



**MASSACHUSETTS BAY
TRANSPORTATION
AUTHORITY**

REQUEST FOR PROPOSALS

RFP NO. 80F-24

Green Line Train Protection System

Date Issued: June 7, 2024

Sourcing Manager: Kiana Hall

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1. PROPOSAL INFORMATION

1.1. Invitation and Description of Work

The Massachusetts Bay Transportation Authority (“MBTA” or “Authority”) seeks a stand-alone, non-vital overlay system to provide Green Line Train Protection. The primary functions of this system are to prevent train to train collisions and to stop Green Line Vehicles before they pass a Red Signal.

The MBTA’s Green Line is a light rail system including both above ground and tunnel service and consisting of four branches (B, C, D, and E lines). Additional information about the service and schedule is available at www.mbt.com.

The system must be compatible with the four distinct Green Line vehicle models, three of which are currently in service.

This Request for Proposal will result in an award to a Contractor to:

- Design, integrate, manage, and supply a Green Line Train Protection System (GLTPS) for the MBTA’s Green Line
- Manage, integrate, and install the GLTPS carborne kits and back-office equipment
- Manage and integrate wayside equipment; oversee the installation and commissioning by a third-party contractor. This includes but is limited to:
 - Prepare all bid documents, including contract documents with detailed plans, specifications and drawings and etc. for a competitive bid for the construction related to the wayside equipment installation in accordance with Massachusetts G.L. c. 30, §39M and all other applicable laws. All bid documents must be reviewed and approved by the MBTA.
 - Wayside installation drawings within the location-specific installation package shall be stamped, sealed, and certified by a Massachusetts Registered Professional Engineer for review and acceptance by MBTA.
- At the MBTA’s option, procure the services of a qualified subcontractor(s) to complete construction activities related to the installation of wayside equipment in accordance with Massachusetts G.L. c. 30, §39M

The train protection system must be in accordance with Technical Specification VE-24-056 (“Technical Specifications” or “Specifications”).

The Authority will implement the project in two (2) phases:

- Phase 1 will include initial deployment of a production-ready Warning System, providing audible and visual alarms to the operator, notifying the operator of an impending collision or violation.
- Phase 2 will include full deployment of an Avoidance System, having automatic train protection functionality, including train localization and speed enforcement, to prevent red signal overruns, train-to-train collisions, overspeed in permanent or temporary slow zones, and to protect workers in the right of way (ROW).

The procurement will be conducted in three (3) phases:

1. MBTA will evaluate responses based on the Pass/Fail Criteria and the Technical Evaluation Criteria. Only those that are in accordance with the specifications and submission requirements stated herein will be considered. Bidders may be required by the MBTA to provide an oral technical presentation as part of the technical evaluations.
2. From there, selected bidders will be invited to perform a Design & Production Readiness demonstration on MBTA property. Upon selection, the bidders will be compensated \$135,000 for the allotted times listed below. For the awarded bidder, payment will be deducted from the amount due under the final contract. The selected bidders shall perform a preliminary design & production readiness demonstration by performing the following activities within a 5-month period:
 - a. Limited wayside and fleet survey (1-month)
 - i. Visit as many wayside locations as necessary to gauge the conditions of existing field equipment and evaluate potential interface points/methodologies for Phase 2.
 - ii. Evaluate at least one car of each type (T7, T8, T9) to ascertain the ability to retrofit the vehicle with Phase 1 equipment and to assist in developing a design proposal for Phase 2.
 - b. Design review with MBTA, 75% Phase 1 and 25% Phase 2 (2-months)
 - i. Provide a detailed presentation on:
 1. Phase 1 proposed design and retrofit methodology based on the Bidder's proposed technology and the information obtained in the fleet survey. (75% of focus)
 2. Phase 2 design, installation, and interfaces based on the Bidder's proposed technology and the information obtained in the fleet and wayside surveys. (25% of focus)
 - c. Demonstration of Installation and functionality, 4 vehicles (1 of each T7, T8, and 2 of T9) (2-months)
 - i. Focused on Phase 1, provide a demonstration of retrofit installation of:
 1. One T7 car
 2. One T8 car
 3. Two T9 cars
 - ii. Focused on Phase 1, using the retrofit vehicles in (i), provide a demonstration of the Warning functionality for impending violations and/or collisions with another vehicle with or without the retrofit.
 - iii. Optionally, in support of the demonstration in (ii) or of Phase 2, provide a demonstration of wayside installation on the MBTA test track.
 - iv. Optionally, if feasible, provide a demonstration of Phase 2 functionality.
3. Upon successful demonstration, the MBTA will evaluate Bidders' total proposals based on a combination of demonstrated system capabilities, demonstrated design and production readiness, Technical Evaluation Criteria, and Price Responses.

All GLTPS equipment shall be covered by a full all-inclusive 4-year warranty.

1.2. Optional Scope

The MBTA has an active procurement for the delivery of Green Line Type 10 vehicles with a total quantity of 102 (plus options). The Authority reserves the right within five (5) years of Notice to Proceed to exercise the following options:

- Option 1 – For the furnishing, delivery and installation of the first four (4) GLTPS kits for the Type 10 vehicles, up to twenty (20) after successful First Article Inspection (FAI).
- Option 2 – For the furnishing and delivery of up to 82 GLTPS kits for Type 10 vehicles (if Option 1 has been executed) or 102 GLTPS kits for the Type 10 vehicles (if Option 1 has NOT been executed), including engineering oversight and support, with all training and manuals as required per the base order; purchase will be executed by the MBTA or CAF USA, Inc.
- Option 3 – For the furnishing and delivery of some or all of the GLTPS kits for the Type 10 options contract vehicles, as allocated below, including engineering oversight and support, with all training and manuals as required per the base order; purchase will be executed by the MBTA or CAF USA, Inc.
 - Type 10 Option 1 – 3 vehicles
 - Type 10 Option 2 – 9 vehicles
 - Type 10 Option 3 – 25 vehicles
 - Type 10 Option 4 – 26 vehicles
 - Type 10 Option 5 – 30 vehicles
 - Type 10 Option 6 – 31 vehicles
- Option 4 - Capital spares for the Type 10 vehicles
- Option 5 – Installation of Wayside Equipment
 - The awarded Contractor will be designated as the MBTA's agent to conduct a competitive bid for the construction related to the wayside equipment installation in accordance with Massachusetts G.L. c. 30, §39M and all other applicable laws. All bid documents, process and contract for this procurement must be reviewed and approved by the MBTA. The awarded Contractor shall pay all fees, costs and expenses for and associated with the design, procurement, bid process, and construction of the MBTA components. In connection with the procurement, bid process and construction of the MBTA components, the MBTA must approve all bid specifications and Contract Documents. The awarded Contractor shall comply with G.L. c. 30, Section 39M and all other provisions of Massachusetts General Laws that the MBTA would be required to comply with if the MBTA were procuring such assets solely for the use of the MBTA and its own customers. Contract documents shall include, but is not limited to, requirements for payment of prevailing wages pursuant to G.L. c. 149, Section 26 et. seq., plans and specifications that adhere to all applicable local state and federal codes and regulations, statutory requirements pertaining to payment bonds, differing site conditions, demands for direct payments and delay clauses. The awarded Contractor shall indemnify the MBTA from any violations in its procurement, bid process and contracting for the MBTA components pursuant to this Option 5. Upon approval, Contractor shall invoice actual costs of such construction as incurred, without markup, to the MBTA.

Prices offered shall remain fixed for kits purchased through the end of forty-eight (48) months following the Notice to Proceed.

1.3. U.S. Domestic Provisions

This contract may be financed in part by means of a grant under the Urban Mass Transportation Act of 1964, as amended, and administered by the U.S. Department of Transportation, Federal Transit Administration (FTA), under a Capital Grant Contract between the Authority and the United States. The provisions of an FTA funded contract will apply, including Buy America and Disadvantaged Business Enterprise (DBE) participation.

All questions concerning the contract between the Authority and the Contractors, including all proposals thereof, shall be governed by and decided according to the law application to government procurement under Capital Grant Contracts. Refer to FTA Circular 4220.1F entitled "Third Party Contracting Guidelines" for details.

Under the FTA Guidelines, the following protest procedures are applicable:

1. The FTA may entertain a protest that alleges that a grantee failed to have or follow its written appeal/protest procedures.
2. A protest must be filled with the FTA no later than 5 days after the protester knows or has reason to know that the grantee has failed to render a final decision.
3. A protest to FTA must be filed in accordance with FTA Circular 4220.1F, as amended.

NOTE: The Authority reserves the right to proceed with the procurement, in spite of the pending protest as set forth in FTA Circular 4220.1F, if such action is deemed in the best interest of the Authority.

1.4. Request for Proposals Timeline

Activity	Date	Time
RFP Release	Friday, June 7, 2024	
Pre-Proposal Conference	Tuesday, June 18, 2024	
Request for Clarification Deadline	Monday, July 30, 2024	
Final Addenda Deadline	Tuesday, August 13, 2024	
Proposal Due Date	Tuesday, August 27, 2024	2:00 p.m. EDT

The MBTA reserves the right to modify this timeline.

Requests for an extension of the Proposal Due Date must be submitted in writing, via Q&A in COMMBUYS **no later than ten (10) business days prior to the Due Date**. The MBTA reserves the right to determine whether to accept such requests. All Bidders will be notified through COMMBUYS of any extension granted.

1.5. MBTA Point of Contact and RFP Communications

MBTA's Procurement and Logistics Department will be the sole contact for prospective Bidders during the Proposal process. It will coordinate and direct all managerial, administrative, and technical processes and decisions.

RFP# 80F-24 and all RFP Attachments, and Technical Specification VE-24-056 and all Technical Specification Attachments will be posted on the Commonwealth of Massachusetts' COMMBUYS site, www.commbuys.com as Bid Number **BD-24-1206-MBTA-MBTA-103930**. At the MBTA's discretion, information regarding the proposal may be posted at other sites.

The MBTA's Contracting Officer and point of contact for this RFP is Kiana Hall, Strategic Sourcing Manager, at khall@mbta.com. Each Bidder must designate one individual to function as a point of contact with MBTA during the pre-Proposal period to facilitate communications and receipt of RFP documents and addenda, if issued.

1.6. Evaluation Criteria

The Evaluation Criteria are:

1. Pass/Fail evaluation criteria:
 - Legal
 - Financial Stability
2. Technical Evaluation Criteria, in order of importance:
 - Technical Capability of Proposed Solution
 - Bidders' Qualifications and Capability
 - Project Management Plan and Schedule
 - Quality Assurance Plan
3. Design and Production Readiness Demonstrations
4. Total Proposal Price, including all Options

Award will be made to the Bidder who furnishes the Proposal, which in the opinion of the MBTA, provides the best value, meaning it is offered at a fair and reasonable price and it offers services and equipment best suited for the MBTA's requirements from a contractual and technical standpoint.

1.7. Selection and Competitive Negotiation Process

Proposals will be evaluated and awarded on a best value, competitive negotiated basis as described below. MBTA may request Bidder clarification of any minor informalities, irregularities, and apparent clerical mistakes. Any changes to the Response shall be evaluated at MBTA's sole discretion.

1. **Confidentiality:** All information received from each Bidder will be treated as confidential information and will not be distributed prior to Contract execution, other than for the purpose of evaluation of the Proposal.

Bidders are advised that all Proposals received are subject to the Massachusetts Public Records Law, G.L.c.66.

2. **Technical Response Responsiveness Review:** MBTA reserves the right, in its sole discretion, to determine if a Proposal is responsive and the Bidder is responsible. In determining whether a Bidder has the ability to perform successfully under the terms and conditions of the proposed procurement, MBTA will consider such matters as the Bidder's integrity, compliance with public policy (e.g., EEO record, debarment status, etc.), record of past performance, and financial and technical resources.

Upon receipt, Technical Responses will be reviewed for responsiveness to the RFP requirements, including (i) deficiencies and minor informalities, irregularities, and apparent clerical mistakes which are unrelated to the substantive content of the Response; (ii) conformance to the RFP instructions regarding organization and format; and (iii) the responsiveness of the Bidder to the requirements set forth in this RFP.

Those Technical Responses not responsive to this RFP may, at MBTA's sole discretion, be excluded from further consideration and the Bidder will be so advised.

3. **Pass/Fail Evaluation:** Each Pass/Fail Evaluation Criterion will be evaluated by considering all information included in the Technical Proposal and, optionally, other publicly available information related to the criteria. Each Bidder must obtain a "pass" on all Pass/Fail Evaluation Criteria in order for its Response to be eligible for selection. The MBTA may request Bidder clarification on a Pass/Fail Evaluation Criterion, after which MBTA may re-evaluate the Response, at MBTA's sole discretion.
4. **Technical Proposal Evaluation:** Each Technical Evaluation Criterion will be evaluated by considering all information included in the Technical Proposal related to the criterion. This evaluation may, at MBTA's sole discretion, include requests for additional written information or clarification from any Bidder to assist in evaluation, including oral interviews, and references.

MBTA may, at its own expense and upon reasonable notice, visit and inspect current operations of the Bidder and/or any proposed subcontractors, including the premises, facilities, equipment, personnel and other resources, and carry out related appraisals as part of the Response evaluation.

Technical Proposals (inclusive of oral presentations and demonstrations) will be ranked, and the two (2) that most closely align with MBTA's Evaluation Criteria will advance to the Design and Production Readiness Demonstration. However, the MBTA, in its sole discretion, reserves the right to modify the number of Proposals that are advanced to Design and Production Readiness Demonstration.

5. **Design and Production Readiness Demonstration:** Two proposed systems deemed by the MBTA as having sufficient potential to support the goals itemized below will be allowed to continue to an on-property Design and Production Readiness demonstration of the system at locations approved or requested by the MBTA.

- The proposed system fulfills the primary functions.
- The proposed system can be reasonably implemented on the MBTA Green Line.
- The design of the proposed system is ready to meet or exceed Phase 1 performance and functional requirements.
- The design of the proposed system is production-ready for initial deployment of a Warning System, providing audible and visual alarms to the operator, notifying the operator of an impending collision or violation.
- The conceptual design of the proposed system is capable to meet Phase 2 performance and functional requirements and includes full deployment of an Avoidance System, having automatic train protection functionality, including train localization and speed enforcement, to prevent red signal overruns, train-to-train collisions, overspeed in permanent or temporary slow zones, and to protect workers in the right of way (ROW).

The invited Bidders must demonstrate the following:

- a. The proposed system is compatible with the four distinct Green Line vehicle models, three of which are currently in service:
 - i. All Phase 1 interfaces between the proposed GLTPS and the vehicle must be tested in operating conditions. Each of the existing vehicle types (7, 8, and 9) shall be tested individually, a GL7 – GL8 pair, and a Type 9 pair.
 - ii. All Phase 2 interfaces between the proposed GLTPS and the vehicle must be itemized and arranged on a vehicle drawing, rendering, or sketch for each of the four vehicle models.
- b. Integration of the proposed system with the MBTA Signal System: All interfaces between the proposed GLTPS and the MBTA Signal System must be tested in operating conditions.
- c. Wayside installation of the proposed system: Proposed typical configuration and typical installation of each item that would need to be installed wayside in Phase 1 or Phase 2 must be demonstrated.
- d. Back-office user interface: Demonstrate the graphics and functions of the Back-office user interface proposed for the Green Line using a simulation of the proposed system or a live-demo of an existing implementation.
- e. Demonstration of Phase 1 function and performance of the candidate system:
 - i. The demonstration must be performed in accordance with a Design and Production Readiness Demonstration (DPRD) Plan each invited Bidder must prepare for review and acceptance by MBTA.
 - ii. The results of the demonstration must be reported by the respective Bidder to MBTA at its conclusion. The report must include all test data and, as applicable, an explanation of or justification for all noted exceptions or variances.

- iii. Wireless Communication - If wireless communication is used, the purpose of this exercise is to demonstrate the drop-out time of the wireless communication and the response of the candidate system to both momentary and continuous loss of communication.
- iv. Obstructions – The purpose of this exercise is to demonstrate the ability of the candidate system to handle the presence of, e.g., support poles, trees or greens, central subway columns, tunnels, or overpasses. This demonstration is to be performed in the Central Subway, on the Riverside Line, and in the Riverside Line yard.
- v. Power Loss – The purpose of this exercise is to demonstrate the reaction of the candidate system to power loss (wayside and carborne); i.e., does the candidate GLTPS have back up to function when power is lost and how well does the candidate system recover when power is restored.
- vi. System Redundancy – If redundancy is part of the proposed solution, the purpose of this exercise is to demonstrate that the candidate system will still function when one of the redundancies fails.
- vii. Adjacent Tracks – The purpose of this exercise is to demonstrate the ability of the candidate system to detect that an oncoming train is on an adjacent track and that warning is not necessary. This is to be demonstrated on a tangent track in the Central Subway as well as above ground and in a Yard.
- viii. Reverse Moves – The purpose of this exercise is to demonstrate the ability of the candidate system to prevent collision with an oncoming train making a reverse move that is done intentionally or unintentionally.
- ix. Double Berthing – The purpose of this exercise is to demonstrate the ability of the candidate system to avoid or greatly minimize unnecessary collision warnings in an approaching train when there is a stationary train in the station. This is to be demonstrated on the westbound platforms at Park Street station.
- x. Dead Tow – The purpose of this exercise is to demonstrate the capability of the candidate system to detect a train in a dead tow scenario.
- xi. Breakaway – The purpose of this exercise is to demonstrate the ability of the candidate system to detect vehicles that have broken away from an operating train ahead.
- xii. Key-out - The purpose of this exercise is to demonstrate the ability of the candidate system to respond correctly to a lead train that is keyed off.
- xiii. Turn Back – The purpose of this exercise is to demonstrate the capability of the candidate system to respond correctly to switch of ends.
- xiv. Train Separation – The purpose of this exercise is to demonstrate the ability of the candidate system to warn the Streetcar Motorperson in

normal operation if train separation falls below the minimum distances defined in the Rule Book.

- xv. Train Localization – If used in Phase 1, the purpose of this exercise is to demonstrate the ability of the candidate system to determine safely, reliably, and resiliently the location of the train.
- xvi. Direction of Travel – The purpose of this exercise is to demonstrate the ability of the candidate system to determine the direction of travel (vehicle: Forward, Neutral, Reverse; wayside: East, West, North, South, westbound, eastbound).
- f. Optional demonstration of Phase 2 function and performance of the candidate system: If ready, an invited Bidder may wish to demonstrate any or all the functions the proposed system will provide in Phase 2. If proposed, the invited Bidder must include such optional demonstrations in the DPRD Plan submitted to MBTA.

6. **Price Proposal Responsiveness Review:** Price Proposals will be reviewed for responsiveness to RFP requirements, including (i) deficiencies and minor informalities, irregularities, and apparent clerical mistakes which are unrelated to the substantive content of the Response; (ii) conformance to the RFP instructions regarding organization and format; and (iii) the responsiveness of the Bidder to the requirements set forth in this RFP.

Those Price Proposals not responsive to this RFP may, at MBTA's sole discretion, be excluded from further consideration and the Bidder will be so advised.

7. **Price Proposal Evaluation:** This evaluation may, at MBTA's sole discretion, include requests for additional written information or clarification from any Bidder to assist in evaluation.
8. **Competitive Negotiation:** A decision is made to:
- a. Move to Contract. MBTA may elect to award a Contract without negotiation.
 - b. Reject all Proposals in the best interest of MBTA.
 - c. Negotiate with Bidders within the competitive range and with compliant Proposals. The competitive range includes all Proposals which have a reasonable chance of being selected for award. If negotiation is used:
 - i. Each Bidder is formally notified in writing either that its Proposal is compliant and within the competitive range and when negotiations with that Bidder will commence, or that its Proposal is not compliant or not within the competitive range and is excluded from further consideration.

- ii. The Contracting Officer determines whether negotiations will be conducted by written correspondence or by oral discussion. All meetings are held individually under the direction of the Contracting Officer.
 - iii. As part of negotiations, Bidders within the competitive range may modify their original Proposal and submit a revised Proposal or Best and Final Offer (BAFO), as directed by MBTA, by a common due date.
 - iv. Competitive Negotiation steps are repeated as required.
9. **Best Value Determination:** MBTA will, in its sole discretion, determine which Proposal or Proposals represents the “best value” based on an analysis of the results of the Pass/Fail Criteria, Technical Proposal Evaluation, Oral Presentations/Demonstrations and the Price Proposal Evaluation.

1.8. Pre-Proposal Procedures

1. **Pre-Proposal Conference.** A *virtual* conference will be held on Tuesday, June 18, 2024, at 10:00 a.m. EDT. Attendees must pre-register via e-mail no later than 2:00 p.m. on Friday June 14 to receive an invitation. Registration should be in the form of an email with subject line “GLTPS Pre-Proposal <Company Name>” sent to Kiana Hall, Strategic Sourcing Manager at khall@mbta.com.
2. **Requests for Clarification (RFCs).** RFCs should be submitted using COMMBUYS Q&A by July 30, 2024
 - a. Only one question/clarification may be submitted per question box in COMMBUYS.
 - b. All RFCs must be submitted by the date listed in Section 1.3.
 - c. MBTA has no obligation to respond to RFCs.
 - d. Should the MBTA make changes to any specification, stipulation, requirement, or procedure, notification will be made to all Bidders in the form of written Addenda. No officer, agent, or employee of the MBTA is authorized to amend any provision contained in this RFP, including the specifications, unless such amendment is issued as an Addendum and sent to all Proposers in accordance with this Section 1.7 (Pre-Proposal Procedures).
 - e. The Authority will not review "Requests for Approved Equal" for specified components or systems during the RFC process. All approved equal proposals will

be reviewed during preliminary design phase of the procurement with the selected Contractor.

3. **Contract Document Revisions.** If MBTA determines an issue or Request for Clarification warrants a response or a change to the Contract Documents, it will issue an Addendum. Any interpretation or revision to Contract Documents will be made only by an Addendum.
 - a. Addenda will be numbered sequentially and made available to Bidders on COMMBUYS.
 - b. The Bidder must acknowledge receipt of each Addendum by writing the Addendum number and date in the space provided on the Proposal Form and submitting the executed Form with their Proposal.
 - c. No officer, agent, or employee of the MBTA is authorized to amend any provision contained in this RFP, including the specifications, unless such amendment is issued as an Addendum.
 - d. Oral explanations or instructions are not binding.
 - e. MBTA reserves the right to revise or amend the Contract Documents in its best interests.

1.9. Preparation and Submittal of Proposals

A. General. Proposals must be submitted as follows:

The Bidder must submit its Proposal electronically, in accordance with all instructions and guidelines, through COMMBUYS no later than 2:00 p.m. EDT, August 27, 2024. This electronic proposal is the official bid submittal.

In addition, the Bidder must submit paper copies of its proposal, in accordance with all instructions and guidelines, to the Contracting Officer, Massachusetts Bay Transportation Authority - Procurement, 10 Park Plaza, Suite 4260, Boston, Massachusetts 02116 **within 48 hours of the electronic due date.**

- a. The Bidder bears full responsibility for ensuring proper delivery of all Proposal documents.
 - b. The Proposal will be valid for 180 business days from the Proposal due date. If MBTA requires additional time for review, MBTA reserves the right to extend the validity of the Proposal in increments of sixty (60) business days. Prices submitted remain in effect as originally submitted.
2. Electronic versions of both the Technical Response, including all components, and Price Proposal must be submitted on COMMBUYS as separate, clearly labeled files. Electronic copies of the Price Proposal should be provided both in PDF and Excel.

3. In addition, the Technical Response and the Price Proposal must also be sent as separate sealed submittals, together submitted as an entire package endorsed as “RFP No. 80F-24 – Green Line Train Protection System.”
 - a. The Technical Response must be submitted in the quantities described in Section 12.2, sealed, and clearly marked “RFP No. 80F-24: Technical Response –Green Line Train Protection System.”
 - b. A single copy of the Price Proposal must be submitted, sealed, and clearly marked “RFP No. 80F-2: Price Proposal –Green Line Train Protection System.”
4. It is the Bidder’s responsibility to ensure its Proposal is complete and correctly submitted.
5. As described in Section 12.2, one (1) original copy of resolution, by-law, or Power-of-Attorney authorizing an Officer or Agent to sign on behalf of the Bidder must accompany the Proposal and any Contract which may ensue. All Proposals, Technical and Price, must be signed correctly with ink in the proper place provided. See Section 12 for additional requirements.

B. Technical Response.

1. Each copy of the Bidder’s Technical Response must be inserted into a three-ring binder and organized as described in Section 12.
2. Contractual Information. The Bidder must utilize and fully complete all Proposal forms included in this RFP and listed in Section 12, specifically RFP Attachments 1, 2, 3, and 4.
3. The Bidder must meet all minimum requirements of the Contract Documents, including the components of Technical Response. The Bidder may, however, exceed the minimum requirements and may submit additional information describing its Proposal, within defined page limits.

C. Price Proposal.

1. **Price Proposal.** Using RFP Attachment 5: Price Proposal as specified in Section 13, the Bidder must specify a unit price in US dollars for each item for which a quantity is given.
 - a. In case of a discrepancy between the unit prices written in words and unit prices written in figures, the written words will govern.
 - b. The prices for any item, proposed and contracted for, unless otherwise noted or specified, must include full compensation for all materials, equipment tools, labor, and incidental work necessary to complete the items to the satisfaction of the MBTA.
 - c. All prices must be net, not subject to discount, and must include all royalties and costs arising from patents, trademarks, and copyrights involved in any way with the work.
 - d. The Price Proposal must include the cost of all applicable taxes, customs, duties, freight/transportation, and insurance for Delivery of Vehicles and all End Products.
 - e. The Price Proposal must be based upon the Schedule of Partial Payments described in Section 7.3
 - f. The Bidder’s submittal must be prepared as if it as Best and Final Offer. MBTA may award this Contract without negotiation if it determines it has received the best value Proposal in accordance with the Contract Documents.

1.10. Pre-Contractual Expenses

- A. MBTA will not be liable for any pre-contractual expense incurred by the Bidder, including but not limited to:
1. Preparing its Proposal in response to this RFP;
 2. Attending the Pre-Proposal Conference;
 3. Submitting its Proposal to MBTA;
 4. Discussing or negotiating with MBTA any matter related to this Proposal; or
 5. Any other expenses incurred by the Bidder prior to any date of Award except for the Bidders invited to demonstrate readiness.
- B. The Proposal must not include any such expense as part of its Proposal price.

1.11. Bidder's Material Qualification

- A. It is the responsibility of the selected Bidder (Contractor) to furnish complete End Products, materials and specialties of the type, design, and performance to result in integrated, operating End Product units and/or systems in accordance with the Technical Specifications.
- B. The selected Contractor is fully responsible for the satisfactory delivery and operation of all equipment and materials covered by the contract Documents, whether manufactured by the Contractor or manufactured by a Subcontractor and whether installed by the Contractor or a Subcontractor.
- C. The selected Contractor must furnish evidence, if required by the Engineer, that equipment of comparable rating (or higher) to that which the Contractor proposed to furnish, has been in satisfactory operation in similar applications. This provision will not apply to materials supplied by MBTA.

1.12. Proposal Opening

There will not be a public opening of Technical Responses or Price Proposals.

1.13. Late Submissions, Modifications and Withdrawals of Offers

COMMBUYS will not accept proposals after the due date, and any offer received after that date and time will not be considered. **Bidders are advised to ensure that they understand proper procedures for submitting a bid to COMMBUYS and to allow ample time to do so.**

Any modification of an offer, except a modification for "best and final" offer, is subject to the same conditions stated in Section 1.14.

Notwithstanding the above, a late modification of any otherwise successful offer that makes its terms more favorable to the Authority will be considered at any time it is received and may be accepted.

Proposals may be withdrawn by written notice to the Authority, or in person by the Bidder or an authorized representative of the Bidder at any time before award.

1.14. Rejection of Proposals

- A. Any Proposal not in conformity with the requirements of MBTA as described in the Contract Documents may be rejected. MBTA reserves the right to reject any or all Proposals.
- B. Proposals which fail to meet the requirements of the RFP submittal, are incomplete, include modifications to the RFP specifications, terms and conditions, or which change the intent of this RFP are prohibited and may disqualify a Proposal.
- C. More than one Proposal from the same Bidder, whether the same or different names appear on the signature page, will not be considered.
- D. MBTA reserves the right to waive minor irregularities, errors, or technicalities in Proposals.

1.15. MBTA Reservation of Rights

In connection with this RFP, the MBTA reserves to itself all rights (which rights shall be exercisable by the MBTA in its sole discretion) available to it under applicable laws, including without limitation, with or without cause and with or without notice, the right to:

- 1. Modify the RFP process in its sole discretion to address applicable law and/or the best interests of the MBTA.
- 2. Develop the work to be performed under the Contract in any manner that it, in its sole discretion, deems necessary. If the MBTA is unable to negotiate a Contract to its satisfaction with a Bidder, it may negotiate with the Bidder with the next highest ranked proposal, terminate this RFP and pursue other developments or solicitations relating to the work to be performed under the Contract, or exercise such other rights under the provisions of Massachusetts law as it deems appropriate.
- 3. Cancel this RFP in whole or in part at any time prior to the execution by the MBTA of a Contract, without incurring any cost, obligations, or liabilities.
- 4. Issue a new Request for Proposals after withdrawal of this RFP.
- 5. Not select any Bidder or cancel this procurement.
- 6. Reject any and all submittals and Responses received at any time.
- 7. Modify all dates set or projected in this RFP.
- 8. Terminate evaluation of Responses received at any time.
- 9. Modify all dates set or projected in this RFP.
- 10. Exclude any potential Bidder from submitting any response to the RFP based on failure to comply with any requirements of these documents.
- 11. Suspend and terminate Contract negotiations at any time, elect not to commence Contract negotiations with any responding Bidder, and engage in negotiations with the Bidder with the next highest ranked proposal if negotiations are unsuccessful with the apparent successful Bidder.
- 12. Issue addenda, supplements, and modifications to this RFP.
- 13. Appoint an Evaluation Team to evaluate Responses, make recommendations to the MBTA and MassDOT Boards of Directors, and seek the assistance of MBTA, MassDOT, and consultant technical experts in Response evaluations.

14. Require confirmation or clarification of information furnished by a Bidder, require revised or additional information from a Bidder concerning its Response, and require additional information to clarify the Response submitted in response to this RFP.
15. Conduct presentations with Bidders, identify a short-list of Bidders, and conduct on-site visits at Bidder facilities.
16. Declare a competitive range, conduct discussions, and request Response revisions and best and final offers.
17. Seek or obtain data from any source that has the potential to improve the understanding and evaluation of the responses to this RFP.
18. Add or delete Bidder responsibilities from the information contained in this RFP.
19. Waive non-material deficiencies in a Response, accept and review a non-conforming Response, or permit clarifications, revisions, or supplements to a Response.
20. Negotiate with a Bidder without being bound by any provision in its Response, or choose to award and/or execute the Contract without negotiations.
21. Disqualify any Bidder that changes its submittal without MBTA approval.
22. Disqualify any Bidder under this RFP for violating any rules or requirements of the procurement set forth in this RFP or in any other communication from MBTA.
23. Delay issuance of notice to proceed after execution of the Contract.
24. Conduct all or any portion of the Scope of Work itself.
25. Exercise any other right reserved or afforded to the MBTA under this RFP.

This RFP does not commit the MBTA to enter into a Contract or proceed with the procurement described herein. The MBTA assumes no obligations, responsibilities, and liabilities, fiscal or otherwise, to reimburse all or part of the costs incurred or alleged to have been incurred by parties considering a response to and/or responding to this RFP. All of such costs shall be borne solely by each Bidder.

In no event shall the MBTA be bound by, or liable for, any obligations with respect to the work to be performed under the Contract until such time (if at all) as the Contract, in form and substance satisfactory to the MBTA, has been executed and authorized by the MBTA and, then, only to the extent set forth therein; provided, however, that the foregoing disclaimer in this sentence shall not apply to the obligations of the MBTA to the Bidders during the procurement process, which obligations are expressly set forth in this RFP. In submitting a Response to the RFP, each Bidder is specifically acknowledging these disclaimers.

1.16. Appropriation Contingency

MBTA intends to seek federal funds for this Contract. If MBTA fails to attain federal assistance at any time, this Contract may not be awarded or may be terminated.

1.17. Appeal/Protest Procedures

Appeals/protests relative to this procurement will be reviewed and adjudicated in accordance with the MBTA's Appeals/Protest Procedure – Goods & Services. A copy of this procedure is available at www.mbtacom.com. In the event that this procurement is federally funded with financial assistance from the Federal Transit Administration

(FTA), interested parties may elect to issue a protest to the FTA if the interested party believes that the MBTA failed to follow the protest procedures identified above after exhausting MBTA's appeals and protest procedure. These parties must exhaust all appeals and protest procedures with the MBTA first. Such protests to the FTA must be filed in accordance with FTA Circular 4220.1F, Chapter VII.

1.18. Rules of Contact

Starting on the date the RFP is issued and ending on the earliest of (a) the award and execution of the Contract, (b) rejection of all Responses by the MBTA, or (c) cancellation of the procurement, the following rules of contact shall apply. These rules are designed to promote a fair and unbiased procurement process. Contact includes face-to-face, telephone, email, or formal written communication.

The specific rules of contact are as follows:

1. No Bidder, or any of its team members, may communicate with another Bidder or its team members with regard to this RFP or either team's Response, except that subcontractors that are shared between two or more Bidder teams may communicate with their respective team members so long as those Bidders establish a protocol to ensure that the subcontractor will not act as a conduit of information between the teams. This prohibition does not apply to public discussions regarding the RFP at any MBTA sponsored Bidders' conferences.
2. No Bidder or representative thereof shall have any ex parte communications regarding the RFP, the Contract, or the procurement described herein with any member of the MBTA's Board of Directors, the Massachusetts Department of Transportation ("MassDOT") Board of Directors, or with any MassDOT or MBTA staff, advisors, contractors, or consultants involved with the procurement, except for communications expressly permitted by the RFP or except as approved in advance at the MBTA's Point of Contact's sole discretion. The foregoing restriction shall not, however, preclude or restrict communications with regard to matters unrelated to the RFP, Contract, or procurement or from participation in public meetings of the MBTA or MassDOT Boards of Directors or any public or Bidder workshop related to this RFP.
3. The Bidders shall not contact employees, representatives, and employees or other representatives of Hatch Associates Consultants, Inc. regarding this RFP, the Contract, or the procurement.
4. Any communications determined by the MBTA, in its sole discretion, to be improper may result in disqualification.
5. Any official information regarding this RFP will be disseminated from the MBTA's Point of Contact via COMMBUYS.
6. The MBTA will not be responsible for any oral exchange or any other information or exchange that occurs outside the official process specified herein.

2. ABBREVIATIONS AND DEFINITIONS

2.1. Abbreviations

Wherever the following abbreviations are used in these Contract Documents or on the Plans, they are to be construed the same as the respective expressions represented;

AA	Aluminum Association
ADA	American with Disabilities Act
AFI	Air Filter Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute (formerly ASA and USASI)
APA	American Plywood Association (formerly Douglas Fir Plywood Association)
API	American Petroleum Institute
APTA	American Public Transit Association
AREA	American Railway Engineering Association (formerly ARA)
ASA	American Standards Association
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
ATA	Air Transportation Association of America
AWG	American Wire Gauge
AWPA	American Wood Preserving Association
AWS	American Welding Society
BLS	Bureau of Labor Statistics
CFR	Code of Federal Regulations
DOT	U.S. Department of Transportation
DPU	Department of Public Utilities (formerly DTE), Commonwealth of Massachusetts
EC	Emissions Control
ECD	Emissions Control Diesel
EIA	Electronic Industries Association
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulations

FCC	Federal Communications Commission
FDA	Federal Drug Administration of the United States Department of Health and Human Services
FMVSS	Federal Motor Vehicle Safety Standards
FPR	Federal Procurement Regulations
FRA	Federal Railroad Administration
FTA	Federal Transportation Administration (formerly UMTA)
HSLA	High Strength Low Alloy
ICC	Interstate Commerce Commission
ICEA	Insulated Cable Engineers Association
IEC	International Electrotechnical Committee
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
IPS	Iron Pipe Size
ISO	International Standards Organization
JIC	Joint Industrial Council
LAHT	Low Alloy High Tensile Strength (Steel)
MBTA	Massachusetts Bay Transportation Authority
MIL	Military Specification
NBS	National Bureau of Standards
NCA	Noise Criterion, Alternate
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
OEM	Original Equipment Manufacturer
PMCG	Proposal Modification and Clarification Guidelines
RFP	Request for Proposal
SAE	Society of Automotive Engineers
SDO	Supplier Diversity Office (formerly SOMWBA)
SIC	Standard Industrial Code, U.S. Department of Labor
STURAA	Surface Transportation and Uniform Relocation Assistance Act

TSC	Transportation Systems Center, DOT
VIC	International Union of Railways
UL	Underwriter's Laboratories, Inc.
UMTA	Urban Mass Transportation Administration, United States Department of Transportation (now FTA)
USPHS	United States Public Health Service of the United States Department of Health and Human Services

Note: Any Abbreviation or Acronym standard or code referenced shall act in conjunction with Technical Specification VE-24-056, Section TS 1.2.3.

2.2. Definitions

Wherever the following terms are used in the Specifications or on the Plans, the intent and meaning shall be interpreted as follows;

1. Whenever in the Specifications or on the Plans the words "acceptable", "accepted", "approval", "approved", "authorized", "condemned", "considered-necessary", "deemed necessary", "designated", "determined", "directed", "disapproved", "established", "given", "indicated", "insufficient", "ordered", "permitted", "rejected", "required", "reserved", "satisfactory", "unacceptable", "unsatisfactory", or words of like import are used, it shall be understood as if such words were followed by the words in writing, "by the Engineer" or "to the Engineer", unless otherwise specifically stated.
2. Wherever the word "indicated" is used, it shall be understood to mean "as described in the Specifications", "as shown on the contract Plans", or "as required by the other Contract Documents."
3. Wherever the words "provided", "supplied", or "installed" are used in the Specifications in reference to work to be performed by the Contractor, it shall be understood to mean "furnished and delivered completed".

Note: Any definition reference herein shall act in conjunction with Technical Specification VE-24-056, Section TS 1.2.2.

4. Acceptance: Reviewed for conformity to the Contract Specifications and accepted, in writing, by the Authority. Acceptance of items furnished under the Contract is further defined and governed by Sections 5.4, 5.5 and 5.6 of the Contract Provisions.
5. Acceptance: (As applied to a physical asset) The transfer of ownership of a physical asset from the Contractor to the MBTA.
6. Acceptance: (As applied to design information, technical documentation, or similar intellectual property) Reviewed for conformity to Specification and accepted, in writing, by the Authority. See Section 6.3.5 for additional information regarding the MBTA's disposition of submitted information.
7. Accepted Equal: Whenever the words "equal" or "accepted equal" are used in connection with make or quality of material or equipment in the Contract Specification, the Contracting Officer's decision as to whether any material or equipment proposed is equal to that specified shall be binding on both the Contractor and the Authority. To be considered "equal," materials or equipment must also be

- interchangeable with the specified material or equipment to the degree specified in the Contract (Section 5.2).
8. Addendum/Addenda: Written interpretation(s) or revision(s) of any of the provisions of the Contract sent to Offerors prior to submittal of Proposals.
 9. Advertisement: The Authority's invitation or notice published in newspapers and other publications and sources seeking proposals for completion of the Work.
 10. Alteration: A change or substitution in the form, character, or detail of the work done or to be done within the original scope of the Contract.
 11. Approval: Review and acceptance in writing by the MBTA. See Technical Specification Section 6.3.5 for additional information regarding the MBTA's disposition of submitted information.
 12. Approved Equal: See Accepted Equal.
 13. Approved Or Approved Type: Design, type of material, procedure, or method given approval by the MBTA. See Technical Specification Section 6.3.5 for additional information regarding the MBTA's disposition of submitted information.
 14. Authority or MBTA. Massachusetts Bay Transportation Authority, created by Chapter 563, Section 18 of the Acts of 1964 of the Commonwealth of Massachusetts, the party of the First Part to the Contract.
 15. Authorized Signee. The person who is executing the Contract on behalf on the Offeror/Contractor and who is authorized to bind the Offeror/Contractor.
 16. Automatic Block Signaling: As implemented on the MBTA Green Line, a system where each Wayside signal indicates whether or not a train may pass it based on automatic detection of occupancy in sections of track in advance of the signal.
 17. Baseline Design: The design of each type Carborne/Wayside Kit or any of its components, apparatus, systems, subsystems, or materials which have received drawing acceptance and First Article acceptance by the Authority.
 18. Basic or Manufacturer's Standard: Shall mean the component or part standard to be acceptable as part of the line-produced Carborne/Wayside Kit of the Contractor.
 19. Benchmarking: The recalculation of compensation adjustments on account of changes in labor and/or material cost utilizing indices set forth in Section C2.02 subsequent to the establishment of final published indices during the performance of this Contract or subsequent to the month(s) for which the option for additional Carborne/Wayside Kits is executed shall not be allowed.
 20. Bidder(s): (See Offeror(s)).
 21. Bid Form: See Proposal Form.
 22. Burn-In (As Applied To A Component Or Device): See Environmental Stress Screening.
 23. Buyer(s): The Massachusetts Bay Transportation Authority.
 24. Calculations: Numerical computations performed to demonstrate compliance with the Specifications, technically substantiate a design or position or otherwise show due technical diligence.
 25. Car: A complete Green Line vehicle (Type 7, Type 8, Type 9, or Type 10), ready to operate.
 26. Carborne Kit: Kit that contains all of the Green Line Train Protection System vehicle-mounted equipment (to include mounting hardware and accessories).
 27. Change Order (See RFP Section 6): A document executed by the Authority and issued to the Contractor amending the Contract Provisions and/or Contract Specification. The Change Order establishes the basis

for payment and time adjustments, if any, of the Work affected by the Change Order. The Change Order, which shall make reference to the Contract, becomes a part of the Contract when issued by the Authority to the Contractor. All terms and conditions of the Contract including the Contract Specification remain as previously stated unless so noted in the text of the Change Order.

28. Coast: The mode of operation of a car or train in which propulsion (positive traction) and brake (negative traction) are inactive and the apparent braking effort results only from the train's rolling resistance and aerodynamic drag.
29. Comment: The MBTA's written critiques of the Contractor's submittals to the MBTA.
30. Commonwealth: The Commonwealth of Massachusetts.
31. Concept Drawings/Plans: An initial set of drawings showing the general car layout and arrangement provided by the MBTA with the Specification.
32. Conditional Acceptance: Conditional Acceptance of Wayside Equipment will have occurred under Section 5.5 when the Authority has (a) received Delivery of the Wayside Equipment at the Delivery Point; (b) such Wayside Equipment has successfully passed the post installation test; and (c) such Wayside Equipment has successfully passed the routine acceptance test; and (d) such Wayside Equipment is operated in passenger service. The Wayside Equipment remains conditionally accepted until it is totally responsive to the Contract Specifications and corrective action(s) implemented to the Authority's satisfaction.

