shall include participation for Technicians, Supervisors and Trainers. Class size shall not exceed 8 participants per class. Contractor should assume 11 sessions of each class with 7 during the day shift and 4 during the evening shift. Contractor shall also include 4 sessions of refresher training to be conducted within 30 days of the end of the maintenance warranty period.

Bench Level Maintenance classes shall include all skills necessary to test and repair faregate modular parts and components. Bench level maintenance classes will be conducted during the day shift with a class size not to exceed 5 participants. Contractor should assume 2 sessions of each class. Bench Level Maintenance classes shall also include refresher trainer sessions to be conducted within 30 days of the end of the warranty period.

Station Manager Classes shall include all the skills necessary for both field and remote faregate operation including field level resets and fingertip maintenance. Station Manager Classes shall be designed for WMATA Trainers who will conduct further training to Station Managers. Classes shall not exceed 8 participants per class. The Contractor should assume 3 sessions of each class.

Other User classes shall include all of the skills necessary for system monitoring and reporting applications. Classes shall not exceed 20 participants. Contractor shall assume 4 sessions of each class.

The Training Schedule shall include:

- A. The title of the training to be provided;
- B. A general description of the training curriculum;
- C. Intended audience; class size;
- D. WMATA facilities required (e.g., classroom size, shop requirements; sequence and timing of classroom, shop and field instruction and estimated hours required for each);
- E. Number of sessions and the hours per session;
- F. Prerequisite activities that must be completed in advance of the training; and
- G. Any other information to facilitate planning for and completion of the training program for each deployment phase.

6.3.3 Course Description

For each training course identified in the program description, the Contractor shall provide the following:

- A. An outline of course content and learning objectives;
- B. Prerequisite skills and knowledge of course trainees;
- C. Training methods to be used (e.g., classroom presentation, hands-on practice, paper and pencil exercises, etc.);
- D. Methods and criteria for evaluating performance, including an objective grading system to report progress of trainees during the training;
- E. Resources to be provided by Contractor, e.g., system equipment and software, handout material, audio-visual equipment, digital video recorders (for documenting at least one class of each training course), testing apparatuses needed to simulate operating conditions;
- F. Resources required from WMATA, including classroom, field and shop space; facilities and other necessary items;
- G. Approximate time, in days and hours per day, required for classroom and field training for each course.

6.3.4 Training Course Curricula and Materials

The Contractor shall submit course curricula and training materials for approval by WMATA.
CDRL 6-2

No training shall occur until such training materials have been approved by WMATA. Training curricula shall be submitted to WMATA for review and approval purposes not less than ninety (90) days prior to commencement of any training, and no class will be considered officially scheduled until the materials for that class have incorporated WMATA's submitted changes and additions.

The training material for each course shall include the following:

- A. **Course Outline and Lesson Plan:** Lesson title, learning objectives, instructing sequences (outline), tests, trainee competency pass/fail criteria, summary, and testing matrix linking each test question to a specific learning objective. Maintenance courses shall minimally include sections devoted to theory of operation, general maintenance, system fault analysis, troubleshooting and repair. Operations courses shall minimally include sections devoted to equipment layout, operational functionality and troubleshooting problems in support of customer assistance.
- B. **Instructor Guide:** Used initially by the Contractor instructors, the Instructor Guide shall be in sufficient detail to enable WMATA training personnel to present the course again at a later time to, in turn, train additional training personnel, newly hired or newly assigned WMATA-designated personnel and shall include a check sheet, such that instructors can check off each essential element of training as it is completed, and submit the check sheet as a part of the course record.

They shall include as a minimum, schedules for each course, outlines for the training modules, lesson plans, durations of each module, target audience and pre-requisites for each course, objectives, sequential lists of training materials, including instructions on how to present any working models or advanced technology training aids, copies of training aids for presentation (and hard copies for annotation), skills inventories (with answers), references to support materials, and any additional information deemed necessary for accurate reconstruction of the course.

The Instructor Guide shall include instructor's notes explaining the methodology to be used for a particular section and information to be emphasized. Particular attention shall be paid to safety concerns or dangers within the equipment. The lesson plan shall indicate when training aids will be used, or referred to, during the course instruction.

The Instructor's Guide shall note references to the Student Guide. The Instructor Guide shall be reissued and shall include a copy of all information and materials used during the training sessions.

- C. **Student Guides:** Student Guides shall be in addition to any manuals provided to participants. The Guides shall include notebook-sized copies of any training aids used by the instructor, including transparencies, annotated schematics, selected screen shots from technology-based training, and key clips from video footage.

The student guide shall also contain descriptive information, drawings and procedures for trainees to refer to during training courses and to assist them in achieving competency in their assigned duties. The student guide shall provide comprehensive information on all aspects of training as identified for each course and may include sections of draft manuals for clarity.

- D. **Classroom Training Aids:** Classroom training shall make optimum use of Training Aids which shall include any Power Point presentations as approved by WMATA, slides, posters, annotated enlargements of schematics, videos, working models, cutaway diagrams, cutaway views or sectioned sample hardware, custom simulators, computer-based training modules, interactive video or other appropriate technology-based training, and one installed piece of each type of equipment to be installed at WMATA.

The Contractor shall provide three-dimensional drawings/renderings of faregate equipment arrangements in electronic format, as approved by WMATA.

The Contractor shall provide all testing apparatuses and tools needed to perform training skills. The Contractor shall provide costume simulators to simulate faregate functions and failure conditions and sample component parts such as barrier actuators and printed circuit boards to aide in training instruction.

Power Point presentations for use with laptop computer and HDMI digital display and shall illustrate subassemblies showing component locations, component cutaways, schematics, and wiring diagrams. Power Point presentations depicting data and communications systems shall be animated and include direction of flow for the particular data element.

All illustrations/diagrams/photographs shall display faregate equipment in 3-D animation, as they would be seen from the viewpoint of a person actually performing the test, troubleshooting or doing the repair. Any diagrams shall be displayed with sufficient scale and clarity to permit all to see clearly.

- E. **Location:** Unless otherwise indicated, all training sessions shall be provided at WMATA-provided locations in or near the WMATA operations area. .
- F. **Times:** Class times shall be scheduled by the Contractor at least 30 days in advance of each class and shall be subject to WMATA approval.

Training materials shall be kept consistent with system design and documentation, including manuals and drawings. Any updates to the system elements or procedures shall be reflected in the training materials and course curriculum through the completion of the training program, through all deployment phases.

All training materials shall become the property of WMATA at the conclusion of the training course. WMATA will retain all rights for use, modification, and reproduction in conjunction with the accomplishment of WMATA Training Objectives. All training submissions and schedules shall be subject to approval of WMATA.

At the completion of all training courses, for all training materials delivered to WMATA, in addition to the final electronic versions of the training materials, Contractor shall provide fully editable versions of all training materials in Microsoft Office format. **CDRL 6-3** WMATA reserves the right to reproduce and modify these materials for its own use without restriction.

Contractors shall also provide two electronic copies of the training materials for each training class that are readable and reproducible in hard copy using the latest release of Microsoft Office Word available for usage by the general population or WMATA-approved equivalent software. **CDRL 6-4**

6.4 Required CDRLs

The following CDRL items are referenced in this Section.

CDRL No.	Description	Section	Due	Approval Required
6-1	Training Program Plan	6.3	FDR	Yes
6-2	Training Course Curricula	6.3.3	PDR, FDR	Yes
6-3	Training Materials Hard Copy and Training Tools and Aides	6.3.4	Completion of course	No
6-4	Training Materials – Electronic Copies	6.3.4	Prior to course	No

End Section 6

7 Program Management

7.1 General

This Section specifies the requirements for program management. The management shall be sufficiently comprehensive to enable WMATA to ascertain, with a high degree of confidence, that the Contractor will meet requirements and enable WMATA to monitor the contractual effort. The Contractor shall establish an organization to properly manage the faregate design, testing, manufacturing, deployment, and warranty. The organization shall be highly responsive to the needs of WMATA as required in this Contract and shall be subject to approval by WMATA.

The Contractor shall use the cloud based program management tool, Procore to manage all project documentation, reviews, correspondence, and submittals. This website shall be accessible by authorized WMATA project staff and authorized Contractor staff with access rights controlled by WMATA. Unless otherwise identified, all project documentation and information shall be loaded to and maintained by this secure document review and sharing system. Should the performance of any individual within the Contractor's project team not meet the expectations of WMATA, the Contractor shall replace the individual with one approved by WMATA. This change in the Contractor's project team shall not adversely affect the development, implementation, installation, and acceptance schedule as defined and shall require no modifications to compensation to the Contractor.

7.1.1 Project Manager

The Contractor shall designate a responsible individual on a full-time basis, fluent in English and subject to approval by WMATA, to serve as Project Manager for the entire term of the project. This individual shall have prior experience in management of large, integrated system procurements and be familiar with design, system integration testing, equipment manufacturing, and deployment and in a transit environment.

This individual shall be granted full authority to render decisions on behalf of the Contractor pertaining to technical and commercial decisions on the Project. The Project Manager shall serve as the Contractor's representative in all meetings with WMATA and/or their duly appointed representatives.

The Project Manager shall represent the Contractor during progress meetings, design review meetings, warranty coordination meetings, contract change negotiations, and open item meetings with WMATA and with the Project Manager's supporting staff, be capable of addressing all issues on the agenda for each scheduled meeting. The Project Manager shall arrange to have supporting staff members available for participation in these meetings, as required.

The Contractor shall provide adequate project staff assigned to the project throughout the term of the Contract to ensure that proper and timely responses can be made to WMATA requests and to ensure that the system is designed and deployed according to the project schedule.

The Project Manager shall ensure that all elements of the design, development, and deployment meet the technical and contractual requirements, including:

- Ensure that the project tasks are completed on time and within budget;
- Coordinate design and engineering activities;
- Furnish all submittals to WMATA;

- Be the sole point of contact between WMATA and the Contractor's project team, unless otherwise mutually agreed between the Contractor and WMATA;
- Keep WMATA fully informed of the status of the project;
- Participate in monthly project status meetings at WMATA;
- Promptly notify WMATA of any problems or difficulties that may affect the timely or effective completion of the project or any scheduled deliverables.

The Project Manager shall be responsible for support provided by personnel or groups outside the project team during the period of performance for this contract, and shall have full authority to assign task priority as needed to meet the requirements of the project.

Removal or replacement of the Project Manager by the Contractor shall only be with the consent of WMATA upon written notification from the Contractor, describing the reason for removal or replacement.

WMATA reserves the right to request the Project Manager to be replaced with written notification provided to the Contractor. When notification is received, the Contractor shall replace the Project Manager and this replacement shall be subject to approval by WMATA.

7.1.2 Management Plan

Within 30 days of NTP, the Contractor shall submit a Management Plan to WMATA for approval. **CDRL 7-1** The Contractor's Management Plan shall be sufficiently comprehensive to enable WMATA, with a high degree of confidence, to verify that the Contractor will meet the stated requirements, and to enable WMATA to monitor the contractual effort through all stages of project implementation and warranty.

The Management Plan shall be updated as necessary to incorporate all changes in the project, its implementation, or its schedule. The plan shall include:

- A. An organization chart including a definition of levels of responsibility and authority within the Contractor team, and qualifications of all personnel therein.
- B. The methods and communications to be used to control the program schedule, design reviews, technical performance, program changes, subcontracts, purchase orders, material procurement, in-service support, warranty, systems assurance analysis, tests, and demonstrations.
- C. A Submittal List and Schedule listing drawings, documents, and data to be submitted for review and approval during the design review phase of the program, and a schedule for the submittal of this information.
- D. WMATA requires that the Contractor develop an updated and complete Contract Deliverables Requirement List (CDRL) based on the requirements identified in each Section of the requirements. Submittals include, but are not limited to, schedules, plans, procedures, reports, certificates, samples, certifications, test results, and as-built drawings. The CDRL list shall be in accordance with the following column headings:
 1. Item Number;
 2. Deliverable Description;

3. Requirements Reference Paragraph (i.e. location of requirement within the Contract Documents);
4. Scheduled Delivery Date(s);
5. Current WMATA approval status (i.e., pending, approved, conditionally approved, disapproved);
6. Quantity: Number of documents, units, or copies required.

Every CDRL shall be updated to reflect the changes in design throughout the design, implementation, and warranty period so that the final set of CDRLs delivered at the end of the project shall represent the system design in place at the conclusion of the contract.

7.1.3 Risk Management Plan

Within 60 days of NTP, the Contractor shall submit a Risk Management Plan to WMATA for approval. **CDRL 7-2** The purpose of the Risk Management Plan is to identify and manage potential risks that threaten to increase project costs, lengthen the project schedule or compromise project performance. The Risk Management Plan shall include the formal four-step process that includes Risk Planning, Risk Identification, Risk Analysis, and Risk Control. The Risk Management Plan shall list the risk assessments for all deliverables and all major tasks defined in the Master Program Schedule, including impact assessments and risk mitigation plans for high risk deliverables and major tasks. The Risk Management Plan shall include an associated Risk Management Process that continues throughout the project with the monitoring of potential risks and a well-planned response to correct problems as they occur.

