



Invitation For Bid

[Federal]

Electrical and Data Cable Installation, Phase 2

IFB No.: FQ17021/ER

Volume 1

Date: February 1, 2017

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SECTION 00100
INVITATION FOR BID

This Section includes Project information for Bidders.

NOTICE TO BIDDERS

Contract No. FQ17021 includes IFB Documents for:

Project Name: Electrical and Data Cable Installation Phase Two

Bids for the Work described herein shall be submitted before 2:00 PM (local time) on March 8, 2017. Questions may be directed to the Contract Administrator, Mr. Errol Roper at (202) 962-2870 or eroper@wmata.com. See Section 00200, INSTRUCTIONS FOR BIDDERS, for Bid submittal instructions.

DIRECTIONS TO SUBMITTING BIDDER: Read and comply with the Invitation Instructions. In addition to other submission requirements set forth in this Invitation for Bid and all Amendments, the following must be properly executed, completed, and submitted as part of the Bid:

- A. BID:
1. Bid Price Form (properly executed)
 2. Bid Price Schedule
 3. Bid Guarantee
 4. Representations and Certifications
 5. List of DBE Certified Firms
 6. DBE Data

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

00101 GENERAL STATEMENT OF WORK:

- A. The Washington Metropolitan Area Transit Authority (WMATA) requests your bid for the furnishing of labor, materials, equipment, tools, project management, supervision, engineering, quality control, testing, transportation, safety, appurtenances and other items necessary to furnish and install new conduit and new electrical and data cables to support new fare equipment and systems.
- B. It is the responsibility of the Contractor to gather all data necessary for the performance of the Work under this Contract that are needed in addition to Authority-furnished IFB Documents.
- C. Award of the contract will be based on the lowest responsive and responsible bid.
- D. All work under this Contract shall be performed in a logical sequence as developed by the Contractor and approved by WMATA.
- E. The finished products shall function and be installed as fully-compatible with the existing WMATA system.
- F. The work performed as part of this solicitation will not require track access rights.

00102 GENERAL SCOPE OF WORK:

- A. Installation of new conduit and new electrical and data cables to support new fare equipment and systems:
1. The installation of new under-floor duct and conduit raceways, electrical cabling circuits, and data cables at 83 Metrorail station mezzanines on the Red, Orange/Blue, and Green/Yellow lines in Virginia, Maryland, and Washington, DC. The Contractor, through itself or others, shall furnish all labor, supervision, equipment, materials, supplies, tools, product, storage, transportation, quality assurance/quality control, construction and environmental/security/safety superintendence, field engineering services, and other items required for the construction and satisfactory completion of the Project. The Contractor is responsible for managing program and project coordination through the Contracting Officer Representative; obtaining all necessary approvals, Submittals, field support, and implementing a quality management system to ensure that all work conforms to specified requirements. The Contractor is responsible for ensuring that work is performed by qualified laborers that meet training, licensing and certifications necessary to complete assigned tasks.

00103 PROJECT BID SCHEDULE

- A. The Bid schedule for this Project is as follows:
1. Issue Invitation for Bid: February 8, 2017
 2. Pre-Bid Conference/Site Visit: February 14, 2017
 - a. For the purpose of clarifying the terms, conditions, and requirements of this invitation For Bids (IFB), a pre-bids conference will be held to respond to questions by perspective Bidders. This pre-bid conference will be held at **10:00 AM on February 14, 2017** at 955 L'Enfant Plaza SW Suite 5300, Washington DC 20024. It is requested that Bidders submit their questions in written form at the beginning of the Pre-bid Conference. **Contractor attendance shall be limited to no more than two (2) per contractor.**
 3. Bid: March 15, 2017
 4. Projected Contract Award: April 5, 2017

END OF SECTION

SECTION 00200
INSTRUCTIONS TO BIDDERS

This Section includes procedures with which Bidders must comply and conditions affecting award of the Contract.

00201 GENERAL INSTRUCTIONS

A. Definitions as used herein:

1. The term "Invitation" used in this document means this Invitation for Bid (IFB).
2. The term "Bid" used in this document means a response to this Invitation.
3. The term "PMSS" used in this document refers to the Authority's project management software system.
4. For further explanation of Contract terms, refer to Section 00701, DEFINITIONS, of the General Conditions.

B. Method of Procurement:

1. This is an Invitation for Bids ("IFB") method of procurement. A single Contract for all items shall be awarded to the lowest responsive and responsible Bidder.

C. Basis for Award:

1. Award will be made to that Bidder:
 - a. Award of this Contract will be made based solely on the lowest price as stated in Section 00203, BID PROCEDURES, EVALUATION FACTORS, AND INSTRUCTIONS, and
 - (i) Whose bid is judged to be responsive to the terms of the solicitation;
 - (ii) Who demonstrates to the Contracting Officer's satisfaction, that it is responsible for purposes of award of this Contract.
 - b. The Authority reserves the right to reject all bids and cancel this solicitation at any time prior to award.
 - c. A written award notice mailed or otherwise furnished to the successful bidder within the acceptance period shall result in a binding contract without further action by either party.
2. The Authority will make a single award to one Bidder as the result of this Invitation. See Notes to Bidders in Section 00434, BID PRICE SCHEDULE, for further award information.
3. A written award of acceptance of Bid mailed or otherwise furnished by the Authority to the successful Bidder within the specified Acceptance Period shall result in a binding contract without further action by either party.

D. Type of Contract: The Authority contemplates award of a Firm Fixed Price contract for all of the items in the Price Schedule.

E. Invitation Documents:

1. Invitation Documents will be made available to Bidders on the WMATA website at http://www.wmata.com/business/procurement_and_contracting/solicitation/index.cfm and on the Federal Business Opportunities website, Fedbizopps.gov (www.fbo.gov).

In order to avoid IFB download problems, please immediately download the latest version of Adobe Acrobat Reader available for free at <http://get.adobe.com/reader/>.

F Preparation of Bids:

- 1 The Bidder shall complete the Bid Forms furnished in Section 00400, BID FORMS AND SUPPLEMENTS, or copies thereof, and submit them according to the instructions given in this IFB. If erasures or other changes appear on the forms, they must be initialed by the person signing the Bid.
2. Each Bidder shall furnish the information required by the Invitation. Bidders are expected to examine the IFB Documents. Failure to do so will be at the Bidder's risk
3. Alternative bids will not be considered.
4. Each Bidder shall furnish the information required by the Invitation. Bidders are expected to examine the IFB Documents. Failure to do so will be at the Bidder's risk..

G Explanation to Bidders:

1. All explanations desired by a Bidder regarding the meaning or the interpretation of this IFB or all other Bid documents must be requested in writing 14 Days prior to the date set for receipt of Bids to allow sufficient time for a reply to reach all Bidders before the submittal of their Bids. These requests shall be forwarded to the Contract Administrator at eroper@wmata.com. Oral explanations or instructions given before the award of the Contract will not be binding. Any information given to a prospective Bidder concerning the Invitation will be furnished promptly to all prospective Bidders as an Amendment to this IFB, if the information is necessary in submitting Bids or if lack of such information would be prejudicial to other prospective Bidders.
2. The Authority reserves the right to amend the IFB prior to the date set for receipt of Bids. Copies of such Amendments as may be issued will be furnished to all prospective Bidders on both the WMATA website and the federal Business Opportunities website.
3. If the revisions under Amendments would require material changes in the Bids, the date set for the receipt of Bids may be postponed by such number of Days as in the opinion of the Authority will enable Bidders to revise their Bids. In such cases, the Amendment will include an announcement of the new date for the receipt of Bids.

H. Acknowledgment of Amendments:

1. Bidders are required to acknowledge receipt of all Amendments to this Invitation on copies of the Bid Forms and 00413, BID FORM, in the space provided. Failure to acknowledge all Amendments may cause the Bid to be considered non responsive to the Invitation, which would require rejection of the Bid.
2. If this Invitation is amended, all terms and conditions, which are not modified, remain unchanged.

I Submission/Withdrawal of Bids:

1. Bids and modifications thereof shall be enclosed in sealed envelopes and addressed to the office specified in the solicitation. The bid shall show the hour and date specified in the

solicitation for receipt, the solicitation number, and the name and address of the bidder on the face of the envelope. Failure to do so may result in a premature opening of or failure to open such bid.

.2. Facsimile Bids will not be considered.

3. Bids may be withdrawn by written notice before award. Bids may be withdrawn in person by a Bidder or an authorized representative, if the representative's identity is made known and the representative signs a receipt for return of the Bid before award.

J. Late Bids, modification or Withdrawals:

a. Any offer received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it

(1) Was sent by registered or certified U.S. mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been sent by registered mail by the 15th);

(2) Was sent by U.S. mail or a recognized commercial carrier, and it is determined by the Authority that the late receipt was due solely to mishandling by the Authority after receipt;

(3) Was sent by U.S. Postal Service Express Mail Next Day Service Post Office or similar express service from a recognized commercial carrier to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of offers. The term "working days" excludes weekends and U.S. Federal holidays; or

(4) Is the only offer received.

b. Any modification of an offer, except a modification resulting from the Contracting Officer's request for "best and final" offer, is subject to the same conditions as in subparagraphs (a)(1), (2), and (3) of this provision.

c. A modification resulting from the Contracting Officer's request for "best and final" offer received after the time and date specified in the request will not be considered unless received before award and the late receipt is due solely to mishandling by the Authority.

d. The only acceptable evidence to establish the date of mailing of a late offer, modification, or withdrawal sent by registered or certified mail is the U.S. or Canadian Postal Service postmark on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the offer, modification or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

e. The only acceptable evidence to establish the time of receipt by the Authority is the time/date stamp of that installation on the proposal wrapper or other documentary evidence of receipt maintained by the Authority.

f. The only acceptable evidence to establish the date of mailing of a late offer, modification, or withdrawal sent by Express Mail Next Day Service Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph d. of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors or quoter should request

the postal clerk to place a legible hand cancellation bulls eye postmark on both the receipt and the envelope or wrapper.

- g. Notwithstanding paragraph "a" 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.
- h. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and that person signs a receipt for the bid.

K Bid Guarantee:

- 1. A Bid guarantee is required by the Invitation to Bid. Failure to furnish a Bid guarantee in the proper form and amount, by the time set for the receipt of Bids, may be cause for rejection of the Bid. Bid guarantee shall be sealed, marked, and submitted in an envelope by the Bidder and 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 by the specified closing time on the date of closing.
- 2. A Bid guarantee shall be in the form of a firm commitment, such as a Bid bond (see Section 00431, BID SECURITY (Bid Bond Form)), postal money order, certified check, cashier's check, irrevocable letter of credit from a State or Federally chartered bank or, in accordance with Treasury Department regulations, or certain bonds or notes of the United States. Corporations executing the Bid bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Bid guarantees, other than Bid bonds, will be returned as follows:
 - a. To unsuccessful Bidders: As soon as practicable after the receipt of Bids.
 - b. To the successful Bidder:
 - 1) Upon execution of such further contractual documents and bonds as may be required by the Bid as accepted.
 - 2) If the successful Bidder, upon acceptance of its Bid by the Authority within the Acceptance Period, fails to execute such further Bid guarantees and give such bond(s) as may be required by the terms of the Contract, its Contract may be terminated for default. In such event, the successful Bidder shall be liable for any cost of procuring the Work, which exceeds the amount of its Bid, and the Bid guarantee shall be available toward offsetting such difference.

L. Minimum Bid Acceptance Period:

- 1. Acceptance Period, as used in this Section, means the number of Days available to the Authority for awarding a contract from the most current date specified in this Invitation for receipt of Bids.
- 2. The Authority requires an Acceptance Period of **90 calendar Days** from the due date of the Bid.

M. Contract and Bonds: The Bidder whose Bid is accepted shall, within the time established in this Invitation, enter into a written contract with the Authority and furnish performance and payment bonds on standard Authority forms in the amounts indicated in Section 00600, BONDS AND CERTIFICATES.

N. Conditions Affecting the Work:

1. Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the work and the general and local conditions which can affect the work or the cost thereof.
 2. Failure to do so will not relieve bidders from the responsibility for estimating properly the difficulty or associated risks and cost of successfully performing the work.
- O. Opportunity for Disadvantaged Business Enterprises to Bid: The Washington Metropolitan Area Transit Authority hereby notifies all Bidders that the Bidder shall ensure that in regard to any contract entered into pursuant to this Invitation, disadvantaged business enterprises will be afforded full opportunity to submit Bids in response to this Invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for award.
- P. Disadvantaged Business Enterprises: (See Section 00453, DBE DATA)
1. It is the policy of the Authority (WMATA) that Disadvantaged Business Enterprises (DBEs) shall have an equal opportunity to receive and participate in performing WMATA contracts, including contracts and subcontracts at any tier, and of the Federal Transit Administration (FTA) and the U. S. Department of Transportation (US DOT) in receiving and participating in federally assisted contracts. The DBE requirements, if any, are set forth in Section 00453, DBE DATA, and in Section 00765, DISADVANTAGED BUSINESS ENTERPRISE, to this Invitation, and are applicable if the Bid is \$500,000 or more for construction (and construction-related) contracts and for supply and service contracts having a total dollar value of \$100,000 or greater. The DBE goal percentages, if applicable, are listed in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE.
 2. If the Bidder is not a DBE, then the DBE goal set forth in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE, if any, shall be met by Subcontracts or joint ventures with DBEs.
 3. If a DBE goal is specified in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE, the Bidder shall submit with its Bid a list of WMATA-certified DBE firms that it intends to enter into subcontract agreements with for this Contract. The documentation requirements of Section 00453, DBE DATA, shall be completed and submitted at the time of Bid. Also, if no goal is specified in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE, but the Bidder still intends to utilize DBEs in the performance of this Contract, the Bidder shall submit with its Bid a list of those WMATA-certified DBE firms. Bidders who fail to complete and return this information, if applicable, with their Bid, will be deemed to be non-responsive and will be ineligible for contract award. The documentation requirements, if applicable, are as follows:
 - a. SCHEDULE OF DBE PARTICIPATION and executed LETTER(S) OF INTENT TO PERFORM AS A SUBCONTRACTOR/JOINT VENTURE with agreed price sufficient to meet the DBE goal set forth in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE; or
 - b. A request for waiver of the DBE goal or portion of the goal, if any, and reasons therefore as stipulated in Paragraph F.3 of Section 00453, DBE DATA. Request must be made on company stationery and signed by the responsible official.
 4. Bidders that fail to meet the DBE goal set forth in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE, if any, and fail to demonstrate "good faith efforts" to justify waiver of the DBE goal, if any, may be deemed to be non-responsive and will be ineligible for contract award.
 5. In connection with the performance of this Contract, the Contractor agrees to cooperate with the Authority in meeting its commitments and goals with regard to the maximum utilization of Disadvantaged Business Enterprises (DBE), and further agrees to exert good faith efforts to satisfy the requirements of Section 00453, DBE DATA, if applicable, by subcontracting portions of the Work to disadvantaged firms, by entering into joint ventures with disadvantaged firms, or both.

6. If there is no goal in this Contract, DBE participation is encouraged and pursuant to the Authority's race-neutral program, is anticipated to be as specified in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE.
- Q. Civil Rights: The Contractor will be required to comply with all applicable Equal Employment Opportunity laws and regulations of Section 00764, CIVIL RIGHTS.
- R. Debarred or Ineligible Bidders: All Bidders will be required to certify that they are not on any list of ineligible or debarred contractors (see Section 00451, REPRESENTATIONS AND CERTIFICATIONS FORM).
- S. Notice of Protest Policy:
1. WMATA policy and procedure for the administrative resolution of protests is set forth in Chapter 17 of the Procurement Procedures Manual (PPM). The PPM contains strict rules for filing a timely protest, for responding to a notice that a protest has been filed, and other procedural matters. The Contracting Officer can furnish a copy of Chapter 17 upon request.
 2. FTA Circular C 4220.1F, paragraph 7.I addresses Bid Protests. Review of protests by FTA is discretionary and will be limited to:
 - a. a grantee's failure to follow its protest procedures or its failure to review a complaint or protest;
or
 - b. violations of Federal law or regulation.
 3. A protester must exhaust all administrative remedies with the Authority before filing an appeal to the FTA. An appeal to FTA must be received by the cognizant FTA regional or Headquarters Office within 5 working days of the date the protester learned or should have learned of an adverse decision by the Authority of other basis of appeal to FTA.
 4. Alleged violations on other grounds must be submitted to the Contracting Officer who will decide the protest.
 5. The judicial authorities having jurisdiction over court actions concerning protest decisions are the United States District Courts for the Districts of Maryland, Virginia, and the District of Columbia, and the local courts in Maryland, Virginia, and the District of Columbia.
- T. Requirement for Cost Data Prior to Contract Award:
1. Bids received hereunder shall be subject to a price analysis to determine price reasonableness. A price analysis involves a comparison of the overall price to WMATA's estimate and to other prices for comparable items, either prior purchases by WMATA or by other agencies.
 2. Should WMATA determine that there is not adequate price competition or that a price analysis does not provide an acceptable basis for determining price reasonableness, it may conduct a cost analysis. A cost analysis involves an evaluation of the various cost elements (labor, materials, overhead and profit) which constitute the proposed price or prices. It may include an audit of the proposer's overhead, general and administrative expenses, and profit. Such cost analysis and audit will be conducted in accordance with applicable Federal cost principles.
 3. Refusal of a Bidder to provide the required information and access to its records to conduct a cost analysis, including an audit if conducted, may result in the Bidder's bid being rejected as unreasonably priced.
 4. The preparation, submittal, and certification of Certified Cost or Pricing Data shall be as described by FAR 15.4 and in Section 00700, GENERAL CONDITIONS.

U. Davis-Bacon Wage Determination Decision: The Authority's Compact requires that all mechanics and laborers employed by Contractor or Subcontractors on construction and maintenance contracts be paid wages not less than those prevailing on similar contracts in this locality as determined by the Secretary of Labor in accordance with Section 00767, LABOR PROVISIONS. The Wage Determination Decision of the Secretary of Labor is referred to in Section 00769, LABOR PROVISIONS, and attached as APPENDIX D in Section 00800, SUPPLEMENTARY CONDITIONS.

V. WMATA's Tax Exempt Status:

1. Pursuant to Article XVI, Paragraph 78, of the Washington Area Metropolitan Transit Authority Compact, as adopted by the State of Maryland, the District of Columbia, and the Commonwealth of Virginia, with the authorization and consent of the Congress of the United States, the Authority has been accorded exemption from taxes as follows:
 - a. "The Authority and the Board of Directors shall not be required to pay taxes or assessments upon any of the property acquired by it or under its jurisdiction, control, possession or supervision, or upon its activities in the operation and maintenance of any transit facility or upon any revenues there from, and the property and income derived there from shall be exempted from all Federal, State, District of Columbia, municipal, and local taxation. This exemption shall include without limitation, all motor vehicle license fees, sales taxes and motor fuel taxes."
 2. It has been the practice of the District of Columbia to apply the Authority's tax-exempt status to certain purchases of materials required under Authority construction contracts and acquired by Contractor for physical incorporation into the Work. This has not been the practice in either Maryland or Virginia. The Authority does not represent or warrant that the District of Columbia practice applies to this Project or, if it does, that it will continue in effect during the term of this Project. It is the responsibility of the Contractor to determine its liability for any and all taxes applicable to this Project. Assessment or payment of taxes by the Contractor, including taxes resulting from changes in existing laws or the application thereof or of new or additional taxes, shall not constitute the basis for an increase in the Contract price, except as otherwise allowed under Section 00772, FEDERAL, STATE, AND LOCAL TAXES.
 3. By submission of its Bid, the Bidder certifies that none of the taxes to which the Authority is exempt are included in its Bid price(s) or the final Contract Price. In the event that the Authority learns that any taxes to which the Authority is exempt are included in the final Contract Price, the Authority shall be entitled to a reduction in the Contract Price reflecting such amount and a refund of monies paid related to such taxes, plus applicable interest.

W. Advance Cost Agreement: Within 30 Days after Notice of Award, the Contractor shall make available for audit review, information on its accounting system used to project fixed and variable overhead rates applicable to possible Contract Modifications. The Authority's Office of the Auditor General, to the extent possible, will review and approve said accounting system. When appropriate and if possible, as a result of the audit review, Advance Cost Agreements may be executed between the Contracting Officer and the Contractor. The Cost Agreements shall be a supplemental agreement to the Contract.

X. Proprietary Data in Bids:

1. The Authority will provide all reasonable precautions to ensure that proprietary, technical, and pricing information remains within the review process except where otherwise ordered by an administrative or judicial body, or necessary to use in a judicial or administrative proceeding. Bidders shall attach to each page of all proprietary data submitted with the Invitation the following notation:
 - a. "This data furnished pursuant to this IFB shall not be disclosed outside the Authority, be duplicated, or used in whole or in part for any purpose other than to evaluate the offer;

provided that, if a contract is awarded on the basis of that offer, the Authority shall have the right to duplicate, use, and disclose this data, in any manner and for any purpose whatsoever.”

2. The Authority's right to use information contained in these data is not limited if the information is or has been obtained by the Authority from another independent legitimate source.
3. Except for the foregoing limitation, the Authority may duplicate, use, and disclose in any manner and for any purpose whatsoever and have others so do, all data furnished in response to this Invitation.

Y. Contract Performance Evaluation: The Bidder is advised that a Performance Evaluation will be completed at the end of the Contract. Factors to be included in the Performance Evaluation are as follows: Quality of Work, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, Compliance with Safety Standards, and an Overall Evaluation. The Performance Evaluation may be used in determinations of responsibility for future WMATA contracts.

00202 BID FORMAT

- A. Bid Page and Character Size: The page size shall not exceed 8-1/2 by 11 inches, except for foldouts, which may not exceed 11 by 17 inches. The page margins shall not be smaller than 1 inch on all four sides. The type size for text shall not be smaller than 10 point, with at least a line spacing of one. The type size for figures and tables shall be no smaller than 8 point.
- B. Elaboration: Legibility, clarity, and completeness are essential. Unnecessarily elaborate brochures or other presentations beyond that sufficient to present a complete and effective Bid are not desired and may be construed as an indication of the Bidder's lack of cost consciousness. Elaborate artwork, expensive paper and bindings, and expensive visual and other presentation aids are neither necessary nor wanted.
- C. Completeness: Include all forms and Project-specific information as required in this Section. Include pre-printed literature if directly relevant to this Project. Failure to provide forms or any other information required in the response to this Invitation may cause the Bid to be deemed non-responsive, and the Bid may be subsequently rejected.
- D. Bid: Provide one (1) hard copy each and one (1) electronic copy each on a flash/thumb drive.

| Volume | Part | Title |
|--------|------|-----------------------------------|
| 1 | A | Price Submission |
| 1 | B | Forms and Contractual Information |

00203 BID PRICE PROCEDURES AND INSTRUCTIONS

- A. Bid Price Procedures:
 1. The Authority will evaluate Bid Price for completeness, clarity, conciseness, realism, and responsiveness to the IFB-requested information.
 2. Submittal of Bid prices for both the Base and the Options, if any. Failure to do so will necessitate rejection of the Bid.
 3. Materially unbalanced prices: Bids that are materially unbalanced as to prices for the various categories of work items may be rejected as non-responsive.
 4. The Authority will compare the Bid Prices to the Authority estimate and otherwise determine reasonableness by performing a price analysis if adequate competition exists. A cost analysis

will be performed, if adequate price competition does not exist, to ascertain whether or not the proposed price is fair and reasonable. The Authority may request that Bidders provide a cost breakdown, which identifies major cost drivers and request supporting documentation, such as Supplier and Subcontractor quotes in support of their Bid.

B. Bid Price Instructions: The information provided should be complete and clearly presented. If the information requested is presented elsewhere in the Bid, the Bidder should cross reference this information that is provided elsewhere rather than duplicate it.

1. Complete, sign, and submit Section 00413, BID FORM. Additionally, submit the following:
 - a. Signed and completed Section 00451, REPRESENTATIONS AND CERTIFICATIONS FORM.
 - b. A completed Section 00434, BID PRICE SCHEDULE, with an amount on each line item where one is requested and a total amount representing the sum of individual amounts requested.
 - 1) Bid Price Schedule prices shall include all services, labor, material, equipment, overhead, incidentals, and profit, unless otherwise specified.
 - 2) In case of a discrepancy between a unit price and an extended price, the unit price will be presumed to be correct, subject however, to correction to the same extent and in the same manner as any other mistake.
 - 3) Where the Bid Price Schedule explicitly requires that the Bidder bid on all items; failure to do so will disqualify the Bid. When submittal of a price on all items is not required, Bidders shall insert the words NO BID in the space provided for an item on which no price is submitted.
 - 4) Bids for construction services other than those specified will not be considered unless authorized by the Invitation. Unless specifically called for, alternate Bids will not be considered.
 - c. List of DBE-certified firms that it intends to enter into subcontract agreements with (if a DBE goal is specified in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE, or if no goal is specified in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE, but the Bidder still intends to utilize DBEs in the performance of this Contract).
 - d. An executed Bid Guarantee with Surety Certificate (Section 00431, BID SECURITY (BID BOND FORM)). The Bid Guarantee shall be based on the Total Base Bid Plus Total Option Price, if any. The Performance and Payment Bonds shall be based on the award amount.
 - e. A signed and completed Section 00452, BID DATA FORM, with attachments.

C. Clarifications:

1. Clarifications. Anytime during the evaluation process of the Bid Prices, the Authority may engage in limited exchanges with the Bidder to request clarifications of any of the points, which are unclear, and to resolve minor or clerical errors. Any such exchange will be for clarification only, and will not constitute Discussions within the meaning of FAR 15.306.

00204 MINIMUM TECHNICAL REQUIREMENTS

The Work described in this IFB is to be performed in Virginia, Maryland, and Washington DC. The bidders, whether resident or nonresident of the state in which the work will be performed, are required to show evidence of a certificate of registration as required by the District of Columbia, the State of

Maryland, and the State of Virginia including any local jurisdictions therein, before a bid may be received and considered.

Each bidder shall place on the outside of the envelope containing the bid, and on the bid form, one of the following notations:

- (1) REGISTERED VIRGINIA CONTRACTOR: CLASS A, NUMBER _____
- (2) REGISTERED VIRGINIA CONTRACTOR: CLASS B, NUMBER _____

- a. The Contracting Officer will conduct a pre award survey to determine if the bidder eligible for award is responsible both financially and technically and has the capability to perform the Work of the Contract in accordance with the requirements of the Specifications and the Drawings and within the time or times specified.
- b. Accordingly, the apparent lowest responsive bidder is required to furnish, within five calendar days after bid opening, pre award data as follows:

(1) Bid Data Form:

- A. The Bidder shall furnish a completed and signed Bid Data Form (BDF).

(2) Past Experience and Qualifications:

The Bidder shall furnish, in addition to the information required in the BDF, satisfactory evidence of past experience, qualifications and capabilities required by the contract plans and specifications. The following information must be included:

- a. In order to be considered, at a minimum, the Contractor shall have performed/completed as the prime contractor at least three contracts of similar scope, difficulty and complexity to the work specified in the contract plans and specifications within the past ten years. The Contractor must list these completed projects including the following information: owner, address, up-to-date phone number, architect-engineer, contract name, amount, duration, character and type of work and the portions of the work accomplished with the Bidder's own forces.
- b. Personnel: The contractor shall submit a list of the key personnel and respective resumes including key subcontractor personnel.
- c. Copies of all necessary certifications, licenses and other documentation, including any specialized licenses required to meet IFB requirements.

(3) Performance Plan

The following information shall be submitted regarding how the bidder proposes to accomplish the Work:

- (a) A detailed narrative description, no more than 10 pages, of how the bidder proposes to accomplish the Work of the Contract including a detailed description of the planned work approach used to accomplish each task and identify tasks that are to be performed by subcontractors and an organization chart with responsibilities including all subcontractors. The bidder must also demonstrate that they have sufficient staffing levels and qualified staff for each task. The organization chart shall demonstrate who subcontractors report to in Bidder's team; how the team will be structured to accomplish the construction and management activities for the Work;
- (b) In accordance with the articles for Progress Schedules, the bidder shall submit its proposed preliminary schedule in sufficient detail to demonstrate that the bidder can

accomplish the Work within the prescribed period of performance including, if required, any interim completion dates or milestones.

- (c) The performance Plan must address the jurisdictional, licensing, equipment certifications, and skill requirements necessary for the successful completion of the project.
- (d) The performance plan must also include a high level schedule that identifies work tasks, durations, and sequencing of tasks and locations to demonstrate a work approach that is completed within the contract period of performance.

(4) Financial Statements

The Contractor must furnish complete financial statements for the last three (3) years, including Statement of Financial Position (Balance Sheet), Results of Operations (Income Statement), Statement of Changes in Financial Position (Net Change in Resources) and Statement of Current and Retained Earnings. These statements shall be certified indicating disclosure of all facts which could impair or affect the statements presented. These financial document are subjected to review by the Office of the Inspection General (OIG). If found to be financially incapable, the Bidder will be determined to be not responsible.

(5) Safety Requirement

The Bidder shall furnish the following information regarding its past safety performance:

- (a) Experience Modification Rating (EMR) which compares the number of OSHA recordable injuries and illnesses for the bidder to the average for the bidder's standard industry code. Bidders with an EMR factor greater than 1.2 will be determined to be not responsible.
- (b) Accident incident rates for the past twelve months for lost time accidents and for medical cases only on comparable work.
- (c) Copy of the organizational Health and Safety Program to be followed by the Contractor and all Subcontractors.
- (d) Copy of organizational Temporary Fire Protection Plan to be followed by the prime contractor and all subcontractors.
- (e) Name and address of present compensation and liability insurance carrier.
- (f) Name, address and telephone number of person in charge of the organizational safety program.

(6) Quality Management Requirement

A detailed statement in compliance with Section 01470, Quality Assurance Program for approval by the Contracting Officer of methods to achieve a Contract Quality Assurance Program, including coordination and quality control. Relevant quality associations and certifications for all tiers to include products and materials are to be provided.

(7) Insurance

The bidder shall submit as evidence of insurability a letter from an insurance agent or broker indicating that a commitment, valid for 90 days, exists from a specific insurance carrier or carriers to provide the coverages, with limits and insured as specified therein, can be bound upon award of the contract at a price known and acceptable to the bidder. The letter shall specifically reference the IFB and Section 00778.

Failure to establish insurability may result in a determination of non-responsibility.

The bidder shall provide a letter regarding Railroad Protective Liability (RRPL) stating whether they will seek the RRPL Waiver Fee option or provide their own RRPL coverage.

Doubt as to technical ability, productive capability, "good faith effort - DBE," and financial strength which cannot be resolved affirmatively may result in a determination of non-responsibility by the Contracting Officer

00210 SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

A. Procedures for Product Substitutions During the Bidding Period - Use of brand names within the technical requirements (as used in this clause, the term "brand name" includes identification of products by make and model in IFB Documents):

1. If items called for by the IFB Specifications have been identified by a "brand name or equal" description, such identification is intended to be descriptive, but not restrictive, and is to indicate the quality and characteristics of products that will be satisfactory. Bidders offering "equal" products including products of the brand name manufacturer other than the one described by brand name, will be considered by the Authority if such products are clearly identified in the Bid and are determined by the Authority to meet fully the salient characteristics requirements in the IFB Specification. The Authority will not consider "equal" products when the Authority has specified a sole source product.
2. Unless the Bidder clearly indicates that it is offering an "equal" product by submitting Section 00433, BRAND NAME OR EQUAL FORM, the Bidder shall be considered as offering a brand name product referenced in the IFB Documents.
3. If the Bidder proposes to furnish an "equal" product, the brand name, if any, of the product to be furnished shall be otherwise clearly identified and the determination as to equality of the product offered shall be the responsibility of the Authority and will be based on information reasonably available to the Authority.
4. If the Bidder proposes to modify a product so as to make it conform to the requirements of the IFB Specification, it shall (i) include a clear description of such proposed modifications, and (ii) clearly mark descriptive material to show the proposed modifications.
5. Caution to Bidders: The Authority is not responsible for locating or securing any information, which is not identified and reasonably available to the Authority. Accordingly, to ensure that sufficient information is available, the Bidder must furnish all descriptive material (such as catalogue cuts, illustrations, drawings, or other information) necessary for the Authority to (i) determine whether the product offered meets the salient characteristic requirements of the IFB Specification and (ii) establish exactly what the Bidder proposes to furnish and what the Authority would be binding itself to purchase by approval by the Authority. The information furnished may include specific references to information previously furnished or to information otherwise available to the Authority.

00250 PRE-BID MEETINGS AND SITE VISIT SCHEDULE

- A. Unless otherwise notified, a pre-Bid conference will be held as noted in the Project Bid Schedule, Section 00103, PROJECT BID SCHEDULE. The purpose of this conference will be to answer questions regarding, or requests for clarifications of, the Invitation documents. It is requested that Bidders submit their questions and requests for clarifications of the terms, conditions, and requirements of this Invitation to Bid to the Contracting Officer in writing either in advance of the meeting or during the meeting. Questions from the floor, however, are permissible.
- B. All attendees must provide a WMATA Contractor ID or a government issued identification for entry into the Jackson Graham Building (cameras, cell phones, computers and other mobile devices are

permitted). Attendees should arrive early in order to clear security and/or receive temporary badges. Contractors are responsible to be at the Pre-Bid Conference on time.

- C. Bidders are encouraged to visit the Site of the Work and inform themselves of all local conditions that may affect the Work or the cost thereof.
- D. The Bidder acknowledges and agrees that it shall be bound by all the terms of the Contract regardless of its attendance at the pre-Bid conference, or the thoroughness of its Site investigation prior to submitting its Bid.

00260 PRE-AWARD MEETING

- A. The Authority requires that a pre-award meeting with the successful Bidder be held prior to the actual award of the Contract. The purpose of the meeting will be to review the successful Bidder's understanding of the Contract Documents, contractual requirements prior to award, and to confirm the successful Bidder's capabilities, financial standing, and past experience.
- B. The pre-award meeting will be held in the Washington Metropolitan area and shall be chaired by the Authority and attended by representatives of the Authority, the successful Bidder and its Key Staff nominated for assignment to the Contract, and major Subcontractors if so requested by the Authority. Concerned parties shall each be represented by persons thoroughly familiar with and authorized to conclude matters relating to the Work described in the IFB Documents.
- C. Agenda discussion items for the meeting may include, but are not limited to, the following:
 - 1. Requirements for acceptability of payment and performance bonds.
 - 2. Requirements for DBE participation.
 - 3. Requirements for quality assurance/quality control.
 - 4. Percentage of construction work to be performed by Contractor's forces.
 - 5. Verification of successful Contractor's experience with similar work, including previous Authority contracts, scheduling capabilities, and financial standing.
 - 6. Understanding of work described in the IFB Documents and the physical constraints associated with the Work.
 - 7. Instructions for required submittals due at the Pre-Construction Meeting including:
 - a. Identification of Key Staff,
 - b. Organizational Chart,
 - c. Subcontractor identifications and qualifications,
 - d. Initial Project Management Plan,
 - e. Quality Management Plan,
 - f. Systems Integration Plan,
 - g. Health and Safety Plan,
 - h. Temporary Facilities Plan,
 - i. Permit and Regulatory Requirements Plan,

- j. 90-Day Schedule with cost loading,
- k. Description of Compliance with Contract Documents,
- l. Executed Contract Agreement,
- m. Power of Attorney Form,
- n. Power of Execution Form,
- o. Performance Bond Form,
- p. Payment Bond Form,
- q. Insurance Certificates, and
- r. Preliminary Schedule of Required Submittals.

END OF SECTION

SECTION 00300
INFORMATION AVAILABLE TO BIDDERS

This Section includes information made available to the Bidders.

00301 INVITATION FOR BID (IFB) DOCUMENTS

- A. The IFB Documents, including General Conditions, Supplementary Conditions, General Requirements, Specifications, Drawings, reports, safety and security requirements, and quality requirements of this Invitation FB No: FQ17021/ER and referenced in this Section establish requirements for the construction of the Project. These IFB Documents shall be used by the Bidder to prepare the Bid.

00302 GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND GENERAL REQUIREMENTS

- A. The General Conditions, Supplementary Conditions, and General Requirements (Division 1 of the Contract Specifications) contain requirements for the administration and construction of the Project.

00303 CONTRACT SPECIFICATIONS

- A. Specifications (Divisions 2 through 16 of the Contract Specifications) are the parts of the Contract Documents containing written directions or requirements that specify the requirements, which must be fulfilled for the completion of the Work.
- B. The WMATA Manual of Design Criteria establishes general design criteria for the Project that shall govern the design of temporary works as defined in the Specifications unless jurisdictional codes and regulations are more stringent, in which case the codes and regulations shall govern.

00304 CONTRACT DRAWINGS

- A. Bidder is provided with Electrical Designs in Volume 3 and Mezzanine Inspection Reports in Volume 4 of the Solicitation which include mezzanine schematics and relevant site conditions of each of the 83 work sites.

00310 EXISTING CONDITIONS

- A. Bidder is provided Mezzanine Inspection Reports and Electrical Designs to provide relevant information on site conditions for the 83 work sites. The Authority will schedule site visits to select sites to provide general site conditions. Bidder shall familiarize itself with site conditions and work requirements for individual work sites prior to submitting a bid. The Authority will make additional site visits available within 36 hours, if requested by Bidder.

00320 GEOTECHNICAL REPORT INFORMATION – NOT APPLICABLE

- A. Geotechnical Report Information is NOT included in the IFB Documents.

00330 ENVIRONMENTAL REPORT – NOT APPLICABLE

00340 WMATA SAFETY AND SECURITY REQUIREMENTS

- A. This Section lists the safety and security related documents that establish the safety requirements for the Project. Safety and Security Documents are provided in Volume 5.
 - 1. WMATA Construction Safety and Environmental Manual Requirements: A compilation of the safety and reporting requirements for the Project.

2. WMATA Safety and Security Certification Program Plan: A compilation of the safety and security certification requirements for the Project.
3. WMATA Safety Rules and Procedures Handbook

00350 QUALITY ASSURANCE AND QUALITY CONTROL

- A. Section 01470, QUALITY MANAGEMENT SYSTEM, establishes the quality requirements for the development of the Quality Management Plan by the Contractor for execution of the Project.

END OF SECTION

SECTION 00400
BID FORMS AND SUPPLEMENTS

This Section includes forms and supplements for submitting Bids.

Contract No. FQ17021

Date: _____

Washington Metropolitan Area Transit Authority
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SECTION 00410
BID FORMS

This Section includes the Bid Forms that are required to be submitted with Bid.

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SECTION 00413
BID FORM

IFB Number: FQ17021/ER

Date of Request _____

Project Name: Electrical and Data Cable Installation Phase Two

Project Location: Various locations in Maryland; Virginia; and Washington, DC

INVITATION FOR BID containing information requested herein shall be submitted by the Bidder so as to be received before the time and date listed in Section 00100, INVITATION FOR BID, at the Washington Metropolitan Area Transit Authority, Office of Procurement, PRMT File Room 3C-02, 600 Fifth Street, N.W., Washington, D.C. 20001. Questions may be directed to the Contract Administrator, Mr. Errol Roper at (202) 962-5870 or eroper@wmata.com.

In response to your Invitation for Bid for the above referenced Contract, the undersigned hereby proposes to furnish all labor, equipment, and materials and perform all work to construct the Project in strict accordance with the Contract requirements for the consideration of the amount Bid on the Contract Bid Schedule. If awarded the Contract within the Bid Acceptance Period, the undersigned agrees to execute the Contract within 10 Days and to furnish, if required, performance and payment bonds on standard Authority forms with good and sufficient surety or sureties.

If the Contract is executed, the undersigned further agrees to commence the Work within 10 Days after the receipt of Notice to Proceed and to complete the Work within the time specified in the Contract.

The undersigned acknowledges receipt of the following amendments to the **Invitation for Bid** under **IFB No.:** FQ17021/ER

Spec Note: If more than three Amendments, add Amendment Number and date as appropriate.

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Amendment Number _____ dated _____

Note: Failure to acknowledge receipt of all amendments may cause the Bid to be considered non responsive to the request, which would require rejection of the Bid as unacceptable.

BIDDER:

FIRM NAME: _____

NAME, SIGNATURE, TITLE
(AUTHORIZED TO ACT ON BIDDERS BEHALF)

ADDRESS: _____

CITY, STATE, ZIP _____

TELEPHONE: _____

NAME, TITLE, SIGNATURE
(ALT. AUTHORIZED REPRESENTATIVE)

DUNS # _____

Directions for Submitting Bid

1. Read and comply with the Invitation Instructions. This form shall be submitted with your Bid.
2. Bid Form and related required documents must be sealed, marked, and addressed as follows:

**Washington Metropolitan Area Transit Authority
PRMT File Room 3C-02
Bid under IFB FQ17021/ER
Office of Procurement
600 Fifth Street, N.W.
Washington, D.C.**

3. Bids shall be timely mailed or hand delivered to reach WMATA before 1400 (local time) on day of Bid closing.

**SECTION 00431
BID SECURITY (BID BOND FORM)**

This Section includes the Supplementary Bid Forms that are required to be submitted with the Bid.

BID BOND

Invitation for Bid No.: IFB FQ17021/ER

Bid Closing Date: _____

Penal Sum of Bond: \$ _____ or % 5% of Bid Price or Amount: \$ _____

Date Bond Executed: _____

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

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

NOW, THEREFORE, if the Principal, upon acceptance by the Authority of his Bid identified above, within the period specified therein for acceptance (60 Days if no period is specified), shall execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the Bid as accepted within the time specified 10 Days if no period is specified) after receipt of the forms by him, or in the event of failure so to execute such further contractual documents and give such bonds, if the Principal shall pay the Authority for any cost of procuring the work which exceeds the amount of its Bid, then the above obligation shall be void and of no effect.

Each Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for acceptance of the Bid that the Principal may grant to the Authority notice of which extension(s) to the Surety(ies) being hereby waived provided that such waiver shall apply only with respect to extensions aggregating not more than 60 Days in addition to the period originally allowed for acceptance of the Bid.

Principals

1 Firm Name: _____
Address: _____

Corporate Seal:

Name, Title, and Signature
State of Incorporation: _____

2 Firm Name: _____
Address: _____

Corporate Seal:

Name, Title, and Signature
State of Incorporation: _____

3 Firm Name: _____ Corporate Seal:
Address: _____

Name, Title, and Signature
State of Incorporation: _____

Corporate Surety(ies)

Surety A Firm Name: _____ Liability Limit: Corp. Seal:
Address: _____ \$ _____

Name, Title, and Signature
State of Incorporation: _____

Surety B Firm Name: _____ Liability Limit: Corp. Seal:
Address: _____ \$ _____

Name, Title, and Signature
State of Incorporation: _____

Surety C Firm Name: _____ Liability Limit: Corp. Seal:
Address: _____ \$ _____

Name, Title, and Signature
State of Incorporation: _____

Attach additional pages as needed.

Instructions

4. This form is authorized for use whenever a Bid guaranty is required in connection with construction work.
5. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.
6. The penal sum of the bond may be expressed as a percentage of the proposal price (e.g., 5% of the Bid Price) if desired or may be expressed in dollars and cents.
7. Corporation executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "Corporate Surety(ies)".
8. Corporations executing the bond shall affix their corporate seals.
9. The name of each person signing this proposal bond should be typed in the space provided.

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SECTION 00432
COMPLIANCE/EXCEPTION INFORMATION

(Submit with Bid)

Indicate whether the Bid submitted is intended to fully comply with the IFB Documents of this Invitation for Bid.

Check one statement below.

The Bidder certifies that its Bid is intended to comply fully with all IFB Documents.

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SECTION 00433
BRAND NAME OR EQUAL FORM

(Submit with Bid)

Bidder is required to state in the spaces below the Manufacturer's Name, Part/Product Number, Description, and to provide relevant specifications, including technical data and Material Safety Data Sheets. Be advised that these items, if any, are only set apart for identification. If products, other than those specified, are not listed here, the Bid will be viewed as providing the as-specified products.

Spec Section/Product Specified: _____

Manufacturer: _____

Product Proposed: _____

Manufacturer: _____

Spec Section/Product Specified: _____

Manufacturer: _____

Product Proposed: _____

Manufacturer: _____

Spec Section/Product Specified: _____

Manufacturer: _____

Product Proposed: _____

Manufacturer: _____

Spec Section/Product Specified: _____

Manufacturer: _____

Product Proposed: _____

Manufacturer: _____

NOTE: *If applicable, attach additional sheets as necessary in this format. This form is included to establish a format for submission by the Bidder of an "or Equal" and will be utilized for the Bid submittal to the Authority for equal products by the Contractor. This form may also be used during the construction of the Contract.*

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SECTION 00434

BID SCHEDULE

(Submit with Bid)

B. DESCRIPTION OF WORK

1. The Contractor shall install cabling in the manner and at the locations set forth in the IFB Documents of this Invitation, and in accordance with the Bid as finally accepted by the Authority. The Contractor shall complete tasks in strict accordance with the Contract Documents and in full compliance with the Rules and Regulations of the Jurisdictional Authorities.

C. BASIS FOR AWARD

1. A single contract for all line items will be awarded to the lowest priced responsive and responsible bidder whose bid conforms to this Invitation for Bids and is determined to be the most advantageous to the Authority, considering only price and price related factors included in the IFB.
2. If, after receipt of the bids, the Contracting Officer determines that adequate price competition does not exist, the Offeror shall provide certified cost or pricing data as requested by the Contracting Officer.

D. BID SHEET

Electrical and Data Cable Installation Phase Two

| No | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|-----------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 001 | METRO CENTER (NORTH MEZZANINE) | C01 | 035 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 002 | METRO CENTER (SOUTH MEZZANINE) | C01 | 052 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 003 | MCPHERSON SQUARE (EAST MEZZANINE) | C02 | 036 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 004 | MCPHERSON SQUARE (WEST MEZZANINE) | C02 | 037 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 005 | FARRAGUT WEST (EAST MEZZANINE) | C03 | 038 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 006 | FOGGY BOTTOM-GWU | C04 | 040 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 007 | ROSSLYN | C05 | 041 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 008 | ROSSLYN (SIDE/NEW ENTRANCE) | C05 | 113 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|----------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 009 | ARLINGTON CEMETARY | C06 | 042 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 010 | ARLINGTON CEMETARY (PLATFORM) | C06 | 042M | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 011 | FEDERAL TRIANGLE | D01 | 053 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 012 | SMITHSONIAN (NORTH MEZZANINE) | D02 | 054 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 013 | SMITHSONIAN (SOUTH MEZZANINE) | D02 | 055 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 014 | SMITHSONIAN (EASTBOUND PLATFORM) | D02 | 055M | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 015 | L'ENFANT PLAZA (WEST MEZZANINE) | D03 | 056 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 016 | L'ENFANT PLAZA (EAST MEZZANINE) | D03 | 057 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|----------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 017 | FEDERAL CENTER SW | D04 | 058 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 018 | CAPITOL SOUTH | D05 | 059 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 019 | EASTERN MARKET | D06 | 060 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 020 | POTOMAC AVENUE | D07 | 061 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 021 | STADIUM-ARMORY (SOUTH MEZZANINE) | D08 | 062 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 022 | STADIUM-ARMORY (NORTH MEZZANINE) | D06 | 063 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 023 | MINNESOTA AVENUE | D09 | 064 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 024 | DEANWOOD | D10 | 065 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|------------------------|------------|----------|--------------------------|------------------|-------------------|
| 025 | CHEVERLY | D11 | 066 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 026 | LANDOVER | D12 | 067 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 027 | NEW CARROLLTON | D13 | 068 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 028 | BENNING ROAD | G01 | 090 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 029 | CAPITOL HEIGHTS | G02 | 091 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 030 | ADDISON ROAD | G03 | 092 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 031 | MORGAN BOULEVARD | G04 | 110 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 032 | LARGO TOWN CENTER | G05 | 111 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|------------------------|------------|----------|--------------------------|------------------|-------------------|
| 033 | VAN DORN STREET | J02 | 094 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 034 | FRANCONIA-SPRINGFIELD | J03 | 095 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 035 | COURT HOUSE | K01 | 096 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 036 | CLARENDON | K02 | 097 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 037 | VIRGINIA SQUARE | K03 | 098 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 038 | EAST FALLS CHURCH | K05 | 100 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 039 | WEST FALLS CHURCH | K06 | 101 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 040 | DUNN LORING | K07 | 102 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|--------------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 041 | VIENNA | K08 | 103 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 042 | CRYSTAL CITY | C09 | 045 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 043 | REAGAN NATIONAL AIRPORT (SOUTH MEZZ) | C10 | 046 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 044 | REAGAN NATIONAL AIRPORT (NORTH MEZZ) | C10 | 093 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 045 | REAGAN NATIONAL AIRPORT (MINI-MEZZ) | C10 | 093M | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 046 | BRADDOCK ROAD | C12 | 047 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 047 | KING STREET-OLD TOWN (SOUTH MEZZ) | C13 | 048 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 048 | KING STREET-OLD TOWN (NEW ENTRANCE) | C13 | 048M | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|-----------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 049 | KING STREET-OLD TOWN (NORTH MEZZ) | C13 | 112 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 050 | HUNTINGTON (NORTH MEZZANINE) | C15 | 050 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 051 | HUNTINGTON (SOUTH MEZZANINE) | C15 | 051 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 052 | MOUNT VERNON SQUARE | E01 | 070 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 053 | SHAW-HOWARD U (SOUTH MEZZANINE) | E02 | 071 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 054 | SHAW-HOWARD U (NORTH MEZZANINE) | E02 | 072 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 055 | U STREET (EAST MEZZANINE) | E03 | 073 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 056 | U STREET (WEST MEZZANINE) | E03 | 074 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|----------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 057 | GEORGIA AVENUE | E05 | 076 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 058 | WEST HYATTSVILLE | E07 | 077 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 059 | PRINCE GEORGE'S PLAZA | E08 | 078 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 060 | COLLEGE PARK | E09 | 079 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 061 | GREENBELT | E10 | 080 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 062 | ARCHIVES | F02 | 081 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 063 | L'ENFANT PLAZA (NORTH MEZZANINE) | F03 | 082 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 064 | WATERFRONT | F04 | 083 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|-------------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 065 | NAVY YARD-BALLPARK (WEST MEZZANINE) | F05 | 105 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 066 | ANACOSTIA (NORTH MEZZANINE) | F06 | 085 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 067 | ANACOSTIA (SOUTH MEZZANINE) | F06 | 106 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 068 | CONGRESS HEIGHTS | F07 | 086 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 069 | SOUTHERN AVENUE | F08 | 107 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 070 | NAYLOR ROAD | F09 | 087 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 071 | BRANCH AVENUE | F11 | 089 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 072 | METRO CENTER (WEST MEZZANINE) | A01 | 001 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-----|--------------------------------------|------------|----------|--------------------------|------------------|-------------------|
| 073 | FARRAGUT NORTH (NORTH MEZZANINE) | A02 | 004 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 074 | TENLEYTOWN-AU | A07 | 010 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 075 | TENLEYTOWN-AU | A07 | 010M | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 076 | FRIENDSHIP HEIGHTS (NORTH MEZZANINE) | A08 | 011 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 077 | WHITE FLINT | A12 | 015 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 078 | GALLERY PLACE EAST | B01 | 021M | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 079 | JUDICIARY SQUARE (WEST MEZZANINE) | B02 | 022M | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 080 | UNION STATION (NORTH MEZZANINE) | B03 | 025 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |

| No. | Station/Mezzanine Name | Station ID | Mezz. ID | Labor / Product Category | Station Subtotal | Notes/Assumptions |
|-------------------------|--|------------|----------|-------------------------------|---------------------|--|
| 081 | TAKOMA | B07 | 029 | Labor | \$ - | |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 082 | TAKOMA | B08 | 029M | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| 083 | GLENMONT | B11 | 034 | Labor | \$ - | Mini-Mezzanine |
| | | | | Product and Materials | \$ - | |
| | | | | Station Subtotal | \$ - | |
| TOTAL I | | | | | \$ - | |
| 084 | Various locations as needed for Task 9 | N/A | N/A | Labor, Product, and Materials | \$ 40,000.00 | |
| | Sample Prices for Task 9 (not included in total) | | | | | |
| | Two (2) failed cables | N/A | N/A | Labor, Product, and Materials | \$ - | Sample line item not included in total |
| | 100' cable run | N/A | N/A | Labor, Product, and Materials | \$ - | Sample line item not included in total |
| TOTAL II | | | | | \$ 40,000.00 | |
| 085 | | | | Mobilization | \$ - | |
| | | | | RRPL Insurance | \$ 17,100.00 | |
| | | | | | | |
| TOTAL III | | | | | \$ 17,100.00 | |
| TOTAL (I+II+III) | | | | | \$ 57,100.00 | Cost Proposal |

Notes to Bidders

1. Note that if the Authority determines before award that only the base funded requirements are needed, the Authority may evaluate proposals and make award solely on the requirements designated for the base funded period.
2. The Station Subtotal shall include all labor, product, and materials at each location.
3. The Contract will be awarded on the basis of the lowest responsive total bid price from a responsible Bidder. A single contract will be awarded.
4. The Offeror must bid on all items. Failure to bid on all items shall result in bid rejection.
5. Any bid which is materially unbalanced as to prices for the various items may be rejected as non-responsive. A materially unbalanced bid is one which is based on prices which are materially overstated for other work.
6. Unit Prices - The unit prices shall constitute full compensation for all costs of performance under this contract, including but not limited to: labor, materials, equipment, supervision, quality control, testing, safety, transportation, project management, overhead, profit, bonds and other items necessary to complete the work.
7. All extensions of the unit prices shown will be subject to verification by the Authority. In case of variation between the unit prices and the extension, the unit price will be considered the bid.
8. The Bidder must furnish a Bid Guarantee in accordance with the Invitation for Bid for the Total Bid Price.
9. Performance and Payment Bonds - The Performance and Payment Bonds shall be based upon the Total Bid Price.
10. The Bidder is advised that this contract contains Davis-Bacon provisions. The Contractor will be required to submit certified payrolls on a weekly basis. Also, the Authority will monitor compliance by performing Labor Standards Interviews of the labor force. The Authority will hold 5% retainage in a sufficient amount as may be considered necessary for any underpayment of wages and/or fringes until they are fully resolved in accordance with the Labor Provisions of the contract.
11. DBE data (See Appendix B) shall be submitted with the bid. **~Applies only if total bid price (base plus option) is \$500,000 or more.**

SECTION 00451
REPRESENTATIONS & CERTIFICATIONS
(FEDERALLY FUNDED SUPPLY/SERVICE/CONSTRUCTION CONTRACTS)

REPRESENTATIONS
(Submit with Bid)

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

1. TYPE OF BUSINESS ORGANIZATION

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

2. AFFILIATION AND IDENTIFYING DATA

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

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

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

Name of Parent Company

Main Office Address (including ZIP Code)

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

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

3. PREVIOUS CONTRACTS AND COMPLIANCE REPORTS

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

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

4. DISADVANTAGED BUSINESS ENTERPRISE

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

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

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

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

- 4.2 It [] is, [] is not, currently certified by Metropolitan Washington Unified Certification Program (MWUCP) as a disadvantaged business enterprise.

- 4.3 **Special Certification Requirements for Transit Vehicle Manufacturers.** Each transit vehicle manufacturer, as a condition of being authorized to bid or propose on FTA funded transit vehicle procurements, must certify that it has complied with the DBE requirements of 49 C.F.R. Part 26.

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |

5. SMALL BUSINESS ENTERPRISE (MAY 2015)

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

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

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

6. AFFIRMATIVE ACTION COMPLIANCE

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

6.1 It has a workforce of _____ employees.

6.2 It [] has developed and has on file, or [] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 C.F.R. §§ 60.1 and 60.2), or

6.3 It [] has not previously had contracts subject to the written affirmative action program requirements of the rules and regulations of the U.S. Secretary of Labor.

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

CERTIFICATIONS

7. COVENANT AGAINST GRATUITIES

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

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

8. CONTINGENT FEES

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

8.1 It [] has, [] has not, employed or retained any company or persons (other than a full-time, bona fide employee working solely for the offeror) to solicit or secure this Contract, and

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

9. CLEAN AIR ACT AND CLEAN WATER ACT CERTIFICATION

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

9.1 Any facility to be utilized in the performance of this Contract [] is, or [] is not listed on the EPA's List of Violating Facilities;

9.2 Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communications from the Administrator, or a designee of the EPA, indicating that any facility that it proposes to use in the performance of this Contract is under consideration to be listed on the EPA's List of Violating Facilities; and

9.3 Offeror will include a certification substantially the same as this certification, including this paragraph, in every non-exempt subcontract.

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

10. DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION

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

- 10.1** Primary Covered Transactions. This certification applies to the offer submitted in response to this solicitation and will be a continuing requirement throughout the term of any resultant Contract.
- 10.1.1** In accordance with the provisions of 2 C.F.R. Part 1200 and 2 C.F.R. Part 180, Subpart C, the offeror certifies to the best of its knowledge and belief that it and its principals:
- 10.1.1.1** are not currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or state department or agency;
- 10.1.1.2** have not, within a three (3) year period preceding this offer, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) transaction or contract under a public transaction; violation of Federal or state antitrust statutes, or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 10.1.1.3** are not currently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, state, or local) with commission of any of the offenses enumerated in paragraph (1) (ii) of this certification; and have not, within a three (3) year period preceding this offer, had one (1) or more public transactions (Federal, state, or local) terminated for cause or default.
- 10.1.2** Where the offeror is unable to certify to any of the statements in this certification, the offeror shall attach an explanation to this offer.
- 10.2** Lower Tier Covered Transactions. This certification applies to a subcontract at any tier expected to equal or exceed \$25,000 and will be a continuing requirement throughout the term of this Contract.
- 10.2.1** The prospective lower tier subcontractor certifies, by submission of this offer, that neither it nor its principals is currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal or state department or agency.
- 10.2.2** Where the prospective lower tier subcontractor is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- 10.3** The Certification required by 10.2, above, shall be included in all applicable subcontracts and the Contractor shall keep a copy on file. The Contractor shall be required to furnish copies of certifications to the Contracting Officer upon his or her request.

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

11. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION

- 11.1** By submission of its offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
 - 11.1.1** The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or with any other competitor;
 - 11.1.2** Unless otherwise required by law, the prices that are quoted in this offer have not been knowingly disclosed by the offeror and will not be knowingly disclosed by the offeror prior to award (in the case of a negotiated procurement), directly or indirectly, to any other offeror or to any competitor; and
 - 11.1.3** No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not to submit an offer, for the purpose of restricting competition.

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

12. CERTIFICATION OF NONSEGREGATED FACILITIES

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

- 12.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
 - 12.1.1** It does not and will not maintain or provide for its employees, any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control, where segregated facilities are maintained.
 - 12.1.2** The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in this Contract.
 - 12.1.3** As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating

areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise.

- 12.1.4 It further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:
- 12.2 Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;
- 12.3 Retain such certifications in its files; and
- 12.4 Forward the following notice to such subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

13. NONDISCRIMINATION ASSURANCE

- 13.1 By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, in connection with this procurement, that it will not discriminate on the basis of race, color, creed, religion, national origin, sex, age, disability, sexual preference and/or gender identity in the performance of this Contract. The offeror is required to insert the substance of this clause in all subcontracts and purchase orders. The Contractor's failure to carry out these requirements is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems appropriate. The offeror further agrees by submitting this offer, that it will include this certification, without modification, in all subcontracts and purchase orders.

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

14. CERTIFICATION OF RESTRICTIONS ON LOBBYING

This certification is applicable to federally assisted contracts if the offer exceeds \$100,000.

- 14.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that to the best of his or her knowledge or belief:
- 14.1.1** No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - 14.1.2** If any funds other than federally appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Contract, the undersigned shall complete and submit Standard Form--LLL, "Disclosure of Lobbying Activities."
 - 14.1.3** The undersigned shall require that the language of this certification be included in all sub-awards (including subcontracts, sub-grants and contracts under grants, loans and cooperative agreements) at all tiers and that all sub-recipients shall certify and disclose accordingly.
- 14.2** This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352, as amended. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 14.3** The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C.A. § 3801, *et. seq.* apply to this certification and disclosure, if any.

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

15. BUY AMERICA ACT CERTIFICATION

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

- 15.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement it will comply with 49 U.S.C. § 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. § 661.7 Separate requirements for rolling stock are set out at 49 U.S.C. § 5323(j)(2)(C) and 49 C.F.R. § 661.11.

1 If the funding for this Contract comes from an FTA grant issued before December 26, 2014, then the limit is \$100,000.

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

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

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

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

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

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

16. CERTIFICATION OF NON-DELINQUENT TAXES

This certification is applicable to federally assisted contracts.

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

16.1.1 It has not been convicted over the past three (3) years of violating any Federal criminal tax law or failed to pay any tax.

16.1.2 It has certified if it has been notified of an unresolved tax lien or any unsatisfied Federal tax delinquency in excess of \$3,000 and that it is paying tax debts through an installment agreement or has requested a collections due process hearing.

16.1.3 The offeror agrees that a breach of this certification is a violation of the Federal Acquisition Regulation (FAR).

16.1.4 As used in this certification, the term "tax delinquency" means an outstanding debt for which a notice of lien has been filed in public records.

16.1.5 It further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:

16.2 Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the FAR.;

16.3 Retain such certifications in its files; and

16.4 Forward the following notice to such subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

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

A Certification of Non-Delinquent Taxes must be submitted prior to award of a subcontract exceeding \$100,000 that is not exempt from the provisions of the FAR. The certification may be submitted either for such subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually).

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

17. DISCLOSURES OF INTERESTS OF WMATA BOARD MEMBERS

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

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

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

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

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

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

| | |
|-------|-----------|
| Name | Signature |
| Title | Company |
| Date | |

**SECTION 00452
BID DATA FORM**

Contract Number: _____

Date of Request: _____

Project Name: _____

Project Location: _____

1. Name of Firm:

2. Legal Address:

3. Legal Entity: Individual Partnership Joint venture Corporation

4. Date Organized: _____

5. State in which incorporated: _____

6. Names and Addresses of Officers or Partners:

a. _____

b. _____

c. _____

d. _____

e. _____

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

8. Attach as SCHEDULE 7 a list of current contracts, each with contract amount, owner, architect-engineer, and character or type of work and percentage of completion. Also, include those projects on which you are apparent low bidder, but for which you have not received an award of contract.

9. Attach as SCHEDULE 8 a list of contracts, each with contract amount, owner, architect engineer, and character or type of work, for contracts completed in the last 5 years.

10. What is the estimated work placement value required per year to complete the work described in SCHEDULE 7.

2015: \$ _____

2016: \$ _____

2017: \$ _____

11. Have you ever been denied an award on which you were low bidder? Yes No If the answer is YES, attach as SCHEDULE 10 the full particulars regarding each occurrence.

- 12. Have you ever failed to complete any contract, other than current, on which you were the low bidder?
 Yes No If the answer is YES, attach as SCHEDULE 11, the full particulars regarding each occurrence.
- 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: \$ _____ Date: _____
 - b. Sources of credit: _____
- 15. Attach as SCHEDULE 14 certified financial statements and letters from banks regarding credit as required by Section 00200, INSTRUCTIONS TO BIDDERS, 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?
_____ %
- 18. Attach as SCHEDULE 17 a list of all Subcontractors and the percentage and character of work (contract amount) which each will perform.
- 19. Attach as exhibits completed Bid Data Forms for each of the Subcontractors listed in SCHEDULE 17 above.
- 20. If the Contractor or Subcontractor is a joint venture, submit Bid 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: _____ DUNS # _____
(Name of Firm)

Dated: _____

Signature _____, Title _____
Location: _____

SECTION 00453
NOTICE OF DBE REQUIREMENTS

(Submit with the Bid)

For Disadvantaged Business Enterprise (DBE) Data and forms, refer to Appendix B, Disadvantage Business Enterprise.

THIS PAGE NOT USED

SECTION 00492
BID AS ACCEPTED

- E. **Instructions:** Insert here the Bid as Accepted.
- F. See Section 00910, AMENDMENTS, for Amendment Letters.

THIS PAGE RESERVED

END OF SECTION

SECTION 00500
AGREEMENT

NOTICE TO BIDDERS:

- G. This Section includes the Contract Form to be submitted by the successful Bidder and represents the legal instrument binding the two parties to the Work once the document is signed by the Authority and the Contractor.
- H. The following form is included for the Contractor's information and use in the event Bidder is awarded the Contract. It is not required to be submitted with the Bid.

THIS PAGE NOT USED

SECTION 00510
CONSTRUCTION CONTRACT FORM

Contractor: _____

Contract Number: FQ17021

Contract For: _____ **Date:** _____

Contract Price: \$ _____

Period of Performance: 500 Calendar Days

In consideration of the covenants contained herein, the Washington Metropolitan Area Transit Authority (hereinafter called the Authority), represented by the Contracting Officer executing this Contract, and the individual, partnership, joint venture, or corporation named above (hereinafter, the Contractor), mutually agree to perform this Contract in strict accordance with its provisions. The Contract consists of: the IFB Documents and all documents referenced or attached to the IFB Documents including the following:

1. Bid as finally accepted.
2. Other publications referenced in the IFB Documents.
3. Amendment Number(s): _____

ALTERATIONS: The following alterations were made to this Contract before it was signed by the parties hereto:

In Witness Whereof, the parties hereto have executed this Contract as of the date entered above.

Contractor Name

Attest _____

*By: _____

Contractor Name

Attest _____

*By: _____

Contractor Name

Attest _____

*By: _____

Washington Metropolitan Area Transit Authority

By: _____

*NOTE: Execution for the Contractor that is an individual, corporation or partnership shall be accompanied by the Power of Execution (Section 00542) that follows. A Joint Venture Contractor must complete the Power of Attorney (Section 00541) that follows. All persons executing this Contract must complete the appropriate Certification of the person's authority to act on behalf of the Contractor.

SECTION 00540
ATTACHMENTS TO THE CONTRACT

The following attachments to supplement the Agreement Form are included for the Bidder's information and use in the event Bidder is awarded the Contract. They are not required to be submitted with the Bid.

THIS PAGE RESERVED

**SECTION 00541
POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS,

that _____

Insert names of all venturers of the Joint Venture

constituting all of the venturers of the joint venture known as

Insert name of the Joint Venture

which is desirous of entering into a contract with the

Washington Metropolitan Area Transit Authority,

do hereby designate and appoint

Insert name of the appointed venture

one of the venturers hereinafter called the "Managing Sponsor," as their true and lawful attorney with the power, on their behalf and in the name and on behalf of the joint venture, to represent and bind the undersigned and the joint venture in all matters in connection with Contract, to make, execute, seal, and deliver on behalf of the joint venture and as its act and deed, any and all contracts, change orders, monthly and final payment certificates, and other like instruments. The undersigned specifically acknowledge and agree that the execution of such Bid or Contract by the Managing Sponsor shall constitute the agreement of each venturer to be jointly and severally liable for any and all of the duties and obligations of the joint venture arising from such Bid or Contract.

IN WITNESS WHEREOF, the undersigned have executed this Power of Attorney

this _____ day of _____, 20 _____

Contractor Name

Attest _____

By: _____

Contractor Name

Attest _____

By: _____

Contractor Name

Attest _____

By: _____

THIS PAGE NOT USED

**SECTION 00542
POWER OF EXECUTION**

KNOW ALL PERSONS BY THESE PRESENTS,

that _____,

constituting all of the venturers of the joint venture known as _____,

(Name of Joint Venture)

which is desirous of entering into a contract with the

Washington Metropolitan Area Transit Authority,

do hereby designate and appoint

_____,

(Name of Appointed Venturer)

one of the venturers hereinafter called the "Managing Sponsor," as their true and lawful attorney with the power, on their behalf and in the name and on behalf of the joint venture, to represent and bind the undersigned and the joint venture in all matters in connection with Contract, to make, execute, seal, and deliver on behalf of the joint venture and as its act and deed, any and all contracts, change orders, monthly and final payment certificates, and other like instruments. The undersigned specifically acknowledge and agree that the execution of such Bid or Contract by the Managing Sponsor shall constitute the agreement of each venturer to be jointly and severally liable for any and all of the duties and obligations of the joint venture arising from such Bid or Contract.

IN WITNESS WHEREOF, the undersigned have executed this Power of Execution

this _____ day of _____, 20_____.

Contractor

Attest _____

By: _____

Contractor

Attest _____

By: _____

Contractor

Attest _____

By: _____

THIS PAGE NOT USED

SECTION 00550
NOTICE TO PROCEED (NTP)

THIS PAGE RESERVED

END OF SECTION

SECTION 00600
BONDS AND CERTIFICATES

This Section includes bond forms required to be submitted by the Contractor.

THIS PAGE NOT USED

SECTION 00610
BOND REQUIREMENTS

- I. Requirements: Within 10 Days after the prescribed forms are presented for signature to the Bidder to whom award is made, a written Contract and Attachments (Power of Attorney and Power of Execution) on the forms provided in Section 00500, AGREEMENT, shall be executed and delivered to the Contracting Officer, together with a performance bond and payment bond if the Contract Price is \$100,000 or more, each with good and sufficient surety or sureties acceptable to the Authority. Corporations executing the bonds as sureties must be among those appearing on the U. S. Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. The penal sums of such bonds shall be as follows:
1. Performance Bond: The penal sum of the performance bond shall equal 100 percent of the Contract Price.
 1. Payment Bond: The penal sum of the payment bond shall equal (1) 50 percent of the Contract Price if the construction contract price is. not more than \$1,000,000; (2) Forty percent of the contract price if the contract price is more than \$1,000,000 and not more than \$5,000,000; or (3) when the contract price is more than \$5,000,000; the payment bond shall be \$2,500,000.
- J. Failure to Furnish: In the event the required bonds are not furnished as specified, the Contracting Officer may issue the Notice To Proceed, however, no payment will be made to the Contractor until the required bonds are furnished.

THIS PAGE NOT USED

SECTION 00611
PERFORMANCE BOND

BIDDER'S INFORMATION NOTICE: The following is included for the Bidder's information and use in the event Bidder is awarded the Contract. It is not required to be submitted with the Bid.

Contract Number: FQ17021

Date: _____

Penal Sum of Bond: \$ _____

Date Bond Executed: _____

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

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

NOW, THEREFORE, if the Principal shall perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extensions thereof that may be granted by the Authority, with or without notice to the Surety(ies), and during the life of any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety(ies) being hereby waived, then the above obligation shall be void and of no effect. Surety acknowledges Authority can advance the date of payments to Contractor, and by so doing the Surety remains liable under the terms of the bond.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this performance bond and have affixed their seals on the date set forth above.

Principals

1. Firm Name _____ Corp. Seal:
Address _____

Name Title
State of Incorporation: _____

2. Firm Name _____ Corp, Seal
Address _____

Firm Name _____
State of Incorporation: _____

3. Firm Name _____ Corp. Seal
 Address _____

Name Title Signature
 State of Incorporation: _____

Corporate Surety(ies)

Surety A Firm Name _____ Liability Limit: Corp. Seal
 Address _____ \$ _____

Name Title Signature
 State of Incorporation: _____

Surety B Firm Name _____ Liability Limit: Corp Seal
 Address _____ \$ _____

Name Title Signature
 State of Incorporation: _____

Surety C Firm Name _____ Liability Limit: Corp Seal
 Address _____ \$ _____

Name Title Signature
 State of Incorporation: _____

Attach additional pages as needed.

| | | |
|----------|---------------|----------|
| Bond | | |
| Premium | Total Premium | \$ _____ |
| Schedule | | |

Performance Bond Instructions:

1. This form is authorized for use in connection with contracts for construction work or the furnishing of labor, materials, equipment, supplies, and services.
2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership or joint venture, or an officer of the corporation involved, evidence of their authority must be furnished.
3. Corporation executing the bond as sureties must be among those appearing on the Treasury Department's therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "Corporate Surety(ies)".

**SECTION 00612
PAYMENT BOND**

Contract Number: FQ17021

Date: _____

Penal Sum of Bond: \$ _____

Date Bond Executed: _____

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

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

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

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

- c. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof, is situated or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.

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

Principals

1. Firm Name _____ Corp. Seal
Address _____

Name Title Signature
State of Incorporation: _____

2. Firm Name _____ Corp. Seal
Address _____

Name, Title Signature
State of Incorporation: _____

3. Firm Name _____ Corp. Seal
Address _____

Name Title Signature
State of Incorporation: _____

Corporate Surety(ies)

Surety A Firm Name _____ Liability Limit: Corp. Seal
Address _____ \$ _____

Name Title Signature
State of Incorporation: _____

Surety B Firm Name _____ Liability Limit: Corp. Seal
Address _____ \$ _____

Name Title Signature
State of Incorporation: _____

Surety C Firm Name _____ Liability Limit: Corp. Seal
Address _____ \$ _____

Firm Name _____
State of Incorporation: _____

Attach additional pages as needed.

Payment Bond Instructions

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

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SECTION 00613

PERFORMANCE AND PAYMENT BONDS (ADDITIONAL BOND SECURITY)

- K. If any surety upon any performance bond furnished in connection with this Contract becomes unacceptable to the Contracting Officer, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the Contracting Officer, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interest of the Authority and of persons supplying labor or materials in the prosecution of the Work contemplated by this Contract.

- L. If any surety upon any payment bond furnished in connection with this Contract becomes unacceptable to the Contracting Officer, or if any such surety fails to furnish reports as to its financial condition from time to time as requested by the Contracting Officer, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interest of the Authority and of persons supplying labor or materials in the prosecution of the Work contemplated by this Contract.

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SECTION 00620
CERTIFICATES

- M. This Section provides an area for conforming the IFB Documents with required Affidavits and Certificates provided by the Contractor; i.e., Certificates of Acceptance, Application for Payment, Insurance, Compliance including ADAAG Design and Construction Compliance and Checklists, Substantial Completion, Acceptance, and Final Payment.
- N. Instructions: Insert here all required Certificates to conform to the Contract Documents.

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END OF SECTION

**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 define duties and limits of authority for design professionals and construction management. 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, 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, all in accordance with the Contract.
2. Agreement: The Authority's form entitled "Contract Form" in this Invitation for Bids (IFB) that, upon execution by the Contractor and the Authority, creates the Contract between the two parties.
3. Amendment: Written or graphic instructions issued to clarify, revise, add, or delete IFB requirements that are issued before the execution of an Agreement.
4. Approval of a Submittal or any other item shall be solely for the purpose of establishing conformance to the IFB Documents.
5. As-Built Drawings: Drawings prepared by or through the Contractor, which reflect final as-built condition of the project and include all known changes to the issued "For Construction" drawings.
6. As-Built Specifications: Those specifications prepared by or through the Contractor in CSI format to reflect final information only and showing revisions from the "Issued for Construction" specifications.
7. As shown, as indicated, as detailed, as described, as specified or words of similar import: Shall be understood to mean that reference is made to the IFB.
8. As specified, as described, or words of similar import: Shall be understood to mean that the reference is made to the Contract Documents.
9. Authority: The Washington Metropolitan Area Transit Authority ("WMATA," or "Metro"), created effective February 20, 1967, by Interstate Compact by and between Maryland, Virginia, the District of Columbia, and the Federal Government pursuant to Public Law 89-774, approved November 6, 1966.
10. Basis of Design: In a Design-Build contract, the IFB that shall be used by the Contractor for the preparation of the "Issued for Construction" specifications and drawings.
11. Bid: The written offer of a Bid submitted to the Authority as required by the Invitation for Bid (IFB).

12. Bidder: The prospective Contractor who submits a Bid to perform the Work of the Contract.
13. Board of Directors: The Board of Directors of the Washington Metropolitan Area Transit Authority.
14. Claim: A written demand or assertion by the Contractor seeking, as a legal right, the payment of money, adjustment or interpretation of Contract terms, or other relief, arising under or relating to this Contract.
15. Contract: The written Agreement between the Authority and the Contractor covering the work as set forth therein. The Contract consists of the IFB, all amendments issued before the effective date of the agreement, and all modifications issued after the effective date of the Contract; the Notice to Proceed; including the Contractor's price and technical proposals, as finally accepted by the Authority.
16. Contract Documents: The documents consist of the IFB Documents, all Amendments issued before the effective date of the Agreement, and all Modifications issued after the effective date of the Contract; the Notice to Proceed; including the Contractor's Bid, as finally accepted by the Authority.
17. Contracting Officer (CO): An employee with authority duly delegated from the Chief Procurement Officer to legally bind the Authority by signing a contractual instrument. The Contracting Officer is the Authority's primary point of contact for pre-award administration, modifications/changes above the limits of the Contracting Officer's Representative (COR), and final settlement.
18. Contracting Officer Representative (COR): The person to whom the Contracting Officer delegates authority and responsibility for certain post- award administration duties. The Contracting Officer's Representative is the Authority's primary point of contact with its Contractor.
19. Contractor: In a Design-Bid-Build contract, the individual, partnership, firm, corporation, or other business entity that is contractually obligated to the Authority to furnish, through itself or others, the construction services described in the Contract, including all incidentals that are necessary to complete the work in accordance with the Contract. Wherever this contract references rights or responsibilities as applied to the Contractor, they shall also apply to the Contractor on a Design-Build Contract.
20. Contract price: The amount payable to the Contractor under the Contract based on lump-sum prices, unit prices, fixed prices or combination thereof, with adjustments made in accordance with the Contract.
21. Day: Calendar day except where the term "work day" or like terms are used.
22. Contractor: In a Design-Build contract, the individual, partnership, firm, corporation, or other business entity that is contractually obligated to the Authority to furnish, through itself or others, the design and construction services described in the Contract, including all incidentals that are necessary to complete the work in accordance with the Contract.
23. Designer: In a Design-Build contract, the individual, partnership, firm, corporation or other business entity that is either the Contractor, or employed or retained by the Contractor, to manage and perform the design services for the project.
24. Design Drawings: In a Design-Build contract, those drawings prepared by or through the Contractor to demonstrate compliance with the IFB.

25. Design Specifications: In a Design-Build contract, those specifications prepared by or through the Contractor to demonstrate compliance with the IFB; or Equivalent or Equal or better quality and performance to that specified in the IFB. Equivalency determinations shall be made in WMATA's sole discretion.
26. Equivalent: Equal or better quality and performance to that specified in the Contract Documents.
27. Final Payment: The last payment made to the Contractor following acceptance of the work, as more fully described herein.
28. General Conditions: A compilation of contractual and legal requirements that lists the rights, responsibilities, and relationships of the parties to the Contract and defines duties and limits of authority for design professionals and construction management in performance of the contract.
29. General Requirements: A compilation of the conditions and performance requirements (Division 1) that govern the design and construction work.
30. IFB (Invitation for Bid) Documents: The documents as defined in Section 00301, IFB DOCUMENTS.
31. Industry Standards: Drawings, documents, and specifications or portions thereof published by industry organizations. Industry Standards are not part of the Contract unless specifically listed as such in the technical specifications.
32. Issued "For Construction" Drawings/Specifications: Drawings, specifications, and documents that are prepared by the Authority to be used in construction, fabrication, and implementation of the project.
33. Jurisdictional Authority: Refers to Federal, State and local authorities or agencies having approval authority over work to which reference is made.
34. Legal Requirements: All Federal, State and local laws, ordinances, rules, orders, decrees, and regulatory requirements such as: building codes, mechanical codes, electrical codes, fire codes, Americans with Disabilities Act Accessibility Guidelines (ADAAG) and other regulations of any government or quasi-government entity that are applicable to the project.
35. MATOC (Multiple Award Task Order Contract): a type of Indefinite Delivery/Indefinite Quantity (IDIQ) procurement where multiple firms are pre-selected based on technical qualifications and awarded contracts for a general scope of services to be performed. Individual task orders for a specific scope of work are then competed among the pre-selected firms on a competitive basis.
36. Milestone: A specified date in the Contract by which the Contractor is required to complete a designated portion or segment of the work.
37. Modification: A written document issued pursuant to Section 00748, CHANGES, that alters the Statement/Scope of the Work, the Schedule, the Contract price, the period of performance, or makes any other change to the Contract after execution of the Contract.
38. Notice to Proceed: Written notice issued by the Authority establishing the date on which the Contractor may commence work and directing the Contractor to proceed with all or a portion of the work.