Conditional Acceptance of Carborne Equipment will have occurred under Section 5.5 when; (a) such Carborne Equipment has successfully passed the post installation test; (b) and such Carborne Equipment has successfully passed the routine acceptance test; and (c) such Carborne Equipment is operated in passenger service. The Wayside Material remains conditionally accepted until it is totally responsive to the Contract Specifications and corrective action(s) implemented to the Authority's satisfaction.

Conditional Acceptance of Back-Office Equipment will have occurred under Section 5.5 when such Back-Office Equipment has successfully passed the Site Acceptance Test. The Back-Office Material remains conditionally accepted until it is totally responsive to the Contract Specifications and corrective action(s) implemented to the Authority's satisfaction.

33. Consultant Or Consulting Engineer: The engineering design consultant retained by the Authority to assist the Authority's Engineer in the preparation of Plans and Technical Specification, proposal evaluation, and review of Contractor's Drawings and documents, to furnish advice and assistance during the course of the Work, and to furnish In-Plant Inspection Services.
34. Contract Amendment: See "Change Order".
35. Contract Documents: The written agreement executed between the Authority, Party of the First Part, and the Contractor, Party of the Second Part, setting forth the obligations of the Parties thereunder, the performance of the Work as indicated in the Contract and all authorized changes to this Contract issued subsequent to the execution of the Contract. The Contract includes the following: of the Advertisement, RFP, Contract Specification, and Contract Drawings, Addenda and PMCGs, Contractor's Proposal, Proposal Guaranty, contract agreement executed by the Parties, Performance Guaranty, Notice to Proceed, Change Orders, written mutual understandings and agreement, all statements and certifications and all other pertinent document(s) as required to complete the Work – all of which constitute one instrument. Any

Change Order that is subsequently executed by the Authority shall make reference to and become part of the Contract to the extent amended and/or approved by the Authority. Any portion of the Contract may be referred to as the Contract Provisions.

36. Contract Drawings: Drawings provided by the MBTA as part of the Contract Documents.
37. Contracting Officer: An official designated by the Authority to administer Contracts and make related determinations and findings such as executing Contracts and Change Orders.
38. Contract Price: The price in the Contractor's Proposal that the Authority agrees to pay the Contractor for the Work done in accordance with the Contract, as adjusted by any subsequent modifications reflected in Change Orders approved by the Authority.
39. Contract Sketches: An initial set of sketches showing the general Carborne/Wayside Kit layout and arrangement provided by the Authority with the Contract Specification.
40. Contract Time: The number of days shown in the Contract indicating the time for completion of the Work.
41. Contract Specification: Specification No. VE-24-056 (also referred to as Technical Specification).
42. Contractor: The person or persons, firm, partnership, corporation, or combination thereof which has entered into this Contract with the Authority and which shall be solely responsible to the Authority for completion of the Work in accordance with the Contract, and for the quality, procurement, functioning and delivery of the End Products, including without limitation the Carborne/Wayside Kit(s) and all components, in accordance with the Contract.
43. Contractor's Drawings: Items such as general drawings, detail drawings, graphs, diagrams, sketches, calculations, and catalog cuts which are prepared by the Contractor to detail its work.
44. Days: Unless otherwise designated in the Contract, days shall mean calendar days.
45. Day(s) Worked: Those calendar days during which regular business is conducted, excluding Saturdays and Sundays, and all locally observed Federal, State, and Municipal holidays.
46. Defect: Patent or latent malfunction or failure in manufacture or design of any component or subsystem that causes a Carborne/Wayside Kit(s) to cease operating or causes it to operate in a degraded mode, or in a manner not otherwise consistent with the Contract.
47. Defect (Related): Damage inflicted on any component or subsystem as a result of a defect.
48. Degraded Mode: A mode in which the GLTPS is utilizing an alternate, more conservative braking rate in response to adverse field conditions (e.g. poor rail condition) or inadequate equipment conditions (e.g. poor vehicle brakes condition) that do not allow the vehicle to achieve the normal brake rate. This mode can be manually selected.
49. Delivery: Receipt of the Carborne/Wayside Kit(s) by the Authority at the Delivery Point in a condition that is sound, whole, ready to run, and ready for testing for Conditional Acceptance Testing. The Contractor shall complete and deliver all Carborne/Wayside Kit(s) and other End Products required under the Contract to the Authority at the Delivery Point. The conditions for Delivery are specified in Sections 5.4 (Carborne/Wayside Kits) and 5.9(Spare Parts).
50. Delivery Point: The location on the Authority's property to which the Contractor shall deliver the Carborne/Wayside Kit(s) and other End Products. For purposes of this Contract, the Delivery Point(s) will be to MBTA Facilities in the Greater Boston area.
51. Delivery Schedule: The Delivery dates in the Contract and in required Contractor schedules approved by the Authority for the design, fabrication, testing and Delivery of each Carborne/Wayside Kit and associated

Manuals, Diagnostic Test Equipment, Training Aids, Capital Spare Parts, and other components required under the Contract, including but not limited to, the Delivery of First Articles, the Delivery of the Pilot Carborne/Wayside Kits, and the subsequent Delivery of the balance of the Carborne/Wayside Kits required by the Authority under the Contract.

52. Strategic Sourcing Manager: An official designated by the Authority to administer Contracts and make related determinations and findings such as executing Contracts and Change Orders.
53. End Product: The Contract item(s) to be purchased by the Authority in accordance with the Contract Documents. End Product(s) includes, but is not limited to, drawings, specifications, instructions, books, education programs, spare parts and/or services.
54. Engineer: The Authority's Technical Project Manager or his designee.
55. Environmental Stress Screening: The process of exposing a newly manufactured or repaired product or component (typically electronic) to stresses such as thermal cycling and vibration in order to force latent defects to manifest themselves by failure during the screening process. The surviving population, upon completion of screening, can be assumed to have a higher reliability than a similar unscreened population.
56. Equal: See Accepted Equal.
57. Fail-Safe: A characteristic of a system which ensures that any and all failure modes result in the system remaining safe for passengers, personnel, track, wayside, and vehicle.
58. Failure: Component or System: A state of a component or system that requires replacement or adjustment to return to normal operation.
 - a. Failures discovered during inspection shall be counted as component or system failures.
 - b. Software failures that require the Authority's operating personnel to "re-boot" the system or take other actions to return the system to normal operation shall be counted as component failures even if no action is required by maintenance personnel.
 - c. System failures for which no trouble can be found (NTF) shall be counted as failures after the third NTF failure of the same system on the same car until the cause can be determined and corrected.
 - d. The replacement of consumable items such as filters, lamps, etc., shall not be considered as a component failure, unless the consumables fail to meet their specified life.
 - e. Failures caused by accidents, vandalism, operator, or maintenance error shall not be counted so long as an equipment failure was not the cause.
 - f. Failures caused by improper operation, testing or maintenance due to faulty Contractor supplied documentation shall be counted as component or system failures.
 - g. Service failures are any failures that cause more than a 4-minute delay in passenger service or unscheduled removal of a Car from passenger service or unscheduled maintenance of the wayside.
 - i. Accidents, operator errors, failures caused by failure to perform approved maintenance procedures, and failures caused by environmental conditions exceeding those defined in the technical specification shall not be included.
59. Failure Rate: The frequency of failure, expressed as failures per hour or failures per mile. Failure rate is the mathematical reciprocal of MTBF or MDBF.
60. Final Acceptance of Carborne/Wayside Kits: When Conditional Acceptance has occurred and all corrective actions and retrofit (if any) on the Carborne/Wayside Kit(s) have been fully completed to the satisfaction

of the Authority, and the Carborne/Wayside Kit(s) is determined in the sole discretion of the Authority to be fully compliant with the Contract.

61. Final Assembly: See Section 11.55 of RFP.
62. First Article: The first one of any production component of the system that is produced. The specification requires that nothing be manufactured prior to approval, so the First Article shall have been made to approved drawings.
63. First Article Acceptance: The examination and approval by the Authority of an initial part, major assembly, subassembly, system, subsystem, apparatus, or material, manufactured or assembled by either the Contractor or Subcontractors. The First Article Acceptance establishes the baseline design and the minimum level of quality. Although the exercise of First Article Acceptance shall be at the Authority's option, the Contractor shall assume that the Authority will subject all of the above to First Article Acceptance.
64. Fleet Defect(s): The failure of Carborne Kits of the same fleet type and/or the failure of identical items by specific location and function on the Carborne Kit(s), where the Carborne Kit or item is covered by the warranty, and the failure occurs in the warranty period in 5% of the Carborne Kit(s) or items delivered under this Contract.
65. FMECA: Failure Mode Effects and Criticality Analysis: Study of a system and working interrelationships of its elements to determine ways in which failures can occur (failure modes), effects of each potential failure on the system element in which it occurs and on other system elements, and the probable overall consequences (criticality) of each failure mode on the success of the system.
66. Fully Loaded: Same as AW3. Car with Crush Load.
67. Indicated: Shown on the Contract Drawings, as described in the Specifications, or as required by other Contract Documents.
68. In-Process Inspection (IPI): Scheduled or unscheduled inspection of parts, components, manufacturing facilities or manufacturing processes at any time during the production process. May be utilized to verify efficacy of processes and quality of parts prior to reaching completion.
69. Inspector: The person or firm designated by the Authority as its quality control and quality assurance representative. The Inspector's authority is derived through the Technical Project Manager.
70. Intellectual Property Rights: Copyrights, patent rights, trade secret rights, and any other exclusive rights to an invention, design or other intellectual creation, existing from time to time in a jurisdiction under patent law, copyright law, trademark law, unfair competition law, moral rights law, trade-secret law, or other similar law.
71. Interface: The points where two or more physical subsystems or systems meet to transfer energy or information.
72. Jumper: A short piece of wire or cable with appropriate terminations on each end to permit connection to terminals within a terminal board or to an adjacent terminal strip.
73. Licensed Software: (i) All software called for in the Software Project Management Plans as set out in the Contract Specification, and (ii) all other software and firmware that Contractor delivers or is obligated to deliver pursuant to the Contract, or that is contemplated under the Contract. For purposes of clarification, and not limitation, the term "Licensed Software" includes all software and firmware related to: (a) on-board diagnostics, (b) system diagnostic systems, and (c) portable test equipment.

- 74. Light Rail Vehicle: A typical vehicle operating on the MBTA Green Line.
- 75. Line Replaceable Unit (LRU): A component, device, sub-assembly or assembly intended to be diagnosed as faulty and replaced at the Service and Inspection Facility.
- 76. Lowest Level Replaceable Unit (LLRU): A component, device, sub-assembly or assembly that can be removed from its parent assembly and that cannot be disassembled or repaired.
- 77. Major Equipment: Components, sub-assemblies, assemblies and ancillary equipment that together comprise the GLTP system.
- 78. Manufacturer: The original manufacturer supplying materials, equipment, or apparatus for installation on or in the Carborne/Wayside Kits.
- 79. Materials (Supplies): Any substances specified for use in the design, fabrication, testing, delivery, repair and/or maintenance of the GLTPS and other End Products(s), or to be furnished to the Authority as loose or separate items for any of the aforesaid, as part of the Work.
- 80. Material Review Board (MRB): A group of appropriately qualified individuals gathered to review material or workmanship found to be non-conforming during any part of the fabrication, inspection and testing processes, and to dispose of those non-conformities in the manner reasonably appropriate to the circumstances. The MRB may vary in its make-up from time-to-time depending upon the condition and component under review. Generally, participants include representatives from Contractor's Engineering, Quality Assurance and Project Management departments, and, representatives from the Authority's Quality Assurance and Engineering departments. The MRB's documentation must include a signature from the Authority's representative indicating agreement with the MRB's disposition. Additional members may be included in the MRB as their expertise is required for a particular material and condition being reviewed. Material Review Board meetings may be regularly scheduled meetings or may be scheduled on an as-needed basis. Material Review Board dispositions shall include corrective action, effectivity, recurrence prevention and a schedule for those activities.
- 81. MBTA: The Massachusetts Bay Transportation Authority, created by Chapter 563, Section 18 of the Acts of 1964 of the Commonwealth of Massachusetts, the Party of the First Part to the Contract.
- 82. No-Motion: A referenced state of car velocity of less than 0.5 miles per hour as detected by non-vital devices.
- 83. Notice: Shall mean a written notice. Unless otherwise prescribed by other terms of the Contract, written notice shall be deemed to have been duly served when delivered to or at the last known business address of the person, firm, or corporation for whom intended or to his/her, their, or its duly authorized agent, representative, or officer; or when enclosed in a postage prepaid envelope, addressed to such person, firm, or corporation at his/her, their, or its last known business address and deposited in the United States mail.
- 84. Notice To Proceed. A written notice issued by the Contracting Officer to the Contractor after execution of the Contract specifying the date on which the Contractor is to commence the Work.
- 85. Offeror: Any individual, firm, partnership, corporation or joint venture submitting a Proposal for the Work, acting directly or through a duly authorized representative.
- 86. Original Equipment Manufacturer(s): The original manufacturer of the Carborne/Wayside Kits and all principal subcomponents.
- 87. Owner Or Purchaser: The Authority, as defined herein.
- 88. Party, Parties: Entity(ies) entering into the Contract.

89. Performance Guarantee: The approved form of security executed by the Contractor and/or its surety or sureties, guaranteeing the complete performance of the Work in accordance with the Contract.
90. Pilot Kit(s): The first production units installed for the Green Line Train Protection System. These will include one for each car type (7, 8, 9, and 10).
91. Plans: The Authority's drawings (if included) as prepared by the Engineer, which supplement the Specifications and are a part of the Contract; also called Contract Drawings, including any alterations thereof if permissible under the Contract and authorized by Change Orders.
92. Pre-Shipment Inspection (PSI): Source Inspection of product, parts, components subsystems and/or systems conducted immediately prior to releasing items for shipment to Contractor or other destination.
93. Procurement (Work): The furnishing of all equipment, items, materials, parts, systems, data, design, services, incidentals, labor and management and performance of the contractual requirements defined in the Contract Documents, including changes thereto, in order to produce and deliver the specified system, Spare Parts, software goods, and services.
94. Production Carborne/Wayside Kits: All Carborne/Wayside Kits delivered during the Contract.
95. Program: The total effort undertaken by the Authority of which the End Products may constitute a whole or a part.
96. Project Manager For Administration: The person designated by the Authority as its representative in matters pertaining to administrative aspects of the Contract such as pricing, payments, liquidated damages, and Change Orders. Said person or persons shall be designated in writing on official Authority letterhead, signed by the Contracting Officer or a designee.
97. Project Manager For Engineering: See Technical Project Manager.
98. Proof (Used As A Suffix): Apparatus is designated as splashproof, dustproof, etc., when so constructed, protected, or treated that its successful operation is not interfered with when subjected to the specified material or condition.
99. Proof of Concept: An optional pre-award phase of testing where prospective supplier(s) would demonstrate their system on the MBTA Green Line.
100. Proposal: The offer submitted in response to the RFP, properly completed, signed and certified using the forms provided by the Authority as required and including all data required by the Authority in the RFP.
101. Proposal Modification and Clarification Guideline (PMCG): Written interpretation(s) or revision(s) of the Contract issued by the Authority and sent to Offerors after the submittal of Proposals and instructions for preparing and submitting a revised Proposal.
102. Qualify: The determination that an assembly, sub-assembly, or any part thereof is satisfactory for continued service under the Contractor's warranty, or that the time is suitable for repair or overhaul to restore it to warrantable service, or that the item must be replaced with a new (or warrantable rebuilt) part.
103. Railroad: Shall mean the Massachusetts Bay Transportation Authority.
104. Receipt, Received: Acknowledgement that a shipment has reached its destination.
105. Reference: Where reference is made in the Contract 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 the Advertisement, notwithstanding any reference to a particular date.

- 106. Reliability: The probability of performing a specified function, without Failure and within design parameters, for the period of time intended under actual operating conditions.
- 107. Representative: Any duly authorized agent of the Authority or the Contractor.
- 108. Retrofit: A fleet wide modification (performed after Conditional Acceptance).
- 109. RFP. The Request for Proposals No.: RFP 24-XYZ (including all Addenda and PMCGs).
- 110. Safe: The condition in which passengers, crew, or repairmen are secure from threat or danger, harm, or loss arising from improper design, manufacture, assembly, malfunction, or failure of the system or any of its components.
- 111. Section: Section refers to the indicated Section of the Contract and all subsections thereof (unless the context indicates otherwise).
- 112. Service, as in Service Use: The operation of the Carborne/Wayside Kits under normal conditions with passengers.
- 113. Service Proven (Also “service proven” or “proven”): Kit components and/or systems that have documented history of reliability in service at least equal to the performance requirements of the Contract Specification. The historic data shall be from similar environmental conditions to those encountered by MBTA for a period of 2 years and a distance of ten times the claimed MTBF or MMBCF.
- 114. Service, as in Service Use, Service Braking, Revenue Service: The operation of the system under normal conditions with passengers.
- 115. Shipment: The physical process of transporting a system and associated components, or other required physical deliverable item, from the point of manufacture or assembly to the next manufacturing or assembly facility or to MBTA property.
- 116. Shop Drawings: Items, such as drawings, calculations, and catalog cuts, which are prepared by the Contractor to supplement or detail Contract Drawings or Contract Specification, or are prepared at Contractor's option to detail his work; or which the Contractor is required to submit to the Engineer for review, information, or record, including electrical schematics and wiring diagrams, fabrication, erection, layout, assembly, installation, tests, maintenance, and repair drawings.
- 117. Standard Equipment Procurement Specifications: Section C of the Contract entitled, “General Requirements and Covenants for Equipment Procurement and Standard Equipment Procurement Specifications.”
- 118. State: The Commonwealth of Massachusetts.
- 119. Stop, Emergency: The stopping of a vehicle or train by an emergency brake application.
- 120. Stop, Service (Full): The stopping of a vehicle or train by application of service braking. Brake application can be released and reapplied.
- 121. Subcontractor: An individual, firm, partnership, corporation or joint venture to whom the Contractor subcontracts any part of the Work by way of a written agreement or understanding with the Contractor.
- 122. Supplier (Vendor): The person, firm, or corporation that furnishes Materials, services, or the like to the Contractor in furtherance of the Contract. Materials, services and the like supplied by any Supplier shall comply with all Contract requirements. Note: In the course of this Contract, the Authority may interchangeably use the words Subcontractor, supplier, sub supplier, vendor, as synonyms, all the aforementioned being under contract to the Contractor.

123. System: When used with the article “the” immediately preceding it, refers to The Green Line Train Protection System (GLTPS). Can also refer to the Wayside equipment or the Carborne equipment when immediately preceded by an appropriate qualifier.
124. Tamperproof: Fasteners are designated as tamperproof when they are selected so that they cannot be easily loosened with common tools such as a flat blade screwdriver or pliers.
125. Technical Project Manager (Engineer): The person designated by the Authority to be its liaison with the Contractor on all technical matters pertaining to the Work. The Technical Project Manager shall be empowered to act on behalf of the Authority in such matters as acceptance of Contractor's drawings, test procedures, First Article Acceptance, and Carborne/Wayside Kit acceptance. Said person shall be designated in writing on official Authority letterhead.
126. Technical Specification (Contract Specification): a. Specifications pertaining generally to the method and manner of performing the work and/or the qualities and quantities of equipment and materials and End Product(s) to be furnished under the Contract. b. The Technical Specifications may include directions, provisions, and requirements contained herein, or made a part hereof by reference and all provisions adopted and issued by the Authority, or may include other standards incorporated in the Contract by reference.
127. Tight (used as suffix): Apparatus is designated as watertight, dust tight, etc., when so constructed that the enclosing case will exclude the specified material.
128. Time Constant: Time interval from the beginning of change of a controlled variable in response to a step-forcing function to the attainment of a stated value.
129. Trademark Assets: Any brand name, trademark, or service mark of either party, which a Party identifies to the other Party as subject to branding requirements under the Contract.
130. Tram: A condition of truck geometry in which the centers of the journal bearings represent the corners of a rectangle.
131. U.S. Department Of Transportation (DOT): The Secretary of the DOT and other persons who may at the time be acting in the capacity of the Secretary, or authorized representative or any person otherwise authorized to perform the functions to be performed hereunder by the Secretary, including representatives of the Federal Transit Administration (FTA).
132. Vehicle: Same as "Car".
133. Vendor: See Supplier
134. Vital Circuit: Any circuit and its elements, the function of which affects the safety of train operations.
135. Wayside Defect(s): The failure of Wayside Kits of the same type and/or the failure of identical items by specific location and function on the Wayside Kit(s), where the Wayside Kit or item is covered by the warranty, and the failure occurs in the warranty period in 5% of the Wayside Kit(s) or items delivered under this Contract.
136. Wayside Kit: Kit that contains all of the Green Line Train Protection System wayside equipment (to include all transponders/tags, mounting hardware, etc.) required to modify/install and/or replace existing wayside equipment in each section of the Green Line, as defined in the milestones.
137. Work: All performance, including the furnishing of all equipment, items, materials, parts, systems, data, design, services, incidentals, labor and management and performance of the contractual requirements

defined in the Contract, including changes thereto, in order to produce and deliver the specified Carborne/Wayside Kit(s), Spare Parts, software licenses, goods, services and other End Products.

3. BUSINESS AND COMMERCIAL REQUIREMENTS

The following provisions are contractual and, by submitting a response to this RFP, Bidder agrees that the submission of their Bid with the signatures in the response forms (Sections 12 and 13 and Attachments 1, 2, 3, 4, and 5) makes all certifications as outlined in the solicitation documents. This Bid shall constitute a binding offer open for acceptance by the MBTA.

3.1. Award/Execution of Contract

Prior to Contract execution:

- The MBTA reserves the right to perform a Pre-Award Buy America Audit
- The required Performance Guarantee (Section 3.13) shall be furnished

Should the successful Bidder fail to furnish the Performance Guarantee and execute the Contract within the time stipulated, the Authority may, at its option, declare the successful Bidder to be in breach of its obligations.

Upon execution of the Contract by all parties, Notice to Proceed shall be issued. The Contract shall be executed at the time of, or prior to, issuance of Notice to Proceed.

3.2. Disadvantaged Business Enterprises

3.3. Overview

It is the policy of the MBTA and the United States Department of Transportation (“DOT”) that Disadvantaged Business Enterprises (“DBE’s”), as defined herein and in the federal regulations published at 49 CFR Part 26, shall have an equal opportunity to participate in DOT-assisted contracts.

This Contract is subject to 49 CFR Part 26. Therefore, the Contractor is encouraged to meet the requirements for DBE participation as set forth herein. These requirements are in addition to all other equal opportunity employment requirements of this Contract. The Authority shall make all determinations with regard to whether or not a Proposer is in compliance with the requirements stated herein. In assessing compliance, the Authority may consider, during its review of the Proposer’s submission package, the Proposer’s documented history of non-compliance with DBE requirements on previous contracts with the Authority.

3.4. DBE Participation

For the purpose of this Contract, the MBTA will accept **only DBE’s** who are certified, at the time of Proposal opening, by the Massachusetts State Office of Minority and Women Business Assistance (SOMWBA) as DBE’s.

3.5. DBE Participation Goal

The DBE participation goal for this Contract is set at 7%. This goal represents those elements of work under this Contract performed by qualified Disadvantaged Business Enterprises for amounts totaling **not less than 7%** of the total Contract price. Failure to meet the stated goal at the time of proposal submission **may** render the Proposer non-responsive.

3.6. Proposal Requirements

Each Bidder, as part of its submission, shall complete Technical Response Attachment 3 – DBE Documentation, which includes the following:

- **DBE Utilization Form** indicating the percentatge and dollar value of the total Proposal amount to be supplied by Disadvantaged Business Enterprises under this Contract.
- A list of those qualified DBE's with whom the the Bidder intends to contract for the performance of portions of the work under the Contract, the agreed price to be paid to each DBE for work, the Contract items or parts to be performed by each DBE, a proposed timetable for the performance or delivery of the Contract item, and other information as required by the **DBE Participation Schedule** (see Section 8.9). No work shall be included in the Schedule that the Bidder has reason to believe the listed DBE will subcontract, at any tier, to other than another DBE.
- An original **DBE Letter of Intent** from each DBE listed in the DBE Participation Schedule. Any subsequent changes and/or substitutions of DBE firms will require review and written approval by the Authority.
- An original **DBE Affidavit** from each DBE stating that there has not been any change in its status since the date of its last certification.

3.7. Good Faith Efforts

Each Bidder, as part of its submission, shall If the Proposer is unable to meet the goal set forth in Section 8.8 (DBE Participation Goal), the Authority will consider the Proposer's documented good faith efforts to meet the goal in determining responsiveness. The types of actions that the Authority will consider as part of the Proposer's good faith efforts include, but are not limited to, the following:

- Documented communication with the Authority's DBE Coordinator (questions of RFP requirements, subcontracting opportunities, appropriate certification, will be addressed in a timely fashion);
- Pre-Proposal meeting attendance. At the pre-Proposal meeting, the Authority generally informs potential Proposer's of DBE subcontracting opportunities;
- The Bidder's own solicitations to obtain DBE involvement in general circulation media, trade association publication, minority-focus media and other reasonable and available means within sufficient time to allow DBEs to respond to the solicitation;
- Written notification to DBE's encouraging participation in the proposed Contract; and
- Efforts made to identify specific portions of the work that might be performed by DBE's.

The Bidder shall provide the following details, at a minimum, of the specific efforts it made to negotiate in good faith with DBE's for elements of the Contract:

- The names, addresses, and telephone numbers of DBE's that were contacted
- A description of the information provided to targeted DBE's regarding the specifications and proposals for portions of the work; and
- Efforts made to assist DBE's contacted in obtaining bonding or insurance required by the Proposer or the Authority.

In determining whether a Proposer has made good faith efforts, the Authority may take into account the performance of other Proposers in meeting the Contract goals. For example, if the apparent successful Proposer failed to meet the goal, but meets or exceeds the average DBE participation obtained by other Proposers, the Authority may view this as evidence of the Proposer having made good faith efforts.

3.8. Administrative Reconsideration

Within five (5) business days of being informed by the MBTA that it is not responsive or responsible because it has not documented sufficient good faith efforts, the Proposer may request administrative reconsideration. The Proposer should make this request in writing to the Authority's Deputy Director of Procurement & Logistics. The Deputy Director of Procurement & Logistics will forward the Proposer's request to a reconsideration official who will not have played any role in the original determination that the Proposer did not document sufficient good faith efforts.

As part of this reconsideration, the Proposer will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The Proposer will have the opportunity to meet in person with the assigned reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. The Authority will send the Proposer a written decision on its reconsideration, explaining the basis for finding that the Proposer did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the Department of Transportation.

3.9. Termination of DBE Subcontractor

The Contractor shall not terminate for convenience the DBE subcontractor(s) listed in the DBE Participation Schedule (see Section 8.9) and then perform the work of the terminated DBE subcontractor with its own forces or an affiliate without the MBTA's prior written consent. When a DBE subcontractor is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make good faith efforts to find another DBE subcontractor to substitute for the original DBE and immediately notify the Authority in writing of its efforts to replace the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the Contract as the DBE that was terminated, to the extent needed to meet the Contract goal established for this procurement. Failure to comply with these requirements will be in accordance with Section 4.10 (Sanctions for Violations).

3.10. Continued Compliance

The Authority shall monitor the Contractor's DBE compliance during the life of the Contract. In the event this procurement exceeds ninety (90) days, it will be the responsibility of the Contractor to submit quarterly written reports to the Authority that summarize the total DBE value for this Contract. These reports shall provide the following details:

- DBE utilization established for the Contract;
- Total value of expenditures with DBE firms for the quarter; and
- Total value of expenditures with DBE firms from inception of the Contract.

Reports and other correspondence must be submitted to the DBE Coordinator with copies provided to the Project Manager and Deputy Director of Strategic Sourcing. Reports shall continue to be submitted quarterly until final payment is issued or until DBE participation is completed.

The successful Bidder shall permit:

- The Authority to have access to necessary records to examine information as the Authority deems appropriate for the purpose of investigating and determining compliance with this provision, including, but not limited to, records of expenditures, invoices, and contract between the successful Bidder and other DBE parties entered into during the life of the Contract.
- The authorized representative(s) of the MBTA, the U.S. Department of Transportation, the Comptroller General of the United States, to inspect and audit all data and record of the Contractor relating to its performance under the Disadvantaged Business Enterprise participation provisions of this Contract.
- All data/record(s) pertaining to DBE shall be maintained as stated in Section 3.12 (Examination and Audit).

3.11. Sanctions for Violations

If, at any time, the Authority has reason to believe that the Contractor is in violation of its obligations under Section 3.2 (Disadvantaged Business Enterprise) or has otherwise failed to comply with terms of this Section, the Authority may, in addition to pursuing any other available legal remedy, commence proceedings, which may include but are not limited to, the following:

- Suspension of any payment or part due the Contractor until such time as the issues concerning the Contractor's compliance are resolved;
- Termination or cancellation of the Contract, in whole or in part, unless the successful Contractor is able to demonstrate within a reasonable time that it is in compliance with the DBE terms stated herein.

3.12. Insurance Requirements

- A. The Contractor must carry and maintain, throughout the term of the Contract, including any extensions, the following minimum insurance requirements:

1. Commercial General Liability Insurance

The Contractor shall carry and maintain Commercial General Liability Insurance covering all operations by or on behalf of the Contractor on an occurrence basis against claims for bodily injury, property damage (including loss of use), personal injury and advertising injury with limits not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate. Terms and conditions for required insurance shall include:

- Policy Endorsement deleting any exclusion for work within 50 feet of rail.
- Commercial General Liability shall be written on an occurrence basis form, as opposed to a claim made basis form.
- All such insurance as is required of the Contractor shall be provided by or on behalf of subcontractors to cover their operations performed.

2. Automobile Liability Insurance

The Contractor shall carry and maintain Automobile Liability Insurance covering the use of all vehicles: owned, leased, hired and non-owned, with limits not less than \$1,000,000 combined single limit.

- Automobile Liability shall be written on an occurrence basis form, as opposed to a claim made basis form.
- All such insurance as is required of the Contractor shall be provided by or on behalf of subcontractors to cover their operations performed.

3. Workers' Compensation Insurance

The Contractor shall carry and maintain Workers' Compensation Insurance, including Employers Liability Insurance as provided by Massachusetts General Laws, Chapter 152, as amended, covering all work and services performed under the Contract. Employer's Liability requires the following minimum limits:

- \$1,000,000 Each Accident for Bodily Injury by Accident
- \$1,000,000 Each Employee for Bodily Injury by Disease

4. Umbrella Liability Insurance

The Contractor shall carry and maintain Umbrella Liability Insurance with limits not less than \$10,000,000 per occurrence and annual aggregate, covering all work and services performed under the Contract.

- Such insurance follows the form of the underlying liability insurance terms and conditions.
- Umbrella/Excess Liability shall be written on an occurrence basis form, as opposed to a claim made basis form.
- All such insurance as is required of the Contractor shall be provided by or on behalf of subcontractors to cover their operations performed

5. Professional Liability or Errors and Omission Insurance

Contractor shall provide professional liability or errors and omissions coverage with limits not less than \$10,000,000 per claim and aggregate, protecting against any negligent act, error or omission arising out of the Work, including coverage for acts by others for whom Contractor is legally responsible. The policy shall have a retroactive date no later than the date hereof and shall have a five-year extended reporting period with respect to events which occurred, but which were not reported during the term of the policy. The policy shall include as insureds Contractor (including all Participants) and any Subcontractors (including design sub consultants). The policy shall not contain any provision or exclusion to the effect of which would be to prevent, bar or otherwise preclude any insured or additional insured under the policy from making a claim which would otherwise be covered by such policy on the grounds that the claim is brought by an insured or additional insured against an insured or additional insured under the policy.

6. Cyber Liability

Contractor shall carry and maintain Network Security and Privacy Liability, including but not limited to unauthorized access, failure of security, breach of privacy perils, wrongful disclosure, collection, or other negligence in the handling of confidential information, privacy perils, and including coverage for related regulatory defense and penalties in an amount not less than \$10,000,000. The policy shall contain Data Breach expenses, in an amount not less than \$10,000,000 and payable whether incurred by MBTA or Vendor, including but not limited to consumer notification, whether or not required by law, computer forensic investigations, public relations and crisis management firm fees, credit file or identity monitoring or remediation services. The policy shall contain an affirmative coverage grant for contingent bodily injury and property damage emanating from the failure of the technology services or an error or omission in the content/information provided.

7. Railroad Protective Liability

In the event any Work occurs during revenue hours within fifty (50) feet of an active right-of-way the Contractor shall procure Railroad Protective Liability Insurance insuring the MBTA and any applicable Railroad Companies with limits of not less than \$5,000,000 per occurrence and \$10,000,000 per aggregate. The MBTA and applicable Railroad Companies shall be “named insureds” on the Railroad Protective Liability Policy and provided with a certificate of insurance evidencing that such insurance policies, including required limits and sub limits are in place as required.

8. Additional Insurance Requirements:

- i. The required insurances coverage specified above shall be placed with insurance companies licensed and/or authorized by the Massachusetts Division of Insurance to do business in the Commonwealth of Massachusetts and having a Best's rating of A- or better.

- ii. Required insurance shall be taken out before the Contract is commenced and be kept in full force and effect throughout the term of the Contract, shall be primary to and non-contributory to any insurance or self-insurance maintained by the MBTA, and shall require that the MBTA be given at least 30 days advance written notice in the event of any cancellation.
- iii. All such required insurance shall be written on an occurrence basis form, as opposed to a claim made basis form.
- iv. The MBTA shall be named as an additional insured under the Commercial General Liability, Automobile Liability and Umbrella Liability Policies.
- v. The Workers' Compensation and Employers' Liability Insurance Policies shall include a waiver of subrogation in favor of the MBTA which precludes these insurers from being able to make any subrogation claims against the MBTA.
- vi. All such insurance as is required of the Contractor shall be provided by or on behalf of subcontractors to cover their operations performed.
- vii. At the inception date of this contract and throughout the term of the Contract, the MBTA shall be provided with certificates of insurance evidencing that such insurance policies, including required limits and sublimits are in place and provide coverage as required.

3.13. Performance Guarantee

The Authority requires a Performance Guarantee, either Performance Bond or an Irrevocable Stand-By Letter of Credit in the amount of thirty percent (30%) of the Total Base Contract Price, prior to execution of the Contract to ensure the faithful performance of the Contract.

Upon Conditional Acceptance as provided for in Section 5.5, the Contractor may reduce the amount of the Performance Guarantee to twenty percent (20%) of the Total Base Contract Price.

At Final Acceptance as provided for in Section 5.6, the Contractor may reduce the amount of the Performance Guarantee to ten percent (10%) of the Total Base Contract Price. The Performance Guarantee shall continue and remain in place and in full force and effect for the entire term of the Contract (including all warranty periods) ("Guarantee Period").

Each Offeror must certify in writing with its proposal submittal that a 30% Performance Bond or an Irrevocable Stand-By Letter of Credit in such amount will be furnished to the Authority should the Offeror be selected as the Contractor. Additionally, the Offeror must provide a similar statement from its surety, for a Letter of Credit in form set forth in Section E, Page E-5.

A. Performance Bond

The Performance Bond is to be secured through an insurance company (or companies) which is/are licensed in the Commonwealth of Massachusetts or which is/are approved by the Authority. The insurance company must have an A.M. Best rating of A- or better. The name of the agency or agent writing the bond shall be identified with or on the bond.

B. Irrevocable Stand-By Letter of Credit

The Irrevocable Stand-By Letter of Credit shall be executed in a form provided by the Authority (see Section E, pages E-4 and E-5) and shall not include any conditions to the right of the Authority to secure in whole or in part the amount of the Irrevocable Stand-By Letter of Credit other than that the Secretary of the Massachusetts Department of Transportation or the Chairman of the Board of the Authority shall certify that an Event of Default has occurred and that the Contractor has failed to cure the Event of Default within the allowed time (if any) as described in Section 11.9.

The Letter of Credit shall be irrevocable and must be issued by an Eligible Bank in good standing in Massachusetts with an office in or within twenty (20) miles of either Boston, Massachusetts or New York City, NY. "Eligible Bank" shall mean a commercial bank or financial institution organized under the laws of the United States or a political subdivision thereof or a U.S. branch of a foreign bank with an office located in Massachusetts (provided that such bank is not an affiliate of the Contractor or related entity) with a credit rating of: (i) at least "A" by S&P and "A2" by Moody's if such entity is rated by both S&P and Moody's or "A" by S&P or "A2" by Moody's if such entity is rated by either S&P or Moody's but not both, and (ii) having a capital surplus of at least ten billion dollars (\$10,000,000,000) and that is otherwise acceptable to the Authority in its sole discretion.

If, following the issuance of the Irrevocable Stand-By Letter of Credit, the issuing bank or financial institution is subject to a ratings downgrade such that it is no longer an Eligible Bank, Contractor shall provide the Authority immediate notice thereof, and arrange within ten (10) business days for the issuance of a substitute Irrevocable Stand-By Letter of Credit to the Authority in the same form as prescribed herein.

The Irrevocable Stand-By Letter of Credit shall also comply with the following requirements:

- It must be in writing and must be signed by the issuing bank or financial institution;
- It must conspicuously state that it is an irrevocable, non-transferable by the Bank, "stand-by" Letter of Credit;
- The Massachusetts Bay Transportation Authority ("MBTA") must be identified as the Beneficiary of the Letter of Credit;
- It must be provided in U.S. dollars;
- The effective date of the Letter of Credit must be the same as the effective date of the Contract or the Notice to Proceed, whichever is first;
- The initial term of the Letter of Credit must cover the Guarantee Period as provided herein. The Bank and the Contractor shall notify the Authority at least thirty (30) days prior to any expiration or termination for non-renewal that the Letter of Credit will expire in thirty (30) days or will not be renewed upon its expiration. In the event of such notice, the Contractor shall provide a substitute Letter of Credit to the Authority in the same form as prescribed herein. If, within ten (10) days prior to such termination or non-renewal the Contractor has failed to provide a substitute letter of credit, the Authority may present the Irrevocable Stand-By Letter of Credit for payment; and
- The Letter of Credit must indicate that it is being issued in order to support the obligation of the Contractor to perform under the Contract. It must specifically reference the Contract between the MBTA and the Contractor for Green Line Train Protection System.

If an Event of Default occurs for which the Contractor has failed to cure within the allowed time (if any) as provided for in Section 11.9, the Authority may, at its sole discretion, present the Irrevocable Stand-By Letter of Credit for payment. The issuing bank's obligation to pay the MBTA will arise upon the presentation by the MBTA of the original Letter of Credit, and a certificate and draft in form substantially similar to those in Section E. That documentation will be presented to the issuing bank's representative at a location prescribed by the issuing bank in or within twenty (20) miles of Boston, Massachusetts or New York City, New York.

The Authority may present the Irrevocable Stand-By Letter of Credit for payment in such amount as set forth by the Authority in the Bank Draft substantially similar to that in Section E.

- C. To the extent the Authority exercises any Options under the Contract, the Authority will require a Performance Guarantee in the amount of thirty percent (30%) of the Total Option Prices in form of either a Performance Bond or an Irrevocable Stand-By Letter of Credit at the time of Option exercise.

3.14. Permits and Licenses

The Contractor shall procure all permits and licenses in producing the end product, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of this Procurement.

3.15. Ongoing Compliance Obligations

Contractor Compliance. The Contractor shall keep fully informed and shall comply with the provisions of applicable federal, state, and municipal laws, rules, and regulations that in any manner regulate the Contractor's performance of this Contract and those engaged or employed with the services herein described, other than any such laws, rules and regulations that relate to MBTA's own operations. The Contractor shall indemnify, protect, defend, and save harmless MBTA and its officers, agents and employees harmless from all fines, penalties, and liabilities imposed upon MBTA under any such laws, rules, and regulations by any public agency, authority or court having jurisdiction over the parties hereto when the imposition of same is attributable to the failure of the Contractor to keep fully informed and to comply with its obligations in this regard, provided that if any public agency, authority or court seeks to impose such fine, penalty or liability on the MBTA, the MBTA shall promptly notify the Contractor and allow the Contractor, in consultation with the MBTA, to object to and defend such imposition.

Subcontractor Compliance. The Contractor shall be responsible for the compliance of its subcontractors/suppliers to the requirements of federal, state, and municipal laws, ordinances, rules, and regulations as may be applicable to the performance of such subcontractors or suppliers pursuant to this Agreement.

Change in Existing Law. The Contractor is subject to any existing or future valid legislative act, municipal ordinance, decree, order or regulation of any public body, commission or authority having jurisdiction over the MBTA, and order of decree by a court of competent jurisdiction to which the MBTA or any predecessor or successor in title may be a party, and, if the Contractor is unable to enjoy any or all of the privileges granted in the Contract, the MBTA shall not be liable to the Contractor in damages for breach of the Contract. The MBTA and the Contractor shall assess the impact any change in existing law may have on the price and schedule of the work herein defined and modify the Contract as needed in accordance with the Change Order provision of the Contract.

If any discrepancy or inconsistency is discovered in the Contract in relation to any law, ordinance, regulations, order or decree, Contractor shall forthwith report the same to the Authority in writing.

Contractor shall provide that changes in the Contract work, which are necessitated by laws or regulations that are enacted or promulgated after the Effective Date, shall constitute Contract changes in accordance with the Change Order provision of the Contract.

3.16. Claims

The Contractor shall give written notice to the MBTA of potential claim no later than thirty (30) calendar days from any act or event for which it intends to seek adjustment in payment, terms, or schedule and for which said matter is not disposed of by agreement through a Change Order. The written notice shall set forth the basis of the claim in sufficient detail to allow the MBTA to thoroughly evaluate the situation and shall provide an estimate of any costs involved. The Contractor shall also furnish any additional information relating to the claim as the MBTA may reasonably request. The MBTA shall respond to the claim within thirty (30) calendar days of receipt of said claim.

It is an essential part of this Contract that the Contractor performs fully, entirely, and in an acceptable manner, the work required under the Contract within the times stipulated. Therefore, the Contractor hereby agrees that it shall have no claim for damages of any kind on account of any delay in commencement of the work or any delay or suspension of any portion thereof, except as hereinafter provided.