7.1.4 Master Schedule

Within 60 days of NTP, the Contractor shall submit for WMATA's review and approval a Cost Loaded Master Program Schedule in accordance with the requirements of the Contract. **CDRL 7-3** The Master Program Schedule shall cover all phases of the work but will only present a high level overview of faregate deployment tasks. It shall include the following:

- A. Work item descriptions that convey the scope of work indicated. Work items shall be discrete items of work that will be accomplished under the Contract. Work items shall include the scheduled dates for submittal and required response dates for approval of Contractor drawings and documentation. Work items shall also include specific line items for all defined Milestone Payment Schedule payment events from the Contract Milestone Payment Schedule. It shall include the schedule for design reviews, procurement of materials and equipment, fabrication of materials and equipment and their installation and testing, delivery of WMATA-furnished and other third party items and information, qualification tests and delivery, and testing of faregates and supporting systems. Estimated work item duration in whole working days shall be indicated for each work item of the schedule.
- B. The sequence, successor, and predecessor interrelationships among work items shall be considered in developing the schedule and shall be included as indicated.

- C. Work item descriptions shall be accompanied by narrative explanation of what the work item comprises and the basis for the estimated work duration.
- D. Sufficient detail shall be provided to indicate the manufacturing, testing, shipment, storage, and installation of faregates.
- E. Sufficient detail shall be provided for the analysis, design, build, test, and implementation of faregates.
- F. The Contractor's initially submitted schedule that is approved by WMATA shall become the Base Line schedule. Subsequent schedule updates shall show performance against the original Base Line schedule.
- G. The Contractor's schedule shall include work breakdown activities of sufficiently short duration to facilitate adequate tracking of each activity by both the Contractor and WMATA.
- H. All versions of the Master Program Schedule shall be submitted in both Primavera 6 and PDF formats.
- I.

7.1.5 Deployment Schedule

Within a minimum of 120 days prior to the planned start of faregate deployment tasks, the Contractor shall submit for WMATA's review and approval a Cost Loaded Deployment Schedule in accordance with the requirements of the Contract. **CDRL 7-4**

- A. Work item descriptions for each area of deployment including but not limited to equipment delivery and staging, demolition of current equipment, installation, testing, and warranty maintenance period. It shall include the mezzanine ID.
- B. The sequence, successor, and predecessor interrelationships among work items and locations shall be included as indicated.
- C. Work items shall distinguish deployment planning tasks such as SSWP and Safety Certification from installation tasks.
- D. The Contractor's initially submitted deployment schedule that is approved by WMATA shall become the Base Line Deployment Schedule. Subsequent schedule updates shall show performance against the original Base Line schedule and to verify deployment payments.

7.1.6 Monthly Progress Reports

The Contractor shall submit to WMATA a monthly progress report by the fifth day of each month that covers activities for the previous month. **CDRL 7-5**
Monthly progress reports shall include:

- A. Updated Master Program Schedule highlighting the following items against the approved Base Line Schedule:
 - 1. Actual completion dates and start dates for activities completed during the report period;
 - 2. Estimated remaining durations for activities in progress;

3. Estimated start dates for activities scheduled to start;
 4. Changes in the durations of activities (logic changes to the Master Program Schedule may not be made without WMATA's approval);
 5. Narrative explanation of the cause of any schedule slippages, and identification of workarounds needed to make up for schedule slippage, as necessary;
 6. Activities not previously included in the master program schedule;
- B. Updated Deployment Schedule highlighting the start and completion dates for each Metrorail Mezzanine during the report period and changes in planned sequence of deployment.
 - C. Updates to the Risk Management Plan showing existing or anticipated problems or issues and the proposed work-around to address the issue, and updates to the risk assessment of each active task and open deliverable and updated risk mitigation plans for high risk tasks and deliverables;
 - D. Updated CDRL list, including current status of all deliverables and risk assessments for all open deliverables;
 - E. Updated Submittal List and Schedule, including current status of all submittals;
 - F. Updated action item log showing current status of all action items; and
 - G. Updated Correspondence Log showing all project correspondence and anticipated response dates for open items of correspondence
 - H. Updated Badged Employee Log showing all contractors that have been issued WMATA Contractor badges and the expiration date of the badge.

The Contractor shall also provide a narrative which shall state the work actually completed and reflect the progress in terms of days ahead of or behind the specified dates for each of the work items, as well as percent completed.

During the manufacturing, assembly, and testing phases, the Contractor shall supplement the narrative with digital color photographs to show the status of the work in progress and any problem areas. WMATA may request supplemental details and photographs if the monthly progress report is determined to be inadequate.

7.1.7 Action Item Log

The Contractor shall maintain a log of all identified action items through the time of project completion. These action items shall be identified at design review meetings, Progress Review Meetings, and through correspondence. All action items shall have a responsible party assigned. No action item shall be assigned to WMATA without WMATA's knowledge and concurrence. Each action item in the log shall contain:

- A. Item Number;
- B. Description;
- C. Requesting Party;
- D. Assigned Party;
- E. Status (open / closed / in progress / deferred / etc.);
- F. Date Opened;
- G. Date Closed; and
- H. Progress Notes.

The current action item list shall always be posted on the web-based document control system, and available to authorized WMATA project team members.

7.1.8 Correspondence Log

The Contractor shall maintain a log of all project correspondence through the time of project completion. All correspondence items shall have a responsible party assigned. Each correspondence item in the log shall contain:

- A. Letter Number;
- B. Description;
- C. Requesting Party;
- D. Assigned Party;
- E. Status (open / closed / in progress / deferred / etc.);
- F. Date Opened;
- G. Date Closed; and
- H. Progress Notes.

The current correspondence log shall always be posted on Procore.

7.1.9 Contract Start-up Meeting

Within 30 days after NTP, a Contract Start-up Meeting shall be held in the offices of WMATA. In attendance shall be WMATA, the Contractor's project manager, and other appropriate WMATA and Contractor personnel. The Contractor shall prepare an agenda for the meeting and, within five working days of completion of the meeting, the Contractor shall distribute draft meeting minutes. The Contract Start-up Meeting shall permit all parties to the contract to understand the overall schedule, terms and conditions, scope of work, and responsibilities. In addition, the parties shall discuss and identify the items to be submitted for the design reviews. The Contract Start-up Meeting shall allow the Contractor and WMATA to coordinate their activities. At the meeting, the Contractor shall also present its intended design and identify interface requirements.

The Contract Start-up Meeting shall also cover the following topics, which shall be addressed in the agenda prepared by the Contractor:

- A. WMATA and Contractor to review and confirm the procedural requirements of the Contract;
- B. Contractor to provide conceptual information on proposed equipment design, configuration, and layout;
- C. WMATA and Contractor to review intended operations and maintenance requirements;
- D. WMATA and Contractor to identify interface requirements between faregates, PPTs, and WMATA's current fare payment application;
- E. Contractor to identify initial information and decisions required from WMATA; and
- F. Contractor to identify any requirements for which waivers will be requested.

7.1.10 Progress and Quality Review Meetings

Progress and Quality Review Meetings shall be held at least once a month, at the offices of WMATA.

The Contractor shall prepare and distribute an agenda to all participants expected to attend the meetings seven days prior to the scheduled meeting date. The Contractor's Project Manager and Quality Manager shall attend and chair these meetings.

7.2 Contractor's Quality Assurance Program

7.2.1 General

The Contractor shall establish and maintain an ISO 9001 compliant project specific Quality Assurance/Quality Control (QA/QC) system consisting of a program quality manual and supporting plans and procedures. These shall address the methods to be used to control the quality related aspects of all component, assemblies, software, and applications to be furnished and installed in accordance with the Contract Documents. The Contractor shall be responsible for the quality of all its work and the work of its subcontractors, and shall ensure that the pertinent requirements for the achievement of quality are included in all relevant sub-contracts. As such, the QA/QC system shall be imposed both upon all entities within the Contractor's organization and on all subcontractors whenever Contract work is performed.

The QA/QC program shall include a description of the organization and shall identify the responsibilities and accountabilities of all personnel performing quality-affecting activities. The Quality Control plans and procedures shall include and reference those checklists and test and inspection forms to properly document the activities performed to achieve the quality of the Work.

7.2.2 Contractor Quality Assurance Program Plan

The Contractor shall prepare and submit for approval a Quality Assurance Program Plan that addresses control of the quality of the Contractor's design, equipment furnished, installation workmanship, testing, training, and documentation. This Plan shall also include Reliability Assessment Program elements.

A QA Program Plan shall be submitted to WMATA within 60 days after NTP for review and approval. **CDRL 7-6** No manufacture of equipment or components shall be permitted by the Contractor until the QA Program Plan is approved by WMATA.

The Contractor shall use and abide by the QA Program Plan to execute the work for the Contract. The QA Program Plan shall describe the methods for planning, implementing, and maintaining quality, schedules, and cost. The QA Program Plan shall contain a company policy statement that clearly defines the responsibilities of QA personnel. An organization chart shall be included to show the reporting relationships of all QA staff, and shall indicate the Contractor's QA/QC representative, who shall be a full-time employee of the Contractor. The QA/QC representative shall not report directly to the Contractor's Project Manager, but to a higher-ranking executive within the Contractor's organization.

The QA Program Plan shall also contain a collection of all forms to be used for the documentation of quality control activities, which assure compliance of materials, processes, personnel, and products to the applicable specifications.

The QA Program Plan shall at minimum, include procedures for the following activities:

- A. Factory inspection and test processes and record maintenance.
- B. Configuration Management Program, procedures, and records for Change Control and version management for both hardware and software. Changes shall include the following:
 - 1. Fixes: corrections of malfunctions (“bugs”) that are required in order to meet functional requirements as specified in this specification.
 - 2. Updates: new software releases provided by the Contractor, whether for application software, operating system software, or third party software.
 - 3. Enhancements: changes that provide improvement in the operation.
 - 4. Modifications: changes necessitated by program changes.
 - 5. Upgrades: augmentation and/or replacement of any system hardware.
 - 6. Documentation revisions: updates to instructional documents or user’s guide to reflect modifications to any existing software or other changes to systems’ functionality.
 - 7. Any other modifications to the hardware or software not specifically identified above.
- C. Procedures and records for equipment handling; inventory; storage; delivery; design control; changes to documents; drawings; data; and specifications; release for shipment; shipping; evidence of compliance; corrective action; calibration/verification of measuring equipment and audit.
- D. Software Development Quality Assurance Program, consistent with that indicated in IEEE Standard 730, IEEE Standard for Software Quality Assurance Plans or equivalent ISO 9001 standards for software quality assurance. At a minimum, the Software Development Quality Assurance Program shall include a Test Plan for quality assurance testing of each Contractor Software Deliverable prior to installation and testing pursuant to Section 19, including details for:
 - 1. Testing of individual units of source code to determine if they meet the applicable specifications, function as intended or are otherwise fit for the intended use (“Unit Testing”).
 - 2. Combining units of source code that have completed Unit Testing and testing the combined units as a group to confirm that all components interact correctly, including verifying functional, performance, and reliability requirements placed on major design (“Integration Testing”).
 - 3. Testing conducted on a complete, integrated system (i.e., combined components that have completed Integration Testing and that have been integrated with applicable hardware systems) to evaluate the system's compliance with its functional specifications and any other specified requirements (“System Testing”).

4. Testing conducted to uncover new bugs, or regressions, in existing functional and non-functional areas of a system after changes, such as enhancements, patches or configuration changes, have been made to the system to ensure that a change in one part of the system, such as a bug fix, did not introduce new faults in other parts of the system (“Regression Testing”).
 5. Sets of instructions that will be performed on the unit or system under test to test whether the unit or system functions as expected (“Test Scripts”).
 6. Short programs written in a programming language used to automatically test part of the functionality of the system (“Automated Test Tools”).
 7. Entry and exit criteria for User Acceptance Testing (“UAT”).
- E. Quality Assurance program requirements for subcontractors.
 - F. System installation, inspection, and test processes and records.
 - G. Surveillance over all work, including subcontractors, for conformance and verification thereof with all Contract requirements.
 - H. Discrepancy control.
 - I. Evaluation and assessment of subcontractors’ QA programs.
 - J. Feedback of problems, their resolutions to the Contractor’s engineering and production departments, and corrective action.
 - K. Qualification and certification of all personnel performing work for this Contract.

7.2.3 Faregate Deployment Project Specific Quality Management Plan

As part of the QA/QC program for this project, the Contractor shall:

- A. Engage an adequate number of skilled professionals who are thoroughly trained, experienced, and familiar with the specific requirements and methods needed for the proper performance of the work.
- B. Establish technical and administrative surveillance and/or audit methods to ensure the highest degree of quality, and to correct potential problems without affecting the Contract schedule.
- C. Verify that the required quality control inspection, testing, and documentation activities have been performed to assure that the equipment, materials, and construction comply with the requirements of the Technical Specification.
- D. Monitor quality control over suppliers, manufacturers, fabricators, products, services, site conditions, workmanship, and installation to produce work of the highest quality.
- E. Take corrective actions in a timely manner to identify undesirable conditions affecting the quality of Work and the contract schedule.
- F. All test results shall clearly include a statement that the item tested or analyzed conforms or fails to conform to the contract requirements. Each report shall be conspicuously stamped on the cover sheet in large red letters a minimum of ½ inch high "CONFORMS" or "DOES NOT CONFORM" to the Specifications as the case may be.