39. Operations Readiness Date (ORD): The date upon which the Authority certifies that the system and equipment are complete and capable of supporting revenue service.
40. Option: A unilateral right in the Contract by which, for a specified time or in a specified amount, the Authority may elect to purchase, at a predetermined price specified in the Contract, additional equipment, supplies, services, or work called for by the Contract.
41. Period of Performance: The time required for all work to be completed in accordance with the Contract. The period of performance begins upon the effective date of the Notice to Proceed and ends on the date of final acceptance.
42. Product Data: Information furnished by the Contractor to describe materials used for some portion of the work, such as written or printed descriptions, illustrations, standard schedules, performance charts, instructions, brochures, and diagrams.
43. Project: The design and construction of the facility described in the IFB.
44. Project Schedule: The time allotted in the contract to complete the work without assessment of liquidated damages, or without the Authority's written extension of the work completion date.
45. Proposal: The written offer of a proposer submitted to the Authority as required by the IFB.
46. Proposer: The prospective Contractor who submits proposals to perform the work of the Contract.
47. Punch List: Work that remains to be completed after substantial completion. This work must be completed as a condition of final completion and acceptance.
48. Request for Information (RFI): The document by which the Bidders or Contractor request clarification, verification, or information concerning a portion of the IFB or the Work.
49. Shop Drawings: Fabrication, erection, layout, setting, schematic, and installation drawings prepared by the Contractor for permanent structures, equipment, and systems that it designs to comply with the Contract, the "Issued for Construction" specifications and "Issued for Construction" drawings.
50. Similar: Generally, the same but not necessarily identical; details shall be worked out in relation to location and relation to other parts of the Work.
51. Site: The areas upon which construction work will be performed that are used by the Contractor and subcontractors during the project as indicated in the IFB.
52. Subcontract: Any Contract between the Contractor and an individual, firm, partnership, corporation or other business entity at any tier, to perform a portion of the work.
53. Subcontractor: An individual, firm, partnership, or corporation that has a contractual obligation with the Contractor or other Subcontractor or Supplier.
54. Submittal: Written or graphic document or sample prepared by the Contractor or a subcontractor and submitted to the Authority, including shop drawings, product data, samples schedules of material, or other data.
55. Substantial Completion: Work or a portion thereof that has progressed to the point where it is sufficiently complete in accordance with the Contract (including receipt of test and inspection

- reports) so that it can be utilized for its intended purpose(s). After substantial completion, only incidental work will remain for physical completion in accordance with the Contract.
56. Substitution: A significant difference in material, equipment, or configuration that meets the requirements of the IFB, but the Contractor submits it in lieu thereof.
 57. Supplementary Conditions: The term "Supplementary Conditions" means modifications to the General Conditions for requirements unique to a specific project.
 58. Supplier: A Subcontractor who is a manufacturer, fabricator, supplier, distributor, or vendor having a contract with the Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work of the Contractor or any Subcontractor.
 59. Task Order: A defined scope of work that is competed among pre-selected Contractor/Contractors on a MATOC contract.
 60. Utility: A public and/or private facility or installation, other than an Authority system facility, which relates to (1) the conveyance and supply of water, sewage, gas, chemicals, steam, petroleum products, and other piped installations, or (2) electrical energy, telephone, internet, communications, radio, television, and cellular or wireless communications.
 61. Utility standards: Drawings and specifications for utilities published or issued by municipalities or utility companies.
 62. WMATA: Refers to the Washington Metropolitan Area Transit Authority, or the Authority.
 63. WMATA CAD Manual: Manual that establishes drafting criteria for drawings and electronic files and provides templates for drawing/plotter configuration to Contractors.
 64. WMATA Manual of Design Criteria: Document that outlines the design criteria, measures and process requirements that must be followed for the submittal of project information to the Authority when constructing a project in the vicinity of, or impacting the Authority's systems and facilities.
 65. WMATA Safety Manual: A compilation of the appropriate safety and reporting requirements for the project as specified herein.
 66. WMATA Safety and Security Certification Program Plan: A compilation of the appropriate system safety and security certification requirements for the project.
 67. Work: All construction services, including supervision, quality control and quality assurance, labor, materials, machinery, equipment, tools, supplies and facilities required to complete the project, or the various separately identifiable parts thereof including, but not limited to safety, security, system safety certification and commissioning requirements, in accordance with the terms of the Contract.
 68. Working Drawings: Plans prepared by the Contractor for temporary structures such as decking, temporary bulkheads, excavation support, utilities support, groundwater control systems, and for such other work as may be required for construction, but which do not become an integral part of the completed project, as specified in Section 01330, SUBMITTAL PROCEDURES.

00702 ORDER OF PRECEDENCE

- A. Any inconsistency in this solicitation or Contract shall be resolved by giving precedence in the following order:
- a. Contract Modifications (only) in Section 00900, AMENDMENTS AND MODIFICATIONS.
 - b. The Agreement Form and Attachments in Section 00500, AGREEMENT, Section 00600, BONDS AND CERTIFICATES, and Amendments (only) in Section 00900, AMENDMENTS AND MODIFICATIONS.
 - c. Representations and Certifications in Section 00451, REPRESENTATIONS AND CERTIFICATIONS FORM.
 - d. Supplementary Conditions in Section 00800, SUPPLEMENTARY CONDITIONS.
 - e. General Conditions in Section 00700, GENERAL CONDITIONS.
 - f. General Requirements - Division 1.
 - g. IFB Technical Specifications
 - h. Project Specific Documents – IFB Drawings, Reports and Studies.
 - i. WMATA’s Manual of Design Criteria
 - j. WMATA’s Standard Specifications
 - k. WMATA’s Standard Drawings.
 - l. Issued “For Construction” Specifications.
 - m. Issued “For Construction” Drawings.
- B. In the event of a conflict within, between, or among the above listed order of precedence, the more stringent requirement shall apply. In addition, in the event this Contract is funded in whole or in part through funding provided by a Federal agency, such as the Federal Transit Administration (FTA), United States Department of Transportation (USDOT), Department of Homeland Security (DHS), etc., all contract terms mandated for inclusion by said federal agency shall be deemed to supersede any other conflicting or inconsistent provision of the Contract Documents, as applicable.

00703 GENERAL REQUIREMENTS, DRAWINGS, AND SPECIFICATIONS

- A. During the Construction of the Project, the Contractor shall keep at the work site, a copy of the Contract. During the construction phase of a project, the Contractor shall keep at the jobsite, a copy of the “Issued for Construction” Specifications and “Issued For Construction” Drawings. The Contractor shall at all times give the Contracting Officer’s Representative access thereto.
- B. The Division 1, General Requirements shall govern the Contract.
- C. All provisions of WMATA’s Standard Specifications and WMATA’s Standard Drawings shall be incorporated into each respective document.

- D. Anything mentioned in the Contract Specifications and not shown on the Contract Drawings, or shown on the Contract Drawings and not mentioned in the Contract Specifications, shall be of like effect as if shown or mentioned in both.
- E. In case of discrepancy between WMATA's Standard Specifications and WMATA's Standard Drawings, WMATA's Standard Specifications shall govern. In case of discrepancy among the figures within WMATA's Standard Drawings, the matter shall be promptly submitted, in writing, to the Contracting Officer's Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, who will promptly resolve the discrepancy in writing. Conflicts among the requirements and criteria indicated in either WMATA's Standard Specifications, WMATA's Standard Drawings, or required by local, State, or Federal jurisdictions or utilities, as specified in Section 01112, DESIGN AND PROGRAM REQUIREMENTS, that affect the scope, cost, or quality of the work, shall be promptly submitted, in writing, to the Contracting Officer's Representative for a written determination in accordance with Section 01330, SUBMITTAL PROCEDURES. Any adjustment by the Contractor without such a determination shall be at the Contractor/Contractor's own risk and expense.
- F. Wherever in WMATA's Standard Specifications and/or in the "Issued for Construction" Specifications the imperative form of a verb is used, such as the words "directed," "ordered," "designated," "prescribed," or words of like import, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription" of the Contracting Officer's Representative is intended. Similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean "approved by," "acceptable to," or "satisfactory to" the Contracting Officer's Representative.
- G. Should it appear that the work to be performed is not sufficiently detailed or explained in the Contract, then the Contractor shall promptly ask the Contracting Officer's Representative, in writing, in accordance with Section 01330, SUBMITTAL PROCEDURES, for a written explanation. The Contractor shall promptly notify the Contracting Officer's Representative, of all errors, omissions, inconsistencies, or other defects including inaccuracies, that it discovers in the Contract, and shall provide options to the Contracting Officer's Representative to remedy such errors, omissions, or other defects. The Contractor shall obtain from the Contracting Officer's Representative, in writing, specific instructions regarding any such error, omission, or defect before proceeding with the design work affected thereby. Omission or misdescription of details of the work from the Contract that are necessary to carry out its intent shall not relieve the Contractor from performing such omitted or misdescribed work no matter how extensive.

00704 INTENT OF CONTRACT

- A. The Contractor shall, upon execution of this Contract and receipt of the Notice to Proceed (NTP), perform all work as defined herein to complete the project as described in this Contract. The Authority has detailed its requirements in the Contract. The Authority has not specified the precise details of performing the work, unless such details are essential for the successful completion of the work. The Contractor shall not deviate from the Contract without the written Approval of the Authority.
- B. The Contractor shall conduct a pre-construction meeting jointly with the Authority. During the construction of the project, the Contractor and the Authority shall meet periodically and confer about the progress of the project as specified in Section 01312, PROJECT MEETINGS. At these design review meetings, the Contractor shall identify the evolution of the design and all changes or deviations from the requirements of the Contract, as well all associated potential changes. The Contractor, in a timely manner, shall provide minutes of all such meetings to all

- attendees to review and approve as specified in Section 01312, PROJECT MEETINGS, in accordance with Section 01330, SUBMITTAL PROCEDURES. The Authority will review and approve subsequent contract submittals that are consistent with the Contract, the Specifications and the Drawings pursuant to agreements reached at the project review meetings and documented in meeting minutes approved by the Authority. Any agreement that involves changes to the Contract shall be documented in a fashion consistent with Section 00748, CHANGES. The Authority will perform its reviews solely for the purpose stated in Section 00719, AUTHORITY REVIEWS.
- C. It is the intent of the Contract to describe a functionally complete project to be designed and constructed in accordance with the "Issued for Construction" Specifications and "Issued for Construction" Drawings. All work, materials, or equipment that may reasonably be inferred from the Contract, from prevailing custom, or trade usage as being required to produce the intended results will be furnished and performed whether or not specifically listed. . Unless otherwise defined in the Contract, when words or phrases having a well-known technical, construction industry, or trade meaning are used to describe work, labor, services, materials, tools, or equipment, such words or phrases shall be interpreted in accordance with that meaning.
- D. The Contractor accepts the relationship of trust and confidence established between it and the Authority by the Contract. The Contractor agrees to furnish the architectural, engineering, and construction services set forth herein, and agrees to furnish efficient business administration and superintendence, including quality control and quality assurance, and use its best efforts to complete the project in the most expeditious and economical manner consistent with the requirements of the Contract, the "Issued for Construction" Specifications and "Issued for Construction" Drawings. The Contractor agrees to perform its design services in accordance with the responsibilities and requirements set forth in Section 00707, RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN RELATED SERVICES, in Section 00708, REQUIREMENTS FOR PROFESSIONAL REGISTRATION, Section 01111, CONTRACTOR FUNCTIONS, and in Section 01112, DESIGN REQUIREMENTS AND PROGRAM CRITERIA.
- E. The Contractor shall be responsible for performing and requiring its subcontractors to perform construction services and related services in all phases of the project in accordance with the best general practices as specified in Section 01111, CONTRACTOR FUNCTIONS. Only new materials and workmanship of the best standard quality shall be used. Unless otherwise specified, the Contractor shall furnish all work, services, labor, materials, tools, equipment, and incidentals that are necessary to complete the work in a proper, substantial, and workmanlike manner in accordance with the Contract the "Issued for Construction" Specifications and the "Issued for Construction" Drawings.
- F. Nothing contained herein shall create a contractual relationship between the Authority and any party other than the Contractor. However, it is understood and agreed that the Authority is an intended third-party beneficiary of all subcontracts for design, engineering, or construction services between the Contractor and third parties related to those services. The Contractor shall incorporate the obligations of this Contract into its respective subcontracts, supply agreements, and purchase orders.

00705 LEGAL REQUIREMENTS

- A. The Contractor shall perform the work in accordance with all requirements as specified in Section 01410, REGULATORY REQUIREMENTS, in Section 01420, REFERENCES, in Section 00706, PERMITS AND RESPONSIBILITIES, and in Section 00707,

RESPONSIBILITY OF THE Contractor FOR DESIGN RELATED SERVICES. The Contract price and period of performance may be adjusted to compensate the Contractor for changes in the requirements enacted after the date of this Contract affecting the performance of the work. Such effects may include, without limitation, revisions the Contractor is required to make to the Design Specifications and Design Drawings because of changes in requirements. Any change in requirements, which affects the method or manner of performance of the work, but not the final design of the work incorporated into the project, shall be at the Contractor's risk and at no additional cost to the Authority.

- B. The Contractor's failure to construct the work in conformance with all applicable requirements in force as of the Notice to Proceed shall not be the basis for a change to either the contract price or period of performance. The Contractor shall remedy all such failures to construct the work in conformance with all such requirements at its own expense.
- C. The Contractor shall be responsible for remaining informed of all changes in requirements that may occur after the Notice to Proceed and shall perform the work in accordance with such changed requirements.

00706 PERMITS AND RESPONSIBILITIES

- A. The Contractor shall, without additional expense to the Authority, be responsible for obtaining necessary licenses, permits, and easements and for complying with applicable International, Federal, State, local, or municipal laws, codes, or regulations in connection with this Contract. Permits provided by the Authority are noted and attached in Section 00806, PERMITS AND RESPONSIBILITIES.
- B. The Contractor shall be responsible for all damages to persons or property that occur as a result of its or its subcontractors' fault or negligence or anyone directly or indirectly employed by the Contractor, or anyone for whose acts the Contractor may be liable, subject to an allocation or proportion of any such liability, loss, cost, or expense, if caused in part by a party indemnified hereunder. The Contractor shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire project, except for any completed unit of construction that was accepted, in writing, by the Authority.

00707 NOT USED

00708 REQUIREMENTS FOR PROFESSIONAL REGISTRATION

- A. All architecture, engineering, and other design services rendered by or through the Contractor under this Contract shall be accomplished, reviewed, and approved by Designers licensed to practice in the particular professional field involved in the jurisdiction where the project being designed will be constructed. The Contractor shall comply with local laws regarding the licensing of design firms and personnel providing services for the project.

00709 PROJECT MANAGEMENT AND SUPERINTENDENCE AND KEY STAFF

- A. The Contractor shall provide project management and supervision.
- B. The Contractor shall provide personnel for the positions specifically identified by the Authority in this Contract as required Key Staff and other personnel it deems essential for performance of the work. (See Section 01111, CONTRACTOR KEY STAFF, for responsibilities of key personnel.) All positions shall be filled by competent, full-time personnel satisfactory to the Contracting Officer's Representative. Individuals holding any key position, shall not be changed without permission of the Contracting Officer's Representative. The Contractor shall acquire written Authority approval for substitutions of key personnel as specified in Section 01111, CONTRACTOR KEY STAFF. The Contractor shall provide the Authority (in accordance with Section 01330, SUBMITTAL PROCEDURES), with all information as may be reasonably requested regarding proposed and actual substitutions. The proposed and actual substitutions shall share similar or better qualities than the personnel being substituted. The Authority shall be entitled to satisfactory performance of all services described in this Contract, and the Contractor shall promptly remove from the project, any employee or other person performing services hereunder in a manner that the Authority deems is contrary to its best interests.
- C. The Contractor shall present, as specified in Section 00725, COMMENCING THE WORK, and Section 01111, CONTRACTOR KEY STAFF, confirmation of the credentials of the individuals listed to the Contracting Officer's Representative for his or her review and acceptance in accordance with Section 01330, SUBMITTAL PROCEDURES.

00710 WORK BY CONTRACTOR

- A. The Contractor shall perform, with its own organization, work equivalent to at least the percentage specified in Section 00810, WORK BY CONTRACTOR, for the construction work.
- B. The percentage shall be determined by the dollar value of the construction work done by its own organization in comparison to total value of construction work in the Contract. The cost of the work performed by skilled and unskilled labor carried on the Contractor's own payroll, together with the cost of materials installed, may be included in the above percentage. The Contractor's markup for overhead and profit on work performed by Subcontractors shall not be included in determining the percentage.
- C. If, during the progress of the Work, the Contractor requests a reduction in such percentage, and if the Contracting Officer's Representative determines that it would be in the Authority's best interests, the Contracting Officer's Representative may approve such a reduction at his or her sole discretion.

00711 SUBCONTRACT AGREEMENTS:

- A. After Contract award, the Contractor will be required to submit copies of a conformed and signed subcontract agreement with all subcontractors to be used on the Contract to the Contracting Officer or designee. The terms of payment for the subcontracts shall be in conformance with Section 00744, Method of Payment. The divisions or sections of the specifications are not intended to control the Contractor in dividing the work among subcontractors or to limit the work performed by a trade.

- a. The Contractor shall not enter into subcontracts totaling in amount, more than the percentage of the total Contract price permissible under Section 00710, WORK BY CONTRACTOR, without the written permission of the Contracting Officer.
- b. No subcontractor will be permitted to perform work until the subcontractor, or the Contractor, in compliance with the provisions of Section 00777, INDEMNIFICATION AND INSURANCE REQUIREMENTS, has furnished satisfactory evidence of insurance, as required.
- c. The Contractor shall, under this Contract, establish procedures to ensure timely payment of amounts due pursuant to the terms of its subcontracts. The Contractor shall pay each subcontractor for satisfactory performance of its contract, or any billable portion thereof, no later than ten (10) days from the date of the Contractor's receipt of payment from the Authority for work by that subcontractor. The Contractor shall also release, any retention withheld from the subcontractor within ten (10) days of satisfactory completion of all work required by that subcontractor.
- d. The Contractor shall certify on each payment request to the Authority that payment has been or will be made to all subcontractors in accordance with paragraph (a) above. The Contractor shall notify the Contracting Officer with each payment request, of any situation where scheduled subcontractor payments have not been made.
- e. In the event of a claim by any subcontractor that the Contractor has failed to comply with the terms of this article, the Contractor agrees to fully cooperate in any Authority investigation, and, if deemed appropriate by the Authority, to implement appropriate remedial measures to ensure future compliance.
- f. The Contractor agrees that the Contracting Officer may provide information that he or she deems appropriate in response to inquiries from subcontractors seeking to determine the status of the Authority's payments to the Contractor.
- g. Nothing contained in this article or elsewhere in this Contract shall create a Contractual relationship between the Authority and any subcontractor, shall make the subcontractor an intended beneficiary of this Contract or shall alter or affect traditional concepts of privity of contract.

00712 OTHER CONTRACTS

- A. The Authority may award other contracts for additional work, and the Contractor shall fully cooperate with such other Contractors as may be directed by the Contracting Officer's Representative. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other Contractor.
- B. The Contractor shall conduct all work in a manner that will minimize interference with the operations of other Contractors involved in the performance of related work. All work shall be brought to a stage of completion that will conform to the Contract the "Issued for Construction" Specifications and the "Issued for Construction" Drawings.

00713 CONFIDENTIALITY

The Contractor or its Subcontractors shall not divulge any confidential or proprietary information, which is so designated by the Authority in the course of performance of this Contract.

00714 CONDITIONS AFFECTING THE WORK

The Contractor shall be responsible for ascertaining the nature and location of the work, and the general and local conditions, that can affect the work or the cost thereof as described in Section 01711, ACCEPTANCE OF CONDITIONS. Any failure by the Contractor to do so will not relieve the Contractor from responsibility for successfully performing work without additional expense to the Authority. The Authority assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of this Contract, unless such understanding or representations are expressly stated in the Contract.

00715 SITE INVESTIGATION

The Contractor acknowledges that it has investigated and satisfied itself as to the conditions affecting the work including, but not restricted to, those bearing upon transportation, disposal, handling, and storage of materials; availability of labor, water, electric power, and roads; and uncertainties of weather, river stages, tides, or similar physical conditions at the site, the conformation and conditions of the ground, and the character of equipment and facilities needed preliminary to and during prosecution of the work as described in Section 01711, ACCEPTANCE OF CONDITIONS. The Contractor further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered as reasonably ascertainable from an inspection of the site, including a review of all exploratory work and information provided by the Authority, and made a part of this Contract. The Contractor shall also examine the character and extent of existing work on the site or adjacent thereto, and any other work being performed thereon, at the time of the submission of its proposal as described in Section 01711, ACCEPTANCE OF CONDITIONS. Any failure by the Contractor to review the available information will not relieve it from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Authority assumes no responsibility for any of the Contractor's conclusions or interpretations made on the basis of Authority-provided information.

00716 PRECONSTRUCTION INSPECTION

- A. The Contractor will conditionally inspect buildings and/or structures in the immediate vicinity of the project that may reasonably be expected to be affected by the work.
- B. Prior to beginning excavation or any other work, the Contractor shall inform the Authority of buildings or structures on which it intends to perform work or that performance of the work will affect.
- C. The Contractor shall provide the Authority with sufficient notice of this inspection and afford it an opportunity to participate in the inspection. The Contractor shall submit for approval, in accordance with Section 01330, SUBMITTAL PROCEDURES, the preconstruction inspection records as specified in Section 01711, ACCEPTANCE OF CONDITIONS, to the Authority prior to beginning work.

00717 DIFFERING SITE CONDITIONS

- A. The Contractor shall promptly, and before such conditions are disturbed, notify in writing the Contracting Officer, through the Contracting Officer's Representative, of (1) subsurface or latent physical conditions at the site that materially differ from those indicated in this Contract or (2) unknown physical conditions at the Site, of an unusual nature, that materially differ from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract .
- B. The Contracting Officer's Representative will promptly investigate the site conditions, after receiving the notice. If the Contracting Officer's Representative finds that such conditions do materially so differ and cause an increase or decrease, in the Contractor's cost of, or the time required for, performance of any part of the work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the Contract modified, in writing, accordingly.
- C. No claim or request for equitable adjustment by the Contractor under this section will be allowed unless the Contractor has given the notice required in Paragraph Q.A above; provided, however, that the time prescribed therefore may be extended by the Contracting Officer's Representative.
- D. No claim by the Contractor for an equitable adjustment hereunder will be allowed if asserted after final payment under this Contract.

00718 ROLE OF THE AUTHORITY

- A. The character and extent of the work to be performed by the Contractor shall be subject to the general oversight and approval of the Authority.
- B. The Authority will not supervise, direct, or have control over, or be responsible for, the Contractor's means, methods, techniques, sequences, or procedures of design and construction or the safety precautions and programs incidental to the work, or for any failure of the Contractor to comply with Legal Requirements as specified in Section 00705, LEGAL REQUIREMENTS. The Authority will not be responsible for the Contractor's failure to perform or furnish the Work in accordance with the Contract, the "Issued for Construction" Specifications and "Issued for Construction" Drawings.

00719 AUTHORITY REVIEWS

- A. The Authority will review information submitted by the Contractor, furnish required information and required approvals, and render decisions pertaining thereto, all in a timely manner in order to facilitate the orderly progress of the Work in cooperation with the Contractor and in accordance with the planning, scheduling, and budgetary requirements and constraints of the project.
- B. The Authority will review and approve submittals solely for the purpose of establishing their conformance to the Contract. Such review and approval shall not be deemed to transfer any liability from the Contractor to the Authority.
- C. The Authority will review and approve identified construction submittals solely to determine if the items covered by the submittal will, after installation or incorporation in the construction, conform to the requirements set forth in the "Issued for Construction" Specifications and

- “Issued for Construction” Drawings and be compatible with the design concept of the completed project as a functioning whole as indicated in the Contract. Construction submittals requiring Authority review and approval are specified in WMATA’s Standard Specifications. Construction submittals not so specified shall be submitted to the Authority for information only. The Authority’s review and approval of construction submittals will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for in this Contract) or to safety precautions or programs incidental thereto. The Authority’s approval will be general and shall not be construed as: (1) permitting any departure from the Contract; (2) relieving the Contractor of the responsibility for any errors including details, dimensions, and materials; or, (3) approving departures from details furnished by the Contractor or the Authority, except as otherwise specified.
- D. The Authority reserves the right to review design and construction submittals and to disapprove any submittal when, in its sole judgment, the submittal deviates from the requirements of the Contract the “Issued for Construction” Specifications and the “Issued for Construction” Drawings and compromises the integrity of the construction element. The Authority’s review, approval, or acceptance of any submittal required under this Contract shall not be construed to operate as a waiver of the Contractor’s responsibility for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, construction, and other services provided by the Contractor under this Contract.

00720 SUBMITTALS

- A. The Contractor shall submit for review and approval a preliminary schedule of required submittals, as described in Section 01330, SUBMITTAL PROCEDURES, including the times for submitting, reviewing, and processing each submittal.
- B. The Contractor shall maintain a “Document Submittal Log” as described in Section 01330, SUBMITTAL PROCEDURES, to show the status of all submittals. The submittal log and all approved submittals shall be kept at the project site and shall at all times be made available for Authority inspection. Approved submittals and certificates shall be turned over to the Authority at completion as part of the project records in accordance with Section 01775, CLOSEOUT.
- C. The Authority will, in a timely manner, review and approve those submittals that it deems necessary during the design, construction, and closeout of the project. The Authority’s review of design or construction submittals shall be solely for the purposes stated in Section 00719, AUTHORITY REVIEWS. The Authority’s review and approval of separate items will not indicate approval of the assembly in which the item functions. The Contractor shall make corrections to submittals as required and shall return corrected copies for additional review and approval.
- D. The Authority’s review and approval of any submittal that it deems necessary shall not relieve the Contractor from responsibility for any variations from the requirements of the Contract, the “Issued for Construction” Specifications, and the “Issued for Construction” Drawings unless the Authority has given written approval of each such variation by written notice incorporated in or accompanying the submittal.
- E. Where a submittal is required by the Contract, the “Issued for Construction” Specifications and the “Issued for Construction” Drawings, any related work provided prior to the appropriate review and approval of a submittal shall be at the sole risk, expense, and responsibility of Contractor.

00721 VALUE ENGINEERING INCENTIVE

- A. This section applies to those value engineering change proposals (VECPs), that the Contractor initiates and develops during Contract performance to modify the Authority's Design Criteria or other requirements of this Contract including commitments made in the Contractor's proposal, as finally accepted. In order to be accepted under this section, each VECP shall:
- a. Be identified by the Contractor at the time of submittal to the Contracting Officer's Representative using the prescribed Authority VECP form;
 - b. Require a significant change to this Contract;
 - c. Decrease the Contract price;
 - d. Maintain the Contract requirements such as safety, service life, reliability, economy of operation, ease of maintenance, and necessary standardized and architectural features of the facility or system;
 - e. Not require an unacceptable extension of original period of performance; and
 - f. Be reviewed and evaluated by way of a two-phase process.
 - 1) Phase One - Conditional Approval: In addition to the use of the Authority's VECP form, all VECPs that the Contractor submits shall be in sufficient detail to clearly define the proposed change including the following items:
 - a) A description of the difference between the existing and the proposed Contract requirements and the comparative advantages and disadvantages of each;
 - b) Contract requirements recommended by the Contractor to be changed;
 - c) Separate detailed cost estimates for both the basic Contract requirement and the proposed change, and an estimate of the change in Contract price including an accounting of the costs of development, implementation, Authority review of the VECP and the sharing arrangement as set forth in Paragraph U.E;
 - d) A statement from the Contractor predicting all effects that the proposed VECP will have on the life-cycle costs of the work to include and identify separately, the cost for increased or decreased maintenance and operations;
 - e) A statement of the time by which the proposal must be accepted to obtain the maximum price reduction and not delay the original period of performance. The time required for VECP review shall be considered and included in this statement and in a separate bar chart;
 - f) A list of codes and the Authority standards applicable to the work to be carried out by the VECP and a statement that the proposed VECP will be in compliance with the requirements set forth in listed codes and standards;
 - g) The identification of a project where the materials, methods of construction, and/or special equipment have been previously and successfully performed on construction similar to that which is being proposed under this Contract;

- h) Preliminary architectural and engineering analysis, including calculations and 11 x 17-inch drawings, in sufficient detail, for each Contract requirement that must be changed if the VECP is accepted. The Contractor shall make, recommendations for accomplishing each change and state its effect on unchanged work.
- B. The Contracting Officer's Representative may, at any time during the two-phase review and evaluation process, reject part or all of the VECP by giving the Contractor written notice thereof. Until final approval, the Contractor shall remain obligated to perform in accordance with the terms of the original Contract. VECPs will be processed expeditiously, however, the Authority shall not be liable for any delay in acting upon any proposal submitted pursuant to this section. The Contracting Officer's Representative's acceptance or rejection of any such proposal shall be final and shall not be subject further review, under this Contract, at law or in equity.
- C. The Contractor has the right to withdraw part or all of the VECP at any time prior to acceptance or rejection by the Authority. Such withdrawal shall be made, in writing, to the Contracting Officer through the Contracting Officer's Representative. If the Contractor desires to withdraw the proposal, it shall be liable for the cost incurred by the Authority in reviewing the proposal.
- D. Upon notice of conditional approval of the concept of the VECP, the Contractor shall proceed with final VECP design in accordance with the agreed schedule.
- E. Phase Two - Final Approval: Final Approval of the VECP by the Authority will be contingent upon the following:
 - a. The Contractor shall address, to the Authority's satisfaction, all design issues and review all comments prior to submitting the VECP to the Authority for final approval.
 - g. An equitable adjustment to the Contract Price and appropriate changes to all other affected provisions of the Contract shall be made, in accordance with Section 00748, CHANGES, or other applicable sections of this Contract.
 - h. Fifty percent (50%) of the net savings resulting from the change shall be provided to the Contractor and fifty percent (50%) of the net savings shall be provided to the Authority. Net savings shall be determined by deducting from the estimated gross savings, the Contractor's costs of developing and implementing the proposal, including any amount attributable to a subcontractor and the estimated amount of increased costs to the Authority resulting from the change, such as costs for review, implementation, inspection, related items, and Authority-furnished property. Estimated gross savings shall include Contractor's labor, material, equipment, overhead, profit, and bond. The Contract Price shall be reduced by the sum of the Authority's costs and share of the net savings.
 - i. The Contractor is entitled to share in instant contract savings only, to the full extent provided for in this Section. For purposes of sharing, the term 'instant contract' shall not include any supplemental agreements to or other Modifications of this Contract, executed subsequent to acceptance of the particular VECP, by which the Authority increases the quantity of any item or adds any item.
 - b. Notwithstanding any review, Approval, or acceptance of any VECP by the Authority, the Contractor agrees to be liable to the Authority for all costs of any kind whatsoever caused by or resulting from any error, omission, deficiency, negligence, or combination thereof, of any kind in the design, drawings, or specifications submitted

to the Authority in connection with any VECP proposal under this Contract. The rights and remedies of the Authority provided in this Section are in addition to any other rights or remedies provided by law or under this Contract.

- F. The Contractor shall use its best efforts to include Value Engineering arrangements in any Subcontract, which in its judgment, appears to offer sufficient value engineering potential.
- G. A VECP identical to one submitted under any other contract, by this or any other Contractor, may also be submitted under this Contract.
- H. The Contractor may restrict the Authority's right to use any VECP data by marking it with the following statement:

"This data, furnished pursuant to the VALUE ENGINEERING INCENTIVE Section of this Contract, shall not be duplicated, used, or disclosed, in whole or in part, for any purpose except to evaluate the VECP, unless the proposal is accepted by the Authority. This restriction does not limit the Authority's right to use information contained in this data if it is or has been obtained, or is otherwise available, from the Contractor or from other source, without limitations. When this proposal is accepted by the Authority, the Authority shall have the right to duplicate, use, and disclose any data in any manner and for any purpose whatsoever, and have others do so whether under this or any other Authority contract."

00722 QUALITY ASSURANCE/QUALITY CONTROL

- A. The Contractor shall be responsible for conducting an ongoing Quality Plan as described in Section 01470, QUALITY MANAGEMENT SYSTEM, during the entire term of the Contract based on the approved detailed Quality Plan. The purpose of the Quality Plan is to effectively and economically ensure technical quality in the Design, other Contract deliverables, and construction of the Work, thus reducing the potential for:
 - a. Adverse construction schedule and cost impacts;
 - b. Personal and public safety problems and incidents and their attendant costs;
 - c. Those operational and maintenance problems, disruptions, and costs that result from design errors and omissions; and,
 - d. A poor quality design,
 - e. Poor construction quality,
 - f. Design deliverables and completed work, which does not comply with applicable codes and regulations.
- B. The Contractor shall Submit for Approval in accordance with Section 01330, SUBMITTAL PROCEDURES, all required quality Submittals as specified in Section 01470, QUALITY MANAGEMENT SYSTEM.
- C. An effective Design-Build Quality Program is fundamental to all work performed by the Contractor and will be considered by the Authority in assessing the Contractor's progress, performance, and earnings entitlement.

00723 PROGRESS SCHEDULES AND REQUIREMENTS FOR MAINTAINING PROGRESS RECORDS

- A. Progress Schedules. Prepare and Submit to the Contracting Officer Representative for Approval schedules showing the order in which the Contractor proposes to carry on the Work, the dates on which it will start the several major features of the Work, including procurement of materials, plant, and equipment, and the contemplated dates for completing the same for both design and construction. The schedules shall be in a form acceptable to the Authority, and as described in Section 01322, CONTRACT PROGRESS REPORTING, and shall be in such detail that, in conjunction with the progress reports hereinafter required, the Authority will be able to chart the status and progress of the Work while it is being performed. If actual progress deviates from the schedule, update the schedule to show the accurate progress. Failure to comply with the terms of this Section may affect the processing of progress payment requests submitted by the Contractor as provided for in this Contract.
- B. If, in the opinion of the Contracting Officer Representative, the Contractor falls significantly behind the Approved progress schedule for design or construction, take any and all steps necessary to improve the progress of the Work. In this event, without cost to the Authority, the Contracting Officer Representative may require the Contractor to Submit for Approval supplemental progress schedules detailing the specific operational changes to be instituted to regain the Approved schedule. Additionally, the Contracting Officer Representative may require the Contractor to increase the number of shifts, initiate or increase overtime operations, increase days of work in the work week, or increase the amount of construction plant. Such requirements by the Authority shall not be construed or interpreted in such a way as to infer that the Authority is in any way responsible for the means, methods, or sequencing of the Work. The additional cost of such requirements shall be borne solely by the Contractor.
- C. Failure of the Contractor to comply with the requirements of the Contracting Officer Representative under this Section shall be grounds for determination that the Contractor is not prosecuting the Work with such diligence as will ensure completion within the time specified. Upon such determination, the Authority may terminate the Contractor's right to proceed with the Work, or any separate part thereof, in accordance with Section 00727, TERMINATION FOR DEFAULT, DAMAGES FOR DELAY, AND TIME EXTENSIONS.

00724 PERIOD OF PERFORMANCE AND/OR PROJECT SCHEDULE

- A. Perform, complete, and advance all work under this Contract in accordance with the schedule set out in Section 00824, PERIOD OF PERFORMANCE AND/OR PROJECT SCHEDULE.
- B. The Authority may modify the Contract, pursuant to Section 00748, CHANGES, to extend the Period of Performance and/or Project Schedule as often and in periods as deemed necessary until completion of this Contract.
- C. Early Completion: If the Contractor submits a schedule or expresses an intention to complete the work earlier than any required milestone, interim, or final completion date, the Authority shall not be liable for any costs incurred because of delay or hindrance should the Contractor be unable to complete the work before such milestone, interim, or final completion date. The duties, obligations, and warranties of the Authority to the Contractor shall be consistent with and applicable only to the completion of the Work and completion dates set forth in this Contract.

00725 COMMENCING THE WORK

- A. The Contractor will commence the Work within ten (10) days after the date of receipt of the Notice to Proceed (NTP). The Contractor will prosecute the Work diligently to complete it within the time specified in the Contract and meet all specified interim milestone dates.
- B. A Pre- Construction Conference will be held to establish a working understanding among the parties and to discuss the project goals, schedules, procedures for handling submittals, processing applications for payment, maintaining required records, quality control, and other matters. For a more complete agenda, refer to Section 01312, PROJECT MEETINGS.
- C. The following items require submittal and approval prior to commencement of construction activities, or offsite fabrication associated with the project. Submit in accordance with Section 01330, SUBMITTAL PROCEDURES:
 - a. Executed Contract (as specified in Section 00521, CONSTRUCTION CONTRACT FORM), with Power of Attorney (as specified in Section 00541, POWER OF ATTORNEY), and Power of Execution (as specified in Section 00542, POWER OF EXECUTION); Required Performance Bond (as specified in Section 00611, PERFORMANCE BOND), and Payment Bond, (as specified in Section 00612, PAYMENT BOND); Insurance Certificates (as specified in Section 00778, INDEMNIFICATION AND INSURANCE REQUIREMENTS), within ten (10) days after award of Contract.
 - b. Major Subcontractors, and key project personnel confirmations (as specified in Section 00709, PROJECT MANAGEMENT AND SUPERINTENDENCE AND KEY PERSONNEL, and Section 01111, KEY CONTRACTOR FUNCTIONS), within ten (10) days after award of Contract.

00726 SUSPENSION OR DELAY OF WORK

- A. The Authority may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period as it may determine to be appropriate for the convenience of the Authority.
- B. If the performance of all or any part of this Contract is delayed in a material manner or extent by the Authority's acts or omissions that are not expressly or impliedly authorized by this Contract or by applicable provisions of law, the Contracting Officer shall make an adjustment (excluding profit) for any increase in the cost of performance of this Contract caused by such delay and shall modify the Contract, in writing. The Contracting Officer shall make an adjustment to the delivery or performance dates and to any other Contractual provision, if such delay or interruption affected Contract compliance. The Contracting Officer shall make no adjustment under this Contract for any delay or interruption, if performance was or could have been delayed by any other cause, including, without limitation: (i) the fault or negligence of the Contractor or any subcontractor; (ii) an act constituting a force majeure event pursuant to this Contract; or (iii) any other cause for which an adjustment is provided under any other article of this Contract, at law or in equity.
- C. An adjustment pursuant to paragraph (B) shall not be allowed:
 - a. For any costs incurred more than twenty (20) days before the Contractor notifies the Contracting Officer or other delegated Contracting Officer's Representative, in writing, of the delay.

- b. Unless the claim, in a sum certain, is asserted in writing as soon as practicable after the termination of the delay. In no event, shall a Contractor assert a delay claim later than thirty (30) days after its termination. The delay claim shall be accompanied by appropriate documentation, specifically supporting the nature and extent of the claimed impact upon the cost and/or time required for performance. In any instance where it is not possible for the Contractor to fully project such impact within the thirty (30) day period, it shall support the claim with such documentation as is then reasonably available, along with a statement of the anticipated time frame when the Contractor expects to provide the additional materials. The Contracting Officer shall maintain the right throughout the process to request such additional materials as he or she shall reasonably require in consideration of the claim and shall be under no obligation to conclude his or her consideration of the claim prior to review of all relevant materials. Any adjustment to the Contract price pursuant this clause must be determined prior to final payment under this Contract.

00727 TERMINATION FOR DEFAULT, DAMAGES FOR DELAY, AND TIME EXTENSIONS

- A. If the Contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will ensure its completion within the time specified in this Contract, or any extension thereof, or fails to complete said work within such time, or otherwise materially breaches any of its obligations under this Contract, the Contracting Officer may, by written notice ("Notice to Cure"), to the Contractor, direct it to cure the breach within ten (10) days or such additional time as the Contracting Officer authorizes.. If the Contractor fails to cure the breach in the time specified in the Notice to Cure, the Contracting Officer may terminate this Contract, in whole or in designated part, for default, after providing notice ("Notice of Default") to the Contractor.
- B. Upon receipt of a "Notice of Default," the Contractor shall immediately cease performance of the work so terminated. In such event, the Contracting Officer may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completing the work such design product, materials, appliances, and other work product as may be on the site of the work or previously submitted to the Authority, all of which shall become the property of the Authority. Whether or not Contract is terminated, in whole or designated part, the Contractor and its sureties shall be liable for all damage to the Authority resulting from its refusal or failure to complete the work in the specified time.
- C. If Liquidated Damages are fixed and agreed to in this Contract, and if the Contracting Officer terminates this Contract, the resulting damage shall consist of Liquidated Damages assessed daily until such reasonable time that the final project is accepted by the Authority, together with any increased costs occasioned to the Authority.
- D. If Liquidated Damages are fixed and agreed to in this Contract, and if the Contracting Officer does not so terminate the Contract, the resulting damage from any delay shall consist of such liquidated damages assessed daily until the work is accepted.
- E. The Contract shall not be terminated and/or the Contractor shall not be charged with resulting damage under the following circumstances:
 - a. If the delay in the completion of the Contract arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, acts war or insurrection, fires, floods, strikes, freight embargoes, unusually severe weather, or other events or circumstances of like nature.

- 1) Unusually severe weather conditions:
- 2) Pursuant to Paragraph B.E.a above, the Authority will use the following table as the basis for determining allowable time extensions to the Contract for unusually severe weather conditions and the impact of such weather at the construction site.
- 3) The column below labeled WORKING DAYS represents the average delays, that may be expected in each month named within the Washington Metropolitan Area, based on a five (5) day work week:

| <i>Month</i> | <i>Working Days</i> |
|-------------------------|----------------------------|
| <i>January</i> | <i>4</i> |
| <i>February</i> | <i>4</i> |
| <i>March</i> | <i>4</i> |
| <i>April</i> | <i>5</i> |
| <i>May</i> | <i>5</i> |
| <i>June</i> | <i>2</i> |
| <i>July</i> | <i>2</i> |
| <i>August</i> | <i>3</i> |
| <i>September</i> | <i>2</i> |
| <i>October</i> | <i>3</i> |
| <i>November</i> | <i>4</i> |
| <i>December</i> | <i>4</i> |

- 4) Time extensions for weather delays during a given month will be allowed only for actual working days in excess of the numbers listed above and only when those excess days of delay affect the current critical path(s) leading to specified Contract completion or milestone dates.
- F. The Contractor, within ten (10) days from the beginning of any such delay, must notify the contracting officer of the causes for the delay, unless the contracting officer grants a further extension for the notice. . Upon receipt of the notice, the contracting officer will ascertain the facts and the extent of the delay and may extend the time for completing the contract when, in the contracting officer's judgment, the findings of fact justify such an extension. The contracting officer's findings of fact shall be final and conclusive on the parties, subject only to appeal as provided section 00730, dispute resolution.
- G. If, after notice of termination for default of the Contract under the provisions of this section, it is determined for any reason, that the Contractor was not in default or that the default was excusable the termination shall be converted to a termination for convenience and the rights and obligations of the parties shall be determined in accordance with Section 00728, TERMINATION FOR CONVENIENCE OF THE AUTHORITY.
- H. Any dispute or disagreement regarding any issue arising under this section shall be subject to adjudication in accordance with the "Disputes" section of this Contract. In no event shall the Authority's issuance of a "Notice to Cure" pursuant to paragraph (A) be the basis of a dispute

pursuant to the "Disputes" section or otherwise be subject to further review under this Contract or otherwise. The pendency of any dispute shall not constitute a basis for the delay or suspension of, or otherwise affect the Authority's right to proceed in accordance with this section, including without limitation, its right to complete the work or its right to insist that the Contractor complete any portion of the Contract that was not terminated.

- I. The rights and remedies of the Authority provided in this Section are in addition to any other rights and remedies provided under this Contract, at law or in equity.

00728 TERMINATION FOR THE CONVENIENCE OF THE AUTHORITY

- A. The Contracting Officer may terminate this Contract in whole or, in part, if he or she determines that a termination is in the Authority's interests. The Contracting Officer shall terminate, by delivery to the Contractor by certified mail, return receipt requested, of a Notice of Termination specifying the nature, extent of the termination, and the date upon which such termination becomes effective.
- B. After receipt of a Notice of Termination, except as the Contracting Officer otherwise directs, the Contractor shall immediately:
 - a. Discontinue all services and stop all work under the Contract on the date and to the extent specified in the Notice of Termination;
 - b. Complete performance of work not terminated;
 - c. Place no further orders or subcontracts for materials, services, or facilities, except as may be necessary to complete the remaining portion of the Contract; terminate all orders and subcontracts to the extent that they relate to the work terminated;
 - d. Assign to the Authority, to the extent directed by the Contracting Officer, all of the right(s), title, and interest(s) of the Contractor under the orders and subcontracts so terminated. The Contracting Officer shall have the right to settle or pay any termination costs or all claims arising out of the termination and shall have no further liability to the Contractor for the work that was the subject of such subcontracts.
 - e. Settle all outstanding liabilities and all claims arising from termination of orders and subcontracts, with the approval of the Contracting Officer.
 - f. As the Contracting Officer directs, transfer title and deliver to the Authority:
 - 1) Parts, work in process, completed work, supplies, and other material procured as a part of, or acquired for the work terminated;
 - 2) All data, completed or partially completed plans, design specifications and design drawings, reports, estimates, summaries, and other information and materials that would have been required to be furnished to the Authority if the Contract had been completed.
 - g. Take any action that may be necessary, or as the Contracting Officer directs, for the protection and preservation of property related to this Contract that is in the Contractor's possession or control, and in which the Authority has or may acquire an interest. Use its best efforts to sell, as the Contracting Officer authorizes, any property of the types referred to in Paragraph D.B.F. above. The Contractor:
 - 1) Will not be required to extend credit to any purchaser, and

- 2) May acquire any such property under the conditions the Contracting Officer prescribes. The proceeds of any such transfer or disposition shall be applied to reduce any payments to be made to the Contractor under this Contract, shall be credited to the price or cost of the work or paid in any other manner as the Contracting Officer may direct.
- C. After receipt of a Notice of Termination, submit to the Contracting Officer through the Contracting Officer's Representative its termination settlement proposal (TSP) in the form that the Contracting Officer prescribes detailing the costs to which it asserts entitlement pursuant to this section. The TSP shall be submitted promptly, but in no event later than on (1) year from the effective date of termination, unless one or more extensions in writing are granted by the Contracting Officer, upon request of the Contractor made in writing. However, if the Contracting Officer determines that the facts justify such action, the Contracting Officer may act upon any TSP at any time after such 1-year period or any extension thereof. Upon failure of the Contractor to submit its TSP within the time allowed, the Contracting Officer may determine, on the basis of information available to him or her, the amount, if any, due to the Contractor by reason of the termination and shall authorize payment in the amount so determined.
 - D. Subject to the provisions of Paragraph D.C above, the Contractor and the Contracting Officer may agree upon the whole, or any part, of the amount or amounts to be paid to the Contractor for the total or partial termination, which amount may include a reasonable allowance for profit on work done. The agreed amount exclusive of settlement costs, shall not exceed the total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of work not terminated. The Contracting Officer will not allow anticipated profit on services not performed by the Contractor.
 - E. The Contract shall be amended accordingly, and the Contractor will be paid the agreed amount. Nothing in Paragraph D.F below, prescribing the amount to be paid in the event of a disagreement upon the whole or any part of the amount to be paid to the Contractor by reason of the termination, shall be deemed to limit, restrict, or otherwise affect the amount that may be agreed upon pursuant to Paragraph D.D above.
 - F. In the event of a disagreement, as provided in Paragraph D.D above, over amount to be paid to the Contractor, the Contracting Officer will pay the Contractor the amounts he or she determines as follows, but without duplication of any amounts agreed upon in accordance with Paragraph D.D:
 - a. The costs incurred prior to the effective date of the Notice of Termination, in performance of the work terminated, shall, without duplication of any items, agreed to above:
 - 1) Termination costs under subcontracts or orders that are properly chargeable to the terminated portion of the Contract, if not excluded,
 - 2) A sum, representing profit on Paragraph D.D above, that the Contracting Officer determines to be fair and reasonable, pursuant to section 49.202 of the Federal Acquisition Regulation in effect on the date of this Contract. If it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, the Contracting Officer will allow no profit and will reduce the settlement to reflect the indicated rate of loss.
 - b. The reasonable indirect costs of settlement of the work terminated, including:

- 1) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of TSP(s);
 - 2) The termination and settlement of subcontracts (excluding the amounts of such settlements); and
 - 3) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- G. Except for normal spoilage, and except to the extent that the Contracting Officer otherwise expressly assumed the risk of loss, there will be excluded from the amounts payable to the Contractor the fair value, as determined by the Contracting Officer, of property, which is destroyed, lost, stolen, or damaged so as to become undeliverable to the Authority, or a third party.
- H. The cost principles and procedures of FAR Part 31 in effect on the date of this Contract, shall govern all costs claimed, agreed to, or determined under this article, except that the Authority shall not be obligated to pay interest, however represented, on any claimed costs
- I. The Contractor shall have the right of appeal, under Section 00730, DISPUTE RESOLUTION, from the Contracting Officer's determination under Paragraphs D.C or D.E above. If the Contractor failed to submit its TSP within the time provided in Paragraph D.C above or failed to request extension of such time, it shall waive its rights to appeal the Contracting Officer's determination.
- J. In arriving at the amount due the Contractor under this section, the following will be deducted:
- a) All unliquidated advances or other payments to the Contractor, under the terminated portion of this Contract.
 - b) The value, as the Contracting Officer determines, of any claim, which the Authority may have against the Contractor under with this Contract, including any third party claim if the Contracting Officer is not satisfied that sufficient insurance coverage is in place; and
 - c) The agreed price for, or the proceeds from sale of any materials, supplies, or other items that the Contractor procured or sold, pursuant to the provisions of this section, and not otherwise recovered by or credited to the Authority.
- K. If the Contractor asserts that any partial termination, has rendered enforcement of the remainder of the Contract at the remaining Contract price inequitable, the Contractor may file with the Contracting Officer's Representative, a request in writing for an equitable adjustment to the price for the continued portion of the Contract. Such proposal shall be submitted within ninety (90) days from the effective date of termination, unless the Contracting Officer extends it in writing, and shall be accompanied by appropriate supporting documentation.
- L. The Authority may, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of this Contract whenever in the opinion of the Contracting Officer, the aggregate of such payments are within the total amount to which the Contractor will be entitled. If such payments are in excess of the amount finally agreed to under this section, such excess shall be payable to the Authority, upon demand, for the period from the date that such excess payment is received by the Contractor to the date of repayment, together with interest computed at the rate of six percent (6%) per annum. No interest shall be charged on

any such excess, if the payment is attributable to a reduction or other disposition of termination inventory until ten (10) days thereafter, or such later date as the Contracting Officer determines by reason of the circumstances.

- M. The Contractor's responsibilities and obligations under this section shall remain in full force and effect notwithstanding the pendency of any dispute or other delay relating to determination of the appropriate price adjustment or any other issue arising from the termination for convenience.
- N. Unless otherwise provided for in this Contract, or by applicable statute, the Contractor, and all subcontractors whose work is encompassed in the termination settlement shall preserve, all of its books, records, documents, and other evidence bearing on the costs and expenses under this Contract for three (3) years after final settlement. The Contractor shall make these records and documents available to the Authority, its governing jurisdictions and any other Federal, state, or local entities providing funding for this Contract, and to the U.S. Comptroller General or the agents or representatives of any of them, at the Contractor's office, at all reasonable times, without any direct charge.

00729 ASSIGNMENT

- A. The Contractor shall not transfer or assign any of its rights or obligations under this Contract, or any portion thereof to any other party, without the Contracting Officer's consent. 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 Contractor, 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 at the Contracting Officer's discretion after review of the facts and circumstances surrounding each request submitted in accordance with Section 01330, SUBMITTAL PROCEDURES. The Contracting Officer shall not approve the assignment unless the surety, in writing, agrees to the assignment and accepts the assignee as the Contractor and principal on the payment and performance bonds.
- B. Claims for money due or to become due the Contractor from the Authority, this Contract may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency. It is the Authority's intent to recognize assignments only to bona fide lending institutions; therefore, assignment to any private corporation, business, or individual that does not qualify as such, is specifically prohibited and void *ab initio*.
- C. Any attempt to transfer by assignment not authorized by the Contracting Officer shall constitute a breach of this Contract, and the Contracting Officer may terminate the Contract for default as provided in Section 00726, TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS, and the Contractor and its sureties shall be liable to the Authority for excess costs incurred by the Authority.

00730 DISPUTE RESOLUTION

- A. Any dispute arising under or related to this Contract that are not disposed of by agreement, will be decided by the Contracting Officer, who will reduce his or her decision to writing and mail, by certified mail, return receipt requested, a copy thereof to the Contractor. The Contracting Officer's decision is final and conclusive unless, within thirty (30) calendar days from receipt the Contractor mails or otherwise furnishes to the Contracting Officer a written notice of appeal in accordance with Section 01330, SUBMITTAL PROCEDURES, addressed to the Authority's 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 or board of competent jurisdiction, it determines that the decision was fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or is not supported by substantial evidence. In any appeal under this Section, the appellant 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 Contractor shall proceed diligently with the performance of this Contract in accordance with the Contracting Officer's decision. The Armed Services Board of Contract Appeals ("ASBCA") is the authorized representative of the Board of Directors for final decisions on appeal.

- B. This section does not preclude consideration of questions of law in connection with decisions provided for in Paragraph D.A 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.

00731 USE AND POSSESSION PRIOR TO COMPLETION

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 Contractor, will be relieved of the responsibility for loss or damage to the Work other than that resulting from the Contractor's fault or negligence or that of its Subcontractors or agents. If such possession or use by the Authority delays the Contract or causes additional expense to the Contractor, an equitable adjustment to the Contract price or the time of completion will be made and the Contract will be modified in writing, accordingly.

00732 ACCEPTANCE AND INSPECTION OF WORK

- A. "Acceptance," as used in this section, means the Contracting Officer Representative's acts approving specific services in 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, the COR's acceptance 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 for latent defects, fraud, willful misconduct or such gross mistakes as may amount to fraud, or as otherwise provided in this Contract. All Punch List items identified during final inspections and noted at the time of acceptance shall be corrected by the Contractor 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 Contractor 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, fraud, willful misconduct or such gross mistakes as may amount to fraud which may be discovered following such acceptance. This notice will state either:
 - a. That the Contractor shall correct or re-perform defective or nonconforming services; or,
 - b. That the Authority does not require correction or re-performance. The Contractor shall be liable to the Authority for all costs incurred of any kind caused by or resulting from the Contractor's defective workmanship or noncompliance with the Contract Specifications and Drawings.

- D. If the Contractor or the Authority deems it necessary, to make an examination of work already completed, by removing or tearing it out before final acceptance, the Contractor shall, on request, promptly furnish all necessary facilities, labor, and material to do so. If such work is found to be defective or nonconforming in any material respect, the Contractor shall pay for all of the expenses of such examination and of satisfactory reconstruction and pay all delay damages. If, however, such work is found to meet Contract requirements, the "Issued for Construction" Specifications and "Issued for Construction" Drawings, an equitable adjustment will be made to the Contract price to compensate the Contractor for the additional services involved in such examination and reconstruction. If completion of the work has been delayed thereby, the Contracting Officer may grant the Contractor a suitable extension of time.
- E. All work, which includes but is not restricted to, materials, workmanship, and fabrication of components, shall be subject to the Authority's inspection and testing, at all reasonable times prior to acceptance as specified in Section 01470, QUALITY MANAGEMENT SYSTEM, and Section 01820, DEMONSTRATION AND TRAINING. Any such inspection and testing is for the sole benefit of the Authority and shall not relieve the Contractor of the responsibility for providing quality control measures to ensure that the work strictly complies with the Contract, the "Issued for Construction" Specifications and the "Issued for Construction" Drawings. No inspection or testing by the Authority shall be construed as acceptance. Inspection or testing shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance, or in any way affect the continuing rights of the Authority after acceptance of the completed work.
- F. The Contractor shall furnish promptly, without additional charge, all services, work, labor, materials, tools, equipment, and facilities reasonably needed for performing such safe and convenient inspections and tests as may be required. All inspections and tests will be performed in such manner as not to unnecessarily delay the Contract. The Authority shall receive adequate advance notice submitted in accordance with Section 01330, SUBMITTAL PROCEDURES, to conduct inspections and witness all tests as part of its overall quality oversight of the project as specified in Section 01470, QUALITY MANAGEMENT SYSTEM, and Section 01820, DEMONSTRATION AND TRAINING. If the Authority does not witness tests, due to the Contractor's failure to provide timely notice, such tests shall have no effect. Special, full scale and performance tests shall be performed as described in the Contract, the Specifications and Drawings.
- G. If the Contractor is required to correct or re-perform any services, they shall be done without additional cost or fee to the Authority, and they shall be subject to this section to the same extent as work initially performed. If the Contractor fails or refuses to correct or revise errors or deficiencies in its performance within thirty (30) days of the Authority's request, the Authority may, by contract or otherwise, correct or replace the services with similar ones and charge the Contractor with the cost incurred or make an equitable adjustment to the Contract price.
- H. Disagreement regarding the responsibility for costs for corrective actions, either incurred by the Contractor or by the Authority, shall constitute a dispute and shall be subject to the provisions of Section 00730, DISPUTE RESOLUTION.
- I. The rights and remedies of the Authority provided in this Section are in addition to any other rights or remedies provided under this Contract, at law or in equity.
- J. The Contractor shall give the Contracting Officer's Representative at least fourteen (14) days advance notice of the date that the Work, or separate portion thereof, will be fully completed and ready for final inspection, testing, and acceptance in accordance with this Contract.

00733 AUTHORITY-FURNISHED PROPERTY

- A. The Authority will make available to the Contractor, for use only in connection with this Contract, the property, if any, described in the Section 00833, AUTHORITY-FURNISHED PROPERTY, at the times and locations stated therein. If the Authority-furnished property, suitable for its intended use, is not made available to the Contractor in a timely fashion, the Contracting Officer will, upon timely written request from the Contractor, equitably adjust any affected provision of this Contract pursuant to any procedures of Section 00748, CHANGES.
- B. Title to Authority-furnished property shall remain with the Authority. The Contractor shall maintain adequate property control records of Authority-furnished property in accordance with sound industrial practice.
- C. Unless otherwise provided in this Contract, the Contractor, upon acceptance of Authority-furnished property, assumes the risk of and shall be responsible for loss, theft or damage thereto except for reasonable wear and tear and except to the extent that such property is consumed in the performance of this Contract.
- D. The Contractor shall, upon completion of this Contract, prepare for shipment, deliver FOB origin, or dispose of all Authority-furnished property not consumed in the performance of this Contract or not theretofore delivered to the Authority as directed. The net proceeds of such disposal will be credited to the Contractor's price or paid in such other manner the Contracting Officer directs.

00734 MATERIAL, WORKMANSHIP, AND EQUIPMENT

- A. All equipment, materials, and articles incorporated in the project covered by this Contract shall be new and of the most suitable grade for the purpose intended. Notwithstanding the Authority's review and approval of any substitution, nothing herein relieves the Contractor of its obligations to satisfy its requirements under the Contract.
- B. Reference to any equipment, materials, or articles to be incorporated in the project and any patented processes, by trade name, make, or catalog number in the Contract "Issued for Construction" Specifications and the "Issued for Construction" Drawings shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that in the Authority's judgment, is equal to that named. When required by this Contract or when called for by the Authority, the Contractor shall furnish to the Authority for approval in accordance with Section 01330, SUBMITTAL PROCEDURES, the name of the manufacturer, the model number, and other identifying data, samples and information regarding performance, capacity, nature, and rating of machinery and other equipment, that the Contractor contemplates incorporating in the work. Machinery, equipment, material, and articles installed or used without required approval shall be at the risk of subsequent rejection.
- C. The Contractor shall provide construction equipment in first class working order and safe condition, of sufficient quantities and sizes to complete the work as specified in the Contract, the "Issued for Construction" Specifications and "Issued for Construction" Drawings within the Period of Performance, and shall provide adequate maintenance of this equipment throughout the duration of the project.
- D. Items of equipment that, at any time, prove ineffectual or hazardous to personnel or property, shall be promptly brought to acceptable condition or shall be removed from the site, as directed by the Authority or by any jurisdictional agency.

00735 HAZARDOUS MATERIALS

- A. The Authority will be responsible for the presence of and any associated consequences of asbestos, PCBs, petroleum, and other hazardous and radioactive materials (Hazardous Materials) on the project if such presence is unknown, unexpected, or not identified in information provided by the Authority, or not otherwise known to the Contractor prior to the preparation of its Bid. The Contractor shall, upon encountering or recognizing such Hazardous Materials, immediately stop work in the affected area and report the condition to the Contracting Officer's Representative, in writing. The Contractor shall submit a hazardous materials report in accordance with Section 01330, SUBMITTAL PROCEDURES. The Authority shall have no responsibility or liability for any hazardous materials that are brought to the site or handled by the Contractor or any Subcontractor.

00736 PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS

- A. The Contractor shall preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the work site, that are not to be removed and that do not unreasonably interfere with the work. Care shall be taken in removing trees authorized for removal to avoid damage to vegetation that will remain in place. The Contractor shall be obligated to replace or restore all existing vegetation that is destroyed, removed, or damaged in the performance of the work to the condition that existed before work commenced.
- B. The Contractor shall protect from damage all adjacent property including, but not limited to, land, existing structures, improvements, and utilities at or near the site of the work. The Contractor shall repair or restore any damage to such facilities that results from failure to comply with Contract requirements or the failure to exercise reasonable care in the performance of the work. If the Contractor fails or refuses to repair any such damage promptly, the Contracting Officer's Representative may have the necessary work performed and charge the costs thereof to the Contractor.
- C. Protection is more fully described in Section 01723, PROTECTION OF ADJACENT CONSTRUCTION.

00737 OPERATIONS AND STORAGE AREAS

- A. All of the Contractor's operations, including storage, shall be confined to areas that the Contracting Officer's Representative approves. Temporary buildings such as storage sheds, shops, and offices may be erected by the Contractor only with the Contracting Officer's approval and shall be built without expense to the Authority. Such temporary buildings and utilities shall remain the Contractor's property and shall be removed by the Contractor at its expense upon the completion of the work. With the written consent of the Contracting Officer, such buildings and utilities may be abandoned and need not be removed. Temporary construction facilities are more fully described in Section 01520, TEMPORARY CONSTRUCTION FACILITIES.
- B. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways or construct and use such temporary roadways as may be authorized by the Contracting Officer. Where materials are transported in the prosecution of the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, protection against damage shall be provided by the Contractor, and damaged roads, curbs, or sidewalks shall be repaired by or at the expense of the Contractor.

00738 ACCIDENT PREVENTION

- A. To protect the life and health of employees and other persons, to prevent damage to property, materials, supplies, and equipment, and to avoid work interruptions in the performance of this Contract, the Contractor shall comply with all pertinent provisions of the Authority's safety requirements as specified in Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS, and shall also take or cause to be taken such additional measures as the Contracting Officer's Representative may determine to be reasonably necessary for that purpose.
- B. All work under this Contract shall be performed in a skillful and workmanlike manner. The Contracting Officer's Representative may, in writing, require the Contractor to remove from the project any employee the Contracting Officers Representative deems to be contrary to the best interests of the Authority.
- C. The Contractor shall maintain an accurate record of and shall report to the Contracting Officer's Representative in the manner and on the forms, he or she prescribes, in accordance with Section 01330, SUBMITTAL PROCEDURES, exposure data and reports of all accidents resulting in death, traumatic injury, occupational disease, and damage to property, materials, supplies, and equipment incidental to work performed under this Contract, immediately after of such incident.
- D. The Contracting Officer's Representative will notify the Contractor if there is any noncompliance with the foregoing provisions and the action(s) to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or its representative at the work site, shall be deemed sufficient for this purpose. If the Contractor fails or refuses to promptly comply, the Contracting Officer's Representative may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work order shall be made the subject of a claim for extension of time or for the Contractor's excess costs or damages.
- E. The Contractor shall ensure compliance with this section by subcontractors.
- F. Prior to commencement of the Work, the Contractor shall:
 - a. Submit, in writing in accordance with Section 01330, SUBMITTAL PROCEDURES, an accident prevention plan;
 - b. Meet, in conference in accordance with Section 01312, PROJECT MEETINGS, with the Authority to discuss and develop an agreement regarding the administration of the overall safety program.

00739 FIRE PROTECTION EQUIPMENT AND LIFE SAFETY AGREEMENT

The Contractor shall submit, in accordance with Section 01330, SUBMITTAL PROCEDURES, a plan for a fire protection systems and equipment as specified in Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS, for use during the term of this Contract.

00740 PROTECTION OF PERSONS AND PROPERTY

The Contractor shall be responsible for ensuring compliance with the most stringent provisions of the applicable occupational safety and health statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia, or political subdivision where the work is being

performed, as well as the U.S. Department of Labor's Occupational Safety and Health Act (OSHA) regulations. The Contractor shall comply with the approved Organizational Health and Safety Program as specified in Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS, that will be submitted by the Contractor prior to commencement of work in accordance with Section 01330, SUBMITTAL PROCEDURES. The Contractor shall ensure that all methods of performing the work do not involve danger to the personnel employed thereon, the public, or private property, whether or not these methods are cited or indicated in the Contract. If a Federal, State or local agency charges the Contractor with any violations of health or safety laws or regulations in the course of the work, a copy of each charge shall be immediately forwarded to the Contracting Officer's Representative. The Contractor shall promptly notify the Authority of all damage to property and of injuries sustained by any persons, of which the Contractor becomes aware, including but not limited to, employees of the Contractor, in any manner relating directly or indirectly to the Work or otherwise to this Contract.

00741 CONSIDERATION AND BASIS OF PAYMENT

- A. In consideration of its performance under this Contract, the Contractor 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, that may be made and expenses incurred. The basis of payment will be the Contract price, as shown on Section 00521, DESIGN-BUILD CONTRACT FORM, and which shall constitute complete compensation for performance of all work required by the Contract.
- B. The approved monthly progress report and updated ninety (90) day schedule as specified in Section 01322, CONTRACT PROGRESS REPORTING, and the Approved Quality Manager's Quality Compliance Certification shall be the basis for progress payments to the Contractor.
- C. When satisfactory progress has not been achieved by the Contractor during any period for which a progress payment is to be made, a percentage of the progress payment may be retained. Retainage should not be used as a substitute for good contract management, and the Contracting Officer should not withhold funds without cause. Determinations to retain and the specific amount to be withheld shall be made by the Contracting Officer on a case-by-case basis. Such decisions will be based on the Contracting Officer's assessment of past performance and the likelihood that such performance will continue. The amount of retainage withheld shall not exceed ten percent (10%) of the approved, estimated amount in accordance with the terms of this Contract and may be adjusted as the Contract approaches completion to recognize better than expected performance, the ability to rely on alternative safeguards, and other factors. Upon completion of all Contract requirements, retained amounts shall be paid promptly.
- D. The basis of payment will be the total base price as negotiated and accepted. The basis of payment includes any options exercised and any modifications to the Contract in addition to the total base price, which shall constitute complete compensation for performance of all work required by the Contract.

00742 CONTRACT PRICES AND BID SCHEDULE

Payment for the various Bid items listed in the Bid Schedule shall constitute full compensation for furnishing all, labor, equipment, appliances, and materials and for performing all operations required to complete the Work in conformity with the Contract, the "Issued for Construction" Specifications and "Issued for Construction" Drawings developed by the Contractor. All costs for work not specifically mentioned in the Bid Schedule shall be included in the Contract Prices for the items listed.

00743 VARIATION IN ESTIMATED QUANTITIES

Where the quantity of a pay item in this Contract is an estimated quantity provided by the Authority, and where the actual quantity of such pay item varies more than 15 percent above or below the estimated quantity stated in this Contract, an equitable adjustment in the Contract Price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contracting Officer Representative will, upon receipt of a written request submitted in accordance with Section 01330, SUBMITTAL PROCEDURES, for an extension of time within 10 Days from the beginning of such delay, or within such further period of time, which may be granted by the Contracting Officer Representative prior to the date of Final Payment of the Contract, ascertain the facts and make such adjustment for extending the Period of Performance as in the Contracting Officer Representative's judgment the findings justify.

00744 METHOD OF PAYMENT

- A. The Authority will make progress payments monthly as the Work proceeds on estimates approved by the Contracting Officer Representative for design related work and by estimates reviewed and approved by the Contracting Officer Representative for construction-related work. At least 5 Days before submission of any Application for Payment, a Preliminary Monthly Progress and Quality Status Report Review meeting will be held to review for acceptability of the schedules and the Quality System. The Contractor shall have an additional 5 Days to make corrections and adjustments and to complete and resubmit the schedules. A Formal Progress and Quality Status Report Review meeting will be held to approve the schedules. No progress payment will be made to Contractor until the schedules are provided and accepted by the Contracting Officer Representative, whose acceptance will not be unreasonably withheld. The progress schedule shall be acceptable to Authority as providing an orderly progression of the Work to completion within any specified Milestones and the Period of Performance, but acceptance of the progress schedule shall neither impose on Authority responsibility for the sequencing, scheduling, or work progress nor interfere with or relieve the Contractor from Contractor's full responsibility for the Work. The format and structure of the progress schedule shall be as set forth in Section 01322, CONTRACT PROGRESS REPORTING. The Authority's acceptance shall not be deemed to confirm that the schedule is a reasonable plan for performing the Work.
- B. The Contractor's progress payment requests will be reviewed based on the scheduled and actual progress of the Work as reflected on the design schedule, cost-loaded progress schedule or bar graph as applicable, and monthly updates. The Contractor shall not be entitled to progress payments, and the Authority shall have no obligation to review or approve progress payment requests if the Contractor has failed to submit or update the schedules, if the applicable schedule or update submitted by the Contractor fails to accurately reflect the actual progress of the Work, or if the Contracting Officer Representative declines to approve the submitted schedules for any of the reasons stated in this Contract. A decision not to approve a request for progress payments based upon the Contractor's failure to comply with the schedule and update submission requirements as committed under this Contract shall be at the sole and absolute discretion of the Contracting Officer Representative.
- C. Furnish a breakdown of the total Contract Price showing the amount included therein for each principal category of the Work, in such detail as requested, to provide a basis for determining progress payments. In the preparation of estimates, the Contracting Officer Representative may authorize material delivered to the Site and preparatory work completed to be taken into consideration. Material delivered to the Contractor at locations other than the Site may also be taken into consideration if the Contractor furnishes satisfactory evidence that the

- Contractor has acquired title to such material and that it will be utilized on the Work covered by this Contract.
- D. If the Contract Price is more than \$50,000, material delivered that will be incorporated into the Project will be taken into consideration in computing progress payments, provided the material is delivered on the Site, or is delivered to the Contractor and properly stored in a warehouse, storage yard, or similar suitable place within 25 miles of the Site or such reasonable distance in excess of 25 miles as may be approved by the Contracting Officer Representative, provided, however, that the Contractor has the proper storage facilities, security, and insurance for the stored material as Approved by the Contracting Officer Representative. Before each such payment is made for delivered material on the Site, furnish to the Contracting Officer Representative such evidence as may be required as proof of the ownership, quantity, and value of such materials. Before each such payment is made for delivered materials off the Site, furnish the Contracting Officer Representative evidence of ownership and properly executed bills of sale to the Authority for the delivered material upon which payment is being made.
- E. In determining progress accomplished, the Authority will allow as an element of work accomplished, i.e., progress toward completion, only 50 percent of the invoiced cost of materials or equipment delivered to the Site, or suitable location as described in Paragraph D.D above, but not incorporated in the construction up to the time the materials or equipment are actually incorporated in the Work.
- F. In making such progress payments, 5 percent of the estimated amount of work completed will be retained until final completion and Acceptance of the Contract Work. Also, whenever the Work is substantially complete, and the Contractor is in compliance with all provisions of the Contract, if the Contracting Officer Representative considers the amount retained to be in excess of the amount adequate for the protection of the Authority, the Contracting Officer Representative may use discretion in releasing to the Contractor all or a portion of such excess amount.
- G. Where the time originally specified for completion of this Contract exceeds 1 year, the Contracting Officer Representative, at any time after 50 percent of the Work has been completed, if the Contracting Officer Representative finds that satisfactory progress (satisfactory progress includes prosecution of physical work, adherence to DBE if applicable, quality assurance, and all other provisions of the Contract) is being made, may reduce the total amount retained from progress payments to the minimum level necessary to protect the interest of the Authority.
- H. All material and work covered by progress payments made shall thereupon become the sole property of the Authority but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work, or as waiving the right of the Authority to require the fulfillment of all of the terms of the Contract.
- I. See Section 01775, CLOSEOUT, for Final Inspection requirements.
- J. Upon completion and Acceptance of all work, the amount due the Contractor under this Contract will be paid upon the presentation of a properly executed voucher as specified in Section 01775, CLOSEOUT, and after the Contractor shall have furnished the Authority with a release of all Claims against the Authority arising by virtue of this Contract other than Claims in stated amounts as may be specifically excepted by the Contractor from the operation of the release. If the Contractor's claim to amounts payable under the Contract has been assigned, a release may also be required of the assignee.

- K. The Authority may, at its sole discretion, withhold payment from the Contractor at the appropriate percentage for work, or portions thereof, that it deems to be defective or in nonconformance with the requirements of the IFB Documents and the Issued for Construction Specifications and Issued for Construction Drawings.
- L. Satisfactory records for design, inspection, testing, or other quality elements required under the approved Quality System; operation and maintenance manuals; As-Built Drawings and As-Built Specifications; electronic media; as-built Project Schedule; spare parts list, delivery information and distribution of spare parts; configuration management system; training manual, lesson plans, and student's training manual and electronic media of such, as applicable; survey record log; correspondence file; releases; vouchers; request for Final Payment; certifications, affidavits and warranties and guarantees; and must be submitted in order to receive payment for the completed Work. Final Payment will be made in accordance with this Section and Section 00755, FINAL PAYMENT.

00745 PROGRESS PAYMENTS FOR LUMP SUM ITEMS

If requested, the Contractor shall furnish to the Contracting Officer Representative in a breakdown of the total Contract Price for every lump sum item on the Bid Schedule, showing the amount included therein for each principal category of the Work, in such detail as to provide a basis for determining progress payments. The breakdown shall be supported by such data to substantiate its correctness as the Contracting Officer Representative may require.

00746 GARNISHMENT OF PAYMENTS

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

00747 SUBCONTRACT PAYMENTS

- A. Establish procedures to ensure timely payment of amounts due pursuant to the terms of the Subcontracts. Pay each Subcontractor for satisfactory performance of its contract, no later than 10 Days from the date of the Contractor's receipt of payment from the Authority for work by that Subcontractor. Release, within 10 Days of satisfactory completion of all work required by the Subcontractor, any retention withheld from the Subcontractor.
- B. Certify on each payment request submitted to the Authority that payment has been or will be made to all Subcontractors in accordance with Paragraph D.A above. Notify the Contracting Officer Representative with each payment request, of any situation in which scheduled Subcontractor payments have not been made.
- C. If a Subcontractor alleges that the Contractor has failed to comply with this Section, the Contractor agrees to support any Authority investigation, and, if deemed appropriate by the Authority, to consent to remedial measures to ensure Subcontractor payment that is due.
- D. The Contractor agrees that the Authority may provide appropriate information to interested Subcontractors who want to determine the status of Authority payments to the Contractor.
- E. Nothing in this Section is intended to create a contractual obligation between the Authority and any Subcontractor or to alter or affect traditional concepts of privity of contract between all parties.

00748 CHANGES

- A. The Contracting Officer Representative (or Contracting Officer, depending on the level of authority required) may, at any time, and without notice to the sureties, by written order designated or indicated to be a Modification, make any change in the Work within the general scope of the Contract including, but not limited to, changes:
 - a. In the Scope of the Work or Contract Documents;
 - b. In the Bid Documents, the Issued for Construction Specifications, and the Issued for Construction Drawings;
 - c. In the method or manner of performance of the Work;
 - d. In the Authority-furnished facilities, equipment, materials, services, or Site; or
 - e. Directing acceleration in the performance of work.
- B. Any other written order or an oral order, which terms as used in this Paragraph G.B, shall include direction, instruction, interpretation, or determination from the Contracting Officer Representative or Contracting Officer, which causes any such change, shall be treated as a Modification under this Section, provided that the Contractor gives the Contracting Officer Representative written notice in accordance with Section 01330, SUBMITTAL PROCEDURES, stating the date, circumstances, and source of the order and that the Contractor regards the order as a Modification.
- C. Except as herein provided, no order, statement, or conduct of the Contracting Officer Representative or Contracting Officer shall be treated as a change under this Section or entitle the Contractor to an equitable adjustment hereunder.
- D. If any change under this Section causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the Work under this Contract, whether or not changed by any order, an equitable adjustment will be made and the Contract modified in writing accordingly: Provided, however, that no Claim for any change under Paragraph G.B above will be allowed for any costs incurred more than 20 Days before the Contractor gives written notice as therein required. This 20-Day limitation will be strictly applied regardless of whether the Authority is prejudiced by any lack of notice.
- E. If the Contractor intends to request an equitable adjustment under this Section, it must, within 30 Days after receipt of a written Modification under Paragraph G.A above or furnishing of a written notice under Paragraph G.B above, submit to the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, a written proposal in accordance with this CHANGES Section, unless this period is extended by the Contracting Officer Representative. The proposal hereunder may be included in the notice under Paragraph G.B above.
- F. No Claim by the Contractor for an equitable adjustment hereunder will be allowed if asserted after Final Payment under this Contract.
- G. For additional modification procedures see Section 00848 CHANGES - CONTRACT MODIFICATION PROCEDURES

00749 PRICING OF ADJUSTMENTS

- A. When costs are a factor in any determination of a Contract Price adjustment pursuant to Section 00748, CHANGES, or any other Section of this Contract, such costs shall be in accordance with the contract cost principles and procedures in Subpart 31.1 of the Federal Acquisition Regulations (48 CFR 31.1). Where general and administrative expense is recoverable as part of any pricing adjustment under this Contract, the adjustment shall be based on the relationship between the entity's total general and administrative expenses allowable under FAR cost principles for all construction-type operations during the fiscal or calendar year covering the actual performance period of the work included in this pricing adjustment, and the entity's total cost input (excluding General and Administrative costs) for construction-type operations during the same period, expressed as a percentage, applied to the direct and overhead Contract costs included in the pricing adjustment; i.e., general and administration expenses will be paid on a percentage of cost basis, not on a daily rate type basis.
- B. Notwithstanding any interpretation of the aforementioned contract cost principles and procedures to the contrary, the Authority shall not be liable for interest, however represented, on or as a part of any Claim, request, proposal, or adjustment (including equitable adjustments) whether said Claim, request, proposal or adjustment (including equitable adjustments) arises under the Contract or otherwise.
- C. As part of its proposal for any Contract modification requiring a price adjustment in excess of \$100,000, the Contractor shall submit to the Contracting Officer, cost or pricing data under the conditions described in this paragraph and certify that, to the best of its knowledge and belief, the cost or pricing data submitted is accurate, complete and current as of the date submitted. At the Contracting Officer's discretion, the Contractor, may be required to submit cost or pricing data for price adjustments less than \$100,000.
- D. The Contractor shall ensure that this article is included in all subcontracts at any tier, if the value of the subcontracted work exceeds \$100,000.

00750 ACCOUNTING AND RECORD KEEPING

- A. Applicability. This Section shall become effective for and shall apply to any adjustment in the price of this Contract initiated by the Contractor or the Authority. However, where the original amount of this Contract is less than \$1,000,000, Paragraph G.C of this Section does not apply unless the adjustment is expected to exceed \$50,000.
- B. Forward Priced Adjustments. Unless expressly waived in writing in advance by the Contracting Officer, the Contractor shall furnish to the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, a cost proposal in advance of performance of any work for which a price adjustment is requested under this Contract. The proposal format shall be as detailed in Section 00748, CHANGES. The Contractor shall generate such records as are necessary to substantiate all elements of the pricing proposal. Such records supporting the costs of each pricing adjustment request shall be specifically segregated and identified in the Contractor's accounting system as being applicable to the pricing adjustment request.
- C. Post-Pricing Adjustments.
 - a. In addition to the records required to be originated under Paragraph G.B above, in the event pricing of an adjustment under this Contract is not agreed upon between

the Contractor and the Contracting Officer Representative prior to the commencement of work for which the pricing adjustment is requested, the Contractor and any Subcontractor engaged in work for which the pricing adjustment is requested, shall maintain accounts and original cost records specifically segregated and identified by job order or other appropriate accounting procedures approved by the Contracting Officer Representative of all incurred separated costs related to the work for which the pricing adjustment is requested. Proposed cost records and accounting procedures shall be submitted to the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, for approval. The Contractor shall maintain accounts and records, which segregate and account for the costs of all work associated with that part of the Project for which the pricing adjustment is requested and shall allocate among:

- 1) Work required under the base Contract or under any Option if applicable;
 - 2) Work requested to be reimbursed under the pricing adjustment; and
 - 3) Work claimed or determined to be related to other actual or proposed pricing adjustment, including but not limited to, changes orders, differing site conditions, and the like. The accounts and records so established shall accumulate such costs under logical costs groups, such as material, labor, equipment, subcontracts, field overhead and the like. The Contractor shall record these costs on a form approved by the Contracting Officer.
- b. In addition to the accounting system established to segregate and account for Contract Price adjustments, which shall accumulate such costs by work activity under logical cost groups, such as material, labor, equipment, Subcontracts, field overhead, and the like, the Contractor shall maintain field records associated with these costs on a form approved by the Contracting Officer Representative. Subject to agreement between the Contractor and the Contracting Officer Representative, or upon direction of the Contracting Officer Representative for work under Section 00748, CHANGES, the Contractor shall use Authority Forms (Daily Report - Labor, Materials, and Equipment), to be supplied by the Authority at the request of the Contractor and submitted in accordance with Section 01330, SUBMITTAL PROCEDURES. The terms of Section 00748, CHANGES, shall apply regardless of the form used. The use of Authority Forms to segregate Modification costs does not, in and of itself, invoke the provisions of Section 00748, CHANGES.
- D. Availability. The accounts, records, and costs information required to be originated under Paragraphs G.B and G.C above together with all other accounts, records, and costs information related to this Contract, shall be maintained and made available by the Contractor or Subcontractor(s):
- a. At the office of the Contractor or Subcontractor(s) at all reasonable times for inspection, audit, reproduction, or such other purposes as may be required by the Contracting Officer Representative, or pursuant to any other Sections of this Contract;
 - b. Until the expiration of three years from the date of payment of the final \$100 (Final Payment) under this Contract or such lesser time as is specified in Contractor Records Retention, Subpart 4.7 of the Federal Acquisition Regulations (48 C.F.R. 4.7) and for such longer period, if any, as is required by applicable statute, or by any other Sections of this Contract, or by Paragraphs I.D.b.1) and I.D.b.2) below:

- 1) If the Contract is completely or partially terminated, for a period of 3 years from the date of Final Payment; and
 - 2) If a pricing adjustment is involved in any appeal under Section 00729, DISPUTE RESOLUTION, or in any litigation related to this Contract, for a period of 1 year following the final disposition of the appeal or litigation.
- E. When asserting a Claim under the various Sections of this Contract, the Contractor shall grant the Authority access to review and ascertain the validity of the accounting records being maintained for segregation of costs, including base cost records, and to audit such costs as are deemed appropriate by the Contracting Officer Representative. No payment will be made to the Contractor on its Claim until such records are made available and access is permitted.
- F. Limitation on Pricing Adjustments.
- a. In the event the Contractor or any Subcontractor fails to originate or to maintain, or to make available any accounts or records as required under this or any other Section of the Contract, any pricing adjustment or portion thereof previously granted by the Contracting Officer Representative for which records are not available, shall be rescinded and re-computed, or if a pricing adjustment has not yet been granted, shall be computed, in an amount not to exceed the direct costs for which accounts or records are not available, plus a single markup for indirect expenses not to exceed ten percent (10%) of the direct costs so determined by the Contracting Officer Representative. The adjustment will be established by the Contracting Officer Representative based upon, at its election, one of the following:
 - 1) An audit of any existing books and records of the Contractor or Subcontractor; or
 - 2) An Authority estimate adopted by the Contracting Officer; or
 - 3) A combination of Paragraphs I.F.a.a and I.F.b1.b above.
 - b. The Contractor and Subcontractors will not be allowed any profit for the work for which the Contractor or Subcontractor fails to originate, maintain, or to make available any accounts or records as required under this Contract.
- G. Flow-down clause.
- The Contractor shall insert a clause containing all the provisions of this Section in all Subcontracts issued under this Contract, modified as necessary, for proper identification of the contracting parties, the Contracting Officer and the Contracting Officer Representative under this Contract.