In case the commencement of the work is delayed or any part thereof is delayed or suspended by the Authority (except for reasons caused the fault or neglect of the Contractor), the Contractor shall be granted an extension of time in which to complete the work, less a reasonable period of time within which the Contractor could have done necessary preliminary work.

If performance of all or any major portion of the work is suspended, delayed or interrupted for any unreasonable period of time by an act or failure to act by the Authority in the administration of the Contract as required by the Contract, and without the fault or negligence of the Contractor, an adjustment to the Contract shall be made by the Authority, in accordance with the Change Order provisions of Section 6. The Contractual adjustment may be for: (1) an extension of time; and/or (2) an increase or decrease in the actual cost of performance of the Contract.

No adjustments to the Contract shall be made if performance by the Contractor would have been prevented by other causes even if the work had not been suspended, delayed or interrupted by the Authority.

Any dispute concerning whether the delay or suspension is unreasonable or any other question of fact arising under this section shall be determined by the Authority. Such determination shall be a condition precedent to the right of the Contractor to receive any cost adjustment hereunder.

The decision of the Authority shall be final and conclusive unless within thirty (30) days of receipt of the Authority's decision the Contractor mails or delivers to the Authority a written notice of rejection, in which event the decision of the Authority shall have no further effect and either party may have the dispute and the subject matter thereof settled in accordance with the provision of Section 3.8 (Disputes).

3.17. Disputes

The MBTA and the Contractor intend to resolve all disputes under this Agreement to the best of their abilities in an informal manner. To accomplish this end, the parties will use an Alternative Dispute Resolution process to resolve disputes in a manner designed to avoid litigation. In general, the parties contemplate that the Alternative Dispute Resolution process will include, at a minimum, an attempt to resolve disputes through communications between their staffs, and, if resolution is not reached at that level, a procedure for review and action on such disputes by appropriate management level officials within the MBTA and the Contractor's organization. In the event that a resolution of the dispute is not mutually agreed upon, the parties can agree to mediate the dispute or proceed with available remedies to enforce, suspend or terminate the Contract, including litigation. Notwithstanding any provision of this section, or any other provision of this Contract, it is expressly agreed and understood that any court proceeding arising out of a dispute under the Contract shall be heard by a Court de novo and the court shall not be limited in such proceeding to the issue of whether the Authority acted in an arbitrary, capricious or grossly erroneous

manner. Pending final settlement of any dispute, the parties shall proceed diligently with the performance of the Contract, and in accordance with the Authority's direction or decisions made thereof.

3.18. Claims and Disputes

- A. Claims by the Contractor shall be initiated by written notice to the Authority, addressed to the Contracting Officer with a copy sent to the Consultant. Simultaneously with such notice or shortly thereafter, the Contractor shall submit to the Authority sufficient information including documentation to enable the Authority to make a decision with respect to any claim for extension of time within which the Contract Work or portion thereof must be completed, or an increase in Contract Price. Claims by the Contractor must be initiated within thirty (30) days after the event giving rise to such Claim or within thirty (30) days after the Contractor knew or should have known of the event(s) giving rise to the Claim, whichever is later. Such notice by the Contractor to the Authority is a condition precedent to making a claim for additional costs or time.
- B. If the Authority requests the Contractor to provide a response to a Claim or to furnish additional supporting data, such party shall respond within ten (10) days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Authority when the response or supporting data will be furnished or (3) advise the Authority that no supporting data will be furnished.
- C. Upon receipt of sufficient information and time to review, the Authority will render a decision taking one or more of the following actions: (1) request additional supporting data from the Contractor or a response with supporting data from the Authority, (2) reject the Claim in whole or in part, (3) approve the Claim in whole or in part, (4) suggest a compromise, or (5) state that the Authority is unable to resolve the Claim because the Authority lacks sufficient information to evaluate the merits of the Claim. The Authority shall render its decision within ninety (90) days of receipt of sufficient information to render such decision. If the Authority does not respond to a Claim or render an initial decision within those ninety (90) days, the Claim will be deemed denied by the Authority.
 - 1. This initial decision shall be in writing; state the reasons therefore; and notify the Contractor and the Consultant of any change in the Contract Price, Contract Time or both.
 - 2. The initial decision shall be final and binding on the parties unless the Contractor gives notice to the Authority within thirty (30) days of receipt of the initial decision that it objects and reserves its right to pursue an appeal of the same to a Court of competent jurisdiction in Suffolk County within the time limits prescribed by law.
- D. Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 11.9, the Contractor shall proceed diligently with performance of the Contract in accordance with the Contract Documents.
- E. Nothing in paragraphs A – E above precludes the parties from informally resolving a claim or dispute or prevents a negotiated settlement of a claim or dispute prior to recourse to the courts.

3.19. OEM Software

Upon execution of the Contract, the Contractor shall provide the Authority a list of all OEM software comprising proprietary works (“Proprietary Software”) for all systems and subsystems. From time to time and only upon request, information contained within the listed software may be made available to the Authority through the OEM of the system or subsystem. The Contractor and OEM are not obligated to provide copies of source code, as this is proprietary intellectual property; however, the Contractor is obligated to assist the Authority with any technical assistance for the duration of the service life of the system and/or subsystem free of charge. It is the Authority’s prerogative to evaluate the long-term viability of the Contractor and its Subcontractors and Suppliers based upon the criteria set forth in “Qualification Requirements.”

3.20. Examination and Audit

The Contractor shall maintain and require its subcontractors to maintain, in accordance with generally accepted accounting principles, books, records, and other compilations of data pertaining to the Contractor’s services, delivery of materials, and other items in such detail as to substantiate claims for payment or for collections on behalf of the Authority under this Contract. Upon reasonable advance written notice, the General Manager of the MBTA or his designated representative (including private auditing firm) shall have the right to examine and audit all data and records of the Contractor relating to its performance under the Contract.

The Contractor, upon seven (7) days’ advance written notice by the MBTA, shall make available at its local office to MBTA personnel, its representatives or other authorized agencies, all records and data maintained by the Contractor for the purposes of performing financial, compliance, and performance audits related to the reimbursable costs under this Agreement. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than seven (7) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract until the disposition of all such litigation, appeals, claims or exceptions related thereto.

3.21. Inspection of Site(s)

The Authority and/or its representatives shall have access to the site of the construction/manufacture/assembly and shall have the right to inspect all project work.

3.22. Contractor’s Local Area Office

Contractor shall establish a local office and staff within the MBTA service network for the duration of the Contract to facilitate clear and timely communications between the Contractor and the Authority. The local office shall be staffed, at a minimum, with the following roles:

1. Project Manager
2. Lead System Engineer
3. Project Coordinator
4. Resident Engineers – 2 or more
5. Support staff as needed by the Contractor and approved Staffing Plan

The local staff must be empowered to make decisions on behalf of the Contractor and attend in-person project meetings. The Project Manager and Lead Systems Engineer must be based in the Local Area office for the duration of the contract to facilitate such communication. All other staffing described above must be present in the Local

Area Office for the appropriate stage of the project or as described elsewhere in this contract. Refer to section 10.12 for additional resident engineer requirements.

The local area office must be sufficient in size and equipped with appropriate office equipment to accommodate the Contractor's local staff as well as conduct various project meetings (i.e. design reviews, project status, etc.) with the MBTA and their representatives.

Contractor is advised that the MBTA will not provide or make available storage space on its property for non-deliverable materials and/or equipment required in the performance of this Contract.

3.23. Project Management Communications

The Contractor shall use an Internet web-based project management communications tool, E-Builder® ASP software or another system as designated by the Authority, and protocols included in that software during this project. The use of project management communications as herein described does not replace or change any contractual responsibilities of the participants.

1. Project management communications is available through E-Builder® as provided by "e-Builder®" in the form and manner required by the Authority.
2. The project communications database is on-line and fully functional.
3. User registration, electronic and computer equipment, and Internet connections are the responsibility of the Contractor. The sharing of user accounts is prohibited.

The Contractor shall obtain E-Builder software at their own expense and need to contact E-Builder® for availability and cost.

1. Nothing in this specification or the subsequent communications supersedes the parties' obligations and rights for copyright or document ownership as established by the Contract Documents. The use of CAD files, processes or design information distributed in this system is intended only for the project specified herein.
2. The intent of using E-Builder® is to improve project work efforts by promoting timely initial communications and responses. Secondly, to reduce the number of paper documents while providing improved record keeping by creation of electronic document files

Access to the E-Builder web site will be by the Contractors staff who are licensed users.

1. Authorized users will be contacted directly by the web site provider, E-Builder®, who will assign the temporary user password.
2. Individuals shall be responsible for the proper use of their passwords and access to data as agents of the company in which they are employed.

Administrative users have access and control of user licenses and all posted items. **DO NOT POST PRIVATE OR YOUR COMPANY CONFIDENTIAL ITEMS IN THE DATABASE!** Improper or abusive language toward any party or repeated posting of items intended to deceive or disrupt the work of the project will not be tolerated and

will result in deletion of the offensive items and revocation of user license at the sole discretion of the Administrative User(s).

The use of fax, email and courier communication for this project is discouraged in favor of using E-Builder® to send messages. Communication functions are as follows:

1. Document Integrity and Revisions:

- a. Documents, comments, drawings and other records posted to the system shall remain for the project record. The authorship time and date shall be recorded for each document submitted to the system. Submitting a new document or record with a unique ID, authorship, and time stamp shall be the method used to make modifications or corrections.
- b. The system shall make it easy to identify revised or superseded documents and their predecessors.
- c. Server or Client-side software enhancements during the life of the project shall not alter or restrict the content of data published by the system. System upgrades shall not affect access to older documents or software.

2. Document Security:

- a. The system shall provide a method for communication of documents. Documents shall allow security group assignment to respect the contractual parties communication except for Administrative Users. **DO NOT POST PRIVATE OR YOUR COMPANY CONFIDENTIAL ITEMS IN THE DATABASE!**

3. Document Integration:

- a. Documents of various types shall be logically related to one another and discoverable. For example, requests for information, daily field reports, supplemental sketches and photographs shall be capable of reference as related records.

4. Notifications and Distribution:

- a. Document distribution to project members shall be accomplished both within the extranet system and via email as appropriate. Project document distribution to parties outside of the project communication system shall be accomplished by secure email of outgoing documents and attachments, readable by a standard email client.

5. Required Document Types:

- a. Submittals, including record numbering by drawing and specification section
- b. Transmittals, including record of documents and materials delivered in hard copy
- c. Meeting minutes
- d. Application for payments
- e. Review comments
- f. Test reports
- g. Inspection results
- h. Quality documents
- i. Drawings
- j. Schedules
- k. Specifications

I. Correspondence letters

Except for paper documents, which require original signatures and large format documents (greater than 8½ x 11 inches), all other 8½ x 11 inches documents shall be submitted by transmission in electronic form to the E-Builder® web site by licensed users.

1. The Contractor and his representatives, the Project Manager and his representatives, at every tier shall respond to documents received in electronic form on the web site, and consider them as if received in paper document form.
2. The Contractor and his representatives, the Project Manager and his representatives, at every tier reserves the right to and shall reply or respond by transmissions in electronic form on the web site to documents actually received in paper document form.
3. The Contractor and his representatives, the Project Manager and his representatives, at every tier reserves the right to and shall copy any paper document into electronic form and make same available on the web site.
4. The following are some but not all of the paper documents which require original signature or use of an MBTA-approved electronic signature solution:
 - a. Contract
 - b. Change orders
 - c. Application and certificates for payment
 - d. Correspondence letters

In addition to other requirements specified in this Section, The Contractor and their representatives at every tier required to have a user license(s), shall be responsible for the following:

1. Providing suitable computer systems for each licensed user at the user's normal work location with high-speed Internet access
2. Each of the above referenced computer systems shall have the following minimum system and software requirements:
 - a. Desktop configuration (laptop configurations are similar and should be equal to or exceed desktop system.)
 - i. PC system 500 MHz Intel Pentium III or equivalent AMD processor
 - ii. 128 MB Ram
 - iii. Display capable of SVGA (1024 x 768 pixels) 246 colors display
 - iv. 101 key keyboard
 - b. Mouse or another pointing device
 - c. Operating system and software shall be properly licensed.
 - i. Internet Explorer or another browser. This specification is not intended to restrict the host server or client computers provided that industry standard HTTP clients may access the published content.
 - ii. Adobe Acrobat Reader

- iii. Users intending to scan and upload to the documents area of E-Builder® should have Adobe Acrobat
- iv. Users should have the standard Microsoft Office Suite or the equivalent.

4. CONTROL OF PROCUREMENT

4.1. Contract Plans

- A. Contract Plans and Sketches showing the general arrangement are included in the Technical Specification. The Contract Plans may be supplemented by the Engineer as may be required to amplify or control the work. The Contractor shall perform the work required by such supplements without additional compensation except as provided by the Contract.
- B. The Authority makes no representation or warranty, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, or any other obligations or liability on the part of the Authority as to the Authority's existing vehicles, sketches, drawings, mock-ups, books, manuals, or prints. The Authority neither assumes nor authorizes any other person to assume for it any other liability in connection with the aforementioned materials. These materials should be used for reference purposes only. To the extent that the Contractor uses these materials, they do so at their own risk.

4.2. Contractor's Schedule of Completion

- A. The Contractor, within thirty (30) days from Notice to Proceed, shall submit to the Authority for review and approval a CPM Project Master Program Schedule. The Master Program shall identify the installation, inspection, and test plans for Carborne, Wayside and Back Office GLTPS equipment in accordance with requirements of Technical Specification. The schedule shall include, but not be limited to, as separate line items the submittal dates for the following items:
 - a. Conceptual Drawing List
 - b. Schedule for submission of drawings and other documents
 - i. Design and engineering drawings and documents
 - ii. Drawings and documents for final record
 - iii. All Contract Deliverable Requirement List identified or that may be required but not identified
 - c. Analyses List
 - d. All Programs and Plans
 - e. Schedule for delivery of test equipment and special tools
 - f. Procedures list for in-plant inspections and tests
 - g. Schedule for submission of analysis
 - h. Format for monthly and quarterly submittals of contract deliverables, such as, but not limited to, change order logs, subcontractor's updates, and other required submittals
 - i. Schedule for submission of procedures

- j. Detailed plan and schedule for construction, delivery and Acceptance Testing of Pilot Carborne/Wayside Kits
 - k. Detailed schedule for the construction, delivery and Acceptance Testing of the Production Carborne/Wayside Kits
 - l. Contractor's Specification
 - m. All other Contract Deliverable Requirement List (CDRL) items included in the Contract Specification
 - n. Any other items requiring Authority review and approval
- B. The Contractor shall give due consideration to the time required for review and acceptance by the Authority in scheduling the submittal of each item.
- C. Sufficient time shall be provided in the submissions schedule, to permit Authority review and acceptance, a minimum of four (4) weeks prior to manufacture, construction, installation, or other need for each item.

4.3. Contractor's Drawings

- A. Drawing submittals shall be in accordance with the requirements outlined in the Technical Specifications VE-24-056.
- B. The Contractor shall maintain, and update as required, a log listing all drawings by number and title and showing dates of preparation, submission, and preliminary and final acceptance, and shall submit revised copies of same to the engineer and Consultant at periodic intervals as established by the Engineer.
- C. The Contractor shall submit to the Engineer and to the Consulting Engineer, in accordance with the schedule, Part 4.2(A)B, the following design and engineering drawings including but not limited to:
- 1. Carborne/Wayside Kit and all equipment General Arrangement Drawing;
 - 2. Carborne/Wayside Kit and all equipment Wiring Schematic;
 - 3. Such other general drawings required for the understanding, operation, and maintenance of the Carborne/Wayside Kits; and
 - 4. Detailed system functional descriptions of all systems, subsystems and interface control documents.
- D. The Contractor shall prepare individual drawings for each part designed and or manufactured or redesigned by or for the Contractor. The Authority will respect proprietary data to the extent permitted by law and consistent with Section 4.8 of this Contract. Assembly, sub-assembly and arrangement drawings shall include a complete Bill of Material and Parts List on the field of the drawing describing all items, including the Subcontractor's parts, and all equipment and specialty details which form part of the assembly. See also Section 4.6.
- E. All the drawings supplied by the Contractor in accordance with this Specification shall be so delineated that the wiring, piping, or mechanical interface between components shall be readily and clearly identifiable.
- F. The Contractor shall submit all design layouts, assembly, and subassembly drawings of safety related features for review by the Contractor's Safety Engineer prior to its use to assure the safety of crew and maintenance personnel. The Contractor shall identify the Contractor's Safety Engineer at the first Project

Meeting. That person shall have sufficient skills and background to perform the required duties, as determined solely by the Authority.

4.4. Contractor's Specification

- A. The Contractor shall submit to the Engineer prior to the delivery of the First Carborne/Wayside Kit, two (2) draft copies each of the Contractor's Specification.
 - 1. The updated Contractor's Specification shall generally follow the format of the original Contractor's specification, listing all design criteria and parameters; the manufacturer and model number of all major equipment, and indicate the Contractor's compliance therewith;
 - 2. All Change Orders, if any, shall be listed in the updated Contractor's Specifications and approved deviations from the original Contract Specification.

4.5. Contractor's Training Aids

- A. The Contractor shall comply with Technical Specification No. VE-24-056 regarding Training Aids requirements.
- B. Shipment of Training Aids shall be so coordinated that they are delivered and in operating condition for training purposes in accordance with the training schedule and prior to the delivery of the Pilot Kits. The delivery schedule for Training Aids shall be reviewed and approved by the Technical Project Manager.
- C. If Training Aids are required for operators during Pilot Kit Testing, the Contractor shall make the necessary arrangements with the Authority to assure proper operational service/maintenance procedures.
- D. Delivery of Training Aids shall be made to the Authority at one or more Boston area sites to be designated in the future. Notwithstanding the foregoing, the Contractor shall bear all risk of loss to each Kit until the same is delivered to the Authority.

4.6. Shop Drawing Review

- A. Review by the Engineer of the Contractor's drawings does not relieve the Contractor or any Subcontractor of the responsibility for full compliance with the Contract requirements; for correctness of dimensions, clearances, and material quantities, for proper design of details; for proper fabrication and construction techniques; for proper coordination with Subcontractors; and for providing all devices required for safe and satisfactory construction and operation.
- B. The Contractor shall submit drawings for review with such promptness and in such order so as to cause no delay in the Work.
- C. Drawing Format:
 - a. Drawings shall be prepared in compliance with the Specifications and submitted to the Engineer for approval.
 - b. Contractor's standard drawings (not prepared specifically for this Contract) shall be furnished with the Authority's title and application blocks applied adjacent to the Contractor's title blocks.
- D. The Authority may exercise its right of First Article Acceptance as a further review to confirm the validity of the Contractor's design and shop drawings.
- E. The following process shall be used for the Engineer's review of the shop drawings:

- a. The Contractor shall submit the following plans for review by the Engineer:
 - i. Contractor drawings prepared specifically for this Contract.
 - ii. All supplier drawings, catalog cuts, instruction books, renewal parts data lists, tabulations and the like not adaptable for the furnishing of reproduces.
- b. The procedure for reviewing Contractor's drawings shall be as follows:
 - i. Contractor submits drawings for review.
 - ii. Engineer shall respond within thirty (30) calendar days from receipt to the Contractor that drawings fall in one of the following categories:

	RFP Category	Disposition
(1)	Conforms (CF)	Proceed
(2)	Conforms as Noted (CN)	Proceed
(3)	Revise as Noted and Resubmit (RR)	Disapproved
(4)	Rejected, Resubmit (RJ)	Deficient
(5)	Review Not Required (NR)	Information Only

Note: The Engineer will make every effort to expedite review of drawings to protect the Contractor's required lead time and to protect Delivery schedule.

- iii. The Engineer shall reply to the Contractor with a disposition (as outlined above) for the submitted drawings, corresponding to one of the above five (5) categories (Section 4.6 (E)(b)) with annotated review comments, if any.
- iv. Drawings designated in categories (2), (3) and (4) above shall be promptly revised and resubmitted by the Contractor.
- v. Installation of the Carborne Kits shall not commence until drawing(s) and installation instructions delineating the work to be performed using the Carborne Kit have been submitted to the Engineer and been given a disposition of "Proceed" or "Information Only".
- vi. Contractor shall submit drawings for review in the order in which the Installer shall undertake work using the Carborne/Wayside Kit.
- vii. It is not the intent of the Authority to require that all drawings governing a particular Carborne/Wayside Kit type be submitted for review before any Work can commence. The Contractor and Authority shall mutually agree what Work, if any, can commence prior to review of drawings.
- viii. Contractor should submit drawings showing physically related areas of the Carborne/Wayside Kits as simultaneously as possible.
- ix. Acceptance of the Contractor's drawings and data by the Authority shall be for general detail and arrangement only, and shall not relieve the Contractor of any responsibility including, but not limited to, responsibility for accuracy of dimensions and details. The Contractor shall remain responsible for agreement and conformity of its drawings and data to the Contract Documents and Specifications.

4.7. As-Built Drawings and Specifications for Final Record

- A. The Contractor shall submit “record documentation” in accordance with the schedule, Section 4.2 (A)(b) ii, Technical Specification VE-24-056, Section 6.7. Record Documentation must be submitted and approved per Master Schedule and milestone payment schedule.
- B. As-built drawings and Contractor's Specifications shall have all engineering, manufacturing, and installation changes incorporated.
- C. The Contractor shall furnish to the Authority's designated technical representative(s) and to the Authority, at any time requested to do so prior to the delivery of the reproducible drawings, prints of each working drawing for the purpose of maintaining and servicing the Carborne/Wayside Kit.

NOTE: The Authority makes no representation or warranty as to the accuracy, completeness, legibility or suitability of the Authority's existing drawings as specified under the Contract Documents.

- D. Prior to completion of the Contract, the Contractor shall provide a final, approved Technical Specification, marked FINAL CONTRACTOR AS-BUILT TECHNICAL SPECIFICATION with all approved changes and revisions incorporated. The Contractor shall update this document to reflect the final configuration of the Carborne/Wayside Kit(s). The As-Built Specification shall be provided in hardcopy and electronic form. Electronic format is to be approved by the Authority.
- E. The Contractor shall deliver six (6) copies of the Contractor's Specifications to the Authority. The Contractor shall deliver twelve (12) copies of the Final Contractor As-Built Technical Specifications to the Authority.

4.8. Intellectual Property Rights

- A. Definitions. For purposes of this Section 4.8 (INTELLECTUAL PROPERTY RIGHTS), the following capitalized terms have the meanings set forth below. Other capitalized terms are defined in context or elsewhere in these Contract Documents.
 - 1. **Contribution.** Input to a Deliverable (whether such input is in written, oral, electronic, or other form) that embodies (i) a protectable Intellectual Property Right of the party making the Contribution, or (ii) a protectable Intellectual Property Right of a licensor to the party making the Contribution.
 - 2. **Deliverable.** The term "**Deliverable**" means goods, services, and information Contractor is obligated to deliver to the MBTA under the Contract Documents, including (without limitation) Carborne/Wayside Kits, parts, design and support services, End Products, Licensed Software, and Documentation.
 - 3. **Deposit Materials.** The term "**Deposit Materials**" means the technology and other materials that meet any one or more of the following conditions, the technology and other materials that:
 - a. constitute Source Code for the Licensed Software;
 - b. is necessary for the maintenance, interoperability and interchangeability of components within and for the Authority's fleet of Carborne/Wayside Kits and any Deliverables, but that Contractor has not provided to the Authority in order to protect Contractor's designated (a) trade secrets, or (b) confidential information; or
 - c. the Contract Documents may require Contractor to deposit in escrow including.

4. **Documentation.** The term "**Documentation**" means materials that meet the following two criteria: the materials (a) constitute (i) user manuals, maintenance manuals, or training materials, (ii) product descriptions or specifications (including performance standards), (iii) technical manuals or supporting materials, (iv) related materials, or (v) any other materials contemplated under these Contract Documents; and (b) are called for, or set out in the Contract Documents. By way of clarification, and not limitation, the term "Documentation" includes all drawings, shop drawings, plans, blueprints, and other graphic depictions as well as those drawings set out in Section 4.3 (Contractor's Drawings).
5. **Error.** The term "**Error**" means a defect in the licensed Software that is reproducible and that causes the Licensed Software not to function substantially in conformance with the Documentation, applicable warranties, or commonly accepted principles as defined by industry standards.
6. **Error Correction.** The term "**Error Correction**" means either a modification or addition that, when made or added to the applicable code section of the Licensed Software (i) removes the Error, or (ii) otherwise establishes material conformity to applicable functional specifications. The term "Error Correction" expressly excludes Workarounds.
7. **Intellectual Property Rights.** Means copyrights, patent rights, trade secret rights, and any other rights to exclude, existing from time to time in a jurisdiction under patent law, copyright law, trademark law, unfair competition law, moral rights law, trade-secret law, or other similar law.
8. **IP Deliverables.** The term "**IP Deliverables**" means Deliverables that embody Intellectual Property Rights that meet the following two criteria: the Intellectual Property Rights embodied in the Deliverable (i) are not owned by the MBTA, under the Contract Documents or otherwise, and (ii) are necessary for the MBTA to use, maintain, repair, or otherwise act with respect to the Deliverable as specified in Section 4.8(B) (Grant of Rights to the MBTA).
9. **Licensed Software.** Means (i) all software called for in the Standard for Software Project Management Plans as set out in Section T22.05(A) of the Contract Documents, and (ii) all other software and firmware that Contractor delivers or is obligated to deliver pursuant to the Contract Documents, or that is contemplated under the Contract Documents. For purposes of clarification, and not limitation, the term "Licensed Software" includes all software and firmware related to: (a) on-board diagnostics, (b) system diagnostic systems, (c) portable test equipment; and (d) the central diagnostics system.
10. **Non-Software Deliverables.** The term "**Non-Software Deliverables**" means IP Deliverables that do not consist of Licensed Software.
11. **Software Deliverables.** The term "**Software Deliverables**" means IP Deliverables that consist of Licensed Software.
12. **Software Maintenance Term.** The term "**Software Maintenance Term**" has the meaning set out in Section 4.8(D)(1) (Software Maintenance Term).
13. **Source Code.** The term "**Source Code**" means computer programming source code (and related source code level system documentation, reasonable programmers' notes, comments displayed in a form readable and understandable by a programmer of ordinary skill in the applicable programming language(s). By way of clarification, and not limitation, the term "Source Code" means the preferred form of the code for making modifications to it, including all modules it contains, plus any associated interface definition files, and scripts used to control compilation and installation of an executable. With such Source Code, at a minimum, the Deposit Materials shall include related libraries, other source components, compilers, and linkers so that, when compiled, linked and otherwise manipulated to create the runtime/executable image for the Licensed

Software, such materials create a complete and fully operational run-time/executable version of the Licensed Software.

- 14. Workaround.** The term "**Workaround**" means a bypass, procedure or routine meeting each the following three criteria: the bypass, procedure or routine (i) when implemented, eliminates the adverse effect of the Error without material loss of performance, function or feature, (ii) its implementation and utilization does not require unreasonable effort on the part of the MBTA; and (iii) is a temporary solution. The term "Workaround" expressly excludes Error Corrections.

B. Grant of Rights to the Authority.

- 1. Grant of Rights to Use IP Deliverables.** In consideration of the MBTA's obligations under the Contract Documents, Contractor hereby grants to the MBTA, under Contractor's Intellectual Property Rights, a non-exclusive, royalty-free, perpetual license to use, run, execute, and operate IP Deliverables for all purposes permitted in the Documentation, and for all purposes contemplated under the Contract Documents.
- 2. Grant of Rights to Maintain IP Deliverables.**
 - a. **Maintenance Rights Event.** The term "**Maintenance Rights Event**" means the occurrence of one or more of the following events: (i) Contractor fails to provide warranty or maintenance services for an IP Deliverable, as required under the Contract Documents, (ii) Contractor is unable to provide warranty, maintenance, manufacturing or other required services with respect to an IP Deliverable; or (iii) Contractor declines to provide such services at a reasonable cost as determined by the MBTA, with the reasonableness of the cost determined by an independent third party assessment.
 - b. **Maintenance Rights for Non-Software Deliverables.** In consideration of the MBTA's obligations under the Contract Documents, and upon the occurrence of a Maintenance Rights Event, Contractor hereby grants to the MBTA, under Contractor's Intellectual Property Rights, a non-exclusive, royalty-free, perpetual license to repair, maintain, modify, retrofit, manufacture and use Non-Software Deliverables (including, but not limited to, any assembly or component); provided such rights are exercised strictly (a) for the MBTA's internal purposes, and (b) for purposes of maintenance, interoperability or interchangeability of components within and for the MBTA's Carborne/Wayside Kits.
 - c. **Maintenance Rights for Software Deliverables.** In consideration of the MBTA's obligations under the Contract Documents, and upon the occurrence of a Maintenance Rights Event, Contractor hereby grants to the MBTA, under Contractor's Intellectual Property Rights, a non-exclusive, royalty-free, perpetual license to repair, maintain, modify, retrofit and use Software Deliverables; provided such rights are exercised strictly (a) for the MBTA's internal purposes, and (b) for purposes of maintenance, interoperability or interchangeability of components within and for the MBTA's Carborne/Wayside Kits.
 - d. **Delivery of Rights in APIs.** Upon the MBTA's reasonable request, and irrespective of the occurrence of a Maintenance Rights Event, Contractor shall provide the MBTA with APIs between relevant components of Deliverables, to allow the MBTA to coordinate Deliverables with other components of the MBTA's transit services and systems. In consideration of the MBTA's obligations under the Contract Documents, Contractor hereby grants to the MBTA, under Contractor's Intellectual Property Rights,

a non-exclusive, royalty-free, perpetual license to use, copy, modify and distribute the APIs, for the MBTA's internal purposes and use.

3. **Grant of Rights in Documentation.** In consideration of the MBTA's obligations under the Contract Documents, Contractor, under its Intellectual Property Rights, hereby grants to the MBTA a non-exclusive, worldwide, irrevocable, perpetual license to, copy, modify, perform, display, distribute, use and otherwise exploit the Documentation (in print-based, digital, or other format) in connection with uses permitted under the Contract Documents including, but not limited to, purposes of maintenance, interoperability or interchangeability of components within and for the MBTA's Carborne/Wayside Kits.
4. **Limitations; Identification of Third-Party Licensors.** The MBTA acknowledges and agrees that Contractor's grant of rights to the MBTA pursuant to Section 4.8(B)(2) (Grant of Rights to Maintain IP Deliverables) and Section 4.8(B)(3) (Grant of Rights in Documentation) is limited to the extent of Contractor's applicable Intellectual Property Rights in the IP Deliverable. By way of clarification, and not limitation, such rights do not include a grant to modify Licensed Software where Contractor does not hold underlying rights (a) to modify, or (b) to grant the MBTA the right to modify. Upon the MBTA's reasonable request, Contractor shall (in good and sufficient detail) (i) identify third party licensors of applicable Intellectual Property Rights, and (ii) provide applicable license terms.
5. **MBTA Engagement of Third Parties.** The term "**Authorized Contractor**" means a third party that meets the following two criteria: the third party (i) has agreed to protect Contractor Confidential Information in a manner at least as protective as Contractor's rights under the Contract Documents, and (ii) the MBTA has engaged the third party to provide services or goods to the MBTA. In consideration of the MBTA's obligations under the Contract Documents, the MBTA shall be entitled to permit Authorized Contractors to exercise the MBTA's rights under this Section 4.8(B) (Grant of Rights to the MBTA).
6. **Software and Hardware Design Escrow.**
 - a. **General.** Within 30 days from Contract execution, MBTA and the Contractor will execute a mutually agreed upon Third Party Escrow Agreement that is similar to the one provided as a sample in the attachment.
 1. The Contractor and Suppliers may request that design details and source code files for specific hardware and software items be placed in escrow account in lieu of submittal to MBTA.
 - a. Such requests must be made within 300 working days of NTP and are subject to MBTA approval.
 - b. Information required for planned maintenance and operations will not be allowed to be placed in escrow.
 2. The escrow account will be established and c signature of the Escrow Agreement.
 3. The Contractor is solely responsible for all costs related to the Escrow Agreement.
 4. The Contractor must employ a third-party escrow firm to verify and hold drawings, programs, source code, and supporting documentation for MBTA for seven years following the date of warranty expiration (the "Escrow Period").
 5. The escrow package must be kept current with all source code and document revisions through the Escrow Period.

6. At the expiration of the Escrow Period, MBTA shall have the option of extending the Escrow Period at its discretion and expense. If MBTA chooses not to extend the Escrow Period, the Contractor may terminate the Escrow Agreement provided it makes available to MBTA Deposit Materials held under terms of the escrow.
 7. Any documentation provided in an electronic media and format must identify the application program in which it is supplied. A copy of the application program must be supplied for any software that is not commercially available off-the-shelf.
 8. Upon release of the Deposit Materials in accordance with the Escrow Agreement, MBTA will have a non-exclusive, royalty-free, irrevocable, perpetual license to reproduce, modify, distribute, display, perform, use, create derivative works from, and otherwise exploit the Deposit Materials; provided such license is exercised strictly: (i) for MBTA's internal purposes, (ii) for purposes of maintenance, interoperability or interchangeability of components within and for MBTA's fleet of Vehicles; or (iii) as otherwise may be necessary for MBTA to exercise any of its rights under the Contract Documents. MBTA will maintain the confidentiality of the released Deposit Materials pursuant to the Contract Documents to the extent permitted by law.
- b. **Subcontractors.** The Contractor acknowledges and agrees that it is solely responsible for ensuring that all subcontractors it engages to fulfill any of the Contractor's obligations under the Escrow Agreement agrees to be bound by Escrow Agreement.
 - c. **Escrow Availability.** The escrow agent will be directed to convey all Deposit Materials in escrow to MBTA for its own use within 10 working days of notification by MBTA for any of the following reasons:
 1. The Contractor or its Supplier is no longer in business, or no longer supports the product and has not transferred the design rights to another entity that supports the product.
 2. The Contractor, its Supplier, or any successor no longer supports the product at a reasonable cost, based on an independent third-party assessment.
 3. Contractor default, bankruptcy, product or product support termination, or market abandonment.
 - d. **Software Escrow**
 1. For all software placed in escrow, the Contractor must place in escrow for MBTA complete copies of all software source code and supporting software documentation developed for or used within the equipment or software applications delivered during the project, at the time of Delivery.
 2. Source code files must be provided in an electronic form and medium as directed by MBTA, with complete hard copy documentation.
 3. Prior to placing software in escrow, the Contractor must demonstrate fulfillment of Specifications requirements. Such demonstration must be performed by the Contractor and witnessed by MBTA for all software in escrow.
 4. The Contractor must demonstrate that all software and developmental tools are included in the escrow package to generate loadable software from the source code and that the files generated are identical to the files used in final tests of the corresponding system.

e. **Hardware Design Escrow**

1. Any hardware design details approved by MBTA for placement in escrow in lieu of submittal to MBTA must provide sufficient design detail to allow MBTA to operate and maintain the hardware, including but not limited to: replacing obsolete components, modifying functionality, and troubleshooting hardware issues.
2. The Contractor must conduct a hardware verification procedure for all escrowed hardware design details. These must verify that escrow documents match the actual hardware delivered as part of the Contract. For circuit board layout, the procedure must verify that all software and developmental tools required to modify and generate the printed circuit board manufacturing files have been escrowed.
3. For all hardware designs placed in escrow, the Contractor must place in escrow for MBTA complete copies of:
 - a. Printed circuit assembly layouts
 - b. Parts lists complete with Suppliers and Suppliers' parts numbers fully identified.
 - c. Specifications for materials, components, fabrication, and assembly.
 - d. Interface definitions and requirements.
 - e. Test procedures including programs for automated testing.
 - f. Firmware.
 - g. Any applicable software not otherwise placed in escrow, including source code, libraries, other source components, compilers, and linkers.
 - i. Software must be provided in an electric form and medium as directed by MBTA, with complete hard copy documentation

C. **Rights of Contractor.**

1. **MBTA Contributions; MBTA Ownership.** Contractor acknowledges and agrees that, as between Contractor and the MBTA, the MBTA owns all right, title and interest in and to MBTA Contributions (and all associated Intellectual Property Rights). The MBTA hereby grants to Contractor, under the MBTA's Intellectual Property Rights, a limited, non-exclusive, non-transferable, non-sublicensable license to use MBTA Contributions solely for the purpose of fulfilling Contractor's obligations under the Contract Documents, and for no other purpose.
2. **Grant of Limited Trademark Right to Contractor.** In consideration of Contractor's obligations under the Contract Documents, the MBTA, under its Intellectual Property Rights, hereby grants to Contractor (i) for as long as Contractor is manufacturing Deliverables on which MBTA Trademark Assets are to be affixed pursuant to (a) the Contract Documents, or (b) the MBTA's request, or (ii) earlier if requested by the MBTA; a limited, non-exclusive, non-transferable, non-sublicensable license to affix MBTA Trademark Assets to applicable Deliverables for the MBTA's use as contemplated under the Contract Documents. Contractor acknowledges the value of the goodwill associated with MBTA Trademark Assets and further acknowledges that any and all use of MBTA Trademark Assets pursuant to these Contract Documents shall inure to the benefit of the MBTA.

- D. **Licensed Software Maintenance and Support.** During the Software Maintenance Term (as defined in Section 4.8(D)(1) (Software Maintenance Term)), and in consideration of the MBTA's obligations set out

in these Contract Documents, Contractor shall provide the maintenance and support services described in this Section 4.8(D) (Licensed Software Maintenance and Support) (collectively, the "**Support Services**").

1. **Software Maintenance Term.** The term "**Software Maintenance Term**" means collectively (a) the Bundled-Software Maintenance Term, and (b) the Stand-Alone Software Maintenance Term, both as defined below.
 - a. **Bundled Software.** With respect to Licensed Software that is used in conjunction with Non-Software Deliverables (including, but not limited to, End Products), Contractor shall provide Support Services for such Licensed Software for the duration of the warranty period applicable to the associated Non-Software Deliverable (the "**Bundled-Software Maintenance Term**"). By way of example, and not limitation, Contractor shall provide Support Services for Licensed Software used in conjunction with the operation of a Carborne/Wayside Kit during the warranty period for that particular Carborne/Wayside Kit, as specified in Section 9.0 (Guarantee of End Products (Warranty)) of these Contract Documents.
 - b. **Stand-Alone Software.** Contractor shall provide Support Services for Licensed Software that is used independently of Non-Software Deliverables for a period of five (5) years from acceptance of the applicable Licensed Software as set out in these Contract Documents (the "**Stand-Alone Software Maintenance Term**").
 - c. **Resolving Doubt.** For the avoidance of doubt, uncertainties as to whether a Licensed Software module is entitled to Support Services under Section 4.8(D)(1)(a) (Bundled Software) or Section 4.8(D)(1)(b) (Stand-Alone Software), shall be resolved in favor of the reading that provides a longer period of Support Services for the particular module.
2. **Helpdesk Support.**
 - a. **MBTA Representatives.** All requests for Support Services shall be submitted to Contractor by one (1) of four (4) MBTA representatives, which shall be identified to Contractor by the MBTA in writing within a reasonable time after the Effective Date (each, an "**MBTA Representative**"). The MBTA shall have the right to revise the list of MBTA Representatives from time to time. Contractor shall have no obligation to respond to service requests from any MBTA employee that is not an MBTA Representative.
 - b. **Helpdesk Support Hours.** Contractor shall provide helpdesk support via telephone and facsimile from the hours of 8:00 a.m. to 6:00 p.m. EST, Monday through Friday (excluding Federal holidays) (the "**Business Hours**"). Contractor shall provide off-hours pager and cell phone support off-hours for Priority 1 Errors.
3. **3. Confirmation; Tracking.** Contractor shall confirm receipt of a problem report or other inquiry, and shall cause Error-related calls and incidents to be tracked through the use of an incident tracking system. Error-related calls and incidents shall be reported and logged into such system: (i) via e-mail, (ii) by accessing a website maintained by Contractor for such purpose; or (iii) by telephone.
4. **Problem Inquiries; Responses.** An MBTA Representative shall: (i) report an Error to Contractor in a form as may be reasonably prescribed by Contractor, (ii) submit such form via telephone line, fax, e-mail, or in any other format reasonably required by Contractor; and (iii) provide other documentation, information or assistance reasonably requested by Contractor. Upon receipt of a problem inquiry, Contractor shall: (a) evaluate the inquiry, (b) provide advice to resolve the problem described in the inquiry; and (c) call in appropriate staff as necessary to respond to the situation in accordance with the Acknowledgement and Resolution Standards (as defined below).

Contractor shall track such inquiries and responses as set out in Section 4.8(D)(3) (Confirmation; Tracking).

5. **Workarounds.** Contractor shall use commercially reasonable efforts to provide Workarounds for Errors that are reported by an MBTA Representative within the target time frame for the priority level of such problem, as listed below. In the event Contractor foresees an inability to provide a Workaround remedying the reported Error within the applicable target time frame, Contractor shall increase resources appropriately and continue its efforts. Each incident shall remain open until the MBTA determines, in its sole and reasonable discretion, that the incident has been resolved

Assigning Priority. Contractor shall work with the applicable MBTA Representative to assign the appropriate priority to all reported problems. The criteria for assigning a particular priority level are as follows:

Problem Priority	Conditions
Priority 1 (High)	Critical business impact. (i) the MBTA has a complete loss of function, (ii) the MBTA experiences material real or perceived data loss or corruption; or (iii) an essential part of the Licensed Software is unusable by the MBTA.
Priority 2 (Medium)	Some business impact. The problem seriously affects the functionality of the Licensed Software, but can be circumvented so that most of the significant functionality is available to the MBTA.
Priority 3 (Low)	Minimal business impact. The MBTA can circumvent the problem and use the Licensed Software with only slight inconvenience. This priority level is also used for questions, comments, and requests.

- a. **Acknowledgment and Resolution Times.** For all reported problems, Contractor's acknowledgement and problem resolution times are as follows (the "Acknowledgement and Resolution Standards"):

Problem Priority	Acknowledgement Time	Time Frame for Workaround	Contractor's Response
Priority 1 (High)	1 Hour	6 Hours	Full attention to the problem until a Workaround is provided.
Priority 2 (Medium)	4 Business Hours	12 Business Hours	Full attention to the problem until a Workaround is provided.
Priority 3 (Low)	1 Business Day	14 Business Days	Provision of Workaround.

6. **Error Corrections.** Upon Contractor's provision of a Workaround, Contractor shall commence developing an Error Correction to provide a permanent resolution to the applicable Error, and shall provide all proposed Error Corrections to the MBTA within a reasonable time after the original Error was reported by an MBTA Representative. All Errors shall be considered open until the MBTA accepts the Error Correction.
7. **Third Party Software.** Contractor shall use reasonable commercial efforts attempting to diagnose and resolve problems associated with third party software for no additional fee. If the

problem is internal to the third party software, and not the Licensed Software, then Contractor shall be deemed to have satisfied its obligation to address the problem if: (a) Contractor releases the ticket to the third party vendor, (b) such vendor is obligated to provide support; and (c) Contractor continues to track and report the status of the fix to the MBTA.