- G. All test reports shall be signed by a testing laboratory's authorized person and countersigned by the Contractor. The Contractor shall provide all tests, reports, certifications and other documentation to the Project Manager promptly after the completion of tests.
- H. The quality assurance functions shall include, but not be limited to:
 - 1. Contract Review
 - 2. Document Control
 - 3. Procurement
 - 4. Shop Fabrication
 - 5. Field Fabrication
 - 6. Field Installation
 - 7. Field Assembly
 - 8. Receiving Inspections
 - 9. Final Inspection
 - 10. Software Controls
 - 11. Factory and Field Testing
 - 12. Handling and Storage
 - 13. Packaging and Shipping
 - 14. Quality Records
 - 15. Non Conformance Reporting
 - 16. Corrective Action(s)
 - 17. QA Audits
 - 18. Training
 - 19. Control of In Process Activities
 - 20. Systems Controls
- I. The Contractor shall promptly reject work, which does not comply with the requirements of the Contract Documents. If the Contractor elects to propose that WMATA accept work that is nonconforming, the Contractor shall reimburse WMATA for the costs associated with the review of the nonconforming work by WMATA's Project Manager.
- J. Develop quality assurance forms in a format acceptable to WMATA for all major elements of the work including any additional elements.

The certified quality assurance documents shall identify and include any changes made to the material, manufactured product or fabricated item as compared to the Contract requirements and approved shop drawings. The Contractor shall describe as to how each change will affect the installation, space, and subsequent operations.

7.2.4 Deployment Project Specific Quality Management Plan (PSQMP)

The Contractor shall develop a project specific Quality Management Plan based on FTA-IT-90-5001-02.1 QA/QC guidelines for the deployment of faregates in the Metrorail system. The Deployment PSQMP shall include:

- A. Document quality management responsibilities for the deployment of faregates and the roles and responsibilities of the Contractor and all Subcontractors supporting deployment;

- B. Document deployment quality planning and quality control measures for all devices and deployment tasks;
- C. Document quality measures for installation tools and material quality control measures and purchasing;
- D. Document quality measures for the management and control of installation testing, inspection, and deliverable management;
- E. Document process controls to ensure consistent completion of installation tasks;
- F. Document Inspection, measuring and testing of installation equipment;
- G. Document procedures for site quality inspections, nonconformity reporting and management of corrective actions;
- H. Document project specific quality records and records management procedures; and
- I. Document any training and certification requirements for equipment installers.

WMATA's review of certified quality assurance documents and inspections shall not relieve the Contractor from its "primary" responsibility for the quality of work. **CDRL 7.7.**

7.2.5 Faregate Warranty Management

A warranty shall be provided for all hardware and software required to provide for proper operation of faregates. The Contractor shall submit a Faregate Warranty Management Plan describing Contractor support resources, procedures, organizational chart, and contact information to meet warranty requirements. **CDRL 7.8.**

Contractor warrants that commencing upon the date of Final Acceptance through its termination, the faregate hardware and software will be free from defects and failures in material and workmanship and function properly, including updates, new releases and other software used to support faregate operations and fare payments.

A “defect”, “malfunction” or “failure” shall mean any condition, whatsoever the cause, whereby any element, system or sub-system, either third-party or Contractor developed, shall require maintenance, correction or repair or otherwise fail to conform to the Technical Specification requirements other than:

- Scheduled maintenance recommended by The Contractor and accepted by WMATA, and
- Maintenance, repair or correction resulting solely from causes beyond the control and without the fault or negligence of the Contractor, its employees, agents, sub-contractors or suppliers, including failure of WMATA to perform scheduled maintenance recommended by the Contractor.

Contractor shall remedy any failure, malfunction, defect or other non-conformity exhibited faregate hardware and software furnished to WMATA for 90 days after system acceptance.. After the period, the Contractor shall continue make corrections and modifications to the software and shall replace or repair all parts and modules that are replaced by WMATA technicians. The Contractor shall be available to WMATA immediately upon discovery of

errors. Contractor shall notify WMATA whenever corrections, modifications or revisions of System hardware and software are available. Corrections shall be performed as follows:

Through faregates deployment and during the initial 90 day maintenance warranty, the Contractor shall respond and render continuous effort to any request for service due to a hardware or software failure, malfunction, defect or non-conformity by telephone response by a qualified and knowledgeable representative within sixty (60) minutes.

- If such software failure, malfunction, defect or non-conformity cannot be remedied by such means within two (2) hours of receipt of such request, the Contractor shall formally notify WMATA of the ongoing issue and efforts to remedy the failure, malfunction, defect or non-conformity.
- If Contractor reasonably believes correction or repair shall take longer than eight hours to complete, then the Contractor shall provide written notice to WMATA of this condition, along with a preliminary plan for how the Contractor intends to make the repair or correction, and an estimate of the time to repair or correct.

Until such time as the repair or correction can be completed, the Contractor shall use best efforts to keep the faregates as fully functional as possible. Failure by Contractor to comply with the provisions hereof may be deemed by WMATA as a material breach of Contractor's obligations hereof.

When software updates become available, either third party or Contractor-developed, Contractor shall provide all effort, training and support required to install such updates and to convert and reformat any WMATA data, if necessary. Without releasing Contractor from its obligations for warranty, support and maintenance, WMATA has the right to refuse to install any such updates, at its sole discretion.

7.3 Design Reviews

A comprehensive program of submittals and reviews shall be conducted for all aspects of the project. Three design reviews shall be held: Conceptual, Preliminary, and Final. For each of these reviews, a series of documentation, samples, and demonstrations shall be submitted to WMATA for review and approval.

During these design review meetings, action items shall be identified, with each action item assigned to an individual for disposition by a pre-determined response date. All action items identified during the design reviews shall be recorded in the project action item log for WMATA review and approval. **CDRL 7-9**

Attendance at design review meetings shall include representatives of the Contractor and appropriate Subcontractors and WMATA-appointed representatives.

7.3.1 Review Procedures

The Contractor shall submit drawings, documents, procedures, and data in accordance with the Submittal List and Schedule provided in the Master Program Schedule. The Contractor shall submit for review and approval 15 copies of all documents, data, assembly and installation drawings required to convey concept, design, dimensions, maintenance, operation, and overall assembly aspects and interfaces required as a part of these design reviews. Drawings shall be accompanied by material specifications, process specifications, and test data required to permit

review and approval of the drawings. Detailed parts drawings need not be submitted unless requested by WMATA to permit review of another drawing.

WMATA reserves the right to reject, without review, any document that is not in English or is not readily understandable due to lack of proper grammar, spelling, sentence structure, or punctuation. WMATA is under no obligation to expend extraordinary effort to interpret poorly written or translated documents.

WMATA reserves the right to request additional drawings, documents, or data, or any combination of documents, drawings, or data to support the review process. At the discretion of WMATA, the Contractor may be issued an extension of time during the review period, should the Contractor have fulfilled the specified submittal requirements, and the additional information requested by WMATA be of sufficient complexity and/or volume. Other contract deliverables including material samples, manufacturing plan, software prototypes and documentation, test plans, test procedures, and analyses shall be submitted in the quantities specified. Parts may be manufactured prior to review and approval of Contractor submittals, however, WMATA reserves the right to refuse or require changes to such parts at the Contractor's expense should the design(s) fail subsequent review.

Except as provided below, WMATA shall respond to submittals within 21 calendar days after receipt. WMATA shall respond to the Contractor at an address within the United States designated by the Contractor.

As submitted by the Contractor, the drawings, documents, and data shall be accompanied by a letter of transmittal listing drawing and document titles, numbers, and revisions.

The Contractor shall maintain a record of Contractor and Subcontractor submittal status. This shall include drawing and document numbers, revision letter, drawing title, date submitted, transmittal document, disposition, and the document number identifying the disposition. This status shall be updated not less than monthly and submitted to WMATA as part of the Monthly Progress Report.

7.3.2 Approval of Contractor Submittals

WMATA's approval or disapproval will be provided within 21 days of receipt of the entire submittal package in one of the three following categories:

- Approved as Submitted.
- Conditionally Approved. The Contractor may proceed in accordance with changes indicated and shall revise and resubmit the document, drawing, and data until approved by WMATA.
- Disapproved. The Contractor shall revise and resubmit the document, drawing, and data until approved by WMATA.

Approval of the design documents shall be obtained by the Contractor prior to commencement of the design review meetings.

Design approval at any stage shall not relieve the Contractor of the obligation to meet all of the requirements of the Contract, except for those instances when the deviation has been explicitly requested by the Contractor and granted by WMATA. Approval of a document, drawing, and data, which contain deviations from, or violation of, the Contract requirements does not constitute authority for that deviation or violation. Such deviations must be specifically and explicitly requested and granted by WMATA in writing.

7.3.3 Customer Design Inputs

Prior to the commencement of the Final Design Review, WMATA may solicit design inputs from one or more customer groups or representatives. These customer design inputs will not extend the schedule or interfere with any Contract milestone.

As long as the design inputs solicited from the customers do not modify a WMATA requirements and are not explicitly excluded from the faregate design, Contractor shall review the design inputs and within a seven-day time period, identify how these design inputs will be accommodated with any schedule and other impacts identified.

7.4 Required CDRLs

The following CDRL items are referenced in this Section:

CDRL No.	Description	Section	Due	Approval Required
CDRL 7-1	Project Management Plan.	7.1.2	Within 30 days after NTP	Yes
CDRL 7-2	Risk Management Plan.	7.1.3	Within 30 days after NTP	Yes
CDRL 7-3	Submit the Master Program Schedule	7.1.4	Within 60 days after NTP	Yes
CDRL 7-4	Deployment Schedule	7.1.6	Not less than 180 days prior to the planned start of deployment	Yes
CDRL 7-5	Monthly Progress Report	7.1.6	5 th day of every month	Yes
CDRL 7-6	Quality Assurance Program Plan.	7.1.6	Within 60 days after NTP	Yes
CDRL 7-7	Submit Deployment Project Specific Quality Management Plan	7.2.2	Not less than 180 days prior to the planned start of deployment	Yes
CDRL 7-8	Warranty Management Plan.	7.2.5	Not less than 180 days prior to the planned start of deployment	Yes
CDRL 7-9	Design Review Action Logs	7.3	CDR, PDR, FDR	Yes

End of Section 7

8 Warranty and System Support Services

8.1 General

The Contractor will be responsible for providing system support services and parts repair or replacement maintenance support through the system warranty period that extends for one year after the full deployment and system acceptance of faregates and supporting systems. The Contractor shall be responsible for all corrective and preventative maintenance of faregates for a period of 90 days after the completion of faregate deployment and final acceptance.

WMATA shall also have the option of requesting ongoing faregate maintenance support for up to 5 years. Should WMATA elect to contract for ongoing fare system maintenance support services, the Contractor shall provide ongoing on-site technical support and parts bench maintenance in accordance with response time requirements and device availability metrics defined here.

In the event that WMATA does not choose to exercise option for extended warranty maintenance, the Contractor shall gradually transition maintenance responsibilities to WMATA technicians for the 90 day period after the final faregate has been installed. During this period, the Contractor shall continue to respond to maintenance requests but will oversee diagnostics and repairs done by WMATA staff unless otherwise directed.

Not less than thirty (30) days prior to the expiration of the warranty performance period, the Contractor shall turn-over to WMATA all items used by the Contractor to perform the Support Service including, but not limited to, manuals, procedures, spare parts, consumable parts, and tools. Contractor will have the use of such items until that performance period expires.

8.1.1 Contractor Point-of-Contact

The Contractor shall provide a point-of-contact that can be contacted by WMATA personnel on a 24/7 basis for each of the Support Services performed.

The Contractor shall submit a schedule each month of the designated point-of-contact at all times of each day including the phone number for contacting the individual.

8.2 Maintenance Services

During the period of performance where the Contractor is responsible for corrective maintenance service, the Contractor shall have fully qualified technicians on-call during WMATA revenue service hours and shall respond to service requirement within 2 hours of an out of service event. The Contractor will be responsible for all preventative and corrective maintenance on installed devices for a period of 90 days after the devices installation acceptance. The contractor shall gradually transition device maintenance responsibilities to WMATA employees after the 90 day warranty expires on installed equipment. The Contractor shall submit a Warranty Maintenance Plan detailing staffing plan, communication protocols, and approach to meet requirements.

CDRL 8.1.

The Contractor shall submit a Spare Parts Catalog with the pricing and shipping requirements for each catalog item. **CDRL 8.2.** The Contractor shall also provide recommended spare parts and maintenance consumable items to support one year maintenance service for installed devices.

CDRL 8.3.

8.2.1 Maintenance Requirements

The Contractor shall maintain faregates in accordance with the requirements of the maintenance manuals. The Contractor shall provide all labor, materials and consumables.

The Contractor shall provide all tools, transportation, test equipment, personnel communications, facilities, and supervision to maintain the faregates and all supporting equipment and systems.

The Contractor shall monitor the faregates from their maintenance facility location via a remote monitoring function. Unavailability of a device shall be reported by the device to maintenance work stations and the ROCC workstation within one minute of the incident occurrence.

The Contractor shall repair and maintain all equipment, regardless of whether equipment failure is due to a component or software fault or is user-induced. Repairs to equipment damaged because of vandalism or force majeure shall be undertaken by the Contractor on a Task Order basis as part of this contract. The attribution of an equipment failure as an incidence of vandalism shall be subject to mutual agreement between WMATA and the Contractor.

