

Serial Number: RFP-FQ15093/GG
Date of Issue: April 16, 2015
Proposal Due Date: Aug 31, 2015

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
600 FIFTH STREET, N.W.
WASHINGTON, D.C. 20001

August 13, 2015

AMENDMENT NO. 3
TO
REQUEST FOR PROPOSALS
FOR
REHABILITATION OF RED LINE METRO RAIL SYSTEM FROM FRIENDSHIP HEIGHTS CROSSOVER
TO GROSVENOR - STRATHMORE STATION
FQ15093/GG

TO WHOM IT MAY CONCERN:

The Request For Proposals for Proposal Documents accompanying RFP FQ15093/GG requesting Proposals for the above project are hereby changed in part as listed below.

1. Volume 1 – Division 0

Delete the following pages and in lieu thereof replace the accompanying pages:

<u>DELETE</u>	<u>REPLACE</u>	<u>DESCRIPTION</u>
00005-2	00005-2 AM3	Revised
00100-1	00100-1 AM3	Revised
00100-3	00100-3 AM3	Revised
00200-14	00200-14 AM3	Revised
00434	00434 AM3	Revised
00452-2	00452-2 AM3	Revised
00700-1	00700-1 AM3	Revised
00700-23	00700-23 AM3	Revised
00700-24	00700-24 AM3	Revised
00800-4	00800-4 AM3	Revised
00800-9	00800-9 AM3	Revised

ADD:

00700-24 AM3
00700-25 AM3

2. Volume 1 – Division 1

Delete the following pages and in lieu thereof replace the accompanying pages:

<u>DELETE</u>	<u>REPLACE</u>	<u>DESCRIPTION</u>
01110-02	01110-02 AM3	Revised
01110-08	01110-08 AM3	Revised
01111-02	01111-02 AM3	Revised
01250-03	01250-03 AM3	Revised

01322-12	01322-12 AM3	Revised
01470-1	01470-1 AM3	Revised
01322-2	01322-2 AM3	Revised
01322-3	01322-3 AM3	Revised
01322-4	01322-4 AM3	Revised
01322-5	01322-5 AM3	Revised
01322-6	01322-6 AM3	Revised
01322-7	01322-7 AM3	Revised
01322-8	01322-8 AM3	Revised
01322-9	01322-9 AM3	Revised
01322-10	01322-10 AM3	Revised

3. Volume 2 – Divisions 2 through 16

Delete the following pages and in lieu thereof replace the accompanying pages:

<u>DELETE</u>	<u>REPLACE</u>	<u>DESCRIPTION</u>
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4. Volume 3 – RFP Drawings for construction part of the Work and RFP Drawings for design-build part of the Work

Delete the following drawings and in lieu thereof add the accompanying drawings:

<u>DELETE</u>	<u>ADD</u>	<u>DESCRIPTION</u>
S-100	S-100 AM3	Revised
S-101	S-101 AM3	Revised
S-102	S-102 AM3	Revised
S-103	S-103 AM3	Revised
S-104	S-104 AM3	Revised
S-105	S-105 AM3	Revised
S-106	S-106 AM3	Revised
S-107	S-107 AM3	Revised
S-108	S-108 AM3	Revised
S-109	S-109 AM3	Revised
S-110	S-110 AM3	Revised
A11-G-001	A11-G-001 AM3	Revised
A09-A-100	A09-A-100 AM3	Revised
A09-A-101	A09-A-101 AM3	Revised
A09-A-301	A09-A-301 AM3	Revised

5. Volume 10 – Attachments

Delete the following pages and in lieu thereof replace the accompanying pages:

<u>DELETE</u>	<u>REPLACE</u>	<u>DESCRIPTION</u>
N/A	MRWJ-117-1974 MR Subsurface Investigation	New
N/A	Bethesda Visual Survey Photographs	New

6. Acknowledgment

Proposers are required to acknowledge receipt of this Amendment on the Technical and Price proposal Forms (p.00412-1 and p.00413-1) in the space provided. Failure to acknowledge all Amendments may cause the Proposal to be considered not responsive to the RFP, which would require rejection of the Proposal.



Richard Owens
Contracting Officer

Enclosures

* * * * *

SECTION 00005
TABLE OF CONTENTS
FOR
CONTRACT DOCUMENTS

Volume 1 – Specifications: Divisions 0 and 1

Volume 2 – RFP Technical Specifications for construction part of the Work, RFP Technical Specifications for design-build part of the Work

Volume 3 – RFP Drawings for construction part of the Work and RFP Drawings for design-build part of the Work

Volume 4 – WMATA Standard Specifications

Volume 5 – WMATA Standard Drawings

Volume 6 – WMATA Manual of Design Criteria, WMATA Signage Criteria Manual and WMATA Design Directive Drawings (WMATA Signage Criteria Manual will be provided after Contract Award)

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Volume 7 – WMATA CAD Manual

Volume 8 – WMATA Safety and Security Plans and Documents

- WMATA System Safety Program Plan (SSPP)
- WMATA Construction Safety and Environmental Manual (CSEM)
- Metrorail Safety Rules and Procedures Handbook (MSRPH)
- OAP 200-33 Site Specific Work Plan (SSWP)
- Safety and Security Certification Program Plan (SSCPP)
- Roadway Worker Protection Manual (RWPM)

Volume 9 – WMATA Specification Preparation Style and Usage Guide

Volume 10 – Attachments

- ADA Key and New Station Checklist
- MSDS Review Request Form
- Sample Certifiable Items List (CIL)
- Design Review Form
- Sample Preventive Maintenance Instruction (PMI)
- Background Screening Form
- C 113, Daily Report and Period of Delay Form
- Office of Rail Transportation Maintenance Operations Control Administrative Procedure
- Maryland Department of the Environment Discharge Permit
- Revenue Service Adjustment Form
- General Orders and Track Rights System (GOTRS) Request Form
- Escort Request Form
- Switch Order Form
- Site Specific Work Plan (SSWP) Form
- 2013_2014 Severe Weather Operations Plan
- 1Z009C-M0523 Tunnel and ROW Graphics-TG-6_As Builds **AM2**
- Medical Center Crossover END Walls - Pictures **AM2**
- A09 Bethesda Station Photographic Survey **AM3**
- Rockville Route Subsurface Investigation, Report No. MRWJ - 74-117 **AM3**

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DB V1 7/2013

SECTION 00100
REQUEST FOR PROPOSAL

This Section includes Project information for Proposers.

NOTICE TO PROPOSERS

Contract No. FQ15093/GG includes RFP Documents for:

Project Name: Rehabilitation of Red Line Metro Rail System from Friendship Heights Crossover to Grosvenor-Strathmore Station

Technical Proposals and Price Proposals for the Work described herein shall be submitted in an envelope by the Proposers so as to be received at the Office of Procurement, Washington Metropolitan Area Transit Authority, Office of Procurement, PRMT File Room 3C-02, 600 Fifth Street, N.W., Washington, D.C. 20001. Technical and Price Proposals shall be mailed in a timely fashion or hand delivered to reach WMATA before 3:00 PM (local time) on August 31, 2015. Questions may be directed to Guzel Gufranova at 202-962-5544 or at ggufranova@wmata.com.

AM1 AM2
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DIRECTIONS TO SUBMITTING PROPOSER: Read and comply with the Solicitation Instructions. In addition to other submission requirements set forth in this Request for Proposal and all Amendments, the following must be properly executed, completed, and submitted separately as part of the offer:

A. TECHNICAL PROPOSAL:

1. Technical Proposal Form (properly executed)¹, Section 00412
2. Technical Proposal (Refer to Technical Proposal evaluation factors listed in Section 00200, INSTRUCTIONS TO PROPOSERS)
3. Compliance/Exception Information, Section 00432
4. Brand Name or Equal Form, Section 00433

B. PRICE PROPOSAL:

1. Price Proposal Form (properly executed¹), Section 00413
2. Price Proposal Schedule, Section 00434
3. Proposal Guarantee, Section 00431, Proposal Security (Proposal Bond Form)
4. Proposal Data Form with Supporting Data, Section 00452
5. Representations and Certifications, Section 00451
6. DBE Data, Section 00453

PROPOSAL(S) MUST SET FORTH FULL, ACCURATE, AND COMPLETE INFORMATION AS REQUIRED BY THIS REQUEST FOR PROPOSAL, INCLUDING ALL AMENDMENTS

¹The separate sealed Technical and Price Proposal Forms must be marked with offer under Solicitation RFP No. FQ 15093/GG and with acknowledgement of all Amendments.

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|--|------------|------------|------------|
| 3. Technical and Price Proposal: August 31, 2015 | AM1 | AM2 | AM3 |
| 4. Notice of Award: February 10, 2016 | AM1 | AM2 | AM3 |
| 5. Notice to Proceed: March 10, 2016 | AM1 | AM2 | AM3 |

END OF SECTION

Response to work approach evaluation factor shall not exceed forty (40) pages. List of rail mounted track equipment will not count against forty (40) pages limitation.