00751 AUDIT - PRICE ADJUSTMENTS

- A. General: The Contracting Officer and his or her representatives, including representatives of the Authority's governing jurisdictions, any federal, state, or local entity providing funding for this Contract and the Comptroller General of the United States, shall have access, audit, and inspection rights as described in the applicable Paragraphs J.B, J.C, and **Error! Reference source not found.** D below.
- B. Examination of costs: If this is a cost-reimbursement type, incentive, time and materials, labor-hour or price re-determinable contract, or any combination thereof, the Contractor shall maintain, and the Authority shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred for the

- performance of this Contract. Such right of examination shall include inspection at all reasonable times of the Contractor's plant, or such parts thereof, as may be engaged in the performance of this Contract.
- C. Cost or pricing data: If the Contractor submitted cost or pricing data in connection with the pricing of this Contract or any change or modification thereto submitted in accordance with Section 01330, SUBMITTAL PROCEDURES, unless such pricing was based on adequate price competition, established catalog, market prices of commercial items sold in substantial quantities to the general public, prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the Authority shall have the right to examine all books, records, documents, and other data of the Contractor related to the negotiation, pricing, or performance or such Contract change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted along with the computations and projections used therein.
- D. The accounts, records and cost information required to be originated under this Contract, together with all other accounts, records and cost information related to this Contract, shall be maintained and made available by the Contractor and subcontractor(s):
- a. At their offices at all reasonable times, for inspection, audit, reproduction or such other purposes as may be required by the Contracting Officer, by anyone he or she authorizes or pursuant to any other provision of this Contract; and
 - b. Except to the extent otherwise expressly set forth in this Contract, until three (3) years from the date of final payment under this Contract. If this Contract is completely or partially terminated, such records shall be maintained for a period of three (3) years from either the date of any resulting final settlement or the date of final payment, whichever is later. If a pricing adjustment results in any dispute or litigation related to this Contract, such records shall be maintained for a period equal to the later of three (3) years from the date of final payment or one (1) year following the final disposition of the dispute or litigation.
- E. The Contractor shall insert a clause containing all the provisions of this Section, including this Paragraph **Error! Reference source not found.** In all Subcontracts hereunder except altered as necessary for proper identification of the contracting parties and the Contracting Officer Representative under this Contract.

00752 CERTIFICATE OF CURRENT COST OR PRICING DATA

The Contractor shall provide a Certificate of Current Cost or Pricing Data to the Authority in accordance with Section 01330, SUBMITTAL PROCEDURES, on a form suitable to the Contracting Officer as required in Subpart 15.403 of the Federal Acquisition Regulations (48 CFR 15.403) in support of any negotiated contract expected to exceed \$100,000 or any modification to a formally advertised or negotiated contract on which the aggregate of the increases and decreases in cost are expected to exceed \$100,000. The Contracting Officer Representative at its discretion may request cost or pricing data for modifications on which costs are less than \$100,000 and an attendant certificate of current cost or pricing data. Cost or Pricing data submittal procedures are specified in Section 00201, GENERAL INSTRUCTIONS, and Section 00748, CHANGES.

00753 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA - PRICE ADJUSTMENTS

- A. This Section shall become operative only with respect to Modifications of this Contract, which involve aggregate increases, decreases, or both in cost plus applicable profits in excess of \$100,000 unless the modification is priced on the basis of adequate competition, established catalog or market prices of commercial items sold in substantial quantities to the public, or prices set by law or regulation. The right to price reduction under this Section is limited to defects in data relating to such Modification.
- B. If any price, including profit or fee, negotiated in connection with any price adjustment under this Contract was increased by any significant sums because:
- a. The Contractor furnished cost or pricing data in accordance with Section 01330, SUBMITTAL PROCEDURES, which was not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data;
 - b. A Subcontractor, pursuant to the Section 00754, SUBCONTRACTOR COST OR PRICING DATA, or any Subcontract provision therein required, furnished cost or pricing data in accordance with Section 01330, SUBMITTAL PROCEDURES, which was not complete, accurate, and current as certified in the Subcontractor's Certificate of Current Cost or Pricing Data;
 - c. A Subcontractor or prospective Subcontractor furnished cost or pricing data in accordance with Section 01330, SUBMITTAL PROCEDURES, which was required to be complete, accurate, and current and to be submitted to support a Subcontract cost estimate furnished by the Contractor in accordance with Section 01330, SUBMITTAL PROCEDURES, but which was not complete, accurate, and current as of the date certified in the Contractor's Certificate of Current Cost or Pricing Data; or
 - d. The Contractor or a Subcontractor or prospective Subcontractor furnished any data, not within Paragraphs L.B.a, L.B.b, or L.B.c above in accordance with Section 01330, SUBMITTAL PROCEDURES, which was not accurate, as submitted; then the price shall be reduced accordingly and the Contract shall be modified in writing as may be necessary to reflect such reduction. However, any reduction in the Contract Price due to defective Subcontract data of a prospective Subcontractor, when the Subcontract was not subsequently awarded to such Subcontractor, will be limited to the amount, plus applicable overhead and profit markup, by which the actual Subcontract, or actual cost to the Contractor if there was not a Subcontract, was less than the prospective Subcontract cost estimate submitted by the Contractor in accordance with Section 01330, SUBMITTAL PROCEDURES, provided the actual Subcontract price was not affected by defective cost or pricing data. (Note: Since the Contract is subject to reduction under this Section by reason of defective cost or pricing data submitted in connection with certain Subcontracts, it is expected that the Contractor may wish to include an article in each such Subcontract requiring the Subcontractor to appropriately indemnify the Contractor. However, the inclusion of such an article and the terms thereof are matters of negotiation and agreement between the Contractor and the Subcontractor, provided that they are consistent with disputes provisions in Subcontracts. It is also expected that any Subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by its lower tier Subcontractors).

00754 SUBCONTRACTOR COST OR PRICING DATA

- A. The Contractor shall require Subcontractors hereunder to submit cost or pricing data in accordance with Section 01330, SUBMITTAL PROCEDURES, prior to award of any

- negotiated lump sum or cost-reimbursement type, incentive, or price re-determinable Subcontract over \$100,000. The Contractor shall require Subcontractors to certify that to the best of their knowledge and belief, the cost and pricing data submitted under this Paragraph is accurate, complete, and current as of the date of execution, which date shall be as close as possible to the date of agreement on the negotiated price of the Subcontract. The Contractor shall insert the substance of this Section in each of its negotiated lump sum or cost reimbursement type, price re-determinable, or incentive Subcontracts over \$100,000 hereunder. The Contractor also shall insert the substance of this Section in each Subcontract with respect to any change or other modification made pursuant to one or more Sections of this Contract, which involves a price adjustment greater than \$100,000. The Contractor shall conduct a cost analysis of all negotiated Subcontracts.
- B. The requirements that follow shall become operative only with respect to any change or other modification made pursuant to one or more Sections of this Contract, which involves a price adjustment in excess of \$100,000. The requirements of this Section shall be limited to such price adjustments:
- a. The Contractor shall require Subcontractors hereunder to submit cost or pricing data in accordance with Section 01330, SUBMITTAL PROCEDURES:
 - 1) Prior to award of any cost-reimbursement type, incentive, or price re-determinable Subcontract;
 - 2) Prior to the award of any Subcontract the price of which is expected to exceed \$100,000; or,
 - 3) Prior to the pricing of any Subcontract change or other modification for which the price adjustment is expected to exceed \$100,000; except where the price is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public or prices set by law or regulation.
 - b. The Contractor shall require Subcontractors to certify that to the best of their knowledge and belief the cost and pricing data submitted under this Paragraph M.B is accurate, complete and current as of the date of execution, which date shall be as close as possible to the date of agreement on the negotiated price of the Contract Modification.
- C. The Contractor shall insert the substance of this Section in each Subcontract hereunder, which exceeds \$100,000.

00755 FINAL PAYMENT

- A. The Authority will make Final Payment to the Contractor following Acceptance of Work, including receipt of releases from owners of property affected by the Contractor's performance under this Contract, and submittal of a final Affidavit of Amounts Paid to all businesses participating under the Contract. Final Payment shall include the entire sum found to be due hereunder after deducting therefrom such amounts as the terms of this Contract permit. Prior estimates and payments, including those relating to extra work or work omitted, shall be subject to correction by the Final Payment. Final Payment will be made only for materials actually incorporated in the Work; and, all materials remaining for which progress payments have been made shall revert to the Contractor, unless otherwise agreed, and progress payments made for these items shall be deducted from the Final Payment for the Work.

- B. By accepting Final Payment, the Contractor will be deemed thereby to have released the Authority from all Claims of the Contractor and all liability to the Contractor for things done or furnished in connection with the Work and for every act and neglect of the Authority and others relating to or arising out of the Work.

00756 ACCESS AND EXAMINATION OF RECORDS

- A. The Contractor agrees to provide the Authority, 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. The Contractor also agrees, pursuant to 49 CFR. 633.17 to provide the FTA Administrator or its authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U. S. C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U. S. C. 5307, 5309, or 5311.
- B. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- C. The Contractor agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of Claims arising from the performance of this Contract, in which case the Contractor agrees to maintain same until the Authority, 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).
- D. The Contractor agrees that the Contracting Officer, and the Comptroller General of the United States and the United States Secretary of Transportation if applicable, or their duly authorized representatives, shall, until the expiration of three (3) years after Final Settlement under this Contract, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Contractor involving transactions related to this Contract, for the purpose of making audit, examination, excerpts, and transcription.
- E. The Contractor further agrees to include in all its Subcontracts hereunder, a provision to the effect that the Subcontractor agrees that the Contracting Officer, and the Comptroller General of the United States and the United States Secretary of Transportation if applicable, or their duly authorized representatives, shall until the expiration of 3 years after Final Settlement under this Contract, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Subcontractor involving transactions related to the Subcontract, for the purpose of making audit, examination, excerpts, and transcription. The term "Subcontract," as used in this Section, excludes:
- a. Purchase Orders Not Exceeding \$2,500 and,
 - b. Subcontracts or purchase orders for public utility services at rates established from standard costs applicable to the public.

00757 WARRANTY/GUARANTEE OF CONSTRUCTION

- A. Unless otherwise specifically provided for in the Contract, the Contractor, notwithstanding any final inspection, acceptance or payment, guarantees that all work performed and materials and equipment furnished under this Contract are in accordance with the Contract requirements. The Contractor also guarantees that when installed all materials and

- equipment were free from defects and will remain so for a period of at least two years from the date of Acceptance by the Authority.
- B. If defects of any kind should develop during the period such guarantees are in force, the Contracting Officer will immediately notify the Contractor in writing of such defects. The Authority thereupon shall have the right, by a written notice to that effect, to require the Contractor to repair or replace all inferior or defective work, material, or equipment or permit it to remain in place and assess the Contractor the costs it (the Contractor) would have incurred had the Contractor been required to effect repair or replacement.
 - C. Corrections or replacement of parts, materials, equipment, supplies or construction made pursuant to the provisions of this Section shall also be subject to the provisions of the Contract including this clause to the same extent as parts, material, equipment, supplies or construction originally installed. The warranty, with respect to such new or corrected parts, materials, equipment, supplies or construction, shall be equal in duration as that set forth in Paragraph P.A above and shall run from the date that such parts, materials, equipment, supplies, or construction are replaced or corrected and accepted by the Authority.
 - D. The Contractor guarantees to reimburse the Authority for, or to repair or replace, damages to the Site, buildings, or contents thereof that are caused by inferior or defective workmanship, or the use of inferior or defective materials or equipment in the performance of this Contract. The Contracting Officer will immediately notify the Contractor in writing when such damage occurs. The Authority shall have the right to require the Contractor to repair or replace such damaged areas or equipment, or elect to permit such damage to remain as is and assess the Contractor the costs it would have incurred had it been required to effect repair or replacement.
 - E. Should the Contractor fail to proceed promptly, after notification by the Contracting Officer, to repair or replace inferior or defective work, material, or equipment, or damage to the Site, buildings, or contents, thereof, caused by inferior or defective work, or the use of inferior or defective materials, or equipment, the Authority may have such work, material, equipment, or damage repaired or replaced and charge all costs incident thereto to the Contractor.
 - F. Special guarantees that may be required under the Contract shall be subject to the elections set forth above unless otherwise provided in such special guarantees.
 - G. Should the Contractor fail to prosecute the Work or fail to proceed promptly to provide guarantee period services after notification by the Contracting Officer, the Authority may, subject to Section 00727, TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS, contained in this Contract, and after allowing the Contractor 10 Days to correct and comply with the Contract, terminate the right to proceed with the Work (or the separable part of the Work) that has been delayed or unsatisfactorily performed. In this event, the Authority may take over the Work and complete it by contract or otherwise, and may take possession of and use any materials, appliance, and plant on the Work Site necessary for completing the Work. The Contractor and its sureties shall be liable for damages to the Authority resulting from the Contractor's refusal or failure to complete the Work within this specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes increased costs incurred by the Authority in completing the Work.
 - H. The decision of the Contracting Officer as to liability of the Contractor under this Section is subject to the appeal procedure provided for in Section 00730, DISPUTE RESOLUTION, of this Contract.
 - I. All Subcontractor's, manufacturers', and Suppliers' warranties and guarantees, expressed or implied, respecting any part of the Work and any material used therein shall be deemed

obtained in accordance with Section 01775, CLOSEOUT, and shall be enforced by the Contractor for the benefit of the Authority without the necessity of separate transfer or assignment thereof, provided that, if directed by the Authority, the Contractor shall require such Subcontractor's, manufacturers and Suppliers to execute such warranties and guarantees in writing to the Authority in accordance with Section 01775, CLOSEOUT. In connection therewith, the Contractor further agrees to perform the Work in such a manner or consistent with and so as to preserve all such warranties and guarantees.

- J. Certain WMATA Standard Specifications Sections and General Requirements provide for a warranty longer than the general warranty provided in this Contract, or commence from dates other than Final Completion and Acceptance of the Work. Where such warranties are specified as both in addition to the general warranty and in total years, the total years shall govern, and the warranty period shall commence from Final Completion and Acceptance of the Work.

00758 CORRECTION OF DEFICIENCIES

- A. This Section shall apply only to those deficiencies discovered by either the Authority or the Contractor within two (2) years after Acceptance. Materials or equipment will be regarded as having a deficiency if a type of material or equipment in like service accumulates a failure rate greater than five percent within a period of two (2) years following Acceptance by the Authority. Systems or subsystems will be regarded as having a deficiency if they exhibit conditions or characteristics, which are not in compliance with the Contractor's Issued for Construction Specifications and Issued for Construction Drawings, and intent of this Contract anytime during a period extending for two (2) years following their Acceptance by the Authority.
- B. Notice of deficiency to Contractor: If the Authority determines that a deficiency exists in any of the materials, equipment, systems, or subsystems provided the Authority under this Contract, it will promptly notify the Contractor of the deficiency, in writing, within 30 Days.
- C. Recommendation for correction: Upon timely notification of the existence of such a deficiency, or if the Contractor independently discovers a deficiency in accepted materials, equipment, systems, or subsystems, the Contractor shall promptly submit to the Authority its recommendation for corrective actions, together with supporting information in sufficient detail for the Authority to determine what corrective action, if any, shall be undertaken in accordance with Section 01775, CLOSEOUT. The recommendation shall be submitted to the Authority within 15 working days of discovery or receipt of notice of the deficiency.
- D. Direction to Contractor concerning correction of deficiencies: Within 30 Days after receipt of the Contractor's recommendations for corrective action and adequate supporting information, the Contracting Officer, at its sole discretion, will give the Contractor written notice not to correct any deficiency, or to correct or partially correct any deficiency within a reasonable time and at a specified location.
- E. Schedule of deficiency corrections: The Contractor shall prepare Schedule of Deficiency Corrections and deliver it to the Authority for approval in accordance with Section 01775, CLOSEOUT, within 15 working days of discovery of deficiency by the Contractor or receipt of notice of discovery of a deficiency by the Authority.
- F. Correction of deficiencies by Contractor: The Contractor shall promptly comply with all timely written directions by the Contracting Officer to correct or partially correct a deficiency, at no increase in the Contract Price. The Contractor shall also prepare and furnish to the Authority in accordance with Section 01775, CLOSEOUT, data and reports applicable to corrections

- required under this Section (including revision and updating of all other affected data called for under this Contract) at no increase in the Contract Price.
- G. Modification of Contract with respect to uncorrected deficiencies: In the event of timely notice of a decision not to correct or only to partially correct a deficiency, the Contractor shall submit to the Authority within 15 working days, a technical and cost proposal to amend the Contract in accordance with Section 01775, CLOSEOUT, to permit acceptance of the affected materials, equipment, systems, or subsystems in accordance with the revised requirements, and an equitable reduction in Contract Price shall promptly be negotiated by the parties and stated in a Modification to this Contract.
- H. Failure to correct: If the Contractor fails or refuses to present a detailed recommendation for corrective action and to prepare and furnish data and reports as required in Paragraph Q.G above, then the Contracting Officer will give the Contractor written notice specifying the failure or refusal and setting a period after receipt of the notice within which it must be corrected. If the failure or refusal is not corrected within the specified period, the Contracting Officer may, by contract or otherwise, as required:
- a. Obtain detailed recommendations for corrective action;
 - b. Either:
 - 1) Correct the materials, equipment, systems or subsystems, or
 - 2) Replace the materials, equipment, systems or subsystems; and if the Contractor fails to furnish timely disposition instructions, the Contracting Officer may dispose of non-conforming materials, equipment, systems or subsystems for the Contractor's account in a reasonable manner, in which case the Authority is entitled to reimbursement from the Contractor or from the proceeds for the reasonable expense of care and disposition, as well as for excess costs incurred or to be incurred;
 - c. and obtain applicable data and reports.
 - d. Charge to the Contractor the cost occasioned to the Authority thereby.
- I. Correction of deficient replacements and re-performances: Materials or equipment corrected or furnished in replacement and systems or subsystems revised pursuant to this Section shall also be subject to all the provisions of the Contract to the same extent as materials, equipment, systems, or subsystems initially accepted.
- J. The correction of materials or equipment exhibiting a failure rate greater than five percent means taking of any and all actions necessary to correct the deficiencies, including removal and replacement of all pieces of material or equipment in like service in a manner satisfactory to the Contracting Officer Representative. The correction of systems or subsystems exhibiting one or more deficiencies means taking any and all actions necessary to eliminate any and all deficiencies in a manner satisfactory to the Authority.
- a. Disassembly/reassembly expense: The Contractor shall be liable for reasonable cost of disassembly/reassembly of larger items necessary to remove the materials or equipment to be inspected and/or returned for correction or replacement.
 - b. Transportation charges:
 - 1) When the Authority returns supplies to the Contractor for correction or replacement pursuant to this Section, the Contractor shall be liable for

transportation charges up to an amount equal to the cost of transportation by the usual commercial method of shipment from the designated destination point under this Contract to the Contractor's plant, in addition to any charges provided for in Paragraph Q.J.b.2) below. The Contractor shall also bear the responsibility for the supplies while in transit.

- 2) When compliance with the terms of this Section by the Contractor involves shipment of corrected or replacement supplies from the Contractor to the Authority, the Contractor shall be liable for transportation charges up to an amount equal to the cost of transportation by the usual commercial method of shipment from the Contractor's plant to the designated destination point under this Contract, in addition to any charges provided for Paragraph Q.J.b.1) above. The Contractor shall also bear the responsibility for the supplies while in transit.
- K. No extension in time for performance; no increase in Contract Price: In no event shall the Authority be responsible for extension or delays in the scheduled deliveries or periods of performance under this Contract as a result of the Contractor's obligations to correct deficiencies, nor shall there be any adjustment of the delivery schedule or Contract Performance Time as a result of such correction of deficiencies, except as may be agreed to by the Authority in a supplemental agreement with adequate consideration.
- L. The Contractor shall not be responsible under this Section for the correction of deficiencies in Authority-furnished property, except for deficiencies in installation, unless the Contractor performs or is obligated to perform any modifications or other work on such property. In that event, the Contractor shall be responsible for correction of deficiencies to the extent of such modifications or other work.
- M. The Contractor shall not be responsible under this Section for the correction of deficiencies caused by the Authority.

00759 COVENANT AGAINST CONTINGENT FEES

- A. The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies utilized by the Contractor for the purpose of securing business. For breach or violation of this warranty, the Contracting Officer shall have the right to annul this Contract without liability or in his or her discretion to deduct from the Contract Price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.
- B. If fraud is suspected, the Authority's only remedy prior to final adjudication by a court of competent jurisdiction is to report the matter to the Authority's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any agency providing funding under this Contract and/or appropriate federal, state and/or local law enforcement authorities.

00760 OFFICIALS NOT TO BENEFIT

- A. No member of Congress or resident commissioner shall be admitted to any share or part of this Contract, or to any benefit that may arise therefrom; but this Paragraph shall not be construed to extend to this Contract if made with a corporation for its general benefit.

- B. No member, officer, or employee of the Authority or of a local public body during tenure with the Authority or with another local public body and one (1) year thereafter shall have any interest, direct or indirect, in this Contract or the proceeds thereof.

00761 GRATUITIES

In connection with performance of work required under this Contract, or any changes or Modifications relative thereto, the giving of or offering to give gratuities (in the form of entertainment, gifts, or otherwise) by the Contractor, or any agent, representative, or other person deemed to be acting on behalf of the Contractor, or any Supplier or Subcontractor furnishing material to or performing work under this Contract, or any agent, representative or other person deemed to be acting on behalf of such Supplier or Subcontractor, to any Director, Officer, or employee of the Authority; or to any Director, Officer, employee, or agent of any of the Authority's agents, consultants, representatives, or other persons deemed to be acting for or on behalf of the Authority, with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such contract is expressly forbidden. The terms of this Section 00761, GRATUITIES, shall be strictly construed and enforced in the event of violations hereto.

00762 CONFLICT OF INTEREST

- A. An organizational conflict of interest (OCI) exists when the nature of the work to be performed under a proposed contract or a subcontract may, without some restriction on future activities result in an unfair competitive advantage to the Contractor or subcontractor; because of (1) unequal access to information, (2) biased ground rules or (3) impaired objectivity. An unequal access to information: OCI may exist if in performing a Contract, a Contractor obtains access to non-public information that provides a competitive advantage to it in a later competition. A biased ground rules: OCI may exist if the Contractor has a role in setting rules for a source selection in which it will compete. An impaired objectivity: OCI may exist if, in performing a Contract, a Contractor is called upon to evaluate an offer from or performance by itself or an affiliated entity.
- B. In the event that the Contractor believes that it or any of its potential subcontractors may have an OCI, it shall notify the Contracting Officer, in writing, within five (5) working days after it becomes aware of the potential or actual OCI. The written notification shall identify the nature and circumstances of the perceived conflict and propose appropriate measures to eliminate or mitigate the OCI. The Contracting Officer will review the circumstances and the proposed mitigation plan and notify the Contractor stating whether: (1) no mitigation is required; (2) the conflict cannot be mitigated; or (3) the conflict can be mitigated and he or she accepts the proposed measures, or recommends additional measures.
- C. The Contractor's failure to identify such perceived conflicts may result in the Contract being rescinded or terminated.
- D. Should the Contractor identify or become aware of a conflict during the term of this Contract, including any extension thereof that it could not reasonably anticipate prior to award, it shall notify the Contracting Officer in accordance with paragraph (b), or request an exception to the restriction with supporting rationale. The Contracting Officer shall consider the Contractor's proposed measures to mitigate or eliminate the conflict, or the request for an exception.
- E. If the proposed measures are not determined to be feasible or are otherwise not acceptable to the Contracting Officer, he or she may terminate the Contract. If the Contracting Officer does not grant a request for an exception, and the Contract is not terminated, the Contractor shall be notified in writing and be given ten (10) days from the date of the written notification to take all necessary actions to comply with this clause.

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

00763 EMPLOYMENT RESTRICTION WARRANTY

- A. The Contractor warrants that it will not offer employment to, solicit or discuss prospective employment with, or otherwise engage in substantive employment related discussions or communications with, any present or former Board member of the Authority who has been involved, directly or indirectly, in any matter of financial interest to the Contractor until at least two (2) years after the Board member has ceased involvement in the matter. The post-employment restriction on former Authority employees is one (1) year from the date of their last employment with the Authority. The Contractor shall not knowingly engage in communications of the nature described above with any immediate family member or member of the household of any Authority employee or Board member during the period when such employee or Board member is involved in any matter of financial interest to the Contractor.
- B. If a former Board member or employee of the Authority is eventually hired, the Contractor shall ensure that the former Board member or employee is not involved in negotiating or otherwise dealing with the Authority on any particular matter over which he or she had responsibility during his or her tenure.
- C. Should the Contractor fail to comply with the provisions hereof, and no fraud is suspected, the Contracting Officer shall have the right to withhold payment under this Contract in an amount not to exceed two percent (2%) of the total Contract amount as liquidated damages to the Authority, such withholding to be in addition to any other withholding or retainage under this Contract. Any dispute shall be settled in accordance with the "Disputes" clause of this Contract.

- D. If fraud is suspected, the Authority's only remedy prior to a final decision by a court of competent jurisdiction is to report the matter to the Authority's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

00764 CIVIL RIGHTS

- A. *Nondiscrimination Assurance.* In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. §2000 (d), section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. §6102, section 202 of the American with Disabilities Act of 1990, 42 U.S.C. §12132, D.C. law and Federal transit law at 49 U.S.C. §5332, the Contractor, sub-recipient, or subcontractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, religion, national origin, sex, age, sexual preference, gender identity and/or disability. In addition, the Contractor, sub-recipient, or subcontractor agrees to comply with applicable Federal implementing regulations and other regulations that FTA may issue.
- B. The Contractor, sub-recipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-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 this Contract or such other remedy as the recipient deems appropriate.
- C. **Equal Employment Opportunity:** The following equal employment opportunity requirements apply to this Contract.
- a. *Race, Color, Creed, National Origin, Sex.* In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. §2000(e), and Federal transit laws at 49 U.S.C. §5332, the Contractor agrees to comply with all applicable equal opportunity requirements of the U.S. Department of Labor (U.S. DOL) including, but not limited to "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor, " 41 C.F.R. Part 60 *et. seq.*, [implementing Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000(e) note], and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of this Contract. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, creed, national origin, sex or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements that FTA may issue.
- b. *Age.* In accordance with Section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements that FTA may issue.

- c. *Disabilities.* In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. §12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements that FTA may issue.
- B. Special DOL EEO Clause for Construction Projects: The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all non-construction Contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of non-construction Federal contracts and subcontracts covered under the Executive order.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT
SPECIFICATIONS (EXECUTIVE ORDER 11246)**

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. "Minority" includes:
- (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the FEDERAL REGISTER in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are

assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and

providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a Contractor association, joint Contractor-union, Contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which

demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

- A. ***The Contractor also agrees to include these requirements in each Subcontract, financed in whole or in part, with federal assistance provided by the FTA, modified only, if necessary, to identify the affected parties.***
- B. Failure by the Contractor, sub-recipient, or subcontractor to carry out these requirements is a material breach of this Contract, that may result in the termination or such other remedy as the Authority deems appropriate.

00765 DISADVANTAGED BUSINESS ENTERPRISE

- A. In connection with the performance of this Contract, the Contractor agrees to cooperate with the Authority in meeting its commitments and goals with regard to the maximum utilization of Disadvantaged Business Enterprises (DBE) and further agrees to exert good faith efforts to satisfy the requirements of Section 00453, DBE DATA, by subcontracting portions of the Work to disadvantaged firms, by entering into joint ventures with disadvantaged firms, or both.
- B. The DBE policy of the Authority underwent a complete revision October 1, 1999 to meet revised Federal requirements. The DBE provisions of this IFB are subject to revision by Amendment.
- C. For federally funded contracts that exceed \$150,000 and to which the Disadvantaged Business Enterprise (DBE) Requirements (Attachment J.4) apply, the failure to perform in accordance with requirements of Attachment J.4 may result in a partial or full suspension of payment, including progress payments, if applicable.
- D. If the Contractor is found to be in noncompliance with the DBE requirements of Attachment J.4, the progress of the work shall also be deemed to be unsatisfactory, and an amount equal to the DBE participation in the Contract shall be retained from payment (or progress payments, if any) made to the Contractor.
- E. If the Contract value is over \$150,000, the prime Contractor will be responsible for submitting a monthly report of the status of its DBE subcontractors as outlined in Attachment J.4 to the Contracting Officer.
- F. If the Contractor fails to submit the required monthly DBE reports, the Contracting Officer may suspend payments (or progress payments), until such time as the monthly reports are submitted and accepted by the Authority.
- G. The goal for this Contract is as specified in Section 00865, DISADVANTAGED BUSINESS ENTERPRISE.

00766 UTILIZATION OF SMALL BUSINESS CONCERNS

- A. It is the policy of the Authority that a fair proportion of the purchases and contracts for supplies and services for the Authority be placed with small business concerns.
- B. The Contractor agrees to accomplish the maximum amount of subcontracting to small business concerns that the Contractor finds to be consistent with the efficient performance of this Contract.

00767 DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

A. Minimum Wages:

- a. 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), shall 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 C.F.R. Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at the 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 as specified in APPENDIX D to Section 00800, 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 29 C.F.R. §5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs that 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 at 29 C.F.R. §5.5(a)(4). Laborers or mechanics performing work in more than one 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 classification and wage rates conformed under 29 C.F.R. §5.5(a)(1)(ii) And the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its Subcontractor at the Site of the Work in a prominent and accessible place where it can be easily seen by the workers.
- b. The Authority will 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 Authority will 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 C.F.R. 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 bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- c. 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 will be sent by the Contracting Officer Representative to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Administrator, or an

- authorized representative, will approve, modify, or disapprove every additional classification action within 30 Days of receipt and so advise the Contracting Officer or will notify the Authority within the 30 Day period that additional time is necessary.
- d. 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 will 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 with 30 Days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-Day period that additional time is necessary.
 - e. The wage rate (including fringe benefits where appropriate) determined pursuant to Paragraphs Z.A.c and Z.A.d above, shall be paid to all workers including helpers performing work in the classification under this Contract from the first day on which work is performed in the classification.
- B. 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.
- a. 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 submitted through the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, 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.
- C. Withholding: The Authority will, 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 agreement or any other Authority contract with the same recipient, 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, the Authority 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 or funds until such violations have ceased.
- D. Payrolls and Basic Records
- a. Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the Work and preserved for a period of three years thereafter for all laborers and mechanics working at the Site of the Work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the Project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly

rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(b) of the Davis-Bacon act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 C.F.R. §5 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 costs 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.

- b. The Contractor shall submit weekly in accordance with Section 01330, SUBMITTAL PROCEDURES, for each week in which any Contract work is performed, a copy of all payrolls to the Authority. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 C.F.R. §5.5(a)(3)(i). 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 no. 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The Contractor is responsible for the submission of copies of payrolls by all Subcontractors in accordance with Section 01330, SUBMITTAL PROCEDURES.
 - 1) Each payroll submitted shall be accompanied by a "Statement of Compliance" signed by the Contractor or Subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and submit in accordance with Section 01330, SUBMITTAL PROCEDURES and shall certify the following:
 - a) That the payroll for the payroll period contains the information required to be maintained under 29 C.F.R. §5.5. (a)(3)(i), and that such information is correct and complete;
 - b) 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 at 29 C.F.R. Part 3;
 - c) 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.
 - 2) The weekly submission in accordance with Section 01330, SUBMITTAL PROCEDURES, 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 29 C.F.R. §5.5(a)(3)(ii)(B).

- 3) The falsification of any of the above certifications may subject the Contractor or Subcontractor to civil or criminal prosecution under 18 U.S.C. §1001 and 31 U.S.C. §3729.
- 4) The Contractor or Subcontractor shall make the records required under 29 C.F.R. §5.5(a)(3)(i) available for inspection, copying, or transcription by authorized representatives of the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or Subcontractor fails to submit the required records in accordance with Section 01330, SUBMITTAL PROCEDURES, or make them available, the Authority 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 make such records available may be grounds for debarment action pursuant to 29 C.F.R. §5.12.

E. Apprentices and Trainees

- a. 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, Office of Apprenticeship, Training and Employer Labor Services, or with a State apprenticeship agency recognized by the Office, or if a person is employed in his or her first 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 Office of Apprenticeship, Training and Employer Labor Services 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 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 percentages of the journeyman's hourly rate) specified in the Contractor's or Subcontractor'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 journeyman 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 determines that a different practice prevails for the applicable apprentice classification, fringe benefits shall be paid in accordance with that determination. In the event the Office of Apprenticeship, Training and Employer Labor Services, or a state apprenticeship agency recognized by the Office, 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.
- b. Trainees: Except as provided in 29 C.F.R. §5.16, trainees shall 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 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 that 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.

- c. Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under 29 C.F.R. Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order No. 11246, as amended 29 C.F.R. Part 30.
- d. Helpers: Helpers will be permitted to work on a project if the helper classification is specified on an applicable wage determination or is approved pursuant to the conformance procedure set forth in 29 C.F.R. §5.5(a)(1)(ii). The allowable ratio of helpers to journeyman employed by the Contractor or Subcontractor on the job site shall not be greater than two helpers for every three journeymen (in other words, not more than 40 percent of the total number of journeymen and helpers in each Contractor's or in each Subcontractor's own work force employed on the job site.) Any worker listed on a payroll at a helper wage rate, who is not a helper as defined in 29 C.F.R. §5.2(n)(4), shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any helper performing work on the job site in excess of the ratio permitted shall be paid not less than the applicable journeyman's (or laborer's, where appropriate) wage rate on the wage determination for the work actually performed.

E. 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. IN ADDITION, THE CONTRACTOR AGREES TO COMPLY WITH SECTION 1 OF THE COPELAND "ANTI-KICKBACK ACT," 18 U.S.C. § 874 THAT PROHIBITS ANYONE FROM INDUCING, BY ANY MEANS, ANY PERSON EMPLOYED ON CONSTRUCTION, PROSECUTION, COMPLETION OR REPAIR OF A FEDERALLY ASSISTED BUILDING OR WORK, TO GIVE UP ANY PART OF HIS OR HER COMPENSATION TO WHICH HE OR SHE IS ENTITLED. CONTRACTOR FURTHER AGREES TO COMPLY WITH SECTION 2 OF THE ACT, 40 U.S.C. §3145, AS AMENDED, AND IMPLEMENTING DOL REGULATIONS, "CONTRACTORS AND SUBCONTRACTORS ON PUBLIC BUILDINGS OR PUBLIC WORKS FINANCED IN WHOLE OR IN PART, BY LOANS OR GRANTS FROM THE UNITED STATES." CONTRACTOR AGREES TO COMPLY WITH 29 C.F.R. PART 3 WHICH IMPOSES RECORD KEEPING REQUIREMENTS FOR ALL SUCH CONTRACTS IN EXCESS OF \$2,000.

F. Subcontracts:

The Contractor shall insert the clause in section E above (Compliance with Copeland Act requirements) in all subcontracts, and require that subcontractors insert the clause in any and all of their subcontracts, at any tier. In addition, the Contractor or subcontractor 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 subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

G. Contract Termination:

Debarment. A breach of the Contract clauses in 29 C.F.R. §5.5 may be grounds for termination of the Contract, and for debarment as a Contractor or a Subcontractor as provided in 29 C.F.R. §5.1

H. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 C.F.R. Parts 1, 3, and 5 are incorporated herein by reference.

I. Disputes Concerning Labor Standards:

Disputes arising out of the Labor Standards provisions of this Contract shall not be subject to Section 00730, DISPUTE RESOLUTION, of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 C.F.R. Parts 5, 6, and 7. Disputes within the meaning of this Section include disputes between the Contractor (or any of its Subcontractors) and the Contracting Agency, the U.S. Department of Labor, or the employees or their representatives.

J. Certification of Eligibility:

- a. By entering into this agreement or a third party contract financed under this agreement the Contractor certifies that neither it (nor he nor she) nor any person or firm that has an interest in the Contractor's firm is a person or firm ineligible to be awarded government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 C.F.R. §5.12(a)(1).
- b. No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 C.F.R. §5.12(a)(1).
- c. The penalty for making false statement is prescribed in the U.S. Criminal code, 18 U.S.C.1001.

00768 WALSH-HEALEY PUBLIC CONTRACTS ACT

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

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

00769 NOTICE TO THE AUTHORITY OF LABOR DISPUTES

- A. Whenever the Contractor has knowledge that an actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice thereof in accordance with Section 01330, SUBMITTAL PROCEDURES, including all relevant information with respect thereto, to the Contracting Officer Representative.
- B. The Contractor agrees to insert the substance of this Section 00769, NOTICE TO THE AUTHORITY OF LABOR DISPUTES, in all Subcontracts hereunder as to which a labor dispute may delay the timely performance of this Contract; except that each such Subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor shall immediately notify its next higher tier Subcontractor, or the Contractor, as the case may be, of all relevant information with respect to such dispute.

00770 CONVICT LABOR

- A. Except as provided in clause I.19.2, the Contractor shall not employ, in the performance of this Contract, any person undergoing a sentence of imprisonment imposed by any court of the Federal Government, a state, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam or the U.S. Virgin Islands.
 - a. The Contractor is not prohibited from employing persons:
 - 1) On parole or probation to work at paid employment during the term of their sentence;
 - 2) Who have been pardoned or who have served their terms; or
 - 3) Confined for violation of the laws of the Federal Government, the states, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if:
 - a) The worker is paid or is in an approved work or training program on a voluntary basis.
 - b) Representatives of the local union's central bodies or similar labor union organizations have been consulted;
 - i) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades where there is a surplus

of available gainful labor in the locality, or impair existing contracts or services;

- ii) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality where the work is being performed; and
- iii) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

00771 FEDERAL, STATE, AND LOCAL TAXES

- A. The Contract Price includes all applicable Federal, State, and local taxes and duties.
- B. Nevertheless, with respect to any Federal excise tax or duty on the transactions or property covered by this Contract, if a statute, court decision, written ruling, or regulation takes effect after the Contract date and results in the following:
 - a. The Contractor being required to pay or bear the burden of any such Federal excise tax or duty or increase in the rate thereof, which would not otherwise have been payable on such transactions or property, the Contract Price shall be increased by the amount of such tax or duty or rate increase, provided the Contractor warrants in writing in accordance with Section 01330, SUBMITTAL PROCEDURES, that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the Contract Price as a contingency reserve or otherwise; or
 - b. The Contractor not being required to pay or bear the burden of, or in its obtaining a refund or drawback of, any such Federal excise tax or duty which would otherwise have been payable on such transactions or property or which was the basis of an increase in the Contract price, the Contract Price shall be decreased by the amount of the relief, refund, or drawback, or that amount of the relief, refund, or drawback, or that amount that shall be paid to the Authority, as directed by the Contracting Officer Representative. The Contract Price shall be similarly decreased if the Contractor, through its fault or negligence or its failure to follow instructions of the Contracting Officer Representative, is required to pay or bear the burden of, or does not obtain a refund or drawback or, any such Federal excise tax or duty.
- C. Paragraph EE.B above shall not be applicable to Social Security taxes or to any other employment tax.
- D. No adjustment of less than \$250 shall be made in the Contract Price pursuant to Paragraph EE.B above.
- E. As used in Paragraph EE.B above, the term "Contract date" means the date set for Proposal opening, except if this is a negotiated Contract, the date that the Contractor submits its Best and Final Offer. As to additional supplies or services procured by modification to this Contract, the term Contract date means the date of such Modification.
- F. Unless there does not exist any reasonable basis to sustain an exemption, the Contracting Officer Representative, upon the request of the Contractor in accordance with Section 01330, SUBMITTAL PROCEDURES, shall, without further liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax; provided that, evidence appropriate to establish exemption from and Federal excise tax or duty, which may give rise to either

increase or decrease in the Contract Price will be furnished only at the discretion of the Contracting Officer Representative.

- G. The Contractor shall promptly notify the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, of matters, which will result in either an increase or decrease in the Contract Price, and shall take action with respect thereto as directed by the Contracting Officer Representative. The Authority shall be entitled to a reduction in the Contract price reflecting such amount and a refund of monies paid related to such taxes, plus applicable interest.

00772 ADDITIONAL BOND SECURITY

For information on Additional Bond Security, see Section 00613, PERFORMANCE AND PAYMENT BONDS (Additional Bond Security).

00773 PATENT AND COPYRIGHT INDEMNITY

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

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

00774 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT

A. The Contractor shall report to the Contracting Officer Representative in accordance with Section 01330, SUBMITTAL PROCEDURES, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Contract of which the Contractor has knowledge.

B. In the event of any action, Claim, or suit against the Authority on account of any alleged patent or copyright infringement arising out of or related to the performance of this Contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Authority in accordance with Section 01330, SUBMITTAL PROCEDURES, when requested by the Contracting Officer Representative, all evidence and information in

possession of the Contractor pertaining to such action, suit, or Claim. Such evidence and information shall be furnished at the expense of the Authority except where the Contractor has agreed to defend, indemnify, or hold harmless the Authority. This Section shall be included in all Subcontracts.

C. The Contractor shall include the substance of this clause, including this paragraph, in all subcontracts that are expected to exceed the simplified acquisition threshold.

00775 AUTHORITY RIGHTS IN TECHNICAL DATA –LIMITED

Computer Software), laboratory testing analyses and reports, notes, As-Built Drawings produced during and after completion of construction and other work produced in the performance of this Contract, or in the contemplation or implementation thereof shall be and remain the sole property of the Authority and may be used on any other work without additional cost to the Authority. Any re-use of design services shall be at the Authority's sole risk and with respect thereto, the Contractor agrees not to assert any rights or to establish any claim under the design patent or copyright laws and not to publish or reproduce such matter in whole or in part or in any manner or form, or authorize others so to do, without the written consent of the Authority until such time as the Authority may have released such matter to the public. Further, with respect to any design or process, which the Authority desires to protect by applying for and prosecuting a design patent application, or otherwise, the Contractor agrees to furnish the Authority such duly executed instruments and other papers (prepared by the Authority) as are deemed necessary to vest in the Authority the rights granted it pursuant to this Section. The Contractor, for a period of 3 years after completion of the Project or task, agrees to furnish and to provide access to the originals or copies of all such materials on the request of the Authority.

A. Rights in Technical Data:

- a. The Authority shall have the right to use, duplicate, or disclose Technical Data, which includes, without limitation, computer software and other items listed below, in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so:
 - 1) All manuals, instructional materials prepared for installation, operation, maintenance or training purposes;
 - 2) Technical Data pertaining to end items, components or processes, which were prepared for the purpose of identifying sources, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements ("form, fit and function" data; e.g., specification control drawings, catalog sheets, outline drawing; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software);
 - 3) Other technical data, which has been, or is normally furnished without restriction by the Contractor or Subcontractor;
 - 4) Other specifically described technical data, which the parties have agreed will be furnished without restriction.
 - 5) All computer software regardless of whether it is technical data as defined in this article, including the source code, algorithms, processes, formulae, and flow charts, that the Contractor developed or materially modified for the Authority or

for which the Authority is required by Federal law or regulation to provide a royalty-free, irrevocable and nonexclusive license to the Federal government.

- B. The Authority shall have the right to use, duplicate, or disclose technical data other than that defined in Paragraph A.a.1) above, in whole or in part, with the express limitation that such technical data shall not, without the written permission of the party furnishing such technical data, be:
- a. Released or disclosed in whole or in part outside the Authority;
 - b. Used in whole or in part by the Authority for manufacture; or
 - c. Used by a party other than the Authority except for emergency repair or overhaul work only, by or for the Authority where the item or process concerned is not otherwise reasonably available to enable timely performance of the Work; provided, that the release or disclosure thereof outside the Authority shall be made subject to a prohibition against further use, release, or disclosure.
- D. Technical Data provided in accordance with the provisions of Paragraph A.a.2) above shall be identified by a legend, which suitably recites the aforesaid limitation. Nothing herein shall impair the right of the Authority to use similar or identical data acquired from other sources.
- E. Material covered by copyright:
- a. The Contractor agrees to and does hereby grant to the Authority, and to its Board members, agents and employees acting within the scope of their official duties, a royalty-free, nonexclusive and irrevocable license throughout the world for the Authority's purposes to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others so to do, all technical data now or hereafter covered by copyright.
 - b. No such copyrighted matter shall be included in technical data furnished hereunder without the written permission of the copyright owner for the Authority to use such copyrighted matter in the manner above described.
 - c. The Contractor shall report to the Authority promptly and in reasonable written detail each notice or claim of copyright infringement it receives regarding any technical data delivered hereunder.
- F. Relation to patents: Nothing contained in this article shall imply a license to the Authority under any patent, or be construed as affecting the scope of any license or other right otherwise granted to the Authority under any patent.
- G. Any dispute under this article shall be subject to Section 00730, "Disputes" article of this contract.
- H. The Contracting Officer may retain from payment up to ten percent (10%) of the Contract price until final delivery and acceptance of the technical data defined in this Article and as required to be furnished by the Contract.

00776 AUTHORITY RIGHTS IN TECHNICAL DATA – UNLIMITED

- A. The term Technical Data as used in this Section means technical writing, Computer Software, sound recordings, pictorial reproductions, drawings, or other graphic representations and works of a technical nature, whether or not copyrighted, which are specified to be delivered

pursuant to this Contract in accordance with Section 01330, SUBMITTAL PROCEDURES, and Section 01775, CLOSEOUT. The term does not include financial reports, cost analyses, and other information incidental to Contract administration. Computer Software as used in this Section means computer programs, computer databases, and documentation thereof.

- B. Where any item is purchased as a separate line item in this Contract, that purchase includes all integral parts of that item, including any computer software, source code, algorithms, processes, formulae, and flow charts. The Authority has full rights to use, duplicate or disclose any or all parts of the item, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so. Should disclosure of the computer software be required only under this paragraph, then the Contracting Officer may waive the provisions of this paragraph if he or she certifies in writing that the item is commercially available from multiple sources and will be fully compatible with existing Authority property.
- C. The Authority or its designated representative shall have the right to use, duplicate or disclose technical data, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so that is contained in or derived from:
- (1) Any manuals, instructional materials prepared for installation, operation, maintenance or training purposes;
 - 2) Technical data pertaining to end items, components or processes that were prepared for the purpose of identifying sources, sizes, configurations, mating and attachment characteristics, functional characteristics and performance requirements ("form, fit and function" data such as , specification control drawings, catalog sheets, and outline drawings Except for the computer software, it means data identifying sources, functional characteristics, and performance requirements, but specifically excludes the source code, algorithms, processes, formulae, and flow charts of the software.);
 - 3) Other technical data that the Contractor or subcontractor , normally furnishes without restriction; ;
 - 4) Other specifically described technical data that the parties have agreed will be furnished without restriction;
 - 5) All computer software regardless of whether it is technical data as defined in this article, including the source code, algorithms, processes, formulae, and flow charts, that the Contractor developed or materially modified for the Authority or for which the Authority is required by Federal law or regulation to provide a royalty-free, irrevocable and nonexclusive license to the Federal government.
- D. The Authority shall have the right to use, duplicate, or disclose technical data other than as defined in paragraph (a), in whole or in part. Such technical data shall not, without the written permission of the party furnishing such technical data, be:
- (1) Released or disclosed, in whole or in part, outside of the Authority,
 - (2) Used, in whole or in part, by the Authority for manufacturing, or
 - (3) Used by a party other than the Authority except for: (i) emergency repair or overhaul, (ii) where the item or process concerned is not otherwise reasonably

available to the Authority to enable timely performance of this work, or (iii) administration of this Contract or the inspection of any products produced under it, where the third party has a written contract with the Authority to perform these efforts. In all cases described in this subsection, the release or disclosure outside of the Authority shall be subject to a nondisclosure agreement.

- E. Technical data provided in accordance with paragraph (c) shall be identified with a legend that suitably recites this limitation. This article shall not impair the Authority's right to use similar or identical data acquired from other sources.
- F. Where any item is purchased as a separate line item in this Contract, that purchase includes all integral parts of that item, including any computer software, source code, algorithms, processes, formulae, and flow charts. The Authority has full rights to use, duplicate or disclose any or all parts of the item, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so. Should disclosure of the computer software be required only under this paragraph, then the Contracting Officer may waive the provisions of this paragraph if he or she certifies in writing that the item is commercially available from multiple sources and will be fully compatible with existing Authority property.
- G. Material covered by copyright:
 - 1. The Contractor agrees to and does hereby grant to the Authority, and to its Board members, officers, agents, and employees acting within the scope of their official duties, a royalty-free, nonexclusive, and irrevocable license throughout the world for Authority purposes to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others so to do, all Technical Data and computer software now or hereafter covered by copyright.
 - 2. No such copyrighted matter shall be included in Technical Data or computer software furnished hereunder without the written permission of the copyright owner for the Authority to use such copyrighted matter in the manner above described.
 - 3. The Contractor shall report to the Authority promptly, and in reasonable written detail, each notice or claim of copyright infringement received by the Contractor with respect to any Technical Data delivered hereunder.
- H. Relation to patents: Nothing contained in this Section shall imply a license to the Authority under any patent, or be construed as affecting the scope of any license or other right otherwise granted to the Authority under any patent.
- I. Any dispute under this Section shall be subject to Section 00730, DISPUTE RESOLUTION.
- J. Notwithstanding any other payment provision in this Contract, the Contracting Officer may retain from payment up to ten percent (10%) of the Contract price until final delivery and acceptance of the technical data defined in this Section and as required to be furnished by the IFB Documents.

00777 TECHNICAL DATA - WITHHOLDING OF PAYMENT

- A. If technical data, specified to be delivered under this Contract, is not delivered within the time specified by this Contract or is deficient upon delivery (including having restrictive markings not specifically authorized by this Contract), the Authority may until such data is accepted by the Authority, withhold payment to the Contractor of ten percent (10%) of the total Contract Price or amount unless a lesser withholding is specified in the Contract. Payments will not be withheld nor any other action taken pursuant to this Paragraph when the Contractor's failure to make timely delivery or to deliver such data without deficiencies arises out of or is beyond the control and without the fault or negligence of the Contractor.
- B. After payments total ninety percent (90%) of the total Contract Price or amount and if all technical data specified to be delivered under this Contract has not been accepted, the Authority may withhold from further payment, in addition to other withholdings specified elsewhere, such sum as it considers appropriate, not exceeding ten percent (10%) of the total Contract Price or amount unless a lesser withholding limit is specified in the Contract.
- C. The withholding of any amount or subsequent payment to the Contractor shall not be construed as a waiver of any rights accruing to the Authority under this Contract.

00778 INDEMNIFICATION AND INSURANCE REQUIREMENTS

- A. Indemnification:
 - a. Contractor shall indemnify, defend, and hold harmless the Authority, its directors, officers, employees, and agents from all liabilities, obligations, damages, penalties, claims, costs, charges and expenses (including reasonable attorney's fees), of whatsoever kind and nature for injury, including personal injury or death of any person or persons, and for loss or damage to any property, including the property of the Contractor and the Authority, occurring in connection with, or in any way arising out of the use, occupancy and performance of the Work and any acts in connection with activities to be performed under this Contract, unless the loss or damage is due to the sole negligence of the Authority. Nothing in the preceding sentence shall be deemed to relieve Contractor from ultimate liability for any obligation of Contractor under this Contract.
 - b. Contractor shall indemnify, defend, and hold harmless the Authority, its directors, officers, employees, and agents against any and all claims, liabilities, losses, demands, damages, penalties, costs, charges, remedial costs, environmental claims, fees or other expenses including attorney's fees related to, arising from, or attributable to any effluent or other hazardous waste, residue, contaminated soil, or other similar material discharged from, removed from, or introduced on, about, or under the job Site; provided, however, that the foregoing indemnity does not apply to loss or damage due to preexisting conditions, whether known or unknown.
 - c. If any action or proceeding relating to the indemnification required is brought against the Authority, then upon written notice from the Authority to the Contractor, the Contractor shall, at the Contractor's expense, resist or defend such action or proceeding by counsel approved by the Authority in writing, such approval not to be unreasonably withheld, but no approval of counsel shall be required where the cause of action is resisted or defended by counsel of any insurance carrier obligated to resist or defend the same. The Authority reserves the right to use its own counsel under this indemnity at Contractor's sole cost and expense.

- d. Contractor understands and agrees that it is Contractor's responsibility to provide indemnification to the Authority pursuant to this Section. The provision of insurance, while anticipated to provide a funding source for this indemnification, is in addition to any indemnification requirements and the failure of Contractor's insurance to fully fund any indemnification shall not relieve the Contractor of any obligation assumed under this indemnification.
- B. The Contractor shall provide the Authority with evidence of its Contractor's insurance coverage for the exposures listed.
- a. The Contractor shall have its insurance agent or broker forward to the Authority's Contracting Officer an insurance certificate or certificates evidencing the required insurance, and the Additional Insured endorsement adding Authority as Additional Insured covering Contractor's ongoing and completed operations. Insurance companies providing the coverage must have an A.M. Best rating of at least "A-/VII." Authority's Contracting Officer shall be provided 30 days written notice if any required insurance is canceled, materially changed, or non-renewed. The Contractor shall furnish the Contracting Officer (prior to NTP) or the Contracting Officer Representative (after NTP) with a certified copy of each insurance policy upon request.
 - b. The initial and subsequent certificates of insurance shall include a description of the Contract Work and the assigned Contract number. Prior to beginning any Project Work, the insurance requirements as outlined by Authority's Office of Insurance must be approved in writing.
 - c. Procure all insurance from insurance companies licensed and authorized to conduct business in the District of Columbia, State of Maryland, and Commonwealth of Virginia. Authority approval or disapproval of insurance furnished by the Contractor shall not release the Contractor of full responsibility for liability for damage and accidents.
 - d. If at any time the above required insurance policies should be canceled or materially modified so that the insurance is not in full force and effect as required herein, the Authority reserves the right to terminate this Contract between Authority and Contractor.
 - e. Require each Subcontractor, at all tiers, to provide evidence of insurance coverage with types and limits of insurance as the Contractor sees fit for the work the Subcontractor is performing, and with the Authority added as an Additional Insured on Subcontractors' Commercial General Liability and Auto Liability certificates of insurance. Provide Subcontractor certificates of insurance and Additional Insured endorsements to the Contracting Officer Representative prior to commencement of work.
 - f. Furnish the required certificates of insurance and Additional Insured endorsement as specified herein within 10 Days after the date of receipt of Award. If the required certificates of insurance and Additional Insured endorsement as specified herein are not furnished within 10 Days after the date of receipt of Award, the Authority may elect to issue NTP to the Contractor but the Contractor will not be permitted to enter upon the Site to perform the Work until all required insurance certificates or evidence of self-insurance have been received.

- g. The Contractor will not be paid for providing insurance for this Project as prescribed in this Contract, but the insurance cost thereof shall be included in the prices for the various items as set forth in the Price Proposal.

C. Required Insurance:

- a. Commercial General Liability Insurance with limits of \$2,000,000 per occurrence/aggregate, written on an occurrence form. If the required limits can only be met when applying an umbrella/excess liability policy, the umbrella/excess liability policy must follow form of the underlying policy and be extended to “drop down” to become primary in the event the primary limits are reduced or aggregate limits are exhausted. Commercial General Liability Insurance shall include:
 - 1) The Contractual Liability Exclusion (applicable to work to be performed within 50 feet of railroad property) must be removed.
 - 2) The coverage under such an insurance policy or policies shall be maintained throughout the contract period and for 3 years following acceptance of the work if the CGL insurance is written on a claims made form.
 - 3) The Authority shall be named an Additional Insured with respect to this agreement on all certificates of insurance (COI), and the Additional Insured endorsement shall include completed operations and be submitted to the Authority.
 - 4) Terrorism coverage: XCU coverage (explosion, collapse, and underground hazards) shall be included if the Work involves excavation or blasting.
- b. Workers’ Compensation Insurance meeting the statutory requirements of the jurisdiction where the work will be performed, including Employer’s Liability coverage with limits of \$1,000,000 each accident or disease.
- c. Business Automobile Liability Insurance with minimum combined single limits of \$2,000,000 per occurrence covering Contractor against claims for bodily injury and property damage arising out of the ownership, maintenance or use of any owned, hired, or non-owned motor vehicle. The Authority shall be added as an additional insured on the policy.
- d. Railroad Protective Liability Insurance (RRP) issued to the Authority as the Named Insured with minimum limits of \$2,000,000 per occurrence/\$6,000,000 aggregate and covering the liability of the Authority arising from all Contracting Parties’ work to be performed within fifty (50) feet (on, above, adjacent to or underneath) of the Authority’s railroad tracks or within Authority rail stations for any personal injuries or deaths or any damage to the property, equipment and facilities caused by the activities of any Contractor or Subcontractor resulting from performance of the Work.
- e. Authority Blanket RRP Program Option for Contracts under \$5,000,000: The Authority will offer to waive the requirement for the Contractor to procure RRP if 1) the work can be covered under the Authority’s blanket RRP program, and 2) the Contractor prepays the premium which shall be determined by the rate schedule promulgated by the insurer in effect as of the effective date of this Contract. Contractor shall be advised of and pay the applicable premium, or procure a standalone RRP policy on the Authority’s behalf. Contracts over \$5,000,000 may be covered under the Blanket Program, but must first be reviewed by the underwriter.
- f. Terrorism coverage

- 1) Said policy shall remain in force until the construction is completed and Accepted. The policy shall name Authority as an Additional Named Insured and Loss Payee as its interest may appear. The endorsement adding the Authority should state that the First Named Insured is solely responsible for premium payment.

00779 LIQUIDATED DAMAGES

- A. The Contractor understands that if it fails to complete portions or all of the Work as described in Section 00724, PERIOD OF PERFORMANCE AND PROJECT SCHEDULE, the Authority will suffer damages, which have been estimated and are specified in Section 00879, LIQUIDATED DAMAGES.
- B. The Contractor agrees that if it does not complete the Work within the specified Contract Performance Time, then the Contractor shall pay to the Authority as liquidated damages, pursuant to Section 00727, TERMINATION FOR DEFAULT, DAMAGES FOR DELAY, AND TIME EXTENSIONS, the sums per Day as separate damages for each specified completion requirement. Milestones are as defined in Section 00724, PERIOD OF PERFORMANCE AND/OR PROJECT SCHEDULE.

00780 COMPLIANCE WITH COPELAND ACT REQUIREMENTS

- C. The Contractor agrees to comply with section 1 of the Copeland "Anti-Kickback Act," 18 U.S.C. § 874 that prohibits anyone from inducing, by any means, any person employed on construction, prosecution, completion or repair of a federally assisted building or work, to give up any part of his or her compensation to which he or she is entitled. Contractor further agrees to comply with section 2 of the Act, 40 U.S.C. §3145, as amended, and implementing DOL regulations, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part, by Loans or Grants from the United States." Contractor agrees to comply with 29 C.F.R. Part 3 which imposes record keeping requirements for all such contracts in excess of \$2,000.
- D. Contractor shall insert clause I.20.1 in all subcontracts, and require that subcontractors insert this clause in any and all of their subcontracts, at any tier.

00781 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

1. Pursuant to Section 102 (Overtime):

- a. Overtime requirements: Neither the Contractor nor any Subcontractor contracting for any part of the Contract Work, which may require or involve the employment of laborers, mechanics, apprentices, trainees, watchmen, and guards shall require or permit any laborer, mechanic apprentice, trainee, watchman, or guard in any work week in which he or she is employed on such work to work in excess of 40 hours in such work week on work subject to the provisions of the Contract Work Hours and Safety Standards Act, unless such laborer, mechanic, apprentice, trainee, watchman, or guard receives compensation at a rate not less than 1-1/2 times his or her basic rate of pay for all such hours worked in excess of 40 hours in such work week.

- b. Violation, liability for unpaid wages, and liquidated damages. In the event of any violation of the provisions of Paragraph A above, the Contractor and any Subcontractor responsible therefor shall be liable to any affected employee for unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the Authority for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, apprentice, trainee, watchman, or guard employed in violation of the provisions of Paragraph A.1.a in the sum of 10 dollars for each Day on which such employee was required or permitted to be employed on such work in excess of his or her standard work week of 40 hours without payment of the overtime wages required by Paragraph AA.1.a.
- c. Withholding for unpaid wages and liquidated damages: The Contracting Officer may withhold from the Contractor, from any moneys payable on account of work performed by the Contractor or Subcontractor, such sums as the Contracting Officer determines to be necessary to satisfy any liabilities of such Contractor or Subcontractor for unpaid wages and liquidated damages as provided in the provisions of Paragraph A1.b.
- d. Subcontracts: The Contractor shall insert the clauses set forth in the section in all Subcontracts and shall require their inclusion in all Subcontracts of any tier. ***The Contractor shall be responsible for compliance by any and all subcontractors at every tier.***
- e. Records: The Contractor shall maintain payroll records containing the information specified in 29 CFR § 516.2(a). Such records shall be preserved for 3 years from completion of this Contract.

2. **Pursuant to Section 107 (OSHA):**

- a. The Contractor agrees to comply with section 107 of the Contract Work Hours and Safety Standards Act, 40 U.S.C. section 333, and applicable DOL regulations, " Safety and Health Regulations for Construction " 29 C.F.R. Part 1926. Among other things, the Contractor agrees that it will not require any laborer or mechanic to work in unsanitary, hazardous, or dangerous surroundings or working conditions.
- b. Subcontracts: The Contractor also agrees to include the requirements of this section in each subcontract. The term "subcontract" under this section is considered to refer to a person who agrees to perform any part of the labor or material requirements of a contract for construction, alteration or repair. A person who undertakes to perform a portion of a contract involving the furnishing of supplies or materials will be considered a "subcontractor" under this section if the work in question involves the performance of construction work and is to be performed: (1) directly on or near the construction site, or (2) by the employer for the specific project on a customized basis. Thus, a supplier of materials which will become an integral part of the construction is a "subcontractor" if the supplier fabricates or assembles the goods or materials in question specifically for the construction project and the work involved may be said to be construction activity. If the goods or materials in question are ordinarily sold to other customers from regular inventory, the supplier is not a "subcontractor." The requirements of this section do not apply to contracts or subcontracts for the purchase of supplies or materials or articles normally available on the open market.

00782 EQUITABLE ADJUSTMENT FOR MINOR CONTRACT MODIFICATIONS

- A. Where the Contracting Officer and Contractor agree to a net additional or deductive amount of direct costs for a Modification to this Contract made pursuant to articles of this Contract titled CHANGES, DIFFERING SITE CONDITIONS, or VALUE ENGINEERING INCENTIVE, which amount does not exceed \$100,000 and further agree to an adjustment in Contract Performance Time resulting from said Modification which increases or decreases the completion date 10 Days or less, the equitable adjustment in Contract Price shall consist of the following:
- a. Direct costs as agreed to by the Contracting Officer and Contractor.
 - b. Job Office Overhead costs, the sum of which shall be limited to a maximum of 10 percent of direct labor costs, including fringe benefits, but excluding FICA, FUTA, and State Unemployment Insurance (SUI); 10 percent of direct material costs; 5 percent of direct equipment costs (small tools, defined as equipment less than \$1,000 in acquisition costs, are included and computed at 5 percent of direct base labor wages.); 5 percent of Subcontract costs.
 - c. Home Office General and Administrative (G&A) costs, the sum of which shall be limited to a maximum of 3 percent of the direct costs plus job office overhead costs computed as above.
 - d. Profit will be determined in accordance with the guidelines specified in the Section 00748, CHANGES.
- B. In using the above rates, the following shall apply:
- a. Payroll Tax (FICA, FUTA, and SUI) amounts are added immediately after direct and indirect costs are totaled.
 - b. Subcontractors' indirect costs and profit shall be computed in the same manner as above.
 - c. Indirect costs shall not be duplicated in direct costs.
 - d. When the change in Contract Performance Time is increased, the change in Contract Price for direct and indirect costs computed by application of the above rates includes costs of impact and extended performance due to the time extension and no further consideration of costs arising from the specific Modification and cited Pending Change Orders (PCOs) will be given.
 - e. Bond will be allowed at actual cost without markup.

00783 DRUG AND ALCOHOL TESTING (FOR SAFETY SENSITIVE FUNCTIONS ONLY) – FTA AND THE AUTHORITY

- 1 Contractors who perform safety sensitive functions shall be subject to compliance with a drug and alcohol testing program according to federal guidelines published in FTA regulations and WMATA Drug and Alcohol Program Policy. The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 C.F.R. Parts 40 and 655 and WMATA Drug and Alcohol Program Policy 7.7.3/5, produce any documentation necessary to establish its compliance with these regulations, and policy and permit any authorized representative of the U.S. Department of Transportation or its operating administrations, applicable state oversight agency,

or the Authority to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 C.F.R. Part 655 and WMATA policy and review the testing process. The Contractor further agrees as follows:

2. To certify its compliance with 49 C.F.R. Parts 40 and 655 and to submit an annual Management Information System (MIS) report, as required by federal regulations, to WMATA's Medical Compliance Monitor (MCM) and the Contracting Officer before February 15th of each year. To certify compliance, the Contractor shall use the "Alcohol and Controlled Substances Testing" certification contained in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," that is published annually in the Federal Register.
3. To submit to the MCM and the Contracting Officer before February 15th of each year, a copy of the Policy Statement developed to implement its drug and alcohol testing program.
4. To provide to the MCM and the Contracting Officer before February 15th of each year the following:
 - a. Employee and supervisor training documentation;
 - b. The name and location of the collection site(s), laboratory(ies), Medical Review Officer(s), Breath Alcohol Technician(s), Collector(s), and Substance Abuse Professional(s); and a description of their random selection drug and alcohol testing process.
5. The Contractor further agrees to submit quarterly reports summarizing program compliance and test results to the MCM by the 15th of the month following the end of each quarter.

00784 NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD-PARTIES BY USE OF A DISCLAIMER

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

00785 PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

- A. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U. S. C. 3801 et seq. and U. S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F. R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies and affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this Contract Work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
- B. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under

a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U. S. C. 5307, the Government reserves the right to impose the penalties of 18 U. S. C. 1001 and 49 U. S. C. 5307 (n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

- C. The Contractor agrees to include this clause in each Subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the Subcontractor who will be subject to the provisions.

00786 FEDERAL CHANGES

- A. The Contractor shall at all times comply with all applicable FTA regulations, policies, procedures, and directives, including without limitation those listed directly or by reference in the Agreement (Form FTA Master Agreement (MA) (23) dated October 1, 2016) between the Authority and FTA, as they may be amended or promulgated from time to time during the term of this Contract. The FTA Master Agreement can be located on FTA's web page at <https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/fta-master-agreement-fiscal-year-2017>. Contractor's failure to comply with any of these provisions shall constitute a material breach of this Contract.
- B. The Contractor agrees to include this clause in each Subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the Subcontractor who will be subject to its provisions.

00787 INCORPORATION OF FTA TERMS

- A. The preceding provisions include, in part, certain Standard Terms and Conditions required by the U.S. Department of Transportation (DOT), whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F or any revisions thereto, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all DOT or FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Authority requests, which would cause the Authority to be in violation of the FTA terms and conditions.
- B. The Contractor agrees to include this clause in each Subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the Subcontractor who will be subject to the provisions.

00788 ENERGY CONSERVATION

- A. The Contractor agrees to comply with mandatory standards and policies relating to the energy efficiency, which are contained in the applicable state energy conservation plan issued in compliance with the Energy Policy and Conservation Act., as amended, 42 U.S.C. §6321, et. Seq.
- B. The Contractor agrees to perform an energy assessment for any building constructed, reconstructed or modified with FTA funds as required under FTA regulations, "Requirements for Energy Assessments," 49 C.F.R. Part 622.
- C. The Contractor agrees to include the requirements of this clause in all Subcontracts under this Contract.

00789 GOVERNMENT-WIDE DEBARMENT AND SUSPENSION

- D. The Contractor is bound by its certification contained in its offer to the Authority that the Contractor and none of its principals or affiliates are excluded or disqualified from federal contracting and/or as defined at 49 C.F.R. 29.940 and 29.945. The certification is a material representation of fact, relied upon by the Authority in entering into this Contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, in addition to remedies available to the Authority, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Contractor agrees to comply with the requirements of 2 C.F.R, part 180, subpart C as adopted and supplemented by U.S. DOT regulations at 2 C.F.R, part 1200 "Non-procurement Suspension and Debarment," including any amendments thereto, Executive Orders Nos. 12549 and 12689 "Debarment and Suspension" 31 U.S.C. § 6101 note, and other applicable federal laws, regulations or guidance regarding participation with debarred or suspended Contractors throughout the term of this Contract.
- B. The Contractor agrees to include this clause in all Subcontracts at all tiers under this Contract requiring lower tier Contractors to comply with federal suspension and debarment requirements, and review the System for Award Management (SAM) at www.sam.gov in order to comply with U.S. DOT regulations at 2 C.F.R, part 1200 prior to awarding any subcontract under this Contract.

00790 SURVIVAL

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

00791 CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

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

00792 WHISTLEBLOWER PROTECTION – FEDERAL

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

- b. WMATA's Metro Transit Police Department (MTPD), in person, by telephone (202-962-2121) or by any other reasonable means, or to the OIG, if the information constitutes a potential violation of criminal law;
 - c. WMATA's Chief Safety Officer, in person, in writing, through the SAFE Hotline (202-249-7233) or email safety@wmata.com, or by any other reasonable means; or
 - d. Any other official, office or agency within WMATA or outside WMATA that the employee or independent Contractor reasonably believes has the authority to act on the matter.
- B. The Contractor, its employees, independent Contractors and subcontractors shall cooperate with any inquiry or review by an authorized official of WMATA, or by the federal government or any other governmental entity with jurisdiction over WMATA, regarding a matter that would constitute a report under paragraph (a) or a violation of this or any whistleblower provision of this Contract, and with any enforcement or judicial proceeding arising from such inquiry or review.
- C. The Contractor and its subcontractors shall not interfere with or deny the right of any employee or independent Contractor of either the Contractor or any of its subcontractors to make a report under clause I.86.1. The Contractor and its subcontractors shall not recommend, take or threaten to take any action having a negative or adverse impact on any employee or independent Contractor of either the Contractor or any of its subcontractors because he or she:
 - a. made or is perceived to have made a report under clause I.86.1;
 - b. sought a remedy under applicable law after making a report under clause I.86.1.
 - c. participated in or cooperated with an inquiry or review by an authorized official of WMATA, or by the federal government or any other governmental entity with jurisdiction over WMATA, regarding a matter that would constitute a report under clause I.86.1 or a violation of this or any whistleblower provision of this Contract, or with an enforcement or judicial proceeding arising from such inquiry or review;
 - d. refused to obey an order that would violate law; or
 - e. refused to work or authorize work when a hazardous safety or security condition presents an imminent danger of death or serious injury, there was no reasonable alternative to refusal, there was not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, notified the Contractor or subcontractor of the condition and of his or her intent not to perform or authorize work.
- D. The Contractor shall include, or shall cause to be included, the substance of this clause, including this clause I.86.4, in its subcontracts at all tiers.
- E. The Contractor and its subcontractors shall comply with the National Transit Systems Security Act (NTSSA) 6 U.S.C. §1142, which prohibits discharging, demoting, suspending, reprimanding or in any other way discriminating against an employee as a reprisal for the employee lawfully and in good faith:

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

00793 WORKPLACE VIOLENCE – ZERO TOLERANCE

Pursuant to Metro Policy/Instruction 7.8.3, all Metro Contractors must: (1) establish zero tolerance for acts of workplace violence for their employees and those of subcontractors at any tier, and (2)

not retaliate against any of their employees or independent Contractors for cooperating with investigations.

00794 ADDITIONAL FEDERAL REGULATIONS AND CLAUSES

A. Lobbying

- a. The Contractor is bound by its certification contained in its Offer to the Authority regarding the use of federal or non-federal funds to influence, or attempt to influence any Federal officer or employee regarding the award, execution, continuation, or any similar action of any Federal grant or other activities as defined in 31 U.S.C. 1352, 49 CFR Part 19, or 49 C.F.R. Part 20. The Contractor agrees to comply with this requirement throughout the term of the Contract.
- b. The Contractor agrees that it will comply with 31 U.S.C. § 1352, as amended, U.S. DOT regulations "New Restrictions on Lobbying" 49 C.F.R, Part 20, to the extent consistent with 31 U.S.C. § 1352, as amended and other applicable federal laws, regulations and guidance prohibiting the use of federal funds for any activity concerning legislation or appropriations designed to influence the U.S. Congress or a state legislature unless an exception exists in current federal law.
- c. The Contractor agrees to include these requirements in all Subcontracts at all tiers under this Contract

B. Clean Air

- a. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U. S. C. §§ 7401 et seq. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.
- b. The Contractor will comply with U.S. EPA Regulations "Control of Air Pollution from Mobile Sources," 40 C.F.R. Part 85; "Control of Emissions from New and In-Use Highway Vehicles and Engines," 40 C.F.R. Part 86; "Fuel Economy and Greenhouse Gas Exhaust Emissions of Motor Vehicles," 40 C.F.R. Part 600, as well as any applicable State Implementation Plans (SIP), and EPA regulations "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs and Projects Developed, Funded or Approved Under Title 23 U.S.C. or Federal Transit Laws" 40 C.F.R. Part 93, along with other applicable federal regulations.
- c. 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.

C. Clean Water

- a. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U. S. C. 1251 et seq. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- b. The Contractor will protect underground sources of drinking water in compliance with the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. §§300 (f)-(j).

- c. The Contractor will comply with the notice of violating facility provisions in section 508 of the Clean Water Act, as amended, 33 U.S.C. § 1368.
- d. The Contractor will facilitate compliance with Executive Order 11738, "Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants or Loans," 42 U.S.C. §7606 note.
- e. 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.

D. Cargo Preference Requirements

The Contractor agrees to the following:

- 1) To utilize 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 equipment, materials, or commodities pursuant to this 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 rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in Paragraph Q.D.1) above to WMATA (through the Contractor in the case of a Subcontractor's bills-of-lading) and to the Office of Cargo Preference, Maritime Administration (MAR-590), 400 Seventh Street SW, Washington, DC 20590.
- 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 liner.

E. Fly America

- a. The Contractor agrees to comply with 49 U. S. C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and sub-recipients of Federal funds and their Contractors are required to use U. S. Flag carriers for U. S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. 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.
- b. The Contractor agrees to include the requirements of this Paragraph in all Subcontracts that may involve international air transportation.

F. Buy America

- a. The Contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United

States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. §661.7, Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

- b. The Contractor is responsible for flowing down these requirements to subcontractors at every tier. The dollar threshold only applies to the prime contract. All subcontracts thereunder are subject the Buy America Act Requirements.

G. Contracts Involving Federal Privacy Act Requirements

1. The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:
 - a. The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 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.
 - b. The Contractor also agrees to include these requirements in each Subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

H. Recovered Material

1. 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.
2. The Contractor also agrees to include these requirements in each Subcontract financed in whole or in part with Federal assistance provided by FTA.

I. Seismic Safety (**CONSTRUCTION TO NEW OR EXISTING BUILDINGS**)

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

J. Seat Belt Use Policy

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

K. Americans with Disabilities Act Accessibility – FTA

Facilities to be used in public transportation service must comply with 42 U.S.C. § 12101 *et seq.*; DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37; and Joint ATBCB/DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38.

L. Mandatory Disclosure

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

M. National Intelligent Transportation Systems Architecture and Standards – FTA

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

N. Veterans Preference

As provided by 49 U.S.C. §5325(k), to the extent practicable, The Contractor will:

- a. Give a hiring preference to veterans, as defined in 5 U.S.C. §2108, who have the skills and abilities required to perform construction work required under a third party contract in connection with a capital project supported with federal assistance appropriated or made available for 49 U.S.C. chapter 53, and

- b. Will not require an employer to give a preference to any veteran over an equally qualified applicant who is a member of any racial or ethnic minority, female, and individual with a disability, or former employee.

O. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY

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

00795 PRE-EMPLOYMENT CRIMINAL BACKGROUND CHECK REQUIREMENT

- A. WMATA requires that all contractor employees and candidates for employment undergo and pass criminal background screenings before being eligible to work on WMATA property and facilities. See Section 01116. Contractor employees and candidates who pass the background screenings are eligible to enter WMATA property once WMATA issues them a contractor badge. Contractor employees and candidates who do not authorize background screenings or whose background screenings are unsatisfactory will not be granted contractor badges or access to WMATA property. Contractor must also complete Appendix H Acknowledgement and Authorization for Background Screening.

00796 NOTIFICATION OF FEDERAL PARTICIPATION

This Project is being funded in whole or part with Federal Funds.

END OF SECTION

**SECTION 00800
SUPPLEMENTARY CONDITIONS**

This Section includes Modifications to Section 00700, GENERAL CONDITIONS, for requirements unique to a specific project and is hereby incorporated into the General Conditions by reference. This Section 00800, SUPPLEMENTARY CONDITIONS, which specifies modifications to the General Conditions, shall be read in conjunction with Section 00700, GENERAL CONDITIONS, and which will be cited in Section 00700, GENERAL CONDITIONS, using the same last two digits of the Section number; i.e., a modification to Section 00725, COMMENCING THE WORK, is indicated as Section 00825, COMMENCING THE WORK.

00808 REQUIREMENTS FOR PROFESSIONAL REGISTRATION

Project scope does not include work that requires professional registration.

00810 WORK BY CONTRACTOR

Modify Section 00710, WORK BY CONTRACTOR, to delete Paragraph A. and substitute the following Paragraph:

- A. The Contractor shall perform, with its own organization, work equivalent to at least **50%** of the value for the construction work. Spec Note: Authority must tailor the following Section to reflect the Project-specific work milestones, which include durations and brief descriptions of each. The following listing is an example only.

00824 PERIOD OF PERFORMANCE AND/OR PROJECT SCHEDULE

Modify Section 00724, PERIOD OF PERFORMANCE AND PROJECT SCHEDULE, to delete Paragraph A and substitute the corresponding Paragraph and subparagraphs; to delete Paragraph C and substitute the corresponding Paragraph; and to add Paragraphs D and E and the corresponding subparagraphs:

- A. The Contractor shall perform, complete, and advance all Work under this Contract in accordance with the schedule set out:
 1. Interim & Final Work Completion:
 - a. Milestone 1: Pre-Construction Deliverables - Complete all pre-construction deliverables including project Site Specific Work Plan, Quality Management Plan, Project Baseline Schedule, Project and Material Data Sheets NTP+30 cds
 - b. Milestone 2: Supplemental Work Plans – Complete supplemental work plans for conduit and underfloor duct tasks work sites. NTP+120 cds
 - c. Milestone 3: Electrical and Data Cabling Installation Tasks - Complete all electrical and data cabling tasks and submission of project deliverables for all work sites, NTP+470 cds

- d. Milestone 4: Punch list, Final Completion- Complete all punch list work and submission of updated project deliverables, NTP+500 cds.