The Contractor shall provide weekly reports on all corrective maintenance actions for the week. This includes reported problems (including source of reported problem and time), corrective action taken (including service technician responding to event and time of action), parts used, and status after response action.

The Contractor shall maintain a schedule of preventative maintenance actions for each device and provide monthly reports detailing the time and date of preventative maintenance actions at each device.

8.2.2 Responsibilities of the Contractor

Contractor responsibilities shall include the following maintenance tasks. These maintenance activities shall be based on the maintenance information provided in the maintenance manuals provided by the Contractor.

Initial Warranty Period (period through 90 days after system deployment)

- Preventive Maintenance: Perform field and bench-level preventive maintenance on all devices and components installed as a part of the faregates deployment.
- Field and Bench-level Corrective Maintenance: Perform all field and bench-level troubleshooting and repairs on all equipment installed as part of the faregate deployment.
- Emergency Response: Respond on-site to calls from WMATA.
- Maintenance Reports: Submit weekly and monthly maintenance reports detailing corrective maintenance actions and compliance with device preventative maintenance requirements.
- Spare Parts Inventory Management: Manage the inventory of spare parts, materials and consumables that are required for the continued operation of faregates.

One Year Parts Warranty

- Bench level troubleshooting, repair and if needed replacements of all parts, modules and systems installed as part of the faregate deployment.

- Software Maintenance and Upgrades: Repair, test and load existing, new, modified or upgraded software, firmware and data tables for the installed faregates.
- Technology Refreshment Services: Perform maintenance and provide software upgrades on all system devices and/or replace devices with new to ensure that all faregates will perform reliably in full revenue service.

The Contractor shall be responsible for the storage and management of spare parts and maintenance consumables through the entire post deployment warranty period. During the period where WMATA and the Contractor Maintenance Technicians share maintenance responsibilities, The Contractor shall be responsible for the management of all spare parts and materials.

Upon completion of the post deployment maintenance period, the contractor shall the Contractor shall provide an inventory of spare parts. **CDRL 8-4.** The Contractor shall turn over all spare parts and consumables to WMATA at the end of the 90 day warranty period and be responsible for restoring the spare parts to recommended quantities as established in CDRL 8-3.

8.3 Software Maintenance Services

The Contractor shall provide ongoing software maintenance services for a period of 5 years after system acceptance. This includes all software and firmware installed on faregates, software supporting faregate centralized functionality, software supporting Station Terminals and Station Manager Portable Devices. During this period the Contractor shall be responsible for insuring that all software and firmware, including 3rd Party Software remains fully operational and ensure that patches and updates are installed in accordance to developer recommendations.

The Contractor shall be on-call 24 hours to respond to emergencies. An emergency is an event in which WMATA is unable to collect revenue. The Contractor shall respond to other software events within 2 hours of a service call during WMATA week day business hours from 8:30 am to 6:00 pm Eastern Time.

The Contractor shall also respond to software changes and system enhancements as requested by WMATA. Per this agreement a labor pool of 1000 Software Engineering and Programming hours will be available to be used at WMATA's discretion for the development and testing of software changes and system enhancements. All other Software Maintenance and support requests will delivered as part of the annual Software Maintenance Agreement which will be invoiced monthly at an agreed upon flat fee.

While the Extended Software Systems Support services are in effect:

- All commercially available software updates (scheduled and unscheduled) for Contractor-developed software shall be provided to WMATA for installation, at their discretion, after independently testing such updates. No hours shall be deducted from the labor bank for these software updates.
- Software updates to correct all software Defects evidenced while

installing a change order, and opened by WMATA and accepted by the Contractor, shall be tested and released to WMATA for independent verification and installed at WMATA's discretion.

The Contractor shall provide monthly reports of all software maintenance actions, summaries of software updates and patches, and documentation of the most current software version for all system software and firmware.

8.4 Optional Three Year Maintenance Agreement with Three Additional One Year Options

At the sole discretion of WMATA, the Contractor shall provide full maintenance services for faregates. Under this agreement the Contractor shall be responsible for all preventative, corrective and bench level repairs.

The Contractor shall provide qualified on-site technicians that are fully trained and qualified to address all maintenance services required to keep faregates fully functional. The Contractor shall provide sufficient staffing levels to respond to service requests to any WMATA facility with installed faregates within one hour during WMATA service hours from 5:30 AM to 11:30 PM Monday through Thursday, from 5:30 AM to 1:00 AM Fridays and from 8:00 AM to 1:00 AM Saturdays and from 8:00 AM to 11:30 PM on Sundays.

The Contractor shall also be responsible for hiring qualified technicians, training staff and maintaining a fully qualified staffing resources over the period of the contract. All technicians with responsibilities to work on-site must have a WMATA issued Contractor Badge which requires that the pass a criminal background check and have the background check repeated annually in accordance with WMATA requirements. The Contractor is responsible for having criminal background checks completed by an authorized third party contractor.

Should WMATA elect to move forward with this option the Contractor shall maintain possession of spare parts, specialized maintenance tools, and consumables that were purchased under the base agreement and shall be responsible for inventory levels through the contract. At the end of the service agreement the full inventory will be turned over to WMATA.

Contractor technicians shall be granted limited access to WMATA's Maximo Maintenance Software Platform. Technicians will be responsible for logging all preventative, corrective and parts maintenance actions into Maximo daily. The Contractor will also be responsible for providing monthly maintenance reports of all maintenance actions, verified parts inventory, and updated list of active Contractors working on site.

The Contractor shall be responsible for ensuring that all preventative maintenance actions are completed within service recommendations. The Contractor shall be responsible for all parts management including ordering parts, storing parts, and maintaining parts inventory. Since bench level maintenance is included in the base contract, cost for bench level parts repair or parts replacement shall not be included in the first year of maintenance.

8.5 Optional Parts Repair and Replacement Maintenance Agreement

The Contractor shall provide additional one year options for the repair and replacement of faregate parts and components. The Contractor shall be responsible for shipping costs, testing, repair and replacement of all faregate components that are not consumable parts. The Contractor shall deliver replacement or repaired parts to maintain minimal spare parts inventory as agreed upon in the base contract.

8.6 Required CDRLs

The following CDRL items are referenced in this Section:

CDRL No.	Description	Section	Due	Approval Required
CLRL 8-1	Warranty Maintenance Plan	8.2	90 days before deployment	Yes
CDRL 8-2	Spare Parts Catalog	8.2	FDR	No
CDRL 8-3	Spare Parts Recommended Quantities	8.2	FDR	Yes
CDRL 8-4	Spare Parts and Inventory	8.2.2	After 90 day warranty period	Yes
CDRL 8-5	Monthly Software Maintenance Reports	8.3	Monthly after System Acceptance	

End of Section 8

APPENDIX B

ATTACHMENT A

**NOTICE OF REQUIREMENTS
FOR
DISADVANTAGED BUSINESS ENTERPRISE (DBE)**

May 2015

~Applies only if proposal price is \$500,000 or more for a construction contract or \$100,000 or more for a supply and service contract.

~APPENDIX B~

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

1. DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENT:

- a. The DBE requirements of the Authority's DBE Program Plan apply to this contract. Accordingly, the Contractor shall carry out the requirements of the Authority's DBE Program Plan and this Appendix in the award and administration of this U.S. Department of Transportation (US DOT) assisted contract.

2. POLICY:

- a. It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA) and the US DOT that Disadvantaged Business Enterprises (DBEs) shall compete fairly to receive and participate in performing federally assisted contracts, including contracts and subcontracts at any tier. It is further the policy of the Authority, the FTA and the US DOT that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance.

3. CONTRACT GOAL:

- a. If the offeror is not a DBE, the bidder agrees that the DBE goal for this Contract shall be met by subcontractors or by joint ventures with DBEs. The goal set forth for this Contract is ___% of the final Contract price, including amendment and modification. The amount of DBE participation will be determined by the dollar value of the work performed and/or supplies furnished by DBE firms as compared to the total value of all work performed and/or supplies furnished under this Contract. The Contractor shall have met this goal if the Contractor's DBE participation meets or exceeds this goal.
- b. In cases where work is added to the Contract by modification such that additional DBE participation is necessary to meet this goal, the Contractor shall increase the participation of one or more firms listed on the "Schedule of DBE Participation" or submit additional DBE certified firms to meet the goal. In cases where work is deleted from the Contract, the goal shall be applicable to the new Contract amount. The Contractor shall be permitted to meet the goal by revising its DBE participation, provided, however, that the revision shall not result in DBE participation that is less than the original goal.

4. DEFINITIONS:

- a. **Appendix B.** The Notice of Requirements for Disadvantaged Business Enterprise, which when attached to a solicitation, implements the DBE requirements of the Authority's DBE Program Plan in the award and administration of federally funded Authority contracts.

- b. **Certified DBE.** means a for-profit small business concern (a) that is at least fifty one percent (51%) owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one or more such individuals; (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it; and (c) whose eligibility is evidenced by a current WMATA Certification letter, a D.C. Department of Transportation Certification letter, or a certification letter issued by the Metropolitan Washington Unified Certification Program (MWUCP).
- c. **Contractor.** One who participates, through a contract or subcontract (at any tier), in a US DOT assisted highway, transit or airport program.
- d. **D.C. DOT.** The District of Columbia Department of Transportation.
- f. **Good Faith Efforts.** Efforts to achieve a DBE goal or other requirements of the Authority's DBE Program Plan which by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the goal program requirement.
- g. **Joint Venture.** An association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and shares in the capital contribution, control, management, risks, and profits of the joint venture commensurate with its ownership interest.
- h. **Metropolitan Washington Unified Certification Program (MWUCP).** A unified certification program mandated by 49 C.F.R. §26.81 between two Federal transit recipients (WMATA and the D.C. Department of Transportation). The agreement became effective January 2005.
- i. **Pre-certification.** A requirement under 49 C.F.R. §26.81(c) that all certifications by the MWUCP be made final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.
- j. **Race-conscious.** A measure or program that is focused specifically on assisting only DBEs, including women-owned DBEs.
- k. **Race-neutral.** A measure or program that is, or can be, used to assist all small businesses. For the purposes of the DBE program, race-neutral includes gender-neutrality.
- l. **Small Business Concern.** With respect to firms seeking to participate as DBEs in US DOT assisted contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration implementing regulations (13 C.F.R. Part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR § 26.65(b).
- m. **Socially and Economically Disadvantaged Individual.** Any individual who is a citizen (or other lawfully admitted permanent resident) of the United States and who the Authority finds to be a socially and economically disadvantaged individual on a case-by-case basis, and any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged.

- (1) Black Americans, which includes persons having origins in any of the Black racial groups of Africa;
 - (2) Hispanic Americans, which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) Native Americans, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (4) Asian-Pacific Americans, which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the North Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - (5) Subcontinent Asian Americans, which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - (6) Women; and
 - (7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.
- n. US DOT Assisted Contract. Any contract between the Authority and a contractor (at any tier) funded in whole or in part with U.S. DOT financial assistance, including letters of credit or loan guarantees.
- o. Unified Certification Program (UCP). The program mandated by 49 C.F.R. § 26.81(a), which requires all U. S. DOT recipients of Federal financial assistance to participate in a statewide certification program by March 2002.
- p. WMATA. Washington Metropolitan Area Transit Authority, the transit system (rail and bus) serving the metropolitan Washington area, including parts of Virginia and Maryland.

5. HOW DBE PARTICIPATION IS COUNTED TOWARDS THE CONTRACT GOAL:

DBE participation shall be counted towards meeting the DBE goal in accordance with the following:

- A. When a DBE participates in a contract, only the value of the work actually performed by the DBE is counted towards the DBE goal.
 - (1) This amount includes the entire amount of that portion of a construction contract that is performed by the DBE's own forces. This amount includes the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE

(except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).

- (2) This amount includes the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of the contract, towards the DBE goal, provided the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.
 - (3) When a DBE subcontracts part of its work under the contract to another firm, the value of the subcontract work may be counted towards the DBE goal only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count towards the DBE goal.
- B. When a DBE performs as a participant in a joint venture, the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that a DBE performs with its own forces towards the DBE goal may be counted.
- C. Expenditures to a DBE contractor towards the DBE goal may be counted only if the DBE is performing a commercially useful function on that contract.
- (1) A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, the Authority will consider the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.
 - (2) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.
 - (3) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work, the Authority will presume that the DBE is not performing a commercially useful function.
- D. The following factors will be used by the Authority in determining whether a DBE trucking company is performing a commercial useful function:
- (1) The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible for on a particular

contract, and there cannot be a contrived arrangement for the purpose of meeting the DBE goal.

- (2) The DBE must itself own and operate at least one fully licensed, insured and operational truck used on the contract.
- (3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers, it employs.
- (4) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
- (5) The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.
- (6) The lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the terms of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

E. The following factors will be used to count expenditures with DBEs for materials or supplies towards the DBE goal:

- (1) If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies will be counted towards the DBE goal. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the contract.
- (2) If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies will be counted towards the DBE goal. A regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating, or maintaining a place of business as provided in this paragraph if this person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long-term lease agreement and not on an ad hoc or contract-by-contract

basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph.