FACTOR 4 SCHEDULE COMPLIANCE

- Adherence to schedule is of paramount importance. Proposer shall demonstrate understanding of the Work restrictions, Work hours, utilization of RSA events and their limited quantity available. Design builder is to demonstrate their plan of how to maximize productivity in all parts of the total Work Site during each and every RSA; clearly showing the coordination of equipment movements versus crew movements as to not impede each other's progress, to ensure a steady and consistent flow of Work from the onset of the RSA to its finish.

- A detailed Critical Path Method (CPM) schedule with supporting narrative description of the construction methodology, including equipment, materials and manpower to be employed to construct the Project. The schedule must identify the critical and near critical path and explain how the critical activities will be controlled to meet schedule dates. The schedule should include the staffing requirements for each work element. The schedule shall depict the Work submitted for Factor 3, Work Approach. The schedule shall include durations for all major activities. The schedule shall also identify which specific shutdown and/or single tracking event each activity corresponds to.

- Early completion for each Work element described under Factor 3 Work Approach is very important to the Authority. The Proposers are encouraged to explore a compressed schedule, however, it must be reasonable, realistic, and achievable. No price shall be provided with the early completion narrative in response to this technical evaluation criteria. The Proposer shall indicate only the percentage variance from the Total Contract Price when exercising an early completion scenario. WMATA is not accepting changes to the RSA dates stated in Section 01141 ACCESS TO SITE. The Proposer may propose fewer quantity of RSA events.

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- Those Proposers that elect to pursue an earlier completion than specified in the Period of Performance, Section 00824 PERIOD OF PERFORMANCE AND PROJECT SCHEDULE, should submit a separate schedule and narrative, of the same detail as that for the "base" period, to demonstrate the Proposer's ability to achieve timely completion as well as detailed information as to how this affects the Project in terms of providing additional value.

WMATA will determine whether the stated benefits for early completion are in its best interest. Additional consideration will be given for a compressed schedule only if it meets the criteria stated and the Proposer provides evidence of a record of solid schedule compliance or accelerated performance on other projects of similar size and complexity.

- Proposer shall provide a risk register and a risk analysis narrative to include, as a minimum, risks of not completing the Work on time, mitigation plan, probability of completing the Work within the Period of Performance specified in Section 00824 PERIOD OF PERFORMANCE AND PROJECT SCHEDULE. Provide both a risk register and a risk analysis in PDF format.

Credibility and viability of the proposed Project schedule and supporting narrative will be evaluated.

For preparation of the Proposal the Proposer shall assume no unscheduled events which are described in Paragraph 1.08 (F) of Section 01141 ACCESS TO SITE.

Response to schedule compliance evaluation factor will not have page restrictions.

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FACTOR 5 SAFETY

0434 Price Schedule - Submit with Price Proposal

BI #	Discription	QTY	Unit Price	Unit	Total
Part 2.1.1 Tunnel Rehabilitation & Medical Center Station Ceiling Replacement					
Medical Center Station Ceiling Replacement:					
2.1.1.1A	Complete Ceiling replacement with New Acoustical snap-in metal pan ceilings , light fixtures , conduit , wiring, and Misc. devices in the Passageway	1	-	LS	\$
2.1.1.1B	Complete Ceiling replacement with New Acoustical snap-in metal pan ceilings , light fixtures , conduit , wiring, and Misc. devices under Mezzanine	1	-	LS	\$
2.1.1.2A	Removal & Replacement Medical Center Pasageway Hatch	1	-	LS	\$
2.1.1.2B	Passageway Waterproofing Coatings	1	-	LS	\$
Tunnel Rehabilitation:					
2.1.1.3A	Clean with power wash/hand tool the concrete lining, vault and end walls	1	-	LS	\$
2.1.1.3B	Remove heavy efflorescence on electrical cables	4,940	\$	LF	\$
2.1.1.3C.1	Type 1 T concrete repair	5,350	\$	LF	\$
2.1.1.3C.2	Type 2 T concrete repair	1,925	\$	LF	\$
2.1.1.3C.3	Type 3 T concrete repair	28	\$	SF	\$
2.1.1.3C.4	Type 4 T concrete repair	47	\$	SF	\$
2.1.1.3C.5	Type 5 T concrete repair	10	\$	EA	\$
2.1.1.3C.6	Type 6 T concrete repair	100	\$	LF	\$
2.1.1.3D	Grating and floor plates	1	-	LS	\$
2.1.1.3E	Replace/Clean/repair Subway drainage system and Manholes	1	-	LS	\$
2.1.1.4A	Remove and replace existing ETS and ETS relay cabinets with all terminations in the tunnel areas	1	-	LS	\$
2.1.1.4B	Install All cables for ETS in tunnel including Mounting hardware	1	-	LS	\$
2.1.1.4C	Complete installation of ETS outside tunnel areas including cables testing	1	-	LS	\$
2.1.1.5A	Install Complete Load Center Cabinets w/Transformer, including mounting hardware and all wire terminations	1	-	LS	\$
2.1.1.5B	Install Duplex waterproof outlets, including NEMA 4x and mounting hardware and all wire terminations	1	-	LS	\$
2.1.1.5C	Install as per drawings all other Cables Except ETS cables in tunnel including Mounting hardware	1	-	LS	\$
2.1.1.5D	Remove and replace deteriorated, broken, missing Clamps for cables and conduits, miscellaneous devices, boxes, covers and hardware in tunnel.	15,000	-	EA	\$
2.1.1.5E	Install new Light fixtures in tunnel including Mounting hardware and terminations	1	-	LS	\$
2.1.1.5F	Remove in tunnel segment all existing unused light fixtures, cables, Load Center Cabinets with Transformer, mounting hardware, and Duplex waterproof outlets	1	-	LS	\$
Sub Total for Part 2.1.1 Tunnel Rehabilitation & Medical Center Station Ceiling Replacement					[A] \$
Part 2.1.2 Medical Center Crossover Waterproofing					
2.1.2.6	Installation of Medical Center Crossover Waterproofing as per drawings and specifications	1	-	LS	\$
Sub Total for Part 2.1.2 Medical Center Crossover Waterproofing					[B] \$
Part 2.1.3 Grosvenor Aerial Bearing Replacement, Drainage and Pier Cap Retrofits					
2.1.3.7	Hammer Head Construction (20 Each)	1	-	LS	\$
2.1.3.8	Grout Pads - New & Repair Existing	1	-	LS	\$
2.1.3.9	Bearing Replacement (at 4 Piers)	1	-	LS	\$
2.1.3.10	Deck Joint Replacement	1	-	LS	\$
2.1.3.11	Plumbing at Piers	1	-	LS	\$
Sub Total for Part 2.1.3 Grosvenor Aerial Bearing Replacement, Drainage and Pier Cap Retrofits					[C] \$
Part 2.1.4 Grosvenor Station Platform Rehabilitation					
2.1.4.12	Platform Structural Slab Edge demo and replacement	1	-	LS	\$
2.1.4.13	Granite Edge Removal and Replacement including waterproofing	1	-	LS	\$
2.1.4.14	Platform Paver Tile , topping Slab setting bed Removal and Replacement including waterproofing	1	-	LS	\$
2.1.4.15A	Platform Concrete structural Slab repair: Type 3 concrete repair	20	\$	SF	\$
2.1.4.15B	Platform Concrete structural Slab repair: Type 4 concrete repair	10	\$	SF	\$
2.1.4.15C	Platform Concrete structural Slab repair: Type 7 concrete repair	70	\$	LF	\$
2.1.4.15D	Platform Concrete structural Slab repair: Type 8 concrete repair	70	\$	LF	\$
2.1.4.16	Mechanical- Demo Standpipe and install new standpipe	1	-	LS	\$
2.1.4.17	All Electrical related work as per drawings but not limited to New Platform edge lights, Station lights upgrade, Reroute cables & conduits, Install new conduit & cables.	1	-	LS	\$
Sub Total for Part 2.1.4 Grosvenor Station Platform Rehabilitation					[D] \$
Part 2.1.5 Grosvenor Platform Canopy and Mezzanine Roof Restoration					
Design:					
2.1.5.18	Canopy Mezzanine - Design (Design, As-built, Documents, Review and Approvals)	1	-	LS	\$

AM2
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- 13. Have you ever been assessed liquidated damages or actual damages for late completion within the last five years? Yes No If the answer is YES, attach as SCHEDULE 12 the full particulars regarding each occurrence.
- 14. Financial resources available as working capital for this Contract:
 - a. Cash on hand: \$[insert amount] Date: [insert date]
 - b. Sources of credit: [insert all sources]
- 15. Attach as SCHEDULE 14 certified financial statements and letters from banks regarding credit as required by Section 00200, INSTRUCTIONS TO PROPOSERS, of this Contract.
- 16. Attach as SCHEDULE 15 the design and construction experience of each officer and principal individual of your organization; include present position, years of design and construction experience, magnitude and type of work, and in what capacity.
- 17. What percentage of the Work (Contract amount) do you intend performing with your own personnel? [insert percentage]%
- 18. Attach as SCHEDULE 17 a list of all Subcontractors and the percentage and character of work (contract amount) which each will perform.
- 19. Not Used **AM3**
- 20. If the Design-Builder or Subcontractor is a joint venture, submit Proposal Data Forms for each member of the joint venture.