B. (There are no changes to Paragraph B)

- C. Early Completion: If the Contractor submits, in accordance with Section 01332, CONTRACT PROGRESS REPORTING, a schedule or expresses an intention to complete the Work earlier than any required Milestone, interim, or Final Completion date, the Authority shall not be liable for any costs incurred because of delay or hindrance should the Contractor be unable to complete the Work before such Milestone, interim or Final Completion date. The duties, obligations, and warranties of the Authority to the Contractor shall be consistent with and applicable only to the completion of the Work and completion dates set forth in this Contract .Spec Note: The following Section includes possible addition to the dispute resolution process. Authority must determine appropriateness and choose to include in Project. Edit as necessary.

D. PROGRESS SCHEDULES

- a. In lieu of the progress schedules required in the General Provisions Articles 1.31 for PROGRESS SCHEDULES AND REQUIREMENTS FOR MAINTAINING PROGRESS, the Contractor shall submit a cost loaded CPM schedule showing the critical path(s) and details the sequence in which the Contractor proposes to carry on the work required under this Contract. The cost-loaded project schedule and all subsequent submissions shall be prepared using the latest version of Primavera Project Planner (P6) in **XER File** with an electronic file copy submitted to the AR. The progress schedule documents consist of two distinct submittal sets as follows:
 - (1) The initial progress schedule which shall include a detailed schedule in bar graph format and a supporting narrative and **electronic** data for each phase of the project.
 - (2) The monthly progress status reports, each of which shall include an updated schedule in spreadsheet and bar graph format, a supporting narrative and **electronic** data for each phase of the project.
- b. Initial progress schedule:
 - (1) The initial progress schedule shall be submitted for approval within ten (10) calendar days after NTP. The AR **shall** have a minimum of 15 calendar days after receipt of the submittal to respond. Upon receipt of the AR's comments, the Contractor shall make necessary changes and deliver the corrected initial progress schedule to the AR within 10 calendar days. **No progress payments shall be made until the initial progress schedule is reviewed and approved.** Submittal of the initial progress schedule shall include five copies of the detailed schedule and five copies of the supporting narrative for each phase of the project, and the **electronic** data containing the schedule.
 - (2) The cost loaded CPM schedule chart shall include the following:
 - (a) A time scale in calendar days with day number one being the day after receipt by the Contractor of the NTP.
 - (b) Activity bars which schedule all work included in the Contract. The activity bars shall be solid bars which begin on the planned start date and end on the planned

- completion date for each activity. Durations of workday and man-hours to complete activity will be reflected.
- (c) Activities broken down in a work breakdown structure with work packages of no more than 30 calendar days (CD) duration.
 - (d) Activity description for each activity bar shall be brief but shall describe discrete items of work that must be accomplished under the Contract.
 - (e) The Contract requirements shall be clearly shown on the schedule. The schedule shall include at least one activity bar for each required milestone date.
 - (f) A title block, revision block, and a legend shall be included.
 - (g) The data date shall be the date of NTP.
- (3) The supporting narrative for all phases of the project shall include the following:
- (a) The Contractor's general approach for meeting all the milestone dates required by the Contract.
 - (b) A discussion of the activities which the Contractor considers most critical in meeting contract completion dates.
 - (c) A listing of the holidays and special non-work days planned during the performance period.
- (4) The approved initial progress schedule shall be the schedule to be used by the Contractor for planning, scheduling, managing and executing the Contract work. The approved initial progress schedule shall not be revised without prior approval or direction **by the Authority Representative.**
- c. The monthly progress status report:
- (1) Not later than 30 calendar days after receipt of NTP and monthly thereafter until all Contract work is complete, the Contractor shall submit a monthly status report with data date as the last day of each pay period. Each monthly progress status report shall include four copies of the updated schedule chart, four copies of a supporting narrative and electronic data for all phases. **For a given month, No monthly progress payments shall be made before updated progress schedule is reviewed and approved by Authority Representative.**
 - (2) Prior to submittal of the monthly progress status report, the Contractor shall submit a draft updated schedule chart. The Contractor shall participate with the AR in monthly meetings, on dates and at locations as directed. The purpose of the meetings is a joint review and agreement of the draft updated schedule and job progress. Job progress shall specifically include the following:
 - (a) Actual performance and completion dates for activities completed during the report period.
 - (b) Actual start dates, remaining durations, and percent complete for in-progress activities commenced during the report period.

- (c) Estimated start dates for activities scheduled to commence during the month following the report period. Contractor shall maintain weekly schedule recording locations that the Contractor is currently working and percent complete on each activity in the given location. Additionally, a monthly, quarterly, semi-annual, and annual cumulative percentage of work complete as it applies in a hierarchal manner.
 - (d) Proposed changes and/or revisions to the initial progress schedule.
 - (e) The Contractor shall not delete or add any scheduled activities, restraints or durations to the approved baseline schedule without the express approval of the Authority Representative. If additional activity or restraints are required, clearly identify the changes and explain the rationale for such deletions or additions in the Contractor's Narrative.
- (3) After discussion and agreement on these data, the Contractor shall submit to the AR four final copies of the monthly progress status report and the data diskette with the monthly progress payment schedule within seven days after the last day of the pay period. Upon receipt of the monthly progress status report, the AR will expedite the processing of the monthly progress payment.
- (4) The updated schedule chart shall include the following:
- (a) Update the schedule on a copy of the detailed schedule chart which was included in the approved initial progress schedule. Create a copy of schedule file with a new file name and keep the initial program schedule intact. Update the schedule in newly created file.
 - (b) The data date indicated by a vertical line from top to bottom of the sheet at the appropriate place on the time scale and labeled with the data date.
 - (c) Progress for each activity bar indicated by a second bar below the initial schedule activity bar. The progress bar shall start on the date the activity actually started and shall end on the date the activity actually was completed. The initial schedule activity bars shall not be changed unless a proposed revision is approved. The progress bars shall be shown in a pattern which will distinguish them from the scheduled activity bars.
 - (d) The actual start date shall be noted at the beginning of each progress and the actual completion date shall be noted at the end of each progress bar.
 - (e) The percent complete as the data date shall be noted at the end of each progress bar.
- (5) The supporting narrative shall include the following:
- (a) A list of activities in progress as of the data date with the scheduled start date, actual start date, percent complete and scheduled completion date noted for each activity.
 - (b) A list of activities completed during the report period with the scheduled and actual start dates and the scheduled and actual completion dates noted activity.

- (c) A list of activities planned to start during the next report period with scheduled and planned start dates for each activity noted.
 - (d) A discussion of activities which are behind schedule including the reasons for delay and corrective actions planned or implemented to get back on schedule.
 - (e) A list of approved revisions to the progress schedule with the reason for each revision noted.
 - (f) The status of each of the Required Completion Dates included in the Contract schedule milestone dates.
- (6) When needed or so directed by the Authority, the Contractor shall revise the progress schedule to reflect changes in the Contractor's planned sequence of work or to reflect scope and time changes included in Contract modifications. All such revisions are subject to approval by the AR.

d. Weekly Work Plan

A work plan that details the planned work for each work site scheduled for the coming week. Weekly work plans should include a description of planned work tasks and a list of corresponding WMATA escorts needed to support planned work for each work site (mezzanine).

e. Four-Week Look-Ahead Schedule

A schedule in a calendar time-scaled bar chart format depicting the Contractor's intended work activities for the upcoming period shall be submitted on a weekly basis due on the first working day of each week. Each activity having 1-day duration shall be prominently noted.

Deviations, including but not limited to sequences of work, timing, and durations of activities from the Initial 90-Day or Project Schedules shall be noted and explained in writing.

The form of submittal shall not be less than 8-1/2 by 11 inches in size.

E. DETERMINATION OF PROGRESS -

- a. Independent of progress payments made pursuant to the PAYMENTS TO CONTRACTOR article of the General Provisions, progress schedules prepared under the requirements of the PROGRESS SCHEDULES article, shall provide as schedules progress for only 50 percent of the estimated invoiced cost of materials or equipment delivered to the site but not incorporated in the work as of the time of the scheduled delivery thereof.
- b. In determining progress accomplished, the AR will allow as an element of work accomplished, i.e., progress toward completion, only 50 percent of the invoiced cost of materials or equipment delivered to the site but not incorporated in the construction up to the time the materials or equipment are actually incorporated in the work.

00833 AUTHORITY-FURNISHED PROPERTY

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

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

00841 CONSIDERATION AND BASIS OF PAYMENT

Modify Section 00741, CONSIDERATION AND BASIS OF PAYMENT, in its entirety, and substitute the following:

- A. In consideration of its undertaking under this Contract, the Contractor will be paid the sums set forth in this Contract, which shall constitute complete payment for all work and services 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, CONSTRUCTION CONTRACT FORM, and which shall constitute complete compensation for performance of all work required by the Contract.
- B. Standby cost for delayed or cancelled Site access: In the event the Contractor is delayed in the performance of the Work due to Authority delayed or cancelled Site access, the following basis of payment shall apply:
1. The "Hours of Work" is the period during which the Contractor has use of the work area. The "Hours of Work" will exclude the periods required by the Authority to safely secure the work area before the start of the "Hours of Work" and to restore the work area to an operational state after completion of the "Hours of Work".
 2. Delay will be measured relative to "Hours of Work" only. The "Hours of Work" shall be determined based upon weekly coordination between the Contracting Officer Representative (COR) and the Contractor.
 3. Delays caused by actions of the Authority may occur at the start of the "Hours of Work", during the "Hours of Work", or at the end of the "Hours of Work."
 - a. A delay at the start of the "Hours of Work" occurs when the Authority does not grant access to the work area by the scheduled start time. A delay at the start of the "Hours of Work" will be measured from the scheduled start of the "Hours of Work" until the time the Contractor is granted access to the work area.
 - b. A delay during the "Hours of Work" occurs when the Authority requests the Contractor to vacate the work area and the Contractor is later allowed to return to the work area. A delay during the "Hours of Work" will begin when the Contractor is directed to stop work to vacate the work area and will end when the Contractor returns to the work area and resumes work.
 - c. A delay at the end of the "Hours of Work" occurs when the Authority requests the Contractor to vacate the work area early. A delay at the end of the "Hours of Work" will be measured from the time the Contractor is directed to vacate the work area until the scheduled end of the "Hours of Work".
 4. The Contractor will be compensated for the direct labor costs incurred for the aggregate of delays that exceed 30 minutes relative to the "Hours of Work". For payment purposes, delays will be rounded to the nearest 30 minutes provided the Contractor remains mobilized until granted access or until the Contractor elects to cancel the work, or the Contracting Officer Representative cancels access for the period. However if the Contractor elects to cancel work due to a lack of time remaining in the "Hours of Work" period to complete the planned work element, as verified by the Period of Delay form, the

Contractor will be compensated for the aggregate of delays that exceed 30 minutes rounded to the nearest 30 minutes from the time access was cancelled to the scheduled end of the "Hours of Work" period.

5. When access to the work area is cancelled by the Contracting Officer Representative with less notice than noted below, the Authority will pay standby cost of not more than the scheduled "Hours of Work" period or 4 hours, whichever is less. However, if Contractor is able to reassign the work crew to other work, regardless of the time of the notice given by the Contracting Officer Representative, no payment will be made.
 - a. Weeknights: Five hours before the planned start time of the scheduled "Hours of Work."
 - b. Weekends: Twenty-four hours before the planned start time of the scheduled "Hours of Work."
6. No payment will be made in those cases where:
 - a. A delay at the start of the "Hours of Work" is less than 1 hour and the Authority grants access but the Contractor elects to cancel work, except that payment for delay cost will be made in accordance with Paragraph B.4 above if the scheduled "Hours of Work" period is 3 hours or less.
 - b. A delay at the start of the "Hours of Work" is less than 1 hour and the Authority grants access and the Contractor proceeds working and then elects to cease working and leaves the worksite prior to the scheduled end of the "Hours of Work".
7. Prior to the completion of each shift, the Contractor and the Contracting Officer Representative or designee shall sign a Period of Delay form, which shall document the work start and completion times, the duration of the delay, the reason for the delay, the reason for the Contractor leaving the Site prior to the scheduled end of the "Hours of Work" period, and the names of the crew members present, including foremen, but excluding salaried supervision. The Contractor shall not be entitled to compensation for equipment, overhead, profit or extended overhead costs under this Section; however, this Section does not prohibit the Contractor from seeking an equitable adjustment for equipment costs under other sections of the Contract and access delays may provide a basis to grant a non-compensable extension to the Period of Performance. Certified payrolls shall establish the hourly rates of the crewmembers. All requests for payment for delay costs shall be submitted to the Contracting Officer Representative with the next progress payment or within 30 Days, whichever is longer. The Contractor waives any right to delay costs where the delays are not documented prior to the completion of the shift and the request for payment is not submitted to the Contracting Officer Representative with the next progress payment or within 30 Days, whichever is longer.
8. If the Contractor is not ready to start work at the start of the "Hours of Work" or does not return the work area to the Authority on time at the end of the "Hours of Work," the Contractor shall compensate the Authority for the Authority staff and other Authority direct costs for supporting the non-revenue or Revenue Service Adjustment event.

| Notification of Cancellation | Occurrence | Requirement | Terms of Payment |
|-------------------------------|--|---|--------------------------|
| Week Night | COR cancels full shift | The COR notifies Contractor 5 hours or more before the planned start | No delay payment due |
| Week Night | COR cancels full shift | The COR notifies Contractor less than 5 hours before the planned start | Pay 4 hours ¹ |
| Weekend Single Track/Shutdown | COR cancels full shift or the full weekend of work | The COR notifies Contractor 24 hours or more before the planned start | No delay payment due |
| Weekend Single Track/Shutdown | COR cancels full shift or the full weekend of work | The COR notifies Contractor less than 24 hours before the planned start | Pay 4 hours ¹ |

¹No payment will be made if the Contractor is able to reassign the work crew to other work.

| Hours of Work | Actual Hours Worked | Contractor | Terms of Payment |
|---|---|---|---|
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Delayed Start 2215 to 0400 Delay less than 30 minutes | Contractor is on Site ready to work Works until the end of the Hours of Work | No delay payment due. (Same for a mid shift or end delay less than 30 minutes) |
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Delayed Start 2235 to 0400 Delay 35 minutes | Contractor is on Site ready to work Works until the end of the Hours of Work | Pay 30 minutes delay (Same for a mid shift or end delay) |
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Delayed Start 2235 to 0430 Delay 35 minutes | Contractor is on Site ready to work Able to work beyond the end of the Hours of Work | Pay 30 minutes delay (Same for a mid shift delay) |

| Hours of Work | Actual Hours Worked | Contractor | Terms of Payment |
|---|--|---|--|
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Start Delayed 35 minutes to 2235 | Contractor is on Site ready to work Contractor elects not to go to work | Under 1 hour delay; no Payment due |
| Weeknight Non-Revenue Hours of Work: 0100 to 0400 (Weeknight Nonrevenue Similar) | Start Delayed 35 minutes to 0135 | Contractor is on Site ready to work Contractor elects not to go to work since remaining time does not allow completion of work element | Pay 2 hours and 30 minutes delay |
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Start Delayed 65 minutes to 2305 | Contractor is on Site ready to work Contractor elects not to go to work | Over 1 hour delay; pay 5 hours and 30 minutes delay |
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Start delay / End delay 2225 to 0345 Start delay 25 minutes End delay 15 minutes Total delay 40 minutes | Contractor is on Site ready to work Works during time permitted | Pay 30 minutes delay |
| Weeknight Early Out Hours of Work: 2200 to 0400 (Weeknight Nonrevenue Similar) | Delay during "Hours of Work" 2330 to 0035 Start delay 0 minutes End delay 0 minutes Total delay 65 minutes | Contractor is on Site ready to work Works during time permitted | Over 1 hour delay; pay 60 minutes delay |

| Hours of Work | Actual Hours Worked | Contractor | Terms of Payment |
|--|---|---|----------------------------------|
| Weekend Hours of Work: Fri 2200 to Mon 0400 | Delay during "Hours of Work" Sat 0200 to Mon 0300 Start delay 4.25 hours End delay 1.25 hours Total delay 5.5 hours | Contractor is on Site ready to work Works during time permitted | Pay 5 hours and 30 minutes delay |
| Weeknight Early Out Hours of Work: 2200 to 0400 | Start delayed to 0200 hours then COR cancels access | Contractor is on site ready to work | Pay 5 hours and 30 minutes delay |
| Weeknight Nonrevenue Hours of Work: 0100 to 0400 | Start delayed to 0245, then COR cancels access | Contractor is on Site ready to work | Pay 2 hours and 30 minutes delay |
| Weekend Hours of Work: Friday 2200 to Monday 0400 | Delay Friday 2200 to Saturday 0630. First shift cancelled at 0230. Work begins at 0630. | Contractor 1st shift is on Site ready to work until shift cancelled at 0230 | Pay 8 hours delay |

¹No payment will be made if the Contractor is able to reassign the work crew to other work

Spec Note: Authority must determine percent of participation of DBE for each Project if appropriate.

00848 CHANGES

Modify Section 00748, CHANGES, to add the following Paragraph G:

CONTRACT MODIFICATION PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

A. This Section specifies procedures for making Contract Modifications.

1.2 GENERAL

- A. Out-of-Scope Items. Specific approval must be received from the Contracting Officer Representative prior to doing work, which may be considered to be outside the Scope of Work and for which additional reimbursement may be requested in accordance with the General Conditions.
- B. Requests for additional work may be initiated by the Authority. Claims for an increase in Contract Price shall be thoroughly documented as specified in the General Conditions and directed to the Contracting Officer Representative who, upon Approval, will issue a Modification stating the amount of the increase in fee.
- C. Should the Contractor be excused from the provision of certain services identified in this Scope of Work, the Contractor will be requested to give a credit to the Authority. The offer for the credit shall be documented and directed to the Contracting Officer Representative who, upon Approval at the appropriate level, will issue a modification.

1.3 TIME AND MATERIALS WORK FOR THE CONSTRUCTION EFFORT

- A. In the event equitable adjustment cannot be agreed to in a timely manner, the Authority reserves the right to order work on a time and materials basis as specified in the General Conditions. When work is ordered under this Section, notwithstanding the provisions of other Sections, compensation for the work shall be determined as hereinafter provided and shall constitute the total compensation to be paid for the changes to the Work. The methods, labor, materials, and equipment used in the performance of such work shall be subject to the Approval of the Authority.
- B. Work performed by or for the Contractor: labor, materials, services, and equipment shall be furnished by the Contractor or by a Subcontractor or by others on behalf of the Contractor. The Contractor will be paid therefore as hereinafter provided, except where agreement has been reached to pay in accordance with Article 1.03C. below.
 - 1. Labor: The cost of labor used in performing the work, whether the employer is the Contractor, Subcontractor, or other forces, will be the sum of the following:
 - a. The gross actual wages paid including income tax withholding but not including any employer payments to or on behalf of workmen for health and welfare, pension, vacation, insurance, and similar purposes.
 - b. To the actual gross wages, as defined in Article 1.03B.1.a above, will be applied a percentage based upon current applicable labor rates concerning payments made to or on behalf of workmen other than actual wages, which percentage shall constitute full compensation for all payments other than actual gross wages as defined in Article 1.03B.1.a above and subsistence and travel allowance as specified in Article 1.03B.1.c below. The Contractor shall compute a separate percentage for each craft or a composite percentage for all crafts, if so approved by the Authority. All computed percentages shall be submitted to the Contracting Officer Representative for Approval within 30 Days after start of construction work or as directed by the Contracting Officer Representative prior to time and materials work being performed.

- c. Subsistence and travel allowance paid to such workmen if required by collective bargaining agreements. The charges for labor shall include all classifications through foremen when engaged in the actual and direct performance of the Work. They shall not include charges for such overhead personnel as assistant superintendents, superintendents, office personnel, timekeepers, and maintenance mechanics.
 2. Materials: The cost of materials required for the accomplishment of the Work will be delivered cost to the purchaser, whether Contractor, Subcontractor, or other forces, from the Supplier thereof, except as the following are applicable:
 - a. If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the Authority notwithstanding the fact that such discount may not have been taken.
 - b. If materials are procured by the purchaser by any method, which is not a direct purchase from and a direct billing by the actual supplier to such purchaser, the cost of such materials, including handling, shall be deemed to be the price to the actual Supplier as determined by the Contracting Officer Representative.
 - c. If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment there for will not exceed the price paid by the purchaser for similar materials furnished from said source on Contract items or the current wholesale price for such materials delivered to the job Site, whichever price is lower.
 - d. The cost of such materials shall not exceed the lowest current wholesale price at which such materials are available in the quantities concerned, delivered to the job Site, less any discount as provided in Article 1.03B.2.a above.
 - e. If the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost shall then be determined in accordance with Article 1.03B.2.d above.
 - f. The Contractor shall not be compensated for indirect costs and profit on Authority- furnished materials.
 3. Equipment: The Contractor will be paid for the use of equipment in accordance with the Contract. The Contractor shall furnish all data, which might assist the Authority in the establishment of such rates.
 - a. Operators of equipment will be paid under Article 1.03B.1 above.
 - b. Small tools (defined as equipment less than \$2,000 in acquisition costs) are computed at a maximum of 5 percent of direct base labor wages.
 4. Subcontracts: The cost for Subcontract work at any tier will be the actual cost to the Contractor/Subcontractor for work performed by a Subcontractor as computed in accordance with Articles 1.03B.1 through 1.03B.3 above. For the purposes of this Article, Subcontractor is defined as an individual, partnership, corporation, association, joint venture, or any combination thereof, who contracts with the Contractor to perform work or labor or render service on or about the work. The term Subcontractor shall not include those who supply materials only. When work

- paid for on a time and materials basis is performed by forces other than the Contractor's organization, the Contractor shall reach agreement with such other forces as to the distribution of the 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 1.07 below
 8. A percentage for Contractor's bond, not to exceed 1 percent, may be added
- C. Special items of work: If the Contracting Officer Representative and the Contractor, 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 Contractor 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 Contractor 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 Contractor 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 Contractor, 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 Contractor or its authorized agent.
4. The Contracting Officer Representative will compare the Authority's records with the Contractor's daily report sheets, make any necessary adjustment, and compile the costs of work paid for on a time and materials basis on daily time and materials work report forms furnished by the Authority. When these daily reports are agreed upon and signed by both parties, they shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit. The use of any specific Authority form, such as the Daily Report – Labor, Materials, & Equipment Form C-113, to segregate change order costs does not, in and of itself, invoke the provisions of this Article 1.03 or other provision of this Contract.

E. Payment: Payment as provided in Articles 1.03B and 1.03C above shall constitute full compensation to the Contractor for performance of work paid for on a time and materials basis and no additional compensation will be allowed therefore.

1.4 EQUITABLE ADJUSTMENT FOR MINOR CONTRACT MODIFICATIONS FOR THE CONSTRUCTION EFFORT

A. When the Authority and Contractor agree to an additive or deductive amount for a Modification to this Contract made pursuant to this Contract when the fair and reasonable price in aggregate amount does not exceed \$100,000, and further agree to an adjustment in the time for Period of Performance resulting from said Modification, which increases or decreases the completion date 10 or less Days, the equitable adjustment in Contract amount shall consist of the sum of the following:

1. Direct labor, material, and equipment costs as agreed to by the Authority and Contractor (small tools, defined as equipment less than \$2,000 in acquisition costs, are included in equipment costs and computed at a maximum of 5 percent of direct base labor wages.)
2. Job Office Overhead costs, the sum of which shall be limited to a maximum of 10 percent of direct labor costs, including fringe benefits, but excluding FICA, FUTA, and State Unemployment Insurance (SUI); a maximum of 10 percent of direct material costs; a maximum of 5 percent of direct equipment costs (including small tools); and a maximum of 5 percent of Subcontract costs.
3. Home Office General and Administrative (G&A) costs are computed using the most recent audited rate or a fixed rate of 3 percent in the absence of an audited rate.
4. Profit will be determined in accordance with the guidelines specified in Article 1.06 below.

B. In using the above rates, the following shall apply:

1. Payroll Tax (FICA, FUTA, and SUI) amounts are added immediately after direct

and indirect costs are totaled.

2. Subcontractors' indirect costs and profit shall be computed in the same manner as above.
 3. Indirect costs shall not be duplicated in direct costs.
 4. When the Period of Performance is increased, the change in Contract amount for direct and indirect costs computed by application of the above rates includes costs of impact and extended performance due to the time extension and no further consideration of costs arising from the specific Modification and cited pending change orders (PCOs) will be given. The Contractor shall not receive both a percentage and a daily rate markup for job office overhead costs when a time extension to the Period of Performance is recognized.
 5. Bond costs will be allowed at actual cost without markup.
- C. Equipment rates shall be determined from prior Authority audits. In the absence of audited rates for equipment owned or controlled by the Contractor, hourly rates shall be computed in the same fashion as described in Article 1.07D.

1.5 COST OR PRICING DATA

- A. The Contractor shall submit to the Contracting Officer Representative, either actually or by specific identification in writing an electronic copy of cost or pricing data under the conditions described in this Paragraph and certify that, to the best of the Contractor's knowledge and belief, the cost or pricing data submitted is accurate, complete, and current as of the date of execution, which date shall be as close as possible to the date of agreement on the negotiated price of the Contract Modification. The cost or pricing data shall be submitted at the time the Contractor submits its proposal for the pricing of any Modification to this Contract, whether or not cost or pricing data was required in connection with the initial pricing of the Contract, when the Modification involves aggregate increases or decreases in costs plus applicable profits expected to exceed \$100,000, or less at the discretion of the Authority Representative.
- B. The submittal of certified cost or pricing data will not be required if the price is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation. The Contractor agrees that the terms "adequate price competition" and "established catalog or market prices of commercial items sold in substantial quantities to the general public" will be determined by the Authority in accordance with the guidelines as set forth in Subpart 15.8 of the Federal Acquisition Regulations (48 CFR 15.8).
- C. Cost or pricing data consists of all facts existing up to the time of agreement on price, which prudent buyers and sellers would reasonably expect to have a significant effect on the price negotiations for the Modification. The definition of cost or pricing data embraces more than historical accounting data; it also includes, where applicable, such factors as Subcontractor, Supplier, and vendor quotations, nonrecurring costs, changes in construction methods, unit cost trends such as those associated with labor efficiency and any management decisions which could reasonably be expected to have a significant bearing on costs under the proposed Modification and the Contract Work. Cost or pricing data consists of all facts, which can reasonably be expected to

contribute to sound estimates of future costs as well as to the validity of costs already incurred. Cost or pricing data, being factual, is that type of information, which can be verified. Because the certificate pertains to cost or pricing data, it does not make representations as to the accuracy of the Contractor's judgment on the estimated portion of future costs or projections. The certificate does, however, apply to the data upon which the Contractor's judgment is based.

1.6 CONTRACT MODIFICATIONS, REQUIREMENTS FOR PROPOSALS, PRICE BREAKDOWN, NEGOTIATION OF PROFIT

- A. The Contractor, in connection with any proposal it makes for a Contract Modification as specified in Section 00750, ACCOUNTING AND RECORD KEEPING, shall furnish a price breakdown, itemized as required by the Contracting Officer Representative. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, Subcontract, and overhead costs, as well as profit, and shall cover all work involved in the Modification, whether such work was deleted, added, or changed. Any amount claimed for Subcontracts shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification therefore shall also be furnished. The original and one electronic copy of the proposal, together with the price breakdown and time extension justification, shall be furnished by the date specified by the Contracting Officer Representative.
- B. Where profit is negotiated as an element of price, with either the Contractor or Subcontractor, a reasonable profit will be negotiated for each Modification by using the following procedure as a guide:

1. Breakdown:

| <u>Factor</u> | <u>Rate</u> | <u>Weight</u> | <u>Value</u> |
|-----------------------------|-------------|---------------|--------------|
| Degree of risk | 20 | | |
| Relative difficulty of work | 15 | | |
| Size of job | 15 | | |
| Period of performance | 15 | | |
| Contractor's investment | 5 | | |
| Assistance by Authority | 5 | | |
| Subcontracting | 25 | | |
| TOTAL | 100% | | |

2. Based on the circumstances of each Modification, each of the above factors shall be weighted from 0.03 to 0.12 as indicated below. The value shall be obtained by multiplying the rate by the weight. From the value column when totaled the fair and reasonable profit can be determined under the circumstances of the particular

Modification.

- a. Degree of risk: Where the modified work involves no risk or the degree of risk is very small, the weighting should be 0.03. As the degree of risk increases, the weighting should be increased up to a maximum of 0.12. Lump sum items will have generally a higher weighted value than unit price items for which quantities are provided. Other things to consider: The portion of the Work to be done by Subcontractors, nature of work, where work is to be performed, reasonableness of negotiated costs, amount of labor included in costs, and whether the negotiation is before or after performance of work.
 - b. Relative difficulty of work: If the modified work is most difficult and complex, the weighting should be 0.12 and should be proportionately reduced to 0.03 on the simplest of jobs. This factor is tied in to some extent with the degree of risk. Things to consider: The nature of the Work, by whom it is to be done, the location, and the time schedule.
 - c. Size of job: All modified work not in excess of \$100,000 shall be weighted at 0.12. Work estimated between \$100,000 and \$5,000,000 shall be proportionately weighted from 0.12 to 0.05. Work from \$5,000,000 to \$10,000,000 shall be weighted at 0.04, and work in excess of \$10,000,000 at 0.03.
 - d. Period of performance: Modifications providing for an extension of time in excess of 30 Days shall be weighted at 0.12. Jobs of lesser duration shall be proportionately weighted to a minimum of 0.03 for jobs not to exceed 1 Day. No weight will be granted for this factor where there is no extension of the Period of Performance or interim dates due to work under this Modification.
 - e. Contractor's investment: Should be weighted from 0.03 to 0.12 on the basis of below average, average, and above average. Things to consider: Amount of Subcontracting, mobilization payment item, Authority-furnished property, and method of making progress payments.
 - f. Assistance by Authority: Should be weighted from 0.12 to 0.03 on the basis of average to above average. Things to consider: Use of Authority-owned property, equipment and facilities, and expediting assistance.
 - g. Subcontracting: Should be weighted inversely proportional to the amount of Subcontracting. Where 80 percent or more of the Work is to be Subcontracted, the weighting should be 0.03, and such weighting proportionately increased to 0.12 where all the work is performed by the Contractor's own forces.
3. When considered necessary because of very unusual circumstances or local conditions, the range of weight may be increased to an upper limit of 0.15 if supported by adequate justification and Approved by the Authority.
 4. When negotiations between the Contracting Officer or the Contracting Officer Representative and the Contractor are joined to determine an equitable adjustment for a Modification of this Contract, the Contractor shall encourage involved Subcontractor(s) to be present and to present their cost data and to participate in the resolution of a fair and equitable adjustment. In any event, if after reasonable effort, a negotiated settlement cannot be reached between the Contracting Officer or the Contracting Officer Representative and the Contractor and the Subcontractor(s) involved, then at the request of the Subcontractor(s) concerned,

the Contracting Officer or the Contracting Officer Representative may process Part 1 of a two-part Modification to cover the direct costs only, as agreed upon or, if not agreed upon, as determined unilaterally by the Contracting Officer or the Contracting Officer Representative. Subcontractor(s) requests for a Part 1 Modification shall be submitted to the Contractor, and the Contractor shall forward such requests promptly to the Contracting Officer Representative. Any payments received by the Contractor under this procedure shall be passed along within 10 Days thereafter to the Subcontractor concerned.

- C. Change orders: When the Contracting Officer directs a change in accordance with the provisions of this Contract, the Contractor shall identify in its proposal for equitable adjustment the network activities that precede and follow the change order work activities. If the change order work activities are performed concurrently with existing network activities, those concurrent network activities shall be identified. If the change order work activities restrain network activities, those restraints shall be identified.

1.7 PAYMENT FOR USE OF EQUIPMENT

- A. The following methods of determination of equipment costs shall apply to all adjustments to Contract Prices arising under the provisions of the Contract except for Section 00727, TERMINATION FOR CONVENIENCE OF THE AUTHORITY, provisions thereunder.
- B. Allowable ownership and operating expense for construction plant and equipment in sound workable condition, owned by the Contractor, Joint Venture, Partnership, organizations under common control, and any equipment under lease purchase or sale-lease back agreements, will be paid for at hourly rates applicable to the Period of Performance, published in the Rental Rate Blue Book for Construction Equipment (Blue Book) by PRIMEDIA Information, Inc., by applying the following formula: the Regular Hourly Rate shall be 75 percent of the sum of the monthly rate (area adjustment map not used) divided by 176 and the estimated operating cost per hour. Regular Hourly Rate shall be full compensation for equipment ownership and operating expenses and shall include the cost of fuel, oil, lubricants, supplies, spare parts, repairs and maintenance, major overhauls, mechanics and servicing labor, depreciation, storage, insurance, interest, taxes, record keeping, and all incidentals. The cost of equipment operators is not included. For forward pricing, the Blue Book rates in effect at the time of negotiations shall apply. For retrospective pricing, the Blue Book rates in effect at the time the work was performed shall apply. Manufacturer's ratings and manufacturer-approved modifications shall be used to classify equipment for the determination of the Regular Hourly Rate. The hourly rates are calculated as shown in the following example:

| | Regular Hourly Rate | Multi-Shift Hourly Rate | Standby Hourly Rate |
|-----------------------|------------------------|----------------------------|------------------------|
| Monthly Rental Cost | \$6,070.00 | \$6,070.00 | \$6,070.00 |
| Divided by Hours | 176 | 176 | 176 |
| Hourly Rental Cost | \$34.49 | \$34.49 | \$34.49 |
| Hourly Operating Cost | \$18.20 | \$18.20 | \$18.20 |
| Subtotal | \$52.69 | \$52.69 | \$52.69 |
| Adjustment | 75% | 75% | 75% |
| Regularly Hourly Rate | \$39.52 | \$39.52 | \$39.52 |
| Status | 100% | 60% | 40% |
| Payment Rate | \$39.52 | \$23.71 | \$15.81 |

1. For Contractor owned equipment as identified in Article 1.07B, the first 8 hours, or fraction thereof, usage in any one day shall be paid for at the Regular Hourly Rate, and any additional time in excess of 8 hours, shall be considered to be an additional shift, or fraction thereof, and shall be paid for at 60 percent of the Regular Hourly Rate. Standby time, if authorized by the Contracting Officer Representative, will be paid for at 40 percent of the Regular Hourly Rate. Standby time shall be limited to the regular 8-hour shift and shall not exceed 40 hours in a week. Any usage time less than 30 minutes shall be considered to be 1/2 hour.
 2. For third-party rented equipment, the Authority will accept rental rates actually paid and substantiated by certified reproduced copies of invoices or bills. Such invoices or bills shall indicate the amount of operating expenses and operator wages and fringes, if any, included in the rental rate. In no case shall the bare rental rate per hour (operating expense, and operator wages and fringes not included) exceed the appropriate Regular Hourly Rate. Where required, the operating costs per hour will be agreed upon between the Contractor and the Authority using operating costs per hour from the Blue Book for the same or similar equipment.
 3. When approved by the Contracting Officer Representative, use of equipment not listed in the Blue Book will be permitted. An equitable hourly rate for such equipment will be established by the Contracting Officer Representative based on Contractor furnished cost data and basic information concerning the equipment. Information required to determine rates includes, but is not limited to, manufacturer, year, size, model, serial number, capacity, and weight. This information shall be furnished to the Contracting Officer Representative prior to the use of the equipment. Authority shall be granted audit access to verify information related to or pursuant to this Section.
 4. The Regular Hourly Rate does not include "move-in" and "move-out" costs.
 5. These equipment rates shall apply to equipment in sound workable condition. The equipment shall be of approved size and capacity to provide normal output or production required for the work to be done. Equipment not meeting these requirements may be used only with the Contracting Officer Representative's approval and at agreed, reduced rates. Usage time or standby time will not be allowed while equipment is inoperative due to breakdown, and such equipment shall be removed from the jobsite at the direction of the Contracting Officer Representative.
- C. Items of equipment with an acquisition cost of \$2,000 or less shall be considered as small tools
- D. Equipment costs that are paid under the equipment use rate shall not be duplicated in the Contractor's other direct or indirect costs

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

00865 DISADVANTAGED BUSINESS ENTERPRISE

Modify Section 00765, DISADVANTAGED BUSINESS ENTERPRISE, to delete Paragraph B and substitute the following:

- B. The goal of DBE participation established for this Contract is **25.75%** of the Contract Price. Spec Note: Authority must determine the need for Professional Liability insurance requirements for each Project and edit the following modification as required. Note that there may be no need for Professional Liability insurance for Design-Bid-Build projects unless the Contractor has some design responsibility. Review dollar limits on all coverages and adjust in this Section as required. If Railroad Protective Liability insurance is required to cover adjacent railroads such as CSX when within 50 feet, additional modifications are required here.

00878 INDEMNIFICATION AND INSURANCE REQUIREMENTS

Modify Section 00778, INDEMNIFICATION AND INSURANCE REQUIREMENTS, to add the following to Article C:

EXHIBIT A

FQ17021/ER-Electrical and Data Cable Installation Phase Two

I. MINIMUM REQUIRED INSURANCE: MINIMUM LIMITS OF INSURANCE

| INSURANCE TYPE | LIMITS | BASIS |
|-------------------------------------|--------------------|--|
| Workers' Compensation | Statutory | |
| Employers' Liability | \$500,000 | Each Accident |
| | \$500,000 | Disease Policy Limit |
| | \$500,000 | Disease Each Employee |
| | | |
| Commercial General Liability | | |
| | \$5,000,000 | Each Occurrence Limit |
| | \$5,000,000 | General Aggregate Limit |
| | \$5,000,000 | Products-Completed Operations Limit |
| | | |

| INSURANCE TYPE | LIMITS | BASIS |
|--|---------------------|------------------------------|
| Business Auto Liability | | |
| | \$2,000,000 | Combined Single Limit |
| | | |
| Railroad Protective Liability Insurance (RRP) | | |
| | \$5,000,000 | Each Occurrence Limit |
| | \$10,000,000 | Aggregate Limit |

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

- 1) Contractor is required to maintain the prescribed insurance outlined in this Exhibit A during the entire period of performance under this contract. Notice to Proceed (NTP) will not be issued until all required insurance has been accepted by WMATA.
- 2) The prescribed insurance coverage and limits of insurance are minimum required coverages and limits. Contractor is encouraged, at its sole cost and expense, to purchase any additional insurance coverages and or limits of insurance that Contractor deems prudent and necessary to manage risk in the completion of this contract.
- 3) Upon written request from WMATA, contractor shall provide copies of any requested insurance policies, including applicable endorsements, within five (5) business days of such request.
- 4) Receipt, review or communications regarding certificates of insurance (COI), insurance policies, endorsements, or other materials utilized to document compliance with these Minimum Insurance Requirements does not constitute acceptance by WMATA.
- 5) Insurance companies must be acceptable to WMATA and must have an A. M. Best rating of at least A- VII.
- 6) Unless otherwise noted, "Claims Made" insurance policies are not acceptable.
- 7) Any insurance policy utilizing a Self-Insured Retention (SIR) requires written approval from WMATA.
- 8) Contractor must incorporate these Minimum Insurance Requirements into contract requirements of all subcontractors of every tier; however, Contractor, at its sole peril, may amend these Minimum Insurance Requirements for its subcontractors, but doing so does not relieve Contractor from its respective liability to WMATA.
- 9) Compliance with these Minimum Insurance Requirements does not relieve Contractor from Contractor's respective liability to WMATA, even if that liability exceeds the Minimum Insurance Requirements.

III. COVERAGE-SPECIFIC REQUIREMENTS

Commercial General Liability

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

Business Auto Liability

- 1) Business Auto Liability insurance shall be written on ISO Business Auto Coverage Form CA 00 01 03 06, or its equivalent. Equivalency determination shall be made in WMATA's sole and unreviewable discretion.
- 2) Policy shall be endorsed with Additional Insured Endorsement(s) in compliance with the "Additional Insured" Section below.
- 3) Policy shall be endorsed with a Waiver of Subrogation Endorsement(s) in compliance with the "Waiver of Subrogation" section below.
- 4) Business Auto Liability minimum Combined Single Limit requirements may be obtained through the combination of a primary business auto liability policy and an Umbrella/Excess Liability policy provided that the Umbrella/Excess Liability policy complies with items 2 and 3 above.
- 5) MCS-90 Endorsement for work involving the transportation or disposal of any hazardous material or waste off of the jobsite. If the MCS-90 Endorsement is required, minimum auto liability limits of \$5,000,000 per occurrence are also required as is form CA 99 48, broadened coverage for pollution liability.
- 6) Non-Owned Disposal Site (NODS) Endorsement providing coverage for the Contractor's legal liability arising out of pollution conditions at the designated non-owned disposal site.

Railroad Protective Liability

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

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

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

WMATA Blanket RRP Program Option

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

IV. OTHER

Additional Insured

- 1) Contractor and subcontractors of every tier are required to add WMATA and WMATA Board of Directors as additional insured on all required insurance including excess liability policies, with the exception of Workers' Compensation and Professional Liability.
- 2) Coverage provided to Additional Insured shall be primary and non-contributory to any other insurance available to the Additional Insured, including coverage afforded to the WMATA as an additional insured by subcontractors, and from other third parties.
- 3) Coverage provided to any Additional Insured shall be for claims arising out of both ongoing operations and products and completed operations hazard.
- 4) Coverage available to any Additional Insured under the products and completed operations hazard can only be limited to the applicable statute of repose in the jurisdiction(s) where the contract scope of work takes place.
- 5) Commercial General Liability and Umbrella/Excess Liability forms must provide defense coverage for additional insureds. The Additional Insured Endorsement shall provide coverage for Ongoing as well as Products and Completed Operations with no limitation on when claims can be made.

Waiver of Subrogation

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

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

Certificate of Insurance (COI)

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

The Certificate Holder box should read:

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

Additionally:

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

00879 LIQUIDATED DAMAGES

Modify Section 00779, LIQUIDATED DAMAGES, to delete Paragraph A and substitute the following Paragraph and subparagraphs:

- A. The Contractor understands that if it fails to complete portions of or all of the Work as described in Section 00824, PERIOD OF PERFORMANCE AND/OR PROJECT SCHEDULE, the Authority will suffer damages, which have been estimated and are as specified below:
 1. No Liquidated Damages will be assessed for interim Milestones 1 and 2. The Liquidated Damages for final Milestone 4 will be as set forth below:
 - a. **Milestone 3: Electrical and Data Cable Installation**- Complete all construction work tasks and delivery of all project submittals and as-built schematics as further described in Section 01775, CLOSEOUT.
 - 1) NTP+470 Days: \$2,000 per Day
 - b. **Milestone 4: Punch List Items** – Complete all Punch List work and final submission of updated project deliverables.
 - 1) NTP+500 Days: \$2,000 per Day.
 2. If the Authority terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

See Section 00724, PERIOD OF PERFORMANCE AND/OR PROJECT SCHEDULE, for Project Milestone(s).

00897 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR

This section is in addition to those already listed and is not intended to revise or replace corresponding sections in Section 00700:

- A. Funds are not presently available for performance under this Contract beyond the fiscal year, which ends June 30, 2018. The Authority's obligation for performance of this Contract beyond that date is contingent upon the availability of funds from which payment for Contract purposes can be made. No legal liability on the part of the Authority for any payment may arise for performance under this Contract until funds are made available to the Contracting

Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing, by the Contracting Officer. Any option exercised by the Authority, which will be performed in whole or in part in a subsequent fiscal year, is subject to availability of funds in the subsequent fiscal year and will be governed by the terms of this Section.

00898 LIVING WAGE

This section is in addition to those already listed and is not intended to revise or replace corresponding sections in Section 00700:

- A. This Contract is subject to the Authority's Living Wage Policy and implementing regulations. The Living Wage provision is required in all contracts for services (including construction) awarded in an amount that exceeds \$100,000 in a 12-month period.
3. The Authority Living Wage Rate is \$13.85 per hour, and may be reduced by the Contractor's per-employee cost for health insurance.
4. The Contractor shall:
 - a. Pay, at a minimum, the Authority Living Wage Rate, effective during the time the work is performed, to all employees who perform work under this contract, except as otherwise provided in paragraph (d) below;
 - b. Include the Living Wage clause in all Subcontractors that exceed \$15,000 in a 12-month period awarded under this Contract;
 - c. Maintain payroll records, in accordance with the retention and examination of records requirements in the General Conditions, and shall include a similar provision in affected Subcontracts that requires the Subcontractor to maintain its payroll records for the same length of time; and
 - d. Submit records with each monthly invoice supporting payment of the Living Wage Rate.
5. The Contractor shall not split or subdivide a contract, pay an employee through a third party, or treat an employee as a Subcontractor or independent contractor to avoid compliance with the Living Wage provisions.
6. Exemptions to the Living Wage provisions include:
 - a. Contracts and agreements with higher negotiated wage rates;
 - b. Contracts that are subject to higher wage rates required by federal law or collective bargaining agreements (e.g., Davis Bacon);
 - c. Contracts or agreements for regulated utilities;
 - d. Emergency services to prevent or respond to a disaster or imminent threat to public health and safety; and
 - e. Contractors who employ fewer than ten employees.
7. The Authority may adjust the Living Wage rate effective in January of each year. The adjustment will reflect the average Living Wage Rate among Metro's Compact

Jurisdictions with Living Wage provisions. If after Contract award the Living Wage Rate increases, the Contractor is entitled to an equitable adjustment to the rate in the amount of the increase for employees who are affected by the escalated wage.

8. Failure to comply with the Authority's Living Wage provisions shall result in the Authority's right to exercise available Contract remedies, including Contract termination or debarment from future contracts.

00899 COMMUNITY OUTREACH

This section is in addition to those already listed and is not intended to revise or replace corresponding sections in Section 00700:

- A. The Authority will establish a program of public contact for conducting effective relationships with communities and businesses in proximity to the construction areas. Do not initiate contact with the public without Contracting Officer Representative approval.
- A. The Authority will contact those residents and business owners who might reasonably be expected to be affected by the construction and make known to them the name of the Authority's representative on the worksite with responsibility for community outreach and explain to them the means by which the representative can be contacted expeditiously.
- B. Contractor shall designate an on-Site, community outreach liaison with 24-hour, on-call availability for the duration of the Contract. Community outreach liaison duties include:
 1. Staying informed of problems caused by the construction.
 2. Assisting the Authority in notifying adjacent owners of upcoming work
 3. Preparing and posting advance notice signs as necessary to inform public and surrounding businesses of upcoming construction activities.
 4. Assisting the Authority in responding to complaints
 5. Attending public outreach meetings, as necessary: Meetings can include regular construction information meetings, quarterly open houses, media inquiries, tours, ground breaking, and other milestone events.
 6. Accommodating Site tours: Tours shall be arranged through the Contracting Officer Representative.

END OF SECTION

SECTION 00900
AMENDMENTS AND MODIFICATIONS

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SECTION 00910
AMENDMENTS

THIS PAGE RESERVED

SECTION 00920
CLAIMS

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SECTION 00930
CLARIFICATIONS AND PROPOSALS

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SECTION 00940
MODIFICATIONS

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END OF SECTIONN

APPENDIX A – VALUE ENGINEERING CHANGE PROPOSAL

APPENDIX B – DISADVANTAGED BUSINESS ENTERPRISE (DBE)

**NOTICE OF REQUIREMENTS FOR
DISADVANTAGED BUSINESS ENTERPRISE (DBE) May
2015**

**~Applies only if proposal price is \$500,000 or more for a construction contract or
\$100,000 or more for a supply and service contract.**

~APPENDIX B~

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

1. DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENT:

- A. The DBE requirements of the Authority's DBE Program Plan apply to this contract. Accordingly, the Contractor shall carry out the requirements of the Authority's DBE Program Plan and this Appendix in the award and administration of this U.S. Department of Transportation (US DOT) assisted contract.

2. POLICY:

- A. It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA) and the US DOT that Disadvantaged Business Enterprises (DBEs) shall compete fairly to receive and participate in performing federally assisted contracts, including contracts and subcontracts at any tier. It is further the policy of the Authority, the FTA and the US DOT that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance.

3. CONTRACT GOAL:

- A. If the bidder is not a DBE, the bidder agrees that the DBE goal for this Contract shall be met by subcontractors or by joint ventures with DBEs. The goal set forth for this Contract is % of the final Contract price, including amendment and modification. The amount of DBE participation will be determined by the dollar value of the work performed and/or supplies furnished by DBE firms as compared to the total value of all work performed and/or supplies furnished under this Contract. The Contractor shall have met this goal if the Contractor's DBE participation meets or exceeds this goal.
- B. In cases where work is added to the Contract by modification such that additional DBE participation is necessary to meet this goal, the Contractor shall increase the participation of one or more firms listed on the "Schedule of DBE Participation" or submit additional DBE certified firms to meet the goal. In cases where work is deleted from the Contract, the goal shall be applicable to the new Contract amount. The Contractor shall be permitted to meet the goal by revising its DBE participation, provided, however, that the revision shall not result in DBE participation that is less than the original goal.

4. DEFINITIONS:

- A. **Appendix B.** The Notice of Requirements for Disadvantaged Business Enterprise, which when attached to a solicitation, implements the DBE requirements of the Authority's DBE Program Plan in the award and administration of federally funded Authority contracts.

- B. **Certified DBE.** means a for-profit small business concern (a) that is at least fifty one percent (51%) owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one or more such individuals; (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it; and (c) whose eligibility is evidenced by a current WMATA Certification letter, a D.C. Department of Transportation Certification letter, or a certification letter issued by the Metropolitan Washington Unified Certification Program (MWUCP).
- C. **Contractor.** One who participates, through a contract or subcontract (at any tier), in a US DOT assisted highway, transit or airport program.
- D. **DC DOT.** The District of Columbia Department of Transportation.
- F. **Good Faith Efforts.** Efforts to achieve a DBE goal or other requirements of the Authority's DBE Program Plan which by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the goal program requirement.
- G. **Joint Venture.** An association of a DBE firm and one (1) or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and shares in the capital contribution, control, management, risks, and profits of the joint venture commensurate with its ownership interest.
- H. **Metropolitan Washington Unified Certification Program (MWUCP).** A unified certification program mandated by 49 C.F.R. §26.81 between two Federal transit recipients (WMATA and the D.C. Department of Transportation). The agreement became effective January 2005.
- I. **Pre-certification.** A requirement under 49 C.F.R. §26.81(c) that all certifications by the MWUCP be made final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.
- J. **Race-conscious.** A measure or program that is focused specifically on assisting only DBEs, including women-owned DBEs.
- K. **Race-neutral.** A measure or program that is, or can be, used to assist all small businesses. For the purposes of the DBE program, race-neutral includes gender-neutrality.
- L. **Small Business Concern.** With respect to firms seeking to participate as DBEs in US DOT assisted contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration implementing regulations (13 C.F.R. Part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR § 26.65(b).
- M. **Socially and Economically Disadvantaged Individual.** Any individual who is a citizen (or other lawfully admitted permanent resident) of the United States and who the Authority finds to be a socially and economically disadvantaged individual on a

case-by-case basis, and any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged.

- (1) Black Americans, which includes persons having origins in any of the Black racial groups of Africa;
 - (2) Hispanic Americans, which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) Native Americans, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (4) Asian-Pacific Americans, which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the North Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - (5) Subcontinent Asian Americans, which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - (6) Women; and
 - (7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.
- N. US DOT Assisted Contract. Any contract between the Authority and a contractor (at any tier) funded in whole or in part with US DOT financial assistance, including letters of credit or loan guarantees.
- O. Unified Certification Program (UCP). The program mandated by 49 C.F.R. § 26.81(a), which requires all U. S. DOT recipients of Federal financial assistance to participate in a statewide certification program by March 2002.
- P. WMATA. Washington Metropolitan Area Transit Authority, the transit system (rail and bus) serving the metropolitan Washington area, including parts of Virginia and Maryland.

5. HOW DBE PARTICIPATION IS COUNTED TOWARDS THE CONTRACT GOAL:

DBE participation shall be counted towards meeting the DBE goal in accordance with the following:

- A. When a DBE participates in a contract, only the value of the work actually performed by the DBE is counted towards the DBE goal.

- (1) This amount includes the entire amount of that portion of a construction contract that is performed by the DBE's own forces. This amount includes the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
 - (2) This amount includes the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of the contract, towards the DBE goal, provided the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.
 - (3) When a DBE subcontracts part of its work under the contract to another firm, the value of the subcontract work may be counted towards the DBE goal only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count towards the DBE goal.
- B. When a DBE performs as a participant in a joint venture, the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that a DBE performs with its own forces towards the DBE goal may be counted.
- C. Expenditures to a DBE contractor towards the DBE goal may be counted only if the DBE is performing a commercially useful function on that contract.
- (1) A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, the Authority will consider the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.
 - (2) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.
 - (3) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work, the Authority will presume that the DBE is not performing a commercially useful function.

- D. The following factors will be used by the Authority in determining whether a DBE trucking company is performing a commercial useful function:
- (1) The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible for on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting the DBE goal.
 - (2) The DBE must itself own and operate at least one fully licensed, insured and operational truck used on the contract.
 - (3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers, it employs.
 - (4) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (5) The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.
 - (6) The lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the terms of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.
- E. The following factors will be used to count expenditures with DBEs for materials or supplies towards the DBE goal:
- (1) If the materials or supplies are obtained from a DBE manufacturer, one hundred percent (100%) of the cost of the materials or supplies will be counted towards the DBE goal. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the contract.
 - (2) If the materials or supplies are purchased from a DBE regular dealer, sixty percent (60%) of the cost of the materials or supplies will be counted towards the DBE goal. A regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in

question. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating, or maintaining a place of business as provided in this paragraph if this person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long-term lease agreement and not on an ad hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph.

- (3) With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials and supplies required on a job site, may be counted towards the DBE goal, provided the fees are reasonable and are not excessive as compared to fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted towards the DBE goal.
- F. All DBE firms must be pre-certified. Participation by a firm that is not currently Authority certified as a DBE at the time of bid opening, does not count towards the DBE goal. All DBE firms must be in compliance with 49 CFR, Part 26.
- G. The dollar value of work performed under this Contract by a firm that MWUCP decertifies as a DBE does not count towards the DBE goal.
- H. The participation of a DBE subcontractor does not count towards the Contractor's DBE goal, until the amount being counted towards the goal has been paid to the DBE.

6. BIDS AND REQUIREMENTS (WITH THE BID):

The bidder shall submit the following with its bid. Any bidder who fails to complete and return this information with its bid shall be deemed to be not responsive and may be ineligible for Contract award. Bidders that fail to meet the DBE goal above and fail to demonstrate "good faith efforts" to justify waiver of the DBE goal (See paragraph 6.C. below) shall be deemed to be not responsible and will be ineligible for Contract award.

- A. Completed "Schedule of DBE Participation" (Attachment B-1) sufficient to meet the above goal. If the bidder is a DBE firm and intends to satisfy the appropriate DBE requirement with its own firm, it must indicate in the Schedule the area of work and percentage it will perform to satisfy the goal. All offerors must attach current WMATA, DC DOT or MWUCP certification letters for each DBE listed on the Schedule.
- B. Executed "Letters of Intent to Perform as a Subcontractor/Joint Venture" (Attachment B-2). If the bidder is not a DBE or intends to satisfy the requirements through other DBE firms, then it must attach these letters from each certified DBE listed on the Schedule.
- C. Justification for grant of relief (Appendix B waiver of DBE goal). If in the submittal of its bid, the bidder fails to meet the DBE goal above, the bidder has the burden of

furnishing sufficient documentation with its bid of its “good faith efforts” to justify a grant of relief (waiver) from the goal or portion of the goal. Such justification shall be in the form of a detailed report. The following is a list of actions that shall be considered as part of the bidder’s good faith efforts to obtain DBE participation. This list is neither a mandatory checklist nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases:

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the Contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The offeror must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goal will be achieved. This includes, where appropriate, breaking out Contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) Negotiating in good faith with interested DBEs. It is the offeror’s responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work. “DBE Unavailability Certifications” (Attachment B-3) shall be completed as appropriate.
- (5) An offeror using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm’s price and capabilities as well as the Contract goal into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder’s failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the Contract with its own organization does not relieve the offeror of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs, if the price difference is excessive or unreasonable.
- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor’s standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee

status) are not legitimate causes for the rejection or non-solicitation of bids in the Contractor's efforts to meet the project goal.

- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

7. BID REQUIREMENTS (APPARENT LOW BIDDER):

The bidder shall submit the following items within ten (10) calendar days after notification that they are the apparent low bidder:

- A. A copy of a current WMATA, D.C. DOT or MWUCP certification letter(s) shall be attached to the DBE Schedule of Participation to evidence DBE pre-certification.
- B. DBE Manufacturer's Affidavit, if applicable, must be submitted in order to receive one hundred percent (100%) of the allowable credit for expenditures to DBE manufacturers/suppliers (Attachment B-4). By submission of this affidavit, the bidder certifies this it is satisfied that the manufacturer meets the requirements of 49 CFR Part 26.
- C. Schedule B Information for Determining Joint Venture Eligibility, if applicable (Attachment B-5, pgs. 1-4). Submittal shall be signed by all parties, dated and notarized.
- D. Copy of Joint Venture Agreement, if applicable. Submittal shall be signed by all parties, dated and notarized.
- E. Certification letter of the DBE regular dealer/supplier, if applicable. If the bidder wants to receive the maximum allowable credit for its expenditures for material(s) or supplies required under this Contract, from DBE regular dealers/suppliers, the DBE must submit a signed and notarized statement on their letterhead, stating that it is a regular dealer of the material(s) or supplies. By submission of this statement, the bidder certifies that it is satisfied that the subcontractor is a regular dealer/supplier that meets the requirements of 49 CFR Part 26.
- F. For design-build contracts, if a DBE goal is specified in the DBE GOAL/ REQUIREMENTS, the bidder shall submit, with its initial bid, a list of DBE-certified firms that it intends to enter into subcontract agreements with for this Contract. If no goal is specified in the solicitation and the bidder still intends to utilize DBEs in the performance of this Contract, the offeror shall submit with its initial bid a list of those DBE-certified firms. The documentation requirements of the solicitation shall be completed and submitted at the time of bid opening for any Contract in which a DBE goal is applicable or for any Contract in which there was no goal established, but the

offeror identified DBE-certified firms that it intended to enter into subcontract agreements with in its initial bid. Any bidder who fails to complete and return the following information, if applicable, with its bid may be deemed to be not responsible and may be ineligible for Contract award. Offerors that fail to meet the DBE goal, if any, specified in the solicitation and fail to demonstrate a good faith effort and/or to justify waiver of the DBE goal, may be deemed to be not responsible and may be ineligible for contract award.

8. CONTRACT ADMINISTRATION REQUIREMENTS:

The following requirements apply after Contract award:

- A. The Contractor shall include the following provision in each subcontract it awards in support of the DBE goal:

“The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, that may result in termination of this Contract or such other remedy as the Authority deems appropriate.”

- B. (1) The Contractor shall monitor the performance of, collect and report data on DBE participation to the WMATA’s DBE Office on the attached “Prompt Payment Report-Prime Contractor’s Report” (Attachment B-6) which shall be submitted monthly with each payment request. Failure to submit these reports may result in suspension of Contract payments. The Contractor shall certify with each payment request that payment has been or will be made to all subcontractors due payment, within ten (10) days after receipt of payment from the Authority for work by that subcontractor. The Contractor shall inform the COR or COTR, with its payment request, of any situation where scheduled subcontractor payments have not been made and the reason therefore.
- (2) The Contractor shall require each subcontractor to complete and forward to the DBE Liaison Officer on a monthly basis a “Prompt Payment Report-Subcontractor’s Report” (Attachment B-7). The subcontractor shall certify that payment has been received.
- C. The Contractor shall have a continuing obligation to maintain a schedule for participation by DBE contractor(s) to meet its goal set forth above in this Appendix. The Contractor shall not have work performed nor the materials or supplies furnished by any individual or firm other than those named in the “Schedule of DBE Participation.” If at any time, the Contractor believes or has reason to believe that it needs to obtain a substitute for a DBE contractor named in the “Schedule of DBE Participation”, the Contractor shall, within ten (10) days, notify the Contracting Officer and the DBE office of that fact in writing. Situations which may warrant substitution for a DBE firm include, but are not limited to the following:
- (1) Evidence of change in ownership or circumstances regarding the firm’s status as a DBE.

- (2) Death or physical disability, if the named subcontractor or DBE partner of the joint venture is an individual.
- (3) Dissolution, if a corporation or partnership.
- (4) Bankruptcy of the subcontractor, subject to applicable bankruptcy law, and only instances where the bankruptcy affects the Contractor's ability to perform.
- (5) Inability to furnish a reasonable performance or payment bond, if required.
- (6) Inability to obtain, or loss of, a license necessary for the performance of the particular category of work.
- (7) Failure or inability to comply with a requirement of law applicable to contractors and subcontractors on a construction, alteration or repair project.
- (8) Failure or refusal to execute the subcontract in accordance with the terms of an offer submitted to the Contractor prior to the Contractor's submission of its offer, but only where the Contracting Officer or other delegated Authority representative can ascertain with reasonable certainty the terms of such offer. In the absence of any other factors, such a failure or refusal will be considered an unusual situation only if the offeror obtained, prior to bidding/proposing, an enforcement commitment from the subcontractor involved.
- (9) Failure to comply with the terms and conditions of this Contract or those of its subcontract or joint venture agreement.

Within thirty (30) days thereafter, the Contractor shall, if necessary to achieve the Appendix B goal, make every reasonable effort to subcontract the same or other work equivalent in value to other certified DBE firms. The Contractor must have the prior, written approval of the Contracting Officer and the DBE Office before substitution of a DBE subcontractor, regardless of the reason for substitution. Failure to obtain the Authority's approval could result in the Contractor's suspension or debarment.

- D. The Contractor shall forward copies of all subcontracts to the DBE Office at the time of their execution.
- E. If the Contracting Officer or other delegated Authority representative determines that the Contractor has failed to comply with this Appendix B, he/she will notify the Contractor of such noncompliance and the action to be taken. The Contractor shall, after receipt of such notice, take corrective action. If the Contractor fails or refuses to comply promptly, the Contracting Officer or other delegated Authority representative may issue a "stop work order" stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work order shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. When the Authority proceeds with such formal actions, it has the burden of proving that the Contractor has not met the requirements of this Appendix. The Contractor's failure to meet its Appendix B goal shall shift the burden to it to show that it has met the good faith requirements of this Appendix. After

exhausting all of its administrative and legal remedies, if the Contractor is found to have failed to exert a "good faith effort" to involve DBEs in the work, the Authority may suspend or debar the Contractor.

- F. The Contractor agrees to cooperate in any studies or surveys as may be conducted by the Authority which are necessary to determine the extent of the Contractor's compliance with this Appendix.
- G. The Contractor shall keep records and documents for two (2) years following performance of this Contract to indicate compliance with this Appendix. These records and documents, or copies thereof, shall be made available at reasonable times and places for inspection by any authorized representative of the Authority and will be submitted upon request, together with any other compliance information that such representative may require.
- H. If the Authority, FTA or the US DOT has reason to believe that any person or firm has willfully and knowingly provided incorrect information or made false statements regarding the DBE Program, the matter shall be referred to the WMATA's DBE office, and WMATA's Office of Inspector General (OIG).
- I. Failure by the Contractor to carry out the requirements of this Appendix is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems appropriate.

SUMMARY OF SUBMITTALS

With the Bid:

1. Completed "Schedule of DBE Participation" (Attachment B-1) with current certification letters attached for each listed DBE.
2. Executed "Letters of Intent to Perform as a Subcontractor/Joint Venture" (Attachment B-2).
3. Justification for grant of relief (waiver of DBE goal), if applicable. Include completed "DBE Unavailability Certifications" (Attachment B-3) as appropriate.

Bid Requirements (Apparent Low Bidder)

1. All DBEs must submit copies of their current WMATA or D.C. DOT certification letters or a certification letter issued by the MWUCP.
2. A DBE Manufacturer's Affidavit, if applicable, must be submitted in order to receive one hundred percent (100%) of the allowable credit for expenditures to DBE manufacturers/suppliers (Attachment B-4).
3. Schedule B Information for Determining Joint Venture Eligibility, if applicable (Attachment B-5, pgs. 1, 2, 3, 4).
4. Copy of Joint Venture Agreement, if applicable.
5. Certification letter of the DBE regular dealer/supplier, if applicable.

After Contract Award

1. "Prompt Payment Report-Prime Contractor's Report" Attachment B-6) – submitted monthly.
2. "Prompt Payment Report-Subcontractor's Report" (Attachment B-7) - submitted monthly.
3. Request to substitute DBE contractor (see paragraph 8.C.) – submitted as required.
4. Copies of subcontracts-submitted at the time of their execution.

SUBMIT WITH BID
SCHEDULE OF DBE PARTICIPATION

Contract No. _____

Project Name _____

Name of Bidder

The bidder shall complete this Schedule by identifying only those DBE firms, (with scope of work and price) who have agreed to perform work on this Contract. The prices shall be at an amount that is at least the DBE percentage goal for the total Contract. The offeror agrees to enter into a formal agreement with the DBE firm(s) listed for the work, at an amount equal to, or greater than, the prices listed in this Schedule, subject to award of a Contract with the Authority. If the total amount is less than the DBE percentage goal, a justification for waiver of DBE goal shall be attached to this Schedule.

| Name of DBE Subcontractor | Address | Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved | Agreed Price |
|---|---------|---|--------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Subtotal \$ DBE Subcontractors | | | |
| Name of DBE Prime Contractor | Address | Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved | Agreed Price |
| | | | |
| Subtotal \$ DBE Prime Contractor | | | |
| TOTAL \$ ALL DBE CONTRACTORS | | TOTAL | |

_____ **Signature of Contractor' Representative**

_____ **Title**

_____ **Date**



Contract Number: _____

Project Name: _____

**LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR/JOINT VENTURE
(ALL ITEMS MUST BE COMPLETED)**

TO: _____ (Name of Offeror)

The undersigned intends to perform work in connection with the above projects as (check one):

_____ An individual _____ A corporation
_____ A partnership _____ A joint venture

Specify in detail particular work items or parts thereof to be performed:

at the following price: \$

Please indicate _____ % of the dollar value of the subcontract that will be awarded to non-DBE contractors, if applicable. The undersigned will enter into a formal agreement with you for the above work upon your execution of a contract with the Authority.

_____ Name of DBE Subcontractor/Joint Venture _____ Phone Number

_____ Address _____ WMATA Vendor ID #/DBE Cert. #

_____ Signature & Title _____ Date

The following is to be completed by the Prime Contractor. A copy of this letter must be returned to the DBE subcontractor to indicate acceptance.

To: _____ (Name of DBE)

You have projected your interest and intent for such work, and the undersigned is projecting completion of such work as follows:

| WORK ITEMS | PROJECTED DBE COMMENCEMENT DATE | PROJECTED DBE COMPLETION DATE |
|---------------|---------------------------------------|-------------------------------------|
| _____ | _____ | _____ |

_____ (Date)

_____ (Name of Prime Contractor &
Acceptance Signature)

SUBMIT WITH BID

DBE UNAVAILABILITY CERTIFICATION

I, _____, _____, of _____
(Name) (Title) (Bidder)

certify that on _____ I contacted the following DBE contractor(s) to obtain offer(s) for work
(Date)
items to be performed on Contract Number _____

| DBE Contractor | Work Items Sought | Form of Bid Sought (i.e., Unit Price, Materials and Labor Only, Etc.) |
|----------------|-------------------|---|
| _____ | _____ | _____ |

To the best of my knowledge and belief, said DBE contractors were unavailable (exclusive of unavailability due to lack of agreement on price) for work on this project, or unable to prepare a bid, for the following reason(s):

Date: _____ Signature: _____

_____ was offered an opportunity to submit a bid on the above
(Name of DBE Contractor)

identified work on _____ by _____ . (Date)
(Source)

The above statement is true and accurate account of why I did not submit an offer on this project.

DBE Contractor) _____ (Signature of

(Title)
23.25 (Rev 10/99)



DBE Certification Instructions

Important Notice

If you do not have a current, official letter of certification from WMATA, D.C. DOT or MWUCP, you are not pre-certified and are therefore not eligible to participate as a Disadvantaged Business Enterprise on the bid.

For those who wish to access the MWUCP certification application, it may be found on the internet at the following address:

https://www.wmata.com/business/disadvantaged_business_enterprise. Go to "Procurement and Contracting", click on "Disadvantaged Business Enterprise", then click on "DBE Application for Certification".

49 CFR Part 26 gives Metropolitan Washington Unified Certification Program (MWUCP) ninety (90) days in which to process a complete DBE application. In order to become certified and participate in the MWUCP, you must comply with the procedures that follow. Certification must be final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.

Instructions

49 C.F.R. § 26.81(d) of the Certification Procedures requires a firm to be certified as a DBE in its "home state," where its principal place of business is located, in order to become certified outside such "home state". Therefore, you must attach to the MWUCP application, a copy of a valid DBE Certification letter from your home state's Department of Transportation. In addition, submit the pertinent documents for your company listed below. The application should be completed in full and NOTARIZED.

General (All firms must submit these documents.)

- Current (unaudited) Financial Statements;
- Prior three (3) years Federal Tax Returns;
- Resume of Principal(s) and Key Personnel;
- Third Party Agreements, such as Rental and Management Agreements;
- Licenses to Do Business;
- Personal Net Worth (PNW) Statement;
- Statement of Disadvantage;
- No Change Affidavit or Notice of Change (where applicable).

Corporations

- Articles of Incorporation;
- By-Laws;
- Copies of any Stock Options;
- Copies of Stock Certifications of Each Holder;
- Copies of Stockholders' Voting Rights;
- Record of First Organizational Meeting.

Partnerships

Partnership Agreement

Proprietorships

IRS Employer ID Number
WMATA Vendor ID#

Limited Liability Companies

Operating Agreement with any amendments;
Certificate of Formation, U.S. Income Tax Returns.

Change of Status Review

On or before each certification anniversary date, you must submit a No Change Statement attesting that there have been no changes in the firm's circumstances affecting its ability to meet the eligibility requirements of 49 CFR Part 26 or WMATA's DBE Program Plan. Firms with changed circumstances must submit a Notice Regarding Change for review by the DBE Office. A review of these changes shall be made to determine if the firm is in compliance with the 49 CFR Part 26.

Affidavit Enclosure

NOTE: When completing MWUCP Application, complete all information blocks. Type "N/A" if item does not apply to you or your firm.

DBE MANUFACTURER'S AFFIDAVIT

I hereby declare and affirm that I am _____ (Title)
and duly authorized representative of _____ (Name of Company),
a _____ owned and controlled enterprise
whose address is _____

I further declare and affirm that company employees (persons not on the payroll of and/or performing the same tasks for disadvantaged owned business having any interest in the affiant's business) operate the following company equipment relative to the manufacturing process:

Equipment

| Type | Function | Model | Age | Make |
|------|----------|-------|-----|------|
|------|----------|-------|-----|------|

Number of employees involved in the manufacturing process: _____

The undersigned swears that the foregoing statements are true and correct and fully understands that WMATA may rely on these statements in determining whether a WMATA prime contractor purchasing goods from the undersigned's manufacturing concern is entitled to a 100% credit of such purchases towards its DBE goal. The undersigned further understands that any material misrepresentation will be grounds for initiating action under Federal or state laws concerning false statements.

Signature of Affiant Printed Name

Date: _____ State: _____ County: _____

On this _____ day of _____, 19____,

before me appeared _____
(Name)

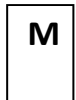
to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____
(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

23.29 (10/99)



Information for Determining Joint Venture Eligibility

Page 1

.....
Name and address of Joint Venture:

Contact Person: _____ Telephone: _____

Have you attached a copy of the Joint Venture agreement? Yes No

NOTE: Affidavit will not be processed without a copy of the Joint Venture agreement.
.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: DBE. Non-Minority.

Does firm have current WMATA, D.C. DOT or MWUCP DBE certification? Yes No
.....

Name and address of Joint Venture partner: _____

Contact Person: _____ Telephone: _____

Status of firm: DBE. Non-Minority.

Does firm have current WMATA, D.C. DOT or MWUCP DBE certification? Yes No
.....

Describe the nature of the Joint Venture's business:

Describe the role in the Joint Venture of each partner listed above:

Describe the experience and business qualifications of each partner in the Joint Venture listed above:
.....

Information for Determining Joint Venture Eligibility

Page 2

.....
Indicate the percentage of ownership in the Joint Venture for each Joint Venture partner, indicating dollar amounts wherever applicable.

| Name of Partner | Percentage of Ownership | Profit and Loss Sharing | Capital Contributions including Equipment | Other Agreements |
|-----------------|-------------------------|-------------------------|---|------------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

TOTALS:

.....
Identify by name, title, race, sex and company affiliation those individuals responsible for the management control of and participation in this contract:

1. Financial decisions, such as payroll, insurance, surety and/or bonding requirements:

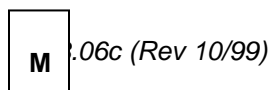
Name: _____ Race: _____
Title: _____ Sex: Male Female
Company affiliation: _____

2. Management decisions, such as estimating, marketing and sales, hiring and firing, purchasing supplies:

Name: _____ Race: _____
Title: _____ Sex: Male Female
Company affiliation: _____

3. Supervision of field operations:

Name: _____ Race: _____
Title: _____ Sex: Male Female
Company affiliation: _____



Information for Determining Joint Venture Eligibility

Page 3

.....
The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our following named Joint Venture:

.....
and the intended participation by each Joint Venturer in the undertaking. Further, the undersigned covenant and agree to provide the Authority current, complete and accurate information regarding actual Joint Venture work and the payment thereof and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of the Authority or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal and State laws concerning false statements.

It is recognized and acknowledged that the Authority's DBE Program shall have access to the information provided herein above for the purpose of establishing eligibility and authenticity of the minority/woman-owned status of the Joint Venture.

It is understood that trade secrets and information privileged by law, as well as commercial, financial, geological and geophysical data furnished will be protected.

| | |
|------------------------|------------------------|
| _____ | _____ |
| (NAME OF FIRM) | (NAME OF SECOND FIRM) |
| _____ | _____ |
| (SIGNATURE OF AFFIANT) | (SIGNATURE OF AFFIANT) |
| _____ | _____ |
| (PRINT NAME) | (PRINT NAME) |
| _____ | _____ |
| (TITLE) | (TITLE) |
| _____ | _____ |
| (DATE) | (DATE) |

.....
23.29 (10/99)

| |
|----------|
| M |
|----------|

Information for Determining Joint Venture Eligibility

Page 4

.....
Date: _____ State: _____ County: _____

On this _____ day of _____, 19____,

before me appeared _____
(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____
(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

.....
Date: _____ State: _____ County: _____

On this _____ day of _____, 19____,

before me appeared _____
(Name)

to me personally known, who, being duly sworn, did execute the foregoing Affidavit, and did state that he or she was properly authorized by _____
(Name of Firm)

to execute the Affidavit and did so as his or her free act and deed.

(Seal) Sworn and subscribed before me _____
(Notary Public)

Commission Expires: _____

.....

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| M |
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 23.06c (Rev 10/99)

Washington Metropolitan Area Transit Authority

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
 MONTHLY PROMPT PAYMENT REPORT**

PRIME – CONTRACTOR’S REPORT

This report is required to be submitted to the Office of Procurement, DBE Branch 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA’s DBE Program Plan and §26.29 of 49 CFR Part 26.

Contract No.: _____ Reporting Period: _____

Name of Prime Contractor: _____ DBE – Yes or No _____

Prime Contract Amount: _____ Total Received this Reporting Period: _____ Total Received to Date: _____
 DBE Goal _____

| Name of Sub-Contractor | DBE (Y/N) | Description of Work | Date of Contract Awarded | Amount of Sub-Contractor Award | Amount Paid This Reporting Period | Cumulative Paid To Sub-Contractor | % of Physical Work Complete |
|------------------------|-----------|---------------------|--------------------------|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------|
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| TOTAL | | | | | | | |

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status of the prime contractor with the DBE subcontractors for the designated period covered by this report. Further, those subcontractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from WMATA.

By: _____ Title: _____ Date: _____

Washington Metropolitan Area Transit Authority

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
 MONTHLY PROMPT PAYMENT REPORT**

SUBCONTRACTOR'S REPORT

This report is required to be submitted to WMATA's DBE Office, 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA's DBE Program Plan and 49 C.F.R. §26.29.

Contract No.: _____ Reporting Period: _____

Name of Subcontractor: _____ DBE – Yes or No

Subcontractor Contract Amount: _____ Total Received this Reporting Period: _____ Total Received to Date: _____

| Name of Sub-Contractor | DBE (Y/N) | Description of Work | Date of Contract Awarded | Amount of Sub-Contractor Award | Amount Paid This Reporting Period | Cumulative Paid To Sub-Contractor | % of Physical Work Complete |
|------------------------|-----------|---------------------|--------------------------|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| TOTAL | | | | | | | |

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status for the designated period covered by this report. Further, those contractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from the Contractor.

By: _____ Title: _____ Date: _____

APPENDIX C - AUTHORITY-FURNISHED PERMITS: NOT APPLICABLE

APPENDIX D - WAGE DETERMINATION OF THE SECRETARY OF LABOR

General Decision Number: DC170002 01/13/2017 DC2

Superseded General Decision Number: DC20160002

State: District of Columbia

Construction Type: Building

County: District of Columbia Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/06/2017 |
| 1 | 01/13/2017 |

ASBE0024-007 10/01/2016

| | Rates | Fringes |
|---|----------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR..... | \$ 35.03 | 15.32 |

Includes the application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems

ASBE0024-008 10/01/2016

| | Rates | Fringes |
|--|----------|---------|
| ASBESTOS WORKER: HAZARDOUS MATERIAL HANDLER..... | \$ 22.36 | 6.79 |

Includes preparation, wetting, stripping, removal, scrapping,

vacuuming, bagging and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems

ASBE0024-014 10/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| FIRESTOPPER..... | \$ 27.56 | 7.23 |

Includes the application of materials or devices within or around penetrations and openings in all rated wall or floor assemblies, in order to prevent the passage of fire, smoke of other gases. The application includes all components involved in creating the rated barrier at perimeter slab edges and exterior cavities, the head of gypsum board or concrete walls, joints between rated wall or floor components, sealing of penetrating items and blank openings.

BRDC0001-002 05/01/2016

| | Rates | Fringes |
|-----------------|----------|---------|
| BRICKLAYER..... | \$ 30.61 | 9.67 |

CARP0177-003 05/01/2016

| | Rates | Fringes |
|---|----------|---------|
| CARPENTER, Includes Drywall Hanging, Form Work, and Soft Floor Laying-Carpet..... | \$ 27.81 | 9.93 |

CARP0179-001 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| PILEDRIVERMAN..... | \$ 29.19 | 9.45 |

CARP0219-001 04/01/2016

| | Rates | Fringes |
|-----------------|----------|---------|
| MILLWRIGHT..... | \$ 32.04 | 9.93 |

* ELEC0026-016 11/07/2016

| | Rates | Fringes |
|--|----------|---------|
| ELECTRICIAN, Includes Installation of HVAC/Temperature Controls..... | \$ 44.15 | 16.47 |

ELEC0026-017 09/05/2016

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICAL INSTALLER (Sound & Communication Systems)..... | \$ 27.55 | 10.20 |

SCOPE OF WORK: Includes low voltage construction, installation, maintenance and removal of teledata facilities (voice, data and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, railroad communications, micro waves, VSAT, bypass, CATV, WAN (Wide area networks), LAN (Local area networks) and ISDN (Integrated systems digital network).

WORK EXCLUDED: The installation of computer systems in industrial applications such as assembly lines, robotics and computer controller manufacturing systems. The installation of conduit and/or raceways shall be installed by Inside Wiremen. On sites where there is no Inside Wireman employed, the Teledata Technician may install raceway or conduit not greater than 10 feet. Fire alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit. All HVAC control work.

 * ELEV0010-001 01/01/2017

| | Rates | Fringes |
|------------------------|----------|------------|
| ELEVATOR MECHANIC..... | \$ 42.79 | 31.585+a+b |

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day and the Friday after Thanksgiving.

b. VACATIONS: Employer contributes 8% of basic hourly rate for 5 years or more of service; 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

 IRON0005-005 06/01/2016

| | Rates | Fringes |
|--|----------|---------|
| IRONWORKER, STRUCTURAL AND ORNAMENTAL..... | \$ 30.85 | 19.435 |

 IRON0201-006 05/01/2016

| | Rates | Fringes |
|------------------------------|----------|---------|
| IRONWORKER, REINFORCING..... | \$ 27.90 | 19.13 |

 LABO0657-015 06/01/2015

| | Rates | Fringes |
|--|-------|---------|
|--|-------|---------|

LABORER: Skilled.....\$ 22.63 7.31

FOOTNOTE: Potmen, power tool operator, small machine operator, signalmen, laser beam operator, waterproofer, open caisson, test pit, underpinning, pier hole and ditches, ladders and all work associated with lagging that is not expressly stated, strippers, operator of hand derricks, vibrator operators, pipe layers, or tile layers, operators of jackhammers, paving breakers, spaders or any machine that does the same general type of work, carpenter tenders, scaffold builders, operators of towmasters, scootcretes, buggymobiles and other machines of similar character, operators of tampers and rammers and other machines that do the same general type of work, whether powered by air, electric or gasoline, builders of trestle scaffolds over one tier high and sand blasters, power and chain saw operators used in clearing, installers of well points, wagon drill operators, acetylene burners and licensed powdermen, stake jumper, demolition.