- (3) With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials and supplies required on a job site, may be counted towards the DBE goal, provided the fees are reasonable and are not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted towards the DBE goal.
- F. All DBE firms must be pre-certified. Participation by a firm that is not currently certified as a DBE by the Authority at the time of the due date for bids or offers on a contract, does not count towards the DBE goal. All DBE firms must be in compliance with 49 CFR, Part 26.
- G. The dollar value of work performed under the contract by a firm who has been decertified as a DBE by the MWUCP does not count towards the DBE goal.
- H. The participation of a DBE subcontractor does not count towards the Contractor's DBE goal until the amount being counted towards the goal has been paid to the DBE.

6. OFFERS AND REQUIREMENTS (WITH THE OFFER):

The offeror shall submit the following with its offer. Any offeror who fails to complete and return this information with its offer shall be deemed to be not responsive and may be ineligible for Contract award. Offerors that fail to meet the DBE goal above and fail to demonstrate "good faith efforts" to justify waiver of the DBE goal (See paragraph 6.C. below) shall be deemed to be not responsible and will be ineligible for Contract award.

- A. Completed "Schedule of DBE Participation" (Attachment B-1) sufficient to meet the above goal. If the offeror is a DBE firm and intends to satisfy the appropriate DBE requirement with its own firm, it must indicate in the Schedule the area of work and percentage it will perform to satisfy the goal. All offerors must attach current WMATA, DC DOT or MWUCP certification letters for each DBE listed on the Schedule.
- B. Executed "Letters of Intent to Perform as a Subcontractor/Joint Venture" (Attachment B-2). If the offeror is not a DBE or intends to satisfy the requirements through other DBE firms, then it must attach these letters from each certified DBE listed on the Schedule.
- C. Justification for grant of relief (Appendix B waiver of DBE goal). If in the submittal of its offer, the offeror fails to meet the DBE goal above, the offeror has the burden of furnishing sufficient documentation with its offer of its "good faith efforts" to justify a grant of relief (waiver) from the goal or portion of the goal. Such justification shall be in the form of a detailed report. The following is a list of actions which shall be considered as part of the offeror's good faith efforts to obtain DBE participation. This list is neither a mandatory checklist nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases:

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The offeror must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The offeror must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goal will be achieved. This includes, where appropriate, breaking out Contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) Negotiating in good faith with interested DBEs. It is the offeror's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work. "DBE Unavailability Certifications" (Attachment B-3) shall be completed as appropriate.
- (2) An offeror using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as the Contract goal into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the offeror of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of offers in the Contractor's efforts to meet the project goal.
- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

7. OFFER REQUIREMENTS (APPARENT SUCCESSFUL OFFEROR):

The offeror shall submit the following items within ten (10) calendar days after notification that they are the apparent successful offeror:

- a. A copy of a current WMATA, D.C. DOT or MWUCP certification letter(s) shall be attached to the DBE Schedule of Participation to evidence DBE pre-certification.
- b. DBE Manufacturer's Affidavit, if applicable, must be submitted in order to receive 100 percent of the allowable credit for expenditures to DBE manufacturers/suppliers (Attachment B-4). By submission of this Affidavit, the offeror certifies this it is satisfied that the manufacturer meets the requirements of 49 CFR Part 26.
- c. Schedule B Information for Determining Joint Venture Eligibility, if applicable (Attachment B-5, pgs. 1-4). Submittal shall be signed by all parties, dated and notarized.
- d. Copy of Joint Venture Agreement, if applicable. Submittal shall be signed by all parties, dated and notarized.
- e. Certification letter of the DBE regular dealer/supplier, if applicable. If the offeror wants to receive the maximum allowable credit of its expenditures for material(s) or supplies required under this Contract, from DBE regular dealers/suppliers, the DBE must submit a signed and notarized statement on their letterhead, that they are a regular dealer of the material(s) or supplies. By submission of this statement, the offeror certifies that it is satisfied that the subcontractor is a regular dealer/supplier that meets the requirements of 49 CFR Part 26.
- f. For Design-Build contracts, if a DBE goal is specified in the solicitation, the offeror shall submit with its initial offer, a list of DBE-certified firms that it intends to enter into subcontract agreements with for this Contract. If no goal is specified in the solicitation and the offeror still intends to utilize DBEs in the performance of this Contract, the offeror shall submit with its initial offer a list of those DBE-certified firms. The documentation requirements of the solicitation shall be completed and submitted at the time set forth for the submittal of Best and Final Offer (BAFO) to the Authority for any Contract in which a DBE goal is applicable or for any Contract in which there was no goal established, but the offeror identified DBE-certified firms that it intends to enter into subcontract agreements with in its initial offer. Any offeror who fails to complete and return the following information, if applicable, with their BAFO may be deemed to be not responsible and may be ineligible for contract award. Offerors that fail to meet the DBE goal, if any, specified in the solicitation and fail to demonstrate a good faith effort and to justify waiver of the DBE goal may be deemed to be not responsible and may be ineligible for Contract award.

8. CONTRACT ADMINISTRATION REQUIREMENTS:

The following requirements apply after contract award:

- A. The Contractor shall include the following provision in each subcontract it awards in support of the DBE goal:

“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 US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in termination of this contract or such other remedy as the Buyer deems appropriate.”

- B. (1) The Contractor shall monitor the performance of, collect and report data on DBE participation to the WMATA’s DBE office on the attached “Prompt Payment Report-Prime Contractor’s Report” (Attachment B-6) which shall be submitted monthly with each payment request. Failure to submit these reports may result in suspension of contract payments. The Contractor shall certify with each payment request that payment has been or will be made to all subcontractors due payment, within ten (10) days after receipt of payment from the Authority for work by that subcontractor. The Contractor shall inform the COR or COTR, with their payment request, of any situation in which scheduled subcontractor payments have not been made and the reason therefore.
- (2) The Contractor shall require each subcontractor to complete and forward to the DBE Liaison Officer on a monthly basis a “Prompt Payment Report-Subcontractor’s Report” (Attachment B-7). The subcontractor shall certify that payment has been received.
- C. The Contractor shall have a continuing obligation to maintain a schedule for participation by DBE contractor(s) to meet its goal set forth above in this Appendix. The Contractor shall not have work performed nor the materials or supplies furnished by any individual or firm other than those named in the “Schedule of DBE Participation.” If at any time, the Contractor believes or has reason to believe that it needs to obtain a substitute for a DBE contractor named in the “Schedule of DBE Participation”, the Contractor shall, within ten (10) days, notify the Contracting Officer and the DBE office of that fact in writing. Situations which may warrant substitution for a DBE firm include, but are not limited to the following:
- (1) Evidence of change in ownership or circumstances regarding the firm’s status as a DBE.
- (2) Death or physical disability, if the named subcontractor or DBE partner of the joint venture is an individual.
- (3) Dissolution, if a corporation or partnership.
- (4) Bankruptcy of the subcontractor, subject to applicable bankruptcy law, and only instances where the bankruptcy affects the Contractor’s ability to perform.

- (5) Inability to furnish a reasonable performance or payment bond, if required.
- (6) Inability to obtain, or loss of, a license necessary for the performance of the particular category of work.
- (7) Failure or inability to comply with a requirement of law applicable to contractors and subcontractors on a construction, alteration or repair project.
- (8) Failure or refusal to execute the subcontract in accordance with the terms of an offer submitted to the Contractor prior to the Contractor's submission of its offer, but only where the Contracting Officer or other delegated Authority representative can ascertain with reasonable certainty the terms of such offer. In the absence of any other factors, such a failure or refusal will be considered an unusual situation only if the offeror obtained, prior to bidding/proposing, an enforcement commitment from the subcontractor involved.
- (9) Failure to comply with the terms and conditions of this Contract or those of its subcontract or joint venture agreement.

Within thirty (30) days thereafter, the Contractor shall, if necessary to achieve the Appendix B goal, make every reasonable effort to subcontract the same or other work equivalent in value to other certified DBE firms. The Contractor must have the prior, written approval of the Contracting Officer and the DBE Office before substitution of a DBE subcontractor, regardless of the reason for substitution. Failure to obtain the Authority's approval could result in the Contractor's suspension or debarment.

- D. The Contractor shall forward copies of all subcontracts to the DBE Office at the time of their execution.
- E. If the Contracting Officer or other delegated Authority representative determines that the Contractor has failed to comply with this Appendix B, he/she will notify the Contractor of such noncompliance and the action to be taken. The Contractor shall, after receipt of such notice, take corrective action. If the Contractor fails or refuses to comply promptly, the Contracting Officer or other delegated Authority representative may issue a "stop work order" stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work order shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. When the Authority proceeds with such formal actions, it has the burden of proving that the Contractor has not met the requirements of this Appendix. The Contractor's failure to meet its Appendix B goal shall shift the burden to it to show that it has met the good faith requirements of this Appendix. After exhausting all of its administrative and legal remedies, if the Contractor is found to have failed to exert a "good faith effort" to involve DBEs in the work, the Authority may suspend or debar the Contractor.
- F. The Contractor agrees to cooperate in any studies or surveys as may be conducted by the Authority which are necessary to determine the extent of the Contractor's compliance with this Appendix.
- G. The Contractor shall keep records and documents for two (2) years following performance of this Contract to indicate compliance with this Appendix. These records and documents, or copies thereof, shall be made available at reasonable

times and places for inspection by any authorized representative of the Authority and will be submitted upon request, together with any other compliance information that such representative may require.

- H. If the Authority, FTA or the US DOT has reason to believe that any person or firm has willfully and knowingly provided incorrect information or made false statements regarding the DBE Program, the matter shall be referred to the WMATA's DBE office, and WMATA's Office of Inspector General (OIG).
- I. Failure by the Contractor to carry out the requirements of this Appendix is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems appropriate.

SUMMARY OF SUBMITTALS

With the Offer

1. Completed "Schedule of DBE Participation" (Attachment B-1) with current certification letters attached for each listed DBE.
2. Executed "Letters of Intent to Perform as a Subcontractor/Joint Venture" (Attachment B-2).
3. Justification for grant of relief (waiver of DBE goal), if applicable. Include completed "DBE Unavailability Certifications" (Attachment B-3) as appropriate.

Offer Requirements (Apparent Successful Offeror)

1. All DBEs must submit a copy of their current WMATA or D.C. DOT certification letters or a certification letter issued by the MWUCP.
2. DBE Manufacturer's Affidavit, if applicable, must be submitted in order to receive one hundred percent (100%) of the allowable credit for expenditures to DBE manufacturers/suppliers (Attachment B-4).
3. Schedule B Information for Determining Joint Venture Eligibility, if applicable (Attachment B-5, pgs. 1, 2, 3, 4).
4. Copy of Joint Venture Agreement, if applicable.
5. Certification letter of the DBE regular dealer/supplier, if applicable.

After Contract Award

1. "Prompt Payment Report-Prime Contractor's Report" Attachment B-6) – submitted monthly.
2. "Prompt Payment Report-Subcontractor's Report" (Attachment B-7) - submitted monthly.
3. Request to substitute DBE contractor (see paragraph 8.C.) – submitted as required.
4. Copies of subcontracts-submitted at the time of their execution.

**SUBMIT WITH OFFER
SCHEDULE OF DBE PARTICIPATION**

Contract No. _____

Project Name _____

Name of Offeror

The offeror shall complete this Schedule by identifying only those DBE firms, with scope of work and price, who have agreed to perform work on this Contract. The prices for the work/supplies of these firms shall be at prices amounting to at least the DBE percentage goal of the total Contract price. The offeror agrees to enter into a formal agreement with the DBE firm(s) listed for the work at an amount equal to, or greater than, the prices listed in this Schedule subject to award of a Contract with the Authority. If the total amount is less than the DBE percentage goal, a justification for waiver of DBE goal shall be attached to this Schedule.

Name of DBE Subcontractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
Subtotal \$ DBE Subcontractors			
Name of DBE Prime Contractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
Subtotal \$ DBE Prime Contractor			
TOTAL \$ ALL DBE CONTRACTORS		TOTAL	

_____ **Signature of Contractor Representative**

_____ **Title**

_____ **Date**

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Contract Number: _____

Project Name: _____

**LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR/JOINT VENTURE
(ALL ITEMS MUST BE COMPLETED)**

TO: _____
(Name of Offeror)

The undersigned intends to perform work in connection with the above projects as (check one):

_____ An individual _____ A corporation
_____ A partnership _____ A Joint venture

Specify in detail particular work items or parts thereof to be performed:

at the following price: \$

Please indicate _____ % of the dollar value of the subcontract that will be awarded to non-DBE contractors, if applicable. The undersigned will enter into a formal agreement with you for the above work upon your execution of a contract with the Authority.

Name of DBE Subcontractor/Joint Venture

Phone Number

Address

WMATA Vendor ID #/DBE Cert. #

Signature & Title

Date

The following is to be completed by the Prime Contractor. A copy of this letter must be returned to the DBE subcontractor to indicate acceptance.