The above information is confidential and will not be divulged to any unauthorized person or persons. The signatory of this questionnaire certifies to the truth and accuracy of all statements, answers, and attachments.

For: [insert firm name]

DUNS #[insert number]

Dated: [insert date signed]

[insert signatory's name and sign above], [insert signatory's title]

Location: [insert location]

SECTION 00700
GENERAL CONDITIONS

This Section includes a compilation of contractual and legal requirements that list the rights, responsibilities, and relationships of the parties to a Contract and defines duties and limits of authority for design professionals and construction management in performance of contract administration. This Section shall be read in conjunction with Section 00800, Supplementary Conditions, which specifies modifications to these General Conditions, and which will be cited using the same last 2 digits of the Section number; i.e., a modification to Section 00724 will be indicated as Section 00824.

00701 DEFINITIONS

A. As used throughout the Contract Documents, the following terms shall have the meanings set forth below:

1. **Acceptance:** Acknowledgement by the Authority of full and satisfactory physical completion and commissioning of all Work including Punch List items, Operation and Maintenance manuals, final inspection, all in accordance with the Contract Documents. **AM3**
2. **Agreement:** The Authority's form titled "Design-Build Contract Form" in this Request for Proposal (RFP) that, upon execution by the Design-Builder and the Authority, creates the Contract between the two parties.
3. **Amendment:** Written or graphic instructions issued to clarify, revise, add, or delete RFP requirements that are issued before the execution of the Agreement.
4. **Approval of a Submittal or any other item** shall be solely for the purpose of establishing conformance to the RFP Documents.
5. **As-Built Drawings:** Drawings prepared by or through the Design-Builder, which reflect final as-built condition of the Project and includes all known changes to the Issued for Construction Drawings.
6. **As-Built Specifications:** Those specifications prepared by or through the Design-Builder in CSI format to reflect final as-built information only and showing revisions from the Issued for Construction Specifications.
7. **As shown, as indicated, as detailed or words of similar import:** Shall be understood to mean that the reference is made to the RFP Documents.
8. **As specified, as described, or words of similar import:** Shall be understood to mean that the reference is made to the RFP Documents.
9. **Authority:** The Washington Metropolitan Area Transit Authority, created effective February 20, 1967, by Interstate Compact by and between Maryland, Virginia, and the District of Columbia, pursuant to Public Law 89-774, approved November 6, 1966.
10. **Basis of Design:** The RFP Documents that shall be used by the Design-Builder for the preparation of the Issued for Construction Specifications and Drawings.
11. **Board of Directors:** The Board of Directors of the Washington Metropolitan Area Transit Authority.
12. **Claim:** A written demand or assertion by the Design-Builder seeking, as a legal right, the payment of money, adjustment or interpretation of Contract terms, or other relief, arising under or relating to this Contract.

- be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this Section, such excess shall be payable by the Design-Builder to the Authority upon demand for the period from the date such excess payment is received by the Design-Builder to the date on which such excess payment is repaid to the Authority upon demand, together with interest computed at the rate of 6 percent per annum, for the period from the date such excess payment is received by the Design-Builder to the date on which such excess payment is repaid to the Authority; provided, however, that no interest shall be charged with respect to any such excess, payment attributable to a reduction or other disposition of termination inventory until 10 Days after date of such retention or disposition, or such later date as determined by the Contracting Officer by reason of the circumstances.
- L. Unless otherwise provided for in this Contract, or by applicable statute, the Design-Builder, from the effective date of termination and for a period of 3 years after final settlement under this Contract, shall preserve and make available to the Authority at all reasonable times at the office of the Design-Builder but without direct charge to the Authority, all its books, records, documents, and other evidence bearing on the costs and expenses of the Design-Builder under this Contract and relating to the Work terminated hereunder, or to the extent determined by the Contracting Officer, photographs, microphotographs, or other authentic reproduction thereof.

00729 ASSIGNMENT

- A. The Design-Builder shall not transfer or assign this Agreement or any portion thereof or any of the rights and obligations of the Contract to any other party. The Contracting Officer may recognize a third party as successor in interest to the Contract where the third party's interest is incidental to the transfer of all the assets of the Design-Builder, i.e., sales of assets, transfer of assets pursuant to merger or consolidation, or incorporation of a proprietorship or partnership. Such recognition of the transfer shall be within the sole discretion of the Authority after review of the facts and circumstances surrounding each request submitted in accordance with Section 01330, SUBMITTAL PROCEDURES, but the assignment will not be approved unless the surety, in writing, agrees to that assignment and accepts the assignee as the Design-Builder and principal on the payment and performance bonds.
- B. If this Contract provides for payments aggregating \$1,000 or more, Claims for moneys due or to become due the Design-Builder from the Authority, this Contract may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Notice of such assignment shall be made to the Contracting Officer and submitted through the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, but the assignment will not be approved unless the surety, in writing, agrees to that assignment and accepts the assignee as the Design-Builder and principal on the payment and performance bonds. Such assignment or reassignment shall cover all amounts payable under this Contract and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made one party as agent or trustee for two or more parties participating in such financing. It is the Authority's intent to recognize assignments only to bona fide lending institutions; therefore, assignment to any private corporation, business, or individual, which does not qualify as such, is specifically prohibited.
- C. Any attempt to transfer by assignment not authorized by this Section shall constitute a breach of the Contract, and the Contracting Officer may for such cause terminate the right of the Design-Builder to proceed as provided in Section 00727, TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS, and the Design-Builder and its sureties shall be liable to the Authority for excess costs incurred by the Authority.

00730 DISPUTE AND CLAIMS RESOLUTION

- A. This Clause establishes the Authority procedures for processing and resolving Design-Builder claims and disputes, and identifies those Authority officials and representatives responsible for administering such actions and for implementing decisions rendered by the Armed Services Board of Contract Appeals ("ASBCA"), and by other appropriate courts of law.

B. CLAIMS. GENERAL: The Authority shall promptly review and evaluate all Design-Builder claims, and shall provide an objective appeals process to hear and render decisions on appeals taken from Final Decisions by the Contracting Officer. The FTA shall be kept advised of all disputes, claims and litigation where federal funding is involved. All settlements above \$100,000 must have the written concurrence of the FTA. AM3

C. RESPONSIBILITY. The Contracting Officer is responsible for the review, evaluation, and determination of the merit of Design-Builder claims. In making merit determinations, the Contracting Officer should obtain the advice from Authority technical and subject matter experts in the areas including, but not limited to: contracting, finance, law, contract audit, and engineering and construction. The Contracting Officer or his/her authorized representative must complete a fact-finding investigation of unresolved claims in accordance with the Disputes clause of the contract. The Contracting Officer Representative ("COR")/ Contracting Officer Technical Representative ("COTR") must promptly provide the Contracting Officer with all required technical information relevant to the claim(s). Findings of Fact are to be prepared so as to enable the Contracting Officer to make informed determinations. The Chief Procurement Officer may resolve Design-Builder claims or may delegate appropriate authority to designated representatives (e.g., COR/COTR) to settle claims. AM3

D. PROCEDURE. The Design-Builder must submit a claim in writing to the Contracting Officer. Proposed Determinations of Merit shall be coordinated between the Contracting Officer and the COR/COTR's Department Director, and supported by Findings of Fact which support the basis for the action taken. The Contracting Officer shall attempt to negotiate an equitable adjustment when a merit determination is made. When a claim is submitted and a decision is made that the claim has no merit, General Counsel shall review the decision. AM3

(a) For all meritorious claims, the Contracting Officer may request the Design-Builder to provide certification when submitting any claim in excess of \$100,000. The certification shall state the following: AM3

I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Design-Builder believes the Authority is liable; and I am duly authorized to certify the claim on behalf of the Design-Builder. AM3

(b) The aggregate amount of both increased and decreased costs shall be used in determining when the dollar threshold is met requiring certification. Certification may be executed by any person so duly authorized to bind the Design-Builder with respect to the claim. The certification requirement does not apply to issues not submitted as part of a claim. AM3

(c) Meritorious claims that can be completely settled in terms of time and monetary issues shall be processed by the Authority in the same manner as contract modifications. AM3

(d) If the Contracting Officer determines that a claim has no merit, or that an equitable adjustment cannot be negotiated for a claim with merit, the Final Decision shall be prepared and coordinated with the COR/COTR's Department Director and the General Counsel. AM3

(e) The Final Decision shall include the following elements: (i) description of the claim or dispute; (ii) reference to the pertinent contract terms; and (iii) statement of factual areas of agreement and disagreement; and (iv) statement of Contracting Officer's decision, with supporting rationale. The Contracting Officer's Final Decision shall be transmitted by certified or registered mail, return receipt requested, to the Design-Builder's address shown on the cover page of the contract, unless the AM3

Design-Builder has previously requested in writing that another address be used. The return receipt must indicate the date of receipt of the Final Decision by the Design-Builder.

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E. APPEALS TO THE ASBCA

(a) The Armed Services Board of Contract Appeals (“ASBCA”) is designated as the authorized representative of the Authority to hear, consider, and decide on Design-Builder appeals of Final Decisions arising under the Disputes clause of Authority contracts.