8. **Updates.** Without limiting its obligations to provide Error Corrections, Contractor may, from time to time, choose to deliver updates, upgrades or new versions of the Licensed Software to the MBTA; provided, however, that no such delivery removes any feature or functionality of the Licensed Software, or otherwise reduces the performance of the so Licensed Software. Updates should be provided at no additional cost to the MBTA.
9. **Support for Prior Versions.** For so long as any of the Contract Documents are in effect, Contractor shall continue to provide Support Services to the MBTA for the version of the Licensed Software provided by Contractor under these Contract Documents, or such other version or release provided by Contractor that the MBTA, in its discretion, chooses to implement.
10. **Cooperation; Limitations.** The MBTA shall make available upon request by Contractor access to the MBTA's existing infrastructure to allow Contractor to provide Support Services, including access by remote means. Contractor shall be solely responsible for all connectivity-related charges. Support Services shall not include services (i) resulting from misuse, or (ii) resulting from modification, customizations, additions or extensions to the Licensed Software in a manner not authorized by Contractor in writing or not otherwise contemplated under these Contract Documents.

- E. Software Assurances and Warranties. Both the MBTA and Contractor agree that (i) Contractor's assurances and warranties relating to the operation, quality, and compliance with the Documentation that apply to Deliverables under these Contract Documents including, but not limited to, those set out in Section 9.1 (Guarantee of End Products (Warranty)) of the Contract Documents, similarly apply (ii) to the Licensed Software.

F. Indemnification

1. **Contractor Indemnification.** Subject to the provisions of this Section 4.8(F) (Indemnification), Contractor shall defend, indemnify, and hold the MBTA harmless from and against any liability, claim, suit, action, proceeding, damage, cost or expense (including, but not limited to, reasonable attorney's fees) resulting from or relating to any claim that any of the Deliverables infringes a third party's Intellectual Property Rights or rights existing under trademark law. In the event that a Deliverable is held or reasonably believed to constitute infringement of a third party's Intellectual Property Rights or trademark rights and/or the use of such Deliverable is enjoined, Contractor may, at its own option and expense, and in order to mitigate damages, either (i) procure the same rights for the MBTA in the Deliverable as the MBTA has under these Contract Documents, (ii) replace the Deliverable with a functionally equivalent, non-infringing substitute; or (iii) modify the Deliverable so it becomes non-infringing but remains functionally equivalent.
2. **Limitations.** Contractor shall not be liable to the MBTA for indemnification obligations under this Section 4.8(F) (Indemnification) to the extent the claim or damage is caused by: (i) the MBTA's failure to use corrections made available to the MBTA by Contractor, or (ii) the creation of modifications to the Deliverable at issue that were not authorized by Contractor or reasonably contemplated under these Contract Documents. Contractor shall not be obligated to indemnify the MBTA to the extent an MBTA Contribution contributed to the event giving rise to the obligation to indemnify.

3. **Conditions of Indemnification.** Contractor's obligations are conditioned upon the MBTA: (i) giving Contractor prompt notice of any claim, action, suit or proceeding for which the MBTA is seeking indemnity, (ii) granting control of the defense and settlement to Contractor; and (iii) reasonably cooperating with Contractor at Contractor's sole expense. The MBTA is entitled to participate in any defense at its own expense with counsel of its own choosing.
- G. **No Implied Licenses.** Any licenses granted to either Contractor or the MBTA must be expressly provided herein, and there shall be no licenses or rights implied pursuant to these Contract Documents, based on any course of conduct, or other construction or interpretation thereof. All rights and licenses not expressly granted are reserved.
- H. **Acceptance of Licensed Software.** The Contractor acknowledges and agrees that the acceptance for the Licensed Software shall be handled in manner consistent with the MBTA's acceptance procedures for all other Deliverables and as may otherwise be set out in the Contract Documents; provided, however that the MBTA may, in its sole and reasonable discretion, require additional acceptance criteria and procedures for the Licensed Software.
- I. **Order of Precedence.** The MBTA and Contractor both acknowledge and agree that if a conflict arises between any term or provision contained in this Section 4.8 (INTELLECTUAL PROPERTY RIGHTS) and any other term or provision in these Contract Documents, then the terms or provisions of this Section 4.8 (INTELLECTUAL PROPERTY RIGHTS) shall control.
- J. **Survival.** Notwithstanding anything to the contrary, the provisions of this Section 4.8 (INTELLECTUAL PROPERTY RIGHTS) shall survive the termination or expiration of these Contract Documents.

4.9. Contractor Furnished Materials

The Contractor's attention is directed to Technical Specifications VE-24-056 for details regarding the requirements for Operating Instruction Books, Maintenance Instruction Books, Renewal Parts Manuals, Technical Procedures Manuals, and Vehicle History Books.

4.10. Access to Documents

Any and all drawings, shop drawings, plans, specifications, and any and all graphic depictions produced by the Contractor pursuant to this Contract shall be made available to the Authority and can be used to secure the manufacture or replacement of any assembly or component for its use in the maintaining of the system without any payment of royalties by the Authority. Confidential Information of the Contractor will be protected to the extent allowable by law.

4.11. Conformity with Plans and Specifications

- A. No willful and substantial deviation for the Contract Document Plans and Specifications shall be made unless authorized in writing by the Authority.
- B. Any change which can affect the cost of, and/or time or schedule for completion of, the Contract shall be addressed by Change Order to the Contract in accordance with RFP Section 6.

4.12. Access to Work and Records

- A. The Authority's authorized representatives shall have access, at any time during the Contractor and Subcontractor's normal working hours, to the premises used by the Contractor and Subcontractor to any plant or place where materials, work, or any part thereof, are being made, preformed, or stored.
- B. The Authority shall arrange for inspections so as to avoid or minimize delay to the work.
- C. Access, at any time during working hours upon proper notification to the Contractor by the Authority, shall also be granted for inspection of all accounting and project management records and documents of the Contractor, Subcontractor and its suppliers, relating to any labor, materials, plant, equipment, overhead and other costs used in the performance of work described in any Change Order.
- D. Access shall be given or obtained both before and after completion of this Contract for the duration of the guarantee period.
- E. The Contractor and Subcontractor shall retain, for change orders and claims, all accounting records and supporting documentation evidence required to demonstrate compliance with generally accepted accounting principles and the Federal Acquisition Regulation cost standards. Project management records shall also be retained.
- F. The Contractor and Subcontractor shall insert a clause containing all of the provisions of this section, including this paragraph, in any subcontract of at least \$50,000 under this contract, altering the clause only as necessary to identify properly the contracting parties.

4.13. Project Meetings

- A. Meetings shall generally be held as scheduled by the Authority, at which time the Contractor shall be present to discuss any and all details as required relative to the execution of the work. The Authority reserves the right to increase or decrease the number of meetings.
 - 1. Additional meetings shall be held as required by the Authority, or at the request of the Contractor in order to discuss the particular aspects of the work.
 - 2. Manufacturers, Subcontractor, Supplier and/or other representatives, as determined necessary by the Authority, shall be present at any such meetings.
 - 3. The Project Meetings shall be scheduled in line with Section 4 of the Technical Specification. Meeting Agendas shall prioritize open issues and critical items that are on the critical path to ensure conformance to the project schedule.
- B. The Authority will keep detailed minutes of all meetings, including but not limited to the following information:
 - 1. Date, time, and location;
 - 2. Attendees, including titles and affiliations;
 - 3. Subjects discussed, and agreements reached;
 - 4. Drawings and sketches submitted for review and action taken.
- C. A copy of the minutes of each meeting shall be prepared and delivered, within the time stipulated at the close of the meeting and/or as directed by the Authority's designee present at the same.

- D. The draft minutes shall be reviewed for any corrections, if necessary, by the Authority, after which three final copies shall be prepared and signed by the Authority and the Contractor, with each party retaining once copy.

4.14. Further Obligations

- A. All correspondence, drawings, data, or other written communications pertaining to this Contract shall be in the English language using the English system of weights and measures. All monies expressed shall be in United States dollars. All conversations between Offerors, the Contractor, and the Authority shall be in English. All correspondence shall be on single sided 8-1/2" by 11" (216 x 279 mm) white sheets.
- B. Communication in connection with this Contract shall be in writing, and shall be delivered personally; or by email, or by regular, registered or certified mail addressed to the officer(s) or employee(s) of the Authority and of the Contractor designated to receive such communications. Telephone calls may be used to expedite communications, but shall not be official communication unless confirmed in writing.
- C. In order to preclude misunderstanding and delays in the procurement process arising from language difficulties, the Authority requires that representatives of the Contractor who serve as official liaisons to the Authority or its representatives shall be sufficiently fluent and versed in the speech, writing, and understanding of the English language so as to enable a facile and comprehensive language intercourse between the Contractor and the Authority and its representatives. To the extent that it concerns their ability to communicate, the Authority reserves the right of rejection of any representative of the Contractor who is found by the Authority to be so deficient in ability to communicate in English as to be prejudicial to the Authority's best interest.
- D. Metric dimensions, if applicable, shall be included on drawings shown parenthetically either following or under the English dimensions. Metric dimensions smaller than one (1) meter shall be shown in millimeters and dimensions one (1) meter and larger shall be shown in meters and decimal meters.
- E. The Contractor shall submit drawings, as required, and schedules to verify that the Contractor's program timing is in compliance with all the requirements of the Contract Documents.

5. CONTROL OF MATERIALS

5.1. Quality of Supply

- A. The Contractor shall furnish all materials required for the furnishing of Green Line Train Protection System and Capital Spare Parts and other items in accordance with the Contract, and the materials shall meet the requirements of the Contract Specification and Other Contract Provisions for the kind of applications involving its use. Unless otherwise provided, only quality materials which are generally accepted in the industry and conform to the requirements of these Contract Specifications shall be used in the Work.

5.2. Trade Names and Alternatives

- A. For convenience in designation on the Plans or in the Specifications certain articles or materials to be incorporated in the work may be designated under trade names or the names of manufacturers and its catalog information.
- B. Except in these instances where used in a particular project, either completed or in the course of completion, the use of an alternative article or material which the Contractor represents to be of at least equal quality and of the required characteristics for the purpose intended shall be permitted subject to all of the following requirements:
 - 1. It is not the intent of these Specifications to have the Contractor seek acceptance from the Authority for the various interchangeable items of different manufacture that are normally stocked and used by the Contractor. It is the intent of these Specifications that alternative materials for major items of equipment, herein specified, be acceptable to the Authority.
 - 2. The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor and the Contractor shall furnish all information necessary as required by the Authority at no additional cost to the Authority.
 - 3. There shall be no substitution for any accepted materials, component, design, or fabrication unless and until the proposed substitute has received written acceptance of the Authority. The Authority may require the removal of any substitute or unaccepted item which is installed by the Contractor without the written acceptance of the Authority. All financial benefits accruing from the substitute materials, components, design, or fabrication shall be the sole right of the Authority.
 - 4. Where use of an alternative material involves redesign of or changes to other parts of the work, the cost and the time required to effect such redesign or changes shall be considered in evaluating the suitability of the alternative material. No additional cost will be paid by the Authority as a result of the Contractor's selection in using alternatives.
 - 5. No test nor action relating to the acceptance of substitute materials shall be made until the request for substitutions is made in writing by the Contractor, accompanied by the complete data as to the quality of the materials proposed. Such request shall be in ample time to permit approval without delaying the work.
 - 6. Whenever classifications, rating, or other certification by a body, such as UL, NEMA, or AREA, is part of the Specification for any material, Proposals for use of alternative materials shall be accompanied by reports from the listed or equivalent independent testing laboratory indicating compliance with Specification requirements.
 - 7. The Contractor shall reasonably demonstrate that an adequate supply of materials, repair parts, and specialties of its own design and manufacture, as well as materials, repair parts, and the specialty parts of the Subcontractors, will be available promptly as the need by the authority may arise.
- C. It shall be understood that specifying a brand name, components, and/or equipment in this Specification shall not relieve the Contractor from its responsibility to produce the product in accordance with the Contractual requirements.

- D. The Contractor is responsible for notifying the Authority of any inappropriate brand name, component and/or equipment that may be called for in the Specification, and to propose a suitable substitute for consideration.

5.3. Storage of Material and Preparation for Delivery

- A. All material intended for use on the Green Line Train Protection Systems shall be marked and stored in the Contractor's plant so as to be readily identified, and shall be adequately protected during handling and storage.
- B. Certificate of In-Plant Inspection and Release for Shipment:
 - 1. Unless specifically excepted by the Contract Documents, and additionally at the sole discretion of the Authority, each Carborne/Wayside Kit shipped from the Contractor's plant to the Authority shall be complete, ready-to-run. As a result of infrastructure limitations, the Carborne Kits delivered under this Contract have weight limits. The maximum weight for a kit under this Contract is 200 lbs. Any Carborne Kit that exceeds the maximum weight will be subject to Liquidated Damages as described in Section 7.5.
 - 2. Prior to the shipment of each Carborne/Wayside Kit, the Contractor shall obtain a "Certificate of In-Plant Inspection and Release for Shipment" signed by the Authority's Inspector, or other authorized representative at the Contractor's plant. The "Certificate" shall certify that, in the judgment of the Inspector, the Carborne/Wayside Kit is complete and complies with the approved Contractor's drawings and samples, and other agreed upon conditions for shipment. The "Certificate of In-Plant Inspection and Release of Shipment" shall not, however, be interpreted to constitute to any degree Carborne/Wayside Kit Acceptance by the Authority. The Contractor shall allow (1) working day for the Authority's Inspector to complete inspection of each Carborne/Wayside Kit prior to shipment.
 - 3. In the event that Carborne/Wayside Kits are complete and ready for shipment prior to the delivery dates specified in the Contract, the Contractor shall so notify the Authority. At the Authority's option, the Carborne/Wayside Kits may be shipped prior to the delivery dates.
- C. Preparation for Delivery:
 - 1. All parts that shall be securely boxed to prevent damage, and shipped.
- D. Delivery:
 - 1. The Contractor shall complete and deliver all End Products defined in the Contract, to the Massachusetts Bay Transportation Authority Delivery Points, or to alternate locations as designated by the Authority. All Carborne/Wayside Kits shall be delivered in a secured and sealed condition prior to the Authority's issuance of a receiving inspection report. The Contractor bears full responsibility for all related costs for the transport of the Kits, Capital Spares, Training Aids, Manuals and related equipment as specified in the Contract to the Authority's Delivery Point.
 - 2. It shall be further understood that from the time the Carborne/Wayside Kits arrive on the Authority's property until such time as the Carborne/Wayside Kits are accepted by the Authority for passenger service, the Contractor will be charged at the flat labor rate of up to \$108.00 per hour, if any work

is performed by the Authority on behalf of the Contractor. Actual labor rates will be provided at Notice to Proceed. Based on union negotiations the Authority reserves the right to update labor reimbursement rates on a yearly basis.

3. To be considered "delivered," each Carborne/Wayside Kit, subsequent to receipt at MBTA designated facility, must be in a sound, whole condition, free from any damage or defect. Should the Authority agree to allow Carborne/Wayside Kits to be shipped onto its property with retrofit work to be done, the Carborne/Wayside Kits shall not, unless otherwise agreed upon by the Authority, be considered to be "delivered" until the Contractor has satisfactorily completed all such retrofit work. The Contractor shall be responsible for all Carborne/Wayside Kit related costs incurred during the storage, shipment, receipt, delivery and retrofit, as applicable, of the Carborne/Wayside Kits.

5.4. Receipt of Contractor Furnished Equipment and Materials

A. Receipt of Carborne/Wayside Kits:

1. Each completed Carborne/Wayside Kit shall be received in a ready-to-install/test condition at the Massachusetts Bay Transportation Authority Delivery Point or to alternate locations as designated by the Authority. Each Carborne/Wayside Kit will then be examined jointly by representatives of the Authority and the Contractor. The Authority will then issue a "Receiving Inspection Report" to the Contractor which will acknowledge receipt of the Carborne/Wayside Kit and furnish appropriate notation as to its apparent "As-Received" condition. The "Receiving Inspection Report" will be signed by the Authority's representative and the Contractor's representative to attest to the stated condition of the Carborne/Wayside Kit.

NOTE: The Contractor must advise the Authority five (5) days prior to anticipated delivery of each Carborne/Wayside Kit to the MBTA Delivery Point, including shipping dimensions.

2. The Contractor shall refer to Technical Specification No. VE-24-056 for details concerning post-delivery/acceptance for passenger service testing.

B. Receipt of Spare Parts and Materials:

1. Spare Parts and other Materials shall be received by the Authority's Receiving Department who shall prepare and sign a Receiving Report describing any missing parts or damage that may have occurred during shipment.
2. Notwithstanding the foregoing, the Contractor shall bear all risks of loss to each item until the same is delivered to the Authority as designated above.
3. On receipt of any such report which identifies a short shipment or damaged item, the Contractor shall promptly replace any missing or damaged equipment and material to prevent delay of the project.

5.5. Conditional Acceptance of Carborne/Wayside Kits

- A. All new Carborne/Wayside Kits shall successfully complete all testing as specified in Technical Specification No. VE-24-056. The Pilot Kits shall also successfully complete all testing as specified in Technical Specification No. VE-24-056.
- a. The Contractor shall maintain a minimum of one full-time on-site representative for technical and warranty support as well as all necessary materials to support the program during the period of Conditional Acceptance testing for all Carborne/Wayside Kits to identify and resolve all deficiencies identified by the Authority and to maintain the warranty program. The Authority shall reserve the right to approve all such support personnel.
 - b. The Contractor shall assume the cost of all work related to Acceptance testing, including crew costs and the cost of all repairs and defective component replacement (including labor) until the Carborne/Wayside Kits are Accepted by the Authority at the Authority's acceptance site or at a location as designed by the Authority. Conditional Acceptance Testing is typically conducted during the third shift on overtime rates. Note that the Authority's current flat rate for test crew and equipment is \$2,600 per 8-hour shift for dynamic train set. If additional testing warrants the use of Authority personnel as required by MBTA Operating and/or Safety Regulations, the Contractor shall be responsible for reimbursement of the stated additional individual(s) at the flat labor rate of up to \$108.00 per hour (actual labor rates will be provided at Notice to Proceed).

This serves to address and all reference(s) to the subject of flat rates cited in the Contract, in particular, without limitation, the following Sections:

- Sections 5.5 Ab, Ac, C3
- Section 5.3 D2
- Sections 9.1

The Warranty shall commence upon Conditional Acceptance in accordance with Section 9.1, except for those parts requiring corrective action.

- c. In addition to the foregoing costs, it shall be understood that retrofit or modification work will be performed by the Authority and shall be back-charged to the Contractor at the Authority's established flat labor rate of up to \$108.00 per hour (actual labor rates will be provided at Notice to Proceed). It shall be further understood that from the time the Carborne/Wayside Kits arrive on the Authority's property and until such time as the Carborne/Wayside Kits are accepted by the Authority, the Contractor shall be back-charged, at the established flat rate for all work the Authority performs on behalf of the Contractor.
- B. Should the Authority experience delays in its Conditional Acceptance program attributable to the Contractor because of defective materials, workmanship or design, the Contractor shall not be permitted to stockpile Carborne/Wayside Kits that have not been accepted on the Authority's property pending

resolution of the problems unless so agreed to by the Authority. No more than eight (8) unaccepted Carborne/Wayside Kits shall be permitted to be delivered by the Contractor to the Authority. Any delays in delivery of the Carborne/Wayside Kits that result from delays in the Conditional Acceptance program attributable to the Contractor shall be grounds for Liquidated Damages under Section 7.5, and may constitute grounds for a default by the Contractor under the Agreement.

- C. If, during Conditional Acceptance inspection, the Authority determines that a Carborne/Wayside Kit(s) is (are) suitable for operation in passenger service, but that it is not totally responsive to the Specification requirements such that substantial delay might be incurred in implementing required corrective action(s), the Authority may, at its discretion, issue a "Certificate of Conditional Acceptance" for the kit(s) for mutual execution by the Authority and the Contractor. Such conditionally accepted Carborne/Wayside Kits shall then be available to the Authority for use in passenger service until such time as the Contractor is able to initiate and execute the necessary correction action(s).
1. Such "Conditional Acceptance of a kit(s)" shall not negate the Contractor's eligibility for achieving a milestone payment in accordance with the Schedule of Partial Payments (Section 7.3).
 2. Warranty shall commence upon Conditional Acceptance in accordance with Section 9.1 except for those parts requiring corrective action. The warranty of such parts shall commence when such parts are installed and tested to the satisfaction of the Authority.
 3. In addition to the foregoing costs, it shall be understood that retrofit or modification work will be performed by the Authority and shall be back-charged to the Contractor at the **flat rate of up to \$108.00 per hour (actual labor rates will be provided at Notice to Proceed)**. It shall be further understood that from the time the Carborne/Wayside Kits arrive on the Authority's property and until such time as the Carborne/Wayside Kits are accepted by the Authority, the Contractor shall be back-charged, at the **flat labor rate of up to \$108.00 per hour (actual labor rates will be provided at Notice to Proceed)** for all work the Authority performs on behalf of the Contractor.

5.6. Final Acceptance of Carborne/Wayside Kits

- A. When all corrective actions and retrofits, if any, have been fully completed, and the Carborne/Wayside Kits is considered by the Authority to be in full compliance with the contract, the Certificate of Final Acceptance will be executed by the Contractor and the Authority.
- B. Acceptance by the Authority will be made in writing.

5.7. Patented Devices, Materials, Processes

- A. In the performance of this Contract the Authority has required the Contractor to furnish certain equipment, components, materials and supplies which may be either items designated by brand name or other items.
- B. For items not designated by brand name, the Contractor warrants that the products furnished shall be delivered free of any rightful claim of a third party for infringement of any United States or foreign patent.
 1. If the Contractor notifies the Authority in writing and if the Authority provides authorization, information, and assistance, the Contractor shall defend, or may settle, at its expense, any suit or

proceeding against the Authority so far as based on a claimed infringement which would result in a breach of this warranty.

2. The Contractor shall pay all damages and costs awarded against the Authority due to breach.
- C. In case any product, or any part thereof, is in such suit held to constitute an infringement and the use for the purpose intended of such product or part is enjoined, the Contractor shall, at its expense and option, either procure for the Authority the right to continue using said product or part, or replace with some non-infringing product or part or modify same so it becomes non-infringing.

5.8. Warranties, Guarantees, Instruction Sheets and Parts List

Manufacturer's warranties, guarantees, instruction sheets, and parts list, which the Engineer requires to be furnished, shall be delivered to the Engineer per the Technical Specification Contract Deliverables Schedule, TS Attachments, and RFP requirements.

5.9. Spare Parts

A. General:

- a. The Contractor shall guarantee the availability of replacement parts for these Carborne/Wayside Kits for a minimum of fifteen (15) years after the date of acceptance. Spare parts shall be interchangeable with the original equipment and shall be manufactured in accordance with the Quality Assurance Provisions of this Contract.
- b. Should a part not be available through the Contractor for which there is not competitive equivalent available in the marketplace, the Contractor agrees to assist the Authority with drawings and specifications to facilitate the component procurement by the Authority.
- c. All Spare Parts, Capital Spares, and Consumable Spare Parts shall adhere to the following bar code requirements. All bar codes will be in Code 39 (according to ANSI standards). All assemblies, subassemblies, and components shall have an identification label, which contains a part number, serial number, and bar code of vendor part number and sequential serial number. The label life expectancy shall be the same as the part to which it is attached.
- d. Each spare part or other material shall be clearly and precisely labeled. The Contractor shall notify an individual designated by the Authority, prior to shipment of any item (i.e. spares, manuals, mock-ups, test equipment, etc.)
- e. As a result of any design modifications confirmed and approved during Pilot Kit testing, the Authority reserves the right to modify the Kit price of individual Capital Spare Parts, in accordance with Section 6.0, as required. It is the Authority's intent to minimize the need to retrofit Capital Spares. Any retrofit, if so required, is to be implemented at the Contractor's expense prior to delivery to the Authority.

B. Delivery of Capital Spares:

- a. Delivery of the Capital Spares shall be made to the Authority in the Boston area at one or multiple sites to be designated in the future. Notwithstanding the foregoing, the Contractor shall bear all risk of loss until the Kits are delivered to the Authority.

Delivery details shall include the following:

- Part Number information and Vendor/Manufacturing/Supplier name if not directly produced by Contractor
- Kit price per line item

Note: if providing any spares or any parts under the designation “Carborne/Wayside Kit Car Set (CS),” the Contractor shall provide details (part numbers, vendor source, line item quantities, Kit pricing of line items and other relevant data) for the purpose of the Authority’s asset inventory reconciliation.

- b. Upon completion of the Pilot Kit’s acceptance testing and Conditional Acceptance for passenger service in Boston, the Contractor shall submit for the Authority’s approval, a delivery schedule for the Capital Spares as identified in Section B Part A Item 2 and Option I Capital Spares. At all times, the Authority reserves the right to adjust the quantities for Capital Spares listed in Section B Part A Item 2, Option I. In preparing the delivery schedule, Contractor will consult with the Authority as to the number of Kits for each Capital Spare it elects to purchase.
- c. Capital Spares Parts shall be interchangeable with their corresponding part numbers. All spare parts shall be reconfigured to the latest revision during the Warranty Period. The Contractor shall make all efforts to have available at least two U.S. sources for spare parts.
 - i. Packaging shall consider the reliability of the parts and the requirements for inspection and inventory (e.g., the packaging selected to highly reliable parts shall be such that the parts can be identified, inspected, stored for long periods, and endure multiple inventories.

C. Consumable Spare Parts:

- a. The Contractor shall submit, two (2) months after the approval of the design for the Pilot Kits, a list of recommended Consumable Spare Parts. This list shall detail parts required to maintain system, identifying the vendor's name and address, vendor part number, full part description, Kit cost, anticipated lead time, and estimated annual usage and include both inventory and non-inventory items.

D. Master Recommended Spare Parts List.

- a. Prior to the delivery of the Pilot Kits, the Contractor shall submit a master recommended spare parts list which include the following:
 - i. Grouping by systems, subsystems, as applicable for stocking identification.

- ii. Generic name, trade name, description, Contractor's part number, contract price, manufacturer/vendor/supplier's names and part numbers (if not directly produced by Prime Contractor), drawing references, and correlation with maintenance manuals.
- iii. Correlation of recommended quantities with reliability requirements and lead time basis of the following classifications:
 - **Wear** - Parts that may be expected to require regular replacement under normal maintenance schedules
 - **Consumables** - Parts with an expected life of less than one year/based upon expected annual mileage of 80,000 miles per Car
 - **One Shot** - Parts that normally require replacement after performing their function one time
 - **Long Lead** - Parts that are not readily available from distributors or manufacturers
 - **Exchange Assemblies** - Assemblies that will be exchanged with failed Kits (or Kits that are not responding as specified) on the supplied equipment and that must be inventoried as complete assemblies
- iv. A cross-reference and indexing system for replacement components common to more than one system (subsystem). Such components shall have only one part number.
- E. Contractor shall be prepared to support the Pilot Kit testing as defined per Specification with appropriate spares and/or other materials as required.
- F. Other Required Items: All other items or materials not defined.

5.10. Training Aids

- A. The Contractor shall refer to Technical Specification VE-24-056, Section 7.1 for Training Aid requirements and provide prices as required in the Price Response for the furnishing and delivery of Training Aids.
- B. The Training Aids are to be delivered prior to commencement of the Training Program.
- C. Delivery of Training Aids shall be made to the Authority at a site to be designated in the future. Notwithstanding the foregoing, the Contractor shall bear all risk of loss to each unit until the same is delivered to the Authority.

5.11. Test Equipment and Special Tools

- A. The Contractor shall refer to Technical Specification VE-24-056, Section 7.3 for Test Equipment and Section 7.4 for Special Tool requirements and provide prices as required in the Price Response for the furnishing and delivery of Test Equipment and Special Tools
- B. The Contractor shall furnish Portable Test Equipment (PTE) in the following quantities.
 - a. 24 notebook computer-based PTEs
 - b. 12 of each type of non-computer-based PTE
- C. Two of each type of PTE must be delivered concurrently with the Pilot Equipment for Phase 2.
- D. The Contractor must submit PTE documentation to MBTA for review and approval as required by the Technical Specifications, and as follows:

- a. Each PTE, including a laptop computer used as a PTE, must be furnished with an instructional manual that describes how to use the PTE along with expected results.
- b. Each PTE must be furnished with instructions for setup and calibration. For computer-based PTEs, this must include a description of all parameter settings for the computer.
- c. Each PTE must be furnished with instructions of how to troubleshoot and repair the PTE.
- d. Non-computer-based PTEs must include complete parts lists and schematic diagrams.
- E. The Contractor shall furnish Special Tools in the following quantities:
 - a. 12 complete sets of Special Tools for running repair, test and inspection of Carborne Equipment, furnished concurrently with the Pilot Equipment for Phase 2.
 - b. 12 complete sets of Special Tools for running repair, test and inspection of Equipment that is not carborne, furnished concurrently with the Pilot Equipment for Phase 2.
 - c. 12 complete sets of Special Tools for heavy repair or overhaul.
- F. The Contractor shall furnish perpetual software license for all test equipment applications.
- G. The Contractor shall provide manufacturing drawings of all Special Tools.

6. CHANGE ORDERS

6.1. Proposed Changes in Work Scope (Change Orders)

- A. MBTA may, at any time, direct and implement changes in work scope within the general scope of this Contract by issuing a written Change Order.
- B. The Contractor must promptly make such additions, deletions, or changes in the work when and as ordered in writing by MBTA.
- C. The Contractor may, at any time, submit to MBTA in writing, for review and acceptance or denial, proposed modifications to the Contract Documents which will benefit MBTA.
 - 1. MBTA will review and may accept such modifications. Upon acceptance by MBTA of the proposed changes, MBTA will execute and issue a Change Order.
 - 2. Denial of a proposed modification will neither provide the Contractor with any basis for claim for damages nor release the Contractor from contractual responsibilities.
- D. Unless specifically noted in the Change Order, a change in work will not extend the time of completion of the Contract, change the Contract Price, nor amend the terms and conditions of the Contract Documents.
- E. Where changes require the cooperation of one or more Manufacturers or Suppliers, the Contractor is responsible for such changes and must inform the Manufacturers and Suppliers accordingly, and the changes must be incorporated in all Vehicles unless otherwise agreed to by MBTA.
- F. MBTA's apparent waiver of, or failure to enforce, the provisions within RFP Section 6 for any change in scope of work is not a waiver of requirements of this Section for any other change.

6.2. Costs for Work Scope Changes

- A. Upon receipt of an issued Change Order, the Contractor must, within ten (10) working days, give written notice to MBTA with preliminary determination of how the proposed changes will impact the Project Schedule or Contract Price.
- B. Within 30 days of receiving the Change Order, the Contractor must submit a written Notice to MBTA containing the following information:
 - 1. Description of change and details of work to be done.
 - 2. A statement and justification for any additional time required for the completion of the Contract by reason of the Change Order. The statement of additional time must include a detailed schedule analysis identifying which schedule activities and key milestones are impacted.
 - 3. Comprehensive detail on pricing and costing for Change Order, as per the following:
 - a. Prices must comply with the standards of the Federal Acquisition Regulation (FAR) Part 31 and be based on generally accepted cost standards as established under the (FAR), to include material, labor, overhead and profit.
 - b. The cost detail should be comprehensive and readily traceable into the Contractor's accounting records and underline supporting documentation.
 - c. The Contractor's profit must be disclosed separately, so that a judgment can be made relative to the reasonableness given the technical level of work and the associated risk.
 - i. Profit will be allowed up to a maximum of 10% of the direct cost elements for labor, fringe benefits, and overhead; and up to a maximum of 5% for direct cost elements of material, equipment and other.
 - d. Prices shall be quoted in United States of America dollars (no cents) on a per vehicle basis.
 - e. The comprehensive detail shall include specific information for each type of cost.
 - i. The analysis for labor shall disclose hours by phase/function and total for each employee category. Total hours for each employee category shall be multiplied by the appropriate actual pay rate to compute total labor cost.
 - ii. Materials must be analyzed by type with full description, number of units, unit cost, hours used, hourly cost rate, and total costs.
 - iii. Equipment must be analyzed by type with full description, hours used, hourly cost rate, and total costs.
 - iv. Fringe benefits and overhead rates must be supported by comprehensive computations. Fringe benefit costs must be supported by union agreement rates or company policy. Overhead costs must be supported by audited financial statements.
 - f. Estimated costs shall be approved subject to auditing actual costs at the completion of performing change order services.
- C. Whenever the estimated cost of a change or series of related changes exceeds \$100,000, the Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change.

6.3. Change Order Authorization

- A. A Change Order must receive the written acceptance of the Contracting Officer if it involves:
 - 1. A change to the project timeline or Project Schedule;
 - 2. A change to the Contract Price; or
 - 3. A substantial technique change, including any departure from the Technical Specification or any change to accepted material, design, or equipment.
- B. The Contractor must not proceed with any work out of the scope of the Contract until MBTA gives written authorization.
- C. MBTA will not accept any responsibility for work or services performed without proper authorization.

6.4. Executed Change Orders and Amendments

- A. All Change Orders must be executed in accordance with the terms and conditions of the Contract Documents and the Authority's Policies and Procedures.
- B. All executed Change Orders will become part of the Contract and will constitute the entire agreement between the Authority and the Contractor with regard to any and all costs and time extensions related to Change Order work.
- C. All terms and conditions of the Contract Documents, including the Specifications, remain as previously stated unless so noted in the text of an executed Change Order.
- D. Contractor shall issue invoice(s) for executed Change Order(s) on a per Carborne/Wayside Kit basis at the Milestone corresponding to the Conditional Acceptance of said Carborne/Wayside Kit or at the Conditional Acceptance of the Work defined in the Change Order applicable to that Work, whichever occurs last. Payment will be made in accordance with SECTION 7.0 and the applicable provisions of the Contract.

6.5. Change Status Report

The Contractor shall maintain a record of all Engineering and contractual Change Orders that have been submitted and/or accepted by the Authority.

- A. Changes must be logged and listed on a Change Status Report that identifies the action taken on each change. The Change Status Report shall be updated at least monthly and copies submitted to the Chief Procurement Officer, the Project Manager/Engineer, and the Consultant.
- B. A separate report shall be prepared and updated quarterly, in a form approved by the Contracting Officer, showing the original and revised Contract price per Carborne/Wayside Kit (i) incorporating all additions and deletions to the Contract price; and (ii) showing such additions and deletions on a per Carborne/Wayside Kits basis. Each adjustment to the Contract price on a per Carborne/Wayside Kit basis is subject to the Authority's approval. The adjustment on a per Carborne/Wayside Kit basis shall form the basis on which Milestone payments for Carborne/Wayside Kits shall be paid by the Authority pursuant to Section 7.1 (A)(3).

7. SCHEDULE AND PAYMENTS

7.1. Terms of Payment

A. The following constitutes the method of payment of this Contract:

1. The Authority shall make all payments to the Contractor in United States Dollars.
2. Each Milestone shall be achieved and become eligible for payment when the Contractor completes each such Milestone to the satisfaction of the Authority. The Authority shall make payment of each Milestone by check, ACH, or wire transfer within thirty (30) days after receipt of a properly prepared invoice for that Milestone, which contains sufficient supporting documentation that the Milestone has been achieved and reflects amounts that are actually due and owing to the Contractor.
3. A Milestone shall be achieved and become eligible for payment only in the sequential order listed below in Section 7.3, unless otherwise agreed to in writing by the Authority pursuant to Section 7.3 (Note 1).
4. The Contractor shall provide to the Authority a certificate at the time that the Contractor submits its invoice for completion of each Milestone, certifying the invoice amount is true and accurate, that the Milestone has been achieved, and that the cumulative amount invoiced by the Contractor to date does not exceed the Cumulative Total referenced in Section 7.2 for the milestones achieved to date. Additionally, for payment approval by the Authority, all requests for payment must be in compliance with all requirements of Section 7.1 (A).
5. For payment purposes, the Contractor will adjust all applicable prices on the Milestone payment chart in accordance with any executed Change Order(s), if and as applicable, subject to the Authority's approval.
6. With its request for payment for the first Milestone payment listed in Section 7.3, the Contractor shall submit to the Project Manager for Administration, with a copy to the Technical Project Manager, a cash drawdown forecast indicating the estimated amount of each Milestone payment by month projected through the completion of the Work. This schedule is to be updated quarterly thereafter and submitted to the Project Manager for Administration.

7.2. Schedule of Partial Payments and Milestones

Milestone	Description	% Total	% Cumulative Total
A1	Program Management Plan and Key Personnel approved	2.00%	2.00%

A2	Master Program Schedule approved	1.00%	3.00%
A3	Quality Assurance Program Plan approved and QA Manual completed	1.00%	4.00%
B	Monthly Progress Report and Monthly Schedule Update (48-months) (0.025% per month)	1.20%	5.20%
C	System Safety Program Plan, Preliminary Hazard List and Preliminary Hazard Analysis approved	2.00%	7.20%
D1	Phase 1 Pilot Type 7 (1 Car) FAI approved	0.50%	7.70%
D2	Phase 1 Pilot Type 8 (1 Car) FAI approved	0.50%	8.20%
D3	Phase 1 Pilot Type 9 (1 Car) FAI approved	0.50%	8.70%
D4	Phase 1 Pilot Type 10 (1 Car) FAI approved	0.50%	9.20%
E1	Phase 1: 103 Type 7 vehicles modified and conditionally accepted	3.00%	12.20%
E2	Phase 1: 86 Type 8 vehicles modified and conditionally accepted	2.75%	14.95%
E3	Phase 1: 24 Type 9 vehicles modified and conditionally accepted	1.00%	15.95%
E4	Phase 1: 20 Type 10 vehicles modified and conditionally accepted	1.00%	16.95%
F	Phase 2: Critical Design Review conditionally approved	3.00%	19.95%
G1	Production Plan approved	1.20%	21.15%
G2	Project Field Office and Staff established	1.00%	22.15%
H1	Phase 2: Pilot Type 7 (1 Vehicle modification) FAI completed and approved	1.50%	23.65%
H2	Phase 2: Pilot Type 8 (1 Vehicle modification) FAI completed and approved	1.50%	25.15%
H3	Phase 2: Pilot Type 9 (1 Vehicle modification) FAI completed and approved	1.50%	26.65%
H4	Phase 2: Pilot Type 10 (1 Vehicle modification) FAI completed and approved	1.50%	28.15%
H5	Phase 2: Pilot Locations Wayside (all primary functions) completed and approved	1.50%	29.65%
I	Vehicle and Wayside Installation Documentation approved	3.00%	32.65%
J1	Phase 2: 102 Type 7 vehicles modified (post-installation test successfully completed)	5.10%	37.75%
J2	Phase 2: 85 Type 8 vehicles modified (post-installation test successfully completed)	4.25%	42.00%
J3	Phase 2: 23 Type 9 vehicles modified (post-installation test successfully completed)	1.15%	43.15%
J4	Phase 2: 19 Type 10 vehicles modified (post-installation test successfully completed)	0.95%	44.10%
K1	Phase 2: 103 Type 7 vehicles conditionally accepted	3.09%	47.19%
K2	Phase 2: 86 Type 8 vehicles conditionally accepted	2.58%	49.77%
K3	Phase 2: 24 Type 9 vehicles conditionally accepted	0.72%	50.49%
K4	Phase 2: 20 Type 10 vehicles conditionally accepted	0.60%	51.09%
K5	Phase 2: Equipment to modify 82 Type 10 vehicles delivered	4.92%	56.01%
L1	Wayside equipment delivered for Segment 1 (Medford/Tufts - Lechmere, Union Square - Lechmere)	0.80%	56.81%
L2	Wayside equipment delivered for Segment 2 (Lechmere - North Station)	0.80%	57.61%
L3	Wayside equipment delivered for Segment 3 (North Station - Government Center)	0.80%	58.41%

L4	Wayside equipment delivered for Segment 4 (Government Center - Copley)	0.80%	59.21%
L5	Wayside equipment delivered for Segment 5 (Copley - Northeastern, Copley - Hynes Convention Center)	0.80%	60.01%
L6	Wayside equipment delivered for Segment 6 (Hynes - Blandford Street, Hynes - St. Mary's Street, Kenmore - Fenway)	0.80%	60.81%
L7	Wayside equipment delivered for Segment 7 (Fenway - Reservoir)	0.80%	61.61%
L8	Wayside equipment delivered for Segment 8 (Reservoir - Riverside)	0.80%	62.41%
L9	Wayside equipment delivered for Segment 9 (Blandford Street - Boston College)	0.60%	63.01%
L10	Wayside equipment delivered for Segment 10 (St. Mary's Street - Cleveland Circle)	0.60%	63.61%
L11	Wayside equipment delivered for Segment 11 (Northeastern - Heath Street)	0.60%	64.21%
M1	Acceptance of Wayside equipment in Segment 1	0.80%	65.01%
M2	Acceptance of Wayside equipment in Segment 2	0.80%	65.81%
M3	Acceptance of Wayside equipment in Segment 3	0.80%	66.61%
M4	Acceptance of Wayside equipment in Segment 4	0.80%	67.41%
M5	Acceptance of Wayside equipment in Segment 5	0.80%	68.21%
M6	Acceptance of Wayside equipment in Segment 6	0.80%	69.01%
M7	Acceptance of Wayside equipment in Segment 7	0.80%	69.81%
M8	Acceptance of Wayside equipment in Segment 8	0.80%	70.61%
M9	Acceptance of Wayside equipment in Segment 9	0.60%	71.21%
M10	Acceptance of Wayside equipment in Segment 10	0.60%	71.81%
M11	Acceptance of Wayside equipment in Segment 11	0.60%	72.41%
N	Acceptance of all Training Aids	1.00%	73.41%
K	Back Office equipment installed and accepted by MBTA	2.00%	75.41%
L	All special tools, test equipment approved, delivered, and accepted	1.50%	76.91%
M	Training program complete, all spare equipment delivered, all manuals and maintenance information submitted and approved	3.00%	79.91%
N	Reliability Program (incl. reliability demonstration) complete	2.20%	82.11%
O	System demonstration complete	2.50%	84.61%
P	Final equipment payment; all open items closed	2.50%	87.11%
Q	Performance Monitoring & Operational Tuning complete and operational impacts accepted	7.00%	94.11%
R1	Warranty and warranty support - Year 1	1.09%	95.20%
R2	Warranty and warranty support - Year 2	1.50%	96.70%
R3	Warranty and warranty support - Year 3	1.50%	98.20%
R4	Warranty and warranty support - Year 4	1.80%	100.00%
	TOTAL	100.00%	100.00%

7.3. Basis of Payment

A. Milestones. Basis for payment any milestone shall be as follows:

1. In the event the Contractor has subcontracted any of the Work in accordance with the provision of Section 11.13, the Contractor shall furnish with each request for payment that includes any such subcontracted Work an instrument, in a form acceptable to the Authority and executed by all subcontractors that completed such subcontracted Work, providing for (a) the waiver of all claims against the Authority, and the release of the Authority from claims, associated with the Work performed or the equipment or Materials furnished by each subcontractor, and (b) the release of all right, title and interest in the equipment and/or Materials supplied by each subcontractor for use in or incorporation into the Work.