To: _____
(Name of DBE)

You have projected your interest and intent for such work, and the undersigned is projecting completion of such work as follows:

WORK ITEMS	PROJECTED DBE COMMENCEMENT DATE	PROJECTED DBE COMPLETION DATE
_____	_____	_____

(Date)

(Name of Prime Contractor & Acceptance Signature)

SUBMIT WITH OFFER

DBE UNAVAILABILITY CERTIFICATION

I, _____, _____, of _____
(Name) (Title) (Bidder)

certify that on _____ I contacted the following DBE contractor(s) to obtain offer(s) for work
(Date)
items to be performed on Contract Number _____

DBE Contractor	Work Items Sought	Form of Bid Sought (i.e., Unit Price, Materials and Labor Only, Etc.)
_____	_____	_____

To the best of my knowledge and belief, said DBE contractors were unavailable (exclusive of unavailability due to lack of agreement on price) for work on this project, or unable to prepare a bid, for the following reason(s):

Signature: _____

Date: _____

_____ was offered an opportunity to submit an offer on the
above
(Name of DBE Contractor)

identified work on _____ by _____
(Date) (Source)

The above statement is true and accurate account of why I did not submit an offer on this project.

(Signature of DBE Contractor)

(Title)

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DBE Certification Instructions

Important Notice

If you do not have a current, official letter of certification from WMATA, D.C. DOT or MWUCP, you are not pre-certified and are therefore not eligible to participate as a Disadvantaged Business Enterprise on the offer.

For those who wish to access the MWUCP certification application, it may be found on the internet at the following address:

https://www.wmata.com/business/disadvantaged_business_enterprise. Go to “Procurement and Contracting”, click on “Disadvantaged Business Enterprise”, then click on “DBE Application for Certification”.

49 CFR Part 26 gives Metropolitan Washington Unified Certification Program (MWUCP) ninety (90) days in which to process a complete DBE application. In order to become certified and participate in the MWUCP, you must comply with the procedures that follow. Certification must be final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.

Instructions

49 C.F.R. § 26.81(d) of the Certification Procedures requires a firm to be certified as a DBE in its “home state,” where its principal place of business is located, in order to become certified outside such “home state”. Therefore, you must attach to the MWUCP Application, a copy of a valid DBE Certification letter from your home state’s Department of Transportation. . In addition, submit the pertinent documents for your company listed below. The application should be completed in full and NOTARIZED.

General (All firms must submit these documents.)

- Current (unaudited) Financial Statements
- Prior three (3) years Federal Tax Returns
- Resume of Principal(s) and Key Personnel
- Third Party Agreements, such as Rental and Management Agreements
- Licenses to Do Business
- Personal Net Worth (PNW) Statement
- Statement of Disadvantage
- No Change Affidavit or Notice of Change (where applicable)

Corporations

- Articles of Incorporation
- By-Laws
- Copies of any Stock Options
- Copies of Stock Certifications of Each Holder
- Copies of Stockholders’ Voting Rights
- Record of First Organizational Meeting

Partnerships

- Partnership Agreement

Proprietorships

IRS Employer ID Number
WMATA Vendor ID#

Limited Liability Companies

Operating Agreement with any amendments
Certificate of Formation, U.S. Income Tax Returns

Change of Status Review

On or before each certification anniversary date, you must submit a No Change Statement attesting that there have been no changes in the firm's circumstances affecting its ability to meet the eligibility requirements of 49 CFR Part 26 or WMATA's DBE Program Plan. Firms with changed circumstances must submit a Notice Regarding Change for review by the DBE Office. A review of these changes shall be made to determine if the firm is in compliance with the 49 CFR Part 26.

Affidavit Enclosure

NOTE: When completing MWUCP Application, complete all information blocks. Type "N/A" if item does not apply to you or your firm.

DBE MANUFACTURER'S AFFIDAVIT

I hereby declare and affirm that I am _____ (Title) and duly authorized representative of _____ (Name of Company), a _____ owned and controlled enterprise whose address is _____

I further declare and affirm that company employees (persons not on the payroll of and/or performing the same tasks for disadvantaged owned business having any interest in the affiant's business) operate the following company equipment relative to the manufacturing process:

Equipment

Type Function Model Age Make

Number of employees involved in the manufacturing process: _____

The undersigned swears that the foregoing statements are true and correct and fully understands that WMATA may rely on these statements in determining whether a WMATA prime contractor purchasing goods from the undersigned's manufacturing concern is entitled to a 100% credit of such purchases towards its DBE goal. The undersigned further understands that any material misrepresentation will be grounds for initiating action under Federal or state laws concerning false statements.

_____ Signature of Affiant Printed Name

Date: _____ State: _____ County: _____

On this _____ day of _____, 19____

before me appeared _____ (Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____ (Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____ (Notary Public)

Commission Expires: _____

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Information for Determining Joint Venture Eligibility

Page 1

.....
Name and address of Joint Venture:

Contact Person: _____ Telephone: _____

Have you attached a copy of the Joint Venture agreement? Yes No

NOTE: Affidavit will not be processed without a copy of the Joint Venture agreement.
.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: DBE. Non-Minority.

Does firm have current WMATA, D.C. DOT or MWUCP DBE certification? Yes No
.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: DBE. Non-Minority.

Does firm have current WMATA, D.C. DOT or MWUCP DBE certification? Yes No
.....

Describe the nature of the Joint Venture's business:

Describe the role in the Joint Venture of each partner listed above:

Describe the experience and business qualifications of each partner in the Joint Venture listed above:
.....

Information for Determining Joint Venture Eligibility

.....
Indicate the percentage of ownership in the Joint Venture for each Joint Venture partner, indicating dollar amounts wherever applicable.

Name of Partner	Percentage of Ownership	Profit and Loss Sharing	Capital Contributions including Equipment	Other Agreements
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

TOTALS:

.....
Identify by name, title, race, sex and company affiliation those individuals responsible for the management control of and participation in this contract:

1. Financial decisions, such as payroll, insurance, surety and/or bonding requirements:

Name: _____ Race: _____

Title: _____ Sex: Male Female

Company affiliation: _____

2. Management decisions, such as estimating, marketing and sales, hiring and firing, purchasing supplies:

Name: _____ Race: _____

Title: _____ Sex: Male Female

Company affiliation: _____

3. Supervision of field operations:

Name: _____ Race: _____

Title: _____ Sex: Male Female

Company affiliation: _____

.....

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Information for Determining Joint Venture Eligibility

Page 3

.....
The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our following named Joint Venture:

.....
and the intended participation by each Joint Venturer in the undertaking. Further, the undersigned covenant and agree to provide the Authority current, complete and accurate information regarding actual Joint Venture work and the payment thereof and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of the Authority or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal and State laws concerning false statements.

It is recognized and acknowledged that the Authority's DBE Program shall have access to the information provided herein above for the purpose of establishing eligibility and authenticity of the minority/woman-owned status of the Joint Venture.

It is understood that trade secrets and information privileged by law, as well as commercial, financial, geological and geophysical data furnished will be protected.

_____ (NAME OF FIRM)	_____ (NAME OF SECOND FIRM)
_____ (SIGNATURE OF AFFIANT)	_____ (SIGNATURE OF AFFIANT)
_____ (PRINT NAME)	_____ (PRINT NAME)
_____ (TITLE)	_____ (TITLE)
_____ (DATE)	_____ (DATE)

.....
23.29 (10/99)



Information for Determining Joint Venture Eligibility

Page 4

.....

Date: _____ State: _____ County: _____

On this _____ day of _____, 19_____,

before me appeared _____

(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____

(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal)

Sworn and subscribed before me _____

(Notary Public)

Commission Expires: _____

.....

Date: _____ State: _____ County: _____

On this _____ day of _____, 19_____,

before me appeared _____

(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____

(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal)

Sworn and subscribed before me _____

(Notary Public)

Commission Expires: _____

.....

M 23.06c (Rev 10/99)

Washington Metropolitan Area Transit Authority

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
 MONTHLY PROMPT PAYMENT REPORT

PRIME – CONTRACTOR’S REPORT

This report is required to be submitted to the Office of Procurement, DBE Branch 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA’s DBE Program Plan and §26.29 of 49 CFR Part 26.

Contract No.: _____ Reporting Period: _____

Name of Prime Contractor: _____ DBE – Yes or No

Prime Contract Amount: _____ Total Received this Reporting Period: _____ Total Received to Date: _____
 DBE Goal _____

Name of Sub-Contractor	DBE (Y/N)	Description of Work	Date of Contract Awarded	Amount of Sub-Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub-Contractor	% of Physical Work Complete
TOTAL							

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status of the prime contractor with the DBE subcontractors for the designated period covered by this report. Further, those subcontractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from WMATA.

By: _____ Title: _____ Date: _____

Washington Metropolitan Area Transit Authority

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
 MONTHLY PROMPT PAYMENT REPORT

SUBCONTRACTOR'S REPORT

This report is required to be submitted to the Office of Procurement, DBE Branch 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA's DBE Program Plan and §26.29 of 49 CFR Part 26.

Contract No.: _____ Reporting Period: _____

Name of Subcontractor: _____ DBE – Yes or No

Subcontractor Contract Amount: _____ Total Received this Reporting Period: _____ Total Received to Date: _____

Name of Sub-Contractor	DBE (Y/N)	Description of Work	Date of Contract Awarded	Amount of Sub-Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub-Contractor	% of Physical Work Complete
TOTAL							

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status for the designated period covered by this report. Further, those contractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from the Contractor.

By: _____ Title: _____ Date: _____

APPENDIX B-1

ATTACHMENT A
NOTICE OF REQUIREMENTS
FOR
SMALL BUSINESS ENTERPRISE (SBE) PROGRAM

May 2015

~Applies only if proposal price is \$500,000 or less.

SMALL BUSINESS ENTERPRISE PROGRAM (SBE)

SMALL BUSINESS ENTERPRISE PROGRAM (SBE)

SMALL BUSINESS PROGRAM POLICY

It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA), and US Department of Transportation (USDOT) to foster small business participation in federally funded contracts. In order to facilitate competition and maximize participation by small businesses, the Authority will assign small business participation within the established threshold on a contract-by-contract basis on U.S.DOT assisted construction and on non-construction procurements [i.e., contracts for services, supplies and equipment have a total value not to exceed five hundred thousand dollars (\$500,000.00)]. The threshold may be satisfied by utilizing one (1) or more small business concerns as primes or subcontractors or suppliers of goods and services provided that the small business performs a minimum of fifty-one percent (51%) of the tasks pursuant to the awarded contract. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance. Refer to Appendix B-1 for more detail on the SBE Program.

QUALIFICATIONS

- (a) A firm that is currently WMATA DBE certified under the Metropolitan Washington Unified Certification Program will automatically be certified as SBE. All other firms that meet the eligibility requirements must apply to the Authority's SBE Coordinator in the WMATA's DBE Program Office (DBEPO) for SBE status. All SBE certified firms will appear in the online WMATA SBE Directory.
- (b) A firm must be a small business as defined by the U.S. Small Business Administration (SBA) by applying current SBA business size standards found in 13 C.F.R. Part 121 that are applicable to the type of work the firm seeks to perform in USDOT-assisted contracts.
- (c) The firm's average gross receipts cannot exceed the overall U.S.DOT size standard for a small business set forth in 49 C.F.R. § 26.65. [\$23.98 million averaged over the three (3) previous fiscal years or part of year which the business has been in existence]. (d) At least fifty one percent (51%) of the firm's ownership must be held by individuals who meet the personal net worth (PNW) cap of \$1.32 million as prescribed by 49 C.F.R. § 26.67.
- (e) A firm must be organized for profit in order to be eligible for SBE certification.
- (f) The fifty one percent (51%) owner must be a U.S. Citizen or Permanent Resident.
- (g) **Each firm must be qualified as a SBE before the solicitation process. Proposals and bids will not be accepted from non-SBE qualified firms.**

CERTIFICATIONS

- (a) Each certified SBE firm that is a Non-DBE firm must annually submit an affidavit to WMATA's DBE Office affirming its continued eligibility to participate in the SBE program. SBE/DBE firms do not have to submit an affidavit annually as long as they stay in DBE compliance.

- (b) A firm seeking SBE certification and/or annual renewal must cooperate fully with WMATA DBE Office's requests for information relevant to the certification and annual renewal process. Failure or refusal to provide such information may result in the denial or removal of certification.

The SBE firm is responsible for listing the North American Industry Classification System (NAICS) Code(s) that is/are the primary activities of the business and ensuring the NAICS Code(s) have been approved by WMATA's SBE Coordinator.

Each SBE firm shall complete and adhere to all requirements in Appendix B-1.

~ **APPENDIX B-1**

SMALL BUSINESS ENTERPRISE (SBE) PROGRAM

1. SMALL BUSINESS ENTERPRISE (SBE) REQUIREMENT:

The SBE requirements of the Authority's DBE Program Plan apply to this contract. Accordingly, the Contractor shall carry out the requirements of the Authority's DBE Program Plan and this Appendix in the performance of this U.S. Department of Transportation (US DOT) assisted contract.

2. POLICY:

It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA), and USDOT to foster small business participation in federally funded contracts. In order to facilitate competition and maximize participation by small businesses, WMATA will assign small business participation within the established threshold on a contract-by-contract basis on USDOT assisted construction contracts and on non-construction procurements (i.e., contracts for services, supplies and equipment having a total value not to exceed \$500,000). The threshold may be satisfied by utilizing one (1) or more small business concerns as primes or subcontractors or suppliers of goods and services provided that the small business performs a minimum of fifty one percent (51%) of the tasks pursuant to the awarded Contract. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance.