MARB0002-004 05/01/2016

| | Rates | Fringes |
|-------------------------|----------|---------|
| MARBLE/STONE MASON..... | \$ 35.91 | 16.17 |

INCLUDING pointing, caulking and cleaning of All types of masonry, brick, stone and cement EXCEPT pointing, caulking, cleaning of existing masonry, brick, stone and cement (restoration work)

MARB0003-006 05/01/2016

| | Rates | Fringes |
|-----------------------------|----------|---------|
| TERRAZZO WORKER/SETTER..... | \$ 27.25 | 10.68 |

MARB0003-007 05/01/2016

| | Rates | Fringes |
|------------------------|----------|---------|
| TERRAZZO FINISHER..... | \$ 22.46 | 9.75 |

MARB0003-008 05/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| TILE SETTER..... | \$ 27.25 | 10.68 |

MARB0003-009 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| TILE FINISHER..... | \$ 22.46 | 9.75 |

 PAIN0051-014 06/01/2014

| | Rates | Fringes |
|--|----------|---------|
| GLAZIER | | |
| Glazing Contracts \$2 million and under..... | \$ 24.77 | 9.85 |
| Glazing Contracts over \$2 million..... | \$ 28.61 | 9.85 |

 PAIN0051-015 06/01/2016

| | Rates | Fringes |
|--|----------|---------|
| PAINTER | | |
| Brush, Roller, Spray and Drywall Finisher..... | \$ 24.89 | 9.15 |

 PLAS0891-005 07/01/2013

| | Rates | Fringes |
|----------------|----------|---------|
| PLASTERER..... | \$ 28.33 | 5.85 |

 PLAS0891-006 02/01/2014

| | Rates | Fringes |
|------------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER.... | \$ 27.15 | 9.61 |

 PLAS0891-007 08/01/2016

| | Rates | Fringes |
|-----------------|----------|---------|
| FIREPROOFER | | |
| Handler..... | \$ 16.50 | 4.89 |
| Mixer/Pump..... | \$ 18.50 | 4.89 |
| Sprayer..... | \$ 23.00 | 4.89 |

Spraying of all Fireproofing materials. Hand application of Fireproofing materials. This includes wet or dry, hard or soft. Intumescent fireproofing and refraction work, including, but not limited to, all steel beams, columns, metal decks, vessels, floors, roofs, where ever fireproofing is required. Plus any installation of thermal and acoustical insulation. All that encompasses setting up for Fireproofing, and taken down. Removal of fireproofing materials and protection. Mixing of all materials either by hand or machine following manufactures standards.

 PLUM0005-010 10/01/2016

| | Rates | Fringes |
|--------------|----------|---------|
| PLUMBER..... | \$ 40.67 | 17.10+a |

a. PAID HOLIDAYS: Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving, Christmas Day, New Year's Day, Martin Luther King's Birthday, Memorial Day and the Fourth of July.

PLUM0602-008 11/01/2016

| | Rates | Fringes |
|---|----------|---------|
| PIPEFITTER, Includes HVAC Pipe Installation..... | \$ 39.89 | 20.52+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving and Christmas Day.

ROOF0030-016 05/01/2016

| | Rates | Fringes |
|-------------|----------|---------|
| ROOFER..... | \$ 28.75 | 11.74 |

SFDC0669-002 04/01/2016

| | Rates | Fringes |
|--|----------|---------|
| SPRINKLER FITTER (Fire Sprinklers)..... | \$ 33.40 | 18.52 |

SHEE0100-015 07/01/2016

| | Rates | Fringes |
|---|----------|---------|
| SHEET METAL WORKER (Including HVAC Duct Installation)..... | \$ 40.27 | 17.24+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day

SUDC2009-003 05/19/2009

| | Rates | Fringes |
|---|----------|---------|
| LABORER: Common or General..... | \$ 13.04 | 2.80 |
| LABORER: Mason Tender - Cement/Concrete..... | \$ 15.40 | 2.85 |

LABORER: Mason Tender for
pointing, caulking, cleaning
of existing masonry, brick,

stone and cement structures
(restoration work); excludes
pointing, caulking and
cleaning of new or
replacement masonry, brick,
stone and cement.....\$ 11.67

POINTER, CAULKER, CLEANER,
Includes pointing, caulking,
cleaning of existing masonry,
brick, stone and cement
structures (restoration
work); excludes pointing,
caulking, cleaning of new or
replacement
masonry, brick, stone or
cement.....\$ 18.88

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage
determination. The classifications are listed in alphabetical
order of "identifiers" that indicate whether the particular
rate is a union rate (current union negotiated rate for local),

a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current

negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

=====

General Decision Number: VA170013 01/13/2017 VA13

Superseded General Decision Number: VA20160013

State: Virginia

Construction Type: Building

County: Arlington County in Virginia.
Includes the independent city of Alexandria*

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/06/2017 |
| 1 | 01/13/2017 |

ASBE0024-006 10/01/2016

| | Rates | Fringes |
|---|----------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation)..... | \$ 35.03 | 15.32 |

ASBE0024-009 10/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| FIRESTOPPER..... | \$ 27.56 | 7.23 |

Includes the application of materials or devices within or around penetrations and openings in all rated wall or floor assemblies, in order to prevent the passage of fire, smoke

of other gases. The application includes all components involved in creating the rated barrier at perimeter slab edges and exterior cavities, the head of gypsum board or concrete walls, joints between rated wall or floor components, sealing of penetrating items and blank openings.

| | | |
|---|----------|---------|
| ----- | | |
| BOIL0045-003 01/01/2016 | | |
| | Rates | Fringes |
| BOILERMAKER..... | \$ 31.92 | 25.21 |
| ----- | | |
| BRDC0001-005 05/01/2016 | | |
| | Rates | Fringes |
| TILE FINISHER..... | \$ 22.46 | 9.76 |
| ----- | | |
| BRVA0001-008 05/01/2016 | | |
| | Rates | Fringes |
| BRICKLAYER..... | \$ 30.61 | 9.67 |
| ----- | | |
| BRVA0001-009 05/01/2016 | | |
| | Rates | Fringes |
| MASON - STONE..... | \$ 35.91 | 16.17 |
| ----- | | |
| * ELEC0026-003 11/07/2016 | | |
| | Rates | Fringes |
| ELECTRICIAN (Includes Low Voltage Wiring and Installation of Alarms and Sound and Communication Systems)..... | \$ 44.15 | 16.47 |
| ----- | | |
| IRON0005-010 06/01/2016 | | |
| | Rates | Fringes |
| IRONWORKER, STRUCTURAL AND ORNAMENTAL..... | \$ 30.85 | 19.435 |
| ----- | | |
| PAIN0051-034 06/01/2014 | | |
| | Rates | Fringes |
| GLAZIER..... | \$ 24.77 | 9.85 |
| ----- | | |
| PAIN0051-035 06/01/2014 | | |
| | Rates | Fringes |

PAINTER

Brush, Roller and Spray.....\$ 24.89 9.05

PAIN0051-036 06/01/2014

Rates Fringes

DRYWALL FINISHER/TAPER.....\$ 24.89 9.05

PLUM0005-014 10/01/2016

Rates Fringes

PLUMBER.....\$ 40.67 17.10+a

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's
Birthday, Memorial Day, Independence Day, Labor Day,
Veterans' Day, Thanksgiving Day and the day after
Thanksgiving and Christmas Day.

PLUM0602-016 11/01/2016

Rates Fringes

PIPEFITTER (Includes HVAC
Pipe, Unit and Temperature
Controls Installations).....\$ 39.89 20.52+a

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's
Birthday, Memorial Day, Independence Day, Labor Day,
Veterans' Day, Thanksgiving Day and the day after
Thanksgiving and Christmas Day.

* SFVA0669-006 01/01/2017

Rates Fringes

SPRINKLER FITTER (Fire
Sprinklers).....\$ 33.40 19.52

SHEE0100-004 07/01/2016

Rates Fringes

SHEET METAL WORKER (Includes
HVAC Duct Installation).....\$ 40.27 17.24+a

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's
Birthday, Memorial Day, Independence Day, Labor Day,
Veterans Day, Thanksgiving Day and Christmas Day

SUVA2013-025 01/11/2016

| | Rates | Fringes |
|---|----------|---------|
| BRICK POINTER/CAULKER/CLEANER.... | \$ 19.68 | 0.00 |
| CARPENTER, Includes Acoustical Ceiling Installation, Drywall Hanging, and Form Work..... | \$ 23.36 | 5.20 |
| CEMENT MASON/CONCRETE FINISHER... | \$ 21.94 | 3.36 |
| FLOOR LAYER: SOFT FLOORS..... | \$ 18.75 | 0.00 |
| IRONWORKER, REINFORCING..... | \$ 27.46 | 8.71 |
| LABORER: Common or General, including brick mason tending and cement mason tending..... | \$ 15.55 | 2.44 |
| LABORER: Pipelayer..... | \$ 16.81 | 4.26 |
| OPERATOR: Backhoe/Excavator/Trackhoe..... | \$ 23.50 | 4.50 |
| OPERATOR: Bobcat/Skid Steer/Skid Loader..... | \$ 18.95 | 4.03 |
| OPERATOR: Bulldozer..... | \$ 21.99 | 4.98 |
| OPERATOR: Crane..... | \$ 30.45 | 4.14 |
| OPERATOR: Forklift..... | \$ 21.56 | 7.57 |
| OPERATOR: Loader..... | \$ 22.26 | 3.57 |
| OPERATOR: Roller..... | \$ 16.25 | 4.88 |
| ROOFER..... | \$ 15.83 | 3.06 |
| TILE FINISHER..... | \$ 23.40 | 0.00 |
| TILE SETTER..... | \$ 27.80 | 10.25 |
| TRUCK DRIVER: Dump Truck..... | \$ 19.22 | 2.58 |
| WATERPROOFER..... | \$ 21.75 | 1.57 |

 WELDERS - Receive rate prescribed for craft performing
 operation to which welding is incidental.

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 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
 for Federal Contractors applies to all contracts subject to the
 Davis-Bacon Act for which the contract is awarded (and any
 solicitation was issued) on or after January 1, 2017. If this

contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the

Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

General Decision Number: VA170189 01/13/2017 VA189

Superseded General Decision Number: VA20160189

State: Virginia

Construction Type: Building

County: Fairfax County in Virginia.

Includes the independent cities of Fairfax* and Falls Church*

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/06/2017 |
| 1 | 01/13/2017 |

ASBE0024-006 10/01/2016

| | Rates | Fringes |
|---|----------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation)..... | \$ 35.03 | 15.32 |

ASBE0024-009 10/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| FIRESTOPPER..... | \$ 27.56 | 7.23 |

Includes the application of materials or devices within or around penetrations and openings in all rated wall or floor assemblies, in order to prevent the passage of fire, smoke of other gases. The application includes all components involved in creating the rated barrier at perimeter slab edges and exterior cavities, the head of gypsum board or concrete walls, joints between rated wall or floor components, sealing of penetrating items and blank openings.

 BOIL0045-003 01/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| BOILERMAKER..... | \$ 31.92 | 25.21 |

 BRDC0001-005 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| TILE FINISHER..... | \$ 22.46 | 9.76 |

 BRVA0001-009 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| MASON - STONE..... | \$ 35.91 | 16.17 |

 BRVA0001-010 05/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| TILE SETTER..... | \$ 27.25 | 10.68 |

 * ELEC0026-003 11/07/2016

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICIAN (Includes Low Voltage Wiring and Installation of Alarms and Sound and Communication Systems)..... | \$ 44.15 | 16.47 |

 IRON0005-010 06/01/2016

| | Rates | Fringes |
|--|----------|---------|
| IRONWORKER, STRUCTURAL AND ORNAMENTAL..... | \$ 30.85 | 19.435 |

 IRON0201-002 05/01/2016

| | Rates | Fringes |
|------------------------------|----------|---------|
| IRONWORKER, REINFORCING..... | \$ 27.90 | 19.13 |

PAIN0051-034 06/01/2014

| | Rates | Fringes |
|--------------|----------|---------|
| GLAZIER..... | \$ 24.77 | 9.85 |

PAIN0051-035 06/01/2014

| | Rates | Fringes |
|---|----------|---------|
| PAINTER Brush, Roller and Spray..... | \$ 24.89 | 9.05 |

PLUM0005-014 10/01/2016

| | Rates | Fringes |
|--------------|----------|---------|
| PLUMBER..... | \$ 40.67 | 17.10+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving and Christmas Day.

PLUM0602-016 11/01/2016

| | Rates | Fringes |
|---|----------|---------|
| PIPEFITTER (Includes HVAC Pipe, Unit and Temperature Controls Installations)..... | \$ 39.89 | 20.52+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving and Christmas Day.

* SFVA0669-006 01/01/2017

| | Rates | Fringes |
|---|----------|---------|
| SPRINKLER FITTER (Fire Sprinklers)..... | \$ 33.40 | 19.52 |

SHEE0100-004 07/01/2016

| | Rates | Fringes |
|---|----------|---------|
| SHEET METAL WORKER (Includes HVAC Duct Installation)..... | \$ 40.27 | 17.24+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day

SUVA2013-034 01/11/2016

| | Rates | Fringes |
|---|----------|---------|
| BRICK POINTER/CAULKER/CLEANER.... | \$ 19.68 | 0.00 |
| BRICKLAYER..... | \$ 23.67 | 0.00 |
| CARPENTER, Includes Acoustical Ceiling Installation, Drywall Hanging, and Form Work..... | \$ 23.34 | 5.04 |
| CEMENT MASON/CONCRETE FINISHER... | \$ 24.69 | 5.55 |
| DRYWALL FINISHER/TAPER..... | \$ 25.53 | 7.86 |
| FLOOR LAYER: SOFT FLOORS..... | \$ 18.75 | 0.00 |
| LABORER: Common or General, including brick mason tending and cement mason tending..... | \$ 15.74 | 3.43 |
| LABORER: Pipelayer..... | \$ 16.81 | 4.26 |
| OPERATOR: Backhoe/Excavator/Trackhoe..... | \$ 21.81 | 0.00 |
| OPERATOR: Bobcat/Skid Steer/Skid Loader..... | \$ 18.95 | 4.03 |
| OPERATOR: Bulldozer..... | \$ 21.99 | 4.98 |
| OPERATOR: Crane..... | \$ 32.52 | 2.64 |
| OPERATOR: Forklift..... | \$ 21.56 | 7.57 |
| OPERATOR: Loader..... | \$ 22.26 | 3.57 |
| OPERATOR: Roller..... | \$ 16.25 | 4.88 |
| ROOFER..... | \$ 21.55 | 7.01 |
| TILE FINISHER..... | \$ 23.40 | 0.00 |
| TRUCK DRIVER: Dump Truck..... | \$ 19.22 | 2.58 |
| WATERPROOFER..... | \$ 21.75 | 1.57 |

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave

for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: MD170057 01/13/2017 MD57

Superseded General Decision Number: MD20160057

State: Maryland

Construction Type: Building

County: Montgomery County in Maryland.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/06/2017 |
| 1 | 01/13/2017 |

ASBE0024-007 10/01/2016

| | Rates | Fringes |
|--|----------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR..... | \$ 35.03 | 15.32 |

Includes the application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems

ASBE0024-010 10/01/2016

| | Rates | Fringes |
|---|----------|---------|
| ASBESTOS WORKER: HAZARDOUS MATERIAL HANDLER (Removal of hazardous material from ceilings, floors, mechanical systems, and walls)..... | \$ 22.36 | 6.79 |

BRMD0001-006 05/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| TILE SETTER..... | \$ 27.25 | 10.68 |

BRMD0001-009 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| TILE FINISHER..... | \$ 22.46 | 9.76 |

BRMD0001-011 05/01/2016

| | Rates | Fringes |
|---|----------|---------|
| BRICKLAYER (Excluding Pointing, Caulking and Cleaning)..... | \$ 30.61 | 9.70 |

BRMD0001-012 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| MASON - STONE..... | \$ 35.91 | 16.17 |

CARP0177-011 05/01/2016

| | Rates | Fringes |
|--|----------|---------|
| CARPENTER (Including Acoustical Ceiling Installation, Drywall Hanging, Metal Stud Installation and Form Work)..... | \$ 27.81 | 9.93 |

CARP0219-001 04/01/2016

| | Rates | Fringes |
|-----------------|----------|---------|
| MILLWRIGHT..... | \$ 32.04 | 9.93 |

ELEC0026-021 09/05/2016

| | Rates | Fringes |
|----------------------------|-------|---------|
| ELECTRICIAN (Communication | | |

and Sound Equipment).....\$ 27.55 10.20

* ELEC0026-022 11/07/2016

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICIAN (Including low voltage wiring for and installation of alarms, HVAC controls)..... | \$ 44.15 | 16.47+a |

a. PAID HOLIDAYS: New Year's Day, Inauguration Day, Martin Luther King Jr.'s Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the day after Thanksgiving Day and Christmas Day.

* ELEV0010-001 01/01/2017

| | Rates | Fringes |
|------------------------|----------|------------|
| ELEVATOR MECHANIC..... | \$ 42.79 | 31.585+a+b |

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day and the Friday after Thanksgiving.

b. VACATIONS: Employer contributes 8% of basic hourly rate for 5 years or more of service; 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

ENGI0077-018 05/01/2013

| | Rates | Fringes |
|---|----------|---------|
| OPERATOR: Bulldozer..... | \$ 31.65 | 8.45+a |
| OPERATOR: Loader Front End Loaders 3 1/2 cubic yards and above..... | \$ 32.40 | 8.45+a |
| Front End Loaders Below 3 1/2 cubic yards..... | \$ 31.65 | 8.45+a |

a. PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day.

IRON0005-005 06/01/2016

| | Rates | Fringes |
|---|----------|---------|
| IRONWORKER, STRUCTURAL AND ORNAMENTAL..... | \$ 30.85 | 19.435 |

IRON0201-006 05/01/2016

| | Rates | Fringes |
|--|----------|---------|
| IRONWORKER, REINFORCING..... | \$ 27.90 | 19.13 |
| ----- | | |
| LABO0657-017 06/01/2015 | | |
| | Rates | Fringes |
| LABORER: Mason Tender - Cement/Concrete..... | \$ 22.63 | 7.31 |
| LABORER: Pipelayer..... | \$ 22.63 | 7.31 |
| ----- | | |
| PAIN0051-014 06/01/2014 | | |
| | Rates | Fringes |
| GLAZIER Glazing Contracts \$2 million and under..... | \$ 24.77 | 9.85 |
| Glazing Contracts over \$2 million..... | \$ 28.61 | 9.85 |
| ----- | | |
| PAIN0051-019 06/01/2016 | | |
| | Rates | Fringes |
| PAINTER Brush, Roller, Spray and Drywall Finisher/Taper..... | \$ 24.89 | 9.15 |
| Industrial..... | \$ 30.70 | 9.55 |
| ----- | | |
| PLAS0891-005 07/01/2013 | | |
| | Rates | Fringes |
| PLASTERER..... | \$ 28.33 | 5.85 |
| ----- | | |
| PLAS0891-006 02/01/2014 | | |
| | Rates | Fringes |
| CEMENT MASON/CONCRETE FINISHER... | \$ 27.15 | 9.61 |
| ----- | | |
| PLAS0891-008 08/01/2016 | | |
| | Rates | Fringes |
| PLASTERER (Fireproofing Including Sprayer, Mixer, and Handler) Handler..... | \$ 16.50 | 4.89 |
| Mixer/Pump..... | \$ 18.50 | 4.89 |
| Sprayer..... | \$ 23.00 | 4.89 |
| ----- | | |
| PLUM0005-010 10/01/2016 | | |

| | Rates | Fringes |
|--------------|----------|---------|
| PLUMBER..... | \$ 40.67 | 17.10+a |

a. PAID HOLIDAYS: Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving, Christmas Day, New Year's Day, Martin Luther King's Birthday, Memorial Day and the Fourth of July.

 PLUM0602-011 11/01/2016

| | Rates | Fringes |
|--|----------|---------|
| PIPEFITTER (Including HVAC Pipe and System Installation).... | \$ 39.89 | 20.52+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving and Christmas Day.

 ROOF0030-016 05/01/2016

| | Rates | Fringes |
|-------------|----------|---------|
| ROOFER..... | \$ 28.75 | 11.74 |

 * SFMD0669-001 01/01/2017

| | Rates | Fringes |
|---|----------|---------|
| SPRINKLER FITTER (Fire Sprinklers)..... | \$ 33.40 | 19.07 |

 SHEE0100-015 07/01/2016

| | Rates | Fringes |
|--|----------|---------|
| SHEET METAL WORKER (Including HVAC Duct Installation)..... | \$ 40.27 | 17.24+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day

 SUMD2010-091 08/04/2010

| | Rates | Fringes |
|---------------------------|----------|---------|
| LABORER | | |
| Common or General..... | \$ 14.15 | 2.30 |
| Grade Checker..... | \$ 16.00 | 2.90 |
| Landscape..... | \$ 9.23 | |
| Mason Tender - Brick..... | \$ 13.00 | 0.00 |

| | | |
|--|----------|------|
| Mason Tender - Stone..... | \$ 14.03 | 0.00 |
| Mason Tender for Pointing, Caulking and Cleaning..... | \$ 13.21 | |
| Mortar Mixer..... | \$ 16.61 | 9.08 |
| POINTER, CAULKER, CLEANER, Includes pointing, caulking, cleaning of existing masonry, brick, stone and cement structures (restoration work); excludes pointing, caulking, cleaning of new or replacement masonry, brick, stone or cement..... | | |
| | \$ 19.19 | 0.00 |
| POWER EQUIPMENT OPERATOR: | | |
| Asphalt Roller..... | \$ 21.35 | 5.38 |
| Backhoe..... | \$ 19.82 | 5.02 |
| Bobcat/Skid Loader..... | \$ 18.05 | 8.78 |
| Boom..... | \$ 21.44 | 8.29 |
| Crane..... | \$ 20.95 | 6.18 |
| Excavator..... | \$ 20.00 | 0.00 |
| Forklift..... | \$ 16.00 | 5.12 |
| Gradall..... | \$ 20.50 | 8.42 |
| Grader/Blade..... | \$ 14.50 | 5.18 |
| Paver..... | \$ 17.47 | 6.36 |
| Roller excluding Asphalt.... | \$ 17.60 | 3.88 |
| TERRAZZO WORKER/SETTER..... | \$ 19.94 | 6.54 |
| TRUCK DRIVER | | |
| Dump Truck..... | \$ 15.90 | 1.12 |
| Tractor Haul Truck..... | \$ 17.87 | 9.98 |

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO

is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: MD170058 01/13/2017 MD58

Superseded General Decision Number: MD20160058

State: Maryland

Construction Type: Building

County: Prince George's County in Maryland.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/06/2017 |
| 1 | 01/13/2017 |

ASBE0024-007 10/01/2016

| | Rates | Fringes |
|---|----------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR..... | \$ 35.03 | 15.32 |

Includes the application of all insulating materials, protective coverings, coatings and finishes to all types of

mechanical systems

 ASBE0024-010 10/01/2016

| | Rates | Fringes |
|---|----------|---------|
| ASBESTOS WORKER: HAZARDOUS MATERIAL HANDLER (Removal of hazardous material from ceilings, floors, mechanical systems, and walls)..... | \$ 22.36 | 6.79 |

 BRMD0001-006 05/01/2016

| | Rates | Fringes |
|------------------|----------|---------|
| TILE SETTER..... | \$ 27.25 | 10.68 |

 BRMD0001-011 05/01/2016

| | Rates | Fringes |
|---|----------|---------|
| BRICKLAYER (Excluding Pointing, Caulking and Cleaning)..... | \$ 30.61 | 9.70 |

 BRMD0001-012 05/01/2016

| | Rates | Fringes |
|--------------------|----------|---------|
| MASON - STONE..... | \$ 35.91 | 16.17 |

 BRMD0001-013 05/01/2016

| | Rates | Fringes |
|-----------------------------|----------|---------|
| TERRAZZO WORKER/SETTER..... | \$ 27.25 | 10.68 |

 CARP0177-011 05/01/2016

| | Rates | Fringes |
|--|----------|---------|
| CARPENTER (Including Acoustical Ceiling Installation, Drywall Hanging, Metal Stud Installation and Form Work)..... | \$ 27.81 | 9.93 |

 CARP0219-001 04/01/2016

| | Rates | Fringes |
|-----------------|----------|---------|
| MILLWRIGHT..... | \$ 32.04 | 9.93 |

 ELEC0026-021 09/05/2016

| | Rates | Fringes |
|--|----------|---------|
| ELECTRICIAN (Communication and Sound Equipment)..... | \$ 27.55 | 10.20 |

 * ELEC0026-022 11/07/2016

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICIAN (Including low voltage wiring for and installation of alarms, HVAC controls)..... | \$ 44.15 | 16.47+a |

a. PAID HOLIDAYS: New Year's Day, Inauguration Day, Martin Luther King Jr.'s Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the day after Thanksgiving Day and Christmas Day.

 * ELEV0010-001 01/01/2017

| | Rates | Fringes |
|------------------------|----------|------------|
| ELEVATOR MECHANIC..... | \$ 42.79 | 31.585+a+b |

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day and the Friday after Thanksgiving.

b. VACATIONS: Employer contributes 8% of basic hourly rate for 5 years or more of service; 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

 ENGI0077-017 05/01/2013

| | Rates | Fringes |
|---------------------------|----------|---------|
| POWER EQUIPMENT OPERATOR: | | |
| Backhoe..... | \$ 32.40 | 8.45+a |
| Bulldozer..... | \$ 31.65 | 8.45+a |

a. PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day.

 IRON0005-005 06/01/2016

| | Rates | Fringes |
|--|----------|---------|
| IRONWORKER, STRUCTURAL AND ORNAMENTAL..... | \$ 30.85 | 19.435 |

 IRON0201-006 05/01/2016

| | Rates | Fringes |
|------------------------------|----------|---------|
| IRONWORKER, REINFORCING..... | \$ 27.90 | 19.13 |

 LABO0657-021 06/01/2015

| | Rates | Fringes |
|----------------------------------|----------|---------|
| LABORER (Common or General)..... | \$ 14.93 | 7.31 |
| LABORER: Mason Tender - | | |
| Cement/Concrete..... | \$ 22.63 | 7.31 |
| LABORER: Pipelayer..... | \$ 22.63 | 7.31 |

 PAIN0051-014 06/01/2014

| | Rates | Fringes |
|--|----------|---------|
| GLAZIER | | |
| Glazing Contracts \$2 million and under..... | \$ 24.77 | 9.85 |
| Glazing Contracts over \$2 million..... | \$ 28.61 | 9.85 |

 PAIN0051-019 06/01/2016

| | Rates | Fringes |
|--|----------|---------|
| PAINTER | | |
| Brush, Roller, Spray and Drywall Finisher/Taper..... | \$ 24.89 | 9.15 |
| Industrial..... | \$ 30.70 | 9.55 |

 PLAS0891-005 07/01/2013

| | Rates | Fringes |
|----------------|----------|---------|
| PLASTERER..... | \$ 28.33 | 5.85 |

 PLAS0891-006 02/01/2014

| | Rates | Fringes |
|-----------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER... | \$ 27.15 | 9.61 |

 PLAS0891-008 08/01/2016

| | Rates | Fringes |
|--|----------|---------|
| PLASTERER (Fireproofing Including Sprayer, Mixer, and Handler) | | |
| Handler..... | \$ 16.50 | 4.89 |
| Mixer/Pump..... | \$ 18.50 | 4.89 |
| Sprayer..... | \$ 23.00 | 4.89 |

 PLUM0005-010 10/01/2016

| | Rates | Fringes |
|--------------|----------|---------|
| PLUMBER..... | \$ 40.67 | 17.10+a |

a. PAID HOLIDAYS: Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving, Christmas Day, New Year's Day, Martin Luther King's Birthday, Memorial Day and the Fourth of July.

PLUM0602-011 11/01/2016

| | Rates | Fringes |
|---|----------|---------|
| PIPEFITTER (Including HVAC Pipe and System Installation).... | \$ 39.89 | 20.52+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving and Christmas Day.

ROOF0030-016 05/01/2016

| | Rates | Fringes |
|-------------|----------|---------|
| ROOFER..... | \$ 28.75 | 11.74 |

* SFMD0669-001 01/01/2017

| | Rates | Fringes |
|--|----------|---------|
| SPRINKLER FITTER (Fire Sprinklers)..... | \$ 33.40 | 19.07 |

SHEE0100-015 07/01/2016

| | Rates | Fringes |
|---|----------|---------|
| SHEET METAL WORKER (Including HVAC Duct Installation)..... | \$ 40.27 | 17.24+a |

a. PAID HOLIDAYS: New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day

SUMD2010-092 08/04/2010

| | Rates | Fringes |
|---------------------------|----------|---------|
| LABORER | | |
| Grade Checker..... | \$ 16.00 | 2.90 |
| Landscape..... | \$ 9.23 | 0.00 |
| Mason Tender - Brick..... | \$ 13.28 | 2.95 |

| | | |
|----------------------------|----------|------|
| Mason Tender - Stone..... | \$ 14.03 | 0.00 |
| Mason Tender for Pointing, | | |
| Caulking and Cleaning..... | \$ 14.15 | 0.00 |
| Mortar Mixer..... | \$ 16.61 | 9.08 |

POINTER, CAULKER, CLEANER,
 Includes pointing, caulking,
 cleaning of existing masonry,
 brick, stone and cement
 structures (restoration
 work); excludes pointing,
 caulking, cleaning of new or
 replacement
 masonry, brick, stone or
 cement.....\$ 19.14

POWER EQUIPMENT OPERATOR:

| | | |
|------------------------------|----------|------|
| Asphalt Roller..... | \$ 21.35 | 5.38 |
| Bobcat/Skid Loader..... | \$ 18.05 | 8.78 |
| Boom..... | \$ 21.44 | 8.29 |
| Crane..... | \$ 20.95 | 6.18 |
| Excavator..... | \$ 20.00 | 0.00 |
| Forklift..... | \$ 16.00 | 5.12 |
| Gradall..... | \$ 20.50 | 8.42 |
| Grader/Blade..... | \$ 14.50 | 5.18 |
| Loader..... | \$ 24.00 | 5.40 |
| Paver..... | \$ 17.47 | 6.36 |
| Roller excluding Asphalt.... | \$ 17.60 | 3.88 |

TILE FINISHER.....\$ 17.87 7.32

TRUCK DRIVER

| | | |
|-------------------------|----------|------|
| Dump Truck..... | \$ 15.90 | 1.12 |
| Tractor Haul Truck..... | \$ 17.87 | 9.98 |

 WELDERS - Receive rate prescribed for craft performing
 operation to which welding is incidental.

=====
 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
 for Federal Contractors applies to all contracts subject to the
 Davis-Bacon Act for which the contract is awarded (and any
 solicitation was issued) on or after January 1, 2017. If this
 contract is covered by the EO, the contractor must provide
 employees with 1 hour of paid sick leave for every 30 hours
 they work, up to 56 hours of paid sick leave each year.
 Employees must be permitted to use paid sick leave for their
 own illness, injury or other health-related needs, including
 preventive care; to assist a family member (or person who is
 like family to the employee) who is ill, injured, or has other
 health-related needs, including preventive care; or for reasons
 resulting from, or to assist a family member (or person who is
 like family to the employee) who is a victim of, domestic
 violence, sexual assault, or stalking. Additional information
 on contractor requirements and worker protections under the EO

is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

SECTION 00011
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- 01117 Construction Tasks Details
- 01141 Access to Site

01300 Administrative Requirements

- 01312 Project Meetings
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- 01711 Acceptance of Conditions
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Attachments

- 1.) ADA Key and New Station Checklist
- 2.) MSDS Review Request Form
- 3.) Cost Estimate Worksheet
- 4.) Site Specific Work Plan Template
- 5.) Kiosk AFC Patch Panel Port ID Layout
- 6.) IT-AFC Equipment Labeling Conventions
- 7.) WMATA Department of Information Technology Network and Communications Services Infrastructure Design and Wiring Standards

END OF SECTION

SECTION 01100 SUMMARY

SECTION 01110 SUMMARY OF WORK

PART 1 – GENERAL

1.1. SUMMARY

- A. Contractor shall furnish and install new electrical and data cables to support fare collection equipment and systems. The work includes the installation of new under-floor duct (U/F) and conduit raceways, electrical cabling circuits, and data cables at station mezzanines on the Red, Orange/Blue and Green/Yellow lines in Maryland, Virginia, and Washington, DC.

Contractor deliverables include:

1. Cost-Loaded Project Schedule
 2. Four-Week Look-Ahead Schedule updated weekly
 3. Daily Work Plan
 4. Safety Plan and Site-Specific Work Plan (SSWP)
 5. Project QA/QC Plan
 6. Installation Work Plan (new raceway locations)
 7. Power Cable Test Results
 8. Data Cable Test Results
 9. As-Built Mezzanine Schematics
- B. The Contractor shall provide all necessary labor, supervision, material, supplies, tools, product, equipment, power generators, storage, cleaning equipment, transportation, and all other items needed to satisfactorily complete the projects.
- C. The finished products shall function and be installed as fully-compatible with the existing WMATA system.
- D. The work performed as part of this solicitation will not require track access rights.
- E. The following tasks will be performed as part of this solicitation:

| Task | Task Summary |
|-------------|---|
| 1 | Installation of Under-Floor Duct (Electrical) to electrical room |
| 2 | Installation of Exposed Conduit |
| 3 | Installation of Faregate Array U/F Duct (Data) |
| 4 | Installation of Faregate Array Under-Floor Duct (Electrical) |
| 5 | New CAT6 Cable Installation, Termination (both ends) and Testing |
| 6 | Existing CAT6 Cable Termination (both ends) and Testing |
| 7 | Installation and Termination of Electrical Circuit Cables |
| 8 | Installation, Termination, and Testing of Fiber Optic Cables from Kiosk to Mini-Mezzanine and Installation CAT6 cables between Mini-Mezzanine Devices |
| 9 | Re-pulling, Termination and Testing of existing but defective CAT6 cables between Kiosk and Fare Collection Equipment that fail testing |

The following tables identify the tasks that will be performed at each mezzanine:

| SUMMARY OF WORK TASK NUMBERS - ORANGE/BLUE LINES | | | | | | | | | | | | |
|--|-----------------------------------|------------|---------|---|---|---|---|---|---|---|---|---|
| | STATION NAME (MEZZANINE) | STATION ID | MEZZ ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | METRO CENTER (NORTH MEZZANINE) | C01 | 035 | | | | | X | | | | |
| 2 | METRO CENTER (SOUTH MEZZANINE) | C01 | 052 | | | | | X | | | | |
| 3 | MCPHERSON SQUARE (EAST MEZZANINE) | C02 | 036 | | | | | X | X | X | | |
| 4 | MCPHERSON SQUARE (WEST MEZZANINE) | C02 | 037 | | | | | X | X | X | | |
| 5 | FARRAGUT WEST (EAST MEZZANINE) | C03 | 038 | X | | | | X | X | X | | |
| 6 | FOGGY BOTTOM-GWU | C04 | 040 | | X | | | X | X | X | | |
| 7 | ROSSLYN | C05 | 041 | | | | | X | X | X | | |
| 8 | ROSSLYN (SIDE/NEW ENTRANCE) | C05 | 113 | | | | | X | X | X | | |
| 9 | ARLINGTON CEMETERY | C06 | 042 | | | | | X | X | X | | |
| 10 | ARLINGTON CEMETERY (PLATFORM) | C06 | 042M | | | | | X | | | X | |
| 11 | FEDERAL TRIANGLE | D01 | 053 | | X | X | | X | X | X | | |
| 12 | SMITHSONIAN (NORTH MEZZANINE) | D02 | 054 | | | | | X | X | X | | |
| 13 | SMITHSONIAN (SOUTH MEZZANINE) | D02 | 055 | | | | | X | X | X | | |
| 14 | SMITHSONIAN (EASTBOUND PLATFORM) | D02 | 055M | | | | | X | | | X | |
| 15 | L'ENFANT PLAZA (WEST MEZZANINE) | D03 | 056 | | X | | | X | X | X | | |
| 16 | L'ENFANT PLAZA (EAST MEZZANINE) | D03 | 057 | | | | | X | X | X | | |
| 17 | FEDERAL CENTER SW | D04 | 058 | X | X | X | | X | X | X | | |
| 18 | CAPITOL SOUTH | D05 | 059 | | X | | | X | X | X | | |
| 19 | EASTERN MARKET | D06 | 060 | | | | | X | X | X | | |
| 20 | POTOMAC AVENUE | D07 | 061 | | X | | | X | X | X | | |
| 21 | STADIUM-ARMORY (SOUTH MEZZANINE) | D08 | 062 | | | | | X | X | X | | |
| 22 | STADIUM-ARMORY (NORTH MEZZANINE) | D08 | 063 | | | | | X | X | X | | |
| 23 | MINNESOTA AVENUE | D09 | 064 | | | | | X | X | X | | |
| 24 | DEANWOOD | D10 | 065 | | | | | X | X | X | | |
| 25 | CHEVERLY | D11 | 066 | | | | | X | X | X | | |
| 26 | LANDOVER | D12 | 067 | | | | | X | X | X | | |
| 27 | NEW CARROLLTON | D13 | 068 | | X | | | X | X | X | | |
| 28 | BENNING ROAD | G01 | 090 | | | | | X | X | X | | |
| 29 | CAPITOL HEIGHTS | G02 | 091 | | X | X | | X | X | X | | |
| 30 | ADDISON ROAD | G03 | 092 | | | X | | X | X | X | | |
| 31 | MORGAN BOULEVARD | G04 | 110 | | | X | | X | X | X | | |
| 32 | LARGO TOWN CENTER | G05 | 111 | | | X | | X | X | X | | |
| 33 | VAN DORN STREET | J02 | 094 | | | | | X | X | X | | |
| 34 | FRANCONIA-SPRINGFIELD | J03 | 095 | | | | | X | X | X | | |
| 35 | COURT HOUSE | K01 | 096 | | | | | X | X | X | | |
| 36 | CLARENDON | K02 | 097 | | X | | | X | X | X | | |
| 37 | VIRGINIA SQUARE | K03 | 098 | | | | | X | X | X | | |
| 38 | EAST FALLS CHURCH | K05 | 100 | | | | | X | X | X | | |
| 39 | WEST FALLS CHURCH | K06 | 101 | | X | | | X | X | X | | |
| 40 | DUNN LORING | K07 | 102 | | X | | | X | X | X | | |
| 41 | VIENNA | K08 | 103 | | X | X | | X | X | X | | |

AS NEEDED

AS NEEDED

| SUMMARY OF WORK TASK NUMBERS - GREEN/YELLOW LINES | | | | | | | | | | | | |
|---|--------------------------------------|------------|---------|---|---|---|---|---|---|---|---|---|
| | STATION NAME (MEZZANINE) | STATION ID | MEZZ ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 42 | CRYSTAL CITY | C09 | 045 | | | | | X | X | X | | |
| 43 | REAGAN NATIONAL AIRPORT (SOUTH MEZZ) | C10 | 046 | | | | | X | X | X | | |
| 44 | REAGAN NATIONAL AIRPORT (NORTH MEZZ) | C10 | 093 | | | | | X | X | X | | |
| 45 | REAGAN NATIONAL AIRPORT (MINI MEZZ) | C10 | 093M | | | | | X | | | | X |
| 46 | BRADDOCK ROAD | C12 | 047 | | X | | | X | X | X | | |
| 47 | KING STREET-OLD TOWN (SOUTH MEZZ) | C13 | 048 | X | X | | | X | X | X | | |
| 48 | KING STREET-OLD TOWN (NEW ENTRANCE) | C13 | 048M | | | | | X | | | | X |
| 49 | KING STREET-OLD TOWN (NORTH MEZZ) | C13 | 112 | | | | | X | X | X | | |
| 50 | HUNTINGTON (NORTH MEZZANINE) | C15 | 050 | X | X | X | | X | X | X | | |
| 51 | HUNTINGTON (SOUTH MEZZANINE) | C15 | 051 | | | | | X | X | X | | |
| 52 | MOUNT VERNON SQUARE | E01 | 070 | | X | | | X | X | X | | |
| 53 | SHAW-HOWARD U (SOUTH MEZZANINE) | E02 | 071 | | | | | X | X | X | | |
| 54 | SHAW-HOWARD U (NORTH MEZZANINE) | E02 | 072 | | X | X | | X | X | X | | |
| 55 | U STREET (EAST MEZZANINE) | E03 | 073 | | | | | X | X | X | | |
| 56 | U STREET (WEST MEZZANINE) | E03 | 074 | | X | | | X | X | X | | |
| 57 | GEORGIA AVENUE | E05 | 076 | | X | | | X | X | X | | |
| 58 | WEST HYATTSVILLE | E07 | 077 | | | | | X | X | X | | |
| 59 | PRINCE GEORGE'S PLAZA | E08 | 078 | | X | X | X | X | X | X | | |
| 60 | COLLEGE PARK | E09 | 079 | | | | | X | X | X | | |
| 61 | GREENBELT | E10 | 080 | X | X | X | | X | X | X | | |
| 62 | ARCHIVES | F02 | 081 | | X | | | X | X | X | | |
| 63 | L'ENFANT PLAZA (NORTH MEZZANINE) | F03 | 082 | | | | | X | X | X | | |
| 64 | WATERFRONT | F04 | 083 | | | | | X | X | X | | |
| 65 | NAVY YARD-BALLPARK (WEST MEZZANINE) | F05 | 105 | | | | | X | X | X | | |
| 66 | ANACOSTIA (NORTH MEZZANINE) | F06 | 085 | | | | | X | X | X | | |
| 67 | ANACOSTIA (SOUTH MEZZANINE) | F06 | 106 | | | | | X | X | X | | |
| 68 | CONGRESS HEIGHTS | F07 | 086 | | X | | | X | X | X | | |
| 69 | SOUTHERN AVENUE | F08 | 107 | | | | | X | X | X | | |
| 70 | NAYLOR ROAD | F09 | 087 | X | | | | X | X | X | | |
| 71 | BRANCH AVENUE | F11 | 089 | | | | | X | X | X | | |

AS NEEDED

| SUMMARY OF WORK TASK NUMBERS - RED LINE | | | | | | | | | | | | |
|---|--------------------------------------|------------|---------|---|---|---|---|---|---|---|---|---|
| | STATION NAME (MEZZANINE) | STATION ID | MEZZ ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 72 | METRO CENTER (WEST MEZZANINE) | A01 | 001 | | | | | X | | | | |
| 73 | FARRAGUT NORTH (NORTH MEZZANINE) | A02 | 004 | | | | | X | | | | |
| 74 | TENLEYTOWN-AU | A07 | 010 | X | | | | | | X | | |
| 75 | TENLEYTOWN-AU | A07 | 010M | | | | | X | | | | X |
| 76 | FRIENDSHIP HEIGHTS (NORTH MEZZANINE) | A08 | 011 | | | | | X | | | | |
| 77 | WHITE FLINT | A12 | 015 | | | | | X | | | | |
| 78 | GALLERY PLACE EAST | B01 | 21M | | | | | X | | | | X |
| 79 | JUDICIARY SQUARE (WEST MEZZANINE) | B02 | 022M | | | | | X | | | | X |
| 80 | UNION STATION (NORTH MEZZANINE) | B03 | 025 | | | | | X | | | | |
| 81 | TAKOMA | B07 | 029 | | X | | | X | | | | |
| 82 | TAKOMA | B07 | 029M | | | | | X | | | | X |
| 83 | GLENMONT | B11 | 034 | | | | | X | | | | |

AS NEEDED

F. The location-specific details are provided in the Electrical Design drawings (Volume 3) and site survey reports (Volume 4)- referred to as the Pre-Inspection Reports (PIRs) and the Mezzanine Inspection Reports (MIRs) - of this solicitation. Refer to the MIRs for both new and existing raceway (conduit, U/F duct, etc.) routing details (NOTE: some locations do not have a Mezzanine Inspection Report).

G. Allowance for corrections at locations where existing CAT6 cabling fails testing.

Under Task 6 above, the Contractor shall terminate and test the existing CAT6 cables. A Time & Material cost allowance shall be available for the Contractor to charge against in the event that any existing CAT6 cabling fails testing, is deemed un-usable and requires replacing. This allowance shall be strictly based on location, number of cables that have failed and length of run. Task 9 in Section 01117, Construction Details describes this work. The procedure for doing work under this allowance follows:

After performing testing of existing CAT6 cabling under Task 6 above there is found to be cabling that fails testing and is deemed unusable, the Contractor shall reterminate the cable and retest. If the cable is still unusable, the Contractor shall notify WMATA of such condition. The notification shall include the location, number of failed cables and the length of each cable that failed testing and requires replacing. The test results showing failed cable shall be retained by the Contractor and submitted to WMATA. The Contractor after having documented the failed cabling and notifying the WMATA inspector on-site shall immediately proceed with the re-pulling of the defective cabling however, no allowance work shall commence until a WMATA inspector or other duly appointed WMATA personnel notifies the Contractor that the allowance work can begin. The Contractor shall then later submit an allowance report listing the cost of removing and re-installing new CAT6 cabling at that particular location.

H. WMATA Standard Specifications (Division 2 through 16) and WMATA Department of Information Technology, Network and Communications Services Infrastructure Design and Wiring Standards are also included in this solicitation.

1.2. Pre-installation activities

A. The Contractor shall submit for review and approval a quality control and quality assurance plan specific to this contract (see Section 01470, QUALITY MANAGEMENT SYSTEM).

B. The Contractor shall submit for approval an Organization Safety Plan and a Site-Specific Work Plan (SSWP) (see Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS) applicable to all the work locations under this contract. A PDF version of an SSWP template is provided as an attachment to this solicitation.

C. The Contractor shall submit all product data/catalog sheets for review and approval

D. The Contractor shall submit to WMATA for review and approval an Installation Work Plan per mezzanine location that required new raceway installation (task 1, 2, 3 and 4). MIR's, PIR's and the Mezzanine-specific work summaries have been provided by WMATA to be used by the Contractor to develop per-mezzanine installation work plans. The information contained in these documents provides suggested work plan information, recommend cable/conduit/duct paths as well as station conditions. The Contractor may choose to utilize alternate methodologies, and cable/conduit/duct paths than those recommended by the aforementioned documents to accomplish the required work at each location. Before any work commences, the Contractor shall provide for review and approval an installation work plan site-specific for each mezzanine. The plans shall include raceway diagrams and drawings identifying material and product and installation procedure for all the work, as well as detailed description of the work to be done.

E. WMATA will schedule a kick-off meeting before commencement of the project.

F. The Contractor shall have all field personnel complete WMATA Roadway Worker Protection (RWP) training before construction begins.

- G. Confined-space access certification shall be required of Contractor personnel before performing work in confined-space areas.
- H. The Contractor shall submit a cost-loaded project schedule in both PDF and Primavera file-types for WMATA review and approval (see Section 01330)

1.3. DAYS/HOURS OF WORK

- A. The standard work schedule shall be no more than 5 days a week at 8 hours a day, unless approved by WMATA.
- B. Contractor can set up and stage work and materials at a mezzanine location at 10:00 PM when authorized by a Station Manager on a case-by-case basis. Otherwise, all set up and staging must take place during non-revenue hours. The typical work week shall be from 11:00 PM Sunday to 5:00 AM Friday.
- C. Work Tasks in the public area shall begin after the last train departs the station and end before the station opening. All work including cleaning and clearing of the personnel and equipment from the public area shall be completed before station opening. Reference the wmata.com website to identify those times for each Metrorail station.
- D. The Contractor shall provide the WMATA Project Manager and Construction Manager two working days notice in advance of any schedule change.

1.4. LOCATION

- A. The Project is located on WMATA property in the Metrorail system in Maryland, Virginia, and Washington, DC.

1.5. SITE LOGISTICS

- A. Access to the construction site shall be from station entrance. Egress from the site shall be from station exit.
- B. Delivery of materials and equipment shall be arranged on a daily basis.
- C. Construction equipment and materials shall not be staged within Authority Right-of Way and shall be protected from customers/patrons.
 - 1. Construction operations will be required to be staged as directed by the Authority.
 - 2. Staging is prohibited at faregate equipment entry, exit, and use-points that directly affect the customer/patron accessibility.
- D. Parking shall be the responsibility of the Contractor.
- E. Constraints on Construction - Work Crews and Shifts: Contractor is required to schedule work at three mezzanine locations each day. This shall be shown on the Four-Week Look-Ahead schedule which is updated each week. The Contractor shall confirm and coordinate the schedule with WMATA on a daily basis using the Daily Report and the Four-Week Look-Ahead schedule maintained by the Contractor.
- F. Coordination of Work with Others: Coordinate work through the Contracting Officer Technical Representative with the utilities and jurisdictional authorities affected by or having jurisdiction over the project
- G. Safety: Establish and manage project safety in accordance with Section 01114, SAFETY/ ENVIRONMENTAL REQUIREMENTS.

- H. Quality: Establish and manage a Quality System in accordance with Section 01470, QUALITY MANAGEMENT SYSTEM.
- I. Testing: Establish and perform testing as specified in various specification sections and in accordance with Section 01470, QUALITY MANAGEMENT SYSTEM. Submit all test results within 10 business days for WMATA review and approval.
- J. As-Built Documents: Maintain a hard-copy schematic record of As-Built conditions during construction phase and provide As-Built schematics of the work performed at the completion of each mezzanine location in accordance with Section 01775, CLOSEOUT. As-Built schematics shall show cable and termination point identifications, and raceway type/size. Indicate if existing cables are present in the raceway.
- K. Salvaging of Materials and Equipment: Salvaged material not specified for reuse shall become the property of the Contractor and shall be removed from the site

PART 2 - PRODUCTS

Quantity Table Listing: see Attachment 3

Variation in estimated quantities is further described in Volume 1; Section 00743 applies to this Quantity Table above.

U/F duct is the Walkerduct Pro Series Systems from Legrand Wiremold

PART 3 - EXECUTION (see also Section 01117)

END OF SECTION

SECTION 01111

CONTRACTOR KEY STAFF

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies key staff that forms the Contractor's team and identifies their basic functions.

1.2 REFERENCES

- A. United States Green Building Council (USGBC)
- B. Registrar Accreditation Board of the American Society for Quality (RABASQ)
- C. Occupational Safety and Health Association (OSHA)
 - 1. Construction Safety Training
 - 2. First Aid/CPR/Blood Borne Pathogens Training

1.3 SUBMITTALS

- A. Submit the following within 10 Days of Award in accordance with Section 01330, SUBMITTAL PROCEDURES:
 - 1. Evidence of qualifications and experience of Key Staff.

1.4 CONTRACTOR

- A. The Contractor shall be responsible for constructing the Project and for furnishing and managing the services of Subcontractors and vendors, to perform all manufacture, fabrication, installation, and construction to complete the Project in accordance with the Contract Documents.
- B. The Contractor shall be responsible for ensuring adherence to all applicable jurisdictional codes and regulations, the approved Quality Management System, the approved Safety Plan; and environmental and other applicable requirements to achieve Acceptance in accordance with the approved Project Schedule.
- C. All personnel involved in the performance of construction work shall be experienced and qualified to perform their trade, and all construction work shall be performed in a skilled and workmanlike manner.
- D. Individuals proposed for all key staff positions and any subsequent proposed changes to these key staff positions shall be submitted by the Contractor to WMATA for written approval.
- E. Key Staff
 - 1. Program/Project Manager
 - a. Professional with experience managing the construction of projects of a similar type and financial magnitude.
 - b. Responsible for managing all facets of the Project and has overall responsibility for its successful and timely completion.
 - c. Supervises the Key Staff and shall be the primary point of contact with the Contracting

Officer Representative.

2. Construction Manager

- a. Construction professional with experience managing multi-disciplined construction projects.
- b. Responsible for the management of all field staff including Subcontractors and the day-to-day construction at all work sites.
- c. Responsible for the preparation, submittal, and management of construction submittals; maintenance of all as-built documentation.

3. Quality Manager

- a. Shall be a full time staff member of the Contractor and shall establish, implement, and maintain the Quality Management System, shall report directly to and be supervised by an Officer of the Contractor at a level above that of the Project Manager responsible for the Project, shall serve as a liaison officer with the Authority and the Jurisdictional Authorities on matters relating to the Contractor's quality system, shall be responsible for ensuring that the Quality Management System is effective in ensuring that the Contract requirements are satisfied, and shall be responsible for the oversight of onsite and offsite testing by the Contractor.

4. Safety Superintendent

- a. Responsible for development of a construction safety plan.
- b. Shall have specialized training and experience in construction safety supervision and have a thorough knowledge of all OSHA regulations. The Safety Superintendent shall have the ability to develop and conduct safety-training courses. The Safety Superintendent shall be familiar with industrial hygiene equipment and testing as required for the protection of all personnel and the public
- c. The Quality Manager and Safety Superintendent positions may be the same person.
- d. First Aid Attendant

Shall have current First Aid and CPR certification. A resume, certifications, and evidence of training shall be submitted documenting education and experience.

Shall be trained in Blood-borne Pathogens in accordance with CFR §1910.1030.

5. Master Electrician

- a. An individual with a Master Electrician license(s) in DC, Maryland and Virginia shall be staffed by the contractor, and be maintained by the contractor until contract closeout. Individual shall be fulltime available to the project. The license is issued and regulated by the state labor/licensing/regulation board and or equal/appropriate governing body.

F. Subcontractors

1. The Contractor shall submit to WMATA for approval all subcontractors and all tiers of subcontractors, their roles, and their qualifications to perform the work required on this project.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01112

PROGRAM REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for carrying out demolition and installation, and technical support during construction, as indicated, and provides requirements for project management to be followed by the Contractor. The Section also establishes Program Requirements for the Project.
- B. Pre-Installation Activities
 - 1. Submit for approval a quality control and quality assurance plan specific to this contract. Reference Section 01470 "Quality Management System".
 - 2. Submit for approval a Site Specific Work Plan (SSWP) applicable to all the work locations under this contract (30 days).
 - 3. Submit for approval a detailed Work Plan for all work locations that require conduit or U/F duct installation.
 - 4. Submit for approval product data/catalog sheets of product and equipment.
 - 5. Contractor personnel must receive WMATA Contractor Photo ID badges 30 days in advance of the start of the project (see Section 01116) and must attend and complete the WMATA RWP training class.
 - 6. Submit project schedule covering full contract scope (updated monthly)
 - 7. Submit Four-Week Look-Ahead schedule.
- C. Installation of New Under-Floor Duct and Conduit
 - 1. If WMATA determines as a result of the U/F duct and conduit inspection report that an existing in-floor duct cannot be used, the Contractor shall install a new in-floor duct in accordance to the inspection report proposed pathway. WMATA to provide the duct inspection reports to the Contractor. The Contractor shall install new U/F duct and rigid galvanized steel (RGS) conduit as indicated in the contractor-submitted installation work plan approved by WMATA. The Contractor shall install the new duct or conduit in accordance to standards.
- D. Installation and Termination of New Category 6 Ethernet Cables
 - 1. The Contractor shall furnish and install an individual CAT6 cable from the kiosk to each faregate location (in a "home-run" configuration). At the kiosk each CAT6 cable shall be terminated to the patch panel (provided by WMATA). At each faregate, each CAT6 cable shall be terminated to a surface-mount Ethernet jack inside the faregate cabinet. The Contractor shall leave cable slack at each end per WMATA requirements to accommodate termination without requiring a cable splice. Contractor shall coordinate with WMATA for equipment access.
- E. Power Cable Installation
 - 1. The Contractor shall install three 600V power circuits from the electrical equipment room panelboard to the kiosk at each mezzanine. No splicing of power cables will be allowed. All electrical installation shall conform to the WMATA Standard Specification DIVISION 16 - ELECTRICAL, TRACTION POWER, COMMUNICATIONS & AUTOMATIC TRAIN CONTROL.
- F. Termination of Existing Category 6 (CAT6) Cables
 - 1. The Contractor shall terminate existing CAT6 cables already in place at the Kiosk, faregate,

fare vending machine, and exit fare vending machine locations. At the kiosk, each CAT6 cable shall be terminated to the patch panel (provided by WMATA). At the faregate, fare vending machine, and exit fare vending machine locations, each CAT6 cable shall be terminated to a surface-mount Ethernet jack.

G. As-Built Schematics

1. The Contractor shall maintain a hard copy drawing and specification record of as-built conditions during construction phase, and provide As-Built Schematics within 21 days from the completion of mezzanine construction work of the Project in accordance with Section 01330, SUBMITTALS

1.2 REFERENCES

- A. Program Requirements
- B. WMATA Manual of Design Criteria
- C. WMATA Standard Specifications, Divisions 02 through 16
- D. WMATA Infrastructure Design & Wiring Standards (Internet Technology Dept.)
- E. Federal Transit Administration - Accessibility Handbook for Transit Facilities

1.3 SUBMITTALS

- A. Make the submittals of this Section for Approval by the Authority in accordance with Section 01330, SUBMITTAL PROCEDURES, unless noted otherwise.
 1. SSWP (Site-Specific Work Plan) 30 days prior to the start of work
 2. Company Safety Plan
 3. Project-Specific Quality Management Plan
 4. Cost-loaded project schedule
 5. Four-week Look-Ahead schedule
 6. Daily Work Plan
 7. Work Plans that detail work descriptions, equipment and material to be used, PPE, and clean up procedures for work sites that require raceway installation
 8. Test, acceptance, and verification criteria and procedures for the product being specified as described in Section 01470, QUALITY MANAGEMENT SYSTEM.
 - a. Power cable insulation resistance testing
 - b. Ethernet CAT6 cable testing
 9. Minutes of all meetings as described in Section 01312, Project Meetings
 10. At the end of the Contract, submit all documents in accordance with Section 01775, CLOSEOUT.

1.4 GENERAL REQUIREMENTS

- A. Do not change the approved installation firms(s), sub-contractors, and personnel once approved without the prior written approval of the Contracting Officer Representative.
- B. Provide Request for Information and submittal reviews prior to their submittal to the Contracting Officer Representative as further described in Section 01330, SUBMITTAL PROCEDURES, and prepare As-Built Schematics and As-Built Specifications as further described in Section 01775, CLOSEOUT.

PART 2 – PRODUCTS

PART 3 – EXECUTION

3.1. IMPLEMENTATION

- A. Coordinate and resolve conflicts for locations and sizes of openings, conduits, equipment placement, power requirements, and clearances and weights of all elements among all the disciplines as applicable, through RFIs submitted in Procore.
- B. Immediately notify the Contracting Officer Representative in writing upon identification and within one working day of construction issues or problems, which may affect cost, schedule, the work of Utilities, or other contracts.

3.2. INTERFACE REQUIREMENTS

- A. Systems, which require functional and physical interface coordination, may include, but are not limited to:
 - 1. Electrical Systems
 - 2. Communications Systems including Data
- B. Interface and compatibility requirements within various other interfaces for the Communications Systems include:
 - 1. Ancillary and Remote Facilities: Coordinate provisions for Fire and Intrusion Alarm System and wayside telephones.
- C. Interface and compatibility requirements for the Utility systems:
 - 1. Coordinate electrical power requirements and location of equipment, feeders, and ductbanks.

END OF SECTION

SECTION 01114

SAFETY/ENVIRONMENTAL REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes construction safety and security and environmental safety requirements for the Project including WMATA's Safety Awareness Program.

1.2 REFERENCES

- A. WMATA Construction Safety and Environmental Manual (CSEM)
- B. ANSI/ISEA 107 - American National Standard for High-Visibility Safety Apparel
- C. Occupational Safety and Health Association (OSHA)
 - 1. 29 CFR §1910
 - 2. 29 CFR §1926
 - 3. 49 CFR §172
 - 4. 49 CFR §390-397
- D. U.S. Army Corps of Engineers - Safety Manual EM-385-1-1
- E. National Commission for the Certification of Crane Operators
- F. Resource Conservation and Recovery Act (RCRA) of 1976 and amendments
- G. Metrorail Safety Rules and Procedures Handbook (MSRPH)
- H. WMATA, Office of Rail Transportation Maintenance Operations Control, Administrative Procedure OAP 200-33, Site Specific Work Plan (SSWP)

1.3 QUALITY ASSURANCE

- A. Refer to Section 01470, QUALITY MANAGEMENT SYSTEM

1.4 SAFETY REQUIREMENTS

- A. The Contractor shall be responsible for ensuring compliance with the most stringent provisions of the applicable occupational safety and health statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision in which the work is being performed, and the Department of Labor OSHA standards. In addition, the Contractor must comply with the following documents: the WMATA Construction Safety and Environmental Manual; the WMATA System Safety Program Plan; the Metrorail Safety Rules and Procedures Handbook (for contracts in which work is performed on, or interfaces with the Metrorail System); and the Department Bus Service Employee Handbook (for contracts in which work is performed on, or interfaces with the Metrobus System or facilities); Consolidated Plan prepared by WMATA for each Bus Division and Rail Yard in order to minimize the potential for pollutant discharge to the environment; the National Institute for Occupational Safety and Health (NIOSH) guidelines; the American Conference of Governmental Industrial Hygienists (ACGIH) guidelines; the American National Standards Institute (ANSI) guidelines; and the U.S. Army Corps of Engineers Safety and Health Requirements Manual. The contractor shall also be responsible for compliance with

applicable National Fire Protection Association (NFPA) Standards 13, 14, 24, 25 and 130. Further, the Contractor shall ensure that all methods of performing the work do not involve danger to the personnel employed thereon, the public, or private property, whether or not these methods are cited or indicated in the Contract documents. Should charges of violation of any of the above be issued to the Contractor in the course of the work, a copy of each charge shall be immediately forwarded to WMATA's Representative.

- B. The Contractor shall employ and assign to the work Safety Superintendent(s) and a separate certified First Aid Attendant, based on the contract need. At the site of the work, a first aid station shall be established and fully equipped to meet the needs of the anticipated work force. In no event shall work at the site be performed until the approved Safety Superintendent and First Aid Attendant are on duty at the site. WMATA's Representative in coordination with the Department of Safety & Environmental Management (SAFE) will determine the needed coverage for Safety Superintendent(s) and First Aid Attendant per following two categories:
- Category I.** - The contractor shall employ and assign full-time Safety Superintendent(s) and First Aid Attendant for on-site work activities at all times. The Safety Superintendent shall have no duty other than safety supervision of persons, equipment, and property affected by contract work.

Category II. - The Safety Superintendent may be the project foreman or an employee who is on-site at all times while work is being performed, and who has the added duty of supervising the safety of persons, equipment, and property affected by contract work. The need for separate First Aid Attendant coverage will be determined by WMATA's Representative.

Any selected Safety Superintendent shall have specialized training and experience in construction safety supervision and have a thorough knowledge of all OSHA regulations. Safety Superintendent shall have the ability to develop and conduct safety training courses. Safety Superintendent shall be familiar with industrial hygiene equipment and testing as required for the protection of all personnel and the public. The Safety Superintendent and First Aid Attendant shall be responsible for First Aid and CPR at the site and must have current First Aid and CPR certificates. Employees expected to render First Aid or CPR must be trained in Blood borne Pathogens in accordance with 29 CFR

*1910.1030. If, at any time, the work site is without the services of an approved Safety Superintendent and First Aid Attendant for a period of 15 calendar days or more, the work may be closed down at the discretion of WMATA's Representative. The Safety Superintendent must be acceptable to WMATA's Representative and his/her performance will be reviewed and documented by WMATA's Representative on a continuing basis. If the Safety Superintendent's effectiveness is below standard, the Contractor shall provide immediate replacement at the WMATA Representative's direction. Once employed, the Safety Superintendent shall not be changed without permission of WMATA's Representative. A resume must be submitted documenting the education and experience of the individuals assigned to perform the duties of Safety Superintendent.

- C. The Contractor shall submit a construction safety plan to WMATA's Representative for review prior to commencement of work. The Contractor shall, within five days after receipt of Notice to Proceed (NTP), submit through WMATA's Representative to the Department of System Safety & Risk Protection, a request for the Authority to schedule and conduct safety instructions at the earliest possible time for all Contractor personnel who will be engaged in the performance of Contract work on or above or under the right-of-way. The Authority will schedule and conduct for all of the Contractor's work force, an eight-hour long course of instruction related to work on the Authority's Rail Operating System. The Contractor shall not perform work at the Contract site(s) on or above or under the right-of-way, until all personnel of the contract work force have attended the Right-of-Way training as specified and have been furnished evidence of attendance. The Contractor shall follow all applicable RAIL Operational Rules: Department of Operations Administrative Procedures (OAPs), Standard Operating Procedures (SOPs), Metrorail Safety Rules and Procedures Handbook, and General and Special Orders while working in the operational railroad system. For any work within Start-Up limits all contractor's personnel shall receive WMATA Start-up Lockout/Tagout training prior to commencing the work. Copies of training

documents through WMATA's Representative shall be forwarded to the Department of System Safety & Risk Protection prior to work. The Contractor shall conduct Tool Box Safety Talk meetings each night before starting work and submit the Tool Box forms each month. The Contractor shall complete Construction Safety Survey forms for each work week (template issued by WMATA).

Upon completion of a project but before the start of the revenue service, system operation or before the re-starting the operation of the renovated system or facility, the Department of System Safety & Risk Protection in coordination with WMATA's Representative will conduct the System Safety Certification to certify that all practical steps have been taken to optimize the operational safety of WMATA. The System Safety Certification Program will be conducted in accordance with the Authority's System Safety Program Plan, section 3.3.5, System Safety Certification; and System Safety Rules and Procedure Manual, section 2.2/0, Safety Certification Program. The Contractor shall conduct Tool Box Safety Talk meetings each night before starting work and submit the Tool Box forms each month. The Contractor shall complete Construction Safety Survey forms for each work week (template issued by WMATA).

- D. The jurisdictional Fire Marshals prohibit the use of oxygen-acetylene welding/cutting equipment or flammable materials anywhere in the Metrorail system during revenue hours. After each work shift, all flammable materials must be removed from the Metrorail system. The storage of hazardous and flammable materials (including such items as rags, mops, paper towels, or other combustible materials contaminated with hazardous or flammable products) on WMATA property, is restricted. Contractors seeking to store hazardous or flammable materials on WMATA property must request permission from WMATA's Representative. It may not always be possible to grant permission to store hazardous or flammable materials on WMATA property. If permission is granted, the Contractor must store the materials in compliance with the jurisdictional codes and regulations. In addition, a copy of the material safety data sheets (MSDSs) for each specific chemical and the quantity of each chemical to be stored on the site shall be provided to WMATA's Representative. The Contractor shall acquire permits for use of hazardous materials as required by the jurisdictional Fire Marshall.
- E. Contractors must submit MSDSs for ALL chemicals to be used on Authority property to WMATA's Representative along with a brief description of how and where they will be used, and if wastes will be generated. The MSDSs will be reviewed by WMATA's Department of Safety & Environmental Management (SAFE) and if approved, the materials can be used in the system. If they are rejected, the contractor must identify a substitute that will meet SARP's criteria for approval in addition to WMATA's Representative criteria for performance. The MSDSs must be recent (preferably less than 3 years old) and comply with the OSHA Hazard Communication Standard 29 CFR *1910.1200. The Contractor is responsible for complying with the requirements of the MSDSs.
- F. The use of explosives for the performance of Contract work will not be permitted without written authorization from WMATA's Representative.
- G. Prior to performing any work on or above or under the right-of-way, arrangements shall be made through WMATA's Representative for access rights and power outage in accordance with WMATA SOPs No. 19, No. 28 and No. 33 contained in the Metrorail Safety Rules and Procedures Handbook and with OAPs No. 100-9 and No. 200-10. All special requests for access, single tracking, power outages, escorts, and other Authority support shall be submitted in writing through WMATA's Representative to the appropriate RAIL officials within the time frame as set forth in the HOURS OF WORK Article of these Special Conditions.
- H. For any work within confined spaces, the Contractor and all Subcontractors shall comply with all OSHA, state and local jurisdictional rules and regulations for confined spaces. As a minimum, the Contractor shall follow 29 CFR *1910.146 for all permit confined space work on Authority property, including construction. A detailed site specific Confined Space Program shall be submitted to WMATA for review for all work requiring entry into permit confined spaces as defined by 29 CFR *1910.146. No work shall be performed in any area considered to be a permit confined

space until the Contractor's Confined Space Program is reviewed by WMATA. Prior to the initial entry into any confined space (permit or non-permit), the Contractor shall coordinate entry with WMATA's Representative and take air quality readings to establish base readings and conditions. At a minimum, oxygen, lower explosive limit, carbon monoxide, and hydrogen sulfide, shall be measured. Measurement of additional parameters may be required depending on the location of the space and potential for atmospheric hazards related to contamination or work activities. These results shall be provided to WMATA's Representative for recording purposes and will determine if atmospheric hazards exist which would classify the space as a permit- required confined space. Continuous and follow-up monitoring of air quality shall meet OSHA requirements, and all subsequent results shall be provided to WMATA's Representative.

1. Prior to the start of any work involving non-permit confined spaces, the Contractor shall submit to WMATA's Representative a copy of the following:
 - a. Written Job Hazard Analysis for any work to be performed in the confined space, including MSDSs for chemicals to be used in the space.
 - b. Written Emergency Response Plan which identifies emergency responders for rescue operations.
 - c. Written plan for a temporary Fire Protection System for use during the term of the Contract, which shall be subject to approval by WMATA's Representative. This plan shall include provisions for Fire Protection Systems and Equipment as required by OSHA, Safety and Health Regulations for Construction, 29 CFR '1926, Subpart F - Fire Protection and Prevention, and applicable NFPA Standards.
 - d. Identification of air monitoring devices that will be used to monitor air quality at the work site. Provide copies of most recent manufacturer calibration and all Contractor field calibration checks. As a minimum, WMATA requires field calibration checks on air monitoring instruments, each day (or shift) before use. As a minimum, the field calibration check information must include the date, time, calibration check data, and the printed name and signature of the person performing the calibration check.
 - e. Documentation to show that all personnel working in or near non-permit confined spaces are trained in Confined Space Awareness.
2. Prior to the start of any work involving permit-required confined spaces, the Contractor shall submit to WMATA's Representative a copy of the following:
 - a. Written Job Hazard Analysis for any work to be performed in the confined space, including MSDSs for chemicals to be used in the space.
 - b. Written site specific Confined Space Program.
 - c. Confined space permit for applicable space. Each permit is valid for a maximum of 24 hours. (Submit to WMATA's Representative at least 48 hours before entry.)
 - d. Written Respiratory Protection Program.
 - e. Written Emergency Response Plan which identifies emergency responders for rescue operations.
 - f. Written plan for a temporary Fire Protection System for use during the term of the Contract, which shall be subject to approval by WMATA. This plan shall include provisions for Fire Protection Systems and Equipment as required by OSHA, Safety and Health Regulations for Construction, 29 CFR '1926, Subpart F - Fire Protection and Prevention. Contractor shall ensure that work activities do not adversely impact existing fire protection system(s) i.e., sprinklers, stand pipes, portable extinguisher, etc.

- g. Identification of air monitoring devices that will be used to monitor air quality at the work site. Provide copies of most recent manufacturer calibration and all Contractor field calibration checks. As a minimum, WMATA requires field calibration checks on air monitoring instruments, each day (or shift) before use. As a minimum, the field calibration check information must include the date, time, calibration check data, and the printed name and signature of the person performing the calibration check.
- h. Documentation to show that all Confined Space entrants and attendants are trained in Confined Space Entry, including hands-on-training. Documentation to show that

all personnel working near the permit-required confined spaces (no entry) are trained in Confined Space Awareness.
- i. Documentation to show that all personnel required to wear respiratory protection have received respiratory protection training, have been fit tested for the respirators they are required to wear (applies to tight fitting respirators) and have been medically evaluated to verify that they have no health problem that would interfere with their safe use of a respirator.
- j. A warning sign to identify the work site as a permit-required confined space requiring authorization to enter.
- k. The Contractor is required to notify the state of Maryland at least 24 hours prior to entering permit-required confined spaces located in the state of Maryland. The Contractor will be given a log number by the State which they must provide to WMATA's Representative
- l. Contractor must provide a Job Hazard Analysis prior to the start of each phase of work.
- J. Work clothing consists of long pants, shirts with long or short sleeves, sturdy work boots, and appropriate personal protective equipment. Jewelry that hangs, loose clothing or clothing with non-detachable hoods, drawstrings, or anything that can become entangled in machinery, shall not be worn on the work site if machinery is in use on the work site. Personal protective equipment such as hard hats and footwear shall meet the requirements of 29 CFR 1910.135 and 1910.136. Athletic-type footwear shall not be worn on WMATA work sites.
- K. Smoking is prohibited in the Metrorail system, at WMATA facilities, and in WMATA vehicles. WMATA's Representative, will select a designated smoking area outside the system and/or facilities and Contractor employees will be informed of its location. Contractor personnel found smoking in un-designated areas on WMATA property or in the Metrorail system will be subject to removal from WMATA property. The Contractor's Safety Superintendent shall be responsible for ensuring compliance.
- L. The OSHA standard for sanitation, 29CFR & 1910.141, shall be followed. Prior to starting work, the contractor should furnish for the contractor's staff, necessary toilet convenience secluded from public view. They should be kept in a clean and sanitary condition and should comply with the requirements and regulations of the area in which the work is being performed. Potable drinking water shall be provided with individual cups and sanitary conditions for the water dispenser shall be maintained. A common drinking cup and other common utensils are prohibited.
- M. Contractor and Subcontractor employees shall cooperate with representatives of the Authority and federal, state, and local regulatory agencies during site inspections or investigations. Inspection and investigation activities do not involve directing of Contractor's work, but may involve interviews with Contractor and Subcontractor personnel. CAPM, ENSV and SARP will notify WMATA's Representative of any operation that

is not in compliance with federal, state, or local health and safety or environmental regulations or WMATA policy and procedures, and that may require the Contractor or Subcontractor to stop work on a specific task or operation.

- N. For any work at heights above six feet, the Contractor must submit a detailed, site-specific Fall Protection Plan. The Contractor must comply with the most stringent OSHA requirements for Walking-Working Surfaces (29 CFR Part 1910 Subpart D), Scaffolds (29 CFR Part 1926, Subpart L), and Fall Protection 29 CFR Part 1926, Subpart M.
- O. The Contractor and all Subcontractors shall comply with 29 CFR 1910.95, *Occupational Noise Exposure* for all work on Authority property, including construction. This standard requires that employees exposed to continuous noise in excess of the OSHA Action Level, participate in a Hearing Conservation Program. Instruments used for noise measurements must be appropriate for the type of noise being measured (impact/impulse or continuous).
- P. If the work involves removal of paints or coatings, the Contractor must test the paint or coatings to determine if they contain heavy metals such as lead that require special handling and disposal considerations. As a minimum, testing should be conducted for the eight Resource Conservation and Recovery Act (RCRA) of 1976 and amendments metals (arsenic, barium, cadmium, chromium, lead, mercury, silver, and selenium). If any of these are present, the components will require special handling and disposal to prevent exposure to workers, patrons, the community, and the environment.

The Contractor and/or Subcontractor performing lead-based paint abatement, removal, or control, must have all licenses and accreditations required by the jurisdiction in which the work is performed. Jurisdictions that do not have their own state lead plans fall under the auspices of the Environmental Protection Agency (EPA). The Contractor and Subcontractor employees are required to have medical monitoring to meet the requirements of 29 CFR 1910.1025 and 1926.62. As a minimum, medical monitoring shall consist of biological monitoring for lead and zinc protoporphyrin and shall include a physician's medical determination. As a minimum, biological monitoring shall be conducted immediately prior to working on a WMATA property where the employee may be exposed to lead, and immediately upon completion of this work. The Contractor and Subcontractor employees shall receive training for lead workers and supervisors as required by the jurisdictional regulations. Documentation shall be provided to WMATA's Representative prior to commencement of work. All documentation shall be authentic and verifiable. All materials must be handled and disposed of in compliance with the jurisdictional regulations. MSDSs for replacement paints/coatings must be reviewed by WMATA prior to use on WMATA property.

- Q. If the work involves removal of insulation, flooring, cove base, mastic, ceiling tile, roofing materials, or any other material that is suspected of containing asbestos, the Contractor must have the materials sampled and analyzed to determine if they contain asbestos. If the Contractor and/or Subcontractor will be handling or removing asbestos-containing materials, the Contractor and/or Subcontractor must have all licenses and accreditations required by the jurisdiction in which the work is performed. The Contractor and Subcontractor employees are required to have medical monitoring to meet the requirements of 29 CFR 1910.1001 and 1926.1101. The Contractor and Subcontractor employees shall receive training for asbestos workers and supervisors as required by the jurisdictional regulations. Documentation shall be provided to WMATA's Representative prior to commencement of work. All documentation shall be authentic and verifiable. All materials must be handled and disposed of in compliance with the jurisdictional regulations. All replacement materials shall be free of asbestos. Contractors shall follow the WMATA Technical Specification for Asbestos Removal.
- R. Contractor and Subcontractor employees shall not be exposed to asphalt fumes in excess of the National Institute for Occupational Safety and Health (NIOSH) recommended

- ceiling limit of 5 milligrams of asphalt fumes per cubic meter of air (5 mg/m^3), in any 15 minute period. NIOSH provides recommendations for control of asphalt fumes.
- S. Work that generates visible dust requires submission of a Dust and Debris Control Plan to prevent exposure of employees, patrons, and the community to dust including crystalline silica dust. Be prepared to submit air monitoring data to demonstrate effectiveness of dust control measures. If dust cannot be controlled, submit Respiratory Protection Program in compliance with 29 CFR 1926.103 or 29 CFR 1910.134, and be prepared to submit evidence of air monitoring, training documentation, medical clearance for respirator use, and respirator fit tests for tight-fitting respirators.
 - T. The Contractor shall ensure that the level of exhaust emissions from equipment such as air compressors and generators, are within acceptable limits to comply with clean air regulations and that workers are not exposed to exhaust fumes or gases (carbon monoxide, sulfur dioxide, nitrogen oxides, hydrogen sulfide, aldehydes) in excess of the most stringent of occupational exposure limits.
 - U. The Contractor shall submit a Waste Water Discharge Plan that describes how the Contractor will treat and release waste water generated by activities at the work site, for all work that generates waste water. Contractor shall also comply with Consolidated Plan prepared by WMATA for Bus Divisions and Rail Yards.
 - V. For abrasive blasting activities, the Contractor must submit MSDSs for abrasives to WMATA's Representative prior to abrasive blasting activities. Only abrasives containing less than 1 percent crystalline silica shall be used for abrasive blasting.
 - W. For hot work activities, the Contractor and Subcontractors shall provide documentation on certification for personnel who perform welding on WMATA property. Ventilation in accordance with OSHA regulations, shall be provided for hot work such as welding, cutting, or brazing.
 - X. At the site of the work, a First Aid Kit shall be provided and fully equipped to meet the needs of the anticipated work force. Employees expected to render First Aid or CPR must have the proper current certifications and be trained in Blood-borne Pathogens in accordance with 29 CFR 1910.1030.
 - Y. The contractor shall be responsible for all subcontractors, suppliers and other persons working under the contractor's direction to comply with all requirements as noted above and herein, and shall disseminate these requirements to those personnel. Contractors and Subcontractors shall ensure that their personnel complete safety training by WMATA on the rules and procedures for working on the right-of-way before starting such work.
 - Z. The Contractor shall immediately report all accidents and incidents (including near misses) that occur during the performance of the work, to WMATA's Representative.
 - AA. Work shall not be performed in any area in use by the public, unless specifically required by the Contract or directed in writing by WMATA's Representative. The Contractor shall give at least 48 hours notice to WMATA's Representative before beginning such work.
 - BB. In cases where the movement of motorized equipment is necessary, flag persons shall be provided to warn and direct personnel and patrons away from the area of travel. Flag persons must be certified as trained in proper flagging techniques and Contractor employees involved in traffic control and devices must be certified as trained in traffic management as required by the State or local jurisdiction. Certification must be documented. WMATA's Representative shall be notified before using heavy equipment in or near stations and their entrances, building entrances, bus bays, sidewalks, etc. Under no circumstances shall motorized equipment be left unattended with the motor

idling. Always remove keys from motorized equipment not in use. Provide proper blocks as necessary to prevent running away of any equipment.