B. Final Payment. The Contractor's acceptance of final payment shall operate as and shall be a release of the Authority and every member, agent, and employee thereof, from all claims and liability to the Contractor for anything done, furnished for, or relating to the Work, or for any act or neglect of the Authority or any person relating to or affecting the Work, except for those claims previously submitted in writing by the Contractor to the Authority in accordance with the requirements of this Contract, and identified in writing by the Contractor as unsettled at the time of final payment.

Neither final payment nor any remaining retainage shall become due until the Contractor submits to the Authority (1) an affidavit that payrolls, bills for Materials and equipment, and other indebtedness connected with the Work for the Authority might be responsible (less amounts withheld by the Authority) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract remains in force after final payment and will not be cancelled or allowed to expire until at least thirty (30) days' prior written notice has been given to the Authority, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract; and (4) if required by the Authority, other data establishing payment or satisfaction of obligations, such as receipts, release and waivers of liens, claims, or security interests arising out of the Contract, to the extent and in such form as may be designated by the Authority. If a subcontractor refuses to furnish a release or waiver required by the Authority, the Contractor may furnish a bond satisfactory to the Authority to indemnify the Authority against such claim. If such claim remains unsatisfied after payments are made, the Contractor shall refund to the Authority all money that the Authority may be compelled to pay in discharging such claim, including all costs and reasonable attorneys' fees.

C. The price for Capital Spare Parts shall be payable upon Acceptance by the Authority, as provided in Section 5.9. Acceptance or rejection of each item of the Capital Spare Parts shall be made within thirty (30) days of the receipt and approval of each item.

- D. The Authority may, at its sole discretion, deduct from any amount due under the Contract for any milestone an amount equal to the Authority's Liquidated Damages accrued to the date of payment pursuant to Section 7.4.
- E. In the event the Authority pays for any item, Material or Work that is the responsibility of the Contractor, the Authority may deduct the amount so paid from any payment then due to the Contractor.

7.4. Liquidated Damages

The parties agree that time is of the essence under this Contract. Delivery of the Green Line Train Protection System pursuant to Contract Schedule is of paramount importance to the Authority. The parties agree that this Section shall be construed by the parties not as imposing a penalty upon the Contractor for failing fully to complete the milestones by the time prescribed in the approved CPM Master Schedule or the Work as agreed in the Contract, as may be extended pursuant to any Change Order pursuant to Section 6.0, but as liquidated damages to compensate the Authority for damages incurred by the Authority because of the failure of the Contractor to comply with the provisions of the Contract relating to delivery and weight of the Carborne/Wayside Kits and obligations relating to technical assistance and where such costs are difficult to predict at the time of entering into the Contract.

- A. **Delivery Factor.** The amount of agreed liquidated damages to be deducted from the Contract price for failure to complete delivery of the Carborne/Wayside Kits as specified herein and pursuant to the Delivery Schedule shall be fifty dollars (\$50) per day per Carborne Kit and one thousand dollars (\$1000) per day per Wayside Kit. These liquidated damages shall be applied to each Carborne/Wayside Kit for each and every day it is delayed beyond the Delivery Schedule as specified in Section 5.0 of the Contract.
 - a. If any delay occurs, or the Contractor is temporarily unable to perform in accordance with the Contract, due to causes beyond the reasonable control of the Contractor, including, but not limited to, acts of God, acts of government or any government agency, war or war conditions, sabotage, strikes, lockouts, fire, flood, typhoons, hurricanes, explosions, damage to plant, equipment, or facilities not the fault of the Contractor (Force Majeure Event), the Authority shall adjust and extend the time for performance by the Contractor and completion of a milestone or the Work, whichever the case may be, by the number of days affected by the Force Majeure Event as required to take into account the delay and its effect. In the event of a Force Majeure Event, the Contractor shall not be liable for any liquidated damages specified under the Contract or any damages of any kind as a result of said delay for the period of time of the Force Majeure, provided that the Contractor has informed the Authority of the event of the Force Majeure within ten (10) days of such event.
 - b. Permitting the Contractor to continue to deliver Carborne/Wayside Kits after the time fixed for their delivery in the approved CPM Master Schedule, or after the date to which time for delivery may have been extended, shall in no way operate as a waiver on the part of the Authority of any of its rights under the Contract or other available legal remedies.

- B. **Weight Factor.** Liquidated damages may be claimed by the Authority when the weight of the Carborne Kit, fully equipped, as shown by the weight ticket for each Carborne Kit, is in excess of the weight specified by the Authority in the Technical Specifications, modified only by such weight adjustments that may result from design changes requested by the Authority as reflected in Addenda or Change Orders. Liquidated Damages of fifteen dollars (\$15.00) for every pound per Carborne Kit in excess of the referenced weight may be taken as a credit against the price of each Carborne Kit by the Authority.
- C. **Material Availability.** The Authority may also assess liquidated damages during the warranty period in the event the Contractor fails to make available to the Authority an adequate quantity of materials, replacement parts or components necessary to correct defects in either the Authority's equipment or the equipment furnished by the Contractor, its subcontractors, materialmen or vendors. Whenever the Authority discovers a defect that is of such a nature as to require that a Carborne/Wayside Kit be withheld from passenger service, the Technical Project Manager or his designee will give notice the Contractor of the problem, and the Contractor must make available to the Authority such quantity of materials, replacement parts or components as may be reasonably needed to initiate effective corrective action within ten (10) days of notice from the Authority. If the Contractor fails to provide the material, parts or componentry within those ten days, the Authority shall assess against the Contractor an amount of fifty dollars (\$50) per day per Carborne and one thousand dollars (\$1000) per day per Wayside Kit for each and every day the Green Line Train Protection System is out of passenger service until such time as the Contractor initiates effective corrective action on such Carborne/Wayside Kit.
- D. **Payment of Liquidated Damages.** The Authority may deduct from any money due to the Contractor at the time of any milestone payment or to become due to the Contractor at the time of final payment, a sum representing the then-accrued but unpaid liquidated damages. Such deductions shall not be considered a penalty, but as the agreed monetary damages sustained by the Authority because the Contractor was unable to provide Carborne/Wayside Kits that fully complied with the Contract factors described in the paragraphs of this subsection. If the remaining money due to the Contractor under the Contract is insufficient to cover the liquidated damages, the Contractor forthwith shall pay the remaining difference to the Authority. The payment of liquidated damages in no way affects or limits the Authority's rights which it may have at law or equity, including the right to collect damages as provided for in Section 11.9. The maximum percent for all liquidated damages shall not be in excess of 30% of the total Contract Value as adjusted through change order(s).

8. TECHNICAL SPECIFICATION

Technical Specification VE-24-056 and all TS Attachments is posted with this RFP on the Commonwealth of Massachusetts' COMMBUYS site, www.commbuys.com

9. WARRANTY

9.1. Guarantee of End Products (Warranty)

1. The Contractor shall warrant and guarantee the following for all Carborne, Wayside and Back Office Equipment purchased under this Contract:
 - a. For all Carborne, Wayside and Back Office Equipment:
 - i. The equipment for a period of four (4) years from the date of each Carborne, Wayside and Back Office Equipment Conditional Acceptance by the Authority.
 - ii. All special tools for a period of two (2) years from the Authority's Conditional Acceptance date of the last Carborne, Wayside and Back Office Equipment, whichever period is greater.
 - iii. Intentionally Blank
 - iv. All Retrofits for the remainder of the warranty period, or for one (1) year from the date of each Carborne, Wayside and Back Office Equipment Retrofit completion, whichever period is greater.
2. The Contractor shall submit, ninety (90) days prior to the delivery of the Pilot Kit, a Warranty Plan for the Authority's review and approval in accordance with the Technical Specification No. VE-24-056. The Warranty Plan shall describe how the Contractor will manage warranty activities including staffing, modifications, design changes, warranty spare parts, and any other activity necessary to maintain the required availability of the Carborne, Wayside and Back Office Equipment. As such, the Warranty Plan shall include or fulfill at least the following requirements:
 - a. The Contractor's establishment, implementation, and maintenance of procedures for servicing delivered products during the warranty period.
 - b. Procedures shall define Contractor and Subcontractor methods for verifying that warranty service requirements are met.
 - c. Procedures shall delineate the Contractor's servicing and warranty responsibilities in accordance with this Contract.
 - d. The Warranty Plan shall define the amount of warranty spare parts required for the entire warranty period, and where these spare parts will be stored for quick access.
 - e. The Warranty Plan shall also describe how additional parts can be provided upon short notice in case of unexpected Fleet Defects. Under no circumstances shall the Contractor use parts intended for ongoing Carborne, Wayside and Back Office Equipment production and assembly, and under no circumstances shall the Contractor use the Authority's capital spare parts to satisfy warranty needs.

- f. The Warranty Plan shall include a Field Modification Instruction (FMI) Control Plan in accordance with Technical Specification No. VE-24-056.
3. The Contractor warrants and guarantees that the Carborne, Wayside and Back Office Equipment shall strictly conform to the Contract Specification and all other applicable provisions of the Contract. The Contractor further warrants and guarantees against any and all Defects due to faulty design, poor or defective workmanship, and/or poor or defective Material during the foregoing periods of warranty. If any structure, parts, spare parts, retrofits or other item, or any part or parts thereof, are, in the judgment of the Authority, faulty or defective either in design, materials or workmanship during the foregoing periods of warranty, the Contractor shall repair or replace, as the Authority shall specify, such structure, parts, spare parts, retrofits or other item, or any part or parts thereof, without expense to the Authority.
4. The Contractor is responsible for all costs of labor and Materials for Defect identification and location, and for the removal, repair, and/or replacement of defective parts, and for alterations, repairs, tests, and adjustments in connection therewith, made to achieve conformance with the Contract Specification and all other applicable provisions of the Contract. **All work performed by Authority personnel on behalf of the Contractor in connection with this Section and all other applicable sections of the Contract shall be invoiced by the Authority to the Contractor at the established flat labor rate of up to \$108.00 per hour. Actual labor rates will be provided at Notice to Proceed.**

NOTE: In the event the Authority incurs extra costs, including without limitation Consultant costs, which are directly attributable to the Contractor fulfilling its warranty obligations or the Contractor's breach of its warranty obligations, Contractor shall be solely responsible for the total extra costs incurred by the Authority for the related labor, materials, equipment and/or Consultant services, including Consultant efforts reviewing drawings, conducting inspections and monitoring FMI procedures. The remedies included in this paragraph are not exclusive to Section 9.1, and are in addition to those available to the Authority under the Contract and otherwise.

5. During the foregoing periods of warranty, all Carborne, Wayside and Back Office Equipment parts or Materials damaged as the result of a Defect in design, material, or workmanship in other Carborne, Wayside and Back Office Equipment parts or Materials shall be repaired or replaced at the sole expense of the Contractor.
 - a. The Contractor shall, within ten (10) days from its discovery or knowledge of a breach of warranty or from its receipt of notification by the Authority of a warranty claim (whichever occurs first), deliver repaired and/or replacement parts to the Authority. The Authority's prior written authorization is required for a delivery period exceeding ten (10) days.
 - b. The Contractor shall maintain sufficient material necessary to eliminate any extended removal of Carborne, Wayside and Back Office Equipment from passenger service.

- c. The Contractor shall submit, with each repaired part returned to the Authority, a report describing the analysis and corrective work performed.
 - d. The Contractor shall provide to the Authority a failure analysis for each warranty failure.
6. In no case shall any correction of defects in design, material, or workmanship take the form of an increase in maintenance requirements beyond those specified in the Contract, described in the original edition of the maintenance instructions, approved in the Base Line Design, or described in the Contractor's Proposal.
7. Where 5% of the quantity of a warranted item fails, or where 5% of Carborne, Wayside and Back Office Equipment are affected during the warranty period as noted in the Technical Specification, the Authority may classify the total of such items or Carborne, Wayside and Back Office Equipment as a Failure, including those items for which the warranty period expired before the Authority recognized the Failure. The Contractor is responsible for all costs of labor and Materials for Defect identification and location, and for removal, repair and/or replacement of defective parts, and for alterations, repairs, tests and adjustments in connection therewith made to achieve Carborne, Wayside and Back Office Equipment conformance with the Technical Specification and all other applicable provisions of the Contract.
8. All corrective and warranty work and services shall be performed on the Authority's property by the Authority's personnel whenever possible. The Authority shall not, at any time, be charged for required corrective and warranty work performed by the Authority. Where corrective and/or warranty work is performed by the Authority, the expense shall include the cost of parts, materials, including tools and a **flat labor \$108.00 per hour. Actual labor rates will be provided at Notice to Proceed.**
9. The Contractor shall provide one (1) on-site GLTPS Maintenance Supervisor, one (1) GLTPS Project Engineer, and six (6) GLTPS Inspectors to handle and coordinate with the Authority all warranty issues for a period of four (4) years from the date of the first Carborne, Wayside and Back Office Equipment Conditional Acceptance. All personnel must be individually approved by the MBTA. The Signal Maintenance Supervisor shall respond to all issues within one (1) business day of notification. The MBTA expectation is for twenty-four (24) hour, seven (7) day per week support. Minimum qualifications for each position are indicated below:
 - a. The GLTPS Maintenance Supervisor will supervise the operation and maintenance of the Green Line Train Protection System (Carborne & Wayside) and associated equipment system wide.

DUTIES & RESPONSIBILITIES:

- Responsible for planning, scheduling and supervising employees involved in preventative and corrective maintenance programs and related in-house signal system upgrade projects across the system.

- Make frequent inspections of all signal facilities, supervise cutovers, final inspections and testing of all modified and new signal systems.
- Assist in the preparation of the section's budget in accordance with established practices and procedures.
- Coordinate training programs necessary for maintenance of signal equipment.
- Ensure that all work is performed in a timely and cost-effective manner.
- Observe condition of equipment, work in progress and ensure the safe operation of all systems.
- Document all established preventative maintenance procedures (PMP).
- Maintain all procedures, reports and records for safety audits by the Department of Public Utilities (DPU).
- Drive a company or personal vehicle to visit work sites and to assist at emergencies and/or events as needed.
- Work any and all shifts and/or locations as assigned or directed.
- Respond or report to work as directed by supervisory personnel for emergencies, extreme weather conditions, or any other abnormal conditions that impair service or the safety of service, twenty four (24) hour, seven (7) day per week basis.

MINIMUM REQUIREMENTS/QUALIFICATIONS:

- Five (5) years' experience in rail signal construction and maintenance, including experience in the installation, maintenance and repair of wayside block signal systems, supervisory control system and automatic train control systems, automatic vehicle identification and other ancillary systems which make up a complete signal system.
- At least two (2) years of supervisory experience managing a team including but not limited to, motivating and performance management.
- High school diploma or equivalent (G.E.D.) from an accredited institution with the ability to comprehend, communicate and respond to instructions, orders, signs, notices, inquiries, etc. in English.
- Effective organizational, analytical and confidentiality skills.
- The ability to use Word, Excel or database applications.
- Effectively communicate with regulatory agencies, community organizations and others on technical and sensitive matters.
- The ability to pass: background screenings; a Criminal Offender Record Information (CORI) check; and the MBTA's medical requirements, including a physical examination and drug and alcohol screening.
- Have excellent customer service and conflict resolution skills.
- Ability to provide internal and external customers with a courteous and professional experience.
- Have a satisfactory work record including overall employment, job performance, discipline and safety records.
- The ability to work any and all shifts and/or locations as assigned or directed

- Be available to work twenty four (24) hours per day, seven (7) days per week.
 - Have the ability to supervise and work effectively with a diverse workforce.
- b. The Green Line Train Protection System (GLTPS) Project Engineer must understand the technical functional, operational and commercial requirements effecting the implementation of GLTPS at the MBTA with emphasis on the Signals and Train Control Segment of GLTPS. The Signals and Train Control Segment of GLTPS includes the following:
- i. Wayside Absolute Block Signal System

The Green Line Train Protection System (GLTPS) Project Engineer must be technically capable to support the signals and train control engineering needs of this project. The position may require that work be performed on non-regular hours to accommodate access to railroad right-of-way.

DUTIES & RESPONSIBILITIES:

- Oversee and manage any of the numerous technical and administrative aspects of GLTPS implementation.
- Comprehend, communicate and provide direction on all elements of GLTPS which include: vehicle on-board train control systems, wayside signal systems and interface with GLTPS, communications systems interface with GLTPS and operations control center interface with GLTPS.
- Have an understanding of the MBTA's Commuter Rail operations and maintenance activities and the impact the new GLTP system will have.
- Gain a working knowledge of the railroad and its disciplines: Rolling Stock, Infrastructure and Operations.
- Be responsible for management and oversight and direct involvement with the GLTPS project design, testing, construction and system certification.
- Technical competence and the ability to manage within the MBTA's work environment.
- Ability to develop operations and maintenance documents, maintenance plans, training plans and support other activities in connection with the implementation of GLTPS.
- Maintain close oversight of all schedules, report progress, and provide technical summaries of the GLTPS Program, develop material to present GLTPS updates to MBTA staff, have a "real-time" connection to the project.
- Drive a company or personal vehicle to visit work sites and to assist at emergencies and/or events as needed.
- Respond to each inquiry, whether from a customer, vendor or co-worker in a professional and courteous manner.
- Work any and all shifts and/or locations as assigned or directed.
- Respond or report to work as directed by supervisory personnel for emergencies, extreme weather conditions, or any other abnormal conditions that impair service or the safety of service, twenty-four (24) hours per day, seven (7) days per week.

- Adhere to the rules, regulations, collective bargaining agreements (if applicable) and policies of the Authority including the EEO, Anti-Discrimination and Anti-Harassment and Anti-Retaliation policies
- Perform related duties and projects as assigned.

MINIMUM REQUIREMENTS/QUALIFICATIONS:

- Three (3) years of recent experience in railroad or transit signal systems or train control systems infrastructure maintenance and engineering for an organization with similar infrastructure (highway or airline) and work requirements.
- Bachelor's degree from an accredited institution in Mechanical or Electrical Engineering or a related field.
- One (1) years project management experience.
- Comprehension of technical materials, test plans and other data used to validate designs and progress through testing to implementation of the system.
- Effective analytical, organizational, multi-tasking, conflict resolution and time management skills.
- Working knowledge of MS Word, MS PowerPoint and MS Excel.
- Ability to pass: background screenings; a Criminal Offender Record Information (CORI) check; and the MBTA's medical requirements, including a physical examination and drug and alcohol screening.
- Have excellent customer service and presentation skills.
- The ability to provide internal and external customers with a courteous and professional experience.
- Have the ability to work any and all shifts and/or locations as assigned or directed.
- Be available to work twenty four (24) hours per day, seven (7) days per week.
- Have the ability to supervise and work effectively with a diverse workforce.

- c. The GLTPS Inspector will assign, oversee, direct and assist with the activities of the work crew(s) under his/her jurisdiction.

DUTIES & RESPONSIBILITIES:

- Responsible for the testing, maintenance, repair and installation of carborne and wayside control equipment as required for automatic train operation, block signal systems, and other related equipment.
- Responsible for the construction, installation, testing, maintenance, and repair of a variety of equipment/systems/projects at miscellaneous Authority locations.
- Plan, order, schedule and expedite the procurement of all materials and equipment necessary to complete area projects, ensuring that all inventory is accounted for and safeguarded and that equipment and facilities under his/her control are protected and maintained in a safe operating condition.

- Use manual and/or automated systems for the preparation, documentation and maintenance of records detailing equipment usage, breakdowns, accidents and maintenance.
- Perform any signal equipment test to industry standards, such as MTBA's SM1 and SM2, manufacturers' equipment manuals, AREMA, FRA and DOT.
- Measure actual work results against established standards or custom requirements.
- Drive a company or personal vehicle to visit work sites and to assist at emergencies and/or events as needed.
- Respond to each inquiry, whether from a customer, vendor or coworker in a professional and courteous manner.
- Work any and all shifts and/or locations as assigned or directed.
- Respond or report to work as directed by supervisory personnel for emergencies, extreme weather conditions, or any other abnormal conditions that impair service or the safety of service, twenty four (24) hours per day, seven (7) days per week.
- Assist in the management of a workforce by ensuring the fair and consistent application and strict adherence to the rules, regulations, collective bargaining agreements (if applicable) and policies of the Authority including the EEO, Anti-discrimination, Anti-harassment and Anti-retaliation policies.
- Perform related duties and projects as assigned.

MINIMUM REQUIREMENTS/QUALIFICATIONS:

- Five (5) years' experience in rail signal construction and maintenance, including experience in the installation, maintenance and repair of wayside block signal systems, supervisory control system and automatic train control systems, automatic vehicle identification and other ancillary systems which make up a complete signal system.
- Ability to inspect job sites to ensure compliance with work schedules, standards of quality and safety requirements.
- Working knowledge of AC and DC electrical distribution systems.
- High school diploma or equivalent (G.E.D.) from an accredited institution with the ability to comprehend, communicate and respond to instructions, orders, signs, notices, inquiries, etc. in English.
- Effective organizational, analytical and confidentiality skills.
- The ability to use Word, Excel or database applications.
- Effectively communicate with regulatory agencies, community organizations and others on technical and sensitive matters.
- The ability to pass: background screenings; a Criminal Offender Record Information (CORI) check; and the MBTA's medical requirements, including a physical examination and drug and alcohol screening.
- Have excellent customer service and conflict resolution skills.
- Ability to provide internal and external customers with a courteous and professional experience.

- Have a satisfactory work record including overall employment, job performance, discipline and safety records.
 - The ability to work any and all shifts and/or locations as assigned or directed
 - Be available to work twenty four (24) hours per day, seven (7) days per week.
 - Have the ability to supervise and work effectively with a diverse workforce.
10. Any repair or retrofit work required to fulfill the Contractor's warranties and guarantees under the Contract shall be accomplished with minimum disruption to the Authority's operation and its maintenance facility. The MBTA shall give the Contractor notice of a Defect promptly in light of the relevant circumstances when and if the MBTA discovers the Defect, and reasonable access to the defective part(s). Contractor warranty obligations may terminate if the Contractor can demonstrate to the MBTA that the defective part(s) has been materially changed or altered without the Contractor's knowledge.
11. If a Carborne/Wayside Kit is removed from passenger service for five (5) days or more for warranty, repair, replacement, and/or Retrofit work, the duration of the time that the Carborne/Wayside Kit is removed from service will extend the warranty period accordingly.
12. Due to the regular maintenance demands on the Authority's facilities and on the Authority's operation personnel, it may be possible to undertake only minimal adjustment, repair, replacement, or Retrofit work on Carborne/Wayside Kits or equipment prior to Final Acceptance. The Contractor shall, in such an event, be responsible for securing facilities and personnel to complete all such required additional work for the duration of the Contract.
13. All replaced and/or repaired items are warranted and guaranteed by the Contractor for the remainder of the warranty period or for one (1) year from the date of the repair or replacement, whichever period is greater.

9.2. Repair Procedures

The Contractor is responsible for all warranty-covered repair work. To the extent practicable, the Authority will allow the Contractor or its designated representative to perform such work. At its discretion, the Authority may perform such work if the Authority determines it needs to do so based on transit service or other requirements. Such work shall be reimbursed by the Contractor.

If the Authority detects a defect within the warranty periods (including extended warranty periods), it shall within 20 working days, notify the Contractor's representative. Within 5 calendar days after receipt of notification, the Contractor's representative shall be provided an opportunity to examine the system or component at the Authority's property or at the Contractor's plant. No later than 5 calendar days after receipt of notification, warranty coverage on the subsystem or component shall be mutually resolved between the Authority and the Contractor. Work shall commence to correct the Defect within 5 working days after receipt of notification.

When warranty repairs are required, the Authority and the Contractor's representative shall agree within 5 working days after notification on the most appropriate course for the repairs and the exact scope of the repairs to be

performed under the warranty. If no agreement is obtained within the 5-day period, the Authority reserves the right to commence the repairs in accordance with *Repairs by Authority*.

Warranty shall include diagnosis of the issue and removal and replacement of component(s).

Repairs by Authority:

- a. **Parts Used:** If the Authority performs the warranty-covered repairs, it shall correct or repair the Defect and any Related Defects utilizing parts supplied by the Contractor specifically for this repair. At its discretion, the Authority may use Contractor-specified parts available from its own stock if deemed in its best interests.
- b. **Contractor Supplied Parts:** The Authority may require that the Contractor supply new parts for warranty-covered repairs being performed by the Authority. These parts shall be shipped prepaid to the Authority from any source selected by the Contractor within 10 working days of receipt of the request for said parts. Parts supplied by the Contractor shall be Original Equipment Supplier (OEM). All parts shall include hardware, bolts, nuts, washers and associated accessories that are normally supplied when replacement parts or kits are purchased.
- c. **Defective Components Return:** The Contractor may request that parts covered by the warranty be returned to the manufacturing plant. The total cost for this action shall be paid by the Contractor. Materials should be returned in accordance with Contractor's instructions.

10. QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) REQUIREMENTS

10.1. Project Quality Assurance Plan

- A. The Contractor shall establish, implement and maintain an effective Quality Assurance Program and staff to ensure that the Carborne/Wayside Kits and other End Products meet, and are in full compliance with, all requirements of the Contract Specification.
- B. The Contractor shall also require each Subcontractor and Supplier to maintain an effective Quality Assurance Program for the items and Work it furnishes to the Contractor. The Quality Assurance of Material provided and Work completed shall be the sole responsibility of the Contractor.
- C. Within ninety (90) days after Notice to Proceed, the Contractor shall submit to the Authority for its acceptance, a finalized and detailed written Quality Assurance Plan as specified in Technical Specification No.VE-24-056.
- D. The Contractor shall supply, upon request by the Authority, and at the sole cost of the Contractor, the design engineer(s) from the suppliers of equipment failing to comply with the Contract, including without

limitation the Technical Specification. Said engineer(s) shall attend and participate in meetings, recommend solutions and, if requested by the Authority, shall assist in implementing these solutions.

- E. The Authority shall have the right, but not the obligation, to audit and verify compliance with the Quality Assurance Plan throughout the Contract at the Contractor, Subcontractor, and Supplier facilities. The Contractor shall coordinate with Subcontractors and Suppliers for Authority audits on an individual basis.
- F. The costs of the Authority's inspections and compensation to Authority inspection personnel and authorized representatives shall be the responsibility of the Authority, and no provision for these costs shall be included in the Proposal.
- G. The Offeror shall provide details of its proposed Quality Assurance Program with its Proposal. The Contractor shall submit for Authority review and approval its proposed Project Quality Assurance Plan (PQAP) at the Kickoff Meeting.

10.2. Management Responsibility

The Contractor shall define and document a quality policy and communicate, implement and maintain that policy at all levels of their organization. The Contractor shall designate a representative who shall have defined authority and responsibility for ensuring that the Quality policy is implemented and maintained. The Contractor shall identify those persons responsible for each quality function and shall define in writing the responsibility, authority and interrelation of those persons.

The Contractor shall provide an organization chart identifying project personnel who have responsibility for ensuring or controlling quality and their interrelationships with the Contractors project management team.

In particular, the organizational chart must identify personnel who have responsibility to initiate action to prevent quality problems, to identify and record quality problems, to initiate solutions through appropriate channels, and to verify implementation of solutions to quality problems.

The Personnel responsible for assuring quality must be independent of those having responsibility for the work being performed and shall report to the Contractor's top management.

10.3. 10.3. Production Plan

The Contractor shall establish and utilize procedures for control of components/assemblies fabricated by the Contractor or Subcontractor, and/or procured by the Contractor or Subcontractor.

The Contractor's Material Procurement and Control Plan shall define procedures and processes that will be utilized by the Contractor for material procurement and control. At a minimum, the plan must identify procedures and processes for the following:

Supplier control: The Contractor shall require each Supplier to maintain a quality control program for the services and supplies that it provides. The Contractor's quality assurance organization shall inspect, and test materials provided by Suppliers for conformance to specification requirements. Materials that have been inspected, tested and approved shall be identified as acceptable to the point of use in the manufacturing or assembly processes. Controls shall be established to prevent inadvertent use of nonconforming materials. Requirements must be provided for additional testing in the event that nonconforming materials are identified.

Purchasing data: The Contractor shall verify that all applicable specification requirements are properly included or referenced in purchase orders of articles to be used on transit buses.

Material Identification and Accountability, through all stages of the overhaul process. Individual components/assemblies or lots shall retain unique identification and indicate their acceptance, rejection, or uninspected status.

At the Authority's request, the Contractor shall coordinate communications, conference calls, or meetings between the Authority, the Contractor, and any sub-suppliers. The Contractor shall coordinate and/or participate in source inspection(s) of sub-supplier parts, processes, and facilities as appropriate and at any time requested by the Authority.

10.4. Control and Calibration of Measurement Tools and Test Equipment

The Contractor and any Subcontractors shall establish and utilize control and calibration procedures to ensure that only calibrated measurement tools jigs, patterns, and test equipment are used.

The Contractor shall provide and maintain the necessary gauges and other measuring and testing devices for use by the quality assurance organization to verify that the buses conform to all specification requirements. These devices shall be calibrated at established periods against certified measurement standards that have known, valid relationships to national standards.

When production jigs, fixtures, tooling masters, templates, patterns and other devices are used as media of inspection, they shall be proved for accuracy at formally established intervals and adjusted, replaced or repaired as required to maintain quality.

The Contractor's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.

The Contractor and any Subcontractors shall keep on file a certification of calibration for all measurement tools and test equipment.

Calibration status, including calibration due date, must be marked on all measurement tools and test equipment.

Inspection and test records must include the identification and calibration status of all measurement tools and test equipment used.

Measurement tools and test equipment must be suitably stored to ensure continued accuracy and fitness for use.

Control and calibration procedures must contain provisions for determining the validity of previous measurements and tests and taking appropriate corrective action if measurement tools or test equipment are found out of calibration.

10.5. Inspection and Test Status

The Contractor shall identify by suitable means the inspection and test status of products throughout the work process so that only acceptable parts are used. The Contractor's Project Quality Assurance Plan must identify the inspection authority responsible for releasing parts as conforming at each stage of the work.

10.6. Controlling Nonconforming Products and Services

The Contractor shall establish and maintain a procedure to prevent the inadvertent use of nonconforming materials and shall include:

- The quality assurance organization shall monitor the Contractor's system for controlling nonconforming materials. The system shall include procedures for identification, segregation and disposition;
- Nonconforming materials must be segregated from acceptable items; Control and Disposition of Nonconforming Materials, to prevent inadvertent use or installation of defective components/assemblies; Suppliers of nonconforming material shall be notified of the nonconformance and the Contractor shall work with the Supplier or identify a new Supplier to prevent recurrence of the defect; and,
- The Contractor shall establish Material Review staff, comprised of qualified individuals, to review and dispose of nonconforming materials, recommend corrective actions to prevent recurrence of the defect, and verify that corrective actions have been implemented.

In any case, the Contractor remains solely responsible to prevent unauthorized use of nonconforming material.

10.7. Corrective and Preventive Action

The difference between corrective and preventive action must be clearly expressed in the Contractor's Project Quality Assurance Plan.

Corrective Action procedures must address actual nonconformities that have occurred.

Preventive Action procedures must address the potential for nonconformity to occur in the future.

The Contractor shall establish and maintain procedures for taking corrective and preventive action that is appropriate to the size of the problems and commensurate with the risks that they present.

Corrective Action procedures must be effective in handling complaints from nonconformance reports and from all entities, including the MBTA. Methods must include problem analysis, recording results, determining the most effective corrective action, verifying that corrective actions have been taken, and are effective. Problem analysis,

root cause investigation, and Corrective Actions shall be appropriately documented and reported to the Authority in a timely manner.

Preventive Action procedures must require use of all available information to eliminate potential sources of nonconformity. Methods must include data and information analysis, determining the best approaches to preventing nonconformity, implementing and ensuring effectiveness of preventive action plans, and forwarding significant details of actions taken for review by management.

10.8. Use of Statistical Techniques

Statistical quality control applications used in acceptance of parts, materials, or processes by the Contractor must be fully documented and based on generally recognized and accepted statistical quality control methods and defined in the Contractors Project Quality Assurance Plan.

10.9. Documentation

All reports, plans, programs, procedures, schedules, and other materials prepared for the Contract work to be performed by the Contractor or any Subcontractors shall be the property of the Authority. The Authority shall be entitled to copies and access to these materials during the progress of the Contract. All such reports, plans, programs, procedures, schedules, and other materials must be readily accessible to the Authority.

10.10. Training

The Contractor shall establish and maintain procedures for identifying the training needs, and provide for the training of all personnel performing activities affecting quality.

The Contractor shall maintain training and qualification records of all personnel assigned to bus manufacturing tasks covered by this contract.

10.11. Field Service Engineering Support

- A. The Contractor shall furnish the services of two or more, as mutually agreed upon, qualified, factory trained, English-speaking, Field Service Engineers for assistance during installation, inspection, operation, testing and adjustment of the Contractor furnished equipment, to ensure satisfactory performance, and to advise a reasonable number of the Authority's employees in the proper use and care of the equipment. At least one Field Service Engineer should be assigned to Carborne installations and at least one Field Service Engineer should be assigned to Wayside installations. Actual work schedule will be established on a monthly basis but will be flexible enough to allow for training and technical support to allow for a 24 hour a day, 7 day a week operation.
- B. The Contractor shall have a Field Service Engineer available on-site (a) within twenty-four (24) hours of the Contractor's receipt of a request for service from the Authority, during the period from Delivery of the first Carborne/Wayside Kit to one year following Acceptance for passenger service of the last Carborne/Wayside Kit, and (b) within seventy-two (72) hours of the Contractor's receipt of a request for service from the Authority during the warranty period. The Contractor shall have on-site an appropriate inventory of warranty spare parts to comply with material availability requirements of Section 7.4C.

NOTE: The Authority's material inventory or spare parts shall not be available to the Contractor for purposes of its compliance with this requirement.

- C. The Contractor shall supply on-site, upon request by the Authority, and at the sole cost of the Contractor, the design engineer(s) of equipment failing to comply with the Contract, including without limitation the Contract Specification. Said engineer(s) shall attend and participate in meetings, recommend solutions and, if requested by the Authority, shall assist in implementing these solutions. The Field Service Engineer shall have sufficient support staff and technicians to test, commission, and troubleshoot the delivered system. The Field Service Engineer shall increase its staff if field modifications are required.
- D. The Field Service Engineers shall have sufficient support staff and technicians to test, commission, and troubleshoot the delivered system. The Field Service Engineers shall increase their staff if field modifications are requires.
- E. cost of the Field Service Engineer(s) shall be included in the Contract Price.

10.12.First Article Inspections Procedures and Test Specifications

- A. Thirty (30) days prior to commencement of any system, subsystem, or component First Article Inspection (FAI) or scheduled test, the Contractor shall submit for the Authority's review and approval detailed Procedures and Test Specifications to which the system, subsystems, or components shall be manufactured.
- B. All Work done and all material furnished under this Contract shall be in full accordance with the Contract and Contract Specification and shall be subjected to thorough inspection by the Authority.
- C. The Authority shall be notified whenever Work is to begin or is to be resumed on this Contract. Authorized representatives of the Authority shall be permitted access to all points of the work during the Contractor's or subcontractors' working hours. All work shall be subject to inspection by the Authority and shall be pursued in a systematic manner. The presence of the Inspector shall not lessen the obligation of the Contractor or applicable subcontractor for performance of his Work in accordance with the Contract requirements, or be deemed a defense on the part of the Contractor or subcontractor for infraction thereof. The Authority shall have the right to reject all material and workmanship which does not fully conform to the Contract or approved Procedures and Test Specifications.
- D. The Authority reserves the right to inspect and approve each component and any completed part of the Work before similar work is undertaken by the Contractor. Any discrepancies or variations from the Contract Specification and/or drawings, except those previously approved, which inspection may reveal, shall be corrected prior to proceeding with the additional systems, subsystems or components, or the installation of the Carborne/Wayside Kits. This First Article approval procedure shall be continued until the Carborne/Wayside Kits are completed and approved by the Authority.
- E. Refer to Technical Specifications VE-24-056 for further FAI requirements.

10.13. Carborne/Wayside Kit Inspections and Tests

- A. All Work done and all material furnished under this Contract shall be in full accordance with the Contract and Contract Specification and shall be subjected to thorough inspection by the Authority, in addition to the inspection and quality assurance requirements on the Contractor.
- B. The Authority shall be notified whenever Work is to begin or is to be resumed on this Contract. Authorized representatives of the Authority shall be permitted access to all points of the work during the Contractor's or applicable subcontractors' working hours. All work shall be subject to inspection by the Authority and shall be pursued in a systematic manner. The presence of the Inspector shall not lessen the obligation of the Contractor or Subcontractor for performance of his work in accordance with the Contract requirements, or be deemed a defense on the part of the Contractor or Subcontractor for infraction thereof. The Authority shall have the right to reject all material and workmanship which does not fully conform to the Contract or approved Procedures and Test Specifications.
- C. If, during the Carborne/Wayside Kit's manufacture, the Authority finds any item which is not in accordance with the Contract, no further or similar non-conforming Work shall be done by the Contractor or the Subcontractor involving that item until further decision is made by the Authority. The Contractor shall submit pertinent data for the Authority's review and approval of said item. The Authority shall endeavor to respond promptly within ten (10) working days of its receipt. The Authority's approval of said item shall not be unreasonably withheld.
- D. The Authority reserves the right to inspect and approve each component and any completed part of the work before similar work is undertaken to comply with the manufacturing schedule. Any discrepancies or variations from the Specifications and/or drawings, except those previously approved, which inspection may reveal, shall be corrected by the Contractor prior to proceeding with the additional systems, subsystems or components, or the installation of new systems.
- E. Further information about the Authority's resident inspectors at the Contractor's manufacturing and assembly site(s) can be found in Section 3.22

10.14. Manuals

The Contractor shall provide complete maintenance, operational, and parts manuals as described in Technical Specification VE21-054 Section 5.6 to the Authority.

In the event that any significant changes to the vehicle (components, systems, or configuration) are made after the approval of the final manuals, updated manuals or modified page inserts (hard copy and electronic) shall be provided by the Contractor.

10.15. Software Configuration Control

The Contractor shall provide a robust Software Configuration Control and Version Control system following the latest revision of IEEE 12207 configuration management standards to track, audit, and manage, all software revisions. This shall include a standard submittal form ensuring revisions are properly implemented and notification of Authority Technical Project Manager; the submittal form must at minimum include the following information:

- a. Existing (legacy) revisions
- b. Proposed revisions,
- c. Gross and net effects,
- d. Implementation schedules
- e. Follow up/verification of proper system function
- f. Monitoring of interconnecting systems.

(Refer to TS 10.6 Software Configuration Control for additional requirements)

11. CONTRACT TERMS AND CONDITIONS

Upon execution by the Contractor, these Terms and Conditions will be incorporated by reference into any Contract executed by the Contractor and the Massachusetts Bay Transportation Authority (MBTA), in the absence of a superseding law or regulation requiring a different Contract form. Performance shall include services rendered, obligations due, costs incurred, commodities and deliverables provided and accepted by the MBTA, programs provided or other commitments authorized under a Contract. A deliverable shall include any tangible product to be delivered as an element of performance under a Contract. The MBTA is entitled to ownership and possession of all deliverables purchased or developed with MBTA funds.

11.1. Contract Effective Start Date

Notwithstanding verbal or other representations by the parties, or an earlier start date indicated in a Contract, the effective start date of performance under a Contract shall be the date a Contract has been executed by an authorized signatory of the Contractor, the MBTA, a later date specified in the Contract or the date of any approvals required by law or regulation, whichever is later.

11.2. Personal Liability of Authority Official

In carrying out any of the provisions of the Contract, or in exercising any power or authority granted to them or within the scope of the Contract, there shall be no liability upon the Board of Directors, the Director of Materials Management, or authorized representatives thereof, either personally or as officials of the MBTA, it being understood that in all such matters they act solely as agents and representatives of the MBTA.

11.3. Hiring of MBTA Retirees

Bidder shall certify that, if awarded the Contract, it will comply with the MBTA's Hiring of Retirees Policy. The MBTA's Hiring of Retirees Policy prohibits the Authority from contracting with the MBTA retiree or an employment agency for the MBTA retiree's direct services. Bidder's requirements are stated herein. The Bidder is required to notify the MBTA as part of the bidding process that a MBTA retiree will be included as a member of its team. The Bidder shall provide the name and date of retirement of each MBTA retiree on the team. Every MBTA retiree working for the MBTA under this condition shall do so in accordance with M.G.L., Chapter 268A, Section 5. After award, Bidder is required to provide immediate notification of the arrival or departure of all MBTA retirees, and periodic updates upon request by the MBTA, throughout the life of the contract.

11.4. Headings Not Binding

The headings appearing at the beginning of the articles, sections, parts, paragraphs or subparagraphs in this Contract have been inserted for identification and reference purposes only.

11.5. Binding Effect

This Agreement shall be binding upon and shall inure to the benefit of the respective successors and permitted assigns of the Contractor and the MBTA.

11.6. Precedence of Documents

The contract shall consist of the documents detailed below. In the event of any inconsistency between any requirement or provision of the Contract, the inconsistency shall be resolved by giving precedence, in descending order, to the following:

1. Contract Documents
 - a. Form of Contract and any executed Change Orders and Amendments.
 - b. Addendum(a) and/or Proposal Modification & Clarification Guideline(s) to the Contract Documents, Conformed RFP Contractual Provisions, Conformed General Requirements and Covenants for Equipment Procurement and Conformed Request for Proposal including Attachments
 - c. General Requirements and Covenants for Equipment Procurement and Standard Equipment Procurement Specifications including Attachments
 - d. Conformed Technical Specification and Attachments
 - e. Contract Drawings
 - f. Bonds/Certificates, Certificates of Insurance, Affidavits and other forms as pertinent
 - g. Contractor's Proposal

(23) Change Order(s) & Amendment(s)

Any Change Order and Amendment that is subsequently executed shall make reference to become a part of this Contract and shall take precedence as applicable.