3. DEFINITIONS:

- A. **Appendix B-1.** The Notice of Requirements for Small Business Enterprise Program, which when attached to a solicitation, implements the SBE requirements of the Authority's DBE Program Plan in the award and administration of federally funded Authority contracts.
- B. **Certified SBE.** Is a for-profit small business concern (a) that is at least fifty one percent (51%) owned by one or more individuals who are economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one (1) or more such individuals; (b) whose management and daily business operations are controlled by one (1) or more of the economically disadvantaged individuals who own it; and (c) whose eligibility is evidenced by a current MWUCP (WMATA or D.C. Department of Transportation Certification letter), or an SBE certification letter issued by WMATA's Disadvantaged Business Office.
- C. **Contractor.** One who participates, through a contract or subcontract (at any tier), in a US DOT assisted highway, transit or airport program.
- D. **Commercially Useful Function (CUF).** An SBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the SBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether an SBE is performing a commercially useful function, the Authority will consider the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing.

- (1) An SBE does not perform a commercially useful function if its role is limited to that

of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of SBE participation.

- (2) If an SBE does not perform or exercise responsibility for at least 51 percent of the total cost of its contract with its own work force, or if the SBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work, the Authority will presume that the SBE is not performing a commercially useful function.
- E. The following factors will be used by the Authority in determining whether an SBE trucking company is performing a commercial useful function:
- (1) The SBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible for on a particular contract.
 - (2) The SBE must itself own and operate at least one fully licensed, insured and operational truck used on the contract.
 - (3) The SBE may lease trucks from another SBE firm, including an owner-operator who is certified as an SBE.
 - (4) The SBE may also lease trucks from a non-SBE firm, including an owner-operator. The SBE who leases trucks from a non-SBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
 - (5) The lease must indicate that the SBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the terms of the lease with the consent of the SBE, so long as the lease gives the SBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the SBE.
- F. **DC DOT.** The District of Columbia Department of Transportation.
- G. **Economically Disadvantaged Individual.** Any individual who is a citizen (or other lawfully admitted permanent resident) of the United States and, in general, whose net worth is less than \$1.32 million (excluding equity in personal residence and the applicant's firm).
- H. **Joint Venture.** An association of an SBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the SBE is responsible for a distinct, clearly defined portion of the work of the contract and shares in the capital contribution, control, management, risks, and profits of the joint venture commensurate with its ownership interest.
- I. **Metropolitan Washington Unified Certification Program (MWUCP).** A unified certification program mandated by 49 CFR §26.81 between two Federal transit recipients (WMATA and the D.C. Department of Transportation). The agreement became effective January 2005.
- J. **Race-conscious.** A measure or program that is focused specifically on assisting only DBEs, including women-owned DBEs.
- K. **Race-neutral.** A measure or program that is, or can be, used to assist all small businesses. For the purposes of the SBE and DBE programs, race-neutral includes gender-neutrality.

- L. **Small Business Concern.** With respect to firms seeking to participate as SBE's in US DOT assisted contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration implementing regulations (13 CFR Part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR Part 26.65(b).
- M. **US DOT Assisted Contract.** Any contract between the Authority and a contractor (at any tier) funded in whole or in part with US DOT financial assistance, including letters of credit or loan guarantees.
- N. **WMATA.** Washington Metropolitan Area Transit Authority, the transit system (rail and bus) serving the metropolitan Washington area, including parts of Virginia and Maryland.

4. SOLICITATION REQUIREMENTS:

The proposer shall submit the following with its solicitation package. Any proposer/bidder who fails to complete and return this information with its solicitation package shall be deemed to be not responsive and may be ineligible for contract award. Proposers/bidders that are not SBE certified shall be deemed to be not responsible and will be ineligible for Contract award.

The proposer/bidder shall submit the following items within ten (10) calendar days after notification that they are the apparent successful proposer:

- A. A copy of a current WMATA, D.C. DOT or MWUCP certification letter(s) or SBE certification letter shall be attached to evidence SBE pre-certification. All SBE firms must be pre-certified. Participation by a firm that is not currently certified as an SBE by the Authority at the time of the due date for offers on a contract, does not count. All SBE firms must be in compliance with 49 CFR, Part 26.
- B. Information for Determining Joint Venture Eligibility, if applicable (Attachment 1, pgs. 1, 2, 3, 4). Submittal shall be signed by all parties, dated and notarized.
- C. Copy of Joint Venture Agreement, if applicable. Submittal shall be signed by all parties, dated and notarized.
- D. Completed "Schedule of Participation for SBE Contracts" (Attachment 2) identifying the area of work and percentage of contract performance for SBE prime contractor and all subcontractors. The SBE must perform, at least 51% of the total contract value, to meet the SBE contract performance requirement.
- E. Executed "Letter of Intent to Perform as Subcontractor on SBE Contract" (Attachment 3) must be submitted for all subcontractors.

5. CONTRACT ADMINISTRATION REQUIREMENTS:

The following requirements apply after contract award:

- A. The Contractor shall include the following provision in the General Provisions of each subcontract it awards:

"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 US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in termination of this contract or such other remedy as the Buyer deems appropriate."

- B. The Contractor shall report on SBE performance on the attached, SBE Prime Contractor Prompt Payment Report (Attachment 4) which shall be submitted monthly with each payment request. Failure to submit these report(s) may result in suspension of contract payments. The contractor shall certify with each payment request that payment has been or will be made to all subcontractors due payment, within ten (10) days after receipt of payment from the Authority for work by that subcontractor. The Contractor shall inform the COR or COTR, with their payment request, of any situation in which scheduled subcontractor payments have not been made and the reason therefore. The Contractor shall require each subcontractor to complete and forward to the Small Business Coordinator on a monthly basis a "SBE Subcontractor Prompt Payment Report" (Attachment 5). The subcontractor shall certify that payment has been received.
- C. The Contractor must have the prior written approval of the contracting officer and the SBE office before substitution for an SBE subcontractor, regardless of the reason for substitution. Failure to obtain Authority approval could result in the Authority declaring the Contractor ineligible to receive further Authority contracts for three years from the date of the finding.
- D. The contractor shall forward copies of all subcontracts to the Small Business Coordinator at the time of their execution.
- E. If the contracting officer or other delegated authority's representative determines that the Contractor has failed to comply with this Appendix B-1, he/she will notify the Contractor of such non-compliance and the action to be taken. The Contractor shall, after receipt of such notice, take corrective action. If the Contractor fails or refuses to comply promptly, the contracting officer or other delegated authority's representative may issue a "stop work order" stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work order shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. When the Authority proceeds with such formal actions, it has the burden of proving that the Contractor has not met the requirements of this Appendix, but the Contractor's failure to meet its Appendix B-1 goal shall shift to it the requirement to come forward with evidence to show that it has met the good faith requirements of this Appendix.
- F. The Contractor agrees to cooperate in any studies or surveys as may be conducted by the Authority which are necessary to determine the extent of the Contractor's compliance with this Appendix.
- G. The Contractor shall keep records and documents for three years following performance of this Contract to indicate compliance with this Appendix. These records and documents, or copies thereof, shall be made available at reasonable times and places for inspection by any authorized representative of the Authority and will be submitted upon request together with any other compliance information which such representative may require.
- H. If the Authority, the FTA or the US DOT has reason to believe that any person or firm has willfully and knowingly provided incorrect information or made false statements regarding the SBE Program, the matter shall be referred to the WMATA's DBE office.
- I. Failure by the Contractor to carry out the requirements of this Appendix is a material breach of this Contract, which may result in the termination of this Contract under the Default provision of this Contract or such other remedy as the Authority deems appropriate.

Information for Determining Joint Venture Eligibility

Page 1

.....

Name and address of Joint Venture:

Contact Person: _____ Telephone: _____

Have you attached a copy of the Joint Venture agreement? Yes No

NOTE: Affidavit will not be processed without a copy of the Joint Venture agreement.

.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: DBE Non-Minority Female Veteran.

Does firm have current WMATA, DC DOT or MWUCP DBE certification? Yes No

.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: DBE. Non-Minority Female Veteran.

Does firm have current WMATA, DC DOT or MWUCP DBE certification? Yes No

.....

Describe the nature of the Joint Venture business:

Describe the role in the Joint Venture of each partner listed above:

Describe the experience and business qualifications of each partner in the Joint Venture listed above:

Information for Determining Joint Venture Eligibility

Page 2

Indicate the percentage of ownership in the Joint Venture for each Joint Venture partner, indicating dollar amounts wherever applicable.

Name of Partner	Percentage of Ownership	Profit and Loss Sharing	Capital Contributions including Equipment	Other Agreements

TOTALS:

Identify by name, title, race, sex and company affiliation those individuals responsible for the management control of and participation in this contract:

1. Financial decisions, such as payroll, insurance, surety and/or bonding requirements:
Name: _____ Race: _____
Title: _____ Sex: Male Female
Company affiliation: _____
2. Management decisions, such as estimating, marketing and sales, hiring and firing, purchasing supplies:
Name: _____ Race: _____
Title: _____ Sex: Male Female
Company affiliation: _____
3. Supervision of field operations:
Name: _____ Race: _____
Title: _____ Sex: Male Female
Company affiliation: _____



Information for Determining Joint Venture Eligibility

Page 3

The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our following named Joint Venture:

and the intended participation by each Joint Venturer in the undertaking. Further the undersigned covenant and agree to provide the Authority current, complete and accurate information regarding actual Joint Venture work and the payment thereof and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of the Authority or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal and State laws concerning false statements.

It is recognized and acknowledged that the Authority's SBE Program shall have access to the information provided herein above for the purpose of establishing eligibility of the Joint Venture.

It is understood that trade secrets and information privileged by law, as well as commercial, financial, geological and geophysical data furnished will be protected.

(NAME OF FIRM) (NAME OF SECOND FIRM)

(SIGNATURE OF AFFIANT) (SIGNATURE OF AFFIANT)

(PRINT NAME) (PRINT NAME)

(TITLE) (TITLE)

(DATE) (DATE)

.....



Information for Determining Joint Venture Eligibility

Page 4

.....

Date: _____ State: _____ County: _____

On this _____ day of _____, 20_____,

before me appeared _____
(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____

(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

.....

Date: _____ State: _____ County: _____

this _____ day of _____, 20_____,

before me appeared _____
(Name)

To me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____

(Name of Firm)

To execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

.....

SUBMIT WITH BID/PROPOSAL

SCHEDULE OF PARTICIPATION on SBE Contract

Contract No. _____

Project Name _____

Name of Bidder/Proposer

The bidder/proposer shall complete this Schedule by identifying those firms, with scope of work and price, who have agreed to perform work on this Contract. The bidder/proposer agrees to enter into a formal agreement with the firm(s) listed for the work and at, or greater than, the prices listed in this Schedule subject to award of a Contract with the Authority.

Name of Subcontractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
Subtotal \$ Subcontractors			
Name of Prime Contractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
Subtotal \$ SBE Prime Contractor			
TOTAL \$ ALL CONTRACTORS		TOTAL	

Signature & Title of Contractor Representative **Date**

**LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR/JOINT VENTURE
(ALL ITEMS MUST BE COMPLETED)**

TO: _____
(Name of Bidder/Proposer)

The undersigned intends to perform work in connection with the above projects as (check one):

_____ An individual _____ A corporation
_____ A partnership _____ A joint venture

Specify in detail particular work items or parts thereof to be performed:

at the following price: \$ _____

Please indicate _____% of the dollar value of the subcontract that will be awarded to subcontractors, if applicable. The undersigned will enter into a formal agreement with you for the above work upon your execution of a contract with the Authority.

Name of SBE Firm's Subcontractor/Joint Venture

Phone Number

Address

WMATA Vendor ID

Signature & Title

Date

The following is to be completed by the Prime Contractor. A copy of this letter must be returned to the subcontractor to indicate acceptance.

To: _____
(Name of Subcontractor)

You have projected your interest and intent for such work, and the undersigned is projecting completion of such work as follows:

WORK ITEMS:

PROJECTED SUBCONTRACTOR COMMENCEMENT DATE:

PROJECTED SUBCONTRACTOR COMPLETION DATE:

(Name of Prime Contractor & Acceptance Signature) _____

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
 SUPPLY AND SERVICE CONTRACT RFP-XX-XXXX/XXX
Washington Metropolitan Area Transit Authority (WMATA)

SMALL BUSINESS ENTERPRISE (SBE)
PRIME CONTRACTOR'S PROMPT PAYMENT REPORT

Page _____ of _____
 Reporting Period _____
 Contract Number _____

This Report is required to be submitted to the DBE Office, Attn: Coordinator, Small Business Programs, 8201 Ardwick Ardmore Road, Landover, MD 20785, pursuant to the requirements of WMATA's DBE Program Plan and 49 CFR Part 26.

Name of SBE Prime Contractor: _____

Prime Contract Amount: _____ :

Name of Sub-Contractor	SBE (Y/N)	Description of Work	Date Contract Awarded	Amount of Sub-Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub-Contractor

I certify the information furnished with respect to subcontractor performance correct to the best of my knowledge and represents a current status of the SBE prime contractor with subcontractors for the designated period covered by this report. Further, those subcontractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from WMATA.