- CC. When it is necessary to maintain use of work areas involving stations, sidewalks, elevators, platforms, bus shelters, vehicular roadways, building entrances, corridors, etc., the Contractor shall protect the area with guardrails, substantial barricades, temporary fences, overhead protection, and temporary partitions as deemed necessary by WMATA's Representative. Under no circumstances will yellow or orange tape strung between barricades, or the like, be acceptable as a substantial barricade. Open manholes, access openings or other breaks in the normal walking surface shall be isolated from personnel and the public using barricades.
- DD. Sidewalks, entrances, platforms, mezzanines or any other location where personnel or the public traverses, shall always be kept clear of obstruction, tools, ladders, work debris, excavation materials, etc. When necessary, temporary sidewalks, or pathways shall be provided for pedestrian traffic. Temporary sidewalks or pathways shall be free of tripping hazards and protected by proper guardrails and barricades. Temporary means of egress and access shall be marked for easy recognition. If work is required above sidewalks or pathways, substantial overhead protection shall be provided. Protected walkways shall be approved by WMATA's Representative.
- EE. Appropriate warning signs and instructional safety signs shall be conspicuously posted in all areas involving construction activities. Work involving electrical systems or equipment in or near the area to which personnel or the public have access shall be isolated using barricades, partitions, etc. Exposed, live circuits shall not be left accessible to personnel or the public or left dangling overhead. Before completion of the work, the Contractor shall:
1. Ensure that all wiring is insulated and properly positioned.
 2. Verify grounding, bonding, or both, of all metallic conduit, wiring or electrical equipment that is in the areas of contractual effort, and to which the public can make contact.
 3. Notify WMATA's Representative immediately in those instances where verification cannot be made.
 4. Contractor's personnel working near the platform edge or in the right-of-way shall wear reflective safety vests with the tear-away feature, to identify them to passing trains, as directed by SARP at the right-of-way safety training required in this Section. The safety vests shall comply with the ANSI/ISEA 107-1999 guideline entitled *American National Standard for High-Visibility Safety Apparel*. All of the Contractor's personnel are required to attend safety training provided by SARP before starting work near the platform edge or in the right-of-way.
- FF. Use of Cranes and Derricks:
1. General Safety Requirements. Comply with the following:
 - [1] 29 CFR ' 1910.180 through ' 1910.189.
 - [2] 29 CFR ' 1926.550 through ' 1926.556
 - [3] U.S. Army Corps of Engineers, Safety Manual EM-385-1-1.
 2. No part of any Crane or Derrick Boom shall swing over WMATA patrons, tracks or stations without a WMATA Representative-approved shield or approved procedure.

3. Placement of Crane or Derrick shall be coordinated with WMATA's Representative.
 4. Rights for use of the Crane or Derrick affecting Metrorail Operations are granted through SOPs No. 19 and 33 of the Metrorail Safety Rules and Procedures Handbook.
 5. A supervisory or a red tag power outage is required. Exceptions may be granted on an individual basis after a review and approval by the Authority.
 6. Hardhat requirements are enforced.
 7. "Swing Stop" requirements may be instituted based on the hazards involved.
 8. Use of Cranes and Derricks over common corridor railroads and highways is under the rules of the affected common corridor railroad or highway owner.
- GG. All site visits for visitors and tours shall be coordinated through WMATA's Representative in accordance with the WMATA Construction Safety and Environmental Manual.

ENVIRONMENTAL SAFETY REQUIREMENTS

- HH. The Contractors and Subcontractors shall be responsible for complying with the most stringent of federal, state, or local environmental regulations for air, water, land, and waste in order to maintain the safety and health of employees, WMATA patrons, and the community.
- II. If the work task requires specialized licenses for example "lead or asbestos abatement contractor's license", Contractors and Subcontractors shall be required to show evidence of such registration prior to commencement of work. If the work requires specialized training for example lead or asbestos training, Contractors and Subcontractors shall be required to show evidence that their employees have received such training prior to commencement of work.
- JJ. If the work requires transportation of hazardous materials or hazardous substances, Contractors and Subcontractors are required to provide evidence of Department of Transportation General Awareness Driver's Training in compliance with 49 CFR '172 and Commercial Driver's License in compliance with 49 CFR '390-397, prior to commencement of work.
- KK. All hazardous materials and hazardous substances, must be stored in "Performance Oriented Packaging" in compliance with 49 CFR ' 178, Subpart L.
- LL. If the work requires disposal of hazardous wastes, disposal must be to a Treatment/Storage/Disposal facility with a Part B Permit and the waste hauler must have a state or local license and U.S. EPA identification number. The Contractors and Subcontractors shall be required to provide evidence of all applicable licenses and permits along with the name and address of the waste disposal facility where hazardous waste materials are to be disposed, prior to commencement of work.
- MM. If the work involves response to spills of hazardous materials, hazardous substances or hazardous wastes, the Contractor or Subcontractor personnel shall have appropriate training that complies with 29 CFR ' 1910.120.
- NN. **CONTRACTOR'S SAFETY SUBMITTALS.**

On-site work activities shall not begin until the appropriate submittals are provided to WMATA by the prime Contractor and the Subcontractor performing the work. The following documentation shall be submitted individually or as part of Contractor's company-specific safety plan and SSWP:

1. Job Hazard Analysis (prior to each phase of work).
2. Site-specific Emergency Response Plan.
3. Site-specific Temporary Fire Protection System Plan.
4. Documentation of Safety Superintendent's experience in construction safety.
5. Experience Modification Rating for the last 2 years.
6. Accident/illness rates for lost time accidents/illnesses over the last 2 years.
7. Record of federal, state, or local violations of environmental and occupational safety and health regulations for the last 2 years.
8. Organizational Health and Safety Program including OSHA required programs applicable to the work and site. For work and sites not addressed in the original Organizational Health and Safety Program, addenda may be added when the work and sites are identified, however, the addenda must be submitted to WMATA's Representative for review prior to the commencement of specified work.
9. Site-specific Waste Water Discharge Plan (if waste water is generated).
10. Site-specific Pollution Control Program.
11. Site-specific Dust and Debris Control Plan.
12. Blood-borne Pathogens Exposure Control Plan.
13. Hearing Conservation Program if employees are exposed to continuous noise in excess of the OSHA Action Level.
14. Respiratory Protection Program if employees are exposed to dust (including crystalline silica) or other toxic atmospheres in excess of the OSHA permissible exposure limits. If a respiratory program is required, the Contractor also must provide documentation of training, medical clearance for respirator use and respirator fit testing.
15. Hot Work Program.
16. Lockout Tagout Program.
17. Site-specific Confined Space Program.
18. Documentation of applicable training, licenses, certifications, including First Aid and CPR certificates and Blood-borne Pathogens training.
19. Identity of all materials or chemicals the Contractor will use on Authority property (including welding rods), material safety data sheets (MSDSs) for these products, and a brief explanation of how they will be used and if any wastes will be generated.
20. Identity of equipment that may generate toxic atmospheres such as gasoline or diesel-powered generators, welding and cutting equipment.

21. Documentation of licenses and certificates required for lead or asbestos abatement or other work requiring licensing or certification such as welding.
22. Certificate of Insurance, including pollution liability coverage, endorsed to WMATA is required for Contractors or subcontractors performing work involving hazardous materials, hazardous substances, hazardous wastes, or contaminated soil or water.
23. Results of sampling (paint, soil, water, or other materials) required for determining pre-work conditions and the presence of existing contamination.
24. Baseline biological monitoring for lead exposure (within the month prior to work on WMATA property that may involve exposure to lead).

The following submittals are required *at least weekly* after work activities have commenced on the site:

25. Notification of medical surveillance results that exceed action levels for all Contractor and Subcontractor employees working on this project.
26. Notification of all medical removals or restricted duty assignments of Contractor and Subcontractor employees working on this project.
27. Periodic noise monitoring, air monitoring, personal exposure data, equipment emissions, and breathing air quality, as applicable.
28. Records of daily field calibration checks for monitoring equipment.

Results of laboratory analysis for any additional sampling (paint, soil, water, or other materials) conducted during the project. SARP will request the following documentation be submitted by the Contractor upon completion of work:

29. Results of laboratory analysis for any sampling (paint, soil, water, or other materials) collected after completion of activities at each site.
30. Documentation of final medical surveillance results. The samples are to be collected upon completion of work on this project and before employees start work on any other projects.

HAZARDOUS MATERIALS SUBMITTALS

The following documentation shall be provided to WMATA prior to transport or disposal of hazardous materials or substances:

1. Documentation of licenses, certificates, and U.S. EPA identification numbers required for transportation of hazardous materials, hazardous substances, or hazardous wastes.
2. Documentation of licenses, permits, and certificates required for disposal of hazardous wastes including the name and address of the waste disposal facility where hazardous waste materials are to be disposed.

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01116

IDENTIFICATION AND SECURITY

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes identification and security requirements for work on Authority Property.

1.2 DEFINITIONS

- A. Authority Property: Includes the Authority's Rail and Bus Operating System and Authority administrative facilities, whether under construction or being rehabilitated.

1.3 SUBMITTALS

- A. Forms necessary to initiate background check process, including color copy of the front and back of Contractor personnel's Driver License or other accepted form of identification.

1.4 PRE-EMPLOYMENT CRIMINAL BACKGROUND CHECK

- A. Criminal background checks of all Contractor employees working at a WMATA facility on this Contract will be required pursuant to Metro Policy/Instruction 7.40/0, Background Screenings and Metro Policy/Instruction 6.10/5, Metro Employee Identification Cards, Section 5.04. Eligibility for access to WMATA property will be based on WMATA's pre-employment Criminal Background Check criteria. WMATA will provide the Contractor employees with background check consent forms that the Contractor's employees must complete and sign. The forms will require the Contractor employees to appear in person, provide their full legal names, including middle initials if applicable, as well as their Social Security numbers, in addition to other information that will be necessary to conduct the background checks. The operating hours are Monday through Friday from 0700 to 1530 except holidays. Upon receipt of the completed, signed forms, WMATA will conduct background checks including criminal court searches and Social Security Number verifications of the Contractor employees. If there is derogatory information that would disqualify a Contractor employee from receiving a badge to access WMATA property, the Contractor and its employee will be notified that the background check failed. The completed forms are secured in a locked file cabinet and are destroyed 1 year after the expiration date on the Contractor employee's badge. These background checks are expected to take 3-4 weeks for processing. The Contractor employee must allow sufficient time for completion (3-4 weeks). The background check is free of charge.
- B. Background checks are conducted to promote a safe work environment and to protect our company's most important assets: the people we serve and the people with whom we serve. This enables WMATA management to make prudent decisions and maintain a high quality workforce. Contractor employees who successfully complete the background checks are eligible to enter WMATA property once they are issued a Contractor badge. Contractor employees who do not authorize background checks or whose background checks are unsatisfactory will not be granted Contractor badges or access to WMATA property. The records generated by these background checks that contain private information will not be disclosed unless disclosure is required under the PARP/Privacy Policies.

1.5 IDENTIFICATION AND SECURITY CHECKS

- A. All employees of the Contractor and its Subcontractors working on WMATA projects shall prominently display an identification badge issued by the Authority.
- B. Contractor Photo ID Badges: Individuals requiring the Contractor photo ID badges are subject to

the following identification and security checks

1. Provide valid and current photo identification, such as a State-issued Driver's License, State-issued Identification Card, U.S. Passport, or identification from the Immigration and Naturalization Service, such as a Permit to Work or a Permanent Residence Card (Green Card).
2. The individual's identification may be matched against the FBI Watch List and security clearance.
3. The photo identification will be matched against the Contractor's list of employees authorized to work on a particular job.

1.6 ADMINISTRATION

A. Contractor Photo ID Badge:

1. A Contractor Photo ID badge will be required if the individual will be present on Authority Property. Issuance of the Contractor Photo ID badge will require the individual to schedule and report to the Authority's Jackson Graham Building at 600 Fifth Street, NW, Washington DC for processing.
2. Contractor Photo ID badge takes approximately 14 Days to obtain unless personnel have lived outside of the United States within the last year, in which case the background checking process will require additional time to complete.
3. It will be the Contractor's responsibility to immediately notify the Contracting Officer Representative if a worker loses his or her Contractor Photo ID badge. A fee of \$5 for the first instance and \$50 for the second instance will be charged for each lost badge.
4. All Contractor Photo ID badges shall be returned to the Contracting Officer Representative when they are no longer needed.
5. Contractor Photo ID badges shall be renewed on an annual basis
6. No unbadged personnel will be allowed to work on site
7. PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01117 CONSTRUCTION TASKS DETAILS

PART 1 – GENERAL

1.1. BACKGROUND

- A. The Contractor will perform a portion of the work adjacent to existing faregate arrays. The faregate array contains electrical and communication under-floor (U/F) ducts which run parallel to each other beneath the faregates and under the tile floor. These U/F ducts end under the raised floor inside the station Kiosk. The U/F ducts are not contiguous under the Kiosk and shall be treated independently of each other.

The configuration of U/F ducts varies throughout the Metrorail system. A typical configuration for the faregate array is shown in Figure 1 Typical Mezzanine Layout where:

1. A1, A2 indicate the Faregate array communication U/F ducts
2. B1, B2 indicate the Faregate array electrical U/F ducts
3. C indicate the Electrical U/F duct and/or conduit from Kiosk to electrical room

A typical faregate array has two communication U/F ducts and two electrical U/F ducts. In most configurations the communication U/F duct is on the customer entrance side of the faregate array and the electrical duct is on the other side of the faregate array.

Solicitation attachments include the Pre-Inspection Report (PIR) and the Mezzanine Inspection Report (MIR). The PIR provides information on the location of electrical rooms, electrical panels, existing conduits and under-floor hand holes/junction boxes (HH/JB) where duct segments connect. The MIR provides information on U/F duct condition, availability of pull-string within the duct, and proposed pathways for new U/F duct and conduits.

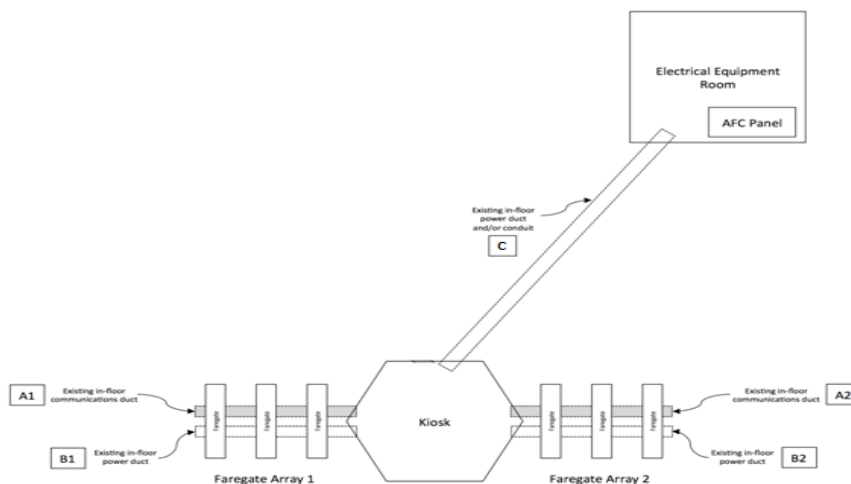


Figure 1 - Typical Mezzanine Layout

- B. The work is divided into 9 tasks (see Section 01110)
- C. As specified in the Summary of Work, one or more of the preceding tasks will be performed at each station mezzanine. A more detailed description of each of the 9 tasks is provided below.
- D. Conduit and duct are considered raceway as defined in NEC 100-I, General.
- E. Underfloor duct shall be Walkerduct Pro Series by Legrand/Wiremold.
- F. Installation of New Raceways - U/F Duct and Conduit

The Contractor shall furnish and install the new U/F duct and exposed galvanized rigid steel conduit to provide a pathway for new circuits or data cables. The MIR includes schematics of mezzanines with suggested pathways and approximate distances between relevant markers within the station. The Contractor shall provide shop schematics with the Contractor's proposed pathway for WMATA approval prior to implementation as part of their Installation Work Plan.

Prior to any trenching or drilling activity the Contractor shall:

1. Perform a Ground Penetrating Radar (GPR) scan or other comparable scan to detect utilities, rebar and/or other obstacles in the floor and walls before cutting or core drilling. GPR results shall be reported in writing to WMATA within 24 hours. Said GPR is to be accepted by WMATA prior to any drilling or demo work being started.
2. Submit the method and proposed equipment for drilling and trenching including the cutting process for the floor and temporary floor trench covering as part of the Site Specific Work Plan (SSWP) for WMATA approval. Floor trenching at the mezzanine level, where the mezzanine is one or two levels above the train platform, a 4" +/- floor tile setting bed exists embedded with a wire mesh. The setting bed is directly atop the mezzanine's reinforced structural slab. The structural slab shall not be penetrated. Refer to Standard Specification Section 02220, DEMOLITION. Where work requires construction of scaffolding, ladders, or other equipment to safely reach the elevated areas, the Contractor shall provide site-specific means and methods to WMATA for approval.

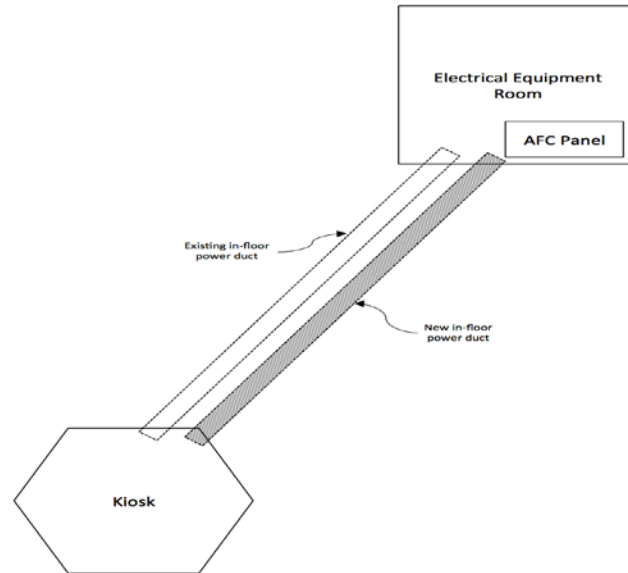


Figure 1a - Typical New Duct Installation, Kiosk to Electrical Equipment Room (Example Schematic)

1.2. TASKS

A. Task 1: Installation of U/F Duct (Electrical)

The Contractor shall:

1. Saw-cut/score and trench the floor to fit a Type #4 Walkerduct and associated materials. Sufficient trench width must be provided to assure full concrete embedment on all sides and bottom of the ducts and junction boxes.
2. Install a new U/F duct. The new U/F duct shall meet the specifications.
3. Install a new handhole/junction box (HH/JB) prior to the each transition from U/F duct to exposed conduit and at 90° duct bends.
4. Ensure all HH/JB cover plates are WMATA-approved and are installed flush with the adjacent tile to prevent any tripping hazard.
5. Fill trench with concrete so that the concrete is level with the base of the adjacent setting bed, allowing room for the mortar base and tile.
6. Retile the disturbed area following the WMATA Standard Specification 09320 TILE for tile installation (floor tiles will be supplied by WMATA).
7. Temporary surface covers must fully cover the trench and provide a flush-to-finished floor edge section. Gorilla Tape or equivalent may be used to seal the edge and provide the flush condition.

B. Task 2: Installation of Exposed Conduit

The Contractor shall:

1. Furnish and install new 1-1/2" inch Galvanized Rigid Steel (GRS) conduit, unless shown otherwise in the Electrical Drawings from the Kiosk to the electrical equipment room
2. Where the raceway route is a combination of under-floor duct and conduit, install a junction box to transition from U/F duct to exposed conduit.
3. When making penetrations into the existing system to support conduit, related hardware or core-drilling for conduit path the area must be scanned to verify that there are no obstructions and to assess depth of existing concrete.

4. Conduit shall be mounted at least 8 feet from the floor or at the highest accessible point possible per the approved Work Plan.
5. Install fire-stopping material at all wall- and floor-penetrations following the WMATA Standard Specification 07841 FIRESTOPPING.
6. Label conduit as indicated in WMATA standard specifications
7. For installations where the conduit enters the Kiosk from above the mezzanine floor or is supported on the Kiosk, reference the Kiosk Drawings in Volume 3.
8. The conduit route indicated in the MIR is the intended route, IF the contractor requests an alternate routing, they must submit this alteration with all necessary supporting details and photos as part of their Installation Work Plan.

C. Task 3: Installation of Faregate Array U/F Duct (Data)

The Contractor shall furnish and install new U/F duct approximately 12 inches from the edge of the faregate end-face, running parallel to the array from Kiosk and beyond the last faregate cabinet. As a reference the faregate array is divided into two sections that WMATA refers to as free or paid side, with respect to the location of the faregates and the Kiosk. New communication duct shall be located on the same side as existing communication duct is installed (refer to Figure 1c).

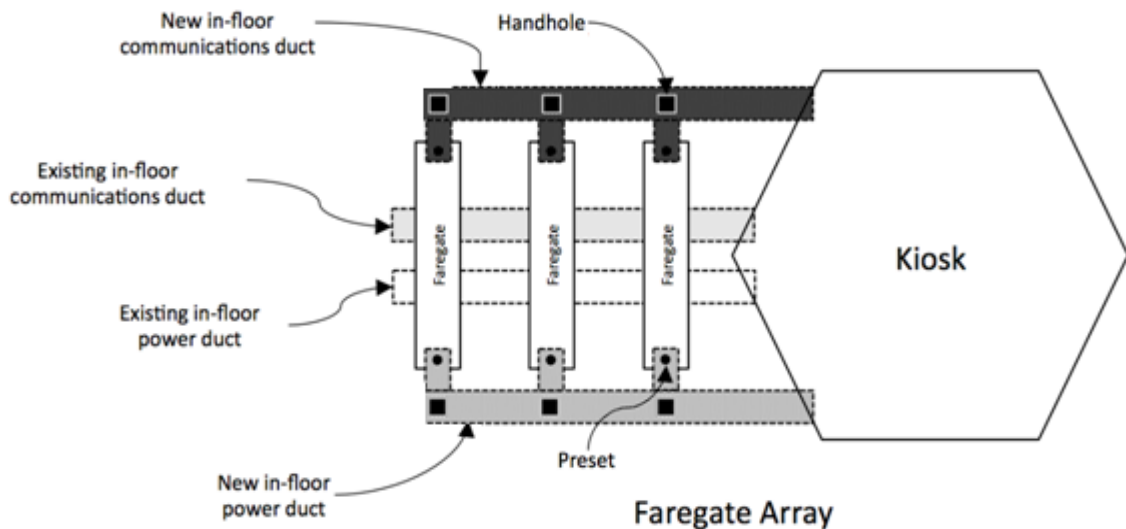


Figure 1c - Typical New Duct Installation - Faregate Arrays (Example Schematic)

The Contractor shall:

1. Saw-cut/score floor and trench to fit a Type #2 or Type #4 Walkerduct at 12 inches from the front face of the faregate.
2. Saw-cut/score floor to form a "T"-shape and trench from main trench to underneath the faregate as shown in Figure 1c.
3. Install and connect main duct segment and duct HH/JB at each duct "T" point. Install duct to extend the raceway from the HH/JB to a location under the faregate cabinet. The raceway shall extend into the faregate (+/- 6 inches) and stub-up and into the faregate cabinet at least 3/4" above the finished floor.
4. Apply sealant per manufacturer recommendations to prevent water penetrating the duct at each duct joint.

5. Fill trench with concrete so that the concrete is level with the base of the adjacent setting bed, allowing room for the mortar base and tile.
6. Ensure all HH/JB cover plates are installed flush with the adjacent tile to prevent any tripping hazard.
7. Temporary surface covers must fully cover the trench and provide a flush-to-finished floor edge section. Gorilla Tape or equivalent may be used to seal the edge and provide the flush condition.
8. Install pull-string from the existing Kiosk IT bay/cabinet to each faregate cabinet in the installed duct.
9. Also install a pull-string between each adjacent faregate cabinet. All pull string shall be rated at 500lb per the approved product data cut sheet.
10. Retile the disturbed area in accordance with WMATA standard specification for tile installation (floor tiles will be supplied by WMATA).
11. The Contractor shall remove the existing sealant around the base perimeter of each of the faregates and re-seal them using Multi-Purpose, Single-Component Polyurethane Sealant approved by WMATA (Tremco Volkem or equivalent 116 Redwood Tan or Black to match the existing adjacent sealant used at that site).

D. Task 4: Installation of Faregate Array Under-Floor Duct (Electrical)

Follow steps 1 through 7, and 9 through 11 in task 3 above for installation of U/F duct for power cables (Power circuit cables will not be installed.) Step 8 is different as follows:

8. Install pull-string from under the Kiosk floor newly installed electrical junction box to each faregate cabinet in the installed power duct. Secure pull-strings at both ends.

E. Task 5: New CAT6 Cable Installation, Termination (Both Ends) and Testing

The Contractor shall:

1. Furnish and install new CAT6 cable and new pull-string from the Kiosk to each faregate cabinet in U/F duct.
2. Existing pull-string from faregate cabinet to Kiosk shall be used to pull new CAT6 and new pull-string. All pull string shall be rated at 500lb per the approved product data cut sheet.
3. Install approx. 4-inch length section of 3-inch GRS conduit as a sleeve/transition through the Kiosk raised floor to allow routing of CAT6 cables from under-floor to a location in the rear corner of the rack cabinet (refer to Kiosk layout in attachments). Deburr both ends of the conduit to eliminate any sharp edges and install conduit bushing.
4. Route cable from below the raised floor to a WMATA-designated bay/cabinet location housing with an existing patch-panel rack.
5. Leave 10 feet of additional cable length under the Kiosk raised floor and an additional length of 5 feet within each faregate cabinet (all cables shall be coiled and secured with a Velcro strap).
6. Terminate CAT6 cables to the patch panel in the Kiosk and to the surface-mount Ethernet jack inside the faregate cabinet on the other end.
7. Terminate the Kiosk-end of the CAT6 cable to an existing 48-port patch panel in the rack using Ortronics part #OR-PHD66U48 or equivalent as approved by WMATA. Refer to the Patch Panel Port assignment and insert layout in the attachments.
8. Terminate the Faregate-end of the cable to an existing front-loading CAT6 single-jack module (Ortronics part #OR-S21600 or equivalent as approved by WMATA) to be installed into a surface-mount outlet box (Ortronics part #OR-404S21U or equivalent as approved by WMATA). The jack and outlet box shall be stored securely and neatly inside the faregate cabinet with the adhesive tape backing untouched. The Contractor shall furnish and install parts #OR-S21600 and #OR-404S21U.
9. Tag the cable ends with a Cable ID according to WMATA AFC and IT/NCS labeling standard using all capital, black letters on white ID heat-shrink tubing or sleeve.
10. Ensure that all CAT6 cable terminations conform to a 568B pinout and the port configuration per the Ethernet Switch port termination table to be provided by WMATA.

11. Perform the CAT6 cable test as defined in the WMATA Department of Information Technology, Network and Communications Services Infrastructure Design and Wiring Standards. Use CAT6/RJ-45 LAN cable tester/analyzer at both cable ends to verify circuit integrity for each of the four circuits in the CAT6 cable. Equipment shall be certified calibrated within 12 months. WMATA IT/NCS department must be present to observe initial cable testing. All cables are to be tested. If any of the cables fail testing the jack and 3" of cable are to be removed/cut off and the cable re-terminated and retested. The full test results for both tests are to be submitted. Pull new CAT6 cable if test still fails.

F. Task 6: Existing CAT6 Cable Termination (both ends) and Testing

The Contractor shall:

1. Terminate and test the existing CAT6 cables that are installed between the Fare Vending Machines and Exitfare Machines, in both paid and free areas, that are currently coiled under the floor of the Kiosk. Fare Vending Machines are abbreviated as TVM, ERM and EXF in the WMATA system
2. The 4-inch length section of 3-inch GRS conduit to be installed as described under task 5 above.
3. Route cable from below the raised floor to a WMATA-designated bay/cabinet location housing with an existing patch-panel rack.
4. Leave 10 feet of additional cable length under the Kiosk raised floor and an additional length of 5 feet within the faregate cabinet (all cables shall be coiled and secured with a Velcro strap).
5. Terminate CAT6 cables to the patch panel in the Kiosk and to the surface-mount Ethernet jack inside the Vending Machine cabinet on the other end.
6. Terminate the Kiosk-end of the CAT6 cable to an existing 48-port patch panel in the rack using Ortronics part #OR-PHD66U48 or equivalent as approved by WMATA. Refer to the Patch Panel Port assignment and insert layout in the attachments.
7. Terminate the vending machine-end of the cable to an existing front-loading CAT6 single-jack module (Ortronics part #OR-S21600 or equivalent as approved by WMATA) to be installed into a surface-mount outlet box (Ortronics part #OR-404S21U or equivalent as approved by WMATA). The jack and outlet box shall be stored securely and neatly inside the faregate cabinet with the adhesive tape backing untouched. The Contractor shall furnish and install parts #OR-S21600 and #OR-404S21U.
8. Tag the cable ends with a Cable ID according to WMATA AFC and IT/NCS labeling standard using all capital, black letters on white ID heat-shrink tubing or sleeve. WMATA shall provide the contractor with a cable tag ID sheet for each kiosk.
9. Ensure that all CAT6 cable terminations conform to a 568B pinout and the port configuration per the Ethernet Switch port termination table to be provided by WMATA.
10. Perform the CAT6 cable test as defined in the WMATA Department of Information Technology, Network and Communications Services Infrastructure Design and Wiring Standards. Use CAT6/RJ-45 LAN cable tester/analyzer at both cable ends to verify circuit integrity for each of the four circuits in the CAT6 cable. Equipment shall be certified calibrated within 12 months. WMATA IT/NCS department must be present to observe initial cable testing.
11. All cables are to be tested. If any of the cables fail testing the jack and 3" of cable are to be removed/cut off and the cable re-terminated and retested. The full test results for both tests are to be submitted. If any cable still fails the testing, remove the failed cable and re-pull, terminate and test a new cable.

G. Task 7: Installation and Termination of Electrical Circuit Cables

The Contractor shall install three 120V, 20A dedicated circuits with ground wire from the electrical panel board to two receptacles located in the Kiosk at each mezzanine and coiled-up wires at both ends for a third circuit. All the cables shall be low-smoke zero-halogen rated cable. All electrical installation shall conform to the WMATA Standard Specifications (Volume 2). See the PIR, MIR and Electrical Design documents for site specific details (Volumes 3 and 4).

The Contractor shall:

1. Install cables for three circuits from the electrical panel board to a NEMA 4X junction box (JB) distribution point located under the Kiosk raised floor. The JB size shall be 8"x8"x4" (HxWxD). Refer to the PIR and MIR concerning the existing pull-string
2. Install 1-1/2-inch LFMC from the U/F duct end-opening as it enters under the Kiosk (6 inches of LFMC inside the duct) to NEMA 4X JB. Place junction box under the raised/removable floor centered in the Kiosk.
3. Note, for the third circuit's cables
 - a. Kiosk Side: Coil, strap and label "Spare AFC". Leave a length of cable equal to the length to the farthest faregate plus 10 ft. under the floor within the under-floor junction box and leave wires un-terminated.
 - b. Panel side: Coil, strap and label "Spare AFC". Leave 10 ft of cable in the AFC panel.
4. Terminate opposite end of LFMC into a junction box knockout.
 - a. Terminate each JB knockout with waterproof connections
 - b. Install a conduit hub at the JB for the third circuit
5. Use waterproof conduit connector/hub for all JB terminations.
6. From the underfloor JB to the Kiosk bay/cabinet area:
 - a. Install 1-inch LFMC from the JB knockout up and into the Kiosk IT Bay Cabinet.
 - b. Install a second 1-inch LFMC from JB knockout up and into the Kiosk Bay Cabinet immediately to the left of the AFC/SOC Bay Cabinet.
 - c. For both pieces of LFMC route the LFMC through the nearest raised floor opening to reach each Bay Cabinet.
 - d. Terminate the load ends of each LFMC to a quad receptacle outlet within each Bay Cabinet
 - e. Install cables: one branch circuit for each quad outlet. After successful completion of insulation resistance test on each cable, terminate the hot, neutral, and ground cables at the outlet, and seal the receptacle outlet.
 - i. Receptacles shall be screw-clamp type
 - f. For conductor sizes larger than the rating of the receptacle terminals, terminate (crimp) the conductor into a butt-splice connector then terminate the opposite end to the receptacle terminals.
 - g. The quad receptacle outlets shall be secured inside each Kiosk Bay.
7. Perform an insulation resistance test of all new cables after installation, but before wire terminations, as defined in WMATA specification section 16120. Test equipment shall be calibrated and certified within 12 months of the test adhered to the instrument. The tests shall be conducted in the presence of a WMATA Engineer or inspector and test results submitted to WMATA. If a test on any cable fails, reinstall the cable.
 - a. Record each insulation test reading in Mega-ohms
8. Terminate the wires at the electrical panel board per electrical design. If deviations from the drawings to the actual field condition are discovered, the Contractor shall notify WMATA within 24 hours.
9. Cable length from panelboard to receptacle shall be continuous cable piece; no cut cable or splices.
10. Perform the following voltage measurements at the quad receptacle:
 - a. Hot to ground
 - b. Hot to neutral
 - c. Hot to receptacle casing
 - d. Verify polarity is correct for the quads receptacles.
 - e. Record each test reading in a-c volts
 - f. If the voltage readings are not the same, investigate and report to WMATA
11. Coordinate with WMATA for secured area and panel board access.
12. Label each cable at both ends per WMATA Standard Specifications in Division 16. Update electrical panel schedule with new circuits in the as-built submittal.
13. Install new pull-string with every cable pull. All pull string shall be rated at 500lb per the approved product data cut sheet.
14. A panelboard schedule print-out shall be provided showing the new circuits added at appropriate circuit breaker slot location.
 - a. Printed schedule shall fit into the panelboard's door slide-in holder.

- b. Schedule text shall be applied from a printer, and not hand-written.
 - c. Label text:
 - i. "Kiosk IT Bay (NEPP)"
 - ii. "AFC Bay (NEPP)"
 - iii. "Faregate Array Spare"
- H. Task 8: Installation, Termination, and Testing of Fiber Optic Cables from Kiosk to Mini-Mezzanine and CAT6 cables between Mini-Mezzanine Devices. All cables are to be tested. If any of the terminations fail testing, the jack and 3" of cable are to be removed/cut off and the cable re-terminated and retested. The full test results for both tests are to be submitted. If any cable fails the testing described, remove the failed cable and re-pull, terminate and test a new cable.

The Contractor Shall:

1. Install a 2-strand multimode indoor/outdoor low smoke zero halogen riser duplex cable with 2.5mm simplex subunits (part# Z-002-DU-5L-F25BK or similar approved by WMATA) and 500lb rated pull-string from the existing Kiosk IT bay/cabinet to the closest or most accessible fare system device at the mini-mezzanine faregate array through existing pathway
2. Identify the existing Ethernet cables prior to removal. The Ethernet cabling that has been previously installed between the Kiosk and the closest or most accessible fare system device at the mini-mezzanine shall be removed and replaced by the MMFO cable. The Ethernet cabling that runs from the individual fare system devices and the fare system device into which the MMFO cable is pulled shall be replaced and be terminated at both ends (refer to Task 5 for detailed description of work). The Fiber optic cable will be installed on pre-determined pathway based on the survey completed by the Contractor (DCI). See MIR for details. Contractor shall take proper care of the conduit during the removal of the Ethernet cables.
3. At the kiosk-side: Fiber optic cable shall be routed into kiosk and terminated at the existing SC fiber module as directed by WMATA IT-NCS. Terminate the fiber cable with SC connector per WMATA IT-NCS "INFRASTRUCTURE DESIGN & WIRING STANDARDS" documentation. Coordinate with IT-NCS on labeling scheme. Fiber connector terminations shall be made with a SC style connector, which shall accept a nominal fiber diameter of 125 micrometers (μM).
4. At the field-side (point of entry): Install the fiber cable with connectors to TracJack Fib-or-Cop Plastic Housing, Base and Cover for fiber optic cable (part # OR-62100040 or similar approved by WMATA)
5. Leave ample slack of 15 feet neatly coiled up inside the AFC device at the mini-mezzanine and slack of 5 feet in the kiosk bay.
6. Contractor to submit product cutsheets for WMATA review prior to installation
7. After installation, the fiber optic cable shall be performance tested. The Contractor shall provide the fiber optic cable test as defined in WMATA's Department of Information Technology, Network and Communications Services Infrastructure Design and Wiring Standards, ANSI/TIA/EIA-568-A, ANSI/TIA/EIA-568-B.1, ANSI/TIA/EIA-526-14, ANSI/TIA/EIA-526-7, Telcordia GR -20-CORE Issue 3 (water penetration), and Telcordia GR -409-CORE Issue 2. Testing shall assure overall integrity and satisfactory performance of all installed cables. The Contractor shall perform the following tests on all fiber optic cable strands but not limited to: Continuity Testing, End-to-end optical or insertion loss, Contractor to use Optical time-domain reflectometer (OTDR) test or equivalent test approved by WMATA for troubleshooting only. All cables are to be tested. If any of the terminations fail testing the jack and 3" of cable are to be removed/cut off and the cable re-terminated and retested. The full test results for both tests are to be submitted. If any cable fails the testing described, remove the failed cable and re-pull, test and terminate a new cable.
8. Contractor may elect to reutilize the runs from the near fiber optic cable point of entry (where the fiber optic cable is pulled into from the kiosk) to individual fare devices. Contractor shall terminate the existing CAT6 cables according to task 8 procedures and requirement. If the Contractor elects to remove the existing CAT6 due to the condition of the cables, Contractor

shall install Ethernet CAT6 cables from the fiber termination (device location) to each of the faregates and vending machines through existing pathway. In order to remove the CAT6, contractor shall submit proper documentation to show the existing cables are damaged and required replacement.

9. The Contractor shall submit the electronic file format test results for WMATA's review

- I. Task 9: Re-pulling, Termination, and Testing of existing but defective CAT6 cables between Kiosk and Fare Vending Devices that fail testing.

The Contractor shall:

1. For each existing CAT6 cable that fails testing under Task 6 above, furnish and install new CAT6 cable from the Kiosk to each Fare Vending Device or Faregate cabinet.
2. Route cable from below the raised floor to a WMATA-designated bay/cabinet location housing with an existing patch-panel rack as described in task 5 above.
3. Leave 5 feet of additional cable length under the Kiosk raised floor and an additional length of 5 feet within the Faregate, or Fare Vending Device cabinet (all cables shall be coiled and secured with a Velcro strap).
4. Terminate CAT6 cables to the patch panel in the Kiosk and to the surface-mount Ethernet jack inside the Faregate or Fare Vending Device cabinet on the other end.
5. Terminate the Kiosk-end of the CAT6 cable to an existing 48-port patch panel in the rack using Ortronics part #OR-PHD66U48 or equivalent as approved by WMATA. Refer to the Patch Panel Port assignment and insert layout in the attachments.
6. Terminate the Faregate or Fare Vending Device-end of the cable to an existing front-loading CAT6 single-jack module (Ortronics part #OR-S21600 or equivalent as approved by WMATA) to be installed into a surface-mount outlet box (Ortronics part #OR-404S21U or equivalent as approved by WMATA). The jack and outlet box shall be stored securely and neatly inside the Faregate / Vending machine cabinet with the adhesive tape backing untouched. The Contractor shall furnish and install parts #OR-S21600 and #OR-404S21U.
7. Tag the cable ends with a Cable ID according to WMATA AFC and IT/NCS labeling standard using all capital, black letters on white ID heat-shrink tubing or sleeve.
8. Ensure that all CAT6 cable terminations conform to a 568B pinout and the port configuration per the Ethernet Switch port termination table to be provided by WMATA.
9. Perform the CAT6 cable test as defined in the WMATA Department of Information Technology, Network and Communications Services Infrastructure Design and Wiring Standards. Use CAT6/RJ-45 LAN cable tester/analyzer at both cable ends to verify circuit integrity for each of the four circuits in the CAT6 cable. Equipment shall be certified calibrated within 12 months. WMATA IT/NCS department must be present to observe initial cable testing.

1.3. MEZZANINE-SPECIFIC WORK DETAILS

1. C01 Metro Center (North Mezzanine) 035
Data test failed for existing CAT6 to faregate #19b and needs to be replaced (Task 5).
2. C01 Metro Center (South Mezzanine) 052
Fare Vending Machines #30, 31, & 32 been relocated and do not have CAT6 installed; requires installation and termination of new CAT6 cables. Existing Exitfare Machine #50 also requires installation of new CAT6 cables (Task 5).

3. C02 McPherson Square (East Mezzanine) 036

Requires installation and termination of new and existing CAT6 cables which run from Faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk, and from Kiosk to end faregate cabinet (Task items 5 through 7). Power cable run between Kiosk and AFC Panel will use existing conduit. Refer to the relevant MIR for additional information.

4. C02 McPherson Square (West Mezzanine) 037

Existing power duct from Kiosk to AFC panel NWMM-1B is at capacity. Requires the use of an identified alternate duct (see MIR) from the Kiosk to Panel NMWW-1A (Room 212) for installation of power cable. This panel is adjacent to the AFC Panel. This then requires the installation of a connection from Panel NMWW-1A to the AFC Panel. Requires installation and termination of new and existing CAT6 cables which run from faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

5. C03 Farragut West (East Mezzanine) 038

Installation of UF electrical duct (Task 1) and HH/JB to transition from UF electrical duct to existing 1" conduit (Task 1), re-utilizing existing conduit (part of the TDM circuits have been decommissioned) that has been run to the AFC panel. Requires installation and termination of new and existing CAT6 cables which run from faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

6. C04 Foggy Bottom-GWU 040

Communications cable path between lower FG array and Kiosk is blocked. A new path is to be established by installing Exposed Conduit from HH1a at end of lower FG array and running this conduit under mezzanine floor along ceiling plenum at platform level (Task 2). Also, due to collapsed power duct, an additional run of Exposed Conduit is required between the AFC Panel and the Kiosk to provide a clear power cable path and the installation of power cables (Task 2). Requires installation and termination of new and existing CAT6 cables which run from faregates and Vending Machines to the Kiosk (Tasks 5 and 6), installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk with a Quad receptacle installed in Kiosk (Task 7). Refer to the relevant MIR for additional information.

7. C05 Rosslyn 041

Requires installation and termination of new and existing CAT6 cables which run from faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 to 7). Electrical cabling between Kiosk and AFC Panel can use existing conduit.

8. C05 Rosslyn (Side/New Entrance) 113

Requires installation and termination of CAT6 cables (both ends) which run from faregates to Kiosk (Task 5), termination of existing CAT6 cabling from Vending Machines to the Kiosk (Task 6) and the installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

9. C06 Arlington Cemetery 042

Requires installation and termination of new and existing CAT6 cables which run from faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk and from the Kiosk to end faregate cabinet (Task items 5 through 7). Power cable run between Kiosk and AFC Panel will use existing conduit. Refer to the relevant MIR for additional information.

10. C06 Arlington Cemetery (Platform) 042M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from Kiosk to a switch to be installed in the AFC vending device at the mini-mezzanine located on track 2 platform to Largo (Task 8). This location also requires installation of CAT6 cabling from the installed switch to all other AFC devices at both platform's mini-mezzanines (Task 5).

11. D01 Federal Triangle 053

Installation of faregate array UF duct for communications cable required for both faregate array (Task 3). Installation of exposed conduit will be needed for electrical cabling run from Kiosk to the AFC panel (Task 2) as the current path for this run has blockages and deteriorating ducts. Work needed includes installation and termination of new CAT6 cabling from the faregates to Kiosk, termination of CAT6 cabling (both ends) from the Fare Vending Machines to the Kiosk, and installation and termination of electrical circuit cables, which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). See MIR for proposed path of new conduit.

12. D02 Smithsonian (North Mezzanine) 054

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

13. D02 Smithsonian (South Mezzanine) 055

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

14. D02 Smithsonian (Eastbound Platform) 055M

This location is a mini-mezzanine. The work includes the installation of CAT6 cabling from the kiosk to all other AFC devices at this mini-mezzanine (Task 5). This work will require installation of conduit in the platform ceiling plenum.

15. D03 L'Enfant Plaza (West Mezzanine) 056

Power ducts from AFC Panel to Kiosk are at capacity. This location requires the installation of exposed conduit to provide a path for the electrical cabling installation from Kiosk to AFC panel (Tasks 2 and 7). Refer to MIR for proposed options for this path. This location also requires installation and termination of new CAT6 cables which run from faregates to Kiosk and termination of existing CAT6 cabling from Vending Machines to the Kiosk (Task items 5 and 6).

16. D03 L'Enfant Plaza (East Mezzanine) 057

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

17. D04 Federal Center SW 058

Upper faregate array communications cabling duct is collapsed requiring installation of UF communications duct for this array (Task 3). Power duct between Kiosk and HH1 has collapsed. This condition requires repair of one of four alternate runs of electrical cabling UF walker duct, installation of a junction box (Task 1), and the installation of new exposed conduit (Task 2) so that a clear path between the Kiosk and AFC Panel can be established. Refer to MIR for full path of proposed power cabling and duct runs. Location also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to Section the relevant MIR for additional information.

18. D05 Capitol South 059

The current path between the AFC Panel and the Kiosk is blocked due to a collapsed duct at expansion joint in mezzanine floor. This condition requires installation of exposed conduit for electrical power cabling (Task 2). Refer to MIR for the proposed new path for electrical cabling run. This location also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

19. D06 Eastern Market 060

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct available for use for electrical cabling run from Kiosk to AFC Panel. Section of duct (10') to be repaired/replaced and an accessible handhole to be installed at existing junction boxes and 90-degree turns. Refer to the relevant MIR for additional information.

20. D07 Potomac Avenue 061

Existing power duct run from AFC Panel to Kiosk impassable. This requires the installation of exposed conduit (Task 2) to provide a clear path from AFC Panel to Kiosk. See MIR for description of the proposed path. Location also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

21. D08 Stadium-Armory (South Mezzanine) 062

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

22. D08 Stadium-Armory (North Mezzanine) 063

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

23. D09 Minnesota Avenue 064

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

24. D10 Deanwood 065

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

25. D11 Cheverly 066

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

26. D12 Landover 067

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

27. D13 New Carrollton 068

Power ducts at capacity so station requires Installation of new exposed conduit (Task 2) for power cabling running between AFC Panel and Kiosk. See MIR for new route. Location also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

28. G01 Benning Road 090

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

29. G02 Capitol Heights 091

Faregate array communications ducts, as well as power cabling ducts between the Kiosk and AFC Panel are all collapsed. This location requires the installation of exposed conduit between the Kiosk and AFC Panel (Task 2). This location also requires UF faregate array communication ducts (Task 3). New junction boxes (JB) are proposed along with core drilling. See the relevant MIR for detailed information on the proposed ductwork and exposed conduit runs including the transition to above drop ceiling. Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

30. G03 Addison Road 092

Upper faregate array communications cable duct is collapsed. This location requires the installation of UF duct for upper faregate array communications cable (Task 3). Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

31. G04 Morgan Boulevard 110

Faregate array communication cable ducts at capacity. Requires installation of faregate array UF communications cable duct (Task 3). Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

32. G05 Largo Town Center 111

Faregate array communication cable ducts at capacity. Requires installation of faregate array UF communications cable duct (Task 3). Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

33. J02 Van Dorn Street 094

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

34. J03 Franconia-Springfield 095

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

35. K01 Court House 096

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

36. K02 Clarendon 097

There is a Walkerduct collapse for the ductwork that houses the electrical power cabling between the Kiosk and the AFC Panel. This location requires the installation of exposed conduit (Task 2) and the use of an alternate UF duct to facilitate a clear electrical cabling path between the AFC Panel and the Kiosk. See MIR for suggested route. Work at this location also includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

37. K03 Virginia Square 098

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

38. K05 East Falls Church 100

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

39. K06 West Falls Church 101

The existing power cabling path between the AFC Panel and the Kiosk has ducts and conduits that are at capacity. This location requires the installation of exposed conduit (Task 2) to create a clear path for the electrical power cabling that is to run between the AFC Panel and the Kiosk. Refer to the MIR for proposed path. Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

40. K07 Dunn Loring 102

Electrical power duct between Kiosk and HH/JB 4 is at capacity. New exposed conduit to be installed (Task 2) to create a clear path from the AFC Panel to the Kiosk. Exposed conduit to be installed along the edge of the wall following the existing conduit pathway. Core drill through wall to the back room hallway. See MIR for suggested path. Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

41. K08 Vienna 103

Electrical power duct between HH/JB 1 and Kiosk is at capacity. To complete a clear path for electrical circuit cabling between Kiosk and AFC Panel a new exposed conduit for electrical power cable to be installed (Task 2). See MIR for detail of the pathway. Faregate array communications ducts are also at capacity so this location also requires the installation of UF faregate array communication cable duct (Task 3). Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

42. C09 Crystal City 045

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

43. C10 Reagan National Airport (South Mezzanine) 046

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

44. C10 Reagan National Airport (North Mezzanine) 093

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

45. C10 Reagan National Airport (Mini-Mezzanine) 093M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from the Kiosk to a switch to be installed in the most accessible AFC vending device at the mini-mezzanine (Task 8). This location also requires installation of CAT6 cabling from the installed switch to all other AFC devices at this mini-mezzanine (Task 5).

46. C12 Braddock Road 047

No clear pathway exists for power cabling pull between the Kiosk and AFC panel due to collapsed duct. Creating clear pathway for power cabling between Kiosk and AFC Panel requires installation of section of under floor (UF) duct, transition from UF duct to conduit and section of new exposed RGS conduit (Task 2). Core drilling will be needed. See MIR for more information for conduit pathway. Location also requires installation and termination of new and existing CAT6 cables, which run from the faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk, and from Kiosk to end faregate cabinet (Task items 5 through 7). Refer to the relevant MIR for additional information.

47. C13 King Street – Old Town (South Mezzanine) 048

No clear pathway exists for power cabling pull between the Kiosk and AFC panel because existing in-floor ducts are at capacity and an impassable 90 degree bend. This location requires installation of UF electrical duct, as well as exposed conduit (Task items 1 and 2). Proposed UF duct will transition to conduit on the outer wall up to approximately 15' and then core drill through the wall. See MIR for more information. Location also requires installation and termination of new and existing CAT6 cables which run from Faregates and Vending Machines to the Kiosk, installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk, and from Kiosk to end faregate cabinet (Task items 5 through 7). Refer to the relevant MIR for additional information.

48. C13 King Street – Old Town (New Entrance) 048M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from Kiosk to a switch to be installed in the most accessible AFC vending device at the mini-mezzanine (Task 8). This location also requires installation of CAT6 cabling from the installed switch to all other AFC devices at this mini-mezzanine (Task 5).

49. C13 King Street – Old Town (North Mezzanine) 112

Requires the installation and termination of CAT6 cables (both ends) which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

50. C15 Huntington (North Mezzanine) 050

Installation of Upper Faregate Array UF communications duct required due to collapsed and deteriorating condition of existing communications ductwork (Task 3). This location requires the installation and termination of CAT6 cables (both ends) which run from the faregates to Kiosk (Task 5) and the termination of existing CAT6 cabling from Fare Vendors to Kiosk (Tasks 6). There is no clear path between AFC Panel and Kiosk for power cable pull, therefore for the electrical circuit cables this location requires installation of UF duct, exposed conduit, the installation of new junction boxes as needed per NEC, as well as termination of the electrical circuit cables (Tasks 1, 2 and 7) that run between the AFC panel and the Kiosk; a core drill through the wall is required. See MIR for new electrical circuit conduit path descriptions and additional information.

51. C15 Huntington (South Mezzanine) 051

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

52. E01 Mount Vernon Square 070

Power ducts between HH/JB 1, HH/JB 2, HH/JB 3, and the AFC Panel are collapsed. A new exposed conduit needs to be installed (Task 2) for the electrical cabling between the AFC Panel and Kiosk. See MIR for proposed path. Station also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

53. E02 Shaw-Howard U (South Mezzanine) 071

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

54. E02 Shaw-Howard U (North Mezzanine) 072

Upper faregate communications duct collapsed. Power ducts between Kiosk, HH/JB 1, HH/JB 2, and Junction Box also collapsed. Location requires installation of upper faregate array UF duct for communications cable (Task 3) and exposed conduit for electrical cables from the kiosk to the AFC panel (Task 2). Core drill through the CMU wall at the top of the existing old telephone booth into the back wall and run conduit across the ceiling to the existing Junction box at Room 217. Other items to be completed are installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for electrical path routing suggestions and additional information.

55. E03 U Street (East Mezzanine) 073

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

56. E03 U Street (West Mezzanine) 074

The current electrical power cabling path between the Kiosk and AFC Panel has sections with collapsed duct and water damage. This location requires the installation of exposed conduit (Task 2). Station also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and the installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for suggested routing of electrical cabling conduit.

57. E05 Georgia Avenue 076

Power cabling run from HH1 to AFC Panel is at capacity. New exposed conduit to be installed from HH/JB 1 to AFC Panel (Task 2), including transition from HH/JB to the conduit. Existing section of power duct from Kiosk to handhole 1 to be used to complete the electrical run between the Kiosk and AFC Panel. Location also requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for suggested routing of electrical cabling conduit.

58. E07 West Hyattsville 077

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

59. E08 Prince George's Plaza 078

Upper faregate array communication duct is collapsed. Existing path of electrical power cabling from AFC Panel to Kiosk is also blocked due to collapsed duct. Work at this location includes installation of faregate array UF communications and power ducts (Task 3 and 4), the installation of exposed conduit (Task 2) for the power cabling run between the Kiosk and AFC Panel. Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to MIR for suggested routing of new ducts and cabling.

60. E09 College Park 079

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

61. E10 Greenbelt 080

Multiple collapses in faregate UF ducts and electrical power ducts between Kiosk and AFC Panel. This location requires installation of a new path for electrical power cabling between AFC Panel and Kiosk. This would include the installation of UF electrical cable duct (Task 1), installation of exposed conduit and new HH/JB and Junction box (Task 2), including transition from duct HH/JB to conduit JB. The installation of faregate array communications cable UF duct also required (Task 3). Other work includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for proposed routing of new ducts and conduit.

62. F02 Archives 081

Electrical power cabling ducts and conduit between AFC Panel and Kiosk are at capacity. Alternate empty duct between Kiosk and JB in ELES machine room #205 to be used. New exposed conduit needs to be installed from JB in room #205 to the AFC panel to complete a clear path for power run from AFC panel to Kiosk. Work at this station includes, the installation of exposed conduit to provide a clear path for this run (Task 2). Refer to MIR for suggested path of new exposed conduit. Work also includes installation and termination of CAT6 cabling to faregates (Task 5), termination of existing CAT6 cabling from Vending Machines to the Kiosk (Task 6), and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task 7).

63. F03 L'Enfant Plaza (North Mezzanine) 082

Current path for electrical power cabling between AFC Panel and Kiosk has difficult bend. Alternate path has been identified. Work includes utilizing this alternate path from Kiosk to AFC Panel to install electrical power cables. See MIR for detailed information on this path. Work at this location also includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

64. F04 Waterfront 083

Requires installation and termination of CAT6 cabling from Kiosk to faregates (Task 5), termination of existing CAT6 cabling from Vending Machines to the Kiosk (Task 6), and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task item 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

65. F05 Navy Yard-Ballpark (West Mezzanine) 105

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

66. F06 Anacostia (North Mezzanine) 085

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

67. F06 Anacostia (South Mezzanine) 106

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

68. F07 Congress Heights 086

Collapsed power cabling duct between Kiosk and AFC panel. A new path between these two points will have to be established by installing new exposed conduit (Task 2). See MIR for details of the routing of the exposed conduit. A core drill is required through the wall into Room C216 where the AFC Panel is located. Work also includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Refer to the relevant MIR for additional information.

69. F08 Southern Avenue 107

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). Existing duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel.

70. F09 Naylor Road 087

Collapsed duct at expansion joint on mezzanine floor. A new path for electrical power cabling between AFC Panel and Kiosk will have to be established. This work will include the installation of UF electrical power cabling duct (Task 1). Refer to MIR for suggested path and other information regarding installation of this new duct work. Work at this location also includes installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7).

71. F11 Branch Avenue 089

Requires installation and termination of new CAT6 cables which run from faregates to Kiosk, termination of existing CAT6 cabling from Vending Machines to the Kiosk, and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Task items 5 through 7). An alternate empty duct and conduit available for use for electrical cabling run from Kiosk to AFC Panel. Refer to the relevant MIR for additional information.

72. A01 Metro Center (West Mezzanine) 001

The existing CAT6 cable to Exitfare #50 failed the permanent link test (tester reported "open wire pair 15' from the patch panel") and needs to be replaced (Task 5).

73. A02 Farragut North (North Mezzanine) 004

No CAT6 cable is installed between the Kiosk and Fare Vending machine 30 and 31. This location requires the installation and termination of the CAT6 cables which run between the Kiosk and these machines (Task 5).

74. A07 Tenleytown-AU 010

WMATA scoped the power ducts from the Kiosk to the AFC Panel and found that one of them is acceptable except last 10' section next to the mechanical room which is collapsed. This section needs to be replaced for future use. Requires replacement/installation of the collapsed section of under-floor power duct and installation and termination of electrical circuit cables which run from the AFC Electrical Panel to the Kiosk (Tasks 1 and 7).

75. A07 Tenleytown-AU 010M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from Kiosk to a switch to be installed in the most accessible AFC vending device at the mini-mezzanine (Task 8). This location also requires installation of CAT6 cabling from the installed switch to all other AFC devices at this mini-mezzanine (Task 5).

76. A08 Friendship Heights (North Mezzanine) 011

The existing CAT6 cabling to Fare Vending Machine #31 failed test and needs to be replaced (Task 5).

77. A12 White Flint 015

There is no CAT6 cabling running from Exitfare Machines #50 and 51 to AFC patch panel in the Kiosk. This location requires the installation and termination of these cables (Task 5).

78. Gallery Place East 021M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from Kiosk to a switch to be installed in the most accessible AFC vending device at the mini-mezzanine (Task 8). This location also requires installation of CAT6 cabling from the installed switch to all other AFC devices at this mini-mezzanine (Task 5).

79. B02 Judiciary Square (West Mezzanine) 022M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from Kiosk using the existing conduits to AFC devices on the mini-mezzanine located on Track 2 Platform to Shady Grove through the mini-mezzanine located on Track 1 Platform to Glenmont (Task 8). Existing CAT6 cables need to be removed from the conduits to make room for new fiber optic cable (coordinate with WMATA prior to removal). Two HUBs/Switches to be installed inside the most accessible AFC vending devices at the mini-mezzanines on both platforms. This location also requires installation of CAT6 cabling from installed HUB/Switches to all AFC devices at both mini-mezzanines (Task 5).

80. B03 Union Station (North Mezzanine) 025

The existing CAT6 cable to Fare Vending Machine #32 is damaged. This cabling will need to be replaced with new cabling or with spare CAT6 in Fare Vending Machine #30 or #35 (Task 5).

81. B07 Takoma 029

The existing CAT6 cabling to Fare Vending Machines #30, 32, 33, and 34 failed testing. Need to install new conduit from Kiosk to Fare Vending Machines (Task 2) and install and terminate new CAT6 cables (Task 5).

82. B07 Takoma 029M

This location is a mini-mezzanine. The work includes the installation of Fiber Optic cables from Kiosk to a switch to be installed in the most accessible AFC vending device at the mini-mezzanine (Task 8). This location also requires installation of CAT6 cabling from the installed switch to all other AFC devices at this mini-mezzanine (Task 5).

83. B11 Glenmont 034

The existing CAT6 cabling to Fare Vending Machine #36 failed test due to insertion loss and needs to be replaced (Task 5).

END OF SECTION

SECTION 01141

ACCESS TO SITE

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for gaining access to Site and describes work hours the Contractor will be allowed in WMATA Trackway and Operating Facilities.

1.2 DEFINITIONS:

- A. Non-Revenue Hours of Work – When the Authority is not operating revenue service trains and the track/work area is made available to the Contractor.
- B. Revenue Service Adjustment (RSA) Hours of Work – These are the service conditions:
 - 1. Single tracking when a single track is made available to the Contractor to work while the Authority operates trains in both directions on the opposite track.
 - 2. Shutdowns when both tracks of a section of line are made available to the Contractor to work.
 - 3. Actual work tasks shall begin at station closing time or at the discretion of WMATA. Work staging, site/safety meetings and other preparation may be done before close as directed by WMATA.

1.3 IDENTIFICATION CARDS

- A. All Contractor personnel needing access to trackway or WMATA operating facilities must have WMATA-issued ID badges. Badge shall be displayed in a prominent manner on each person while engaged in the Work. Access to the Site will be granted only to properly accredited representatives of the Contractor and its Subcontractors when they have completed the required WMATA safety certification and training and received Photo ID Badges.

1.4 HOURS OF WORK

- A. Work such hours per shift, with or without overtime, as many shifts per day and as many days per week as necessary to complete the various parts of the Work and the entire Work within the dates specified and within the restrictions listed below.
- B. Work within WMATA trackway, on station platforms, station mezzanines and/or intermediate station levels, and within WMATA operating facilities affecting revenue service shall be carried out during non-revenue hours and/or Revenue Service Adjustment (RSA) hours and under the oversight of WMATA escorts.
- C. Coordinate and schedule all work with the Contracting Officer Representative to ensure that the Contractor's activities do not interfere with the operation of or access to the Authority's facilities.
- D. Typical working hours for this task will be from 2300 to 0500. Monday work period will officially begin the previous day, Sunday, at 2300 hour. Task(s) that impact revenue service shall not begin until the station is closed.
- E. WMATA periodically extends service hours to accommodate customers during sporting or other large scheduled events. WMATA will notify Contractors of reductions in available working hours as a result of these events. The Contractor will have the option of canceling work during these events at no cost to WMATA.

- F. Project Schedule, as required in Section 01322, CONTRACT PROGRESS REPORTING, shall include a detailed construction-phasing plan based on the Hours of Work commitments by the Authority. If the phasing plan requires RSA hours, these shall be identified by the Contractor in the Project Schedule by calendar quarter within which they will occur.
- G. Site safety meeting shall be conducted at the beginning of each work shift
- H. Emergencies, excluding Acts of God, arise during the course of Metrorail operations that could cause the cancellation of a scheduled work. Emergency notification procedures should be incorporated into project plans for the cancelation of scheduled work as a result of weather or other emergency condition.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01300 ADMINISTRATIVE REQUIREMENTS

SECTION 01312 PROJECT MEETINGS

PART 1 – GENERAL

1.1 INTRODUCTION

Project meetings are essential to the management of the project and it is required for all Stakeholders to attend weekly meetings (or conference calls) and monthly progress meetings. Initial meetings and all subsequent meetings will be held at a WMATA Headquarters or WMATA Project Office located throughout the District of Columbia. Project Management Officers (PMO) for the Prime Contractor Project Manager are required to attend and/or delegate a representative.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for Project meetings. The Project meeting schedule, agenda and minutes are quality assurance records retained throughout the project life cycle.
- B. Project meeting schedule will be issued by WMATA PM and/or delegate.
- C. Project meeting agenda will be issued in advance of the meeting with a list the topics for discussion.
- D. Project meeting minutes shall be captured by WMATA delegate and retained throughout the project life cycle. Meeting minutes, prepared as specified herein, shall state the place and time of the meeting, the names and identification of those present, a brief description of the matters discussed, and the agreements reached.
- E. Meetings shall be held in the Project office or at other locations in the Washington Metropolitan Area, as needed. Contractor and other concerned parties attending these meetings shall each be represented by persons thoroughly familiar with and authorized to conclude matters relating to the Work described in the Contract Documents.
- F. Recorded meeting minutes are uploaded to PROCORE which is a WMATA proprietary data base and repository.

1.3 PROJECT KICK-OFF MEETING

- A. A Project Kick-Off Meeting will be scheduled shortly after Contract NTP. The Contractor Key Staff including Project Manager, Construction Manager, Safety Manager and Quality Assurance Mangers shall be in attendance.
- B. The purpose of the meeting will be to review Contract requirements, review project coordination and deliverable submission procedures; review WMATA Safety and Security requirements; and to plan and coordinate the start of construction activities.

1.4 PRE-CONSTRUCTION SITE MEETINGS

- A. Conduct pre-construction site meetings as needed prior to the start of construction activities that require special coordination for those activities that are deemed to require a separate meeting because of the technical nature of the installation.
- B. The Contractor's Key Staff, Subcontractors, representatives of manufacturers involved in or affected by the installation, coordination, or integration with their materials and installations that

have preceded or will follow and the Authority, the Contracting Officer Representative, and other representatives of the Authority shall attend the meeting.

- C. Notify the Authority in advance of the date, time, location, and topics for review and discussion at each pre-construction meeting. Ensure that other attendees are properly notified. Topics that may require pre-construction meetings include, but are not limited to the following:

1. Installation of equipment or systems
2. Items that require connection to existing Authority equipment or systems as applicable

Other pre-installation meetings as may be called by the Contractor or the Contracting Officer Representative.

- D. Work shall not proceed if the meeting cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of work and schedule a follow-up meeting with the Authority at the earliest date.

1.5 PROGRESS MEETINGS

- A. Conduct weekly coordination and progress meetings at regularly scheduled times convenient for all parties involved. Progress meetings are in addition to specific meetings held for other purposes, such as coordination and pre-construction meetings. A Two-Week Work Plan and Four-Week plan will be developed ongoing by the Contractor prior to the start of the meeting as specified in Section 01322, PROGRESS REPORTING, and will be discussed during the planning portion of the agenda. Additionally, discussions will address administrative and technical issues of concern, determining resolutions, and development of deadlines for resolution within allowable time frames.

1.6 PROGRESS AND QUALITY STATUS REPORT REVIEWS

- A. A preliminary progress and quality status report meeting will be held on a monthly basis prior to the submittal of the Contractor's final Monthly Progress Report and associated documents. The purposes of the meeting are to review and determine the status of each activity in relation to the Contractor's draft Monthly Progress Report and any deficiencies based on the Quality System as specified in Section 01470, QUALITY MANAGEMENT SYSTEM, in order to develop an informal agreement on the monthly progress payment request.
- B. The meetings shall be attended by the Contractor's Key Personnel, the Contracting Officer Representative, and other representatives of the Authority.
- C. Contractor will submit the Daily Project Construction Form prior to the start of work day. The form will be reviewed for completion task assignment, materials and resources required.
- D. The Monthly Progress Report and associated documents, as specified in Section 01322, CONTRACT PROGRESS REPORTING, shall be updated on a monthly basis.
- E. A Four Week Schedule report shall specifically include actual start and completion dates for all activities completed during the reporting period, actual start dates and percent complete for activities started but not completed during the reporting period, estimated start dates for activities scheduled to start during the next period, approved changes in durations of activities, and separate tabulation of monthly earnings including a cumulative tabulation of monthly earnings to date. In computing the monthly earnings, no value will be allowed for partially completed activities.

- F. Update the Monthly Progress Report and associated documents to incorporate all changes agreed to during the preliminary progress and quality status report meeting. A formal progress and quality status report meeting will be held prior to the submittal of the Contractor's progress payment request. The purpose of the meeting is to review and develop a formal joint agreement on the

Monthly Progress Report, job progress, pay items, and quality certification. This meeting shall be held 5 working days after the preliminary progress and quality status report meeting.

- G. Submit the approved Monthly Progress Report and the progress payment request in accordance with Section 00744, METHOD OF PAYMENT.

1.7 CHANGE MEETINGS

- A. Separate meetings will be held in the Washington Metropolitan Area by either the Authority or the Contractor, on an ad hoc basis, to discuss and resolve change order issues as they arise during the course of construction.
- B. This meeting shall be attended by the Contractor's Key Staff, Contracting Officer Representative, and those Subcontractors, or other entities critical to the resolution of any open issues. The parties shall each be represented by persons thoroughly familiar with and authorized to conclude matters relating to the Work described in the Contract Documents.
- C. The Contracting Officer Representative will record meeting minutes and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01321

CONSTRUCTION PHOTOGRAPHS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes procedural requirements for photographic documentation, including digital images and video recordings.

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 01330, SUBMITTAL PROCEDURES, and as described in Section 01322, CONTRACT PROGRESS REPORTING.
- B. Submit 15 Days prior to start of construction, existing condition photos. The contractor is to photograph the existing conditions at the stations where we will be doing Tasks 1, 2, 3 & 4 and submit these for record condition information.
- C. Digital Still Photographs: Submit with record of photographs indicating date of photograph and electronic file name. Submit the following types of still photographs:
 - 1. Digital photos are required and sufficient for project submittals and records.
 - 2. Installation Photographs: Submit every 30 Days, as a part of the monthly billing request, showing each site worked that month (it is not necessary to submit photographs of sites we have not yet worked). For sites worked that month the contractor shall supply 10 photos of each site where task 1-4 work has been preformed; 5 photos are to be provided for each of the other sites worked that month. Photos for sites not worked in that month do not to be submitted.
 - 3. Subject-specific construction photographs such as, but not limited to still photos showing potential change, non-conformance, quality, and property damage.
 - 4. Completion of Construction Photographs: Submit within 30 Days of Notice of Substantial Completion.

PART 2 – PRODUCTS

2.1 STILL PHOTOGRAPHS

- A. Camera Specifications: Provide digital camera with sensor resolution of a minimum of 8 megapixels for producing color digital photographs.
- B. Format:
 - 1. Set camera to produce a digital stamp of the current date and time on each image.
 - 2. Provide required images in .JPG format.
 - 3. Digital photographic files shall be capable of producing standard commercial quality photographs, 8 inches by 10 inches in size.
 - 4. Digital photos shall be uploaded by the Contractor to the WMATA FQ17021 Project Procure website or as directed by the WMATA AR. Each group of digital photographs shall be identified by the Metrorail mezzanine number and name. Each individual photograph shall be

identified with a date/time stamp and a description of the picture. Additional information for individual photographs that may be helpful includes: job location such as survey stationing - to include direction being faced - and progress or problems identified.

5. Identification: electronically label each still photograph with the following information on the top header or footer so it does not interfere with the information presented:

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Project: _____ Contract No: _____

Contractor _____

Description: _____

Photograph No. _____ Date: _____

SECTION 01322

CONTRACT PROGRESS REPORTING

PART 1 – GENERAL

1.0 INTRODUCTION

This section specifies the requirements for submitting daily, weekly and monthly progress reports. All scheduled submittals are submitted to PROCORE with the conventional identification labeled on the document to include the date, Contractor's Name, project number, Station and/or Mezzanine number. Progress reports submitted through PROCORE should be in an electronic format MS-Word or Adobe (PDF) file.

1.1 SUMMARY

- A. This Section specifies the requirements for reporting progress and the development and maintenance of schedules and work plans for the construction of the Project.
- B. The Contractor shall carefully monitor the progress of the Work and construction and provide the Authority with Monthly Progress Report Form detailing the progress of that work.
- C. The approved schedules shall be used by the Contractor to ensure adequate planning, scheduling, managing, and executing of the Work, and to enable the Authority to evaluate work progress and progress payments. These approved schedules shall not be revised without the prior approval or direction of the Contracting Officer Representative. Schedules shall include the following Two Week Schedule; Project Schedule; monthly updates of the Project Schedule; Four Week Schedule; and Daily Pre-Construction Forms, Punch List, Check List/Construction Form.

1.2 REFERENCES

- A. Associated General Contractors Manual - Construction Planning and Scheduling.

1.3 PROGRESS SUBMITTALS

Make the following submittals in accordance with Section 01330, SUBMITTAL PROCEDURES

- A. Monthly Progress Status Report Form shall be submitted in electronic format in MS Word and Adobe (.PDF) and formatted to 8-1/2 by 11 inches or 11 by 17 inches in size.
 1. All schedules and reports shall be prepared and submitted in electronic format and labeled with the Contract Number, Project name, Contractor's name, data.
- B. The Project Schedule submittal, all subsequent schedule updates, and time extension requests shall also include the following computer-generated reports:
 1. The Contractor shall make all corrections to the schedule requested by the Contracting Officer Representative and resubmit the schedule for approval. If the Contractor does not agree with the Contracting Officer Representative's comments, the Contractor shall provide written notice of disagreement within 5 Days from the receipt of the Contracting Officer Representative's comments for the Project Schedule. Contracting Officer Representative's comments to the Initial 90-Day Schedule, Project Schedule, 90-Day Schedule, and Three-Week Work Plans with which the Contractor disagrees shall be resolved in a meeting held for that purpose.
- C. Resubmittals shall conform to the same requirements as original submittals.

1.4 MONTHLY PROGRESS REPORTS

- A. The Monthly Progress Reports shall include a narrative report, schedules, and construction photographs as follows:
1. A narrative description of work accomplished, work activities planned for the upcoming reporting period, problem areas and actions intended by the Contractor to mitigate the problem areas, work that is being performed out of sequence with accepted schedules, status of change orders, notices of potential Claims, status of submittals, and status of Contractor procurement items. Proposed minor logic changes shall be listed and described in the narrative. Include narrative of design progress each month until design is complete and Approved.
 2. Provide a dashboard of cash flow curves indicating graphically the total percentage of work activity/event dollar value scheduled to be in place on early finish, late finish, and actual finish on a monthly and cumulative basis.
 3. Quality Compliance Certification as specified in Section 01470, QUALITY MANAGEMENT SYSTEM.
 4. Construction photographs, as described in Section 01321, CONSTRUCTION PHOTOGRAPHS.

1.5 INITIAL 90-DAY SCHEDULE

- A. A cost loaded schedule covering the first 90 Days of the Contract shall be submitted within 20 working days following the date of the Notice of Award. The Initial 90-Day Schedule is the Contractor's plan for planning, managing, executing, and for recording completed work during the first 90-Day Days of the Project. All approved activities in the Initial 90-Day Schedule shall be incorporated into the Project Schedule.
- B. The schedule shall be time-scaled and may be submitted in either bar chart or Critical Path Method (CPM) format. The Initial 90-Day Schedule shall include the same requirements as the Project Schedule with the exception of information that is not reasonably available in the first 90-Days.
- C. Work items defined in the schedule shall not exceed 20 working days duration.
- D. The initial submittal shall be accompanied by a written narrative that describes the schedule and the approach to the Work that the Contractor intends to employ during the initial 90-Day period of the Contract.
- E. The Initial 90-Day Schedule will be used to process progress payments for the 90-Day period following NTP until the Project Schedule is Approved.

1.6 PROJECT SCHEDULE

- A. A cost-loaded, detailed, calendar time-scaled CPM network diagram schedule covering the complete Period of Performance of the Project, in Primavera, shall be submitted within 20 days following the date of the Notice to Proceed. A Project Schedule, acceptable to the Contracting Officer Representative, shall be in place prior to the third progress payment request being submitted. The original logic of the Initial 90-Day Schedule shall be incorporated into the Project Schedule unless identified changes are submitted and approved by the Contracting Officer Representative.
- B. The schedule must meet all of the dates listed under Special Conditions Section 00824, PERIOD OF PERFORMANCE AND PROJECT SCHEDULE.
- C. The Project Schedule shall be prepared utilizing the Precedence Diagram Method (PDM) of CPM scheduling technique.

- D. The Project Schedule shall show clearly the sequence and interdependence of activities and shall list specifically:
1. Interim station completion dates as specified and staging of the Work shall be prominently identified.
 2. Submittals and Authority review of submittals
 3. Procurement, fabrication, delivery, installation, and testing of major materials and equipment
 4. Work to be performed by other agencies, which affect the schedule
 5. Manpower, material, and equipment restrictions, if any
 6. Inspection of the Work including Punch List/Substantial Completion and Acceptance
 7. The progressive delivery of Record Documents as major sections of the work are completed; for example completion of foundation piling or completion of underground utility work
 8. Resources necessary to accomplish the Work for that activity including, but not limited to, specific equipment, manpower, and material requirements.
 9. The costs of the work for each activity
 10. The graphic network diagram shall be composed of two parts, a Table of Activity Data and a time-scaled graphic network diagram, and shall include the following:
 - a. A Table of Activity Data in columnar format with the pertinent data for each activity in the row corresponding to that activity's placement of schedule. The minimum required data are:
 - (1) Activity ID,
 - (2) Activity Description,
 - (3) Early Start date,
 - (4) Early Finish date,
 - (5) Late Start date,
 - (6) Late Finish date,
 - (7) Total Float,
 - (8) Planned Duration,
 - (9) Monetary value in whole dollars for that activity, labor-days applicable to each activity, and all lag/lead time
 - b. The Contracting Officer Representative may require additional data such as total shifts or other resource data.
 - c. An activity numbering system shall be utilized, which assigns a unique activity identification number to each activity. No two activities shall bear the same activity number or description.
 - d. Activity descriptions shall be brief but shall convey the scope of the work described. Unusual abbreviations shall be explained in a legend. If an activity includes work to be

done by a Disadvantaged Business Enterprise (DBE), that fact shall be identified in the activity description by inclusion of an appropriate parenthetical entry (e.g., Install West Footing Reinforcing Steel (DBE1)) with DBE properly identified in the legend.

- e. A time-scaled graphic network diagram showing logical relationships and constraints formatted in accordance with the following requirements:
 - (1) A bar (node) representing the duration of each work activity scaled to the planned duration with arrows (relationship lines) defining predecessor and successor relationships. Each bar shall contain the following information positioned above, below or adjacent to it in a consistent and legible manner:
 - (a) activity description;
 - (b) abbreviated start and finish dates (the day of the month in which the event occurs),
 - (c) and the activity duration.
 - (2) Lag time in whole Project units (e.g. working days) shall be displayed on each relationship line where it occurs. The use of lag must be minimized and restricted to only those situations where it is not possible to properly define the start or finish of an activity by the use of a normal Finish-to-Start, Start-to-Finish, Start-to-Start, or Finish-to-Finish relationship. Negative lag shall not be used.
- E. The schedule diagram shall indicate a clearly defined critical path, which shall be prominently distinguished.
- F. A written narrative shall accompany the schedule submittal describing the Contractor'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 use of lag time.
 - 1. The supporting narrative shall include the following:
 - a. A realistic approach to meeting the Contract completion date required by the Contract.
 - b. A discussion of the critical path and the most critical activities in meeting the required completion dates.
 - c. A listing of holidays and special non-working days planned during the Contract duration.
 - d. A separate tabulation of estimated monthly and cumulative planned earnings. The monetary values shall be generally consistent with the proposal item breakdown.
- G. Submit the calendar(s) used to calculate the Project Schedule, including: (i) the proposed number of working days per week; (ii) the planned number of shifts per day; (iii) the number of hours per shift; and (iv) all non-working days.
- H. A schedule showing the work completed in less than the Period of Performance, which is found practical and Approved by the Authority, shall be considered to have float. The float shall be the time between the scheduled completion of the Work and the Contract completion date. Float shall not be for the exclusive benefit of either the Authority or the Contractor. Float shall be a resource available to both parties.
- I. A schedule found to be impractical by the Contracting Officer Representative for any reason shall be revised by the Contractor and resubmitted.
- J. Upon Approval by the Authority, the Project Schedule shall be the baseline schedule used to monitor progress.

1.7 MONTHLY UPDATES OF THE PROJECT SCHEDULE

- A. At least once each month, the Contractor shall submit an updated Project Schedule showing the progress of the Work to date and anticipated activities to be worked on.
- B. The Project Schedule shall not be revised to include additional activities, deleted activities, revised activity durations, revised network logic, or any other changes to the schedule, without approval of the Contracting Officer Representative. Only actual progress, completion dates, and anticipated future progress shall be incorporated in a schedule update.
- C. If according to the current updated Project Schedule, the Contractor is 60 or more working days behind the Contract completion date of any milestone, or the schedule contains 60 or more working days of negative float, considering all granted time extensions, the Contractor shall submit a Recovery Schedule, showing a practical plan to complete the work within the Contract time. The Contractor shall execute some or all of the following remedial actions: (i) increase construction labor in such quantities and crafts as necessary to eliminate the backlog of work; (ii) increase the number of working hours per shift, shifts per working day, working days per week, the amount of construction equipment or any combination to eliminate the backlog of work. The Authority may withhold progress payments until a revised schedule, acceptable to the Contracting Officer Representative, is submitted by the Contractor.
- D. Any revisions to the planned sequence, activity durations, interdependency of activities and any other change to the schedule shall be submitted separately for review. Written notification and explanation for the proposed changes and separately revised Project Schedule and narrative reports shall accompany the submittal. Changes shall not be incorporated into the current schedule until the submittal has been accepted by the Contracting Officer Representative. The baseline Project Schedule, i.e., the current schedule excluding schedule changes, shall be submitted along with the proposed schedule changes for the Contracting Officer Representative's review and approval.
- E. Maintain the As-Built Project Schedule data according to the field records and submit to the Contracting Officer Representative on a monthly basis. In addition, retain all monthly schedule updates until the Work has been Accepted.
- F. After all Contract work items are complete, and as a condition of Final Payment, the Contractor shall submit three copies of an As-Built Project Schedule showing actual start and finish dates for all work activities and milestones, based on the accepted monthly updates. The schedule submittals shall be in tabular and in time-scaled PDM plot formats. See Section 00744, METHOD OF PAYMENT, for additional retainage to be withheld until the As-Built Project Schedule is delivered to the Contracting Officer Representative, is reviewed, and is determined to be complete and accurate.