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(b) Rules for hearing and processing contract appeals from decisions by Authority Contracting Officers will be in substantial conformance with the guidelines for uniform board rules for Executive agencies prior to the effective date of the Contract Disputes Act of 1978 ([Public Law 95-563](#), [41 USC 601-613](#)), which was further amended by the Administrative Dispute Resolution Act ([Public Law 101-552](#)), but which are not applicable to Authority disputes.

AM3

(c) After receipt of an authenticated copy of the ASBCA decision, the Authority Contracting Officer will immediately inform appropriate Authority officials of the ASBCA decision and initiate action to process a contract modification, if required.

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F. DISPUTES. Except as otherwise provided in this Contract, any dispute arising under or related to this Contract including allegations of breach of contract or similar allegations, which are not disposed of by agreement, will be decided by the Contracting Officer, who will reduce a decision to writing and mail or otherwise furnish a copy thereof to the Design-Builder. The decision of the Contracting Officer is final and conclusive unless, within 30 Days from the date of receipt of such copy, the Design-Builder mails or otherwise furnishes to the Contracting Officer a written notice of appeal in accordance with Section 01330, SUBMITTAL PROCEDURES, addressed to the Authority Board of Directors. Such notice shall indicate that an appeal is intended and shall reference the decision and Contract number. The decision of the Board of Directors or its duly authorized representative for the determination of such appeals shall be final and conclusive unless in proceedings initiated by either party for review of such decision in a court of competent jurisdiction, the court determines the decision to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or is not supported by substantial evidence. In connection with any appeal proceeding under this Section, the Design-Builder will be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Design-Builder shall proceed diligently with the performance of the Contract and in accordance with the Contracting Officer’s decision. The Armed Services Board of Contract Appeals is the authorized representative of the Board of Directors for finally deciding appeals to the same extent as could the Board of Directors.

G. This Section does not preclude consideration of questions of law in connection with decisions provided for in Paragraph F above. Nothing in this Contract, however, shall be construed as making final the decisions of the Board of Directors or its representative on a question of law.

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00731 USE AND POSSESSION PRIOR TO COMPLETION

- A. The Authority shall have the right to take possession of or use any completed or partially completed part of the work. Such possession or use shall not be deemed an acceptance of any work not completed in accordance with the Contract. While the Authority is in such possession, the Design-Builder, notwithstanding the provisions of Section 00706, PERMITS AND RESPONSIBILITIES, will be relieved of the responsibility for loss or damage to the Work other than that resulting from the Design-Builder's fault or negligence or that of its Subcontractors or agents. If such prior possession or use by the Authority delays the progress of the Work or causes additional expense to the Design-Builder, an equitable adjustment in the Contract Price or the time of completion will be made and the Contract shall be modified in writing accordingly.

00732 ACCEPTANCE AND INSPECTION OF WORK

- A. "Acceptance," as used in this Section, means the act of the Contracting Officer Representative by which the Authority approves specific services as partial or complete performance of the Contract. As used in this Section, "Correction" means the elimination of a defect.
- B. Unless otherwise provided in this Contract, Acceptance by the Authority will be made as promptly as practicable after completion and inspection of all Work required by this Contract. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards to the Authority's right under any warranty or guarantee. All Punch List items identified during final inspections and noted at the time of Acceptance shall be corrected by the Design-Builder as soon as is practicable as specified in Section 01775, CLOSEOUT.
- C. The Contracting Officer Representative will give written notices of defects or non-conformances to the Design-Builder if and when discovered, but no later than Acceptance of the construction work designed under this Contract as specified in Section 01775, CLOSEOUT, except for latent defects, which may be discovered following such Acceptance. This notice will state either:
1. That the Design-Builder shall correct or re-perform defective or nonconforming services; or,
 2. That the Authority does not require correction or re-performance. The Design-Builder shall be liable to the Authority for all costs incurred of any kind caused by or resulting from the Design-Builder's defective workmanship or noncompliance with the RFP Documents and the Design Specifications and Design Drawings.

- A. The Design-Builder shall perform, with its own organization, work equivalent to at least 25% of the value for the construction work.

00811 SUBCONTRACT AGREEMENTS

Deleted Section 00711, SUBCONTRACT AGREEMENTS, Paragraph A (1) in its entirety.

00812 OTHER CONTRACTS

Modified Section 00712, OTHER CONTRACTS, to add the following paragraph C:

- C. Refer to Section 01110 SUMMARY OF WORK for additional information on other contracts.

00824 PERIOD OF PERFORMANCE AND PROJECT SCHEDULE

Deleted Section 00724, PERIOD OF PERFORMANCE AND PROJECT SCHEDULE in its entirety and substitute for the following Paragraphs:

- A. The Period of Performance shall begin on the date set forth in the Notice to Proceed. The Design-Builder shall perform, complete, and advance all Work under this Contract within 766 Days from the date set forth in the Notice to Proceed, including Options, if exercised. **AM2 AM3**
- B. If NTP is issued before March 20, 2016 the Design-Builder will have 8 (eight) weekend Single Tracking dates and 12 (twelve) Total Shutdown dates as specified in DIVISION 1, SECTION 001141 ACCESS TO SITE. If NTP is issued after March 20, 2016 the dates specified in Section 001141 ACCESS TO SITE for 8 (eight) weekend Single Tracking dates and 12 (twelve) Total Shutdown dates may be rescheduled. **AM2 AM3**
- C. The Authority may modify the Contract, pursuant to Section 00748, CHANGES, to extend the Period of Performance as often and in time periods as deemed necessary until completion of the Work under this Contract. **AM2**
- D. Early Completion: If the Design-Builder submits, in accordance with Section 01322, CONTRACT PROGRESS REPORTING, a schedule or expresses an intention to complete the Work earlier than required in the Period of Performance, the Authority shall not be liable for any costs incurred because of delay or hindrance should the Design-Builder be unable to complete the Work before the Completion date. The duties, obligations, and warranties of the Authority to the Design-Builder shall be consistent with and applicable only to the Completion Date set forth in this Contract. **AM2**

00833 AUTHORITY FURNISHED PROPERTY

Modified Section 00733, AUTHORITY FURNISHED PROPERTY, to delete Paragraphs A through D and substitute for the following Paragraph:

- A. The Authority will not furnish property, real or otherwise, through the terms of this Contract. The Design-Builder is required to purchase or lease any property needed for, but not limited to, lay down, storage, or employee parking in its obligations to comply with the Project requirements.

00841 CONSIDERATION AND BASIS OF PAYMENT

Deleted Section 00741, CONSIDERATION AND BASIS OF PAYMENT in its entirety and substituted for the following Paragraphs:

- A. In consideration of its undertaking under this Contract, the Design-Builder will be paid the sums set forth in this Contract, which shall constitute complete payment for all Work required to be performed under this Contract and for all expenditures, which may be made and expenses incurred. The basis of payment will be the Contract Price, as shown on Section 00510, DESIGN-

TABLE 00841-02: BASIS OF PAYMENT FOR AUTHORITY CAUSED CANCELLATION

AUTHORITY CANCELLATION					
	Non-Revenue – Weekday Access	Weekend Single Tracking Access	Total Shutdown Access	Outside of Roadway Access	
Make-up Access Provided by the Authority	One Non-Revenue Weekday	One Weekend Single Tracking	One Total Shutdown	N/A	
Notice by Authority before the Start of “Hours of Work”	<i>Less than 12 hrs</i>	<i>Less than 24 hrs</i>	<i>Less than 24 hrs</i>	<i>Less than 5 hrs</i>	AM3
Standby Cost: Compensation for Direct Labor	4 hrs	8 hrs	8 hrs	4 hrs	
Extended Period of Performance	Yes, if justified by Time Impact Analysis	Yes, if justified by Time Impact Analysis	Yes, if justified by Time Impact Analysis	No	
Notice by Authority before the Start of “Hours of Work”	<i>Equal to 12 hrs or more</i>	<i>Equal to 24 hrs or more</i>	<i>Equal to 24 hrs or more</i>	<i>Equal to 5 hrs or more</i>	AM3
Standby Cost: Compensation for Direct Labor	No	No	No	No	
Extended Period of Performance	Yes, if justified by Time Impact Analysis	Yes, if justified by Time Impact Analysis	Yes, if justified by Time Impact Analysis	No	

TABLE 00841-03: DESIGN-BUILDER REQUEST TO CANCEL ACCESS

DESIGN-BUILDER REQUEST FOR CANCEL ACCESS				
	Non-Revenue – Weekday Access	Weekend Single Tracking Access	Total Shutdown Access	Outside of Roadway Access
DB Notice given to Authority before Start of “Hours of Work”	Equal to or less than 5 Days	Equal to or less than 14 Days		
Scheduled access event will be lost to the Design-Builder				
DB Notice given to Authority before Start of “Hours of Work”	More than 5 Days	More than 14 Days		
Access event may be rescheduled by the Authority				N/A

00844 METHOD OF PAYMENT

Modified Section 00744, METHOD OF PAYMENT, to add the following to Paragraph L:

2. Structural rehabilitation shall include power washing, repair of existing concrete, concrete plinth removal to create track level drainage chases, crack injection and coating application.
3. Electrical rehabilitation within the tunnel shall include:
 - a. Remove and replace existing tunnel light fixtures and associated power supply wiring.
 - b. Remove and replace existing Emergency Trip Stations (ETS) and associated blue lights between Friendship Heights Station and Grosvenor Station. Replace blue light power supply wiring within the tunnel limits from Friendship Heights Station to the tunnel portal, Provide a new dedicated emergency circuit powered from an emergency power source for blue lights that currently share a circuit with tunnel lights. Test existing ETS power wiring and replace as required between tunnel portal and Grosvenor Station.
 - c. Replace all ETS communication wiring, control wiring and relay panels located in TPSSs and TBSs within the tunnel limits from Friendship Heights Station to the tunnel portal. Relace all cables for ETS in tunnel including Mounting hardware. Remove and dispose of all existing unused cables including mounting hardware for ETS in tunnel segment after testing and commissioning of new ETS system. Dispose of offsite all demolished materials and components. Test existing ETS control wiring and relay panels located in TPSSs and TBSs, and replace as required, between tunnel portal and Grosvenor Station.
 - d. Remove and replace existing load centers and receptacles along with associated main and branch feeder wiring.
 - e. Replace deteriorated cable supports.
 - f. Remove calcification build-up from cables
4. Electrical rehabilitation within Medical Center Station shall include:
 - a. Remove existing ceiling recessed lighting fixtures in the passageway and under the mezzanine in Medical Center Station and removal of associated wiring to the nearest junction box.
 - b. Provide new lighting fixtures consistent with the new reflected ceiling plan. Remove and replace branch circuit wiring except that homerun run wiring shall be reused.
 - c. Temporarily remove CCTV cameras, speakers and miscellaneous electrical devices and reinstall and reconnect them after ceiling work is complete.
 - d. Reroute existing exposed wiring and electrical devices and boxes in the passageway as indicated.
5. Mechanical work includes furnishing and installing manhole grates that are located in tunnels from tunnel portal at Station 513+00 on Track 1 (Outbound) and Track 2 (Inbound) to Medical Center North Vent Shaft VA22 at 451+40.56, from Medical Center South Vent Shaft VA21 at 443+25.08 to Bethesda North Vent Shaft VA20 at 396+43.75, and from Elm Street Vent Shaft VA19 at 388+58.00 to North East Vent Shaft VA17 at 308+00.00.
 - a. Remove and salvage manhole grates and drain inlets (if present) that are in a minimal condition of good or better and return to the Authority. Dispose of manhole grates that are not in a minimal condition of good.
 - b. Provide and install new manhole grates and drain inlets (if present) at locations where these were removed.
 - c. Clean and proof drainage system at conclusion of the Work.
6. Architectural and electrical work at the Medical Center passageway and the underside of the mezzanine at the platform level includes but is not limited to the following:

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Elements of Work	Option 1A Design	Option 1B Construction	Future Work (not in contract)
Air conditioning, ventilation	Same as above	Modify existing platform AC supply ductwork below platform; new platform AC supply ductwork below the new mezzanine; new mezzanine AC ductwork above station vault; complete return air system; new chiller and air conditioning unit to serve new mezzanine; chilled water piping; condensate drain for future kiosk; miscellaneous HVAC for equipment rooms. air handling equipment.	Kiosk mechanical cooling and heating
Access control; fire alarm; camera; video management system; chemical / biological sensor; passenger emergency reporting; public address; SCADA system; passenger information display; kiosk information display;	Same as above; account for temporary lighting, power, and ventilation required to allow fully functional platform during construction.	Restore platform level systems and functions or relocate as required by contract documents.	Functions and systems on the new mezzanine. Chemical / biological sensor
Kiosk, fare collection equipment, fare gates	Same as above	N/A	Installation in future work

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1.03 DAYS/HOURS OF WORK

A. The hours of work is defined in Section 01141, ACCESS TO SITE.

1.04 LOCATION

A. The Project is located in Montgomery County, Maryland and the District of Columbia.

B. The Design-Builder shall be properly licensed to do business in Montgomery County, Maryland prior to commencement of this project

1.05 SITE LOGISTICS

A. Coordinate Site access and egress with Contracting Officer Representative. The Design-Builder is cautioned that storage for materials and equipment in the immediate area of the passenger stations is very limited. Likewise, access through the passenger entrance to the station for transport of materials and equipment is very limited. An area for WMATA noted salvaged materials will be made available for use by the Contractor in or near the one of the Authority's yards within the system.

E. Key Designer Staff

1. Design Engineering Manager

- a. A registered Professional Engineer licensed to practice engineering in all jurisdictions where the Project will be constructed, shall have an undergraduate or graduate degree in engineering with a minimum of 15 years' experience in design and design management of complex multi-discipline projects in the transit industry. **AM1**
- b. Responsible for managing design and design services during construction for all disciplines involved in the Project. The Design Engineering Manager shall assign Architect and Engineer(s) of Record for Project and shall establish and implement design milestone submittal schedules. The Design Engineering Manager is responsible to ensure that design of all project elements is done in accordance with Contract Documents, Industry Standards, and jurisdictional codes and regulations. The Design Engineering Manager responsibilities also include but are not limited to managing design sub-consultants that support the Designer, developing and implementing a Design Control Plan (DCP), and in carrying out design of Project elements and ensuring that sub-consultants do the same, coordinating with Jurisdictional Authorities and utility companies and ensuring that all design complies with applicable jurisdictional codes and standards, preparation and submittal of design milestone and Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction, preparation of Working Drawings, responding to and managing review comments from the Authority and other reviewers, and assisting the Construction Manager in obtaining permits, all in a timely manner without affecting Project schedule. **AM3**
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- c. Responsible for managing the preparation of As-Built Drawings and As-Built Specifications.

2. Architect of Record

- a. A licensed Architect in the jurisdiction where the Project will be constructed, with an undergraduate or graduate degree in architecture, and with minimum of 15 years experience in design of complex multi-discipline projects of a similar type and financial magnitude in the transit industry.
- b. Responsible for signing and sealing Approved Final Design Drawings Issued for Construction and Approved Final Design Specification Issued for Construction .
- c. The Architect of Record shall be an active participant in all phases of the Project, including the construction phase, for the selection of materials, products and finishes for submittals, approval of samples and mock-ups, coordination of architectural work with structural, mechanical, electrical, and other disciplines, and regular Site visits to verify conformance with the approved design.

3. Engineers of Record

- a. Registered Professional Engineers licensed to practice in their respective disciplines in the jurisdiction where the Project will be constructed, with undergraduate or graduate degrees in engineering, and with minimum of 15 years experience in design of complex multi-discipline projects of a similar type and financial magnitude in the transit industry.
- b. Responsible for signing and sealing Approved Final Design Drawings Issued for Construction and Approved Final Design Specification Issued for Construction.
- c. Responsible to ensure that design within their disciplines is done in accordance with Contract Documents, Industry Standards, and jurisdictional codes and regulations. Responsibilities also include but are not limited to, implementing the Design Control Plan (DCP), supporting the Design Engineering Manager in **AM3**

payment made by the Authority for such work, and no additional payment therefore will be made by the Authority by reason of performance of the Work by a Subcontractor or by others.

5. To the totals, completed as indicated in Articles 1.03B.1 through 1.03B.4, shall be added field office overhead as follows:
 - a. If the costs determined above do not exceed \$100,000 and the adjustment in time for Contract performance is 10 Days or less, the markup shall be computed in accordance with Article 1.04 below.
 - b. In all other cases, the most recent audited daily field office overhead rate will be used.
 6. Home Office General and Administrative (G&A) costs will be determined using the most recent audited rate at the time the work was accomplished. A fixed rate of 3 percent will be used in the absence of an audited rate.
 7. Profit will be negotiated as provided in Article 1.06 below.
 8. A percentage for Design-Builder's bond, not to exceed 1 percent, may be added.
- C. Special items of work: If the Contracting Officer Representative and the Design-Builder, by agreement, determine that either: an item of time and materials work does not represent a significant portion of the total Contract Price, or such item of work cannot be performed by the forces of the Design-Builder or the forces of any of its Subcontractors, or it is not in accordance with the established practice of the industry involved to keep the records, which the procedure outlined in Article 1.03B above would require, charges for such special time and materials work item may be made on the basis of invoices for such work without complete itemization of labor, materials, and equipment rental costs. To such invoiced price, less a credit to the Authority for any cash or trade discount offered or available, whether or not such discount may have been taken, will be added a negotiated amount not to exceed 5 percent of the discounted price, in lieu of the negotiated lump sum not to exceed the percentages provided for in Article 1.03B above.
- D. Records: The Design-Builder shall maintain its separate records in such a manner as to provide a clear distinction between the direct costs of work paid for on a time and materials basis and the cost of other operations.
1. The Design-Builder shall prepare, and furnish to the Contracting Officer Representative one electronic copy of report sheets of each day's work paid for on a time and materials basis the day after such work was performed. The daily report sheet shall itemize the materials used, and shall cover the direct cost of labor and the charges for equipment rental, whether furnished by the Design-Builder, Subcontractor, or other forces, except for charges described in Article 1.03C above. The daily report sheet shall provide names or identifications and classifications of workmen, the hours worked, and the size, type, and identification number of equipment, and hours operated.
 2. Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily report sheets, or if not available, they shall be submitted with subsequent daily report sheets. Should said vendor's invoices not be submitted within 60 Days after the date of delivery of the material or 15 Days after acceptance of the Work, whichever comes first, the Authority reserves the right to establish the cost of such materials at the lowest current wholesale prices at which such materials are available in the quantities concerned delivered to the location of the Work less any discounts provided in Article 1.03B.2.a above.
 3. Said daily report sheets shall be signed by the Design-Builder or its authorized agent.