The Contractor shall not take advantage of any apparent error or omission in the Contract Documents. In the event the Contractor shall discover such an error or omission, the Authority shall immediately be notified. The Authority shall then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Contract.

The individual documents comprising the Contract Documents are complementary and are intended to describe the work. Anything mentioned in the Specifications (Technical Provisions) and not shown on the Contract Documents, or shown on the Contract Documents and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the work.

The Contractor shall verify all figures on the Contract Drawings before commencing the work; shall promptly notify the Engineer of any errors, inconsistencies, or omissions which may be discovered; and obtain specific instructions in writing before proceeding with the work. Omission from Contract Drawings or Specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the Contract Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted work (no matter how extensive) or misdescribed details of the work and they shall be performed as if fully and correctly set forth and described in the Contract Drawings and Specifications at no additional expense or delay to the Authority.

11.7. Payments and Compensation

The Contractor shall only be compensated for performance delivered and accepted by the MBTA in accordance with the specific Terms and Conditions of a Contract. Overpayments shall be reimbursed by the Contractor or may be offset by the MBTA from future payments in accordance with state finance law. Acceptance by the Contractor of any payment or partial payment, without any written objection by the Contractor, shall in each instance operate as a release and discharge of the MBTA from all claims, liabilities or other obligations relating to the performance of a Contract.

11.8. Contractor Payment Mechanism

All Contractors will be paid using the MBTA invoicing system and Contractor will submit its invoice with all supporting documentation as prescribed in a Contract. The MBTA shall review and return rejected invoices within fifteen (15) days of receipt with a written explanation for rejection, provided that payment periods listed in a Contract of less than thirty (30) days from the date of receipt of an invoice shall be effective only to enable the MBTA to take advantage of early payment incentives and shall not subject any payment made within the thirty (30) day period to a penalty.

11.9. Contract Termination, Suspension, Force Majeure

The Contract shall terminate on the date specified in the Contract, unless this date is properly amended in accordance with all applicable laws and regulations prior to this date, or unless terminated or suspended under this Section upon prior written notice to the Contractor.

1. Termination for Convenience by MBTA

The MBTA may terminate or suspend, in whole or in part, this Contract without cause and without penalty if the MBTA determines that a termination is in the MBTA's best interest, or in the event of an elimination of an appropriation or availability of sufficient funds for the purposes this Contract, or in the event of an unforeseen public emergency mandating immediate MBTA action.

- A. The MBTA shall effect such termination by delivering to the Contractor a Notice of Termination specifying the extent of the termination and the effective date. By the effective date specified in the Notice of Termination, the Contractor shall stop Work on that portion of the Work being terminated.
- B. The Contractor shall be paid an amount, reflecting (1) the portion of completed Work for that milestone in accordance with Section 7.3 accepted by the MBTA prior to effective date of the termination, but not previously paid for, (2) costs incurred by the Contractor in the performance of the incomplete Work terminated prior to the effective date of the termination, but excluding any costs attributable to work previously paid by the MBTA or to be paid for completed work, (3) reasonable close-out costs, and (4) profit on such costs determined to be fair and reasonable under the principles outlined in Section 49.202 of the Federal Acquisition Regulations (FAR). Profit on close-out costs and anticipatory profits shall not be paid. The cost principles of Part 31 of the FAR shall govern all costs claimed, agreed to, or determined by the MBTA under this subsection. No amounts shall due under this subsection; however, until the Contractor has fully complied with Section 11.9, 1 (D) below.

- C. The Contractor shall within three (3) months of receipt of the Notice of Termination submit its termination claim for payment to the MBTA. Other than the time period within which to make such a claim, any termination claim by the Contractor shall proceed in accordance with Section 3.9.
- D. At the time of termination, if the Contractor has any of the MBTA's property in its possession, the Contractor shall account for the same in a written inventory to the MBTA, and then dispose of it in the manner the MBTA directs. The Contractor shall transfer title to the MBTA and deliver in the manner, at the times, and to the extent, if any, directed by the Contracting Officer the fabricated or unfabricated parts, Work in process, completed Work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated, and the completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been furnished to the MBTA.

2. Termination for Cause

- A. The following shall constitute an Event of Default by the Contractor under this Contract:
 - 1. Failure to adhere to the Delivery Schedule in accordance with Section 5.0 or any extension approved by the Authority and reflected in a Change Order;
 - 2. Failure to make progress in the prosecution of the Work, so as to endanger performance of the Contract, including by refusing or failing to supply enough properly skilled workers or proper materials;
 - 3. Repeated disregard of applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority;
 - 4. Breach of any material term of the Contract, including a failure to perform Work in accordance with the Contract documents;
 - 5. The Contractor becomes insolvent or files a petition seeking to be declared bankrupt or commits any act which, within the jurisdiction, constitutes a basis for being declared bankrupt or insolvent;
 - 6. Expiration or termination of the Performance Guarantee required under Contract Section 3.13; or
 - 7. The Contractor has wrongfully ceased Work so as to abandon the Work.
- B. Upon an Event of Default, the Authority has the full power and authority to declare the Contractor to be in default and to issue to the Contractor and its surety/sureties a written Notice of Default.

- C. Upon an Event of a Default by the Contractor for grounds specified in Section 11.9(2)(A)(1), (2), (3), (5) and (6), the Notice of Default shall provide that the Contractor shall have twenty-one (21) calendar days to cure the event(s) constituting the Event of Default or, if such default is curable but not within twenty-one (21) days, then within such time as may be reasonable under the circumstances as determined by the Authority in its sole discretion. If the Contractor fails to so cure within the prescribed time period, the Authority at its option may exercise its right to immediately terminate the Contract or a portion of the Work thereunder by delivery to the Contractor of a Notice of Termination or Partial Termination.
- D. Upon an Event of Default for reasons specified under Section 11.9 (2)(A)(4), the Authority has the right to terminate the Contract immediately.
- E. Upon the effective date of the termination, the Contractor shall discontinue all Work, or any part thereof, under this Contract in accordance with the Notice.
- F. In case the Performance Guarantee was provided in form of an Irrevocable Stand-By Letter of Credit, upon declaration of default as provided in Section 11.9(2)(B) and (3), the Authority shall also have the right to immediately present the Irrevocable Stand-By Letter of Credit for payment of such amount as the Authority in its sole discretion deems proper, including in the entire amount of such Irrevocable Stand-By Letter of Credit. Upon payment to the Authority, the Authority may hold the amount received under the Irrevocable Stand-By Letter of Credit as security (1) to recover all losses and damages, including but not limited to the costs of procuring substantially the same Work provided for in this Contract or, (2) in its sole discretion, take over completion of the Work by procuring other materials, plants, tools, appliances, equipment, supplies and property for the completion of the Work required under the Contract, or such part thereof, and to deduct the expense of said labor and materials, plants, tools, appliances, equipment, supplies and property from the amount received under the Irrevocable Stand-By Letter of Credit.

If the amount of the Irrevocable Stand-By Letter of Credit, together with any amount that may be owed by the Authority to the Contractor is more than the amount required to secure the Authority's damages, including accrued liquidated damages, or the Authority's right to complete the Work or any portion thereof, then the excess of such amount shall be paid to the Contractor. If the amount is insufficient, the Contractor shall forthwith pay to the Authority the excess, if any, of the cost to the Authority the amount to compensate the Authority for its damages or the cost to the Authority to complete the Work or any portion thereof.

- G. In case the Performance Guarantee was provided in form of Performance Bond, upon declaration of Default as provided in Section 11.9(2)(B) and (3), the Authority shall also have the right to have the surety/sureties contract the work or to contract for the completion of the work, to procure other materials, plant, tools, appliances, equipment, supplies and property for the completion of the same.

If the expense to the Authority of completing the work (including the expense of procuring other materials, plant, tools, appliance, equipment, supplies and property) shall exceed that amount which would have been payable to the Contractor for the same work and materials under this Contract had the Contractor completed

the Contract, the Contractor shall, upon completion of the work, as the Authority may require, pay the amount of the excess to the Authority.

- H. Unless all Work is terminated by the Authority, the Contractor shall continue the remainder of the Work in conformity with the terms of this Contract and in such a manner so as not to hinder or interfere with other contractors of the Authority, or with persons or workmen employed, by the Authority as above provided by Contract or otherwise, to do any part of the Work or to complete the same under the provision of this subsection.
- I. The Contractor shall transfer title to the Authority and deliver in the manner, at the times, and to the extent, if any, directed by the Contracting Officer the fabricated or unfabricated parts, work in process, completed Work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated, and the completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been furnished to the Authority.
- J. The Authority's damages in the Event of a Default are not limited to those recoverable under either the Performance Bond or the Irrevocable Stand-by Letter of Credit. The Authority reserves all rights to any other legal remedies, including those specifically provided herein. The Authority may also bring any claim, demand, suit or proceeding for specific performance, injunction, or to recover damages, obtain any other relief allowable by law.

3. Default Notice

If the work to be done under this Contract, or if the performance of the Contract is unnecessarily or unreasonably delayed by the Contractor; or if the Contractor is violating any material term of the Contract Documents; or the Contractor is not executing the same in good faith or in accordance with the term thereof; or if the Contractor shall become insolvent or be declared bankrupt or commit any act of bankruptcy or insolvency, the MBTA may give notice, in writing, to the Contractor and its surety of such delay, neglect, or default, specifying the same; and, if the Contractor shall not proceed to cure the delay, neglect, or default within a period of twenty-one (21) days after such notice, then the MBTA, because of such delay, neglect, or default, and the Contractor's failure to comply with such notice shall have full power and authority to:

- A. Declare the Contractor to be in default; and thereupon the Contractor shall discontinue the work, or such part thereof, and the MBTA shall have the right, as the MBTA may determine, to have the surety complete the work or to contract for the completion of the work, or such part thereof, to procure other materials, plant, tools, appliances, equipment, suppliers and property for the completion of the work, or such part thereof, and to charge the expense of said labor and materials, plant, tools, appliance, equipment, supplies and property to the Contractor.

The expense so charged may be deducted and paid for by the MBTA out of such monies as may be due or at any time thereafter become due to the Contractor under and by virtue of this Contract, and the Contractor shall, upon completion of the work, or such part thereof, or from time to time during the course of the completion of the work, or such part thereof, as the MBTA may require, forthwith pay to the MBTA the

excess, if any, of the cost to the MBTA of the completion of the work, or such part thereof, over the amount payable to the Contractor for the same work and materials under the terms of this Contract; provided, however, that the Contractor shall not be liable to the MBTA for any damages incurred solely by reason of the fault of a new Contractor engaged by the MBTA or the Contractor's surety; and the completion of the work, or such part thereof, by the MBTA shall not release or discharge the Contractor from liability for the remainder of the work hereunder; and when any particular part of the work is being carried on by the MBTA by Contract or otherwise under the provisions of this Paragraph "A", the Contractor, unless directed to discontinue all work, shall continue the remainder of the work in conformity with the terms of this Contract and in such manner not to hinder or interfere with other Contractors of the MBTA, or with persons or workmen employed, as above provided by the MBTA by Contract or otherwise, to do any part of the work or to complete the same under the provision of this Paragraph "A"; or

- B. Declare this Contract at an end, except as to the liability of the Contractor hereinafter in this paragraph provided for, and the MBTA shall thereupon have the right, at its sole discretion, to access funds available through the Performance Bond or Letter of Credit provided by Contractor, to have the surety contract the work or to contract for the completion of the work, to procure other materials, plant, tools, appliances, equipment, supplies and property for the completion of the same.
 - i. If the expense to the MBTA of completing the work (including the expense of procuring other materials, plant, tools, appliance, equipment, supplies and property) shall exceed that amount which would have been payable to the Contractor for the same work and materials under this Contract had the Contractor completed the Contract, the Contractor shall, upon completion of the work, as the MBTA may require, pay the amount of the excess to the MBTA.
 - ii. The Contractor shall also pay to the MBTA the amount of any claim for which the MBTA may be liable for injury to persons or property occurring on account of any work done by the Contractor under this Contract, by reason of negligence, fault or default of the Contractor, or for infringement of patents, or for any neglect, fault, or default of the Contractor, as herein above set forth, and shall also pay to the MBTA the amount of any payment which the MBTA may be required to make, and the amount of any loss or damage which the MBTA may incur or suffer, and for which the Contractor may be liable by any neglect, fault or default of the Contractor; and
 - iii. Transfer title to the MBTA and deliver in the manner, at the times, and to the extent, if any, directed by the Contracting Officer the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the work terminated, and the completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been furnished to the MBTA.
- C. The MBTA may also proceed as it deems proper upon the bonds or other security in its possession; and
- D. The MBTA may also bring any suit or proceeding for specific performance, injunction, or to recover damages, obtain any other relief, or for any other purpose proper under this Contract.

(24) Suspension of Work

- A. The MBTA, for reasons beyond its control, may at any time, by written order to the Contractor, stop all or any part of the work called for by this Contract for a period of thirty (30) days upon delivery of the order to the Contractor and for any further period to which the parties may agree. Any such order shall be specifically identified as a Stop Work Order issued pursuant to this Section. Upon receipt of such an order, the Contractor shall forthwith comply with its terms and take all reasonable steps to mitigate the costs allocable to the work covered by the order during the period of work stoppage. Within a period of thirty (30) days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the MBTA shall either:
- i. Cancel the Stop Work Order; or
 - ii. Terminate the work covered by such order and pay to the Contractor all reasonable termination charges.
- B. If a Stop Work Order issued under this Section is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. An equitable adjustment will be made in the delivery schedule or Contract price, or both, and the Contract will be modified in writing accordingly, if:
- i. The Stop Work Order results in an increase in the time required for, or in the Contractor's cost properly allocable to, their performance of any part of this Contract; and
 - ii. The Contractor asserts a claim for such adjustment within thirty days after the end of the period of work stoppage; provided that, if the MBTA decides the facts justify such action, the Contractor may receive and act upon such claim asserted at any time prior to final payment under the Contract.
- C. If a Stop Work Order is not canceled and the work covered by such order is terminated hereunder, the reasonable costs resulting from the Stop Work Order will be allowed in arriving at the termination settlement.

5. Force Majeure

Upon immediate notification to the other party, neither the MBTA nor the Contractor shall be deemed to be in breach for failure or delay in performance due to Acts of God or other causes factually beyond their control and without their fault or negligence ("Force Majeure Event"). Subcontractor failure to perform or price increases due to market fluctuations or product availability will not be deemed factually beyond the Contractor's control. O

Within thirty (30) calendar days after the last day of delay resulting from a Force Majeure Event, the Contractor shall furnish the MBTA with detailed information concerning the circumstances of the delay, the number of days

actually delayed, the appropriate Agreement references, and the measures taken to prevent or minimize the delay. Upon review of the detailed information concerning the delay, the MBTA shall assess the impact the delay may have on price and schedule of the work and modify the Contract as needed in accordance with (Change Order).

11.10. Written Notice

Any notice shall be deemed delivered and received when submitted in writing in person or when delivered by any other appropriate method evidencing actual receipt by the MBTA or the Contractor. Any written notice of termination or suspension delivered to the Contractor shall state the effective date and period of the notice, the reasons for the termination or suspension, if applicable, any alleged breach or failure to perform, a reasonable period to cure any alleged breach or failure to perform, if applicable, and any instructions or restrictions concerning allowable activities, costs or expenditures by the Contractor during the notice period.

11.11. Record-keeping and Retention, Inspection of Records

The Contractor shall maintain records, books, files and other data as specified in a Contract and in such detail as shall properly substantiate claims for payment under a Contract, for a minimum retention period of seven (7) years beginning on the first day after the final payment under a Contract, or such longer period as is necessary for the resolution of any litigation, claim, negotiation, audit or other inquiry involving a Contract. The MBTA shall have access, as well as any parties identified under Executive Order 195, during the Contractor's regular business hours and upon reasonable prior notice, to such records, including on-site reviews and reproduction of such records at a reasonable expense.

11.12. Assignment

The Contractor may not assign or delegate, in whole or in part, or otherwise transfer any liability, responsibility, obligation, duty or interest under a Contract without the written approval of the MBTA, with the exception that the Contractor shall be authorized to assign present and prospective claims for money due to the Contractor pursuant to a Contract in accordance with M.G.L. C. 106, §9-318. The Contractor must provide sufficient notice of assignment and supporting documentation to enable the MBTA to verify and implement the assignment. Payments to third party assignees will be processed as if such payments were being made directly to the Contractor and these payments will be subject to intercept, offset, counter-claims or any other MBTA rights which are available to the MBTA against the Contractor. The sale of fifty percent (50%) or more of the equity ownership of a Contractor shall be considered an assignment requiring the prior written approval of the MBTA. Impermissible assignments shall be null and void.

11.13. Subcontracting By Contractor

The Contractor certifies full responsibility for Contract performance, including subcontractors, and that comparable Contract terms will be included in subcontracts, and that the MBTA will not be required to directly or indirectly manage subcontractors or have any payment obligations to subcontractors. Subcontracts will not relieve or

discharge the Contractor from any duty, obligation, responsibility or liability arising under a Contract. Subcontracts shall note that the MBTA is not a party to the subcontract.

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or any portion thereof, or its right, title, or interest therein, if the cost exceeds 10% of the Contract amount, or if the Subcontractor/Supplier is to supply any of the major systems without written consent of the Authority.

In requesting such consent, the Contractor shall notify the Authority of the work to be performed by the proposed Subcontractor/Supplier and the Subcontractor's/Supplier's name.

The Subcontractor (Vendor or Supplier) shall look only to the Contractor for the payment of the claims arising out of any subcontract. The Contractor shall include in all agreements with Subcontractors/Suppliers, as pertaining to this Contract, that its Subcontractor/Supplier shall make no claim for payment against the Authority, its members or agents, for any work performed or thing done by reasons of the Subcontract, or for any other cause for payment that may arise by reason of the relationship created between the Contractor and the Subcontractor/Supplier by the Subcontract. Failure to promptly pay a Sub-Contractor for work performed where the Contractor has been paid by the MBTA shall constitute a material breach of the Contract between MBTA and Contractor.

11.14. Affirmative Action, Non-Discrimination in Hiring and Employment

The Contractor shall comply with all federal and state laws, rules and regulations promoting fair employment practices or prohibiting employment discrimination and unfair labor practices and shall not discriminate in the hiring of any applicant for employment nor shall any qualified employee be demoted, discharged or otherwise subject to discrimination in the tenure, position, promotional opportunities, wages, benefits or terms and conditions of their employment because of race, color, national origin, ancestry, age, sex, religion, disability, handicap, sexual orientation or for exercising any rights afforded by law. The Contractor commits to purchasing supplies and services from certified minority or women-owned businesses, small businesses or businesses owned by socially or economically disadvantaged persons or persons with disabilities.

11.15. Indemnification

The Contractor agrees to indemnify, save harmless, and defend the MBTA and all of its officers, agents, and employees from and against any and all third party suits, claims, or proceedings ("Claims"), and any losses, damages, charges or expenses, whether direct or indirect, and liability of every name and nature related to such Claims ("Liabilities") based on or arising out of any actual or alleged loss or injury (including death) to persons or damage to real or tangible property, or patent or copyright infringement, that are caused or alleged to be caused, in whole or in part, or arising out of the acts or omissions of the Contractor, its agents, servants, employees or subcontractors.

The MBTA agrees that the Contractor shall not be responsible for any Claims or Liabilities that may be imposed upon or incurred by or asserted against the Contractor caused or alleged to have been caused by any negligent act or negligent failure to act by MBTA or its agents, employees, or subcontractors. The foregoing shall not limit Contractor's indemnification obligations to the MBTA, including its duty to defend (at the MBTA's option), otherwise set forth in this section.

The Contractor being bound by all applicable state and federal regulations hereby expressly agrees to hold the MBTA harmless against all audit exceptions or denials of the reimbursement arising from the Contractor's violation of the terms and conditions of state and federal laws. The Contractor shall make restitution to the MBTA of such

amounts of money as are withheld from the Authority by state, federal, county or local agencies or organizations due to the Contractor's noncompliance with applicable state and federal law, provided that in the event of any claim for such restitution, the MBTA provides the Contractor with prompt notice of such claim and allows the Contractor to contest such claim. Restitution shall be made no later than sixty (60) days after receipt of notification from the MBTA that monies are due to the MBTA.

Defense of Indemnification. The Contractor shall be notified in writing by the MBTA within a reasonable period of time of the assertion of any Claim against it that the Contractor has agreed to indemnify above (the "Indemnified Claim"). If the MBTA decides to itself conduct the defense of an Indemnified Claim against it or to conduct any other response itself, the Contractor shall reimburse the MBTA for all reasonable costs and expenses (including, without limitation, reasonable attorneys' fees and expenses) incurred by the MBTA in connection with the MBTA's defense of the Indemnified Claim against it and/or the conduct of all response actions. If the MBTA decides to have the Contractor defend the Indemnified Claim or handle the response action, the MBTA shall notify the Contractor of that decision in writing. In such instances, the Contractor shall bear the entire cost thereof and shall have sole control of the defense of any Indemnified Claim and all negotiations for its settlement or compromise provided that the MBTA is fully indemnified by the Contractor and that the settlement or compromise shall not include the admission of guilt or comparable plea, wrongdoing or negligence, the permitting or imposition of civil or criminal penalties or indictments, the entering of consent decrees or orders of any kind by the Contractor on behalf of the MBTA, or any other action that would materially prejudice the rights of the MBTA without the MBTA's express written approval. The MBTA shall cooperate fully with the Contractor in the defense of any Indemnified Claim.

11.16. Waivers

Forbearance or indulgence in any form or manner by a party shall not be construed as a waiver, nor shall it in any way limit the legal or equitable remedies available to that party. No waiver by either party of any default or breach shall constitute a waiver of any subsequent default or breach.

11.17. Risk of Loss

Risk of loss or damage with respect to equipment or material covered by the Contract Documents shall pass to the Authority when "delivered" within the meaning of Specification VE21-054 at the MBTA Bus Operations designated delivery point, unless the loss or damage is determined to be the direct result of faulty workmanship by the Contractor or by faulty material supplied by the Contractor.

Title to the Authority's equipment shall remain in the Authority and shall not be divested by any repairs that may be made to the property of the Authority.

11.18. Forum, Choice of Law and Mediation

Any actions arising out of a Contract shall be governed by the laws of Massachusetts, and shall be brought and maintained in a State or federal court in Massachusetts which shall have exclusive jurisdiction thereof. The MBTA and the Contractor may agree to voluntary mediation through the Massachusetts Office of Dispute Resolution (MODR) of any Contract dispute and will share the costs of such mediation. No legal or equitable rights of the parties shall be limited by this Section.

11.19. Interpretation, Severability, Conflicts with Law, Integration

Any amendment or attachment to any Contract which contains conflicting language or has the affect of a deleting, replacing or modifying any printed language of these MBTA Terms and Conditions, shall be interpreted as superseded by the official printed language. If any provision of a Contract is found to be superseded by state or federal law or regulation, in whole or in part, then both parties shall be relieved of all obligations under that provision only to the extent necessary to comply with the superseding law, provided however, that the remaining provisions of the Contract, or portions thereof, shall be enforced to the fullest extent permitted by law. All amendments must be executed by the parties in accordance with Section 1.1.1 of these MBTA Terms and Conditions (Section 1.1). The printed language of the Standard Contract Form (Section 7), which incorporates by reference these MBTA Terms and Conditions, shall supersede any conflicting verbal or written agreements relating to the performance of a Contract, or attached thereto, including contract forms, purchase orders or invoices of the Contractor. The order of priority of documents to interpret a Contract shall be as follows: any applicable federal provisions, any supplemental provisions, any negotiated terms and conditions allowable pursuant to law or regulation; the printed language of the MBTA Terms and Conditions; the Standard Contract; the MBTA's Request for Response/Proposal/Bid (RFR/RFP/IFB) solicitation document; and the Contractor's Response to the RFR/RFP/IFB solicitation, excluding any language stricken by the MBTA as unacceptable.

11.20. Entire Agreement

This Agreement and any attachments or documents incorporated herein by inclusion or by reference, constitutes the complete and entire Agreement between the Contractor and the MBTA (hereinafter the "Parties") and supersedes any prior representations, understandings, communications, commitments, agreements or proposals, oral or written, and is not intended to confer upon any person other than the Parties any rights or remedies hereunder.

11.21. Contractor Certifications and Legal References

The Contractor makes all certifications required under this Contract under the pains and penalties of perjury, and agrees to provide any required documentation upon request to support compliance, and agrees that all terms governing performance of this Contract and doing business in Massachusetts are attached or incorporated by reference herein.

11.22. MBTA and Contractor Ownership Rights

The Contractor certifies and agrees that the MBTA is entitled to ownership and possession of all "deliverables" purchased or developed with Contract funds.

11.23. Qualifications

The Contractor certifies it is qualified and shall at all times remain qualified to perform this Contract; that performance shall be timely and meet or exceed industry standards for the performance required, including obtaining requisite licenses, registrations, permits, resources for performance, and sufficient professional,

liability; and other appropriate insurance to cover the performance. If the Contractor is a business, the Contractor certifies that it is listed under the Secretary of State's website as licensed to do business in Massachusetts, as required by law.

11.24. Business Ethics and Fraud, Waste and Abuse Prevention

The Contractor certifies that performance under this Contract, in addition to meeting the terms of the Contract, will be made using ethical business standards and good stewardship of taxpayer and other public funding and resources to prevent fraud, waste and abuse.

11.25. Collusion

The Contractor certifies that this Contract has been offered in good faith and without collusion, fraud or unfair trade practices with any other person, that any actions to avoid or frustrate fair and open competition are prohibited by law, and shall be grounds for rejection or disqualification of a Response or termination of this Contract.

Included with the response to RFP 1F-22, the Bidder shall sign an affidavit stating that Bidder understands that any Proposal submitted to the MBTA is made without collusion with any other Bidder submitting a Proposal on the same commodity/service, and is in all respects fair and without fraud.

11.26. Public Records and Access

The Contractor shall provide full access to records related to performance and compliance to the MBTA pursuant to G.L. c. 11, s.12 for seven (7) years beginning on the first day after the final payment under this Contract or such longer period necessary for the resolution of any litigation, claim, negotiation, audit or other inquiry involving this Contract. Access to view Contractor records related to any breach or allegation of fraud, waste and/or abuse may not be denied and Contractor cannot claim confidentiality or trade secret protections solely for viewing but not retaining documents. Routine Contract performance compliance reports or documents related to any alleged breach or allegation of non-compliance, fraud, waste, abuse or collusion may be provided electronically and shall be provided at Contractor's own expense. Reasonable costs for copies of non-routine Contract related records shall not exceed the rates for public records under the Massachusetts Public Records Law.

11.27. Debarment

The Contractor certifies that neither it nor any of its subcontractors are currently debarred or suspended by the federal or state government under any law or regulation.

11.28. Applicable Laws

The Contractor shall comply with all applicable state laws and regulations including but not limited to the applicable Massachusetts General Laws; Code of Massachusetts Regulations 801 CMR 21.00 (Procurement of Commodity and Service Procurements); M G.L. c. 66A; and the Massachusetts Constitution Article XVIII if applicable.

11.29. Tax Law Compliance

The Contractor certifies under the pains and penalties of perjury tax compliance with Federal tax laws; state tax laws including but not limited to G.L. c. 62C, G.L. c. 62C, s. 49A; compliance with all state tax laws, reporting of employees and contractors, withholding and remitting of tax withholdings and child support and is in good standing with respect to all state taxes and returns due; reporting of employees and contractors under G.L. c. 62E, withholding and remitting child support including G.L. c. 119A, s. 12; TIR 05-11; New Independent Contractor Provisions and applicable TIRs.

11.30. Bankruptcy, Judgments, Potential Structural Changes, Pending

Legal Matters and Conflicts

The Contractor certifies it has not been in bankruptcy and/or receivership within the last three calendar years, and the Contractor certifies that it will immediately notify the Department in writing at least 45 days prior to filing for bankruptcy and/or receivership, any potential structural change in its organization, or if there is any risk to the solvency of the Contractor that may impact the Contractor's ability to timely fulfill the terms of this Contract or Amendment. The Contractor certifies that at any time during the period of the Contract the Contractor is required to affirmatively disclose in writing to the Department Contract Manager the details of any judgment, criminal conviction, investigation or litigation pending against the Contractor or any of its officers, directors, employees, agents, or subcontractors, including any potential conflicts of interest of which the Contractor has knowledge, or learns of during the Contract term. Notwithstanding the foregoing, Contractor shall not be obligated to disclose (i) any such matter that is not reasonably related to the services provided pursuant to the Contractor's Contract with the MBTA, or (ii) any such matter that has does not affect Contractor's continued compliance with all technical and financial conditions of its Contract with the MBTA. Law firms or Attorneys providing legal services are required to identify any potential conflict with representation of any Department client in accordance with Massachusetts Board of Bar Overseers (BBO) rules.

11.31. Protection of Commonwealth Data, Personal Data and Information

The Contractor certifies that all steps will be taken to ensure the security and confidentiality of all Commonwealth/MBTA data for which the Contractor becomes a holder, either as part of performance or inadvertently during performance, with special attention to restricting access, use and disbursement of personal data and information under M.G.L. c. 93H and c. 66A and other applicable state and federal privacy requirements. The Contractor shall comply with M.G.L. c. 93I for the proper disposal of all paper and electronic media, backups or systems containing personal data and information. The Contractor shall also ensure that any personal data or information transmitted electronically or through a portable device is properly encrypted using (at a minimum) the Commonwealth's "Cryptographic Management Standard" set forth in the Enterprise Information Security Policies and Standards published by the Executive Office for Technology, Services and Security (TSS), or a comparable Standard prescribed by the MBTA. Contractors with access to credit card or banking information of Commonwealth/MBTA customers certify that the Contractor is PCI compliant in accordance with the Payment Card Industry Council Standards, and shall provide confirmation compliance during the Contract. The Contractor shall immediately notify the MBTA in the event of any security breach including the unauthorized access, disbursement, use or disposal of personal data or information, and in the event of a security breach, the Contractor shall cooperate fully with the MBTA and provide access to any information necessary for the MBTA to respond to the security breach and shall be fully responsible for any damages associated with the Contractor's breach including but not limited to G.L. c. 214, s. 3B.

For all Contracts involving the Contractor's access to personal information, as defined in G.L. c. 93H, and personal data, as defined in G.L. c. 66A, or access to MBTA or Commonwealth systems containing such information or data, Contractor certifies under the pains and penalties of perjury that the Contractor (1) has read M.G.L. c. 93H and c. 66A and agrees to protect any and all personal information and personal data; and (2) has reviewed all of the Enterprise Information Security Policies and Standards published by the Executive Office for Technology Services and Security (TSS), or stricter standards prescribed by the MBTA. Notwithstanding any contractual provision to the contrary, in connection with the Contractor's performance under this Contract, for all public authorities, executive offices, boards, commissions, agencies, departments, divisions, councils, bureaus, and offices, now existing and hereafter established, the Contractor shall: (1) obtain a copy, review, and comply with any pertinent security guidelines, standards, and policies; (2) comply with all Enterprise Information Security Policies and Standards published by the Executive Office for Security Services and Technology (TSS), or a comparable set of policies and standards ("Information Security Policy") as prescribed by the MBTA; (3) communicate and enforce such security guidelines, standards, policies and the applicable Information Security Policy among all employees (whether such employees are direct or contracted) and subcontractors; (4) implement and maintain any other reasonable appropriate security procedures and practices necessary to protect personal information and data to which the Contractor is given access by the MBTA from the unauthorized access, destruction, use, modification, disclosure or loss; (5) be responsible for the full or partial breach of any of these terms by its employees (whether such employees are direct or contracted) or subcontractors during or after the term of this Contract, and any breach of these terms may be regarded as a material breach of this Contract; (6) in the event of any unauthorized access, destruction, use, modification, disclosure or loss of the personal information or personal data (collectively referred to as the "unauthorized use"): (a) immediately notify the MBTA if the Contractor becomes aware of the unauthorized use; (b) provide full cooperation and access to information necessary for the MBTA to determine the scope of the unauthorized use; and (c) provide full cooperation and access to information necessary for the MBTA and the Contractor to fulfill any notification requirements. Breach of these terms may be regarded as a material breach of this Contract, such that the Commonwealth and MBTA may exercise any and all contractual rights and remedies, including without limitation indemnification under Section 11.15 of MBTA's Terms and Conditions, withholding of payments, Contract suspension, or termination. In addition, the Contractor may be subject to applicable statutory or regulatory penalties, including and without limitation, those imposed pursuant to G.L. c. 93H and under G.L. c. 214, § 3B for violations under M.G.L. c. 66A.

11.32. Corporate and Business Filings and Reports

The Contractor certifies compliance with any certification, filing, reporting and service of process requirements of the Secretary of and other Departments as related to its conduct of business in the Commonwealth; and with its incorporating state (or foreign entity).

11.33. Employer Requirements

Contractors that are employers certify compliance with applicable state and federal employment laws or regulations, including but not limited to G.L. c. 5, s. 1 (Prevailing Wages for Printing and Distribution of Public Documents); G.L. c. 7, s. 22 (Prevailing Wages for Contracts for Meat Products and Clothing and Apparel); minimum wages and prevailing wage programs and payments; unemployment insurance and contributions; workers' compensation and insurance, child labor laws, AGO fair labor practices; G.L. c. 149 (Labor and Industries); G.L. c. 150A (Labor Relations); G.L. c. 151 and 455 CMR 2.00 (Minimum Fair Wages); G.L. c. 151A (Employment and Training); G. L. c. 151B (Unlawful Discrimination); G.L. c.

151E (Business Discrimination); G.L. c. 152 (Workers' Compensation); G.L. c.153 (Liability for Injuries); 102 CMR 12.00 (Dependent Care Assistance Program); 29 USC c. 8 (Federal Fair Labor Standards); 29 USC c. 28 and the Federal Family and Medical Leave Act and M.G.L. c. 175M (Family and Medical Leave).

11.34.Federal And State Laws And Regulations Prohibiting

Discrimination

Contractors certify compliance with applicable state and federal anti-discrimination laws including but not limited to the Federal Equal Employment Opportunity (EEO) Laws the Americans with Disabilities Act,; 42 U.S.C Sec. 12,101, et seq., the Rehabilitation Act, 29 USC c. 16 s. 794; 29 USC c. 16. s. 701; 29 USC c. 14, 623; the 42 USC c. 45; (Federal Fair Housing Act); G. L. c. 151B (Unlawful Discrimination); G.L. c. 151E (Business Discrimination); the Public Accommodations Law G.L. c. 272, s. 92A; G.L. c. 272, s. 98 and 98A, Massachusetts Constitution Article CXIV and G.L. c. 93, s. 103; 47 USC c. 5, sc. II, Part II, s. 255 (Telecommunication Act; Chapter 149, Section 105D, G.L. c. 151C, G.L. c. 272, Section 92A, Section 98 and Section 98A, and G.L. c. 111, Section 199A, and Massachusetts Disability-Based Non-Discrimination Standards For Executive Branch Entities, and related Standards and Guidance, authorized under Massachusetts Executive Order or any disability-based protection arising from state or federal law or precedent. See also MCAD and MCAD links and Resources.

11.35.Right-to-Know Law

The Contractor shall certify that it will comply with the Massachusetts Right-To-Know Law, Chapter 470 of the Acts of 1983. Additionally, the Contractor agrees to submit a Safety Data Sheet (SDS) for each toxic or hazardous substance, or mixture containing such substance, pursuant to M.G.L. c. 111F §§ 8, 9, and 10, and the regulations contained in 454 CMR § 21.06 when deliveries are made.

The Contractor agrees to deliver all containers properly labeled pursuant to M.G.L. c. 111F § 7 and regulations contained in 454 CMR § 21.05. Failure to submit a SDS and/or label on each container will place the Contractor in noncompliance with the purchase order.

Copies of all SDSs shall be provided to the Technical Project Manager.

11.36.Other Damages

LIMITATION OF LIABILITY

The term "other damages" shall include, but shall not be limited to, the reasonable costs the MBTA incurs to repair, return, replace or seek cover (purchase of comparable substitute commodities and services) under a Contract. "Other damage"" shall not include damages to the MBTA as a result of third party claims, provided, however, that the foregoing in no way limits the right of the MBTA's right of recovery for personal injury or property damages or patent and copyright infringement under Section 11.15, Indemnification, nor the MBTA's ability to join the contractor as a third party defendant. Further, the term "Other damages" shall not include, and in no event shall the contractor be liable for, damages for the MBTA's use of contractor provided products or services, loss of MBTA records, or data (or other intangible property), loss of use of equipment, lost revenue, lost savings or lost profits of the MBTA. In no event that "other damages" exceed the greater of \$100,000, or two times the value of the product or service (as defined in the Contract scope of work) that is the subject of the claim. Section 11.15 sets forth the contractor's entire

liability under a contract. In the event the limitation of liability conflicts with accounting standards which mandate that there can be no cap of damages, the limitation shall be considered waived for that audit engagement.

IT IS AGREED AND UNDERSTOOD THAT THE MBTA SHALL BE ENTITLED TO RECOVER DIRECT DAMAGES INCLUDING "BENEFIT-OF-THE-BARGAIN" EXPECTATION DAMAGES AND DAMAGES FOR BREACH OF WARRANTY SUBJECT TO THE LIMITATION OF LIABILITY, AND THAT IN NO EVENT SHALL CONTRACTOR BE LIABLE FOR ANY LOSS OR FAILURE TO REALIZE ANTICIPATED SAVINGS OR EFFICIENCIES ARISING IN CONNECTION WITH THIS AGREEMENT.

11.37. Northern Ireland Certification

Pursuant to G.L. c. 7 s. 22C for state agencies, state authorities, the House of Representatives or the state Senate, by signing this Contract the Contractor certifies that it does not employ ten or more employees in an office or other facility in Northern Ireland and if the Contractor employs ten or more employees in an office or other facility located in Northern Ireland the Contractor certifies that it does not discriminate in employment, compensation, or the terms, conditions and privileges of employment on account of religious or political belief; and it promotes religious tolerance within the work place, and the eradication of any manifestations of religious and other illegal discrimination; and the Contractor is not engaged in the manufacture, distribution or sale of firearms, munitions, including rubber or plastic bullets, tear gas, armored vehicles or military aircraft for use or deployment in any activity in Northern Ireland.

11.38. Pandemic, Disaster or Emergency Performance

In the event of a serious emergency, pandemic or disaster outside the control of the MBTA, the MBTA may negotiate emergency performance from the Contractor to address the immediate needs of the MBTA even if not contemplated under the original Contract or procurement. Payments are subject to appropriation and other payment terms.

11.39. Executive Orders

For covered Executive state Departments, the Contractor certifies compliance with applicable Executive Orders (see also Massachusetts Executive Orders), including but not limited to the specific orders listed below. A breach during period of a Contract may be considered a material breach and subject Contractor to appropriate monetary or Contract sanctions.

11.40. Executive Order 481. Prohibiting the Use of Undocumented

Workers on State Contracts

For all state agencies in the Executive Branch, including all executive offices, boards, commissions, agencies, Departments, divisions, councils, bureaus, and offices, now existing and hereafter established, by signing this Contract the Contractor certifies under the pains and penalties of perjury that they shall not knowingly use undocumented workers in connection with the performance of this Contract; that, pursuant to federal requirements, shall verify the immigration status of workers assigned to a Contract without

engaging in unlawful discrimination; and shall not knowingly or recklessly alter, falsify, or accept altered or falsified documents from any such worker.

11.41. Executive Order 130. Anti-Boycott

The Contractor warrants, represents and agrees that during the time this Contract is in effect, neither it nor any affiliated company, as hereafter defined, participates in or cooperates with an international boycott (See IRC § 999(b)(3)- (4), and IRS Audit Guidelines Boycotts) or engages in conduct declared to be unlawful by G.L. c. 151E, s. 2. A breach in the warranty, representation, and agreement contained in this paragraph, without limiting such other rights as it may have, the MBTA shall be entitled to rescind this Contract. As used herein, an affiliated company shall be any business entity of which at least 51% of the ownership interests are directly or indirectly owned by the Contractor or by a person or persons or business entity or entities directly or indirectly owning at least 51% of the ownership interests of the Contractor, or which directly or indirectly owns at least 51% of the ownership interests of the Contractor.

11.42. Conflict of Interest and Executive Order 346. Hiring of State Employees By State Contractors

Massachusetts Conflict of Interest Law, G.L. c. 268A, governs the conduct of all public officials and employees, including all dealings with potential contractors. It is the responsibility of Contractor to ensure compliance with the Commonwealth's Conflict of Interest Laws and avoid any conduct which might result in or give the appearance of creating for the Authority or its representatives in their relationship with the Contractor any conflicts of interest or favoritism and/or the appearance thereof or any conduct which might result failure to comply with G.L., c. 268A. Non-compliance with these Conflict of Interest terms shall constitute a material breach of this Contract.

For purposes of this solicitation, it is understood and agreed that no gift, loan or other thing has been or will be given to any employee, agent or officer of the MBTA by the Bidder, Bidder's employees, subcontractors, or agents in connection with the award or performance of this Contract. It is further understood and agreed that no Board member, officer, or employee of the MBTA; no officer or employee of any independent authority or political subdivision of the Commonwealth of Massachusetts, no officer, employee, or elected official of the Commonwealth of Massachusetts, executive or legislative of any city, county, or town within the 175 cities and towns serviced by the MBTA; and no member or delegate to the Congress of the United States, during his/her tenure shall have any financial interest, direct or indirect, in this Contract or the proceeds thereof.

If, during the performance of this Contract and any extension thereof, the Contractor becomes aware of any relationship, financial interest, or other activity in which it or an affiliated person or company is involved which is not in compliance with these provisions, the Contractor shall promptly notify the Authority's Contracting Officer in writing and fully disclose all circumstances thereof. The Authority reserves the right to grant an exception to the requirements of this Section, if so allowed by law, and notify the Contractor thereof. If the Authority does not grant an exception, the Contractor shall, within ten (10) days of written notice from the Authority, take all action necessary to comply with the terms stated herein.

The Bidder shall certify compliance with these terms and the Massachusetts Conflict of Interest Laws.

Additionally, Contractor certifies compliance with both the conflict of interest law G.L. c. 268A, s. 5 (f) and E.O. 346, which impose limitations regarding the hiring of state employees by private companies contracting with the MBTA. A privatization contract shall be deemed to include a specific prohibition against the hiring at any time during the term of Contract, and for any position in the Contractor's company, any state management employee who is, was, or will be involved in the preparation of the RFP, the negotiations leading to the awarding of the Contract, the decision to award the Contract, and/or the supervision or oversight of performance under the Contract.