1.8 FOUR-WEEK WORK PLAN

- A. A schedule in a calendar time-scaled bar chart format depicting the Contractor's intended work activities for the upcoming period shall be submitted on a weekly basis due on the first working day of each week. Each activity having 1-day duration shall be prominently noted.
- B. Deviations, including but not limited to sequences of work, timing, and durations of activities from the Initial 90-Day or Project Schedules shall be noted and explained in writing.
- C. 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.
- D. The contractors schedule shall include a two week plan which shall be submitted no later than Noon Monday (as our support request needs to be submitted Tuesday morning 1st thing). This may be a part of the 4 week schedule but must be much more accurate as the second weeks

schedule will be what the escort / support staff will be ordered from. If this information is not provided by Noon Monday the contractor will not be provided with the support necessary for the following week's work. The 2 week portion of the schedule needs to include the work to be accomplished, verification of the switching ordered needed and details on the support personal necessary for the following weeks work.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.1 GENERAL

- A. Schedules shall represent a practical plan to complete the Work within the Period of Performance, and shall convey the Contractor's intent in the manner of prosecution and progress of the Work.
- B. The scheduling and executing of the Project Work in accordance with the schedule are the responsibility of the Contractor.
- C. The submittal of schedules shall be understood to be the Contractor's representation that the schedule meets the requirements of the Contract Documents and that the Work will be executed in the sequence and duration Indicated in the schedule.
- D. All schedule submittals are subject to review and acceptance by the Contracting Officer Representative. The Authority retains the right to withhold progress payments until the Contractor submits a schedule, payment schedule, and updates acceptable to the Contracting Officer Representative.
- E. The approved Project Schedule will be used as the basis for progress payments to the Contractor. Payments will be made by the Contracting Officer Representative only for activities that are 100 percent complete.

3.2 PAYMENT

- A. Submittal Monthly Progress Report at least 5 working days prior to the submittal of a progress payment request. No progress payment request will be processed if there is not an agreed update in place.

3.3 REQUESTS FOR TIME EXTENSIONS

- A. The Contractor is responsible for submitting a written request for any extensions of Period of Performance within the time specified by the Contract. Requests not submitted in writing, without the required documentation, and not submitted within 30 Days will not be considered.
- B. The request shall include documentation with written justification for the extension of time, supporting evidence, and specific references to the Contract for which the basis of the request is being made.
- C. The request shall also include a calendar time-scaled CPM network schedule analysis and reports specified in Article 1.06 herein, depicting the time impact basis of the request with the affected areas prominently highlighted. The Project Schedule to be used in determining the time extension request shall be the current and accepted schedule at the time of the event.
- D. If the Contracting Officer Representative finds that the Contractor is entitled to an extension of time of any completion date under the provisions of the Contract, the Contracting Officer Representative's determination of the total number of Days extension will be based upon the current analysis of the currently approved Project Schedule and upon data relevant to the extension. Extensions of time for performance under any and all of the provisions of the Contract will be granted only to the extent that equitable time adjustments for the activity or activities affected exceed the total float along the paths involved of the most critical path to Project

completion.

- E. The Contractor shall submit a CPM fragment with enough detail to depict the causes, duration, and logic relationship and impact of the current schedule activities. The quantum of delay impact on Contract completion or interim milestone(s) must be determined for time extension.
- F. Critical delays, i.e., delay, which may affect the activities on the current critical path, will be contemporaneously discussed and mutually agreed by all the parties involved. In case the quantum of delays or impact cannot be resolved, the background, issues, work performed, as well as start and finish dates of delays shall be well-documented in chronological order. The Contracting Officer Representative's determination of merit for time extension(s) will be awarded after the Contracting Officer Representative finds entitlement to the Contractor's request and only after the alleged delays are demonstrated to impact the most critical path(s). Data furnished by the Contractor will be used as a basis in the findings of the Contracting Officer Representative.
- G. A complete As-Built Schedule, which has enough detail to depict delay and demonstrate cause-effect delay impact, shall be submitted at the end of the Project.

END OF SECTION

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.0 INTRODUCTION

The following documents will be submitted during Pre-Award evaluation:

- Project Work Approach Narrative due 15 days after bid
- Company Safety Plan due 15 days after bid
- Company QA/QC Plan/Policy due 15 days after bid
- Project Schedule

The following documents will be submitted prior to the start of construction tasks:

- Site Specific Work Plan due 30 days after NTP – this will take ~ 60 days to review.
- Supplemental Work Plan (for work sites with exposed conduit and/or underfloor duct installation) due 90 days after NTP
- Project Specific Quality Management Plan due 30 days after NTP
- Company Safety Plan due 30 days after NTP
- Cost-loaded detailed project schedule in Primavera due 20 days after NTP
- Product and Material Data Sheets due 60 days after NTP
- Employee Licenses and Certifications due 60 days after NTP - it will take approximately 30 days to obtain personnel badging

The following documents will be submitted throughout the entire project life cycle:

- Weekly Construction Work Plan
- Daily work summary
- Switch Order requests and Escort requests
- Four-week Look Ahead Schedule
- Weekly Meeting Notes
- Monthly Progress report
- Safety Tool Box Meeting reports
- Test results
- As-Built mezzanine schematics
- Requests for Information (RFIs)

1.1 SUMMARY

- A. This Section specifies the general requirements and procedures for preparing and submitting design and construction documents to the Authority for approval or for information. The submittals shall consist of, but not be limited to as-built schematics, specifications; Working Drawings; product data; documents, letters, certifications and reports; approval documents; and other submittals.

1.2 DEFINITIONS

- A. Schedule of Required Submittals: A compendium of all required design and construction related submittals identified throughout the Contract Documents.

- B. Contract Document Submittal Log: A document (Master List of Contract Deliverable Documents) indicating the status of all Required Submittals listed in the Schedule of Required Submittals.

1.3 SUBMITTAL SCHEDULE

- A. Authority will provide a preliminary Schedule of Required Submittals, within 14 Days after the effective date of Notice to Proceed (NTP) for the Authority's review. The preliminary Schedule of Required Submittals shall be updated through discussions with the Authority during weekly progress meetings or through special meetings subsequent to initial Authority approval.
- B. The Contract Document Submittal Log, created in MS Excel or MS Access, and maintained in PROCORE shall consist of all submittals required by the Contract Documents. Populate the Contract Document Submittal Log with submittal data as the design and construction progresses. The Contract Document Submittal Log shall list all versions of a submittal, however only one version of a submittal may be in effect at any one time.
- C. Submittals made shall be arranged and maintained in a tabular format by specification Section as well as in chronological order by the dates required for construction. The log shall include:
 - 1. Contract number, specification Section number, project number and title
 - 2. Name of Subcontractor
 - 3. Type of Submittal (Shop Drawings, product data, samples, or other), description of the item, name of manufacturer, trade name, and model number
 - 4. Highlight submittals that are on the critical path and require expedited review to meet the schedule. Indicate lead time to the date of fabrication and installation.
 - 5. State if submitted for approval or information.
 - 6. If a Submittal is a safety critical item based on the approved Certifiable Items List (CIL), include the "Item" number and "Section" (paragraph) number, as shown on the Certifiable Items List.
 - 7. Re-submittals: Reason for change
 - 8. Tested/Inspected By: Identify the entity performing the test
- D. The Contract Document Submittal Log shall be updated and submitted on a monthly basis.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Submit one electronic copy in the format specified, unless noted otherwise, through the Authority's managed PROCORE online tool
- B. Allow [21] Days for review of submissions and resubmissions.
- C. The Contracting Officer's Representative will discard submittals received from sources other than the Contractor.
- D. Prepare separate submittals for each item in a specification Section. Group them in the order listed, paragraph by paragraph, and package them together.
- E. Transmit submittals of related parts of the Work concurrently such that processing will not be delayed for coordination. Incomplete submittals will be returned to the Contractor with no action taken by the Authority.

- F. Place a permanent label or title block on each submittal item for identification.
 - 1. Indicate Project name and Contract number, the date of submission, reference to the specification Section article, and drawing number and detail to which the submittal applies.
 - 2. Indicate name of firm or entity that prepared each submittal.
 - 3. Provide a blank space approximately 5 by 5 inches, in the lower right corner of each drawing just above the title block, to record the Contractor's review and approval markings and action taken by the Contracting Officer Representative. Submittals not reviewed and approved by the contractor and the contractor's QC/QA will be immediately rejected without review and returned to the contractor rejected.
- G. All submittals shall be accompanied with a transmittal form containing the following minimum information.
 - 1. Project name and Contract number, the date of submission, Subcontractor, Supplier, manufacturer name, and submittal number
 - 2. Submittal purpose and description
 - 3. Reference to the specification Section, drawing number, and title
 - 4. Reference applicable standards, such as ASTM or Federal Specification numbers
 - 5. Location(s) where product is to be installed, as appropriate
 - 6. Identification of deviations from the Contract Documents
 - 7. Notation that Submittal is a safety critical item, if identified on the "Certifiable Items List"

1.5 MEETING MINUTES

- A. Prepare meeting minutes that are the responsibility of the Contractor immediately after each meeting. Submit draft copy to Contracting Officer Representative for review within 3 Days in MS Word format.
- B. Submit final meeting minutes in Adobe (.PDF) format 3 Days after receipt of Authority review.

1.6 PRODUCT DATA

- A. Submit product data in Adobe (.PDF) format.
- B. If information must be specially prepared for a submittal because standard published data is not suitable for use, submit as Shop Drawings, not as product data.
- C. Modify manufacturers' standard drawings, catalog cuts, brochures, diagrams, schedules, performance charts, illustrations, calculations, printed installation, erection, application, and placing instructions, and other descriptive data to delete information that is not applicable to the Contract. Indicate dimensions, clearances, performance characteristics, capacities, wiring and piping diagrams, and controls. Supplement standard information with additional information applicable to this Contract.
- D. Submit product data concurrent with samples.

1.7 SAMPLES

- A. Submit samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittals and actual components as delivered and installed.

- B. Maintain sets of accepted samples at the Site, available for quality control comparisons throughout the course of construction activity. Sample sets may be used to determine conformance of construction associated with each set.
 - 1. Samples that may be incorporated into the Work are indicated in individual specification Sections. Samples not incorporated into the Work, or otherwise designated as the Authority's property, are the property of Contractor.
- C. Samples for Verification: Submit full-size units or samples of a size indicated, physically identical with material or the product proposed for use and that shows a full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
- D. Number of Samples: Submit [five] sets of Samples. The Contracting Officer Representative will retain [three] Sample sets; the remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1. Submit a single sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.

1.8 CERTIFICATES AND CERTIFICATIONS

- A. Submit original certificates and certifications in MS Word and Adobe (.PDF) formats.
- B. Provide certificates and certifications that demonstrate proof of compliance with Contract specification requirements for products, materials, equipment, and systems.
- C. Authority Approval of a certification shall not be construed as relieving the Contractor from furnishing products that meet the specified design intent.

1.9 REPORTS

- A. Submit original reports, signed and sealed by a professional engineer in the jurisdiction that the Work is to be constructed, and any related drawings in MS Word and Adobe (.PDF) formats.
- B. Provide reports that demonstrate proof of compliance with Contract specification requirements. The reports include manufactured products, materials, research, equipment, systems, and test reporting in the field or laboratory.
- C. Authority Approval of submitted reports shall not be construed as relieving the Contractor from furnishing products that meet the specified design intent.

1.10 DATA

- A. Submit data and any related schematics and diagrams in PDF formats.
- B. Provide written and graphic information including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations that demonstrate proof of compliance with Contract specification requirements. Provide the name and version of software used for calculations.
- C. Authority Approval of submitted data shall not be construed as relieving the Contractor from furnishing products that meet the specified design intent.

1.11 CONSTRUCTION PHOTOGRAPHS AND VIDEO

- A. All still photographic documentation of the Work shall be provided by the Contractor in digital format.
- B. For detailed submittal procedures see Section 01321, CONSTRUCTION PHOTOGRAPHS.

1.12 AS-BUILT DOCUMENTS

- A. Maintain a record set of drawings and specifications that reflect as-built conditions and that are annotated to show all changes incorporated as Work progresses.
- B. Submit As-Built Schematics in bookmarked-by-discipline Adobe (.PDF) formats that can be plotted either as full-size or half-size drawings that are scalable. Submit as-built documentation per mezzanine within 21 days after said mezzanine's SCI has been accepted by WMATA.
- C. Submit approved As-Built Documents for the completed Work as specified in Section 01775, CLOSEOUT, as elements of the Work are completed and before the scheduled date of Substantial Completion.

1.13 CONTRACTOR'S REVIEW

- A. Review each submittal, including all those provided by Subcontractors and Suppliers of any tier, check for coordination with other Work and for compliance with the Contract Documents. Note: inconsistencies with Contract Documents. Submittals shall bear the Contractor's approval stamp and initials of the reviewer before submitting to the Authority. Submittals not reviewed and approved by the contractor and the contractor's QC/QA will be immediately rejected without review and returned to the contractor rejected.
- B. Each submittal transmittal form shall be signed by the Contractor with a statement, "Having checked this submission, we certify that it conforms to the requirements of the Contract in all respects, except as otherwise indicated".
- C. Do not start work where submittals are required until submittal review is completed by the Authority and Approval, if required, has been received.
- D. Identify approval methods of the various jurisdictional authorities and obtain their approvals as required.

1.14 AUTHORITY'S REVIEW

- A. The Contracting Officer Representative shall receive construction submittals from the Contractor and will distribute them within the Authority for review.
 - 1. Shop Drawings, samples, and other submission reviews by the Authority will not include checking of dimensions for potential conflicts.
 - 2. Approval by the Authority of a specific item will not indicate Approval of an assembly of which the item is a component.
 - 3. Incomplete submittals will be returned for resubmission without review.
- B. Submittals that are reviewed by the Authority will be returned to the Contractor with one of the following approval codes:
 - 1. Code 1: Accepted Without Condition or Comment.
 - 2. Code 2: Accepted As Noted, Resubmittal Not Required. The Contractor shall comply with changes, conditions, or comments on the submittal.
 - 3. Code 3: Disapproved. The entire submittal is disapproved and shall be resubmitted.

1.15 RESUBMISSIONS, DISTRIBUTION, AND USE

- A. Make resubmissions in same form and number of copies as initial submittal. Note the date and content of previous submittal. Clearly indicate extent of revision following submittal procedures as outlined and defined in/for Procore.
- B. Furnish copies of final submittals to manufacturers, Subcontractors, Suppliers, fabricators, installers, Jurisdictional Authorities, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- C. Retain complete copies of submittals on Site.

1.16 RFI ADMINISTRATIVE REQUIREMENTS

- A. Submit one electronic copy on the RFI form provided by the Authority, through the Authority's Project Management Software System (PMSS)- Procore. The Contracting Officer's Representative will return one electronic copy through Procore.
- B. Allow 3 Days for the review of each RFI.
- C. The Contracting Officer's Representative will discard RFIs received from sources other than the Contractor.
- D. All submittals shall be accompanied with a transmittal form containing the following minimum information.
 - 1. Project name and Contract number, the date of submission, and RFI number
 - 2. Clear statement of the question to be addressed by the Authority
 - 3. Reference to the specification Section, drawing number, and title that is the subject of the RFI

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01400 QUALITY REQUIREMENTS

SECTION 01410 REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes information required for conformance to regulatory requirements, such as building codes, mechanical codes, electrical codes, ADAAG regulations, or other regulations applicable to the Project.

1.2 GENERAL

- A. Meet or exceed the WMATA Manual of Design Criteria and WMATA Standard Specifications relevant for each element of the Work as these represent the standards to be used for design and construction. Comply with all Federal, state, and local laws and regulations that control the design and construction of the Project, and meet or exceed the laws and standards relevant for each element of the Work to be installed if they are more stringent than the WMATA Manual of Design Criteria and WMATA Standard Specifications.

- B. All Quality Assurance elements of FTA-IT-90-5001-02.1 shall be followed

1.3 THE JURISDICTIONAL AUTHORITIES, RAILROADS, UTILITIES, AND MISCELLANEOUS AGENCIES

- A. In coordination with WMATA initiate communication with the following entities as appropriate and relevant to the Project.

- B. Federal agencies:

1. Environmental Protection Agency (EPA)
2. Federal Transit Administration (FTA)
3. General Services Administration (GSA)
4. Department of the Interior:
 - a. National Park Service (NPS), National Capital Region
5. Occupational Safety and Health Administration (OSHA)
6. Architectural and Transportation Barriers Compliance Board (ATBCB):
 - a. American with Disabilities Act Accessibility Guidelines (ADAAG)
7. Department of Defense (DOD)

- C. District of Columbia:

1. Fire Department
2. Metropolitan Police Department

- D. State of Maryland:

1. Department of Transportation
- E. Montgomery County:
 1. Department of Transportation
 2. Department of Fire and Rescue Services
 3. Police Department
- F. Prince George's County:
 1. Fire Department
- G. Commonwealth of Virginia:
 1. Department of Public Works and Transportation
- H. City of Alexandria:
 1. Fire Department
 2. Police Department
- I. Arlington County:
 1. Arlington County Fire Department
 2. Arlington County Sheriff and Police Department
- J. Fairfax County:
 1. Fire and Rescue Services
 2. Police Department
- K. City of Falls Church:
 1. Police Department
- L. City of Greenbelt
- M. City of College Park
- N. Town of Riverdale
- O. Town of Capital Heights
- P. Town of Cheverly:
 1. Building and Fire Prevention
 2. Police Department
- Q. Town of Seat Pleasant
- R. Town of University Park
- S. Town of Riverdale
- T. Town of Berwyn Heights

U. City of Rockville

V. City of Fairfax

W. Utilities: See Section 01180, PROJECT UTILITY SOURCES.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01420

REFERENCES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section lists the reference standards cited in the Contract Documents, the organizations or Jurisdictional Authorities whose standards are cited, and common acronyms used in the Contract Documents.
- B. When reference is made to codes, regulations, reference standards, and specifications, the Work shall conform to the current edition as of the date of Award, unless it is superseded by Jurisdictional Authorities.

1.2 ABBREVIATIONS AND ACRONYMS

| | |
|--------|---|
| AAR | Association of American Railroads |
| AASHTO | American Association of State Highway and Transportation Officials |
| ABS | Acrylonitrile-Butadiene-Styrene |
| ac | Alternating Current |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ACI | American Concrete Institute |
| A/D | Analog to Digital |
| ADA | Americans with Disabilities Act |
| ADAAG | Americans with Disabilities Act Accessibility Guidelines |
| AHA | American Hardboard Association |
| AHDGA | American Hot Dip Galvanized Association, Inc AI Asphalt Institute |
| AISC | American Institute of Steel Construction |
| AISI | American Iron and Steel Institute |
| AMCA | Air Moving and Conditioning Association |
| AMTRAK | National Railroad Passenger Corporation |
| ANSI | American National Standards Institute (synonymous with USASI-ASA) |
| API | American Petroleum Institute |
| AREMA | American Railway Engineering and Maintenance of Way Association |
| ARI | Air Conditioning and Refrigeration Institute |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers |
| ASME | American Society of Mechanical Engineers |
| ASNT | American Society of Nondestructive Testing |
| ASTM | ASTM International |
| ATBCB | Architectural and Transportation Barriers Compliance Board |
| AT&T | American Telephone and Telegraph Company |

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| AWG | American Wire Gauge (synonymous with Brown and Sharpe) |
| AWI | Architectural Woodwork Institute |
| AWWA | American Water Works Association |
| AWS | American Welding Society |
| AWPA | American Wood Preservers' Association |
| BG&E | Baltimore Gas and Electric Company |
| BIA | Brick Institute of America |
| BLS | Bureau of Labor Statistics |
| B&O | Baltimore & Ohio Railroad (Division of the CSX Transportation) |
| BOCA | Building Officials and Code Administrators International |
| BTU | British Thermal Unit |
| BTUH | British Thermal Units Per Hour |
| C | Celsius (Centigrade) |
| CAGI | Compressed Air and Gas Institute |
| CAT6 | Category 6 Ethernet Electrical Cable |
| CE | US Army, Corps of Engineers |
| cfm | Cubic Feet Per Minute |
| CISPI | Cast Iron Soil Pipe Institute |
| CMU | Concrete Masonry Unit |
| C&O | Chesapeake and Ohio Railroad (Division of the CSX Transportation) |
| CONRAIL | Consolidated Rail Corporation (formerly Penn Central) |
| CQCS | Contractor's Quality Control System |
| CRSI | Concrete Reinforcing Steel Institute |
| CSX | CSX Transportation (formerly Chessie System, B&O, C&O, and Chesapeake & Ohio) |
| CTI | Cooling Tower Institute |
| dB | Decibel(s) |
| dc | Direct Current |
| DFT | Dry Film Thickness |
| DILM | Ductile Iron Pipe, Cement-Lined and Coated, Mechanical Joint |
| DILP | Ductile Iron Pipe, Cement-Lined and Coated, Push-On-Joint |
| DPST | Double Pole, Single Throw |
| DTS | Data Transmission System |
| EPA | Environmental Protection Agency |
| EPR | Ethylene-Propylene-Rubber |
| F | Fahrenheit |
| FAA | Federal Aviation Administration |

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| FCCCR | Foundation for Cross-Connection Control Research of the University of Southern California Engineering Center |
| FHWA | Federal Highway Administration |
| FM | Factory Mutual Associates |
| FS | Federal Specifications |
| FED STD | Federal Standard |
| FTA | Federal Transit Administration (formerly UMTA) |
| GPH | Gallons Per Hour |
| GSA | General Services Administration |
| HOA | HAND/OFF/AUTOMATIC |
| HP | Horsepower |
| HVAC | Heating, Ventilating and Air Conditioning |
| IBC; | International Building Code |
| ICEA | Insulated Cable Engineers Association |
| ICI | Industrial Coatings International |
| ID | Inside Diameter |
| IEEE | Institute of Electrical and Electronic Engineers |
| IPS | Insert PreSet |
| IRPG | Infrastructure Renewal ProGram |
| ISO | International Organization for Standardization |
| JGB | Jackson Graham Building 600 Fifth Street, N.W. Washington, D.C. 20001 |
| kHz | Kilo Hertz |
| kV | Kilovolts |
| kVA | Kilovolts-amperes |
| kW | Kilowatts |
| LED | Light Emitting Diode |
| LEED | Leadership in Energy and Environmental Design |
| mV | 1,000 volts |
| mVA | 1,000 volts-amperes |
| MCM | 1,000 Circular Mils |
| MCP | Motor Circuit Protector |
| MDNR | Maryland Department of Natural Resources |
| METRO | Logo for the Washington Metropolitan Area Transit Authority |
| MNCPPC | Maryland-National Capitol Park and Planning Commission MS Military Specification |
| MSG | Manufacturers' Standard Gauge |

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| MIL STD | Military Standard |
| MSHA | Maryland State Highway Administration |
| MSS | Manufacturer's Standardization Society of the Valve and Fitting Industry |
| MTPD | Metro Transit Police Department |
| MUTCD | Manual of Uniform Traffic Control Devices |
| MWAA | Metropolitan Washington Airports Authority |
| MWRA | Maryland Water Resources Administration (Part of MDNR) |
| NAAMM | National Association of Architectural Metal Manufacturers |
| NACE | National Association of Corrosion Engineers |
| NAVFAC | USN, Naval Facilities Engineering Command |
| NBGQA | National Building Granite Quarries Association |
| NBS | National Bureau of Standards |
| NC | Normally Closed |
| NCMA | National Concrete Masonry Association |
| NEBB | National Environmental Balancing Bureau |
| NEC | National Electrical Code |
| NEMA | National Electrical Manufacturers Association |
| NFPA | National Fire Protection Association |
| NIOSH | National Institute for Occupational Safety and Health |
| NO | Normally Open |
| NPS | National Park Service |
| NTP | Notice to Proceed |
| NTIS | National Technical Information Service |
| OCCB | Operations Control Center Building 600 Fifth Street, N.W. Washington, D.C. 20001 (see JGB) |
| OD | Outside Diameter |
| OS&Y | Outside Stem and Yoke |
| OSHA | US Department of Labor, Occupational Safety and Health Administration |
| PCI | Pre-stressed Concrete Institute |
| PDI | Plumbing and Drainage Institute |
| PE | Polyethylene |
| PEI | Porcelain Enamel Institute |
| PEI | Petroleum Equipment Institute |
| PEPCO | Potomac Electric Power Company |
| PGFD | Prince Georges County, Fire Department |
| PGDPW&T | Prince Georges County, Department of Public Works and Transportation |
| PGSCD | Prince Georges County, Soil Conservation District |

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| PPHM | Parts Per Hundred Million |
| PPM | Parts Per Million |
| psf | Pounds Per Square Foot |
| psi | Pounds Per Square Inch |
| psig | Pounds Per Square Inch Gauge |
| PVC | Polyvinyl Chloride |
| RCRA | Resource Conservation and Recovery Act |
| rms | Root Mean Square |
| rpm | Revolutions Per Minute |
| RFI | Request For Information |
| ROD | Revenue Operation Date |
| RQD | Rock Quality Designation |
| SDI | Steel Deck Institute or Steel Door Institute, depending upon context in which it occurs |
| SMACNA | Sheet Metal and Air-Conditioning Contractors National Association |
| S1S | Smooth One Side |
| S2S | Smooth Both Sides |
| SJI | Steel Joist Institute |
| SPDT | Single Pole, Double Throw |
| SPST | Single Pole, Single Throw |
| SSPC | Steel Structures Painting Council |
| TBM | Tunnel Boring Machine |
| TCA | Tile Council of America |
| TGA | Thermogravimetric Analysis |
| UFAS | Uniform Federal Accessibility Standards |
| UL | Underwriters Laboratories, Incorporated |
| UMTA | Urban Mass Transit Administration |
| UPS | Unit Price Schedule or Uninterruptible Power System, depending upon context in which it occurs |
| USBR | US Bureau of Reclamation |
| USCG | US Coast Guard |
| USCS | US Commercial Standard |
| USDA/SCS | US Department of Agriculture - Soil Conservation Service |
| USDOT | US Department of Transportation |
| USGBC | US Green Building Council |
| USN/CD | US Navy, Chesapeake Division |
| USPS | US Product Standard |
| USSG | United States Standard Gauge |

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| WAD | Washington Aqueduct Division (Element of U.S. Army C.E., Baltimore District) |
| WSSC | Washington Suburban Sanitary Commission |
| XLPE | Cross-Linked Polyethylene |

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01470

QUALITY MANAGEMENT SYSTEM

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies the Contractor'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.
- B. The Quality Management System shall be consistent with FTA-IT-90-5001-02.1 and ISO 9001:2008 standard.
 - 1. Certification of the Contractor to ISO 9001 is not required. However, certain suppliers and manufacturers shall be certified as required in the specifications.
- C. The Quality Management System shall include a Project Specific Quality Management Plan (PSQMP) utilizing the 15 elements contained in FTA-IT-90-5001-02.1, Design Control Plan, Inspection and Test Plans 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, and as part of the PSQMP.
- E. As a minimum, the QMS/PSQMP Manual shall include all required Policies, Procedures, and the PSQMP describing how this project specific QMS will be documented, implemented, executed and revised as necessary.
- F. The Quality Manual, Policies, Procedures, and PSQMP shall be approved by the Executive(s) responsible for the Contracting entity then forwarded to WMATA for review and approval.

1.2 REFERENCES

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

1. For definitions regarding quality used in this section, refer to FTA Quality Management System Guidelines- FTA-PA-27-5194-12.1 and ISO 8402, Quality management and quality assurance - Vocabulary.

1.3 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. The QMS/PSQMP shall be revised, updated, and approved as necessary throughout the term of the Contract to reflect changes determined by management review, internal audit and/or Authority audit or Assessment to be necessary to improve the Quality system(s). Any revision of the QMS or PSQMP must be submitted to the Authority for approval.
- C. Quality Plan: Contract-specific Quality Plan (PSQMP) modeled after 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.
 1. Management Responsibility
 2. Document Control
 3. Subcontracting and Purchasing
 4. Product Identification and Traceability
 5. Inspection and Testing
 6. Inspection Measuring and Test Equipment
 7. Inspection and Test Status
 8. Nonconformance
 9. Corrective Action
 10. Quality Records
 11. Quality Audits
 12. Training
- D. Inspection and Test Plans/Specific: Submit Work task or component specific Inspection and Test Plans in PSQMP a minimum 60 Days in advance of when the covered work is scheduled to begin.
- E. Quality Reports: Submit the following reports in accordance with the approved Quality Plan/ PSQMP and Quality Procedures.
 1. Quality Reports: Weekly.
 2. Test Status Report: Monthly.
 3. Review and Disposition of Nonconforming Product: With each occurrence.
 4. Corrective Action Reports (CAR)

5. Root Cause Analysis Reports (RCA)
6. Summary of Management Reviews: Monthly during the first 6 months after NTP and not less than quarterly thereafter.
7. Report of all audit results and completion of corrective actions within 30 Days of the completion of an Audit.
8. Quality Compliance Certification with each Monthly Progress Report signed by the Quality Manager

1.4 QUALITY MANAGEMENT SYSTEM REQUIREMENTS

A. Quality Management System

1. The Quality Management System shall be updated to improve the system as necessary throughout the Period of Performance of the Contract to reflect changes determined to be necessary by Contractor management review, Contractor internal audit, and Authority audit. Each update of the Quality Management System requires Authority Approval.
2. 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 Contractor Quality Management System.
3. The execution of the Quality Management System shall be subject to Authority audit throughout the Period of Performance of the Contract.

B. Quality Plan

1. The Quality Plan shall include the signatures of the Officer(s) responsible for the Contractor entity indicating their approval of the Quality Management System.
2. Quality Manager
 - a. Shall have the qualifications specified in Section 01111, CONTRACTOR KEY STAFF.
 - b. Shall perform as the Contractor'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), Procure. 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 controlled to ensure that they are properly integrated into the Work.
 - b. Assure that Contractor's subconsultants, Suppliers, and Subcontractors satisfactorily demonstrate and document an adequate system for managing quality to the Contractor.
 - c. Provide adequate surveillance of subconsultants, 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 Contractor's subconsultants, Subcontractors, and Suppliers.

5. Product Identification and Traceability: The Contractor's Quality Management System shall include provisions to identify and provide traceability of products and materials where appropriate and as required in the Issued for Construction Specifications.
6. Inspection and Testing/General
 - a. Establish an Inspection and Test Plan that conforms to the Quality Management System and the Issued for Construction Specifications 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 Issued for Construction Specifications.
 - 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. 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 Issued for Construction Specifications; 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 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 Contractor. The responsibility for testing and Subcontractor performance remains with the Contractor.
 - i. If tests or certifications conducted by the Authority disclose that work is not in conformance with the Issued for Construction Specifications, then the Authority will advise the Contractor 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). Further, in the case of such non-conformance with the Issued for Construction Drawings and Issued for Construction Specifications, 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. 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 Test Status: 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 Contractor organization to review and provide disposition of nonconforming products shall be identified. The disposition of product that does not conform to Issued for Construction Drawings and Issued for Construction Specifications 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 document results achieved (e.g. test data sheets, test reports, electronic test data, mill certifications, measurement verification sheets, batch tickets) or provide evidence of activities performed (e.g. inspection reports, photos or videos, checklists with sign-offs).
 - 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. 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.
 - d. Quality records generated by Subcontractors, Suppliers, fabricators, and test laboratories shall be traceable to the product being supplied or fabricated and shall be provided in advance of shipment or shall be shipped with the product.
 - e. Retain quality records for the duration required to meet statutory requirements.
12. Quality Audits
- a. Management reviews conducted by Contractor:
 - (1) Management reviews shall occur monthly during the first 6 months of the Contract and not less than quarterly thereafter.
 - (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.
 - b. Internal quality audits conducted by Contractor:
 - (1) Internal audits shall be performed at least quarterly.
 - (2) 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.
 - (3) Audit results shall be provided to the Contracting Officer Representative within 14 Days of the audit with a plan for corrective and preventative action.

(4) Provide notification of completed corrective and preventative action.

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

C. 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 Issued for Construction Specifications to be performed by Contractor, 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 Contractor work activity.

2. As a minimum, the Test Plans shall include the following information:

- a. A matrix of all tests required by the Issued for Construction Specifications to be performed by Contractor, 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 Issued for Construction Specifications.
- 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 Issued for Construction Specifications.
- m. Means for recording test results.

D. QUALITY REPORTS

E. Weekly Quality Reports: 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 week of work. These reports shall be provided to the Contracting Officer Representative weekly.

F. 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 at least monthly.

- G. 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, Issued for Bid Drawings and Issued for Bid Specifications. Work for which satisfactory records for design, testing, inspection, or other quality elements are not available, will not qualify for payment.

1.5 AUTHORITY QUALITY OVERSIGHT

- A. The principal role of the Authority in the implementation of the Quality Program will be oversight of the effectiveness of the Contractor'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 Contractor 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, Issued for Construction Drawings and Issued for Construction Specifications, Contractor shall take 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 Contractor'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 Contractor 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."

1.6 NON-CONFORMANCE

- A. In the event any employee of the Contractor or its Subcontractors fails to adhere to the requirements of this Section, the employee or Subcontractor will be removed from the job until non-conformance is corrected. Such removal will not be grounds for any time extension or additional compensation.

1.7 AUTHORITY AUDITS OF THE CONTRACTOR'S QUALITY MANAGEMENT SYSTEM

- A. At its sole discretion, the Authority may conduct audits, tests, and inspections in addition to those performed by the Contractor.
- B. There will be an ongoing review and evaluation of implementation of the Contractor's Quality Management System to verify that the Contractor is effectively controlling the quality of design and construction.
- C. Audits include audits of fabricators, Subcontractors, subconsultants, Suppliers, and third-party audits (i.e., ISO audits, trade organization certification audits, and audits required to maintain laboratory or testing accreditation).
- D. If the implementation of the Contractor'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, Issued for Construction Drawings and Issued for Construction Specifications. The Contractor 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 Contractor is effectively controlling the quality of the Work. The basis for the audits will be the Quality Management System and the Issued for Construction Drawings and Issued for Construction Specifications.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01500 TEMPORARY FACILITIES AND CONTROLS

SECTION 01530 TEMPORARY DECKING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for temporary decking and pedestrian bridges that may be required for the purpose of maintaining the flow of vehicular and pedestrian traffic during the construction period. Temporary decking and pedestrian bridges includes their support system over excavated areas.
- B. Decking and temporary grade crossing for vehicular traffic as applicable shall be constructed of suitable materials in accordance with Jurisdictional Authority requirements.
- C. Bridges for pedestrians shall be constructed of suitable materials in accordance with Jurisdictional Authority and ADAAG requirements.
- D. When the deck beams or other members supporting such deck are required to carry the support of excavation loads, these members shall also be in compliance with the requirements of Section 02260, SUPPORT OF EXCAVATION.

1.2 RELATED SECTIONS

- A. Section 02260, SUPPORT OF EXCAVATION
- B. Section 02845, TRAFFIC CONTROL DEVICES

1.3 REFERENCES

- A. Americans with Disabilities Act Accessible Guidelines (ADAAG)
 - 1. Standards for Accessible Design
- B. American Association of State Highway and Transportation Officials (AASHTO):
 - 1. AASHTO Standard Specification for Highway Bridges.
- C. American Welding Society (AWS):
 - 1. AWS D1.1 Structural Welding Code - Steel
- D. ASTM International (ASTM):
 - 1. ASTM D2555 Standard Practice for Establishing Clear Wood Strength Values
 - 2. ASTM E274 Standard Test Method for Skid Resistance of Paved Surfaces Using a Full Scale Tire.

1.4 DESIGN CRITERIA

- A. Base designs on WMATA Manual of Design Criteria as a minimum.

- B. Design temporary decking and support system for AASHTO HS20 loading and impact, earth pressures, utility loads, and other applicable live impact and dead loads, including the Contractor's equipment, whether the temporary decking is intended for support of vehicular or pedestrian traffic.
- C. When excavation or construction equipment is to be operated from decking, design decking using actual maximum loads in accordance with design criteria of referenced AASHTO specification, unless otherwise shown.
- D. Design supporting members to allow clearance for existing and relocated utilities.
- E. Provide suitable openings for access for servicing utilities and fire fighting. Provide flush covers for openings.
- F. Bridges for pedestrians shall be constructed of approved suitable materials in accordance with local requirements, be provided with handrails or with sides tightly boarded in accordance with such requirements and shall have a minimum width of [6] feet or such greater minimum width as will accommodate the normal traffic flow at the particular location.
- G. All designs shall comply with ADAAG regulations.

1.5 SUBMITTALS

- A. Submit the following no less than 60 Days prior to the start of construction to the Authority for Approval as specified in Section 01330, SUBMITTAL PROCEDURES, and obtain Jurisdictional Authority approval for:
 - 1. Working Drawings:
 - a. Prior to installation of elements for support of excavation, submit Working Drawings and design calculations for temporary decking and pedestrian bridges.
 - b. Show proposed procedures and methods of constructing temporary structures including support system and necessary construction details.
 - 2. Certifications:
 - a. If previously used materials are utilized, submit certified information concerning each previous use, such information shall include, but not be limited to, the following:
 - (1) Purpose
 - (2) Duration
 - (3) Type of loading

1.6 JOB CONDITIONS:

- A. Responsibilities:
 - 1. Design, construction, maintenance, and removal of temporary construction including decking and support systems are the responsibility of the Contractor.
 - 2. Provide access to Authority personnel for inspections of temporary decking as requested by the Contracting Officer Representative.
 - 3. Maintain vehicular and pedestrian access to buildings at levels existing prior to start of Contract work. Maintain persons with disabilities access in accordance with ADAAG.

4. Perform work in accordance with specified safety requirements as described in Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Timber, Steel, Concrete, and Other Materials:
 1. Used materials are permitted in lieu of new materials provided they are sound and free from defects, which might impair their strength.
 2. Timber: Structural lumber, visually graded in accordance ASTM D2555, minimum working stress 1,100 psi.
- B. Welding: Have welding performed by certified welders and in accordance with the requirements of the AWS D1.1.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Comply with the requirements of Section 02260, SUPPORT OF EXCAVATION. Install and maintain decking at design elevations. Accessibility and decking surfaces and slopes shall be in accordance with ADAAG regulations.
- B. Mechanically laminate decking elements in panels not less than 5 feet wide.
- C. Fabricate, install, and maintain pedestrian bridges at design elevations and as shown on the approved Working Drawings and in accordance with local requirements. All profile grades and cross-slopes or other features required in an accessible path shall be provided and maintained to ADAAG requirements.
- D. Provide and maintain skid-resistant surface.
- E. If asphalt or asphaltic concrete is used on decking, mechanically bond asphalt or asphaltic concrete to decking.
- F. Maintain decking free of snow, ice, water, mud, and debris.
- G. Place premixed asphaltic patching material to provide smooth transitions between existing pavement surfaces and decking and between existing pavement surfaces and pedestrian bridges, and elsewhere as required to provide proper drainage and prevent ponding of water.
- H. As removal of pavement and sidewalk progress, furnish and install barricades in accordance with Section 01560, TEMPORARY BARRIERS AND ENCLOSURES, and requirements of the Jurisdictional Authorities.
- I. Install wooden fence as specified in Section 01560, TEMPORARY BARRIERS AND ENCLOSURES, along sides of decked areas for pedestrian walkways where such walkways are adjacent to open areas, staging/storage areas, and other areas used by the Contractor. Paint barricades and fences and maintain in good repair as specified in Section 01560, TEMPORARY BARRIERS AND ENCLOSURES.
- J. Erect and maintain load limit and other signs as specified in Section 01580, PROJECT SIGNS, to restrict loading on decking so that it does not exceed maximum design loading.
- K. Remove temporary decking along with support systems when no longer required. Comply with the requirements of Section 02260, SUPPORT OF EXCAVATION, when removing support system.

3.2 FIELD QUALITY CONTROL

A. Allowable tolerances:

1. Maintain surface elevations at abutting elements within plus or minus 1/4 inch.
2. Do not allow horizontal gaps to exceed 3/8 inch or ADAAG requirements whichever is more stringent.
3. All profile grades and cross-slopes, curb ramps, ramps, or other features required in an accessible path shall be provided and maintained to ADAAG requirements

B. Skid-Resistant Surface. Provide skid-resistant surface having a Skid Number at 30 mph (SN 30) of no less than 35 when measured in accordance with ASTM E274, and skid resistance shall be in accordance with ADAAG regulations.

C. Protect existing vegetation, structures, utilities and improvements.

3.3 VENTILATION

A. When excavations are decked, provide ventilation as required by the applicable code requirements and Jurisdictional Authorities. Provide ventilation, which meets specified safety requirements as described in Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS.

3.4 ILLUMINATION

A. In areas covered by decking, supply and maintain illumination of sufficient intensity to permit safe and expeditious conduct of all phases of construction and inspection of support system, lagging, bracing, and utilities maintained in place.

B. Provide illumination, which meets specified safety requirements as described in Section 01114, SAFETY/ENVIRONMENTAL REQUIREMENTS.

END OF SECTION

SECTION 01570

TEMPORARY CONTROLS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes security, site, environmental, construction noise, vibration, pollution abatement, use of explosives, controls and management of historical and scientific specimens, required to allow construction to proceed.

1.2 REFERENCES

- A. U.S. Code, Title 42 (The Public Health and Welfare):
 - 1. Chapter 15B (Air Pollution Control), Section 1857, et seq., as amended by Pub. L. 91-604
 - 2. U.S. Code, Title 33 (Navigation and Navigable Waters):
 - 3. Chapter 26 (Water Pollution Prevention and Control), Section 308 (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500)

1.3 SUBMITTALS

- A. Submit the following for approval 60 Days prior to start of construction in accordance with Section 01330, SUBMITTAL PROCEDURES, and with the additional requirements as specified for each:
 - 1. All necessary Working Drawings, specifications, permits, and certifications necessary to comply with local Jurisdictional Authority's erosion and sediment control statues, ordinances, and requirements including, but not limited to current DC Standards and Specifications for Soil Erosion and Sediment Control (DC E&S).
 - 2. Required evidence that the governing air pollution criteria will be met. These criteria and related documents will be retained by the Authority for on-Site examination by FTA as applicable.
 - 3. Program for pollution control prior to beginning operations
 - 4. Proposed haul routes.
 - 5. Plan indicating monitoring locations, including the timing of monitoring measurements to be taken at the construction Site boundaries and at nearby residential, commercial, and industrial property lines.
 - 6. Report articles of historical or scientific value.

1.4 SITE SECURITY

- A. Watchmen: Employ watchmen in adequate numbers to safeguard the Site during non-working hours, night-shift operations, and holidays. If the Authority at any time determines the staff insufficient or incompetent, personnel increases or replacements shall be provided immediately at no additional cost to the Authority.

1.5 EROSION AND SEDIMENT CONTROL

- A. Erosion and sediment materials: No erosion or sediment materials shall be allowed to enter natural or man-made water or sewage removal systems. Erosion materials from excavations, borrow areas, or stockpiled fill shall be contained within the Site. Develop methods to control waste and erosion including such means as filtration, settlement, and manual removal.
- B. Comply with and provide all necessary drawings, specifications, permits, and certifications necessary to comply with local Jurisdictional Authority's erosion and sediment control statutes, ordinances, and requirements including, but not limited to current DC Standards and Specifications for Soil Erosion and Sediment Control (DC E&S).

1.6 POLLUTION ABATEMENT

- A. Conduct operations in a manner to minimize pollution of the environment surrounding the area of work. Specific controls shall be applied as follows:
 - 1. Material transport: Trucks leaving the Site and entering paved public streets shall be cleaned of mud and dirt clinging to the body and wheels of the vehicle. Trucks arriving and leaving the Site with materials shall be loaded so as to prevent dropping materials and debris on the streets. Trucks carrying dirt from the Site shall have their loads covered to minimize fugitive dust. Maintain a suitable vehicle cleaning installation and inspection installation with permanent crew for this purpose. Spills of materials in public areas shall be removed immediately.
 - 2. Waste materials: No waste materials shall be allowed to enter natural or man-made water or sewage removal systems. Develop methods to control waste including such means as filtration, settlement, and manual removal.
 - 3. Burning: No burning of waste will be allowed without written permission from the Authority. When permission is granted, burning shall be conducted in accordance with the regulations of the Jurisdictional Authority. Submit request to the affected jurisdiction for approval.
 - 4. Dust control: By water sprinkling or by other approved methods, continuously control dust generated by construction operations.
 - 5. Noise control: Refer to Article 1.08 below.
 - 6. Submit evidence that the governing air pollution criteria will be met. These criteria and related documents will be retained by the Authority for on-Site examination by FTA as applicable.
 - 7. Submit a program for pollution control that is in compliance with the Air Act and the Water Act prior to beginning operations.
 - 8. Clean air and water:
 - a. The Contractor agrees as follows:
 - (1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Pub. L. 91-604) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500), respectively, relating to inspection, monitoring, entry, reports and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued there under before the award of this Contract.
 - (2) That no portion of the Work required by this Contract will be performed in a Facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Contract was awarded unless and until the EPA eliminates the name of such Facility or Facilities from such listing.

- (3) To use its best management practices to comply with clean air standards and clean water standards at the Facility in which or Site on which the Work is being performed.

b. The terms used in this Article have the following meanings:

- (1) The term Air Act means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub. L. 91-604).
- (2) The term Water Act means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500).
- (3) The term Clean Air Standards means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions or other requirements which are contained in, issued under or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d), respectively, of the Air Act (42 U.S.C. 1857c-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (4) The term Clean Water Standards means any enforceable limitation, control, condition, prohibition, standard or other requirement, which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the EPA or by a State under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).
- (5) The term compliance means compliance with Clean Air or Water Standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the EPA or an air or water pollution control agency in accordance with the requirements of the Air Act or Water Act and regulations issued pursuant thereto.
- (6) The term Facility means any building, plant, installation, structure, mine, vessel, or other floating craft, location or site of operations, owned, leased, or supervised by Contractor or Subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant installation, or structure, the entire location or site shall be deemed to be a Facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent Facilities are co-located in one geographical area.

1.7 ENVIRONMENTAL CONTROL

- A. Maintain temperature and humidity to protect the Work in progress and in place, as well as permanent equipment and materials, stored and installed, against damage from heat, cold, and dampness and take such steps as necessary to protect such work from other adverse conditions.

1.8 CONSTRUCTION NOISE CONTROL

- A. Noise control: Take every action possible to minimize the noise caused by construction operations. When required by Jurisdictional Authorities, noise producing work shall be performed in less sensitive hours of the day or week as directed. Noise produced by the Work shall be maintained at or below the decibel levels specified and within the periods specified.

1. Protection of the public and employees:

- a. Noise abatement measures and precautions shall be taken in order to reduce exposure to

noise. Permissible noise exposure shall be calculated in accordance with the procedures established under the Walsh-Healy Public Contracts Act. Sound levels for public noise exposure due to construction will be measured at the property line of adjacent residential,

commercial, or industrial property or at the property line of the public right-of-way, or 50 feet from the noise source, whichever is greatest, when work is in progress in the public right-of-way, while construction work is in progress. Employee noise exposure levels shall be measured at the employees' normal workstation. In either case sound levels shall not exceed the following:

| B. Exposure per Day (hours) | Sound Level (dBA) |
|------------------------------------|--------------------------|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1-1/2 | 102 |
| 1 | 105 |
| 1/2 | 110 |
| 1/4 or less | 115 |

- a. Repetitive impact noises in the receiving property shall not exceed the following dB limitations:

| C. Duration of Impact Noise | Commercial or Residential Zone | Industrial Zone |
|------------------------------------|---------------------------------------|------------------------|
| More than 12 minutes in any hour | 70 | 77 |
| Less than 30 seconds in any hour | 85 | 92 |
| Less than 3 minutes in any hour | 80 | 87 |
| Less than 12 minutes of any hour | 75 | 82 |

- a. In underground or tunnel construction work, where the above requirements may not be obtained, provide individual auditory protection.
2. Definitions: The following definitions shall be used in differentiating mobile equipment from stationary equipment:
 - a. Mobile construction equipment: Any motorized vehicle powered by an internal combustion engine or electric drive, which is capable of being operated as a vehicle either on the construction Site or in the public right-of-way.
 - (1) Construction equipment is mobile equipment any time it is operated in an automotive mode when performing construction tasks. Such equipment includes compactors, paving machines, front-end loaders, back hoes, scrapers, pavers, ditchers, and trucks.
 - (2) Some construction equipment while in transit may have the characteristic of mobile equipment, but for the purposes of this definition are not to be so considered. Such equipment includes generators, power shovels, cranes, pile drivers, drilling rigs, concrete mixers, pumps, trash compactors, bar benders, and other similar truck-mounted devices.
 - b. Stationary construction equipment: Any device, tool, or other mechanical system powered by an internal combustion engine, pneumatic engine, or electric motor, which does not employ any of the above power sources for automotive propulsion for more than 10 minutes out of every working hour while engaged in construction tasks. Examples of such equipment include truck-mounted compressors, generators, power shovels, pile drivers, cranes, drilling rigs, concrete mixers, pumps, trash compactors, bar benders, augers, and other similar truck-mounted devices.

1.9 CONSTRUCTION VIBRATION CONTROL

- A. Do not cause or permit, beyond the property line of a source, vibration of sufficient intensity to cause another person to be aware of the vibration by such direct means as sensation of touch or visual observation of moving objects. The observer shall be located at or within the property line of the receiving property when vibration determinations are made. Prepare and submit in accordance with Section 01330, SUBMITTAL PROCEDURES, a plan indicating monitoring locations, including the timing of monitoring measurements to be taken at the construction Site boundaries and at nearby residential, commercial, and industrial property lines. Comply with vibration limitation requirements of environmental reports, if provided.

1.10 EXPLOSIVES

- A. The use of explosives for the performance of Contract work will not be permitted.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01600 PRODUCT REQUIREMENTS

SECTION 01610 BASIC PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in construction of the Project.
- B. Administrative procedures for handling requests for substitutions made after award of the Contract are included under Section 01630, PRODUCT SUBSTITUTION PROCEDURES.

1.2 DEFINITIONS

- A. As used herein, the term brand name includes identification of products by make and model. If items called for in the Contract Documents have been identified by a brand name or equal description, such identification is intended to be descriptive, but not restrictive, and is to indicate the quality and characteristics of products that will be satisfactory. Contract Specifications identifying equal products including products of the brand name manufacturer other than the one described by brand name as specified in Section 01630, PRODUCT SUBSTITUTION PROCEDURES, will be considered if such products are clearly identified and are determined by the Designer and the Authority to meet fully the salient characteristics of the products specified in the Contract Documents.

1.3 SUBMITTALS

- A. Submit for review an initial product list with 30 Days of NTP in accordance with Section 01330, SUBMITTAL PROCEDURES. A written explanation for omissions of data and for known variations from Contract requirements shall be included.
- B. Submit for review and Approval a completed product list including a written explanation for omissions of data and for variations from Contract requirements within 30 Days after date of commencement of the construction work. Authority will notify Contractor of acceptance or rejection of the documentation within 21 Days of receipt of the submittal.
- C. Authority Acceptance of the product list does not constitute a waiver of the requirement that products comply with the Contract Documents.

1.4 QUALITY ASSURANCE

- A. Refer to Section 01470, QUALITY MANAGEMENT SYSTEM
- B. Provide products of the same kind from a single source.
- C. Except for required labels and operating data, the manufacturer's or producer's nameplates or trademarks shall not be attached or imprinted on exposed surfaces.
 - 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service connected or power-operated equipment. The nameplate shall contain the following information and other essential operating data:

- a. Name of product and manufacturer
- b. Model and serial number

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. All products shall be delivered, stored, and handled in accordance with the manufacturer's recommendations so as to prevent damage, deterioration, loss, or invalidation of the manufacturer's warranty.
- B. Schedule delivery to minimize storage at the Site and to prevent overcrowding of construction storage and staging areas.
- C. Coordinate the time of delivery with the installation schedule to ensure that hazardous, easily damaged, or those items sensitive to deterioration, theft, and other losses are stored for a minimum holding period.
- D. Though not a product deliverable, scaffolding maybe stored on-site as coordinated with the WMATA inspector.
- E. Products shall be inspected upon delivery by the Contractor to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected. Documentation noting the time, date, and manner of delivery shall be maintained by the Contractor. A statement attesting to the inspection of the products at time of delivery shall be included in the documentation signed by the Contractor's authorized representative.
- F. Products temporarily stored at the Site shall be done so in a manner that will facilitate inspection and measurement of quantity or counting of units. Heavy materials shall be stored in a manner that will not damage supporting construction. Products subject to damage by the elements shall be stored under cover in weather-tight enclosures with ventilation adequate to prevent condensation. Temperature and humidity shall be maintained within range required by manufacturer's instructions.

PART 2 – PRODUCTS

2.1 PRODUCT SELECTION

- A. Provide products that comply with the Contract Documents. All products to be installed in the Work shall be undamaged and, unless otherwise permitted, unused at the time of installation. Products shall include all accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and suitable for the intended use.
- B. Unless otherwise specified, provide standard products of the type that have been produced and used successfully in similar situations on other Authority projects of a similar nature.
- C. Procedures governing product selection include:
 - 1. Where only a single product or manufacturer is named and the notation "no substitution is permitted" is included in the specification, provide the product indicated. No substitutions will be permitted.
 - 2. Where two or more products or manufacturers are named followed by the notation "no substitutions are permitted" is included in the specification, provide one of the products indicated. No substitutions will be permitted.
 - 3. Where the Contract Documents list products or manufacturers that are available and acceptable for incorporation into the Work, accompanied by the term ...or equal or ...or approved equal, the Contractor may propose any available product that complies with Contract requirements. Comply with the requirement of Section 01630, PRODUCT

SUBSTITUTION PROCEDURES, to obtain approval for use of an unnamed product.

4. Where the Contract Documents list the salient features that explicitly describe a product or assembly and a brand name is not included, provide a product or assembly that provides the listed features and otherwise complies with the Contract requirements.
5. Where the Contract Documents explicitly require compliance with performance requirements, and the product complies with those requirements based on the manufacturer's recommended use of the product for the application indicated in the Contract Drawings (as evidenced in published product literature, or by the manufacturer's certification of performance), the Contractor shall submit the product for approval as incorporation into the Work.
6. Where the Contract Documents require only compliance with an imposed code, standard, or regulation, the Contractor may select a product that complies with the standards, codes, or regulations specified.
7. Visual Matching: Where specifications require matching an established item, the Authority's decision will be final on whether a proposed product matches satisfactorily. Where no product is available that adequately matches adjacent products or complies with the other specified requirements, comply with provisions of Section 01630, PRODUCT SUBSTITUTION PROCEDURES, for selection of an alternate product.
8. Where specified product requirements include the phrase ...as selected from manufacturer's standard colors, patterns, textures..., select a manufacturer that provides a range of colors in a product that meets all other Contract Document requirements. In this situation, standard shall imply regularly or routinely produced.

PART 3 – EXECUTION

3.1 PRODUCT LIST

- A. Prepare a product list in tabular form acceptable to the Authority showing products specified in the Contract Documents. Coordinate the timing of delivery of products on the product list with the Contractor's Project Schedule as specified in Section 01322, CONTRACT PROGRESS REPORTING, and Contract Document Submittal Log as specified in Section 01330, SUBMITTAL PROCEDURES. At a minimum, provide the following information for each product:
 1. Related specification Section number
 2. Generic name used in the Contract Documents.
 3. Proprietary name, model number, and similar designation
 4. Manufacturer's name and address
 5. Supplier's name and address
 6. Installer's name and address
 7. Projected delivery date and length of delivery period
- B. Within 14 Days of receipt of product list submittals, Contracting Officer Representative will notify the Contractor of Authority acceptance or rejection of the product list. If rejected, product list shall be corrected by the Contractor and resubmitted for review.

3.2 INSTALLATION OF PRODUCTS

- A. Comply with the manufacturer's instructions and recommendations, and WMATA design criteria and specifications, for installation of all products installed under this Contract unless otherwise specified. Products shall be accurately located, connected and aligned with other elements of the Work, and securely installed in place. All exposed surfaces shall be clean as specified in Section 01740, CLEANING, and protected as necessary to prevent damage and deterioration as specified in Section 01723, PROTECTION OF ADJACENT CONSTRUCTION.

END OF SECTION

SECTION 01630

PRODUCT SUBSTITUTION PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for handling requests for substitutions made after award of the Contract.
- B. Other requirements governing the Contractor's selection of products and product options are included under Section 01610, BASIC PRODUCT REQUIREMENTS.

1.2 DEFINITIONS

- A. Definitions used in the Section are not intended to change the meaning of other terms used in the approved Issued for Bid Drawings and Issued for Bid Specifications.
- B. Contractor requests for changes in products, materials, equipment, and methods of construction as required or specified by Contract Documents or in approved Issued for Bid Drawings and Issued for Bid Specifications are considered requests for substitutions. The following are not considered substitutions:
 - 1. Revisions to Contract Documents or approved Issued for Bid Drawings and Issued for Bid Specifications requested by the Authority.
 - 2. Specified options of products and construction methods included in Contract Documents or in approved Issued for Bid Drawings and Issued for Bid Specifications. Note that products submitted under an alternative or equal are not limited to provision are considered to be substitutions as specified in Section 00210, SUPPLEMENTARY INSTRUCTIONS TO PROPOSERS.
 - 3. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.3 SUBMITTALS

- A. Requests for substitution from the Contractor during design work will be considered by the Authority. Requests for substitution from the Contractor during construction will be considered by the Authority if received with adequate time to allow for Authority review and Approval without delaying the Project Schedule. Requests received that may delay the Project Schedule will be considered or rejected at the sole discretion of the Authority.
 - 1. Submit one electronic copy in Adobe (.PDF) file format of the Brand Name or Equal Form, Section 00433, BRAND NAME OR EQUAL FORM, for each request for substitution to the Contracting Officer Representative for consideration of the form and in accordance with procedures required for Change Order proposals as specified in Section 00748, CHANGES, as deemed appropriate by the Contracting Officer Representative.
 - 2. In each substitution request, identify the product and fabrication or installation method to be replaced. The related WMATA Standard Specification Section, Standard or RFP Drawing numbers, or approved Issued for Bid Drawing numbers shall be referenced in the submittal. Complete documentation showing compliance with the requirements for substitutions shall also be submitted including the following information as appropriate:

- a. Product Data, including drawings, fabrication, and installation procedures.
- b. Samples, where samples of the specified product are requested.
- c. A detailed comparison of significant qualities/salient features of the proposed substitution with those of the material or work specified. Significant qualities shall include elements such as size, weight, durability, performance, visual effect, code compliance, maintenance requirements, energy usage, and environmental considerations.
- d. Coordination information, including a list of changes or modifications made necessary to other parts of the Work and to construction performed by the Authority or separate contractors.
- e. A statement indicating the substitution's effect on the Contractor's Construction Schedule. Indicate the effect of the proposed substitution on overall Period of Performance.
- f. Cost comparison between the product specified and the requested substitution, including a proposal of the net change, if any in the Contract Price.
- g. Certification by the Contractor that the substitution proposed is equal to or better in every respect to that required under the Contract, and that the product will perform as intended. Include a waiver of rights to additional payment or time that may subsequently become necessary should the product fail to perform adequately, or because of changes to other work were required as a consequence of the substitution.
- h. Failure by the Contractor to include the above requirements in the submittal may be cause for rejection of the submittal in its entirety.

1.4 If deemed necessary and within 14 Days of receipt of the submittal, the Contracting Officer Representative may request additional information or documentation that, in its sole judgment is required for the evaluation of the substitution request. Within 21 Days of receipt of the original substitution request or of requested additional information or documentation, the Contractor will be notified of acceptance or rejection of the proposed substitution. If a decision on the use of a proposed substitute cannot be made or obtained within the time allocated, the product specified by name in the Contract Documents or approved Issued for Bid Drawings and Issued for Bid Specifications shall be used.

1.5 SUBSTITUTIONPROCEDURE

- A. The Contractor's request for substitution may be rejected by the Contracting Officer Representative if the substitution would involve:
1. Extensive revisions to Contract Documents.
 2. A proposed change not in keeping with the general intent of Contract Documents.
 3. An untimely request, not fully documented when submitted.
 4. A request that is directly related to an alternative or equal clause or similar language in the Contract Documents.
 5. A product or method of construction that could not be provided within the Period of Performance.
 6. A product or method of construction that could not be approved by a governing authority.
 7. Additional responsibilities or expense to the Authority (including additional expenses for redesign and evaluation services, increased cost of related construction, and other similar considerations) that outweighs any advantage that is being offered to the Authority as a result of the substitution.

8. A method of construction that cannot be provided in a manner that is compatible with other materials, the product cannot be coordinated with other materials, and a warranty cannot be provided for the product in accordance with the requirements of the Contract even though the Contractor expresses a willingness to certify that the apparent deficiencies can be corrected.
- B. Neither the Contractor's submittal nor the Authority's review or Approval of Shop Drawings, product data, or samples that relate to a substitution constitutes an Approval of the requested substitution. Submission of Shop Drawing, product data, or sample submittals does not relieve the Contractor from fulfilling Contract requirements for substitutions.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01700 EXECUTION REQUIREMENTS

SECTION 01711

ACCEPTANCE OF CONDITIONS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies basic requirements for determining acceptable conditions for installation.

1.2 SUBMITTALS

- A. One electronic copy of the pre-installation inspection records.

1.3 PREINSTALLATION INSPECTION REQUIREMENTS

- A. Prior to beginning construction work, the Contractor shall inform the Authority of buildings or structures on which it intends to perform work or which performance of the Project Work will affect.
- B. Conditional inspection of buildings or structures in the immediate vicinity of the Project, which may reasonably be expected to be affected by the Work, will be performed jointly by the Authority and the Contractor. This inspection will be conducted prior to the commencement of construction work to determine pre-existing conditions. After this inspection, the Authority will not assume any responsibility for damages arising from the Work performed and it shall be the responsibility of the Contractor to correct all damages caused by performance of the Contract Work.
- C. Examine substrates, areas, and conditions, with Authority personnel present, for compliance with requirements for installed tolerance and other conditions affecting performance. Record observations from the required pre-installation inspection.
- D. Where a written inspection report requires listing conditions detrimental to performance of the Work, include the following:
 - 1. Description of the Work.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.

1.4 EXAMINATION

- A. General: Verify dimensions shown on existing work and dimensions required for work that is to connect with work not in place in accordance with Section 01721, LAYOUT OF WORK AND FIELD ENGINEERING.
- B. Existing Conditions
 - 1. The existence and location of Site improvements, above and below-ground utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of above and below-ground utilities, mechanical and electrical systems, and other construction affecting the Work. Verify the location and point of connection of utility services.
 - 2. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, water service pipes, and electrical services.

3. Furnish location data for work related to the Project that must be performed by public utilities serving the Project Site.
- C. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- D. Examine rough-in for mechanical and electrical systems to verify actual location of connections before equipment and fixture installation.
- E. Examine new and existing facilities for suitable conditions where products and systems are to be installed.

1.5 ACCEPTANCE OF CONDITIONS

- A. Examine substrates, areas, and conditions, with contract personnel present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 4. Examine new and existing facilities for suitable conditions where products and systems are to be installed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Proceeding with work indicates acceptance of surfaces and conditions.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01722

MOBILIZATION

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes specifications for the following:
 - 1. Organization and mobilization of Contractor's forces;
 - 2. Design, fabrication, and transportation of construction plant and equipment to the Site and setting up of same;
 - 3. Transporting various tools, materials, and equipment to the Site; and
 - 4. Erection of temporary buildings and facilities required for staging and construction operations.
- B. Mobilization shall include mobilization of all construction equipment, temporary facilities, materials, supplies, appurtenances, staffed and ready for commencing and prosecuting the Work; and the subsequent demobilization and removal from the Site of said equipment, appurtenances, and the like upon completion of the Work. Unless otherwise approved, all equipment and materials shall be removed at the end of each work shift.
- C. Mobilization shall also include assembly and delivery to the Site of plant, equipment, materials, and supplies necessary for the prosecution of work, which are not intended to be incorporated in the Work; the clearing of and preparation of the Contractor's work area; the complete assembly, in working order, of equipment necessary to perform the required work; personnel services preparatory to commencing actual work; and all other preparatory work required to permit commencement of the actual work on construction items for which payment is provided under the Contract.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.1 DELIVERY

- A. Delivery to the jobsite of construction tools, equipment, materials, and supplies shall be accomplished in conformance with local governing ordinances and regulations.

3.2 TOOLS AND SUPPLIES

- A. Provide construction tools, equipment, materials, and supplies of the types and quantities that will facilitate the timely execution of the Work.
- B. Provide personnel, products, construction materials, equipment, tools, and supplies at the jobsite at the time they are scheduled to be installed or utilized.

3.3 PLANT LOCATION

- A. Locate plant or plants appropriately close to the portion of the Work for which it will be used.

3.4 DEMOBILIZATION

- A. Upon completion of the Work after each shift, remove construction tools, apparatus, equipment, unused materials, and supplies, plant, temporary facilities, and personnel from the jobsite.

- B. Restore all areas utilized for the Contractor's temporary facilities and staging purposes to their original, natural state or, when called for in the Contract Documents, complete such areas as indicated.

END OF SECTION

SECTION 01731

CUTTING AND PATCHING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies the appropriate methods for performing cutting and patching when installations occur in existing facilities or for improvements including selective demolition, salvaging of materials and equipment, and restoring of pavement and other surfaces and improved areas from damage caused by the Contractor's operations.
- B. This scope excludes the explicit direction to Contractor concerning floor cutting and concrete/tile removal, and core drilling and fire-proof patching as it concerns the electrical and communications raceway (conduit, underfloor duct) installation.
- C. The cutting and demolition of the floor tiles and associated grout/mortar/concrete bed produces a large quantity of dust. This demo work must be conducted in such a manner that the dust will be fully contained during the demo; there is sensitive electronic equipment in the kiosks and fare gates that could be damaged. Dust intrusion into the faregates, vendors of other electronics will not be acceptable and must be prevented. Dust clouds produced by this work will be sufficient reason to shut this activity down until acceptable methods of doing the work have been implemented. Continued problem with this issue will be reason for termination of the contractor.

1.2 SUBMITTALS

- A. Written Request: Submit a written request for approval by the Contracting Officer Representative prior to cutting and patching. A written request is required for any cutting or alteration, which affects:
 - 1. The work of the Authority or any separate contractor,
 - 2. The structural value or integrity of any element of the Project,
 - 3. The integrity or effectiveness of weather exposed or moisture-resistant elements or systems,
 - 4. Building aesthetic qualities for exterior areas or in occupied spaces, or
 - 5. The efficiency, operation life, maintenance, or safety of operational systems.
- B. Cutting and Patching Proposal: Include in written request the following:
 - 1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why if cannot be avoided.
 - 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
 - 3. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
- C. Structural Elements: Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations to show how reinforcement is integrated with the original structure to satisfy requirements.
- D. Should conditions of work or schedule indicate change of materials or methods, submit written

recommendations to the Contracting Officer Representative, including:

1. Conditions indicating change,
 2. Recommendations for alternative materials or methods, and
 3. Resubmittal as required for substitution.
- E. Approval by the Contracting Officer Representative to proceed with cutting and patching work does not waive the Authority's right to later require complete removal and replacement of any part of the Work found to be unsatisfactory.

1.3 QUALITY ASSURANCE

- A. Refer to Section 01470, QUALITY MANAGEMENT SYSTEM
- B. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load carrying capacity or load deflection ratio. Obtain prior approval from the Contracting Officer Representative of the cutting and patching procedures proposed.
- C. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety. Obtain prior approval from the Contracting Officer Representative of the cutting and patching procedures proposed.
- D. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Contracting Officer Representative's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching.
1. If possible, retain the original installer or fabricator to cut and patch exposed Work. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.
 2. Remove and replace construction cut and patched in a visually unsatisfactory manner.

1.4 EMBEDDED ITEMS

- A. When reinforcing steel, conduit or other items embedded in the concrete are encountered in a drilling or coring operation, the operation shall be stopped and the Contracting Officer Representative immediately notified. Utilize a GPR-based tool to assess the embedded material. Determine whether the embedded item may be cut through and if determined to be permissible, obtain Contracting Officer Representative's concurrence before doing so. If it is not permissible to cut through the embedded item, holes shall be drilled in another location and the original holes patched as directed by Contracting Officer Representative.

1.5 PAVEMENT AND IMPROVED AREAS RESTORATION

- A. As applicable, secure permits from the Jurisdictional Authority for all pavement restoration within the limits of said Jurisdictional Authority. Submit Working Drawings of such pavement restoration prepared in accordance with the requirements of the Issued for Construction Drawings, Issued for Construction Specifications, and the Jurisdictional Authority to the Jurisdictional Authority for approval.
- B. During construction operations on this Contract, certain areas currently grassed, landscaped, or otherwise improved may be disturbed or damaged. Restore such areas as specified in Section 00736, PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES AND IMPROVEMENTS.

- C. Existing surfaces marred or damaged by operations under this Contract shall be repaired or replaced by the Contractor to the condition prior to being marred or damaged as approved by the Contracting Officer Representative.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used, use materials whose installed performance will equal or surpass that of existing materials.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
- B. After uncovering work, inspect conditions affecting installation of new products.
- C. Report unsatisfactory or questionable conditions to the Contracting Officer Representative in writing, and do not proceed with the Work until the Contracting Officer Representative has provided further instruction.

3.2 PREPARATION PRIOR TO CUTTING AND PATCHING

- A. Temporary Support: Provide shoring, bracing, and support as required to maintain structural integrity of the affected portion of the Work.
- B. Protection: Protect existing equipment during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations. The cutting and demolition of the floor tiles and associated mortar/concrete bed produces a large quantity of dust. This demo work must be conducted in such a manner that the dust will be fully contained during the demo; there is sensitive electronic equipment in the kiosks and fare gates that could be damaged. Dust intrusion into the faregates, venders of other electronics will not be acceptable and must be prevented. Dust clouds produced by this work will be sufficient reason to shut this activity down until acceptable methods of doing the work have been implemented.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.3 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or elements adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations.

1. In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 3. Cut through concrete and masonry using a cutting machine such as a carbon saw or diamond core drill.
 4. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated, or abandoned. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after bypassing and cutting.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Where removal of walls or partitions extends from one finished area into another, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary to achieve uniform color and appearance.
 4. Where patching occurs within a smooth painted surface, apply a primer and second coat over the patched area and extend the final coat over the entire unbroken area containing the patch.
 5. Patch, repair, or rehang existing ceilings as necessary to provide an even plane surface of uniform appearance.

3.4 CLEANING

- A. General: Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Completely remove paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION

SECTION 01740

CLEANING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes specifications for furnishing all labor, materials, equipment, and services, and performing all operations necessary for, and properly incidental to, cleanup during construction and final cleaning of the facilities and site prior to Acceptance by the Authority.

1.2 RELATED SECTIONS

- A. Division 16, Electrical, for conduit cleaning.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.1 CLEANUP DURING CONSTRUCTION

- A. Keep the entire Site in a neat and orderly condition at all times during construction. Conduct a general cleanup of the Site daily as a part of the Work. Provide general daily cleanup and disposal service for removal of waste and rubbish from the jobsite. Clean material as necessary prior to incorporating into the Work.
- B. Dispose and recycle waste, trash, and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by Jurisdictional Authorities. Bury no waste material and debris on the Site. Burning of trash and debris on the Site is prohibited.
- C. Provide daily litter pickup within Project limits. Provide adequate number of trash receptacles for worker's lunches, cigarette butts, and other miscellaneous garbage.
- D. The contractor shall conduct a complete and thorough clean the work site at the completion of every shifts work, returning it to the condition, or better, it was in prior to starting work.
- E. The contractor is to provide ALL of the necessary tools and materials necessary to complete their clean up – the use of WMATA materials and tools will not be allowed.

3.2 FINAL CLEANING OF FACILITIES

- A. Prior to final inspection by the Contracting Officer Representative, and after all construction work is essentially complete, thoroughly clean facilities utilizing professional facility cleaners.
- B. Items to be cleaned include, but are not limited to, all glass, doors, opening frames, grilles, trim, exposed non-ferrous metal surfaces, floor coverings, light fixtures and plates, plumbing fixtures and trim, and all finish surfaces throughout the construction.
- C. Vacuum-clean where appropriate and remove all spots, smears, dust, debris, hand prints, and defacements of every sort, including those of vandals. Use commercial cleaning compounds where necessary.
- D. Follow the recommendations of the manufacturers of the materials and items to be cleaned for all cleaning, polishing, and treatment such as waxing or sealing.

3.3 FINAL SITE CLEANUP

- A. Prior to final inspection, thoroughly clean the entire Site so it is in a neat, acceptable condition. Remove from the entire Site all construction equipment and facilities, construction waste and unused materials, dunnage, loose rock and stones, excess earth, and debris of any description resulting from the Work.
- B. Hose down and scrub clean where necessary all pavement and paved walks.
- C. Thoroughly remove mortar droppings from concrete slabs and pavement. Hose down and scrub clean all concrete flatwork and exposed vertical surfaces of concrete and masonry. Clean all rail surfaces, special trackwork, track drains, handholes, and manholes.
- D. All drainage systems shall be free and clear. All drainage systems and sewers shall be pressure cleaned and inspected, and all catch basins and sumps shall be cleaned.
- E. All conduits shall be cleaned and openings protected as specified in Division 16, Electrical.
- F. All spare material shall be delivered to the Authority.

END OF SECTION

SECTION 01775

CLOSEOUT

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes specifications for performing all operations necessary for and incidental to closing out a Contract and assisting in the Authority's final inspection.
- B. This Section includes procedures for closeout submittals including the following:
 - 1. Substantial Completion Inspection Report;
 - 2. As-Built Schematics;
 - 3. Survey record log;
 - 4. Correspondence file;
 - 5. Releases;
 - 6. Vouchers;
 - 7. Records for design (if provided by Contractor), inspection, testing, and other quality elements;
 - 8. Request for final payment;
 - 9. Certifications, affidavits, and warranties and guarantees; and
 - 10. Correction of deficiencies submittals as applicable
- C. This Section establishes required actions by the Contractor for facility systems and subsystems commissioning that include the preparation of preventive maintenance instructions and labeling and packaging of spare parts.

1.2 CLOSEOUT SCHEDULE AND PROCEDURE

- A. Changes from Original Conditions:
 - 1. Upon completion of the Work and prior to Substantial Completion, the Contractor shall examine each property to determine changes from the original conditions established by the preconstruction inspection, and Section 01711, ACCEPTANCE OF CONDITIONS, and shall furnish a written description to the Contracting Officer Representative of measures taken to correct damage that may have resulted from performance of this Contract, and shall obtain a written release from each owner accepting condition of the building or structure, corrections, or both, thereby relinquishing any claim against the Contractor. In the event any owner refuses to furnish a release of claims, the Contractor shall notify the Contracting Officer Representative in writing.
 - 2. The Authority will not assume responsibility for alleged damages arising from the Work performed under this Contract.
- B. Requirements Preparatory to Final Inspection by the Authority:
 - 1. Notify the Contracting Officer Representative to perform a preliminary final inspection for the

purpose of determining the state of completion of the Work. Notify the Contracting Officer Representative at least 14 Days in advance of requested inspection. The Contracting Officer Representative will perform the inspection within 3 working days of the requested date. From the information gathered from this inspection, the Contracting Officer Representative will prepare a Punch List of work to be performed, corrected, or completed before the Work will be accepted. All work on the Punch List shall be completed by the Contractor prior to final inspection.

2. Temporary facilities, except as may be required during Punch List work, shall be removed from the Site.
3. Clean the Site and all applicable appurtenances and improvements as specified in Section 01740, CLEANING.
4. Properly mount operating instructions for equipment and post as specified or required.

C. Final Inspection by the Authority:

1. After all requirements preparatory to the final inspection have been completed as hereinbefore specified, notify the Contracting Officer Representative to perform the final inspection. Notice shall be given at least 14 Days in advance of the time the Work will be available for final inspection. The Contracting Officer Representative will perform the inspection within 3 working days of the requested date.
2. Contractor or its principal superintendent, authorized to act on behalf of the Contractor, shall accompany the Contracting Officer Representative on the final inspection, as well as any principal Subcontractors that the Contracting Officer Representative may request to be present.
3. If the Work has been completed in accordance with the Contract Documents, and no further corrective measures are required, the Contracting Officer Representative will accept the Work and will issue a Certificate of Completion as evidence of acceptance.
4. If the Work has been substantially completed in accordance with the Contract Documents, and the Work can be used for its intended purpose with only minor corrective measures required, the Contracting Officer Representative will conditionally accept the Work and will issue a Certificate of Substantial Completion based upon the Contractor's assurance that corrective measures will be completed within the shortest practicable time. A fixed schedule for such corrective measures shall be submitted to the Contracting Officer Representative for approval.
5. If the Work has not been substantially completed in accordance with the Contract Documents, and several or many corrective measures are still required, the Contracting Officer Representative will not issue a Certificate of Substantial Completion. Instead, a new Punch List will be prepared based on the information gathered from the final inspection, and the Contractor will be required to complete this work and then call for another final inspection, following the procedure outlined above.

1.3 SUBMITTALS

- A. Make all submittals in accordance with Section 01330, SUBMITTAL PROCEDURES, and as specified below.
- B. As-Built Schematics:
 1. General:
 - a. As-Built Schematics shall include Working Drawings and field prepared drawings.
 - b. Maintain a hard copy drawing and specification record of as-built conditions on a set of

Contract Documents as the Work progresses. The Contract Documents shall be kept current with all Modifications issued by the Authority. The hard copy drawing and specification record shall be maintained at the Contractor's field office. Periodic review of the completeness of the hard copy record will be conducted by the Authority as deemed necessary to ensure the record is kept up to date.

2. As-Built Schematics:

- a. Draft Deliverable: Submit to the Authority, for review and comment, separate sets of draft As-Built Schematics in the latest version of an Adobe (.PDF) file format, in print quality black and white, with all fonts embedded. Images shall be clear, sharp, and readily legible. The Authority reserves the right to have drawing(s) resubmitted until the Contracting Officer Representative accepts the legibility of the drawing contained in the file.
- b. Upon return of the draft As-Built Drawings with Authority comments, incorporate additions and corrections resulting from Authority review comments. Contractor shall direct specific attention, by annotation on resubmitted As-Built Schematics, to revisions other than the corrections requested by the Contracting Officer Representative on previous submittals.
- c. Final Deliverable: By the date scheduled for receipt of final approved As-Built Schematics deliverables in the Contract Schedule, separate sets of As-Built Schematic Drawings in an Adobe (.PDF) file format, in print quality black and white, with all fonts embedded. Submit one set of full-size or half-size black ink on white paper copies, produced from the Adobe file, to the Contracting Officer Representative for review and Approval. If this submittal is found to be incomplete it will be returned to the Contractor with comments for re-submittal.
- d. The completed As-Built Schematics do not require the signature of the Engineer or Architect of Record. Each completed As-Built Schematics produced in Adobe (.PDF) electronic format shall have the signature of an officer of the Contractor's organization, certifying compliance with as-built conditions, using a stamp as follows:

AS-BUILT

I CERTIFY THAT THIS DRAWING
ACCURATELY DEPICTS THE WORK
CONSTRUCTED AS OF

(date)

(an officer of the Contractor)

Contractor's Name

C. As-Built Project Schedule:

- 1. Submit one electronic copy of the approved As-Built Project Schedule as required.

D. Releases and Vouchers:

- 1. As applicable, submit one original hard copy and electronic media, in Adobe (.PDF) file format, of releases and vouchers.

E. Records for Inspection, Testing, and Other Quality Elements:

1. Submit one original hard copy and electronic media, in Adobe (.PDF) file format, of records for inspection, testing or other quality elements as more fully specified in Section 01470, QUALITY MANAGEMENT SYSTEM.

F. Request for Final Payment:

1. Submit one original hard copy and electronic media, in Adobe (.PDF) file format, of final payment request. Final Settlement will be made in accordance with Section 00744, METHOD OF PAYMENT.

G. Correction of Deficiencies Submittals:

1. As applicable, submit original hard copy and electronic media, in Adobe (.PDF) file format, of Schedule of Deficiency Corrections, Recommendation for Corrective Actions, together with supporting information, Data and Reports applicable to any correction, and a Technical and Cost Proposal to amend the Contract to permit acceptance of the affected materials, equipment, systems, or subsystems as specified in Section 00758, CORRECTION OF DEFICIENCIES.

H. Certifications, Affidavits, and Warranties and Guarantees:

1. Required Affidavits, Certificates, Written Descriptions and Releases and Warranties and Guarantees provided by the Contractor; i.e., Certificates of Acceptance and Compliance, Certification that all facilities were constructed in conformance with ADAAG regulations (Form attached at end of Section), of System Safety and Security, of Substantial Completion, and of Final Payment; Written Description of measures taken to correct damage that may have resulted from performance of this Contract; Written Releases; Contractor's executed Affidavit of Payment of All Applicable Taxes and License Fees in connection with the Contract and Affidavit of Payment of Debts and Claims; Consent of Surety Company to Final Payment; Warranties and Guarantees as specified in Section 00757, WARRANTY/GUARANTEE OF CONSTRUCTION, and Section 00758, CORRECTION OF DEFICIENCIES, and various Sections of the Contract Specifications as applicable: Submit the original hard copy and one electronic copy in Adobe (.PDF) file format.
2. The final Authority audit will take place here

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01800 FACILITY OPERATION

SECTION 01820 DEMONSTRATION AND TRAINING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes the general requirements for operation and maintenance training for equipment and systems provided by the Contractor and the general requirements for a Project performance demonstration.