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- 3. The form of submittal may be formatted smaller than specified in Article 1.03 herein; however, the format shall not be less than 8-1/2 by 11 inches in size.

G. Access Utilization Plan

- 1. Upon receipt of the Authority’s approval of GOTRs, Switch Order and Escort Request, the Design-Builder shall submit a detailed Access Utilization Plan for each Access, provide the following information: Access Date, Planned Start Time and Finish time, Chain Marker, GOTRs ID, Power Outage Requirement, Point of Contact, Emergency Contract, Detailed Work Planned Hour by Hour, Planned Deliverable and Productivity, Associated Activity ID from the current Monthly Schedule Update, Number of Crews, Crew Size and Crew Mix, Planned Equipment, Tools, and Material. If there is any known Ball Games and Events. It shall be specified if equipment to be used is rented or owned.
- 2. The Access Utilization Plan shall be submitted no later than 5 Days prior to work start for Non-Rev Weekday Access and 14 Days prior to work start for Weekend Single Tracking Access and Total Shutdown Access.

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1.09 MONTHLY SCHEDULE UPDATE NARRATIVE

A. A written narrative shall accompany each Monthly Progress Report describing the Design Builder’s approach and methods for completion of the work. The narrative shall be adequate for the Contracting Officer Representative to understand the schedule and specifically identify the Critical Path, roles and activities of the Design Builder, his major subcontractors, Authority, and key third parties.

B. The narrative shall include:

- 1. Overall Status of Milestone forecast completion dates vs. previous month (slip or gain, Project total float)
- 2. Progress made in each area of the project: activities completed, activities started
- 3. Discussion of the previous Critical path: Progress vs. Planned (per previous update) vs. Actual; with discussion of delayed activities, including the reason for the delay to the previously planned critical path activities in the current update period.
- 4. Discussion of the current forward-looking critical path
- 5. Changes in the following: New activities, logic interdependencies, Milestones, planned sequence of operations, critical path, and resource loading. All changes (i.e., remaining duration changes, logic changes, new logic, new activities, changes due to Modifications, changes in work sequence, entry of as-built relationship logic, etc.) shall be recorded. If using Primavera to develop the schedule narrative, add change notes to the activity notebook field (use the notebook category “Update Notes” to record changes). The log shall include as a minimum, the date and reason for the change, and description of the change.
- 6. The Design-Builder shall submit the calendar(s) used to calculate the CPM schedule, including: (i) the proposed number of work days per week; (ii) the planned number of shifts per day; (iii) the number of hours per shift; and (iv) all non-work days, including expected weather days as quantified in Section 00728, Termination for Default, Damages for Delay, and Time Extensions.
- 7. Explanation of percent completes progressing in reverse;
- 8. Explanation for failure to commence any activity that should have started but did not;

SECTION 01470
QUALITY MANAGEMENT SYSTEM**PART 1 – GENERAL****1.01 SUMMARY**

- A. This Section specifies the Design-Builder's requirements to formalize a system that documents the structure, responsibilities, and procedures required to achieve effective quality management of the Work throughout the duration of the Contract in conformance and compliance with FTA-IT-90-5001-02.1; inclusive of all 15 required elements. **AM3**
- B. The Quality Management System shall be consistent with ISO 9001:2008 standard. The Design-Builder is not required to be ISO certified, however, certain Suppliers and manufacturers shall be certified as required in these specifications. **AM3**
- C. The Quality Management System shall include a Quality Plan, Design Control Plan, Inspection and Test Plans, Integrated System Test Plan and corresponding procedures and forms necessary to establish, document, maintain, and execute work that conforms to the Contract Documents.
- D. Inspection and Testing shall be performed by qualified staff and laboratories as specified herein.

1.02 REFERENCES

- A. Federal Transit Administration (FTA)
 - 1. FTA-PA-27-5194-12.1, Quality Management System Guidelines **AM3**
 - 2. FTA-IT-90-5001-02.1, QA/QC Guidelines **AM3**
- B. International Organization for Standardization (ISO)
 - 1. ISO 9001:2008 – Quality Management Systems **AM3**
 - 2. ISO 10013:2001 – Guidelines for Developing an ISO 9001 Quality Manual **AM3**
- C. U.S. national standards maintained by the U.S. National Institute of Standards and Technology (NIST) and the U.S. Naval Observatory.

1.03 SUBMITTALS

- A. Make submittals in accordance with Section 01330, SUBMITTAL PROCEDURES, and as noted below. Submit plans, procedures, audit schedules and certifications for Approval. Remaining submittals are for information.
- B. Design Control Plan: As specified in Section 01112, DESIGN AND PROGRAM REQUIREMENTS.
- C. Project Specific Quality Plan: Project (Contract)-specific Quality Plan modeled after FTA-IT-90-5001-02.1 and ISO 9001:2008 within 30 Days of NTP and with each revision. As a minimum, the following quality elements shall be included in the Quality Plan. **AM3**
 - 1. Element 1: Management Responsibility **AM3**
 - 2. Element 2: Documented Quality Management System **AM3**
 - 3. Element 3: Design Control **AM3**
 - 4. Element 4: Document Control **AM3**
 - 5. Element 5: Purchasing **AM3**

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| 6. Element 6: Product Identification and Traceability | AM3 |
| 7. Element 7: Process Control | AM3 |
| 8. Element 8: Inspection and Testing | AM3 |
| 9. Element 9: Inspection, Measuring, and Test Equipment | AM3 |
| 10. Element 10: Inspection and Test Status | AM3 |
| 11. Element 11: Nonconformance | AM3 |
| 12. Element 12: Corrective Action | AM3 |
| 13. Element 13: Quality Records | AM3 |
| 14. Element 14: Quality Audits | AM3 |
| 15. Element 15: Training | AM3 |
| D. Quality Procedures: Procedures for each of the quality elements in the Quality Plan within 120 Days of NTP; to include Authority review and approval from the Office of Quality Assurance and Warranty (QAAW). | AM3
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| E. Inspection and Test Plans/Specific: Submit Work task or component specific Inspection and Test Plans a minimum 60 Days in advance of when the covered work is scheduled to begin. | |
| F. Quality Reports: Submit the following reports in accordance with the approved Quality Plan and Quality Procedures. | |
| 1. Design Status Reports: Monthly. | |
| 2. Daily Quality Reports: Daily. | |
| 3. Test Status Report: Monthly. | |
| 4. Review and Disposition of Nonconforming Product: With each occurrence. | |
| 5. Summary of Management Reviews: Monthly during the first 6 months after NTP and not less than quarterly thereafter. | |
| 6. Proposed audit schedule within 60 Days of NTP. | |
| 7. Report of audit results including subcontract and supplier Audits | |
| 8. Report of Completion of corrective actions within 30 Days of the completion of an Audit. | |
| 9. Quality Compliance Certification with each Monthly Progress Report | |
| 10. Integrated System Testing Status Report | |
| 11. Statement of Compliance Quality Certification for Payment Verification | |

1.04 QUALITY MANAGEMENT SYSTEM REQUIREMENTS

A. Quality Management System

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| 1. The Design-Builder shall maintain a documented, approved, operational, implemented and executed Quality Management System throughout the term of the Contract which complies with FTA-IT-90-5001-02.1. The purpose of this system is for the Design-Builder to document how it will execute the work to assure that: | AM3
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| a. The Design-Builder's design process translates the Authority's needs, standards of quality, and requirements into an acceptable design, including the requirements for Design-Builder's certification of | AM3 |

ADAAG regulations compliance and completion of an ADA Facilities Accessibility Checklist as specified in Section 01112, DESIGN REQUIREMENTS AND PROGRAM REQUIREMENTS to accompany each specified level of completion design review submittal as specified in Section 01330, SUBMITTAL PROCEDURES.