11.43. Executive Order 444. Disclosure of Family Relationships with

Other State Employees

Each person applying for employment (including Contract work) within the Executive Branch under the Governor must disclose in writing the names of all immediate family related to immediate family by marriage who serve as employees or elected officials of the Commonwealth. All disclosures made by applicants hired by the Executive Branch under the Governor shall be made available for public inspection to the extent permissible by law by the official with whom such disclosure has been filed.

11.44. Executive Orders 523, 526, and 565

Executive Order 523 (Establishing the Massachusetts Small Business Purchasing Program). Executive Order 526 (Order Regarding Non-Discrimination, Diversity, Equal Opportunity and Affirmative Action which supersedes Executive Order 478). Executive Order 565 (Reaffirming and Expanding the Massachusetts Supplier Diversity Program). All programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background. The Contractor and any subcontractors may not engage in discriminatory employment practices. The Contractor certifies compliance with applicable federal and state laws, rules, and regulations governing fair labor and employment practices. The Contractor also commits to purchase supplies and services from certified minority, women, veteran, service-disabled veteran, LGBT or disability-owned businesses, small businesses, or businesses owned by socially or economically disadvantaged persons; and Contractor commits to comply with any applicable Department contractual requirements pertaining to the employment of persons with disabilities pursuant to M.G.L. c. 7 s. 61(s). These provisions shall be enforced through the contracting Department, OSD, and/or the Massachusetts Commission Against Discrimination. Any breach shall be regarded as a material breach of the contract that may subject the contractor to appropriate sanctions.

11.45. Laws and Regulations Prohibiting Discrimination and Human

Trafficking

Contractors acknowledge and certify as a condition of this Contract that they are responsible for complying fully with all state and federal laws prohibiting discrimination, human trafficking, and forced labor, including but not limited to Chapter 178 of the Acts of 2011.

11.46. Supplemental Provisions

11.47. Applicability

Where applicable, these Supplemental Provisions shall apply to this RFP. In the event of a conflict or disparity between these Supplemental Provisions and Standard Terms & Conditions, the Supplemental Provisions govern.

11.48. Security Requirements

The Contractor shall certify that it will comply with the MBTA's Security Requirements as stated herein. The selected Contractor shall:

1. Submit a complete list of Contractor's employees, subcontractors, and agents that will perform work on MBTA property under this Contract. This list must be submitted prior to eligibility consideration for payment of delivery or completion of the first milestone. At a minimum, the list shall include:
 - a. Name and Employee Number/Identifier
 - b. Address
 - c. Job Title
 - d. Hours and Location of Work

Note: Immediate notification, in writing, is required for listed employees, subcontractors, and agents who leave Contractor's (direct or indirect) employment and/or any new employees, subcontractors or agents who are to be added to this list. Contractor is required to provide, upon request by the MBTA, periodic updates of the list throughout the life of the Contract.

2. Conduct for all current and future employees performing work under this Contract, a legally available criminal background check, including a Criminal Offender Record Information (CORI) background check with the Massachusetts Criminal History Systems Board and a driver's history check with the Massachusetts registry of Motor vehicles (if applicable). The CORI check shall include a Level II Sex Offenders Registry check. To the extent not already available to the Contractor, the Contractor shall apply for and make best efforts to obtain CORI access. The Contractor shall provide written documentation to the Authority that demonstrates the Contractor's compliance with the aforementioned requirements. Furthermore, the Contractor shall conduct these background and driver history checks at least once every two (2) years, or as otherwise specified by the MBTA. Any employee of the Contractor's with a history that includes a felony conviction, any conviction for theft, or who appears otherwise unsuitable to perform the work that is the subject of this solicitation throughout the Term of this Agreement or any extensions thereof, shall not be assigned by the Contractor to perform work under this Agreement.

The MBTA reserves the right to have MBTA Transit Police perform the required background checks, and shall promptly notify the Contractor in writing of any such action.

3. Distribute an MBTA-issued photograph Contractor identification badge to all Contractor employees, subcontractors, and agents who work on MBTA property. The contractor shall provide a current (less than 1 year old) photograph to the MBTA, along with the required completed badge issuance paperwork prior to being issued the badges. The following information shall be listed on the back of the contractor identification badges: training certifications, safety training, and other related security training required by the MBTA. No employee, subcontractor or agent of the Contractor will be allowed on MBTA property without clearly displaying the MBTA-issued identification badge on their person.

Insure that Contractor's employees, subcontractors, and agents:

4.
 - a. Are not allowed on MBTA property except as required for stated work;
 - b. Are not allowed on MBTA property before and after service hours unless explicitly, contractually required to be there; and
 - c. Are forbidden from carrying firearms on MBTA property.
5. Provide to the MBTA, upon its request, any documents that pertain to:
 - a. Contractor employee, subcontractor or agent conduct on MBTA property;
 - b. Security training; and
 - c. Monitoring/auditing of Contractor employees or agents while on MBTA property.
6. If, at any time during the term of this Agreement, and also during any and all extensions thereof, the MBTA establishes new or revised security policies and procedures as they relate to the Contractor's performance under this Agreement, the Contractor shall comply with such policies and procedures as deemed reasonable by the MBTA and the Contractor. |

11.49.Right-of-Way Safety Training Requirements

In the event the Contractor's work is to be performed in proximity (within 10 feet) of MBTA rail transit lines, tracks, yards, or any other parts of the Green, Orange, Blue, Red, and Mattapan Lines, Contractor personnel shall obtain and maintain appropriate Right of Way (ROW) safety training, including recertifications, from the MBTA before commencing work.

Alternately, in the event that the Contractor requires access to a bus tunnel, busway, and/or bus yard the Contractor shall obtain and maintain appropriate Right of Way (ROW) safety training, including recertifications, from the MBTA before commencing work.

Additionally, the Contractor shall:

- a. Ensure its personnel who access or work near the ROW attend an initial eight (8) hour ROW Safety course to receive a ROW license and maintain ROW Safety certification in compliance with the 24-month recertification training renewal schedule. The training and recertifications are at no cost to the Contractor.

Obtain and comply with the latest revision of the MBTA's requirements for personal protective equipment as outlined in the current ROW Safety policies and summarized at

<https://www.mbt.com/engineering/safety-resources>

- b.

Supply its personnel with personal protective equipment that meets the MBTA's requirements and ensure that its personnel properly utilize such equipment in accordance with MBTA requirements.

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11.50. Workplace Environment

The Contractor and its employees shall comply with the MBTA Dignity in the Workplace and 8 Free Workplace requirements. The Contractor's employees who violate either of these policies are to be removed from this Contract and are not to be employed on another MBTA contract. The Contractor also agrees to include the following requirements in each subcontract entered into as part of this Agreement.

MBTA Dignity in the Workplace Policy. In accordance with governing statutes, regulations, and collective bargaining agreements, and consistent with its existing policies, the MBTA demands of itself and its employees that all work and work-related activities be conducted with complete respect for the dignity of all employees. In practice, this means that no action, inaction or language which would offend a reasonable employee or which any reasonable employee deems unwelcome will be tolerated. All personnel decisions will be based solely on objective consideration of relevant articulated factors. No personnel decision will directly or indirectly be based on consideration of an employee's age, race, sex, religion, creed, color, sexual orientation, national origin, disability/handicap, ancestry or Vietnam era veteran's status. These prohibitions on harassment and impermissible discrimination are absolute.

Drug And Alcohol Free Workplace Requirement. The Contractor, Contractor's employees, vendors, visitors, and volunteers are to be free of the effect of drugs, alcohol, controlled substances or other prohibitive substances when they are on MBTA property or performing MBTA business. In addition, all referenced parties are prohibited from using, possessing, selling or distributing any drugs, alcohol, controlled substances or other prohibited substances when they are on MBTA property or performing MBTA business. It is the responsibility of the Contractor to advise its employees of this requirement and to ensure that its employees meet this "fitness for duty" standard. Violators of this policy will not be allowed to remain on MBTA property or to continue conducting business for or with the MBTA. The Contractor will submit to the Authority within thirty (30) days of a Drug and Alcohol violation, a written report documenting the actions taken with regard to any of its employees who violate this policy. The Contractor will accept all liability arising from violation of this policy by his/her employees.

Anti-Drug and Alcohol Misuse Prevention Program: The services to be provided, either directly or indirectly, under contract for the MBTA to meet the criteria for drug and alcohol testing as mandated by the Federal Transit Administration (FTA).

Employees who perform safety-sensitive functions must be included in an employer substance abuse management program. The FTA has determined the safety-sensitive functions are performed by those who:

- Operate passenger service vehicles including when not in passenger service.
- Operate non-passenger service vehicles that require drivers to hold Commercial Drivers Licenses—CDLs.
- Dispatch or control passenger service vehicles.
- Maintain passenger service vehicles or equipment used in passenger service.
- Provide security and carry a firearm.

The definition of safety-sensitive includes supervisors who perform these functions. Supervisors of

employees in the categories who do not themselves perform these functions are excluded.

The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 653, 654 and 40, and permit any authorized representatives of the United States Department of Transportation or its operating administrations, the Commonwealth of Massachusetts, or the MBTA, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Parts 653, 654 and 40 and review the testing process. The Contractor agrees further to certify annually its compliance with Parts 653, 654 and 40 before March 15 of each contractual year and to submit the Management Information System (MIS) reports before March 15 of each year of the contract to Director of Occupational Health Services and Workmen's Compensation, MBTA, 120 Boylston Street – 6th Floor, Boston, MA 02116. To certify compliance the contractor shall use the Substance Abuse Certifications in the Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements, which are published annually in the Federal Register.

Bidders must submit, with their bid/proposal, the Certificate of Compliance with Anti-Drug and Alcohol Testing Programs.

Confidentiality: The information required to be submitted with proposal/bid shall be handled as confidential data and utilized on a “need to know” basis, to the extent permitted by law.

Labor Harmony: Prevailing Wage Rates Apply. The Contractor shall furnish labor that can work with all other elements of labor employed or to be employed at the MBTA. The Contractor agrees that all persons in its employment for the purpose of managing or working on the MBT's premises shall conduct themselves at all times in an orderly and proper manner so as not to annoy or offend persons or MBTA employees using the premises. Moreover, the Contractor, at the request of the Authority will, for cause shown, remove from work on the Contract any employee who shall cause any annoyance or offense as aforesaid. The Contractor further covenants and agrees that, in the exercise of the rights and privileges granted, its employees or representatives will not deface or damage the property of the MBTA, deposit or scatter any rubbish, debris, waste, litter, or other matter in or about said premises. The Contractor agrees to assume liability for actions on the part of its employees.

11.51.CONFIDENTIAL INFORMATION

In performing under this Contract, each Party (the“**Disclosing Part**”) may from time to time during the Term disclose to the other Party (the“**Receiving Part**”) certain Confidential Information, as defined below. This Section 6.02 shall govern the use of such Confidential Information.

The term “**Confidential Information**” shall mean all: (a) non-public information (in any medium), including but not limited to business, personnel, marketing, financial, employee, planning, technical, operations, data, source code, specifications, drawings, plans, diagrams, sketches, renderings, maps, surveys, photographs and other confidential or proprietary information of the Disclosing Party; and (b) any other information or material marked confidential, restricted or proprietary by either Party or any other person to whom such Party has an obligation of confidence; provided, however, that the failure of either Party to so mark any material shall not relieve the Receiving Party of the obligation to maintain the confidentiality of any unlegended material which the Receiving Party knows or should reasonably know contains Confidential Information.

For purposes of this Agreement, information submitted with Proposer's proposal shall be handled as Confidential Information and utilized on a “need to know” basis in accordance with Massachusetts Public Records Laws (M.G.L. c. 66, §10).

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11.23.5.1 Protection of Confidential Information. The Receiving Party will not use any Confidential Information of the Disclosing Party for any purpose not expressly permitted by this Contract, and will disclose the Confidential Information of the Disclosing Party only to those parties, including employees, contractors, subcontractors, suppliers and agents of the Receiving Party who have a need to know such Confidential Information for purposes of this Contract and who are under a duty of confidentiality no

less restrictive than the Receiving Part's duty hereunder. The Receiving Party will protect the Disclosing Part's Confidential Information from unauthorized use, access, or disclosure in the same manner as the Receiving Party protects its own confidential or proprietary information of a similar nature and with no less than reasonable care.

- (a) **Exceptions.** The Receiving Part's obligations hereunder with respect to any Confidential Information of the Disclosing Party will terminate if and when the Receiving Party can document that such information: (a) was already known to the Receiving Party at the time of disclosure by the Disclosing Party; (b) was disclosed to the Receiving Party by a third party who had the right to make such disclosure without any confidentiality restrictions; (c) is or through no fault of the Receiving Party has become, generally available to the public; or (d) is independently developed by the Receiving Party without access to, or use of, the Disclosing Part's Confidential Information. In addition, the Receiving Party will be allowed to disclose Confidential Information of the Disclosing Party to the extent that such disclosure is: (i) approved in writing by the Disclosing Party; (ii) necessary for the Receiving Party to enforce its rights under this Contract in connection with a legal proceeding; or (iii) required by law or by the order of a court or similar judicial or administrative body, provided that the Receiving Party notifies the Disclosing Party of such required disclosure promptly and in writing and cooperates with the Disclosing Party, at the Disclosing Part's reasonable request and expense, in any lawful action to contest or limit the scope of such disclosure.

11.23.6 Delivering Confidential Information. At any time during the term of this Contract, the Contractor shall forthwith deliver to the Authority any and all Confidential Information on any medium as the Authority shall request.

11.23.7 Securing Confidential Information. The Contractor hereby represents and warrants that at the conclusion of the work to be performed under this Contract or upon its termination, any Confidential Information that is to be retained by the Contractor for archival/audit/legal purposes shall be certified as such and shall be maintained in a secure facility, and that the Contractor shall maintain care, custody, and control over any and all medium containing Confidential Information while in such secure facility and until any and all medium containing the Confidential Information are either returned to the Authority or destroyed as provided in Section [6.2.4](#) (Destroying Confidential Information).

11.23.8 Destroying Confidential Information. Except as provided in Section [6.2.3](#) (Securing Confidential Information), at the conclusion of the Contract or upon its termination, unless otherwise instructed in writing by the Authority,

the Contractor shall destroy its copies of all Confidential Information in all medium such that recognition or reconstruction of the Confidential Information is precluded. Unless otherwise permitted by the Authority, cross-cut shredding of hardcopy items, physical destruction of diskettes, floppies, CDs, DVDs, videos, and any other recordable media, deleting of electronic items by permanent deletion or non-retrievable/ irreversible placement in delete-overwrite status are the Authority's required methods of such destruction with respect to documents or materials containing Confidential Information, which the Authority has instructed are to be destroyed.

11.23.9 Unauthorized Release of Confidential Information. In the event the Contractor learns or believes that Confidential Information has been released or believes that Confidential Information is about to be released, the Contractor shall immediately notify the Authority.

11.52. Federal Requirements

11.53. Federal Transit Administration Required Clauses

Contractor shall ensure that all clauses applicable to its work, or service, performed for the MBTA pursuant to this contract are adhered to by the contractor and sub-contractors when applicable.

In the event of a conflict between these FTA required clauses and other Terms and Conditions with respect to this contract, there clauses shall govern.

(FTA Required Clauses follow)

It is the responsibility of the proposer/ bidder to ensure that all clauses applicable to the work or services related to this contract are adhered to by the Contractor and its Sub-contractors when applicable.

Contract Clause	Applicability to Type of Contract
Fly America Requirements	When Transportation Paid by FTA Funds
Buy America Requirements	Value > 100K for Construction, Goods, Rolling Stock
Charter Bus Requirements	Operational Service
School Bus Requirements	Operational Service
Cargo Preference Requirements	Equipment/Material/Commodities Transported by Ocean
Seismic Safety Requirements	New Construction/Additions
Special Department of Labor (DOL) Equal Employment Clause	Value > \$10K for Construction
Energy Conservation Requirements	All

Contract Clause	Applicability to Type of Contract
Clean Water Requirements	Value > \$100K
Bus Testing	Rolling Stock Acquisition
Pre-Award and Post Delivery Audit Requirements	Rolling Stock Acquisition
Lobbying	All
Access to Records and Reports	All
Federal Changes	All
Bonding Requirements	Construction > \$100K
Clean Air	Value > \$100K
Recycled Products	Value > \$10K In Fiscal Year
Davis-Bacon and Copeland Anti-Kickback Acts	Construction > \$2000
Contract Work Hours and Safety Standards Act	Construction >\$2000, Rolling Stock, Operational >\$2,500
No Government Obligation to Third Parties	All
Program Fraud and False or Fraudulent statements and Related Acts	All
Termination	Value > \$10K
Government-Wide Debarment and Suspension (Non-procurement)	Value > \$25K
Privacy Act	All
Civil Rights Requirements	All
ADA Access Requirements	All
Breaches and Dispute Resolution	Value > \$100K
Patent and Rights in Data	Research Projects Only
Transit Employee Protective Agreements	Transit Operations
Disadvantaged Business Enterprise (DBE)	All
Incorporation of FTA Terms	All
Drug and Alcohol Testing	Operational Service/Safety Sensitive

Contract Clause	Applicability to Type of Contract
Transit Vehicle Manufacturer (TVM) Certifications	Rolling Stock, All Vehicle Procurements
Metric Requirements	Sealed Bid Procurements, Rolling Stock, Construction
Conformance with National ITS Architecture	Contracts and Solicitations for ITS projects only
Corridor Preservation	Right of Way Development
Veterans Employment	Capital Projects
Safe Operation of Motor Vehicles	All

11.54. Fly America Requirements

49 U.S.C. §40118 41 CFR Part 301-10.131— 301-10.143

Applicability to Contracts: The Fly America requirements apply to the transportation of persons or property, by air, between a place in the U.S. and a place outside the U.S., or between places outside the U.S., when the FTA will participate in the costs of such air transportation. Transportation on a foreign air carrier is permissible when provided by a foreign air carrier under a code share agreement when the ticket identifies the U.S. air carrier's designator code and flight number. Transportation by a foreign air carrier is also permissible if there is a bilateral or multilateral air transportation agreement to which the U.S. Government and a foreign government are parties and which the Federal DOT has determined meets the requirements of the Fly America Act.

Flow Down Requirements: The Fly America requirements flow down from MBTA to first tier contractors, who are responsible for ensuring that lower tier contractors and sub-contractors are in compliance.

Fly America: 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 CFR Part 301-10.131— 301-10.143, which provide that recipients and sub-recipients of Federal funds and their contractors are required to use U.S. Flag air 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. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

11.55. Buy America Requirements

49 U.S.C. 5323(j)

49 U.S.C. 5323(h)

49 CFR Part 661

The Bidder is to be governed by the latest provisions of the "Buy American" clause of the Surface Transportation Act of 1982, the Federal Mass Transportation Act of 1987 and Uniform Relocation Assistance Act of 1987 and execute the "Buy American" Certificate found in RFP Attachment 2 to this Document. The separate requirements for rolling stock are set out in 5323(j)(2©) and 49 CFR part 661.11. The Bidder agrees to comply with 49 U.S.C. 5323(j) and 49 CFR Part 661 Section 165

Notwithstanding any other provisions of law, Secretary of Transportation shall not obligate any funds authorized to be appropriated by this Act or by any Act amended by the Act, or after the date of enactment of this Acts, Title 23, United States Code, the Urban Mass Transportation Act of 1964, or the Surface Transportation Act of 1978 and 1982, and Federal Mass Transportation Act of 1987 and administered by the Department of Transportation, unless steel manufactured products used in such projects are produced in the United States.

The provisions of Subsect "o" "a" of this Section shall not apply where the Secretary finds:

1. That their application would be inconsistent with the public interest.
2. That such material and products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
3. In the case of procurement of bus and other rolling stock (including train control, communication, and traction power equipment) under the Urban Mass Transportation Act of 1964, and the Federal Mass Transportation Act of 1987, that:
 - a. The cost of components and subcomponents which are produced in the United States is more than 60 per centum of the cost of all components of the vehicle or equipment described in this paragraph.
 - b. Final assembly of the vehicle or equipment described in this paragraph has taken place in the United States.
 - c. For purposes of this Section, calculating compon'nts' cost, labor cost involved in final assembly shall not be included in this calculation.
 - d. The Secretary of Transportation shall not impose any limitation or condition on assistance provided under this Act, the Urban Mass Transportation Act of 1987 or Title 23, United States Code, which restricts any State from imposing more stringent requirements than this section, the use of articles, materials, and supplies mined, produced or manufactured in foreign countries in projects carried out with such assistance or restricts any recipient of such assistance from complying with such State imposed requirements.
 - e. Section 401 of the Surface Transportation Acts of 1978 is repealed.
4. That the inclusion of domestic material will increase the cost of the overall project contract by more than 25 per centum in case of all projects including but not limited to the acquisition of rolling stock.

Flow Down Requirements: The Buy America requirements flow down from MBTA to first tier Contractor, who are responsible for ensuring that lower tier contractors and sub-contractors are in compliance.

Buy America: The Contractor agrees to comply with 49 U.S.C. 5323(j) as amended by MAP-21, 49 U.S.C. 5323(h), 49 CFR Part 661, and FAST Act (Pub. L. 114-94) which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7 and was amended by Section 3011 of the FAST Act (Pub. L. 114-94). Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock not subject to a general waiver must be manufactured in the United States and have a sixty percent (60%) domestic content for FY16 & FY17; sixty-five percent (65%) domestic content for FY18 & FY19; and seventy percent (70%) domestic content for FY20 & beyond.

General waivers for small purchases do not apply to Contractor's equipment purchases when Contractor's contract value exceeds \$150,000 in value. Contractor must submit to MBTA the appropriate certification using a Buy America Certification Form with all bids on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as non-responsive. This requirement does not apply to lower tier sub-contractors.

11.56. Charter Bus Requirements

49 U.S.C. 5323(d) 49 CFR Part 604

Applicability to Contracts: The Charter Bus requirements apply to the following type of contract: Operational Service Contracts.

Flow Down Requirements: The Charter Bus requirements flow down from MBTA to first tier service Contractors.

Charter Service Operations: The contractor agrees to comply with 49 U.S.C. 5323(d) and 49 CFR Part 604, which provides that recipients and sub-recipients of FTA assistance are prohibited from providing charter service using federally funded equipment or facilities if there is at least one private charter operator willing and able to provide the service, except under one of the exceptions at 49 CFR 604.9. Any charter service provided under one of the exceptions must "be 'incidental,' i.e., it must not interfere with or detract from the provision of mass transportation."

11.57. School Bus Requirements

49 U.S.C. 5323(f) 49 CFR Part 605

Applicability to Contracts: The School Bus requirements apply to the following type of contract: Operational Service Contracts.

Flow Down Requirements: The School Bus requirements flow down from MBTA to first tier service contractors.

School Bus Operations: Pursuant to 49 U.S.C. 5323(f) and 49 CFR Part 605, recipients and sub-recipients of FTA assistance may not engage in school bus operations exclusively for the transportation of students and school personnel in competition with private school bus operators unless qualified under specified exemptions. When operating exclusive school bus service under an allowable exemption, recipients and sub-recipients may not use federally funded equipment, vehicles, or facilities.

11.58. Cargo Preference Requirements

46 U.S.C. 55305

Applicability to Contracts: The Cargo Preference requirements apply to all contracts involving equipment, materials, or commodities which may be transported by ocean vessels.

Flow Down Requirements: The Cargo Preference requirements apply to all subcontracts when the subcontract may be involved with the transport of equipment, material, or commodities by ocean vessel.

Cargo Preference: Use of United States-Flag Vessels - The contractor agrees:

1. To use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;
2. To furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a ratified, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through the contractor in the case of a subcontractor's bill-of-lading.)
3. To include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

Cargoes Procured, Furnished, or Financed by the United States Government:

1. **Definition:** In this section, the term "privately-owned commercial vessel of the United States" does not include a vessel that, after September 21, 1961, was built or rebuilt outside the United States or documented under the laws of a foreign country, until the vessel has been documented under the laws of the United States for at least three (3) years.
2. **Minimum Tonnage:** When the United States Government procures, contracts for, or otherwise obtains for its own account, or furnishes to or for the account of a foreign country, organization, or persons without provision for reimbursement, any equipment, materials, or commodities, or provides financing in any way with Federal funds for the account of any persons unless otherwise exempted, within or without the United States, or advances funds or credits, or guarantees the convertibility of foreign currencies in connection with the furnishing or obtaining of the equipment, materials, or commodities, the appropriate agencies shall take steps necessary and practicable to ensure that at least fifty percent (50%) of the gross tonnage of the equipment, materials, or commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) which may be transported on ocean vessels is transported on privately-owned commercial vessels of the United States, to the extent those vessels are available at fair and reasonable rates for commercial vessels of the United States, in a manner that will ensure a fair and reasonable participation of commercial vessels of the United States in those cargoes by geographic areas.

3. **Waivers:** The President, the Secretary of Defense, or Congress (by concurrent resolution or otherwise) may waive this section temporarily by:

- a. Declaring the existence of an emergency justifying a waiver; and
- b. Notifying the appropriate agencies of the waiver.

4. **Programs of Other Agencies:**

- a. Each department or agency that has responsibility for a program under this section shall administer that program with respect to this section under regulations and guidance issued by the Secretary of Transportation. The Secretary, after consulting with the department or agency or organization or person involved, shall have the sole responsibility for determining if a program is subject to the requirements of this section.
- b. The Secretary:
 - i. Shall conduct an annual review of the administration of programs determined pursuant to paragraph (1) as subject to the requirements of this section;
 - ii. May direct agencies to require the transportation on United States-flagged vessels of cargo shipments not otherwise subject to this section in equivalent amounts to cargo determined to have been shipped on foreign carriers in violation of this section;
 - iii. May impose on any person that violates this section, or a regulation prescribed under this section, a civil penalty of not more than \$25,000 for each violation willfully and knowingly committed, with each day of a continuing violation following the date of shipment to be a separate violation; and
 - iv. May take other measures as appropriate under the Federal Acquisition Regulations issued pursuant to section 5(c)(1) 1 of the Office of Federal Procurement Policy Act (41 U.S.C. 421(c)(1) 2 or contract with respect to each violation.

5. **Security of Government-Impelled Cargo:**

- a. In order to ensure the safety of vessels and crewmembers transporting equipment, materials, or commodities under this section, the Secretary of Transportation shall direct each department or agency (except the Department of Defense), when responsible for the carriage of such equipment, materials, or commodities, to provide armed personnel aboard vessels of the United States carrying such equipment, materials, or commodities if the vessels are transiting high-risk waters.

- b. The Secretary of Transportation shall direct each department or agency responsible to provide armed personnel under paragraph (1) to reimburse, subject to the availability of appropriations, the owners or operators of applicable vessels for the cost of providing armed personnel.
- c. In this subsection, the term “high-risk waters” means waters so designated by the Commandant of the Coast Guard in the Port Security Advisory in effect on the date on which an applicable voyage begins.

(Pub. L. 109–304, §8(c), Oct. 6, 2006, 120 Stat. 1642; Pub. L. 110–417, div. C, title XXXV, §3511(a), (b), Oct. 14, 2008, 122 Stat. 4769; Pub. L. 112–213, title V, §503, Dec. 20, 2012, 126 Stat. 1575.)

11.59. Seismic Safety Requirements

42 U.S.C. 7701 et seq.

49 CFR Part 41

Applicability to Contracts: The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down Requirements: The Seismic Safety requirements flow down from MBTA to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all sub-contractors.

Seismic Safety: The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a sub-contractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project. The contractor will facilitate and follow Executive Order No. 12699, “Seismic Safety of Federal and Federally-Assisted or Regulated New Building Construction,” 42 U.S.C. 7704 note, except as the Federal Government determines otherwise in writing.

11.60. Special DOL Equal Employment Clause

41 CFR Part 60

See Section 11.24.25 – Civil Rights Requirements.

11.61. Energy Conservation Requirements

42 U.S.C. 6321 et seq. 49 CFR Part 622

Applicability to Contracts: The Energy Conservation requirements are applicable to all contracts.

Flow Down Requirements: The Energy Conservation requirements extend to all third party contractors and their contracts at every tier and, sub-recipients and their sub-agreements at every tier.

Energy Conservation: The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act. The contractor agrees to perform an energy assessment for any building constructed, reconstructed, or modified with FTA funds required under FTA regulations, “Requirements for Energy Assessments,” 49 CFR part 622, subpart C.

11.62.Clean Water Requirements

33 U.S.C. 1251 - 1377

Applicability to Contracts: The Clean Water requirements apply to each contract and subcontract which exceeds \$100,000.

Flow Down Requirements: The Clean Water Act requirements flow down to MBTA third party contractors and their contracts at every tier, and sub-recipients and their sub-agreements at every tier.

Clean Water:

1. 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 et seq.
2. The contractor agrees to report each violation to MBTA and understands and agrees that MBTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office in compliance with the notice of violating facility provisions in section 508 of the Clean Water Act, as amended, 33 U.S.C. 1368
3. The contractor agrees to protect underground sources of drinking water in compliance with the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f – 300j-6.

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

11.63.Bus Testing

49 U.S.C. 5318(e)

49 U.S.C. 5323(c)

49 CFR Part 665

Applicability to Contracts: The Bus Testing requirements pertain only to the acquisition of Rolling Stock/Turnkey.

Flow Down Requirements: The Bus Testing requirements should not flow down, except to the turnkey contractor as stated in the most current FTA Master Agreement.

Bus Testing: The Contractor [Manufacturer] agrees to comply with 49 U.S.C. 5323(c) and FTA's implementing regulation at 49 CFR Part 665 and shall perform the following:

- i. A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to the recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle.
- ii. A manufacturer who releases a report under paragraph 1 above shall provide notice to the operator of the testing facility that the report is available to the public.
- iii. If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to the recipient prior to recipient's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.
- iv. If the manufacturer represents that "the vehicle is" "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

11.64. Pre-Award and Post-Delivery Audits Requirements

49 U.S.C. 5323

49 C.F.R. 661.12 49 CFR Part 663

Applicability to Contracts: These requirements apply only to the acquisition of Rolling Stock/Turnkey.

Flow Down Requirements: These requirements should not flow down, except to the turnkey contractor as stated in Master Agreement.

Buy America certification is mandated under FTA regulation, "Pre-Award and Post-Delivery Audits of Rolling Stock Purchases," 49 C.F.R. 663.13.

A Buy America certification under this part shall be issued in addition to any certification which may be required by part 661 of this title. Nothing in this part precludes FTA from conducting a Buy America investigation under part 661 of this title "Pre-Award and Post-Delivery Audit Requirements." The Contractor agrees to comply with "Buy America Requirements--Surface Transportation Assistance Act of 1982, as amended," 49 C.F.R. 661.12, but has been modified to include FTA's Buy America requirements codified at 49 U.S.C. A 5323(j).

In accordance with the above, the Federal Transportation Administration; as delegated by the Secretary of Transportation, has issued regulations requiring pre-award and post-delivery audits when federal financial assistance is utilized in the purchase of rolling stock when funds have been made available under the Urban Mass Transportation Act as added.

A. General

- (25) 1. Definitions as used in this herein:

- a. Pre-award means that period in the procurement process before the recipient enters into a formal contract with the supplier.
- b. Post-delivery means the time period in the procurement process from when the rolling stock is delivered to the recipient until title to the rolling stock is transferred to the recipient or the rolling stock is put into passenger service, whichever is first.
- c. Rolling stock means buses, vans, cars, railcars, locomotives, trolley cars and buses, ferry boats, and vehicles used for guideways and incline planes.
- d. Audit means a review resulting in a report containing the necessary certifications of compliance with Buy America Standards, purchaser's requirements specifications, and, where appropriate, a manufacturer's certification of compliance with or inapplicability of the Federal Motor Vehicle Safety Standards, required by Section 319 of STURAA and this part.

2. Audit Limitations

- a. Applicable Buy America requirements (Section 165 of the Surface Transportation Assistance Act of 1982, as amended); and
- b. Solicitation specification requirements of the recipient.
- c. An audit under this part includes, where appropriate, a copy of a manufacturer's self-certification information that the vehicle complies with Federal Motor Vehicle Safety Standard or a certification that such standards are inapplicable.
- d. An audit conducted under this part is separate from the single annual audit requirement established by Office of Management and Budget "Circular A-128, "Audits of State and Local Governments," dated May 16, 1985.

B. Pre-Award Audit

- 1. Pre-Award audit must be completed before a formal contract for the procurement of rolling stock may be issued.
- 2. The elements of this pre-award audit include the following certification to be maintained on file by the purchaser.
 - a. Buy American certification
 - (26) (i) There is a letter from the FTA which grants a waiver to the rolling stock to be purchased from the Buy America requirements under Section 165(b)(1), (b)(2), or (b)(4) of the Surface Transportation Assistance Act of 1982 as amended; or
 - (ii) The recipient is satisfied that the rolling stock to be purchased meets the requirements of Section 165(a) of (b)(3) of the Surface Transportation Assistance Act of 1982, as amended, after having reviewed itself or through an audit prepared by someone other than the manufacturer or its agent documentation provided by the manufacturer which lists:

- (a) Component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and
 - (b) 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 ass'mbly.
- b. Purchaser's Requirementtrtification
 - (27) (i) The rolling stock the recipient is contracting for the same product described 'n the purchaser's solicitation specification; and
 - (ii) The Bidder is a responsible manufacturer with the capability to produce a vehicle that mee's the recipient's specification set forth 'n the recipient's solicitation.
- c. Federal Motor Vehicle Safety Standards (FMVSS):
 - (i) **Certification of Compliance with Federal Motor Vehicle Safety Standards.**

If a vehicle purchased under this part is subject to the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in part 571 of this title, the purchaser shall keep on file its certification that it received, both at the pre-award and post-delivery stage, a copy of 'he manufacturer's self-certification information that the vehicle complies with relevant Federal Motor Vehicle Safety Standards.
 - (ii) **Certification that Federal Motor Vehicle Standards do not apply.**
 - (a) Except for rolling stock subject to paragraph (b) of this section, if a vehicle purchased under this part is not subject to the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in part 571 of this time, the recipient shall keep on file its certification that it received a statement to that effect from the manufacturer.
 - (b) This subpart shall not apply to rolling stock that is not a motor vehicle.

C. Post-Delivery Audits

- 1. A post-delivery audit of FTA funded rolling stock procurement must be complete before title is transferred to the purchaser.
- 2. A post-delivery audit under this section includes:
 - a. Post-delivery Buy America Certificate which the purchaser keeps on file, the following:

- (i) There is a letter from UMTA (FTA) which grants a waiver to the rolling stock received from the Buy America requirements under Section 165(b)(1), or (b)(4) of the Surface Transportation Assistance Act of 1982, as amended; or
 - (ii) The recipient is satisfied that the rolling stock received meets the requirements of Section 165(a) or (b)(3) of the Surface Transportation Assistance Act of 1982, as amended, after having reviewed itself or by means of an audit prepared by someone other than the manufacturer or its agent documentation provided by the manufacturer which lists:
 - (a) Components and subcomponent parts of the rolling stock identified by manufacturer of the parts, their country of origin and costs; and
 - (b) The actual location of the final assembly point for rolling stock including a description of the activities which took place at the final assembly point and the cost of the final assembly.
- (28) **b. Post-Delivery Purchaser's Requirements Certification**

For purpose of this part, a post-delivery purchaser's requirements certification is a certification that the recipient keeps on file that:

- (i) Except for procurement covered under paragraph (c) in this Section, a resident inspector (other than an agent or employee of the manufacturer) was at the manufacturing site throughout the period of manufacture or the rolling stock to be purchased and monitored and completed a report on the manufacture of such rolling stock. Such a report, at a minimum, shall:
 - (a) Provide accurate records of all vehicle overhaul activities; and
 - (b) Address how the overhaul and operation of the vehicles fulfills the contract specifications.
- (ii) After reviewing the report required under paragraph (a) of this Section, and visually inspecting and road testing the delivered vehicles, the vehicles meet contract specifications.

c. Post-Delivery Federal Motor Vehicle Safety Standards (if applicable)

- 3.** If the purchaser cannot complete a post-delivery audit because it or its agent cannot certify Buy America compliance or that the rolling stock meets the purchaser's requirements specified in the contract, the rolling stock may be rejected and final acceptance by the recipient will not be required. The recipient may exercise any legal rights it has under the contract or at law.

Be advised that this provision does not preclude the recipient and manufacturer from agreeing to a conditional acceptance of rolling stock pending manufacturer's correction of deviations within a reasonable period of time.

NOTE: For this Section only, the following words have been used interchangeable to mean the same:

Recipient, Purchaser = Authority

Manufacturer, Bidder, Car builder = Contractor

11.65.Lobbying

31 U.S.C. 1352

49 CFR Part 19

49 CFR Part 20

Applicability to Contracts: The Lobbying requirements apply to Construction/Architectural and Engineering/Acquisition of Rolling Stock/Professional Service Contract/Operational Service Contract/Turnkey contracts.

Flow Down Requirements: The Lobbying requirements mandate the maximum flow down pursuant to Byrd Anti-Lobbying Amendment 31 U.S.C. §1352(b)(5) and 49 C.F.R. Part 19, Appendix A, Section 7.

Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C– § 1601, et seq.] - Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of a Federal agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier certifies to the tier above that it will not and has not taken any action involving the Project or the Underlying Agreement for the Project, including any award, extension, or modification. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to MBTA.

11.66.Access to Records and Reports

49 U.S.C. 5325

18 CFR 18.36(i)

49 CFR 633.17

Applicability to Contracts: Reference Chart "Requirements for Access to Records and Reports by Type of Contracts," Item 6 of this Section.

Flow Down Requirements: FTA does not require the inclusion of these requirements in subcontracts.

Access to Records: The following access to records requirements apply to this Contract:

1. The Contractor agrees to provide MBTA, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and

construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

2. Where MBTA or a sub-grantee of MBTA in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302(a) 1) through other than competitive bidding, the Contractor shall make available records related to the contract to MBTA, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
3. 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.
4. 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, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until MBTA, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i) (11).
5. FTA does not require the inclusion of these requirements in subcontracts.
6. **Requirements for Access to Records and Reports by Types of Contract**

Contract Characteristics	Operational Service Contract	Turnkey	Construction	Architectural Engineering	Acquisition of Rolling Stock	Professional Services
<u>-State Grantees</u>	Yes ¹	Those imposed on non-state	Yes	Yes	Yes	Yes
	Yes ¹	Grantee pass thru to Contractor	Yes	Yes	Yes	Yes

Sources of Authority: 1 18 CFR 18.36 (i)

11.67. Federal Changes

49 CFR Part 18

Applicability to Contracts: The Federal Changes requirement applies to all contracts.

Flow Down Requirements: The Federal Changes requirement flows down appropriately to each applicable changed requirement.

Federal Changes: Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between MBTA and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

11.68. Clean Air

42 U.S.C. 7401 – 7601(q)

40 CFR 15.61

49 CFR Part 18

Applicability to Contracts: The Clean Air requirements apply to all contracts exceeding \$100,000, including indefinite quantities where the amount is expected to exceed \$100,000 in any year.

Flow Down Requirements: The Clean Air requirements flow down to all subcontracts which exceed \$100,000.

Clean Air:

1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 – 7601(q) et seq. The Contractor agrees to report each violation to MBTA and understands and agrees that MBTA, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
2. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

11.69. Recycled Products

42 U.S.C. 6962

40 CFR Part 247

Executive Order 12873

Applicability to Contracts: The Recycled Products requirements apply to all contracts for items designated by the EPA, when the Contractor procures \$10,000 or more of one (1) of these items during the fiscal year, or has procured \$10,000 or more of such items in the previous fiscal year, using Federal funds.

Flow Down Requirements: These requirements flow down to all contractor and sub-contractor tiers.

Recovered Materials: The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited

to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247. The contractor agrees to comply with the U.S. Environmental Protection Agency (US EPA), “Comprehensive Procurement Guideline for Products Containing Recovered Materials,” 40 CFR part 247.

11.70. Davis-Bacon and Copeland Anti-Kickbacks Acts

49 U.S.C. 5333

40 U.S.C. 3141 – 3144

40 U.S.C. 3146 – 3147

18 U.S.C. 874

40 U.S.C. 3145

Applicability to Contracts: The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, et seq. and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that “at least partly are financed by a loan or grant from the Federal Government.” 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i) (5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). ‘Construction,’ for purposes of the Acts, includes “actual construction, alteration and/or repair, including painting and decorating.” 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (see 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below.

Flow Down Requirements: Applies to third party contractors and sub-contractors

2. Minimum Wages:

- (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than Monthly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one (1) classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its sub-contractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)

- (A) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (1) Except with respect to helpers as defined in 29 CFR 5.2(n) (4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - (4) With respect to helpers as defined in 29 CFR 5.2(n) (4), such a classification prevails in the area in which the work is performed.
 - (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within thirty (30) days of receipt and shall advise the Contracting Officer or will notify the Contracting Officer within the thirty (30) day period that additional time is necessary.
 - (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within thirty (30) days of receipt and shall advise the Contracting Officer or will notify the Contracting Officer within the thirty (30) day period that additional time is necessary.
 - (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs ((1)(ii) (A), (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act

have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

3. **Withholding:** MBTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, MBTA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
4. **Payrolls and basic records.**
 - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2) (B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
 - (ii)
 - (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to MBTA for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or sub-contractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5 and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
 - (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
 - (D) The falsification of any of the above certifications may subject the contractor or sub-contractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or sub-contractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or sub-contractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

5. Apprentices and trainees -

- (i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first ninety (90) days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program

shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentage of the journeyman's hourly rate) specified in the Contractor's or Sub-contractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) **Equal Employment Opportunity** - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

- 6. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

7. **Subcontracts.** The contractor or sub-contractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the sub-contractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any sub-contractor or lower tier sub-contractor with all the contract clauses in 29 CFR 5.5.
 8. **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a sub-contractor as provided in 29 CFR 5.12.
 9. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
 10. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its sub-contractors) and the contracting Authority, the U.S. Department of Labor, or the employees or their representatives.
 11. **Certification of eligibility.**
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or Contractor who has an interest in the contractor's Contractor is a person or Contractor ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or Contractor ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code U.S.C. 1001.
- (23) **(b) Contract Work Hours and Safety Standards Act.** The Authority Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or §4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
1. **Overtime requirements.** No contractor or sub-contractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1.5) times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.

2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any sub-contractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and sub-contractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
3. **Withholding for unpaid wages and liquidated damages.** The Massachusetts Bay Transportation Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or sub-contractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
4. **Subcontracts.** The contractor or sub-contractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the sub-contractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any sub-contractor or lower tier sub-contractor with the clauses set forth in paragraphs (b)(1) through (4) this section.