Signature & Title of Authorized Representative: _____ Date: _____

Washington Metropolitan Area Transit Authority (WMATA)

SMALL BUSINESS ENTERPRISE (SBE)
SUBCONTRACTOR'S PROMPT PAYMENT REPORT

Page _____ of _____
 Reporting Period _____
 Contract Number _____

This Report is required to be submitted to the DBE Office, Attn: Coordinator, Small Business Programs, 8201 Ardwick Ardmore Road, Landover, MD 20785, pursuant to the requirements of WMATA's DBE Program Plan and 49 CFR Part 26.

Subcontractor: _____

SBE Prime Contractor: _____ Subcontract Amount: _____

Description of Service/Product Performed	Invoice Date	Invoice Amount	Payment Received From Prime Contractor (<i>Check # or EFT Confirmation #</i>)	Cumulative Payments Received From Prime Contractor

I certify the information furnished with respect to payment(s) by the prime contractor for the above services/products is true and accurate to the best of my knowledge.

Signature & Title of Authorized Representative: _____ Date: _____

COMBINED GLOSSARY OF DEFINITIONS

As used throughout this Contract, except to the extent otherwise expressly specified, the following terms shall have the meanings set forth below:

Acceptance: Acknowledgment by the Authority that the supplies, services, or other work conform to the applicable contract requirements.

Acceptance Period: The number of days available to the Authority to award a Contract pursuant to this solicitation, during which period offerors may not withdraw their offers.

Amendment: Written instructions issued prior to the date set for receipt of proposals or Best and Final Offers to clarify, revise, add or delete requirements of the Request for Proposals.

Approved equal: An item approved by WMATA as equivalent to a brand name item originally specified.

Authority or WMATA or Metro: The Washington Metropolitan Area Transit Authority, created effective February 20, 1967, by Interstate Compact by and between Maryland, Virginia and the District of Columbia pursuant to Public Law 89-774, approved November 6, 1966.

Best and Final Offers: A revision to the initial proposal submitted at the Contracting Officer's request, generally following discussions, upon review of which the Authority will render a determination as to the successful offeror for purposes of Contract award.

Board of Directors: The Board of Directors of the Washington Metropolitan Area Transit Authority.

Brand name: Identification of an item that is produced or controlled by one or more entities, including trademarks, manufacturer names, or model names or numbers that are associated with a manufacturer.

Breach: An unexcused and unjustifiable failure or refusal of a party to satisfy one or terms of the Contract which, if material, shall constitute a basis for potential default.

Change or Change Order: A written alteration issued, upon agreement of both parties or unilaterally by the Authority, to modify or amend the Contract, generally directing changes to the Scope of Work and/or Contract terms.

Claim: A written demand or assertion by the Contractor seeking, as a legal right, the payment of money, adjustment or interpretation of Contract terms, or other relief, arising under or relating to this Contract.

Clarifications: Exchanges between the Authority and one or more offerors of a limited nature, whereby offerors may be given the opportunity to clarify certain aspects of their proposals or to resolve minor irregularities, informalities or clerical errors.

Competitive Range: Those initial proposals that are determined by the Authority to have a reasonable chance of being selected for award and that may be selected for additional negotiations or discussions to the extent deemed appropriate by the Contracting Officer. Proposals not in the competitive range are given no further consideration. For low price, technically acceptable awards, "competitive range" means all proposals that are technically acceptable.

Constructive Change: An act or omission by the Authority that, although not identified as a Change Order, does in fact cause a change to the Contract.

Contract or Agreement: The written agreement executed between the Authority and the Contractor awarded pursuant to this Solicitation.

Contract Administrator: the Authority's representative designated to serve as its primary point of contact for pre-award activities relating to the solicitation as well as such post-award activities as are set forth in this Contract.

Contracting Officer: An employee with authority duly delegated from the powers of the Chief Procurement Officer to legally bind the Authority by signing a Contractual instrument. The Contracting Officer is the Authority's primary point of contact for pre-award administration, modifications above the limits of the Contracting Officer's Representative, and final settlement.

Contracting Officer Representative: The person to whom the Contracting Officer delegates the authority and responsibility for post award administration of the Contract. The Contracting Officer's Representative is the Authority's primary point of contact with its Contractor.

Contractor: The individual, partnership, firm, corporation, or other business entity that is Contractually obligated to the Authority to furnish, through itself or others, the supplies, services and/or construction services described in this Contract, including all incidentals that are necessary to complete the work in accordance with this Contract.

Contract Price: The amount payable to the Contractor under the terms and conditions of this Contract based on lump sum prices, unit prices, fixed prices, or combination thereof, with any adjustments made in accordance with this Contract.

Data: Recorded information, regardless of form or the media on which it may be recorded, including technical data and computer software.

Day: Calendar day, except where the term business day, work day or like term is used.

Designer: The individual, partnership, firm, corporation or other business entity that is either the Contractor, or employed or retained by the Contractor, to manage and perform the design services for this Contract.

Disadvantaged Business Enterprise (DBE): A for-profit small business concern that has been certified by the Authority to be at least fifty-one percent (51%) owned by one (1) or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one (1) or more individuals, and whose management and daily business operations are controlled by one (1) or more of the socially and economically disadvantaged individuals who own it.

Descriptive literature: Information provided by an offeror, such as cuts, illustrations, drawings, and brochures that shows a product's characteristics or construction of a product or explains its operation. The term includes only that information needed to evaluate the acceptability of the product and excludes other information for operating or maintaining the product.

Directed, ordered, designated, prescribed or words of like importance: Shall be understood that the direction, requirement, order, designation or prescription of the Contracting Officer is intended and similarly the words approved, acceptable, satisfactory or words of like import shall

mean approved by, or acceptable to, or satisfactory to the Contracting Officer, unless otherwise expressly stated.

Discussions: Negotiations or exchanges relating to the solicitation between an offeror and the Authority that may occur after receipt of proposals (generally after establishment of the competitive range) and before award, that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal or to be followed by the Contracting Officer's request for receipt of Best and Final Offers (BAFOs).

Evaluation Criteria: Those factors to be considered by the Authority, in determining the successful proposal.

Explanation: Additional information or clarification provided by an Authority representative to one (1) or more prospective offerors in response to an inquiry relating to the solicitation, that will be binding upon the Authority, only to the extent specified in this Contract.

Equivalent: Of equal or better quality and/or performance to that specified in this Contract as determined by the Authority.

Final Acceptance: Final acceptance of the work occurs when the work is fully, completely, and finally accomplished in strict compliance with the Contract to the satisfaction of the Authority.

Final Payment: The last payment to the Contractor for work performed under this Contract.

Force Majeure: An unforeseen event or circumstance, beyond the control of, and not occasioned by the fault or neglect of, the Contractor or the Authority, that gives rise to a delay in the progress or completion of the Contract, including, without limitation, acts of God, acts of war or insurrection, unusually severe weather, fires, floods, strikes, freight embargoes or other events or circumstances of like nature.

FTA: Federal Transit Administration, an agency within the United States Department of Transportation that provides financial and technical assistance to local public transit agencies.

Government: The Government of the United States of America.

Industry Standards: Drawings, documents, and specifications or portions thereof published by industry organizations. Industry Standards are not part of the Contract unless specifically listed in the Statement of Work.

Legal Requirements: All Federal, State and local laws, ordinances, rules, orders, decrees, and regulatory requirements such as: building codes, mechanical codes, electrical codes, fire codes, Americans with Disabilities Act Accessibility Guidelines (ADAAG), and other regulations of any government or quasi-government entity that are applicable to this Contract.

Milestone: A specified date in this Contract by which the Contractor is required to complete a designated portion or segment of the work.

Minor Irregularity: A variation from the solicitation contained in a proposal that does not affect the price or other material term of the Contract and does not confer a competitive advantage or benefit not enjoyed by other offerors or adversely impact the Authority's interests.

Notice to Proceed: Written notice issued by the Authority establishing the date on which the Contractor may commence work and directing the Contractor to proceed with all or a portion of the work.

Offeror: A party submitting a proposal in response to this solicitation.

Option: A unilateral right in the Contract by which, for a specified time, the Authority may elect to purchase, at a predetermined price, additional supplies, services and/or work called for by the Contract or to extend the term of the Contract.

Organizational conflict of interest: A circumstance in which, because of other activities or relationships, a person, corporation or other business entity is unable or potentially unable to render impartial assistance or advice to the Authority, or its objectivity in performing the Contract is or might be otherwise impaired, or it has an unfair competitive advantage.

Period of Performance: The time allotted in this Contract for completion of the work. The period of performance begins upon the effective date of Contract execution and ends on the last date for complete performance of the final option. The period of performance incorporates the milestones established for the Contract.

Pre-award Survey: An evaluation of a prospective Contractor's capability to perform a proposed Contract, including an assessment of matters relating to its responsibility.

Product Data: Information furnished by the Contractor to describe materials used for some portion of the work, such as written or printed descriptions, illustrations, standard schedules, performance charts, instructions, brochures, and diagrams.

Proposal: A submission by an offeror to the solicitation that, if accepted by the Authority, would bind the offeror to perform the resultant Contract.

Records: Books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

Revision: A change to a proposal made by an offeror, at the request of or as allowed by the Contract Administrator or Contracting Officer, often as a result of discussions. Best and Final Offers are one form of revision.

Safety Sensitive: FTA regulations at 49 C.F.R. § 655.4 define "safety sensitive functions" as any of the following duties when performed by WMATA as a grant recipient, or any of its contractors: (a) Operating a revenue service vehicle, including when it is not in revenue service; (b) Operating a

nonrevenue service vehicle, when required to be operated by the holder of a commercial driver's license (CDL); (c) Controlling dispatch or movement of a revenue service vehicle; (d) Maintaining (including repairs, overhaul and rebuilding) a revenue service vehicle or equipment used in revenue service; and (e) Carrying a firearm for security purposes. WMATA's definition of safety sensitive functions extends beyond FTA's requirements and includes (f) Employees and contractors who maintain escalators and elevators (including repairs, overhauls and rebuilding) and (g) Station managers.

Services: The performance of work by a person or legal entity under contract with the Authority, including without limitation: maintenance; overhaul; repair; servicing; rehabilitation; salvage; modernization or modification of supplies, systems or equipment; routing, recurring maintenance of real property; housekeeping; operation of Authority-owned equipment, facilities and systems; communication services; Architect-Engineering services; professional and consulting services; and transportation and related services.

Small Business Enterprise Set-Aside: Competitive procurement(s), less than \$500,000, exclusively for SBE certified bidders/proposers.

Supplies: The end item(s) required to be furnished by the Contractor in fulfillment of its obligation under this Contract as well as any and all related services and required performance.

Statement of Work (SOW): The portion of this Contract or Request for Proposals that describes specifically what is to be done by the Contractor. It may include specifications, performance outcomes, dates and time of performance, quality requirements, etc.

Solicitation: This Request for Proposals (RFP).

Shop Drawings: Fabrication, erection, layout, setting, schematic, and installation drawings that the Contractor prepared for permanent structures, equipment, and systems that it designed to comply with this Contract.

Similar: Generally the same, but not necessarily identical. Details will be worked out regarding location and relation to other parts of the work.

Site: The areas that are occupied by or used by the Contractor and subcontractors during performance of this Contract.

Small Business Enterprise (SBE): A for profit small business concern that has been certified by the Authority to be at least fifty-one percent (51%) owned by one (1) or more individuals who are economically disadvantaged.

Small Business & Local Preference Program: Board mandated small business contracting program for WMATA funded contracts with firm(s) located in the District of Columbia, Maryland or Virginia.

Subcontract: An agreement between the Contractor and another party, or between other subcontractors at any tier, to perform a portion of this Contract through the acquisition of specified supplies, materials, equipment or services.

Subcontractor: An individual, firm, partnership, or corporation that has a contractual obligation with the Contractor or other subcontractors or suppliers.

Submittal: Written or graphic document or samples prepared for the work by the Contractor or a subcontractor or supplier and submitted to the Authority by the Contractor, including shop drawings, product data, samples, certificates, schedules of material, or other data.

Substantial Completion: Work or a portion thereof that has progressed to the point where it is sufficiently complete in accordance with the Contract (including receipt of test and inspection reports) so that it can be utilized for the purpose for which it is intended, and only incidental work remains for physical completion in accordance with the Contract.

Substitution: An item offered by the Contractor of significant difference in material, equipment, or configuration, which functionally meets the requirements of the Contract, but is submitted in lieu of item specified therein.

Supplier: A subcontractor who is a manufacturer, fabricator, supplier, distributor, or vendor.

Utility: A public and/or private facility or installation, other than WMATA's facility, that relates to (1) the conveyance and supply of water, sewage, gas, chemicals, steam, petroleum products, and other piped installations, or (2) electrical energy, telephone, radio, television, and cellular or wireless communications.

Utility Standards: Drawings and specifications for utilities published or issued by municipalities or utility companies.

WMATA Safety Manual: A compilation of the appropriate safety and reporting requirements for the project as specified in the Contract.

WMATA Safety and Security Certification Program Plan: A compilation of the appropriate system safety and security certification requirements for the Contract.

Work: All of the services of any kind, as well as any and all goods, supplies, equipment, labor, and material, of any type and nature to be furnished and/or performed pursuant to a Contract such as to accomplish the Contract's stated objectives in a timely and fully satisfactory manner.