- b. Material, equipment, construction, and workmanship are of the highest quality; furnished in conformance with the original Contract Documents and the Design-Builders Approved Final Design Specifications Issued for Construction and Approved Final Design Specifications Issued for Construction and with all jurisdictional codes and regulations, including the requirement for certification of ADAAG regulations compliance submittal at completion of construction by the Design-Builder as specified in Section 01775, CLOSEOUT. The Design-Builder's attention is directed to the fact that all projects are subject to FTA assessment for ADAAG compliance. **AM3**
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- c. The work is properly completed, tested, and furnished to the Authority on time as specified in this Section; and in Section 01113, SYSTEMS INTEGRATION; Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS; in the WMATA Safety and Security Certification Program Plan and the System Safety Program Plan Attachments to the Project Manual; this section (section 01470) and in the Safety Certification Program of the Safety Rules and Procedures Manual. **AM3**
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2. The Quality Management System shall be revised and updated to improve the system as necessary throughout the Period of Performance of the Contract to reflect changes determined to be necessary by Design-Builder management review, Design-Builder internal audit, and Authority audit. Each update of the Quality Management System requires Authority Approval. **AM3**
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3. During the Period of Performance, exercise positive control over all of the Work, including that of subconsultants, Subcontractors, fabricators, manufacturers, installers, and Suppliers in accordance with the Quality Plan and Quality Procedures described within the approved Design-Builder Quality Management System and Project Specific Quality Plan. **AM3**
4. The execution of the Quality Management System shall be subject to Authority audit throughout the Period of Performance of the Contract. The Authority QAAW Oversight & Compliance personnel shall have unimpeded access to all activities to include, but not limited to, documents, testing, meetings, drawings, transmissions, submittals **AM3**
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- B. Quality Plan**
1. The Project Specific Quality Plan shall include the signatures of the Officer(s) responsible for the Design-Build entity indicating their approval of the Quality Management System. The Quality Manager shall certify the Project Specific Quality Plan is complete; to include a revision index. **AM3**
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2. Quality Manager
- a. Shall have the qualifications specified in Section 01111, DESIGN-BUILDER KEY STAFF.
- b. Shall perform as the Design-Builder's Management Representative.
- c. Is responsible for implementing the Quality Management System and shall have the authority to stop the Work.
3. Document Control: Current version of all documents shall be managed in the Authority's Project Management Software System (PMSS). The database shall be kept current throughout the Period of Performance of the Contract.
4. Subcontracting and Purchasing
- a. Purchased material, equipment, and services shall be documented and controlled to ensure that they are properly integrated into the Work. **AM3**
AM3

- b. Assure that Design-Builder's subconsultants, Suppliers, and Subcontractors satisfactorily demonstrate and document an adequate system for managing quality to the Design-Builder and requirements stated herein. AM3
- c. Provide adequate surveillance of Subcontractors, and Suppliers to assure conformance with the Quality Management System and specification requirements. This surveillance shall include inspection and audit of off-Site activities of Design-Builder's subconsultants, Subcontractors, and Suppliers. Notification of any audit shall be presented to the Authority; QAAW at least 14 days in advance of any such audit. AM3
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- 5. Product Identification and Traceability: The Design-Builder's Quality Management System shall include provisions to identify and provide traceability of products and materials where appropriate and as required in the Approved Final Design Specifications Issued for Construction.
- 6. Inspection and Testing/General
 - a. Establish an Inspection and Test Plan that conforms to the Quality Management System and the Approved Final Design Specifications Issued for Construction and that allows for tracking of actual performance of inspections and tests.
 - b. The Inspection and Test Plan shall incorporate elements of the Authority furnished Inspection Guidelines, Part 2, as needed to meet the requirements of the Quality Plan.
 - c. Testing laboratories shall be certified as required by the Approved Final Design Specifications Issued for Construction.
 - d. The Inspection and Test Plan shall be designed to assure that testing is performed to demonstrate that components and systems perform satisfactorily in service and in accordance with contract specifications. Testing shall be performed by qualified and experienced personnel, and using certified in accordance with approved test procedures. Tests shall incorporate acceptance limits defined by industry codes and standards or by the Approved Final Design Specifications Issued for Construction; the more restrictive standard shall take precedence. All test results shall be documented and submitted to the Authority for review.
 - e. Provide the Authority 14 working days notice of tests except when greater notice is required in these specifications.
 - f. Include instructions necessary to implement source inspections; receiving inspections; inspection of work in progress; hold and witness point inspections, and completion inspections.
 - g. Forms for recording test results and authorized approval signatures shall be used for all tests. Each test form shall identify the applicable specification Section, Article, and Paragraph.
 - h. Subcontractors testing their own work shall be supervised and managed by the Design-Builder. The responsibility for testing and Subcontractor performance remains with the Design-Builder.
 - i. If tests or certifications conducted by the Authority disclose that work is not in conformance with the Approved Final Design Specifications Issued for Construction, then the Authority will advise the Design-Builder as to the particular defects to be remedied. Upon correction of the defects, provide written notification to the Contracting Officer Representative, and additional testing or certification shall be conducted as necessary to result in a proven and certified system(s).

- j. In the case of non-conformance with the Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction, provide details on the preventive action taken to avoid such non-conformance for remaining installations.
7. Inspection, Measuring, and Test Equipment: Ensure that test equipment used meets the specified requirements, and that the equipment and instruments are controlled, maintained, and calibrated by a nationally recognized certification entity/agency. All testing and measuring equipment requiring calibration shall have proper documentation to show last date of calibration. Devices used to calibrate measuring and test equipment or other measurement standards shall be traceable to one or more of the following:
 - a. U.S. national standards maintained by the U.S. National Institute of Standards and Technology (NIST) and the U.S. Naval Observatory.
 - b. Fundamental or natural physical constants with values assigned or accepted by the U.S. NIST.
 - c. National standards of other countries, which are correlated, with U.S. national standards.
 - d. Comparison to consensus standards.
8. Inspection and Testing Schedule: Require inspection and test schedules for the Authority's use in scheduling test witnessing and other quality assurance functions.
9. Review and Disposition of Nonconforming Product: The authority within the Design-Builder organization to review and provide disposition of nonconforming products shall be identified. The disposition of product that does not conform to Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction shall be subject to approval by the Contracting Officer Representative.
10. Corrective Action: Corrective action shall be established, documented, and maintained. These include the investigation of the root cause of nonconforming work and the corrective action needed to prevent recurrence, and analysis to detect and eliminate potential causes of nonconforming work.
11. Control of Quality Records
 - a. Quality records documents, and all testing results achieved (e.g. test data sheets, test reports, electronic test data, mill certifications, measurement verification sheets, batch tickets) shall be documented and stored in appropriate data files or provide evidence of activities performed (e.g. inspection reports, photos or videos, checklists with sign-offs). **AM3**
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 - b. Establish and implement measures to identify, collect, index, file, and store. These procedures shall include a database to track and maintain control over all Quality Records generated by the Contract Work.
 - c. All test and inspection data, results, reports, and certifications shall be documented and maintained as a quality record.
 - d. Quality records shall be legible, reproducible, identifiable with the item involved, and contain the date of origination and identity of the originator, verifier, and responsible supervisor.
 - e. Quality records generated by Subcontractors, Suppliers, fabricators, and test laboratories shall be traceable to the product or service being supplied or fabricated and shall be provided in advance of shipment or shall be shipped with the product. **AM3**
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 - f. All Quality records and documents shall be maintained and preserved for the duration of this contract to ensure compliance with statutory requirements. **AM3**
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12. Quality Audits

a. Management reviews conducted by Design-Builder:

- (1) Management reviews shall occur monthly during the first 6 months of the Contract and not less than quarterly thereafter. Notification of such reviews shall be presented to the Authority QAAW at least 14 days in advance. **AM3**
- (2) Written summaries of findings and ~~major~~ corrective actions shall be provided to the Contracting Officer Representative within 5 Days of completion of each review. **AM3**

b. Internal quality audits conducted by Design-Builder:

- (1) Notification of any audit shall be presented to the Authority- QAAW at least 14 days in advance. **AM3**
- (2) Internal audits shall be performed at least quarterly. **AM3**
- (3) Deficiencies in the Quality Management System, the causes of deficiencies in the Quality Management System, and the status of corrective action and preventive action, when appropriate shall be recorded in the audit results. **AM3**
- (4) Audit results shall be provided to the Contracting Officer Representative within 14 Days of the audit with a plan for corrective and preventative action. **AM3**
- (5) Provide notification of completed corrective and preventative action. **AM3**

13. Training: Establish, maintain and provide the training needs for all personnel performing activities affecting quality.

C. Design Control Plan

1. The Design-Builder's design process shall translate the Authority's needs and requirements into an acceptable design.
2. Design control shall be defined by the Design Control Plan as described in Section 01112, DESIGN AND PROGRAM REQUIREMENTS.
3. Configuration management shall be defined by a Configuration Management Plan developed as a part of the Design Control Plan.

D. Inspection and Test Plans/Specific

1. As a minimum, Inspection Plans shall include the following information:
 - a. A matrix of all inspections required by the Approved Final Design Specifications Issued for Construction to be performed by Design-Builder, Suppliers, or Subcontractors and their frequency.
 - b. Established hold points that require work stoppage until Authority action relative to that work activity is complete.
 - c. Established witness points that identify when Authority notification is required for a Design-Builder work activity.
 - d. Checklists to be utilized.
2. As a minimum, the Test Plans shall include the following information:
 - a. A matrix of all tests required by the Approved Final Design Specifications Issued for Construction to be performed by Design-Builder, Suppliers, or Subcontractors.