- (24) (c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in §5.1, the Authority Head shall cause or require the contracting officer to insert a clause requiring that the contractor or sub-contractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Authority Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or sub-contractor for inspection, copying, or transcription by authorized representatives of the Massachusetts Bay Transportation Authority and the Department of Labor, and the contractor or sub-contractor will permit such representatives to interview employees during working hours on the job.

The information collection, recordkeeping, and reporting requirements contained in the following paragraphs of this section were approved by the Office of Management and Budget:

OMB Control Number

(a)(1)(ii)(B) 1215-0140

(a)(1)(ii)(C) 1215-0140

(a)(1)(iv) 1215-0140

(a)(3)(i) 1215-0140, 1215-0017

(a)(3)(ii)(A) 1215-0149

(c) 1215-0140,

1215-0017

[48 FR 19540, Apr. 29, 1983, as amended at 51 FR 12265, Apr. 9, 1986; 55 FR 50150, Dec. 4, 1990; 57 FR 28776, June 26, 1992; 58 FR 58955, Nov. 5, 1993; 61 FR 40716, Aug. 5, 1996; 65 FR 69693, Nov. 20, 2000; 73 FR 77511, Dec. 19, 2008]

Effective Date Note: At 58 FR 58955, Nov. 5, 1993, §5.5 was amended by suspending paragraph (a)(1)(ii) indefinitely.

11.71. Contract Work Hours and Safety Standards Act

29 CFR Part 5

40 U.S.C. 3701 et seq.

40 U.S.C. 3702

Applicability to Contracts: The Contract Work Hours and Safety Standards Act is codified at 40 USC 3701, et seq. The Act applies to grantee contracts and subcontracts “financed at least in part by loans or grants from ... the [Federal] Government.” 40 USC 3701(b) (1) (B) (iii) and (b) (2), 29 CFR 5.2(h), 49 CFR 18.36(i) (6).

The Act applies to construction contracts and, in very limited circumstances, non-construction projects that employ “laborers or mechanics on a public work” with a value greater than \$100,000.

Flow Down Requirements: Applies to third party contractors and sub-contractors.

- a. **Overtime Requirements:** No contractor or sub-contractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1.5) times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.
- b. **Violation; Liability for Unpaid Wages; Liquidated Damages:** In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any sub-contractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and sub-contractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek

of forty (40) hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

- c. **Withholding for Unpaid Wages and Liquidated Damages:** MBTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or sub-contractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

Subcontracts: The Contractor or sub-contractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) of this section and also a clause requiring the sub-contractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any sub-contractor or lower tier sub-contractor with the clauses set forth in paragraphs (1) through (4) of this section.

11.72.No Government Obligation to Third Parties

Applicability to Contracts: Applicable to all contracts.

Flow Down Requirements: This concept should flow down to all levels to clarify, to all parties to the contract, that the Federal Government does not have contractual liability to third parties, absent specific written consent.

No Obligation by the Federal Government.

1. MBTA and the Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to MBTA, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
2. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the sub-contractor who will be subject to its provisions.

11.73.Program Fraud and False or Fraudulent Statements and Related Acts

31 U.S.C. 3801 et seq.

49 CFR Part 31

18 U.S.C. 1001

49 U.S.C. 5307

Applicability to Contracts: These requirements are applicable to all contracts.

Flow Down Requirements: These requirements flow down to contractors and sub-contractors who make, present, or submit covered claims and statements.

1. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
2. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.
3. The Contractor agrees to include the above two (2) clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the sub-contractor who will be subject to the provisions.

11.74. Termination & Cancellation

49 CFR Part 18

FTA Circular 4220.1F

For termination, see Section 11.9.

11.75. Government-Wide Debarment and Suspension (Non-Procurement)

49 CFR 18

2 CFR 1200

2 CFR 180

Executive Orders 12549 and 12689

31 U.S.C. 6101

Background and Applicability: In addition to the contracts covered under 2 CFR 180.220(b) of the OMB guidance, this part applies to any contract, regardless of tier, that is awarded by a contractor, sub-contractor, supplier, Contractor, or its agent or representative in any transaction, if the contract is to be funded or provided by the Department of Transportation under a covered non-procurement transaction and the amount

of the contract is expected to equal or exceed \$25,000. This extends the coverage of the Department of Transportation non-procurement suspension and debarment requirements to all lower tiers of subcontracts under covered non-procurement transactions, as permitted under the OMB guidance at 2 CFR 180.220(c) (see optional lower-tier coverage in the figure in the appendix to 2 CFR part 180). This government-wide regulation implements Executive Order 12549, Debarment and Suspension, Executive Order 12689, Debarment and Suspension, and 31 U.S.C. 6101 note (Section 2455, Public Law 103-355, 108 Stat. 3327).

These provisions apply to all MBTA contracts and subcontracts at any level expected to equal or exceed \$25,000 as well as any contract or subcontract (at any level) for federally required auditing services. These are contracts and subcontracts referred to in the regulation as “covered transactions.”

Grantees, contractors, and sub-contractors (at any level) that enter into covered transactions are required to verify that the entity (as well as its principals and affiliates) they propose to contract or subcontract with is not excluded or disqualified. They do this by (a) Checking the System for Award Management (SAM), (b) Collecting a certification from that person, or (c) Adding a clause or condition to the contract or subcontract.

Grantees, contractors, and sub-contractors who enter into covered transactions also must require the entities they contract with to comply 2 CFR 180 and include this requirement in their own subsequent covered transactions (i.e., the requirement flows down to subcontracts at all levels).

Flow Down Requirements: These requirements flow down to contractors and sub-contractors at all levels.

Suspension and Debarment: This contract is a covered transaction for purposes of 49 CFR Part 18. As such, the contractor is required to verify that none of the contractor, its principals, are excluded or disqualified as defined under Executive Orders Nos. 12549 and 12689.

The contractor is required to comply with 2 CFR 1200, and must include the requirement to comply with 2 CFR 1200, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its Proposal, the Bidder certifies as follows:

The certification in this clause is a material representation of fact relied upon by MBTA. If it is later determined that the Firm knowingly rendered an erroneous certification, in addition to remedies available to MBTA, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Firm agrees to comply with the requirements 2 CFR 180 while this offer is valid and throughout the period of any contract that may arise from this offer. The Firm further agrees to include a provision requiring such compliance in its lower tier covered transactions.

The Contractor shall meet the requirements of 49 C.F.R. Part 29. 49 C.F.R. Part 29 implements Executive Order 12549, Debarment and Suspension, Executive Order 12689, Debarment and Suspension, and 31 U.S.C. 6101 note (Section 2455, Public Law 103-355, 108 Stat. 3327). The provisions of Part 29 apply to all contracts and subcontracts at any level expected to equal or exceed \$24,000. This represents a change from prior practice in that the dollar threshold for application of these rules has been lowered from \$100,000 to \$24,000. As such, the Contractor is required to verify that none of the Contractor (i.e., entity), its principals, as defined at 49 C.F.R. 29.995, or affiliates, as defined at 49 CFR 29.905, or subcontractors with

which it proposes to contract or subcontract, are excluded or disqualified as defined at 49 C.F.R. 29.940 and 29.945. Contractors can do this by (a) checking the Excluded Parties List System in the System for Award Management System (SAM) , (b) collecting a certification, or (c) adding a clause or condition to the relevant contract or subcontract.

11.76. Privacy Act

5 U.S.C. 552

Applicability to Contracts: When MBTA maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier, the Privacy Act requirements apply to all contracts.

Flow Down Requirements: The Federal Privacy Act requirements flow down to each third party contractor and their contracts at every tier.

Contracts Involving Federal Privacy Act Requirements: The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

11.77. Civil Rights Requirements

29 U.S.C. § 623, 42 U.S.C. § 2000 42 U.S.C. § 6102, 42 U.S.C. § 12112 42 U.S.C. § 12132, 49 U.S.C. § 5332 29 CFR Part 1630, 41 CFR Parts 60 et seq.

The MBTA is an Equal Opportunity Employer. As such, the MBTA agrees to comply with all applicable civil rights statutes and implementing regulations issued by the FTA. Apart from inconsistent requirements imposed by Federal statutes or regulations, the MBTA agrees to comply with the requirements of 49 U.S.C. § 5323(h)(2) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications.

1. The Contractor will be required to comply with these applicable civil rights, nondiscrimination, and equal employment opportunity laws and regulations:
 - a. 49 CFR Part 21, 49 CFR Part 25, 49 CFR Part 26, 49 CFR Part 27, 49 CFR Part 37, 49 CFR Part 38, 49 CFR Part 39, 20 U.S.C. §§ 1681 – 1683 and 1685 – 1687, 21 U.S.C. § 1101, 29 U.S.C. §

- 794, et seq., 42 U.S.C. § 290dd – 290dd-2, 42 U.S.C. § 2000d, 42 U.S.C. § 3601, 42 U.S.C. § 4541, 42 U.S.C. § 6101 – 6107, 42 U.S.C. § 12101, et seq., 42 U.S.C. § 12132, 49 U.S.C. § 5307 (c)(1)(D)(ii), 49 U.S.C. § 5332,
- b. 29 CFR Part 1630, 41 CFR Part 60, 29 U.S.C. § 623, 42 U.S.C. § 2000e, 42 U.S.C. § 12112,
 - c. 49 U.S.C. § 5325 (k).
 - d. Fixing America’s Surface Transportation (FAST) Act, Public Law No: 114-94, as may be amended.
2. The Civil Rights requirements flow down to all third party sub-contractors and their subcontracts at every tier.
- a. The following requirements apply to a contract awarded as a result of this solicitation:–
Nondiscrimination - In accordance with U.S. Department of Transportation (DOT), Federal, the Rehabilitation Act of 1973, as amended, 20 U.S.C. §§ 1681 – 1683 and 1685 – 1687, 21 U.S.C. § 1101, 29 U.S.C. § 794, Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 290dd – 290dd-2, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 3601, 42 U.S.C. § 4541, 42 U.S.C. § 6102, 42 U.S.C. § 6101 – 6107, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12101, 42 U.S.C. § 12132, Federal transit law 49 U.S.C. § 5307 (c)(1)(D)(ii), Federal transit law 49 U.S.C. § 5332, FTA Circular 4702.1, “Title VI Requirements and Guidelines for Federal Transit Administration Recipients.”, DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order No. 13166 and DOT Policy Guidance Concerning Recipients’ Responsibilities to Limited English Proficiency (70 FR 74087, Dec. 14, 2005), the Unruh Civil Rights Act, the Contractor agrees that it will comply with the identified Federal laws and regulations, pertaining to MBTA programs and activities, to ensure that no person will be denied the benefits of, or otherwise be subjected to, discrimination (particularly in the level and quality of transportation services and transportation-related benefits) on the bases of race, color, religion, national origin, ancestry, sex, sexual orientation, gender identity, gender expression, age, marital status, genetic information, medical condition, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations, other implementing requirements that DOT or FTA may issue, and any other applicable Federal statutes and/or regulations that may be signed into law or promulgated.
 - b. **Equal Employment Opportunity** - The following equal employment opportunity requirements apply to a contract awarded as a result of this solicitation:
 - i. **Race, Color, Ancestry, Marital Status, Medical Condition, Genetic Information, Religion, National Origin, Sex, Sexual Orientation, Gender Identity,–Gender Expression** - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, 49 U.S.C. § 5332, FTA Circular 4704.1, “Equal Employment Program Guidelines for Grant Recipients”, and , the Contractor agrees to comply with all applicable equal

employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, including "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60, et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), Fair Employment and Housing Act, and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect activities undertaken in the course of the Project. 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, ancestry, religion, marital status, medical condition, genetic information, national origin, sex, sexual orientation, gender identity, gender expression, 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 DOT or FTA may issue, and any other applicable Federal statutes that may be signed into law or Federal regulations that may be promulgated.

- ii. **Sex** – The Contractor agrees to comply with all applicable requirements of Title IX of the Education Amendments of 1975, as amended, 20 U.S.C. § 1681, and 49 CFR part 25. In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue.
 - iii. **Age** - The Contractor agrees to comply with all applicable requirements of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101, 45 CFR part 90, the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, and Equal Employment Opportunity Commission (EEOC) implementing regulations 29 CFR part 1625. In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue.
 - iv. **Disabilities** - The Contractor agrees to comply with Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, Section 508 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794(d), 36 CFR part 1194, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101, 49 CFR parts 27, 37, 38, and 39, and FTA Circular 4710.1, "Americans with Disabilities Act: Guidance". In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue.
3. The Contractor agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

11.78.ADA Access Requirements

49 U.S.C. § 5301, 29 U.S.C. § 794, 42 U.S.C. § 12101

Applicability to Contracts: The Contractor shall comply with 49 USC 5301(d), stating Federal policy that the elderly and persons with disabilities have the same rights as other persons to use mass transportation services and facilities and that special efforts shall be made in planning and designing those services and facilities to implement that policy. Contractor shall also comply with all applicable requirements of Sec. 504 of the Rehabilitation Act (1973), as amended, 29 USC 794, which prohibits discrimination on the basis of handicaps, and the Americans with Disabilities Act of 1990 (ADA), as amended, 42 USC 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments thereto.

Contractor shall also comply with the following regulations, as applicable, and any amendments thereto:

1. U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;
2. U.S. DOT regulations, "nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;
3. U.S. DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 49 C.F.R. Part 38;
4. Department of Justice (DOJ) regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;
5. Department of Justice (DOJ) regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;
6. General Services Administration regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;
7. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;
8. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and
9. FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609.

11.79. Breaches and Dispute Resolution

49 CFR Part 18 FTA Circular 4220.1F

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

Flow Down Requirements: The Breaches and Dispute Resolutions requirements flow down to a-l tiers.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of MBTA. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the MBTA. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of MBTA shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by MBTA, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the MBTA and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the MBTA is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by MBTA or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

11.80. Patent and Rights in Data

37 CFR Part 401.49

CFR Parts 18 and 19

Applicability to Contracts: Patent and rights in data requirements for federally assisted projects ONLY apply to research projects in which FTA finances the purpose of the grant is to finance the development of a product or information. These patent and data rights requirements do not apply to capital projects or operating projects, even though a small portion of the sales price may cover the cost of product development or writing the user's manual.

Flow Down Requirements: The Patent and Rights in Data requirements apply to all contractors and their contracts at every tier.

CONTRACTS INVOLVING EXPERIMENTAL, DEVELOPMENTAL, OR RESEARCH W-RK

(A) **Rights in Data** - The following requirements apply to each contract involving experimental, developmental or research work:

1. The term "subject data" used in this clause means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to contract administration.
2. The following restrictions apply to all subject data first produced in the performance of the contract to which this Attachment has been added:
 - a. Except for its own internal use, MBTA or Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may MBTA or Contractor authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any contract with an academic institution.
 - b. In accordance with 49 C.F.R. § 18.34 and 49 C.F.R. § 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for "Federal Government purposes," any subject data or copyright described in subsections (2)(b)1 and (2)(b)2 of this clause below. As used in the previous sentence, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.
 1. Any subject data developed under that contract, whether or not a copyright has been obtained; and
 2. Any rights of copyright purchased by MBTA or Contractor using Federal assistance in whole or in part provided by FTA.
 - c. When FTA awards Federal assistance for experimental, developmental, or research work, it is FTA's general intention to increase transportation knowledge available to the public, rather than to restrict the benefits resulting from the work to participants in that work. Therefore, unless FTA determines otherwise, MBTA and the Contractor performing experimental, developmental, or research work required by the underlying contract to which this Attachment is added agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of that contract, or a copy of the subject data first produced under the contract for which a copyright has not been obtained. If the experimental, developmental, or research work, which is the subject of the underlying contract, is not completed for any reason whatsoever, all data developed under that contract shall become subject data as

defined in subsection (a) of this clause and shall be delivered as the Federal Government may direct. This subsection (c), however, does not apply to adaptations of automatic data processing equipment or programs for MBTA or Contractor's use whose costs are financed in whole or in part with Federal assistance provided by FTA for transportation capital projects.

- d. Unless prohibited by state law, upon request by the Federal Government, MBTA and the Contractor agree to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by MBTA or Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. Neither MBTA nor the Contractor shall be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.
 - e. Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.
 - f. Data developed by MBTA or Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying contract to which this Attachment has been added is exempt from the requirements of subsections (b), (c), and (d) of this clause, provided that MBTA or Contractor identifies that data in writing at the time of delivery of the contract work.
3. Unless FTA determines otherwise, the Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.
 4. Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (i.e., a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), MBTA and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Contractors under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part -01.
- (B) **Patent Rights** - The following requirements apply to each contract involving experimental, developmental, or research work:
1. General - If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under the contract to which this Attachment has been added, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, MBTA and Contractor agree to take actions necessary to provide immediate notice and a detailed report to the party at a higher tier until FTA is ultimately notified.
 2. Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education,

individual), MBTA and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Contractors Under" Government Grants, Contracts and Cooperative Agreements,; 37 C.F.R. Part 401.

3. The Contractor also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

11.81. Transit Employee Protective Agreements

49 U.S.C. § 5310, § 5311, and § 5333 29 CFR Part 215

Applicability to Contracts: The Transit Employee Protective Provisions apply to each contract for transit operations performed by employees of a Contractor recognized by FTA to be a transit operator. (Because transit operations involve many activities apart from directly driving or operating transit vehicles, FTA determines which activities constitute transit "operations" for purposes of this clause.)

Flow Down Requirements: These provisions are applicable to all contracts and subcontracts at every tier.

- a. 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 the underlying 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. A 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 MBTA's project from which Federal assistance is provided to support work on the underlying 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 (1), 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 in subsections (b) and (c) of this clause.
- b. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a)(2) for Elderly Individuals and Individuals with Disabilities - If the 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 the underlying 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 Grant Agreement or Cooperative Agreement with the state. The Contractor agrees to perform transit operations in connection

with the underlying contract in compliance with the conditions stated in that U.S. DOL letter.

- c. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Non-urbanized Areas - If the 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.

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

11.82. Incorporation of Federal Transit Administration (FTA) Terms

FTA Circular 4220.1F

Applicability to Contracts: The incorporation of FTA terms applies to all contracts and subcontracts at every tier.

Flow Down Requirements: The incorporation of FTA terms has unlimited flow down.

Incorporation of Federal Transit Administration (FTA) Terms: The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in the most current FTA Circular 4220, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any MBTA requests which would cause MBTA to be in violation of the FTA terms and conditions.

11.83. Drug and Alcohol Testing

49 U.S.C. §5331

49 CFR Part 655

49 CFR Part 382

Applicability to Contracts: The Drug and Alcohol testing provisions apply to Operational Service Contracts.

Flow Down Requirements: Anyone who performs a safety-sensitive function for the recipient or sub-recipient is required to comply with 49 CFR 655 as amended by MAP-21, with certain exceptions for contracts involving maintenance services. Maintenance CONSULTANTS for non-urbanized area formula program grantees are not subject to the rules. Also, the rules do not apply to maintenance sub-contractors.

Drug and Alcohol Testing: The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 CFR Part 655, produce any documentation necessary to establish its compliance with Part 655, and permit any authorized representative of the United States Department of Transportation or its operating administrations, or MBTA, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Part 655 and review the testing process. The contractor agrees further to certify annually its compliance with Part 655 before June 30 and to submit the Management Information System (MIS) reports before January 15 to

MBTA. To certify compliance the Contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

11.84. Transit Vehicle Manufacturer (TVM) Certifications

49 CFR Part 26

49 CFR §26.49 Contractor must submit to MBTA a certification from each transit vehicle manufacturer that desires to bid or propose upon a DOT-assisted transit vehicle procurement that it has complied with the requirements of 49 CFR §26.49. MBTA may, however, with FTA approval, establish project-specific goals for DBE participation in the procurement of transit vehicles in lieu of complying through the overall goal-setting procedures.

11.85. Metric Requirements

15 U.S.C. §§205

2007-Pub. L. 110-69

As required by U.S. DOT or FTA, MBTA agrees to use the metric system of measurement in its Project activities, pursuant to the Metric Conversion Act, as amended by the Omnibus Trade and Competitiveness Act, 15 U.S.C. §§ 205a et seq.; Executive Order No. 12770, "Metric Usage in Federal Government Programs," 15 U.S.C. § 205a note; and other U.S. DOT or FTA regulations, guidelines, and policies. To the extent practicable and feasible, the MBTA agrees to accept products and services with dimensions expressed in the metric system of measurement.

11.86. National Intelligent Transportation Systems (ITS) Architecture and Standards

23 U.S.C. Section 517(d)

23 U.S.C. §502

Intelligent transportation system (ITS) property and services must comply with the National ITS Architecture and Standards to the extent required by 23 U.S.C. Section 517(d) and FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 FR 1455 et seq., January 8, 2001, and later published policies or implementing directives FTA may issue. Consequently, third party contracts involving ITS are likely to require provisions to ensure compliance with Federal requirements.

11.87. Corridor Preservation

49 U.S.C. 5323(q)

The Recipient agrees not to develop right-of way acquired under 49 U.S.C. § 5323(q), as amended by MAP-21, in anticipation of its Project until all required environmental reviews for that Project have been completed.

11.88. Veterans Employment

49 U.S.C. 5325 (k)

Veterans Employment. As provided by 49 U.S.C. § 5325(k):

To the extent practicable, Contractor agrees that it:

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 funds made available or appropriated for 49 U.S.C. chapter 53, and
2. Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee, and

Contractor also assures that its sub-contractor:

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 funds made available or appropriated for 49 U.S.C. chapter 53, to the extent practicable, and
2. Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

11.89. Safe Operation of Motor Vehicles

Executive Order 13043

Executive Order 13513

23 U.S.C. 402

US DOT Order 3902.10

Applicability to Contracts: Applicable to all contracts.

Flow Down Requirements: These requirements flow down to all contractor and sub-contractor tiers.

Safe Operation of Motor Vehicles. As provided by Executive Order Nos. 13043 and 13513:

Contractor shall:

1. Adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented, or personally operated vehicles and require use of seat belts in all such vehicles during operations; and
2. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the Contract, or when performing any work for or on behalf of the Contract; and

3. Conduct workplace safety initiatives in a manner commensurate with its size, such as establishing new rules and programs to prohibit text messaging while driving, re-evaluating the existing programs to prohibit text messaging while driving, and providing education, awareness, and other outreach to employees about the safety risks associated with texting while driving; and
4. Include the above provisions in third-party agreements at all tiers.

11.90. Air Quality / EPA and Fuel Economy

Applicable requirements of 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 the Federal Transit Act," 40 C.F.R. Part 91, Subpart T; and "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. Part 93.

The Contractor should be aware that the following EPA regulations, among others, may apply to its Project: "Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines," 40 C.F.R. Part 85; "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines: Certification and Test Procedures," 40 C.F.R. Part 86; and "Fuel Economy of Motor Vehicles," 40 C.F.R. Part 600.

11.91. Federal Tax Liability and Recent Felony Convictions

Consolidated Appropriations Act 2019, Pub. L. 116-6, div. D, Title VII, Sections 744-745

Applicability to Contracts:

The requirements apply to any Third-Party Agreement with any private corporation, partnership, trust, joint-stock company, sole proprietorship, or other business association ("Third-Party Participant").

The Third-Party Participant must provide a certification that the Third-Party Participant:

1. Does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and
2. Was not convicted of the felony criminal violation under any Federal law within the preceding 24 months.

MBTA shall not enter into any agreement with a Third-Party Participant unable to provide such certification without written FTA approval.

Flow Down Requirements: The requirements flow down from MBTA to first tier contractors, who are responsible for ensuring that all lower tier contractors and sub-contractors are in compliance, without regard to the value of any subagreement.

11.92. Compliance with the National Defense Authorization Act

Public Law 115-232

Applicability to Contracts:

On all contracts, the “Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment” Regulation (2 CFR 200.216) prohibits the Contractor from using or furnishing the following telecommunications equipment or services:

1. Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
2. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
3. Telecommunications or video surveillance services provided by such entities or using such equipment.
4. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

This prohibition applies to all products manufactured by the aforementioned companies, including any individual components or parts.

By submitting a bid, the Contractor certifies that all services, equipment and work will be in compliance with the terms of 2 CFR 200.216.

11.93. Federal Requirements – Disadvantaged Business Enterprises

11.94. Policy Statement

The Massachusetts Bay Transportation Authority, hereinafter referred to as “the Authority” or “the MBTA,” has established a Disadvantaged Business Enterprise (DBE) Program in accordance with regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Authority has received Federal financial assistance from the USDOT, and as a condition of receiving this assistance, the Authority has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Authority to ensure that DBEs, as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in contracts funded wholly or in part by USDOT funds. Further, in keeping with the spirit of growth and development, raising the bar to fulfill business needs and ensuring quality, the Authority will also provide networking opportunities, technical support, guidance and training to DBEs and contractors to support quality business partnerships.

It is the policy of the Authority to do the following:

1. Ensure non-discrimination in the award and administration of USDOT-assisted contracts.
2. Create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts.
3. Ensure that the DBE Program is narrowly tailored in accordance with applicable law.
4. Ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate in the DBE Program.
5. Help remove barriers to the participation of DBEs in USDOT-assisted contracts.
6. Assist the development of firms that can compete successfully in the market place outside the DBE Program.

In administering the DBE Program, the Authority will not do the following:

1. Exclude any person from participation in the award and performance of any contract on the basis of age, race, color, religion, sexual orientation, disability or national origin.
2. Directly or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of 49 CFR Part 26.
3. Use race- or gender-conscious participation set-asides on any USDOT-assisted contracts; but, race- or gender- neutral set-asides can be used as part of the MBTA Fostering Small Business Program.

Implementation of the DBE Program is accorded the same priority as compliance with all other legal obligations incurred by the Authority in its financial assistance agreements with USDOT. The Assistant Secretary of the Office of Diversity and Civil Rights has been designated as the DBE Liaison Officer (DBELO), and has unimpeded and direct access to the General Manager. In that capacity, the Assistant Secretary is responsible for implementing all aspects of the DBE Program. The DBELO shall act in an administrative capacity in implementing the DBE Program throughout the Authority.

11.95. Definitions

Terms and definitions applicable to the USDOT DBE Program and these Provisions may be found at 49 CFR § 26.5 and related appendices and guidance pages.

11.96. Contractor Assurances

The contractor, subrecipient or any subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of the contractor or such other remedy as the Authority deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments;
2. Assessing sanctions;

3. Liquidated damages; and / or
4. Disqualifying the contractor from future Bidding as non-responsible.

11.97. Required Subcontract Provisions

The contractor shall include the provisions –f Section 11.25.3 - Contractor Assurances above in every subcontract, making those provisions binding on each subcontractor. The contract also shall include a copy of these Provisions, in their entirety, in every subcontract with a DBE firm which is, or may be, submitted for credit toward the contract's DBE participation goal. All subcontracts or agreements with DBEs to supply labor or materials, including but not limited to lower tier subcontracts, must be performed in accordance with these Provisions and 49 CFR Part 26.

11.98. Terms & Conditions Signature

IN WITNESS WHEREOF, the Contractor certifies under the pains and penalties of perjury that it shall comply with these MBTA Terms and Conditions under Section 11 for any applicable Contract executed with the MBTA as certified by their authorized signatory below:

Contractor Authorized Signatory:

Print Name:

Title:

Date:

12. TECHNICAL RESPONSE

12.1. Technical Response Submission

Section 1.9 details the process and specific requirements for bidder responses. Responses are due both to the MBTA offices and electronically on COMMBUYS.

Bidders responding to this RFP must fully complete, sign, and submit all Technical Response Components listed in Section 12.2. Where noted, Bidders must provide specific numbers of original documents. Bidders shall not: (1) leave any section of a form blank; (2) mark any section of a form not applicable (N/A); (3) make reference to other documents; or (4) make any response conditional.

The MBTA reserves the right to request additional information for clarification purposes, either written or oral, from Bidders prior to award.

12.2. Technical Response Components

To be considered complete, the Bidder's Technical Response must include:

- One (1) original document(s) for items 12.2.1 – 12.2.7
- One (1) original plus nine (9) copies for items 12.2.8 – 12.2.11, each in a 3-ring binder

12.3. RFP Attachment 1: Technical Response Cover Letter

12.4. Signatures

A certified copy of resolution, by-law, or Power-of-Attorney authorizing an Officer or Agent to sign on behalf of the Bidder must accompany the Proposal and any Contract which may ensue.

1. If a Proposal is made by a foreign corporation, evidence of compliance with Massachusetts General Laws, c. 156D and 950 CMR 113.48 (foreign corporation certificate of registration) and 113.57 (annual report) must be given.
2. If a Proposal is made by two or more individuals, partnerships, or corporations, or any combination of these operating for the purpose of this Proposal as a Joint Venture, each party joining to make the Proposal must submit, attach to and make part of the Proposal, information and signatures in compliance with the foregoing provisions applicable to an individual, firm, partnership, or corporation.
 - a. In addition, if any of the Joint Venture is a corporation, an attested copy of the vote of the corporation authorizing such Joint Venture must be attached to the proposal.

12.5. RFP Attachment 2: Technical Response Certifications

RFP Attachment 2 contains the certifications, affidavits, and other forms that must be included with Bidder's Technical Response, including:

1. Certification: Buy America
2. Non-Collusion Affidavit

3. Certification: Debarment, Suspension, and Other Responsibility Matters
4. Certification: Debarments, Suspension, and Other Responsibility Matters for Lower Tier Participant
5. Certification: Lobbying
6. Non-Discrimination Affidavit
7. Certification: Compliance with Drug & Alcohol Programs
8. Certification: Performance Guarantee
9. Certification: Final Assembly

12.6. RFP Attachment 3: DBE Certifications and Affidavits

RFP Attachment 3 contains the certifications, affidavits, and other forms that must be included with Bidder's Technical Response, including:

1. DBE Utilization Form
2. DBE Participation Schedule
3. DBE Letter of Intent
4. DBE Affidavit

12.7. Signed Contract Terms and Conditions (RFP Section 11)

12.8. Proof of Insurance

The Bidder shall include proof of insurance consistent with the requirements of Section 3.2. If proof of insurance is not available for all policy types, Bidder shall provide such proof as is available and confirm its ability to obtain remaining insurance prior to contract execution.

12.9. Financial Statements

The Bidder shall provide three (3) years of audited financial statements and most recent audited quarterly financial statements, if any. If Bidder's financial statements are available online, a link to those statements is acceptable.

12.10. Introduction

1. An introductory letter addressed to:
Kiana Hall
Massachusetts Bay Transportation Authority
10 Park Plaza, Suite 2810
Boston, Massachusetts 02116
2. An introduction of the prime contractor, members of a partnership, joint venture, or other teaming arrangement, whichever is applicable, and an introduction of all major subcontractors/subconsultants who may be involved in the performance of the work; and

3. A discussion of the primary business experience, length of time in business, ownership, office locations, specific location of the principal office from where the main work will be performed, contact information (i.e., contact names, telephone and facsimile numbers, and email addresses), and other information introductory in nature for each firm involved in making the proposal.

12.11.RFP Attachment 4: Pre-Award Evaluation Data

RFP Attachment 4 contains information about the Bidder's firm and past performance and includes several schedules with additional requested information. If Bidder is a part of a joint venture, this must be submitted for each member of the joint venture.

12.12. Technical Proposal, in the sections noted below:

The Technical Proposal has a combined page limit (for all sections noted) of **125** pages (single-sided).

A. Bidders' Qualifications and Capability

1. Bidders' Organization, Experience and Key Personnel
 - a. Provide a detailed organization chart (with names) of the project staff including, but not limited to Program Manager, Lead System Engineer (System Integration), Lead Software Engineer, Quality Engineer, Warranty and Reliability Engineers, Field Support Manager, Resident Engineers, Training and Manuals Manager. Include a detailed one-paragraph resume of each individual's experience, which directly applies to this project. A matrix of the responsibilities, location, and decision-making authority, of the key staff shall be included.

The proposed staff must be the staff which will actually fill each identified role and deliver the services defined in the contract and the proposal. Changes of key individuals require the prior approval of the Authority.
 - b. Provide a statement that confirms that the Bidder fully understand and will adhere to the requirements of the technical specification and all design and manufacturing standards referenced or otherwise applicable.
 - c. Indicate the Bidder's experience with train protection systems:

Identify the potential subcontractors. Identify the type of equipment being considered and where and in what quantities similar equipment is in use. Indicate where this equipment will be manufactured and assembled.
 - d. Identify the engineer proposed as the System Integrator, and present the offeror's process for ensuring all levels of integration between systems and subsystems throughout the Green Line Train Protection System design and manufacture.

- e. Identify two (2) engineers proposed as Resident Engineers. Resident Engineers will be required to support/oversee installations of all Carborne kits. These engineers must be approved by the MBTA prior to assignment and must be available throughout the installation period to support/oversee the installations conducted by the MBTA personnel and third party contractors working for the MBTA.

2. Past Performance

- a. The system designs shall be service proven. Systems and equipment with limited rail transit service experience will be given consideration by the MBTA, at the MBTA's discretion, only if accompanied by timely presentations containing sufficient information for the MBTA to weigh the merits of the design. The MBTA will evaluate the applicability of "service proven" according to the risk associated with each particular design. In general, a service proven design will meet the following criteria:
 - Used in rail operations for at least 3 years in an environment similar to the Green Line.
 - Used in revenue rail operation for at least 3 million car miles (4.8 million km) with at least 100,000 miles (161,000 km) per vehicle.
 - Has a minimum fleet size of 26 vehicles.
 - Has a vehicle availability of 95% or better.
 - Has achieved an MTBF consistent with this MBTA specification.
 - Has performed its function adequately in previous applications.
 - To establish a design's service proven history, the Contractor shall submit during design review specific details of the application history with the specific contact names at user agencies of the equipment. Final determination of equipment's service proven status will be made by the MBTA during the design review process.
 - The Contractor may offer for approval a design that has evolved from a service proven design, but which must be varied slightly in design or manufacture to meet MBTA requirements or to accommodate advancements in technology or overcome component obsolescence. The Contractor shall show in detail what has been changed in the equipment and why such changes will not adversely affect operation in the MBTA environment.
- b. List (in a matrix format) reliability information for all train protection contracts, of similar size, scope, and operating environment as described in Technical Specification Section 2 and describe how these projects (e.g., duty cycles, climate, other) are similar to this procurement. For each entry, the Offeror shall:
 - Include customer, type, quantity, major vendors, and a brief description of the vehicle and wayside (capacities, features, etc.)

- Describe whether the systems delivered were of an existing design or an entirely new design; and indicate the extent of the Offeror's design responsibility.
- Include the contractual reliability requirements (MDBF, MTBF, definition of failures, warranty period(s), etc.)
- Provide a description of the data collection process, the method of reliability calculation and sample of the raw defect history data

B. Technical Capability of Proposed Solutions

1. Describe how safety of the vehicles is ensured, and what methods are applied to verify and certify the safety of all subsystems and the vehicle as a whole.
2. Describe how EMC will be achieved and interference with the Green Line Train Protection System (GLTPS) avoided. Submit a detailed schedule for the design, manufacture, testing and delivery of each carborne/wayside kit in the form of a milestone type bar chart. Each chart shall indicate anticipated dates for starting and completing all major aspects of the program including, but not limited to, First Article Inspection and completion of major hardware components; the delivery to the MBTA of the Pilot Kits and subsequent delivery of the balance of the Kits on order. Quantity to be delivered shall be clearly noted.
3. Provide the documentation to demonstrate how the General Test and Evaluation Requirements will be fulfilled as indicated below:
 - The prospective supplier shall provide existing technical documentation describing the function and operation of the proposed system.
 - The prospective supplier shall provide existing documentation demonstrating that the proposed system operates as described.
 - The prospective supplier shall demonstrate by analysis, modeling and simulation how the proposed system would have performed in each of the critical incidents of the past.
 - The prospective supplier shall describe how the proposed system can be implemented on the MBTA Green Line for both Wayside and on the vehicle. The assessment shall include how the proposed system will interface with existing equipment and what modifications to existing MBTA equipment are required to interface with the candidate system. Any modification shall be in the most non-invasive manner possible, to avoid adding undesirable failure modes into the existing signal infrastructure.
 - The prospective supplier shall describe how a survey of existing transit infrastructure will be conducted and utilized during the design (e.g., signals, possible power sources, locations on vehicle to mount equipment) to ensure a detailed and accurate final cost proposal and implementation plan.
 - A detailed life cycle cost analysis and maintenance requirement plan shall be provided prior to award.

4. Describe how the additional desired functions and expandable capability of a GLTPS could be satisfied. These may be used to further evaluate any proposed system for future benefit to the MBTA.
 - Right of Way Worker Protection
 1. Expandability to provide a level of Right of Way (ROW) Worker protection.
 - Temporary Speed Restrictions
 1. Expandability to provide temporary speed restrictions for use through temporary work zones or other restricted speed sections of track where a train is required to travel at a speed slower than the posted speed limit.
 - Permanent Speed Restrictions
 1. Expandability to provide overspeed detection and prevention to prevent overspeed derailments at civil curves and other MBTA identified locations where a train should proceed through the protected area at a slow speed.
5. What is your current Safety Integrity Level (SIL)?

C. Project Management Plan and Schedule

1. Describe your approach to meeting the requirements included in the Technical Specifications, incorporating the considerations from this RFP and information from the Reference Materials, and to meeting the performance levels committed to in its Proposal, including:
 - a. A description of the specific operational challenges posed by this Project and Bidders' plan to address them.
 - b. A description of how the Bidder will support MBTA's operations and will ensure a collaborative partnership from Notice to Proceed until the end of the Warranty Term.
2. Provide a description of the project management processes that Bidder applies to a contract for the design, production, installation and testing of the Green Line Train Protection System, including how the team will manage the documentation, matrices, checklists and submittals required by the Technical Specifications.
3. Provide a draft Implementation Plan containing:
 - a. A draft Project Schedule, including contractually required completion dates for the key Milestones
 - b. Assumptions made in developing the schedule, such as the number of trains made available for installation per week, the number of days to install Equipment on each train, and other factors that may impact schedule;
 - c. Resources and support that must be provided by the MBTA or third parties to achieve the draft Project Schedule
4. A description of Proposer's certification, testing, QA and QC programs, including:
 - a. A description of the policies and procedures that the Proposer considers necessary to ensure that the third-party Installers will properly install Proposer's Equipment.

- b. A description of how QC activities will be staffed in comparison to QA activities.
- 5. Present the Design Review Process, including the presentation of the contents of Preliminary and Final design reviews. The Offeror shall present the proposed process for progressing through these as well as the approach to addressing questions and concerns of the MBTA.
- 6. Describe the mobilization plan and approach for conducting the Green Line Train Protection System qualification testing required in Technical Specification No. VE-24-056. Provide a preliminary indication of test sequencing. Describe the methods by which on-going test results will be cycled through the design process to ensure that design modifications are implemented prior to the delivery of kits. Describe how such design modifications are implemented into the ongoing manufacturing and assembly process.
- 7. Describe how the reliability requirements of Technical Specifications VE-24-056 will be met and what methods the Offeror will undertake to ensure all major subsystem suppliers achieve this requirement.
- 8. The Bidder's project delivery schedule shall include a narrative that provides information regarding:
 - a. Assumptions used in developing the schedule. The description shall be sufficient to allow full understanding of the assumptions the Bidder has made and determined are required in order to meet the schedule requirements of the Technical Specifications and Contract Documents.
 - b. Major component materials and supplies/equipment (including all items with lead times greater than 3 months).
 - c. Identification of major risks to achieving the schedule.
 - d. Identification of critical path activities.
 - e. Explanation of the organization's historic performance with regard to schedules (or separate explanations for the design and implementation efforts if this is a new team or joint venture).
 - f. Attach a high-level Project Schedule

D. Quality Assurance Plan (10 double-sided pages maximum)

- a. The Bidder is to provide an outline of the Quality System Manual and Project Quality Plan requirements stipulated in Technical Specification VE-24-056. The outline should include details of approach, organization, sample procedures, sample documentation, and feedback mechanisms for all phases of the program (design, manufacture, final assembly, test/commission, warranty).
- b. The Bidder shall describe its approach to subcontractor quality compliance, first article inspections, and quality control/quality assurance roles at the final assembly site

12.13.Exceptions, if any

Any Exceptions must be specifically related to a paragraph and/or specific part of the solicitation or technical specification. Bidder shall provide rationale in support of the exception and fully explain its impact, if any, on the vehicle performance, schedule, cost, interfacing equipment / infrastructure, lifecycle, maintainability, and specific requirements of the solicitation. Each listed exception may be up to two (2) pages in length.

Provide the rationale in table format including the content detailed below. **Failure to comply with the terms and conditions and technical requirements of the solicitation may result in the Bidder being removed from consideration for contract award.**

Solicitation Document	Paragraph/Page	Requirement	Rationale	Benefit to MBTA	Impacts On
RFP, Specification, Exhibits, Attachments, Amendment	Applicable Document, Page, Section, Paragraph, Sentence	Identify the requirement or portion to which the exception is taken	Bidder's justification why the requirement will not be met and its alternative strategy or position	Include the benefit to MBTA if the proposed alternate strategy or position is approved	Schedule, Cost, Vehicle Performance, Interfacing Equipment / Infrastructure, Lifecycle, Maintainability, Other

12.14.Promotional Literature

Bidders may provide up to eight (8) pages of promotional literature. If provided, this will not be used to score or rank proposals.

13. PRICE PROPOSAL

13.1. Price Proposal Submission

Section 1.9 details the process and specific requirements for bidder responses. Responses are due both to the MBTA offices and electronically through COMMBUYS.

The MBTA reserves the right to request additional information for clarification purposes, either written or oral, from Bidders prior to award.

13.2. Tax Exemption

The MBTA is exempt from Federal Excise Tax, including Transportation Tax, and will furnish properly executed tax exemption certificates upon request. The MBTA is also exempt from Massachusetts State Sales Tax -- Exemption Number E-042-323-989. Such taxes should not be included in Proposal prices.

As an independent Contractor, the Contractor alone shall be responsible for payment of all federal, state and local taxes of all types and kinds applicable to such fees incurred under this Agreement.

13.3. Price Proposal Components

Bidders responding to this RFP must fully complete, sign, and submit RFP Attachment 5: Price Proposal. Bidders shall not: (1) leave any section of the form blank; (2) mark any section of the form not applicable (N/A) unless specifically called for in the instructions; (3) make reference to other documents unless specifically called for in the instructions; or (4) make any response conditional.

Bidders must submit their Price Proposal separately from their Technical Response, as described in Section 1.9. Bidders should submit one (1) original copy in a separately sealed envelope. In addition, Bidders should submit both PDF and Excel versions of the Price Proposal as separate files with their response through COMMBUYS.