- b. Samples of test reports: the test reports shall meet the minimum requirements called for in the applicable test standards specified in the Approved Final Design Specifications Issued for Construction.
- c. Provisions for coordinating onsite and offsite testing.
- d. Provisions for meeting the Authority notification criteria for planned tests and inspections specified to be witnessed by the Authority. Provide the Authority a minimum of 14 Days advance notice.
- e. Description of test
- f. Specification Section, Article, and Paragraph related to each test
- g. Type of test
- h. Applicable standard
- i. Test frequency
- j. Responsibility for test performance
- k. Completion status
- l. Means of tracking and recording corrective actions being taken to assure compliance with the Approved Final Design Specifications Issued for Construction.
- m. Means for recording test results.

E. Integrated System Test Plan

The Design-Builder shall Submit an integrated System Test Plan in accordance with Section 01113 System Integration 1.07 Integrated System Test Plan

F. Quality Reports

1. Design Status Report

- a. Design status report shall track and report the status of design products for Authority review. The report shall be revised, updated, and submitted for approval at least monthly.
- b. The design status report shall be consistent with and follow from the Design Control Plan and shall specifically track all design and design verification activities included in the approved Design Control Plan.
- c. The design status report shall be in a format that allows the Design-Builder and the Authority to reasonably understand the means by which the design of the Project is being completed. It shall provide planned versus actual schedule performance and shall be accurate and useful as a means for project personnel to understand how the Design is proceeding throughout the term.
- d. The Design Status Report shall include subcontracted design work, if appropriate.

2. Daily Quality Reports: Daily quality reports shall summarize the construction activities to the Authority, record the inspections and tests completed and the results, and record deficiencies identified, during the previous 24 hours of work. These reports shall be provided to the Contracting Officer Representative and Authority-QAAW daily.

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- 3. Test Status Report: Track and report the status of testing. Revisions, updates, and additions the test status report shall be submitted to the Contracting Officer Representative and Authority-QAAW at least monthly.
- 4. Quality Compliance Certification: As specified in Section 00744, METHOD OF PAYMENT, the Quality Manager’s Quality Compliance Certification shall be provided with each Monthly Progress Report stating that application of the Quality Management System has demonstrated that the items requested for payment have been designed or constructed to meet the design requirements and have been inspected and tested as required to comply with Contract Documents, Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction. Work for which satisfactory records for design, testing, inspection, or other quality elements are not available, will not qualify for payment.

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1.05 AUTHORITY QUALITY OVERSIGHT

- A. The principal role of the Authority in the implementation of the Design-Build Quality Program will be oversight of the effectiveness of the Design-Builder’s Quality Management System including quality control and quality assurance activities. The Authority reserves the right to conduct inspection of all phases of design and construction by Authority field staff. Deficiencies discovered will be brought to the immediate attention of the Design-Builder including written follow-up notification.
- B. When the Authority determines that the approved Quality Management System or plans, or any portion or feature thereof, are not controlling work sufficiently for the Work to conform to Contract Documents or meeting the required quality standards, Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction, Design-Builder shall take immediate and appropriate action to correct such deficiencies. The Contracting Officer Representative may stop the Work activities if the Quality Management System is not functioning properly due to lack of Design-Builder’s staff or for any other Contract non-compliance.
- C. Notwithstanding the above, Authority inspection, testing, or other actions shall not constitute Acceptance of work, nor shall it relieve the Design-Builder of its contractual responsibilities.
- D. When Authority inspection is required, add to the purchasing document the following statement:

“Authority inspection is required prior to shipment from the plant. Upon receipt of this order, promptly notify the Contracting Officer Representative, in writing, so that appropriate planning for Authority inspection can be accomplished.”

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1.06 AUTHORITY AUDITS OF THE DESIGN-BUILDER’S QUALITY MANAGEMENT SYSTEM

- A. At its sole discretion, the Authority may conduct audits, tests, and inspections in addition to those performed by the Design-Builder.
- B. There will be an ongoing review and evaluation of implementation of the Design-Builder’s Quality Management System to verify that the Design-Builder is effectively controlling the quality of design and construction.
- C. Audits include audits of fabricators, Subcontractors, subconsultants, Suppliers, and third-party audits (i.e., FTA Audits, ISO audits, trade organization certification audits, and audits required to maintain laboratory or testing accreditation).
- D. If the implementation of the Design-Builder’s Quality Management System is determined to be ineffective by the Authority, the Authority, at its sole discretion, may withhold payment for any and all work it deems to be deficient or non-conforming to the Contract Documents, Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction. The Design-Builder will be expected to make whatever changes are necessary in

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the organization or in the Quality Management System to provide effective control of the quality of the Work.

- E. The Authority will perform audits to verify that the Design-Builder is effectively controlling the quality of the Work. The basis for the audits will be compliance with FTA-IT-90-5001-02.1, and compliance with contractual requirements.

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PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.01 QUALITY SYSTEM MANAGER AND OTHER RESOURCES

- A. The Design-Builder shall appoint a qualified full-time Quality Manager in accordance with Section 01111 Design-Builder Key Staff.

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- B. In the event that the Quality System Manager is not found to be competent or to have sufficient relevant experience, the Authority will request that the Quality System Manager be removed from the project pursuant to Section 00709, PROJECT MANAGEMENT, SUPERINTENDENCE AND KEY STAFF. In that event, the Design-Builder shall submit a new candidate for consideration within 10 calendar days by submitting a resume.

- C. In addition to the Quality System Manager, the Design-Builder shall assign additional trained and experienced staff to fulfill Contract and the Design-Builder requirements for meeting quality. The Design-Builder shall provide sufficient resources to effectively manage quality related functions including the following:

1. Quality Management System Administration
2. Design Quality
3. Construction Quality
4. Subcontractor Quality
5. Oversight of Quality Control
6. Configuration Management
7. System Testing

3.02 AUTHORITY QUALITY OVERSIGHT

- A. The principal role of the Authority in the implementation of the Design-Build Quality Program will be oversight of the effectiveness of the Design-Builder's Quality Management System including quality control and quality assurance activities. The Authority reserves the right to conduct inspection of any activity to include all phases of design and construction by Authority Quality personnel and Authority field staff. Deficiencies discovered will be brought to the immediate attention of the Design-Builder including written follow-up notification.

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- B. When the Authority determines that the approved Quality Management System or plans, or any portion or feature thereof, are not controlling work sufficiently for the Work to conform to required quality standards, Contract Documents, Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction, Design-Builder shall take appropriate action to correct such deficiencies. The Contracting Officer Representative may stop the Work activities if the Quality

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Management System is not functioning properly due to lack of Design-Builder's staff or for any other Quality or Contract non-compliance.

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C. Notwithstanding the above, Authority inspection, testing, or other actions shall not constitute Acceptance of work, nor shall it relieve the Design-Builder of its contractual responsibilities.

D. When Authority inspection is required, add to the purchasing document the following statement:

"Authority inspection is required prior to shipment from the plant. Upon receipt of this order, promptly notify the Contracting Officer Representative, in writing, so that appropriate planning for Authority inspection can be accomplished."

3.03 AUTHORITY AUDITS OF THE DESIGN-BUILDER'S QUALITY MANAGEMENT SYSTEM

A. At its sole discretion, the Authority may conduct audits, tests, and inspections of any subcontractor, consultant, supplier or supplier of services in addition to those performed by the Design-Builder.

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B. There will be an ongoing review and evaluation of implementation of the Design-Builder's Quality Management System to verify that the Design-Builder is effectively controlling the quality of design and construction.

C. Audits include audits of fabricators, Subcontractors, subconsultants, Suppliers, and third-party audits (i.e., FTA audits, ISO audits, trade organization certification audits, and audits required to maintain laboratory or testing accreditation).

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D. If the implementation of the Design-Builder's Quality Management System is determined to be ineffective by the Authority, the Authority, at its sole discretion, may withhold payment for any and all work it deems to be deficient or non-conforming to the Contract Documents, Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction. The Design-Builder will be expected to make whatever changes are necessary in the organization or in the Quality Management System to provide effective control of the quality of the Work.

E. The Authority will perform audits to verify that the Design-Builder is effectively controlling the quality of the Work. The basis for the audits will be the Quality Management System and the Approved Final Design Drawings Issued for Construction and Approved Final Design Specifications Issued for Construction.

3.04 INSPECTION AND TESTING

A. The Inspection and Test programs shall be designed by the Design-Builder to assure that testing is performed to demonstrate that systems or components perform satisfactorily in service. Testing shall be performed by qualified and experienced personnel in accordance with approved test procedures. These procedures shall incorporate acceptance limits defined by industry codes and standards or by the Specifications; the more restrictive standard shall take precedence. All test results shall be documented, and submitted to the Authority for review in accordance with Section 01330, SUBMITTAL PROCEDURES. Systems Inspection and Test Programs are further described in Section 01112, DESIGN AND PROGRAM REQUIREMENTS, Section 01113, SYSTEMS INTEGRATION, Section 01820, DEMONSTRATION AND TRAINING.

B. Inspection and test equipment shall be controlled and maintained in serviceable condition and within correct calibration with primary standards traceable to the NIST, or an approved alternative, shall be maintained. The system shall assure the accuracy of equipment and tools used to support this procurement.

C. Subcontractors testing their own work shall be supervised and managed by the Design-Builder. Overall, responsibility for testing and subcontractor performance remains with the Design-Builder.