1.2 DEFINITIONS

- A. Acronyms used in this specification have the following definitions:

1. TSMT – Technical Skills and Maintenance Training
2. ROQT – Rail Operations Quality Training
3. TTDC – Technical Training Document Control

1.3 SUBMITTALS

- A. Submit in accordance with Section 01330, SUBMITTAL PROCEDURES, the following at the times stated:
1. Training plan preliminary submittal: One electronic copy and one printed paper copy not later than 60 Days after commencement of construction work. Submittal shall include at a minimum:
 - a. Instructional outline: A complete, accurate, and detailed listing of topics to be addressed in the instructional program using the specified content list.
 - b. Specimens of instructional material to be used
 - c. Descriptions of audio-visual material and equipment to be used
 2. Training plan intermediate submittal: One electronic copy and one printed paper copy not later than 60 Days after approval of preliminary submittal.
 - a. All material submitted for preliminary submittal incorporating or resolving comments.
 - b. Complete instructional plans including audio-visual aids and descriptions of instructional techniques and procedures.
 3. Training plan final submittal: One electronic copy and one printed paper copy not later than 30 Days prior to scheduled date for operation inspection, testing, or acceptance of the equipment.
 - a. All material submitted for intermediate submittal incorporating or resolving comments.
 4. Training contract closeout submittal: As specified in Section 01775, CLOSEOUT.
 5. Training instructor's qualifications.
 6. A complete set of all training manuals, handouts, aides and presentations, for instructor and student, shall be provided at the end of the vendor's first training class to each of the

audience's training groups (two sets when there are two supporting training groups, etc.) in an approved, editable electronic format, and free from copyright restrictions.

7. Printed copies of each student guide and student-learning materials (schematics, books of plans, etc., as determined useful) shall be prepared and bound by equipment's training provider. Provide one printed copy for each student to use during training and to keep after class completion
8. Printed copies of the instructor's guide, student guide, presentation, and all supplemental training materials for each of the audience group's training instructors (not to exceed five copies), free from copyright restrictions, shall be provided at the end of the first vendor training session.
9. Performance demonstration plan and procedures: submit for Approval as part of the final design review package but no later than 90 Days prior to first performance demonstration.
10. Provide video documentation of demonstration and training classes to satisfy LEED requirements.

1.4 OPERATION AND MAINTENANCE TRAINING

A. General:

1. Where specified, develop and conduct a program to train selected Authority personnel in the operation and maintenance of equipment and systems furnished.
2. Furnish instructors, instructional materials, and audio-visual aids and equipment.
3. The Authority will furnish physical facilities.

B. Operations training:

1. Operations training shall be tailored specifically to the WMATA equipment being purchased and training shall be designed to teach all trainees the functional use of all of the major modes of equipment operation.
2. The training shall be sufficient in quality and scope to bring personnel to a level of operating proficiency such that vendor support is not needed during routine equipment operation in any mode or capacity.

C. Maintenance training:

1. Maintenance training shall be tailored specifically to the WMATA equipment being purchased and shall be designed to develop the knowledge and skills required to maintain and repair all item(s) delivered under the Contract. Maintenance training shall address the detailed theory of operation, maintenance, testing, repair, overhaul, replacement, alignment, and troubleshooting of the delivered equipment (hardware and software).

D. Other Training:

1. Any other training (as determined by WMATA) necessary to support the safe operation, use, or maintenance of the equipment.

E. Training Plan:

Training plan shall contain an organized summary of the events, and associated times, necessary for the completion of all materials necessary to successfully perform the required training. The plan shall be submitted to the applicable end user's training group(s) (TTDC, TSMT, or ROQT currently) within a Contract specified period after NTP has been issued. The training plan must address all deliverables using a timeline that includes periods for review,

feedback, resubmission, approval, and delivery accomplishing all by a Contract-determined date related to the equipment being placed into service. The training plan shall include the following:

- a. Course list including course title, duration, audience, audience size, and purpose
- b. Instructor qualifications: A description of the instructor's qualifications for each class must be submitted to the end user's training group(s) (TTDC, TSMT, or ROQT currently) for approval as part of the training plan. The description (resumé, curriculum vitae, or other description of instructional qualifications) shall document a thorough knowledge of the subject equipment, an understanding of the adult learning process, and demonstrated experience in vocational instruction.
- c. Audience qualifications and prerequisites: For the purpose of course development and presentation, vendors shall assume all WMATA students are high school graduates (or equivalent)
- d. Instruction and testing methods to be utilized
- e. Summary of the strategies to be employed in the accomplishment of the training
- f. Proposed schedule of delivery of materials and training

F. Instructor's Guide:

1. The instructor's guide for each course shall contain all the information and direction necessary for the instructor to make an effective presentation. The instructor's guides shall include adequate guidelines to conduct a comprehensive training program. Individual lessons within the course shall be organized as separate blocks (or modules), which may be taught as a unit. In some instances, the same standard operating procedures could be used for train operators, transportation supervisors, and central control supervisors. The instructor's guide shall contain, at a minimum:
 - a. Program overview stating the overall program goals
 - b. Training syllabus
 - c. Lesson plans arranged as a session by session outline containing the following:
 - (1) Overview of each lesson
 - (2) Outline of major topics to be covered including timelines for each course, lesson, and topic
 - (3) Outline of learning objectives for each major topic
 - (4) Information regarding important subjects and terms to be emphasized during each section of the training
 - (5) References to the associated Student Guide pages and presentation slides
 - d. Suggested instructional methods/learning activities
 - e. Required equipment or resources needed for effective instruction
 - f. Test question pool(s) with each question referenced to the respective learning objective(s) and student guide or other instructional materials
2. A guide (FAQ) providing questions/problems and answers as related to course content

G. Student's Guides:

1. Student guides for each course that shall contain all the information and direction necessary the student to interact effectively in the learning environment. The student guides shall be written in a fully developed prose format, developed in the same modular format as the instructor's guides. The student's guides should contain, at a minimum:
 - a. Program overview/introduction
 - b. Statement of overall program goals
 - c. All major topics to be covered
 - d. Student learning objectives associated with each of the major topics stated in quantifiable terms
 - e. All illustrations, block diagrams, charts, schematics, wiring diagrams, logic flow diagrams, troubleshooting guides, graphics, and visual aids that may be used during course presentation to enhance presentation content and provide a seamless facilitation of instruction
 - f. Supplemental materials that may be necessary to facilitate theoretical discussions

H. Training Presentations:

1. Training Presentations shall be matched to the instructor guides and student guides and shall facilitate seamless, effective communication of the course information to the target audience.
2. Training Presentation format(s) shall be agreed upon by the target audience's training group(s) (TTDC, TSMT, ROQT, currently).

I. Training Aides:

1. Depending upon the equipment or system(s), a functional mockup or a functional representation may be required. These may be in the form of animated illustrations, animated schematics, model(s) of the equipment, actual device(s), interactive video training, or any accepted media format as determined by the audience's training group.
2. All mockups become the property of audience's training group after completion of the final scheduled training class. Supplemental materials shall be demonstrated as fully operable during the first training class. All necessary repairs to the supplemental materials are the responsibility of the vendor for the duration of vendor training sessions.

J. OEM Operator's Manual(s) describing the equipment's or system's operation in each mode and capacity of use.

1. OEM Technical Manuals describing the detailed theory of operation, maintenance, testing, repair, overhaul, replacement, alignment, and troubleshooting shall be delivered to the appropriate training groups.

1.5 MATERIALS AND INSTRUCTION

- A. Training materials shall be provided and approved by audience's training groups (TTDC, TSMT or ROQT) prior to the final acceptance of training schedule or training date(s).
- B. Training materials updates are required when, in the scope of the Contract, changes or Modifications are made that affect the operation or maintenance of the contracted item(s).
- C. Instruction shall include material covered in the operation and maintenance manuals as well as

the following:

1. Detailed theory of operation to one level below Lowest Repairable Unit (LRU)
 2. Practical aspects of operation
 3. Description of system, equipment, and components
 4. Functional characteristics of system, equipment, and components
 5. Emergency operating procedures
 6. Location, removal, and reinstallation of components
 7. Maintenance procedures
 8. Servicing intervals and schedules
 9. Block diagrams of equipment hardware and software functionality as installed
 10. Schematics of equipment hardware as installed
 11. Diagnosis and problem solving (troubleshooting)
 12. Repair
 13. Overhaul
- D. Daily class duration shall be a nominal 7-1/2-hour shift, with advantageous combinations of theoretical/classroom instruction and hands-on practice, utilizing operational equipment, presentations, mockups, and test equipment as applicable. For on-the-job training (OJT) at work locations as applicable, training shall include participation in installation activities, fault diagnosis, and equipment alignment/adjustment exercises.
- E. Operating and maintenance training shall be completed prior to the time scheduled for operation inspection, testing, or acceptance of the equipment. In addition to the retainage specified in Section 00744, METHOD OF PAYMENT, payment will be withheld until training is complete and accepted.
- F. Furnish to applicable training group, a minimum of four O&M Manuals as described in Section 01775, CLOSEOUT, for each piece of equipment and system, unless otherwise specified, and a minimum of one editable, non-copyrighted electronic copy in a Microsoft Office format, as specified.

1.6 PROJECT PERFORMANCE DEMONSTRATION

- A. Integrated system testing shall culminate in a project performance demonstration that shall simulate all operations and shall exercise all systems and system elements. Prepare performance demonstration plan and procedures. Include testing of anticipated normal and abnormal operations, in addition to simulations of emergency operations. Performance demonstration plan shall delineate the following:
1. Tests to be performed
 2. Date and time when each test is to be performed
 3. An outline of the test parameters
 4. Pass/fail criteria, which must be quantified and measurable

- B. The project performance demonstration shall include those static and dynamic tests used to demonstrate that the Design-Builder designed the systems and subsystems according to the specification and the performance specified, and shall include:
1. All necessary functional and performance testing conducted during construction and manufacture of the system elements; and
 2. Operational tests, which include integrated testing of system interfaces to assure that the Project as a whole is capable of operating as specified.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

Attachment 1

ADA Key and New Station Checklist

FEDERAL TRANSIT ADMINISTRATION

ADA: Key and New Rail Station Checklist
Based on USDOT Final Rule, Effective November 29, 2006

Transit Entity: _____

Facility Name: _____

Survey Date: _____

Surveyed By: _____

Transit Entity Contact: _____

Facility Description: Type: Rapid Rail Light Rail Commuter Rail
Platform Location: Subsurface Surface Elevated
Platform Configuration: Side #____ Center #____
Right of Way: Street Exclusive
Boarding: Level Mini-High Platform Lift Vehicle Lift

Date of Construction/Major Upgrade: _____

Key Station: New Station (New if Notice to Proceed after 10/7/91 for Commuter Rail and after 1/25/92 for all other modes)

Historically Significant: Yes No

Note: All elements on this checklist apply to both key and new stations except as noted. Those that apply only to new stations are identified as "NEW STATIONS" and that apply only to key stations as "KEY STATIONS".

All elements on this check list apply to new stations with final plan approvals, and existing stations with completed alterations, after November 29, 2006.

| Contents | | | Station Element Assessment Summary | |
|----------|---|-------|--|---|
| 1 | Parking | p. 2 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 2 | Passenger Loading Zones | p. 3 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 3 | Bus Boarding and Alighting Areas | p. 4 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 4 | Accessible Routes | p. 5 | # Route Segments: _____ | |
| 5 | Directional Signs | p. 7 | | |
| 6 | Curb Ramps | p. 8 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 7 | Entrances | p. 9 | Defined Entrance | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | Undefined Entrance | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 8 | Doors | p. 10 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 9 | Ramps | p. 12 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 10 | Elevators | p. 13 | <input type="checkbox"/> Yes <input type="checkbox"/> No | # Elevators: _____ |
| 11 | Lifts | p. 17 | <input type="checkbox"/> Yes <input type="checkbox"/> No | # Lifts: _____ |
| 12 | Escalators (New Stations) | p. 17 | <input type="checkbox"/> Yes <input type="checkbox"/> No | # Escalators _____ |
| 13 | Ticketing and Automatic Fare Vending | p. 18 | Ticketing Area | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | Auto. Fare Vending | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | Fare Gates | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 14 | Platforms | p. 20 | Side | <input type="checkbox"/> Yes <input type="checkbox"/> No # Side Platforms _____ |
| | | | Center | <input type="checkbox"/> Yes <input type="checkbox"/> No # Center Platforms _____ |
| 15 | Mini-High Platforms | p. 21 | <input type="checkbox"/> Yes <input type="checkbox"/> No | # Mini-Highs _____ |
| 16 | Public Address System | p. 22 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 17 | Telephones | p. 22 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 18 | Accessible Means of Egress (New Stations) | p. 23 | <input type="checkbox"/> Yes <input type="checkbox"/> No | |

1. Parking (208, 502)

Parking spaces for self-parking by visitors provided Yes No

Parking spaces owned, leased or operated by the transit agency Yes No

If yes, complete the following for each parking facility:

Number of parking spaces _____

Notes: 1) If parking provided in multiple facilities, required accessible spaces must be calculated for each facility, and numbers rounded up to the next whole number.
 2) Where parking serves more than one accessible entrance, parking spaces shall be dispersed and located on the shortest accessible route to the accessible entrances (208.3.1).

Number of accessible parking spaces required (208.2) (see adjacent table) _____

Number of designated accessible parking spaces _____

One in every 6 accessible spaces, but not less than 1 must be designated "van accessible" (208.2.4)

Number of van spaces required _____

Number of designated van spaces _____

| Total Parking in Facility | Required Minimum Number of Accessible Spaces |
|---------------------------|--|
| 1 to 25 | 1 |
| 26 to 50 | 2 |
| 51 to 75 | 3 |
| 76 to 100 | 4 |
| 101 to 150 | 5 |
| 151 to 200 | 6 |
| 201 to 300 | 7 |
| 301 to 400 | 8 |
| 401 to 500 | 9 |
| 501 to 1000 | 2 percent of total |
| 1001 and over | 20 plus 1 for each 100 over 1000 |

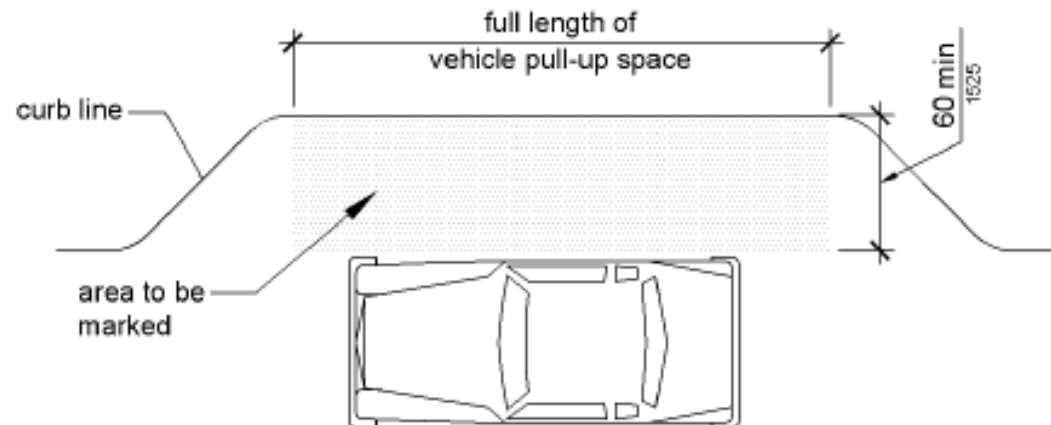
Assess each accessible parking component and note OK, NO, or N/A. – If NO note dimensions

| | | |
|--|--|--|
| LOCATION Accessible parking space closest in lot to accessible entrance of building it serves (208.3.1). Accessible spaces adjacent to accessible route (502.7). | | |
| WIDTH ≥ 96" for cars + 60" aisle (may be paired) (502.2, 502.3) ≥ 96" for vans + 60" aisle + 36" in space (132") or aisle (96") (may be paired) (502.2) If angled van parking, access aisle on passenger side of space (502.3.4) Aisle marked to discourage parking in them (502.3.3) | | |
| VERTICAL CLEARANCE Minimum for van 98" from entrance to van space (502.5). | | |
| SIGNAGE ISA symbol on sign mounted ≥ 60" from the ground to bottom of sign (502.6). ISA plus "Van Accessible" at van parking spaces mounted 60" from the ground to bottom of sign (502.6). | | |
| SURFACE Stable, firm & slip resistant, Slope ≤ 1:48 (2.1%) (502.4). | | |

2. Passenger Loading Zones (209, 503)

Assess each loading zone component and note OK, NO, or N/A. – If NO note dimensions

| | | |
|---|--|--|
| <p>NUMBER (209.2.1) Where loading zones are provided, at least one accessible loading zone space provided. At least one accessible space in every 100 linear feet of total loading zone space</p> | | |
| <p>VEHICLE PULL-UP SPACE (503.2) ≥ 96 inches wide ≥ 20 feet long</p> | | |
| <p>ACCESS AISLE LOCATION (503.3) Adjacent to vehicle pull-up space Adjoins/connects to an accessible route Does not overlap vehicular way</p> | | |
| <p>ACCESS AISLE DIMENSIONS (503.3) ≥60 inches in width Extends full length of vehicle pull-up space it serves</p> | | |
| <p>ACCESS AISLE SURFACE Stable, firm and slip-resistant and no changes in level > ¼ inch (503.4) Slope ≤ 1:48 (2.1%) in all directions (503.4) Vehicle pull-up space and access aisle at same level with no changes in level (503.4) Marked with surface treatment to discourage parking in access aisle (503.3.3)</p> | | |
| <p>VERTICAL CLEARANCE (503.5) At least 114" vertical clearance at vehicle pull-up spaces, access aisles, and vehicular route from entrance to passenger loading zone, and from passenger loading zone to vehicular exit</p> | | |



3. Bus Boarding and Alighting Areas (209, 810)

Assess each bus boarding and alighting area component and note OK, NO, or N/A. – If NO note dimensions

| | | |
|---|--|--|
| <p>CONTROL Transit entity controls bus boarding area (209.2.2) (810.2)</p> | | |
| <p>CONNECTIONS Accessible route between all bus stops within site and accessible entrance (206.2.1) Accessible route to streets, sidewalks and pedestrian paths (810.2.3)</p> | | |
| <p>BOARDING AND ALIGHTING AREA (810.2.2) ≥ 96 inches perpendicular to the roadway, from curb or road edge ≥ 60 inches long parallel to the roadway</p> | | |
| <p>SLOPE (810.2.4) Parallel to the roadway the slope is the same as the roadway, to the maximum extent practicable Perpendicular to the roadway the slope is ≤ 1:48 (2.1%)</p> | | |
| <p>BUS ROUTE SIGNS (810.4) Non-glare finish (703.5.1) Contrast between characters and background (703.5.1) Width of Uppercase “O” is between ≥ 55% and ≤ 110% of the height of uppercase “I” (703.5.4) Character height of ≥ 2” for signs between > 70” and ≤120” above the ground (703.5.5) Width of uppercase “I” ≥ 10% to ≤ 30% of the height (703.5.7) Closest characters shall be spaced between ≥ 10% and ≤ 35% of the character height (703.5.8)</p> | | |
| <p>BUS SHELTERS (218.4) (810.3) Connected by an accessible route to bus boarding and alighting area (810.3) Clear floor area of ≥ 30” by ≥ 48” (305.3) One side adjoins accessible route (305.6) If access confined on any of three sides ≥ 36” for front approach or ≥ 60” for parallel approach (305.7) Surface stable, firm and slip-resistant and no changes in level > ¼” (305.2) (302.1)</p> | | |

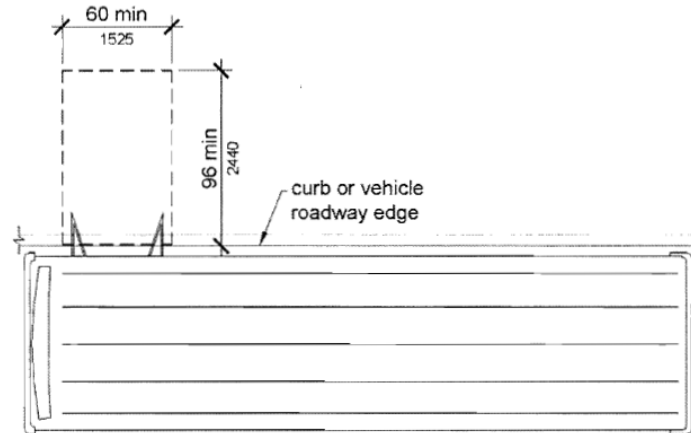


Figure 810.2.2
Dimensions of Bus Boarding and Alighting Areas

4. Accessible Routes (206, 207, 402, 403, and requirements of Chapter 3)

Identify routes from the following elements to the accessible entrance(s) to ticketing, to fare collection, and to platforms. Identify the following elements and the number of accessible routes from each element.

Public Sidewalks # _____

Route 1: _____

Public Transit Stops # _____

Route 2: _____

Accessible Parking # _____

Route 3: _____

Accessible Loading Zones # _____

Route 4: _____

Route 5: _____

Sketch each route or description as necessary:

4. Accessible Routes (Cont.)

Assess each accessible route and note OK, NO, or N/A. – If NO note dimensions

| | Route 1 | Route 2 | Route 3 | Route 4 | Route 5 |
|--|---------|---------|---------|---------|---------|
| <p>Accessible route coincides with general public route TO MAXIMUM EXTENT FEASIBLE (206.3)</p> <p>Accessible routes are interior where circulation paths are interior (206.3)</p> <p>At least one accessible route connects boarding platforms to all transportation system elements required to be accessible (206.4.4.2)</p> | | | | | |
| <p>Doors ≥ 32" wide (403.5.1)</p> <p>Route from ≥ 32" wide to <36" wide for distance of ≤ 24" (403.5.1)</p> <p>Remainder of route ≥ 36" wide for distance of ≥ 48" (403.5.1)</p> <p>If route is <60" wide, space ≥ 60" wide X 60" long at intervals not to exceed 200' (403.5.3)</p> | | | | | |
| <p>Where accessible route makes U-turn around an obstacle ≤ 48" wide,</p> <p> Pathway width is ≥ 42" on approaches (403.5.2)</p> <p> Pathway width is ≥ 48 inches in turn (403.5.2)</p> | | | | | |
| <p>Vertical Clearance ≥ 80" except at door closers and door stops (307.4)</p> <p>Vertical Clearance ≥ 78" at door closers and door stops (307.4)</p> <p>If area adjoining accessible route has vertical clearance < 80",</p> <p> Cane detectable barrier ≤ 27" above floor (307.4)</p> | | | | | |
| <p>Objects protrude from walls into the accessible route ≤ 4" between 27" and 80" above the floor (307.2)</p> <p>Objects protrude from posts or pylons into the accessible route ≤ 12" between 27" and 80" above the floor (307.3)</p> | | | | | |
| <p>Surface stable, firm and slip resistant (302.1) and cross slope ≤ 1:48 (2.1%) (403.3)</p> | | | | | |
| <p>Vertical changes ≤ 1/2 inch (303.4)</p> <p>Vertical changes between 1/4" and 1/2" are beveled with slope ≤ 1:2 (vertical: horizontal) (303.3).</p> <p>Untreated vertical changes ≤ 1/4 inch (303.2)</p> | | | | | |
| <p>Gratings openings ≤ 1/2" (302.3)</p> <p>Long dimension of openings perpendicular to path of travel (302.3)</p> | | | | | |
| <p>At track crossings horizontal gap on the inner edge of each rail ≤ 2 1/2" (810.10)</p> | | | | | |

5. Directional Signs (216.3, 216.4, 703)

| | Route 1 | Route 2 | Route 3 | Route 4 | Route 5 |
|---|---------|---------|---------|---------|---------|
| Non-glare finish (703.5.1) Contrast between characters and background (703.5.1) Characters conventional in form. No italic, oblique, script, highly decorative, or of other unusual forms. ADAAG (703.5.3) Width of Uppercase "O" is between $\geq 55\%$ and $\leq 110\%$ of the height of uppercase "I" (703.5.4) Character height of $\geq 2"$ for signs between $> 70"$ and $\leq 120"$ above the ground (703.5.5) Width of uppercase "I" $\geq 10\%$ to $\leq 30\%$ of the height (703.5.7) Closest characters spaced between $\geq 10\%$ and $\leq 35\%$ of the character height (703.5.8) Spacing between the baselines of separate lines of characters $\geq 135\%$ and $\leq 170\%$ percent of character height. (703.5.9) | | | | | |
| Where accessible route diverges from general public route, visual signs are provided that show direction to accessible egress and route (216.3, 216.4.3, IBC 2003, 1007.7) | | | | | |

6. Curb Ramps (406)

Curb ramps or ramps are required wherever there is a vertical change of $\geq \frac{1}{2}$ " on an accessible path (303.4)

Identify locations where curb ramps are on the accessible route and/or curbs where there is no ramp.

Location 1: _____

Location 2: _____

Location 3: _____

Location 4: _____

Location 5: _____

Assess each curb ramp and note OK, NO, or N/A – If NO note dimensions

| | Loc. 1 | Loc. 2 | Loc. 3 | Loc. 4 | Loc. 5 |
|--|--------|--------|--------|--------|--------|
| Islands at street crossings either Cut through level with the street surface (406.7) Curb ramps provided at both sides of island with a ≥ 48 " long ≥ 36 " wide level area connecting the ramps (406.7) | | | | | |
| Ramps (except flared sides) at marked crossings within the markings (406.5) | | | | | |
| Diagonal curb ramps at marked crossings have ≥ 48 " clear from ramp bottom to the marking (406.6) | | | | | |
| Ramp ≥ 36 " wide, not including flared sides (406.1) (405.5) | | | | | |
| Landings ≥ 36 " long and \geq width of the curb ramp at top of ramp (406.4) | | | | | |
| Transition to street or gutter flush and free of abrupt changes (no lip) (303.3) | | | | | |
| Ramp slopes at sites where space limitations exist , $\geq 1:10$ (10%) to $\leq 1:8$ (12.5%) for ≤ 3 " rise $\geq 1:12$ (8.3%) to $\leq 1:10$ (10%) for ≤ 6 " rise | | | | | |
| All other ramp slopes, $\leq 1:12$ (8.3%) (406.1) (405.2) | | | | | |
| Side flares $\leq 1:10$ (10%) (406.3) | | | | | |
| Cross slope $\leq 1:48$ (2.1%) (405.3). | | | | | |
| Counter slope of adjoining gutter, road, or accessible route surface $\leq 1:20$ (5%) (406.2) | | | | | |
| Detectable warnings contrasting with adjoining surfaces for full width of the ramp (excluding flared sides) and either: Full length of curb ramp or, ≥ 24 " from the back of curb (406.8 - effective July 2001) | | | | | |

7. Entrances (206, 207)

Identify each entrance to the station and indicate OK, NO, or N/A. – If NO note dimensions

Entrance 1: _____

Entrance 2: _____

Entrance 3: _____

Entrance 4: _____

| | Ent. 1 | Ent. 2 | Ent. 3 | Ent. 4 |
|---|--------|--------|--------|--------|
| <p>ACCESSIBILITY</p> <p>There is at least one accessible entrance (206.4.4.3) (Key Stations)</p> <p>At least one accessible entrance for each group of transit routes (206.4.4.1) (New Stations)</p> <p>If direct connections to commercial, retail, or residential facilities, each shall have an accessible route from the point of connection to boarding platforms and accessible transportation elements (206.4.4.2)</p> <p>All direct access to facility from parking structure accessible (206.4.2)</p> <p>At least 60% of all public entrances accessible (206.4.1)</p> | | | | |
| <p>SIGNAGE AT DEFINED ENTRANCES (216.6)</p> <p>If an entrance is not accessible, signage directs to nearest accessible entrance</p> <p>Accessible entrance, when not all entrances are accessible, is designated with ISA</p> | | | | |
| <p>TACTILE SIGN LOCATION - If visual entrance sign (“Station Name” or “Entrance”) is provided at an entrance, raised letter and Braille signs are provided at all such entrances in uniform location (810.6.1) (703.4.2)</p> <p>Single Door - tactile sign is provided at latch side of door</p> <p>Double Door two active leafs - tactile sign is provided at right side of door</p> <p>Double Door one active leaf - tactile sign is provided on the inactive leaf</p> <p>Doors with closers and without hold-open devices – tactile sign as described above, or push side of door</p> <p>If no wall space at prescribed location, sign on nearest adjacent wall</p> | | | | |
| <p>SIGNAGE FOR UNDEFINED ENTRANCES (810.6.1) At least one tactile sign is placed in a central location</p> | | | | |
| <p>MOUNTING</p> <p>Mounting height ≥ 48" to base of lowest tactile character; ≤ 60" to base of highest tactile character (703.4.1)</p> <p>At doors - Signs containing tactile characters located so clear floor space ≥ 18" by ≥18" centered on tactile characters, provided beyond arc of door swing between closed position and 45 degree open position (703.4.2)</p> | | | | |
| <p>TACTILE CHARACTERS</p> <p>Raised Characters (703.2) - Characters raised 1/32"</p> <p>upper case SANS SERIF</p> <p>≥ 5/8" to ≤ 2" high</p> <p>≥ 3/8" separation from borders and decorative elements</p> <p>Grade 2 Braille Characters (703.3) - Below text, if multi-lined - below entire text</p> <p>Separated from tactile characters and raised borders ≥ 3/8"</p> <p>Braille dots domed or rounded shape</p> | | | | |

8. Doors (404)

Doors to accessible spaces are required to be accessible (404.1). Identify each door along each accessible route and note OK, NO, or N/A. – If NO note dimensions (see next page)

- Door 1: _____
- Door 2: _____
- Door 3: _____
- Door 4: _____
- Door 5: _____

| | Door 1 | Door 2 | Door 3 | Door 4 | Door 5 |
|--|--------|--------|--------|--------|--------|
| Alternate means of egress adjacent to any revolving door (404.2.1) | | | | | |
| CLEARANCES | | | | | |
| Level landing of $\geq 42"$ + door width wide from hinge side (404.2.4.1) | | | | | |
| Level landing $\geq 60"$ perpendicular to door for width of landing (404.2.4.1) | | | | | |
| Note any restricted door approaches. Front, hinge side, and latch side approaches have minimum clearances as shown in Appendix A; Door Maneuvering Clearances. | | | | | |
| Two doors in series – distance between doors $\geq 48"$ plus width of door/s swinging into space between doors (404.2.6) | | | | | |
| GROUND SURFACE | | | | | |
| Thresholds (404.2.5) | | | | | |
| $\leq 1/2"$ | | | | | |
| Existing or altered thresholds $\leq 3/4"$ with edges beveled 1 high: 2 wide | | | | | |
| DOOR WIDTH (404.2.3) Measured from door face to stop with door open at 90 degrees | | | | | |
| In recess $> 24"$ deep, door $\geq 36"$ wide | | | | | |
| All other doors $\geq 32"$ wide | | | | | |
| OPERATION | | | | | |
| Can be opened with one hand (404.2.7) (309.4) | | | | | |
| Lever-operated, U-shaped or push mechanism | | | | | |
| Mechanism $\geq 34"$ to $\leq 48"$ above ground (404.2.7) | | | | | |
| Interior hinged door opening force ≤ 5 lbf (404.2.9) | | | | | |
| Doors with closers - sweep period of ≥ 5 seconds from 90 degree open position to point 12 degrees from latch (404.2.8.1) | | | | | |

Door Maneuvering Clearances

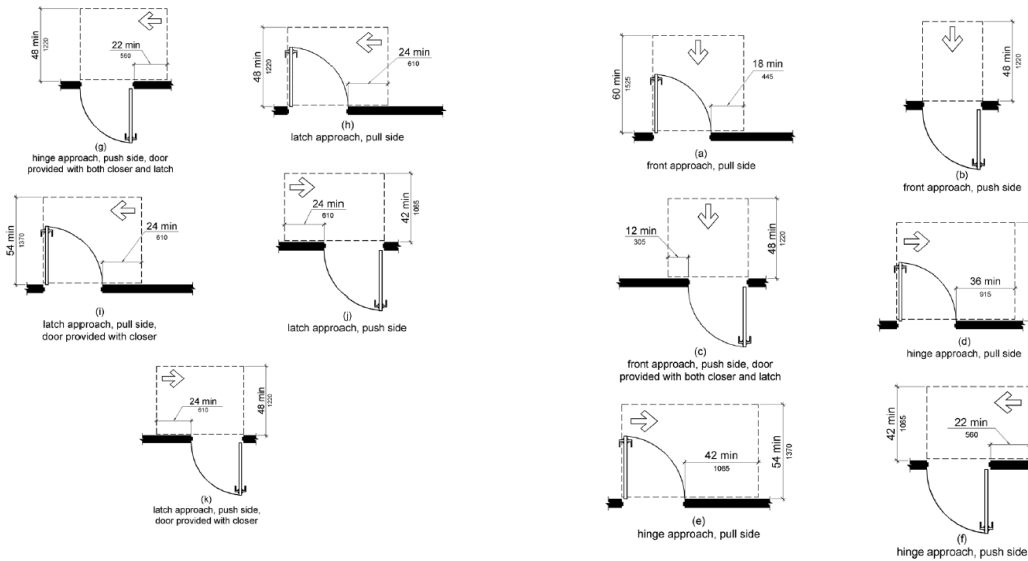


Figure 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

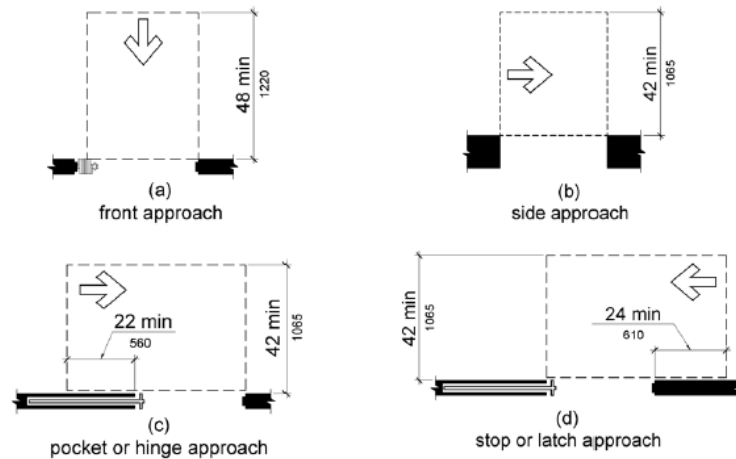


Figure 404.2.4.2 Maneuvering Clearances at Doorways without Doors, Sliding Doors, Gates, and Folding Doors

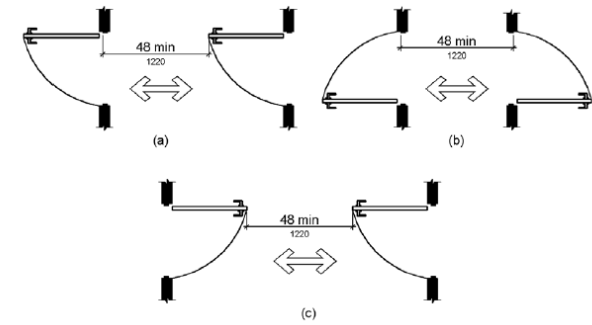


Figure 404.2.6 Doors in Series and Gates in Series

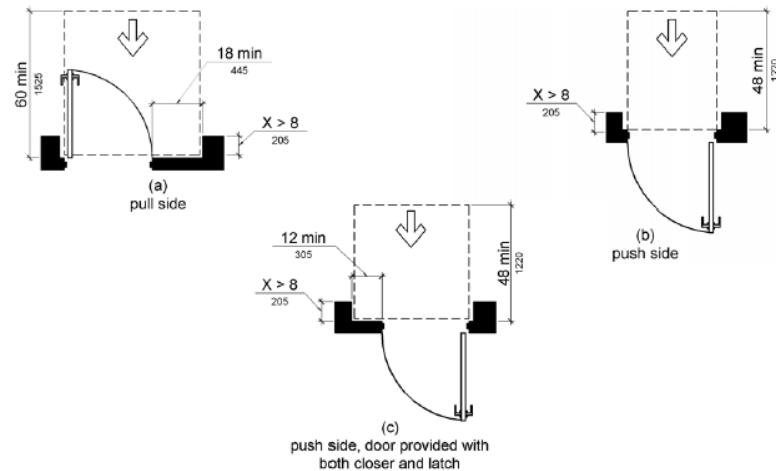


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

9. Ramps (303, 405)

Change in level along accessible route greater than ½" requires ramp (303.4). Identify ramps and locations where ramps required. Note OK, NO, or N/A – If no note dimensions

Ramp 1: _____

Ramp 3: _____

Ramp 2: _____

Ramp 4: _____

| | Ramp 1 | Ramp 2 | Ramp 3 | Ramp 4 |
|--|--------|--------|--------|--------|
| CLEARANCES - Ramp straight and not curved (405.7) Minimum width 36" (between handrails) (405.5) | | | | |
| GRADE - SLOPE Sites where space limitations exist, 1:10 (10%) to 1:8 (12.5%) for ≤ 3" rise (run 24" - 30") (406.1) (405.2) 1:12 (8.3%) to 1:10 (10%) for ≤ 6" rise (run 30" - 6') (406.1) (405.2) All other ramps ≤ 1:12 (8.3%) (406.1) (405.2) and ≤ 30" rise (run 30' - 50') (405.6) Cross slope ≤ 1:48 (2.1%) (405.3) | | | | |
| LANDINGS - Landings at top and bottom of each run (405.7) Landings along straight run ≥ Width of ramp (405.7.2) ≥ 60" long (405.7.3) Landings at a change of direction ≥ 60" x ≥ 60" (405.7.4) | | | | |
| SURFACE (405.4) Stable, firm and slip resistant No change in level on ramp runs | | | | |
| HANDRAILS - Handrails provided on both sides for length of ramp, if ramp rise > 6" (405.8) Handrail continuous (505.3) Outside rail continuous for length of each run Inside rail continuous between runs Handrails extend ≥ 12" horizontally beyond top and bottom of ramp (505.10.1). End of handrail returned to wall, guard, or floor (405.9.1) (505.10.1) Tops ≥ 34" to ≤ 38" above ground (505.4) Clearance ≥ 1½" from adjoining surface (505.5) Circular handrail diameter ≥ 1 ¼" and ≤ 2" (505.7.1) Non-circular handrail perimeter dimension ≥ 4" and ≤ 6 ¼" and diameter ≤ 2 ¼" (505.7.2) | | | | |
| EDGE PROTECTION - Edge protection provided if: Ramp rise > 6" (405.9) Drop-off > ½" within 10" of landing area (405.9) Surface of run or landing extends ≥ 12" beyond inside surface of handrail (405.9.1) Perpendicular gap from ramp floor to edge protection < 4" (405.9.2) | | | | |

10. Elevators (407)

A passenger elevator complying with accessibility guidelines is required to serve each level in all multistory stations if not served by a ramp. (206.2.3) Identify each elevator and note OK, NO, or N/A. – If NO note dimensions

Elevator 1: _____
 Elevator 2: _____
 Elevator 3: _____
 Elevator 4: _____

| | Elevator 1 | Elevator 2 | Elevator 3 | Elevator 4 |
|--|------------|------------|------------|------------|
| LOCATION (206.3) Elevator in same area as non-accessible level changes? | | | | |
| HOISTWAY SIGNAGE (407.2.3) Raised and Braille floor designations on both jambs (407.2.3.1) Mounting height ≥ 48" from ground to base of lowest tactile character; ≤ 60" to base of highest tactile character (703.4.1) At main entry level, tactile star on both jambs (407.2.3.1) | | | | |
| CHARACTERS Upper case SANS SERIF (703.2) ≥ 2" high (407.2.3.1) Characters raised 1/32" (703.2) Accompanied by Grade 2 Braille (703.2) | | | | |
| HALL CALL BUTTONS (All Levels) (407.2.1) Clear floor area at call buttons ≥ 48" deep by ≥ 60" wide by ≥ 80" high (407.2.1.3) Up button above the down button (407.2.1.4) Visible signals light up when call registered, extinguish when call answered (407.2.1.5) Centerline of lowest call button ≥ 15" above the floor (407.2.1.1) Centerline of highest call button ≤ 48" above the floor (407.2.1.1) Button ≥ 3/4" in smallest dimension (407.2.1.2) Buttons raised or flush. (407.2.1) | | | | |
| HALL SIGNALS (All Levels) (407.2.2.2) Signal visible from area adjacent to the hall call button Hall lantern fixtures = 72" above the floor at centerline. Visible signal ≥ 2 ½" at centerline Audible signal one for "up" and two for "down" or verbal annunciators (407.2.2.3) | | | | |

10. Elevators (Continued)

| | Elevator 1 | Elevator 2 | Elevator 3 | Elevator 4 |
|--|------------|------------|------------|------------|
| <p>DOOR OPERATIONS</p> <p>Time from notification that car is answering a call until doors begin to close \geq 5 seconds (407.3.4)</p> <p>Door remains fully open \geq 3 seconds. (407.3.5)</p> <p>Horizontal gap between car and hall floors \leq 1 1/4" at all levels (407.4.3)</p> <p>Vertical gap between car and hall floors \leq 1/2" at all levels (407.4.4)</p> <p>Reopening device activates when cab door is obstructed and reopens for \geq 20 seconds (407.3.3)</p> <p>Reopening devices effective at heights of 5" and 29" above floor (407.3.3.1)</p> <p>Reopening devices do not require contact to be activated (407.3.3.2)</p> | | | | |
| <p>CAR CONTROLS</p> <p>Emergency control buttons grouped at bottom of panel (407.4.6.4.2)</p> <p>Lowest button centerline \geq 35" from floor (407.4.6.4.1)</p> <p>If $>$16 buttons highest button centerline \leq 54" from floor (407.4.6.1)</p> <p>If \leq16 buttons highest button centerline \leq 48" from floor (407.4.6.1)</p> <p>Control buttons \geq 3/4" in smallest dimension (407.4.6.2.1)</p> <p>Control buttons raised or flush. (407.4.6.2)</p> <p>Raised character and Braille designations immediately to the left of all buttons (407.4.7.1.2)</p> <p>Raised Characters (703.2)</p> <p>Upper case SANS SERIF</p> <p>Characters raised \geq 1/32"</p> <p>\geq 5/8" to \leq 2" high</p> <p>\geq 3/8" separation from borders and decorative elements</p> <p>Tactile symbols identify main floor, emergency stop, alarm, door open and close, and phone (407.4.7.1.3)</p> <p>Floor buttons have visual signals that light when call is registered and extinguish when call answered. (407.4.7.1.4)</p> | | | | |

10. Elevators (Continued)

| | Elevator 1 | Elevator 2 | Elevator 3 | Elevator 4 |
|---|------------|------------|------------|------------|
| <p>CAR POSITION INDICATORS (407.4.8)</p> <ul style="list-style-type: none"> Audible car position indicator provided Visual car position indicator provided Visual indicator over door or over control panel, (407.4.8.1.2) Floor number on indicators $\geq 1/2$" high (407.4.8.1.1) Visual and audible signal as car passes/stops at floor (407.4.8.1.3) | | | | |
| <p>ELEVATOR CAR REQUIREMENTS</p> <ul style="list-style-type: none"> Floor plan conforms to alternative configurations shown in Appendix B: Elevator Car Dimensions (407.4.1) <ul style="list-style-type: none"> ≥ 54" clear depth from inside of door to back wall ≥ 51" clear depth from inside of front wall to back wall Off-centered door ≥ 68" clear width, door width ≥ 36" Centered door ≥ 80" clear width, 42" min door width Elevator Door Dimensions (407.4.1) <ul style="list-style-type: none"> Off-centered door ≥ 36" clear width Centered door ≥ 42" clear width Floor covering stable, firm, slip resistant, no vertical changes (407.4.2) Illumination ≥ 5 foot candles (54 lux) (407.4.5) | | | | |
| <p>EMERGENCY COMMUNICATION</p> <ul style="list-style-type: none"> Identified by tactile symbol and characters adjacent to device (407.4.9) <ul style="list-style-type: none"> Highest operable part ≤ 48" above floor (407.4.9, 308) Lowest operable part ≥ 15" above floor (407.4.9, 308) Raised Characters (703.2) <ul style="list-style-type: none"> Upper case SANS SERIF Characters raised 1/32" 5/8" to 2" high $\geq 3/8$" separation from borders and decorative elements Operation does not require tight grasping, pinching, or twisting of the wrist or >5 pounds force (205.1, 309.4) Requires both visual and audible indication. (708.2) | | | | |

Notes:

Elevator Car Dimensions

407.4.1 Car Dimensions. Inside dimensions of elevator cars and clear width of elevator doors shall comply with Table 407.4.1.

EXCEPTION: Existing elevator car configurations that provide a clear floor area of 16 square feet (1.5 m²) minimum and also provide an inside clear depth 54 inches (1370 mm) minimum and a clear width 36 inches (915 mm) minimum shall be permitted.

407.4.1 Elevator Car Dimensions

| Door Location | Minimum Dimensions | | | |
|------------------------|------------------------------------|-------------------------------------|---------------------------------------|--|
| | Door Clear Width | Inside Car, Side to Side | Inside Car, Back Wall to Front Return | Inside Car, Back Wall to Inside Face of Door |
| Centered | 42 inches (1065 mm) | 80 inches (2030 mm) | 51 inches (1295 mm) | 54 inches (1370 mm) |
| Side (off-centered) | 36 inches (915 mm) ¹ | 68 inches (1725 mm) | 51 inches (1295 mm) | 54 inches (1370 mm) |
| Any | 36 inches (915 mm) ¹ | 54 inches (1370 mm) | 80 inches (2030 mm) | 80 inches (2030 mm) |
| Any | 36 inches (915 mm) ¹ | 60 inches (1525 mm) ² | 60 inches (1525 mm) ² | 60 inches (1525 mm) ² |

1. A tolerance of minus 5/8 inch (16 mm) is permitted.

2. Other car configurations that provide a turning space complying with 304 with the door closed shall be permitted.

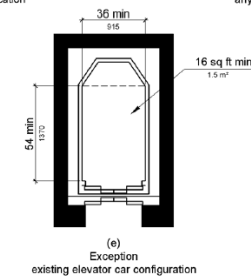
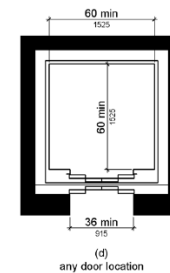
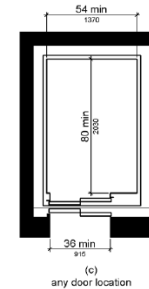
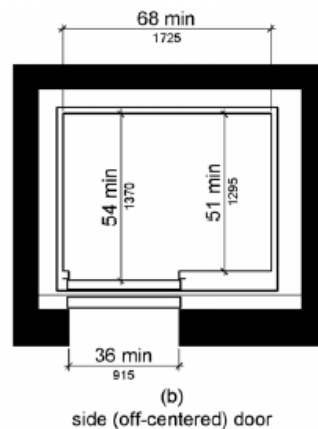
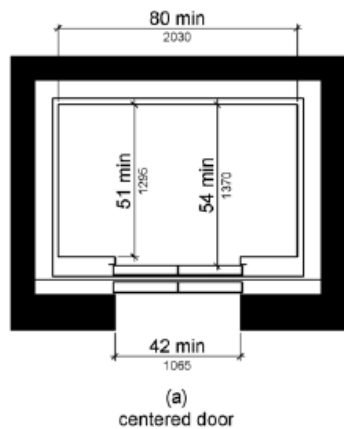


Figure 407.4.1 Elevator Car Dimensions

11. Lifts (410)

Lifts that provide direct access to vehicles should not be surveyed. Identify lifts along accessible routes and indicate OK, NO, or N/A. – If NO note dimensions

Lift 1: _____

Escalator 1: _____

Lift 2: _____

Escalator 2: _____

Lift 3: _____

Escalator 3: _____

Lift 4: _____

Escalator 4: _____

| | Lift 1 | Lift 2 | Lift 3 | Lift 4 |
|--|--------|--------|--------|--------|
| LOCATION | | | | |
| Platform lift provided where exterior site constraints make ramp or elevator infeasible (206.7.5) | | | | |
| Lift located to minimize travel distance compared to non-accessible routes (206.3) | | | | |
| CLEARANCES | | | | |
| Clear floor space at each landing $\geq 30"$ x $\geq 48"$ (410.3, 305.3) | | | | |
| Clear floor area at operable parts $\geq 48"$ deep by $\geq 60"$ wide (309.2, 305.7) | | | | |
| End doors and gates $\geq 32"$ wide (410.6) | | | | |
| Side doors and gates $\geq 42"$ wide (410.6) | | | | |
| Clear floor space in lift platform $\geq 32"$ x $\geq 48"$ (410.3) | | | | |
| Clear vertical clearance $\geq 80"$ (410.1) | | | | |
| Horizontal gap between car and hall floors $\leq 1 \frac{1}{4}"$ at all levels (410.4) | | | | |
| SURFACE - Floor surface in lift is stable, firm and slip resistant. (410.2) | | | | |
| CONTROLS | | | | |
| If horizontal obstruction $\leq 10"$ controls mounted between $\geq 15"$ $\leq 48"$ (308.2, 308.3) | | | | |
| If horizontal obstruction $> 10"$ to $\leq 24"$ controls mounted between $\geq 15"$ $\leq 44"$ (308.2.2) | | | | |
| OPERATION | | | | |
| Unassisted entry, operation, and exit (410.1) | | | | |
| Controls are operable with one hand without grasping, pinching or twisting (309.4) | | | | |
| Force required for controls ≤ 5 lbf. (309.4). | | | | |
| Doors remain open ≥ 20 seconds (410.6) | | | | |

12. Escalators (810)

| | Esc. 1 | Esc. 2 | Esc. 3 | Esc. 4 |
|---|--------|--------|--------|--------|
| Escalators clear width of $\geq 32"$ (810.9) | | | | |
| At the top and bottom of each escalator run, ≥ 2 and ≤ 4 contiguous treads level beyond comb plate before risers begin to form (810.9, ASME A17.1 Sec. 6.1.3.6.5) | | | | |
| Slip resistant strip of contrasting color on the back and side of each tread $\geq 1 \frac{1}{2}"$ and $\leq 2"$ wide (810.9, ASME A17.1 Sec. 6.1.3.5.6) | | | | |

13. Ticketing and Automatic Fare Vending (220, 707, 404)

Assess Ticketing and Automatic Fare Vending along accessible routes and indicate OK, NO, or N/A. – If NO note dimensions

Ticketing

| | | |
|---|--|--|
| Located on an accessible route (206.2.4) | | |
| Ticketing, fare vending, and collection areas placed to minimize travel distance compared to path used by general public? (206.3) | | |
| Counter ≤ 36" high above the ground (904.4.1, 904.4.2) Parallel approach: counter ≥ 36" long (904.4.1) Forward approach: counter ≥ 30" long (904.4.2) | | |

Automatic Fare Vending

| | | |
|---|--|--|
| Fare vending components adjoin or overlap an accessible route (206.3) | | |
| If self-service fare vending provided ≥ 1 accessible device (220.1) If self-service fare adjustment provided ≥ 1 accessible device (220.1) If self-service fare collection provided ≥ 1 accessible device (220.1) | | |
| Clear floor area in front of the accessible fare device ≥ 48" deep by ≥ 60" wide by ≥ 80" high (305.5) (707.2) If device in a confined space If forward approach depth ≥ 24", approach ≥ 36" wide (305.7.1) If side approach depth ≥ 15", approach ≥ 60" wide (305.7.2) | | |
| CONTROLS If coin or card slots or controls necessary for operation are provided: If horizontal obstruction ≤ 10" controls mounted between ≥ 15" ≤ 48" (707.3, 309.3, 308.2, 308.3) If horizontal obstruction > 10" to ≤ 24" controls mounted between ≥ 15" ≤ 44" (308.2.2) | | |
| INPUT At least one tactilely discernable input control provided for each function (707.6.1) Key surfaces raised (707.6.1) Numeric keys arranged in ascending or descending sequence with "5" key tacitly distinct. (707.6.2) Function keys contrast visually from background surfaces (707.6.3.1) Characters and symbols on key surfaces contrast from key surfaces. (707.6.3.1) Function key surfaces have tactile symbols as follows: <ul style="list-style-type: none"> • Enter or Proceed key: raised circle • Clear or Correct key: raised left arrow • Cancel key: raised letter ex • Add Value key: raised plus sign • Decrease Value key: raised minus sign | | |
| OPERATION (309.4) Controls and operating mechanisms are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist The force required to activate controls is no greater than 5 lbf | | |

13. Ticketing (Continued)

Automatic Fare Vending (continued)

SPEECH OUTPUT

Machine speech enabled (707.5)

Instructions and information to complete all transactions are accessible and independently usable by someone who has vision impairments (707.5)

Braille instructions for initiating speech mode provided (707.8)

User can interrupt and repeat speech and control volume (707.5.1)

Where receipts provided, audible balance information, error messages, and information necessary to complete or verify transaction provided (707.5.2)

DISPLAY SCREEN

Screen visible from a point 40" above the floor in front and at center of machine (707.7.1)

Sans serif font (707.7.2)

"I" $\geq 3/16$ " (707.7.2)

Contrast with background. (707.7.2)

Assess Fare Gate Components and note OK, NO, or N/A (404)

LANDING

Level landing of ≥ 42 " + door width wide from hinge side (404.2.4.1)

Level landing ≥ 60 " perpendicular to door for width of landing (404.2.4.1)

Note: If level landing < 42 " wide by < 60 " deep see p. 11

GATE

Width (404.2.3) Measured from door face to stop with door open at 90 degrees

In recess > 24 " deep, door ≥ 36 " wide

All other doors ≥ 32 " wide

Kick Plate (404.2.10)

Gate surface on push side between the finish floor and a height of ≥ 10 " has smooth surface on extending full width of gate

Kick plate surface free of changes in depth at joints of $\geq 1/16$ "

Operable parts of hardware between ≥ 34 " and ≤ 48 " above floor (404.2.7)

OPERATION

Opening force ≤ 5 lbf for interior hinged gate (404.2.9)

14. Platforms (403, 810)

Fill out survey sheet for each platform assessed. Identify each platform assessed and indicate OK, NO, or N/A. – If NO note dimensions

Platform 1: _____

Platform 3: _____

Platform 2: _____

Platform 4: _____

| | Plat.1 | Plat.2 | Plat. 3 | Plat. 4 |
|---|--------|--------|---------|---------|
| <p>CLEARANCES Route from ≥ 32" wide to <36" wide for distance of ≤ 24" (403.5.1) Remainder of route ≥ 36" wide for distance of ≥ 48" (403.5.1) At intervals of $\leq 200'$ Route ≥ 60" wide for distance of ≥ 60" (403.5.3)</p> | | | | |
| <p>SLOPE (810.5.1) Parallel to the track the slope is $\leq 1:48$ (2.1%) or \leq the slope of the track, whichever is greater Perpendicular to track the slope is $\leq 1:48$ (2.1%)</p> | | | | |
| <p>DETECTABLE WARNING Platform boarding edges, not protected by screens or guards, have a detectable warning along the full length of the public use area of the platform (810.5.2, 705.2) The detectable warning contrasts visually with adjoining surfaces, either light-on-dark, or dark-on-light (705.1.3) The detectable warning is 24" wide (705.2) The detectable warning consists of raised truncated domes with Diameter ≥ 0.9" - ≤ 1.4", (705.1.1) Height of nominal .2" and (705.1.1) Center-to- center spacing of nominal ≥ 1.6" to ≤ 2.4" (705.1.2)</p> | | | | |
| <p>SIGNAGE AT PLATFORMS <u>Tactile Signs</u> - At least one tactile sign on each platform or boarding area identifying the station (810.6.2) Signs, to maximum extent practicable in uniform locations within system (810.6.2) Mounting height ≥ 48" from ground to base of lowest tactile character; ≤ 60" to base of highest tactile character (703.4.1)</p> <p>CHARACTERS Raised Characters (703.2) Characters raised $\geq 1/32$" Upper case SANS SERIF $\geq 5/8$" to ≤ 2" high $\geq 3/8$" separation from borders and decorative elements Accompanied by Grade 2 Braille Braille Characters (703.3) - Below text, if multi-lined - below entire text Separated from tactile characters and raised borders $\geq 3/8$" Braille dots domed or rounded shape</p> <p>EXCEPTION - Platform signs not required to comply with above requirements where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.</p> | | | | |

13. Platforms (Cont.)

| | Plat. 1 | Plat.2 | Plat. 3 | Plat.4 |
|--|---------|--------|---------|--------|
| <u>Station Name Signs</u> – Name signs located at frequent intervals and clearly visible to sitting and standing passengers from within the vehicle on both sides when not obstructed by another vehicle (810.6.3) Station name signs comply with 703.5 sign requirements below (810.6.3) | | | | |
| <u>Route and Destinations Signs</u> - Lists of stations, routes and destinations served by the station and located in boarding areas, on platforms or mezzanines comply with 703.5 sign requirements below (810.6.2) | | | | |
| <u>Visual Characters</u> (703.5) Visual characters ≥ 40” above finish floor or ground (703.5.6) For characters ≥ 40” and ≤ 70” above the ground - height of uppercase letter "I" ≥ 5/8” (703.5.5) For characters > 70” and ≤ 120” above the ground - character height of uppercase letter "I" ≥ 2” (703.5.5) For signs > 120” above the ground - character height of uppercase letter "I" ≥ 3” (703.5.5) Contrast between characters and background either light characters on dark background or dark characters on light background (703.5.1) Non-glare finish (703.5.1) Characters in conventional form - characters not italic, oblique, script, highly decorative, or of other unusual forms (703.5.3) Width of Uppercase “O” is between ≥ 55% and ≤ 110% of the height of uppercase “I” (703.5.4) Width of uppercase “I” ≥ 10% to ≤ 30% of the height (703.5.7) Closest characters spaced between ≥ 10% and ≤ 35% of the character height (703.5.8) Baselines of separate lines of characters within message spaced between 135% and 170% of character height (703.5.9) | | | | |

14. Mini-High Platforms

Identify each mini-high platform and indicate OK, NO, or N/A. Record mini-high ramps in the Ramps section, page 9. If NO note dimensions

M/H Platform 1: _____

M/H Platform 2: _____

| | M/H 1 | M/H. 2 | M/H 3 | M/H 4 |
|---|-------|--------|-------|-------|
| Light Rail – Station is located on a pedestrian mall, city street or other area where level boarding is infeasible (810.3, 810.5)) | | | | |
| Commuter Rail – Level boarding not structurally or operationally practicable (36CFR1192.91) | | | | |
| DETECTABLE WARNING Platform edges, not protected by screens or guards, have a detectable warning along the full length of the public use area of the platform (810.5.2, 705.2) Record detectable warning for mini-high ramps in the Platforms section, page 17 | | | | |

15. Public Address Systems (810)

Assess Public Address System Components and note OK, NO, or N/A

| | |
|---|--|
| If a public address system provides audible messages, the same or equivalent information is provided in a visual format (810.7) | |
|---|--|

16. Telephones (217, 704)

Assess Telephone Components and note OK, NO, or N/A

Telephones

| | | |
|--|--|--|
| If public phone provided on floor, level, or exterior site, at least 1 accessible phone per floor, level and exterior site provided (217.2) If 2 or more banks of phones are provided, at least 1 per bank is accessible (217.2) Accessible phone has clear floor space and counter depth ≤ 10" for parallel approach and ≤ 20" for front approach (704.2.1) Highest operable part ≤ 48" (704.2.2) Volume control is provided on all public phones (217.3) | | |
|--|--|--|

TTY's:

| | | |
|--|--|--|
| If public phone provided on floor, at least 1 TTY is provided (217.4.2) Where at least 1 public phone serves an entrance, at least 1 TTY is provided to serve the entrance (217.4.7) If 4 or more public phones are provided on exterior or interior of site, at least 1 TTY is provided on site (217.4.4) If an interior bank of public telephones has 3 or more phones, at least 1 phone provides shelf and electrical outlet for portable TTY (217.5) If a bank of public telephones has 4 or more phones and is located ≥ 200' from a TTY, at least 1 TTY must be provided (217.4.1) | | |
|--|--|--|

Signs

| | | |
|--|--|--|
| Where signs provide directions to phones, they also provide directions to TTYs (216.9.2) At banks of phones which do not have a TTY, Directions to nearest public TTY provided (216.9.2) Text telephone identified by the International TTY symbol (216.9.1) | | |
|--|--|--|

17. Accessible Means of Egress – New Stations (207)

An Area of Refuge is required if any of the following conditions exist:

- < 50 % of the exterior walls are open to the outside (207.1, IBEW 2003) Yes No
- The facility has no automatic sprinkler system (207.1, IBEW 2003 – 903.3.1.1) Yes No
- The emergency evacuation route is not accessible (207.1, IBEW 2003) Yes No
- Elevators or Lifts on the emergency evacuation route do not have standby power (207.2) Yes No

Describe each Accessible Means of Egress and indicate OK, NO, or N/A.

Area of Refuge 1: _____

Area of Refuge 2: _____

| | Area of Refuge 1 | Area of Refuge 2 |
|---|------------------|------------------|
| Each area of refuge provides at least two accessible areas, each being $\geq 30''$ by $\geq 48''$ (IBC 2003 1007.6.1) | | |
| The area of refuge does not encroach on any required exit width (IBC 2003 1007.6.1) | | |
| Each stairway adjacent to an area of refuge has $\geq 48''$ clear width between the handrails (IBC 2003 1007.8.2). | | |
| A method of two-way communication, with both visual and audible signals, provided between each area of refuge and the primary entry (IBC 2003 1007.6.3) | | |
| Area of refuge identified by a visual sign that includes the words "AREA OF REFUGE" and the International Symbol of Accessibility (illuminated when exit sign illumination is required) (IBC 2003 1007.6.5) | | |
| Signs displayed at all inaccessible exits and where necessary to identify the direction to areas of refuge (IBC 2003 1007.7) | | |
| Instructions provided for use of the area posted near two-way communication system (IBC 2003 1007.6.4) | | |

Attachment 2

MSDS Review Request Form

System Safety and Environmental Management Material Safety Data Sheet Review Request

Return this form to Chemical Safety Liaison Officer at Carmen Turner Facility.
Email to kbest@wmata.com or Fax to 240-487-3673
Attach clear copy of current MSDS



Please Provide the Following Information

| | | |
|--|--|--------------------------|
| Today's Date: | Requesting Dept.: | Contact Location: |
| Contact Name: | | Phone: |
| Location(s) where product will be stored: | | |
| Material Status: <i>(check all that apply)</i> | In Use ___ New Material ___ For Testing | |
| Is this item for contractor use?? | ___ Yes ___ No Contractor Name: Contract No.: | |
| Will this be a Stock or non-stock item? | | |
| Trade Name as shown on MSDS: | | |
| WMATA Stock No.: | | |
| SARP MSDS No.: | | |
| Give name and MSDS number of existing product that this will replace: | | |
| Why is replacement necessary? | | |
| Where will product be used? | | |
| Description of use: | | |
| How will product be applied? | | |
| Size of Container: | | |
| Quantity used per week: | | |
| Physical State of Product: | Aerosol Spray ___ Gas ___ Liquid ___ Paste/Cream ___ Pellets Powder ___ Solid ___ Other ___ <i>(Please specify)</i> | |
| Manufacturer's Name, Phone No. & web address: | | |
| Vendor's Name & Phone No.: | | |
| Best Time to Contact You (Requestor): | | |
| Comments: | | |

Attachment 3

Cost Estimate Worksheet

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|--------------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 001 | 03500 | 1 | METRO CENTER (NORTH MEZZANINE) | C01 | 035 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 03501 | | | | | CAT6 Cable | \$ - | 60 | \$ - | Per ft |
| | 03502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 03503 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 03504 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 03505 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 03506 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 03507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 03508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 03509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 03510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 03511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 03512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 03513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 03514 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 03515 | | | | | CAT6 module | \$ - | 1 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 03516 | | | | | Outlet box | \$ - | 1 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 03517 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 03518 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| | 03519 | | | | | Supplies | \$ - | 0.5 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 002 | 05200 | 1 | METRO CENTER (SOUTH MEZZANINE) | C01 | 052 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 05201 | | | | | CAT6 Cable | \$ - | 400 | \$ - | Per ft |
| | 05202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05203 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05204 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 05205 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05206 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 05207 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05208 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05209 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05210 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05211 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05212 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05213 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05214 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 05215 | | | | | CAT6 module | \$ - | 4 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05216 | | | | | Outlet box | \$ - | 4 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05217 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05218 | | | | | Mobilization | \$ - | 0.5 | \$ - | Per mezzanine location + scaffold |
| | 05219 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|-----------------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 003 | 03600 | 1 | MCPHERSON SQUARE (EAST MEZZANINE) | C02 | 036 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 03601 | | | | | CAT6 Cable | \$ - | 380 | \$ - | Per ft |
| | 03602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 03603 | | | | | Cable #10 | \$ - | 1200 | \$ - | Per ft #10 |
| | 03604 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 03605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 03606 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring application |
| | 03607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 03608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 03609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 03610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 03611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 03612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 03613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 03614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 03615 | | | | | CAT6 module | \$ - | 17 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 03616 | | | | | Outlet box | \$ - | 17 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 03617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 03618 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 03619 | | | | | Supplies | \$ - | 0.5 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 004 | 03700 | 1 | MCPHERSON SQUARE (WEST MEZZANINE) | C02 | 037 | 1-1/2" Conduit | \$ - | 5 | \$ - | Per ft, GRS with accessories |
| | 03701 | | | | | CAT6 Cable | \$ - | 400 | \$ - | Per ft |
| | 03702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 03703 | | | | | Cable #10 | \$ - | 900 | \$ - | Per ft #10 |
| | 03704 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 03705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 03706 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring application |
| | 03707 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 03708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 03709 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 03710 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 03711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 03712 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 03713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 03714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 03715 | | | | | CAT6 module | \$ - | 19 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 03716 | | | | | Outlet box | \$ - | 19 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 03717 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 03718 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 03719 | | | | | Supplies | \$ - | 0.5 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|--------------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 005 | 03800 | 1 | FARRAGUT WEST (EAST MEZZANINE) | C03 | 038 | 1-1/2" Conduit | \$ - | 65 | \$ - | Per ft, GRS with accessories |
| | 03801 | | | | | CAT6 Cable | \$ - | 490 | \$ - | Per ft |
| | 03802 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 03803 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 03804 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 03805 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 03806 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 03807 | | | | | U/F Duct (new) | \$ - | 70 | \$ - | #4 duct / ft |
| | 03808 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 03809 | | | | | Duct Coupler | \$ - | 6 | \$ - | Straight section coupler |
| | 03810 | | | | | Duct HH/JB (new) | \$ - | 2 | \$ - | Per Piece /w cover |
| | 03811 | | | | | Duct Run Bend | \$ - | 1 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 03812 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 03813 | | | | | Duct Adapter | \$ - | 1 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 03814 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 03815 | | | | | CAT6 module | \$ - | 19 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 03816 | | | | | Outlet box | \$ - | 19 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 03817 | | | | | Concrete | \$ - | 0.9 | \$ - | Per cubic yard (Metro Brown) |
| | 03818 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 03819 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 006 | 04000 | 1 | FOGGY BOTTOM-GWU | C04 | 040 | 1-1/2" Conduit | \$ - | 160 | \$ - | Per ft, GRS with accessories |
| | 04001 | | | | | CAT6 Cable | \$ - | 900 | \$ - | Per ft |
| | 04002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04003 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 04004 | | | | | Cable #8 | \$ - | 1600 | \$ - | Per ft #8 |
| | 04005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04006 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 04007 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 04008 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04009 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 04010 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 04011 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04012 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04013 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04015 | | | | | CAT6 module | \$ - | 32 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04016 | | | | | Outlet box | \$ - | 32 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04017 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 04018 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location + scaffold |
| | 04019 | | | | | Supplies | \$ - | 10.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------|---------------------------|--------------|-----------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 007 | 04100 | 1 | ROSSLYN | C05 | 041 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 04101 | | | | | CAT6 Cable | \$ - | 600 | \$ - | Per ft |
| | 04102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04103 | | | | | Cable #10 | \$ - | 920 | \$ - | Per ft #10 |
| | 04104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 04105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04106 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 04107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 04108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 04110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 04111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04115 | | | | | CAT6 module | \$ - | 25 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04116 | | | | | Outlet box | \$ - | 25 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 04118 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location + scaffold |
| 04119 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |
| 008 | 11300 | 1 | ROSSLYN (SIDE/NEW ENTRANCE) | C05 | 113 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 11301 | | | | | CAT6 Cable | \$ - | 240 | \$ - | Per ft |
| | 11302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 11303 | | | | | Cable #10 | \$ - | 610 | \$ - | Per ft #10; extra FG ckt |
| | 11304 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 11305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 11306 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 11307 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 11308 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 11309 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 11310 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 11311 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 11312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 11313 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 11314 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 11315 | | | | | CAT6 module | \$ - | 9 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 11316 | | | | | Outlet box | \$ - | 9 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 11317 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 11318 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 11319 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|-------------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 009 | 04200 | 1 | ARLINGTON CEMETERY | C06 | 042 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 04201 | | | | | CAT6 Cable | \$ - | 350 | \$ - | Per ft |
| | 04202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04203 | | | | | Cable #10 | \$ - | 780 | \$ - | Per ft #10 |
| | 04204 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 04205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04206 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 04207 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 04208 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04209 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 04210 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 04211 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04212 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04213 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04214 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04215 | | | | | CAT6 module | \$ - | 14 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04216 | | | | | Outlet box | \$ - | 14 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04217 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 04218 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location + scaffold |
| | 04219 | | | | | Supplies | \$ - | 0.5 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 010 | 042M00 | 1 | ARLINGTON CEMETERY (PLATFORM) | C06 | 042M | CAT6 Cable | \$ - | 500 | \$ - | Per ft |
| | 042M01 | | | | | MMFO Cable | \$ - | 500 | \$ - | Per ft + connectors |
| | 042M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 042M03 | | | | | Misc supplies | \$ - | 1 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 042M04 | | | | | Pull string | \$ - | 1100 | \$ - | Pull String 500lb rated |
| | 042M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 042M06 | | | | | CAT6 module | \$ - | 6 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 042M07 | | | | | Outlet box | \$ - | 6 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 042M08 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 042M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 042M10 | | | | | Supplies | \$ - | 2.0 | \$ - | Misc equipment, lubricants |
| | Station Subtotal | | | | | | | | | \$ - |
| 011 | 05300 | 1 | FEDERAL TRIANGLE | D01 | 053 | 1-1/2" Conduit | \$ - | 130 | \$ - | Per ft, GRS with accessories |
| | 05301 | | | | | CAT6 Cable | \$ - | 760 | \$ - | Per ft |
| | 05302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05303 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05304 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 05305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05306 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 05307 | | | | | U/F Duct (new) | \$ - | 70 | \$ - | #4 duct / ft |
| | 05308 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #2 duct / ft |
| | 05309 | | | | | Duct Coupler | \$ - | 7 | \$ - | Straight section coupler |
| | 05310 | | | | | Duct HH/JB (new) | \$ - | 16 | \$ - | Per Piece /w cover |
| | 05311 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05313 | | | | | Duct Adapter | \$ - | 14 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05314 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05315 | | | | | CAT6 module | \$ - | 23 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05316 | | | | | Outlet box | \$ - | 23 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05317 | | | | | Concrete | \$ - | 1.5 | \$ - | Per cubic yard (Metro Brown) |
| | 05318 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| | 05319 | | | | | Supplies | \$ - | 5.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|-------------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 012 | 05400 | 1 | SMITHSONIAN (NORTH MEZZANINE) | D02 | 054 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 600 | \$ - | Per ft | |
| | 05402 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05403 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05404 | | | | | Cable #8 | \$ - | 1200 | \$ - | Per ft #8 |
| | 05405 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05406 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 05407 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05408 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05409 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05410 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05411 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05412 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05413 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05414 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05415 | | | | | CAT6 module | \$ - | 23 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05416 | | | | | Outlet box | \$ - | 23 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05417 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05418 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 05419 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 013 | 05500 | 1 | SMITHSONIAN (SOUTH MEZZANINE) | D02 | 055 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 380 | \$ - | Per ft | |
| | 05502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05503 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05504 | | | | | Cable #8 | \$ - | 1400 | \$ - | Per ft #8 |
| | 05505 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05506 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 05507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05514 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05515 | | | | | CAT6 module | \$ - | 17 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05516 | | | | | Outlet box | \$ - | 17 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05517 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05518 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 05519 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|----------------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 014 | 055M00 | 1 | SMITHSONIAN (EASTBOUND PLATFORM) | D02 | 055M | CAT6 Cable | \$ - | 180 | \$ - | Per ft |
| | 055M01 | | | | | MMFO Cable | \$ - | 608 | \$ - | Per ft + connectors |
| | 055M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 055M03 | | | | | Misc supplies | \$ - | 1 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 055M04 | | | | | Pull string | \$ - | 800 | \$ - | Pull String 500lb rated |
| | 055M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 055M06 | | | | | CAT6 module | \$ - | 3 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 055M07 | | | | | Outlet box | \$ - | 3 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 055M08 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 055M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 055M10 | Supplies | \$ - | 1.0 | \$ - | Misc equipment, lubricants | | | | | |
| Station Subtotal | | | | | | | | \$ - | | |
| 015 | 05600 | 1 | L'ENFANT PLAZA (WEST MEZZANINE) | D03 | 056 | 1-1/2" Conduit | \$ - | 180 | \$ - | Per ft, GRS with accessories |
| | 05601 | | | | | CAT6 Cable | \$ - | 290 | \$ - | Per ft |
| | 05602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05603 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05604 | | | | | Cable #8 | \$ - | 1600 | \$ - | Per ft #8 |
| | 05605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05606 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/genral wiring/pulling application |
| | 05607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05615 | | | | | CAT6 module | \$ - | 14 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05616 | | | | | Outlet box | \$ - | 14 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05618 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 05619 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | \$ - | | |
| 016 | 05700 | 1 | L'ENFANT PLAZA (EAST MEZZANINE) | D03 | 057 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 05701 | | | | | CAT6 Cable | \$ - | 290 | \$ - | Per ft |
| | 05702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05703 | | | | | Cable #10 | \$ - | 650 | \$ - | Per ft #10 |
| | 05704 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 05705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05706 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/genral wiring/pulling application |
| | 05707 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05709 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05710 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05712 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05715 | | | | | CAT6 module | \$ - | 14 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05716 | | | | | Outlet box | \$ - | 14 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05717 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05718 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| 05719 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 017 | 05800 | 1 | FEDERAL CENTER SW | D04 | 058 | 1-1/2" Conduit | \$ - | 130 | \$ - | Per ft, GRS with accessories |
| | 05801 | | | | | CAT6 Cable | \$ - | 280 | \$ - | Per ft |
| | 05802 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05803 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05804 | | | | | Cable #8 | \$ - | 1600 | \$ - | Per ft #8 |
| | 05805 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05806 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 05807 | | | | | U/F Duct (new) | \$ - | 90 | \$ - | #4 duct / ft |
| | 05808 | | | | | U/F Duct (new) | \$ - | 10 | \$ - | #2 duct / ft |
| | 05809 | | | | | Duct Coupler | \$ - | 9 | \$ - | Straight section coupler |
| | 05810 | | | | | Duct HH/JB (new) | \$ - | 12 | \$ - | Per Piece /w cover |
| | 05811 | | | | | Duct Run Bend | \$ - | 1 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05812 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05813 | | | | | Duct Adapter | \$ - | 8 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05814 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05815 | | | | | CAT6 module | \$ - | 14 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05816 | | | | | Outlet box | \$ - | 14 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05817 | | | | | Concrete | \$ - | 1.2 | \$ - | Per cubic yard (Metro Brown) |
| | 05818 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 05819 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 018 | 05900 | 1 | CAPITOL SOUTH | D05 | 059 | 1-1/2" Conduit | \$ - | 140 | \$ - | Per ft, GRS with accessories |
| | 05901 | | | | | CAT6 Cable | \$ - | 350 | \$ - | Per ft |
| | 05902 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05903 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05904 | | | | | Cable #8 | \$ - | 1320 | \$ - | Per ft #8 |
| | 05905 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05906 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 05907 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05908 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05909 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05910 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05911 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05912 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05913 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05914 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05915 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05916 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05917 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05918 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 05919 | Supplies | \$ - | 3.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|----------|---|------------|----------|---------------|---|
| 019 | 06000 | 1 | EASTERN MARKET | D06 | 060 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 06001 | | | | | CAT6 Cable | \$ - | 250 | \$ - | Per ft |
| | 06002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06003 | | | | | Cable #10 | \$ - | 1000 | \$ - | Per ft #10 |
| | 06004 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 06005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06006 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 06007 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft - possible repairing/replacing duct kiosk to HH1 |
| | 06008 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06009 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06010 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06011 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06012 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06013 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06015 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06016 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06017 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06018 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 06019 | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | |
| | | | | | | Station Subtotal | \$ - | | | |
| 020 | 06100 | 1 | POTOMAC AVENUE | D07 | 061 | 1-1/2" Conduit | \$ - | 70 | \$ - | Per ft, GRS with accessories |
| | 06101 | | | | | CAT6 Cable | \$ - | 450 | \$ - | Per ft |
| | 06102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06103 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 06104 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 06105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06106 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 06107 | | | | | U/F Duct (new) | \$ - | 10 | \$ - | #4 duct / ft |
| | 06108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06110 | | | | | Duct HH/JB (new) | \$ - | 2 | \$ - | Per Piece /w cover |
| | 06111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06115 | | | | | CAT6 module | \$ - | 19 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06116 | | | | | Outlet box | \$ - | 19 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06117 | | | | | Concrete | \$ - | 0.1 | \$ - | Per cubic yard (Metro Brown) |
| | 06118 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 06119 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | |
| | | | | | | Station Subtotal | \$ - | | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|----------------------------------|------------|----------|---|------------|----------|---------------|--|
| 021 | 06200 | 1 | STADIUM-ARMORY (SOUTH MEZZANINE) | D08 | 062 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 06201 | | | | | CAT6 Cable | \$ - | 280 | \$ - | Per ft |
| | 06202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06203 | | | | | Cable #10 | \$ - | 800 | \$ - | Per ft #10 |
| | 06204 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 06205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06206 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 06207 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06208 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06209 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06210 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06211 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06212 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06213 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06214 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06215 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06216 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06217 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06218 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 06219 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | |
| | | | | | | Station Subtotal | \$ - | | | |
| 022 | 06300 | 1 | STADIUM-ARMORY (NORTH MEZZANINE) | D08 | 063 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 06301 | | | | | CAT6 Cable | \$ - | 700 | \$ - | Per ft |
| | 06302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06303 | | | | | Cable #10 | \$ - | 700 | \$ - | Per ft #10 |
| | 06304 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 06305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06306 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 06307 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06308 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06309 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06310 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06311 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06313 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06314 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06315 | | | | | CAT6 module | \$ - | 26 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06316 | | | | | Outlet box | \$ - | 26 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06317 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06318 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 06319 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | |
| | | | | | | Station Subtotal | \$ - | | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 023 | 06400 | 1 | MINNESOTA AVENUE | D09 | 064 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 270 | \$ - | Per ft | |
| | 06402 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06403 | | | | | Cable #10 | \$ - | 1100 | \$ - | Per ft #10 |
| | 06404 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 06405 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06406 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 06407 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06408 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06409 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06410 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06411 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06412 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06413 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06414 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06415 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06416 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06417 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06418 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 06419 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 024 | 06500 | 1 | DEANWOOD | D10 | 065 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 250 | \$ - | Per ft | |
| | 06502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06503 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 06504 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 06505 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06506 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 06507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06514 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06515 | | | | | CAT6 module | \$ - | 12 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06516 | | | | | Outlet box | \$ - | 12 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06517 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06518 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 06519 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 025 | 06600 | 1 | CHEVERLY | D11 | 066 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 06601 | | | | | CAT6 Cable | \$ - | 210 | \$ - | Per ft |
| | 06602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06603 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 06604 | | | | | Cable #8 | \$ - | 1400 | \$ - | Per ft #8 |
| | 06605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06606 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 06607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06615 | | | | | CAT6 module | \$ - | 11 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06616 | | | | | Outlet box | \$ - | 11 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06618 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| 06619 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 026 | 06700 | 1 | LANDOVER | D12 | 067 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 06701 | | | | | CAT6 Cable | \$ - | 290 | \$ - | Per ft |
| | 06702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06703 | | | | | Cable #10 | \$ - | 1100 | \$ - | Per ft #10 |
| | 06704 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 06705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06706 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 06707 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06709 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06710 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06712 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06715 | | | | | CAT6 module | \$ - | 12 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06716 | | | | | Outlet box | \$ - | 12 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06717 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06718 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| 06719 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 027 | 06800 | 1 | NEW CARROLLTON | D13 | 068 | 1-1/2" Conduit | \$ - | 140 | \$ - | Per ft, GRS with accessories |
| | 06801 | | | | | CAT6 Cable | \$ - | 460 | \$ - | Per ft |
| | 06802 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 06803 | | | | | Cable #10 | \$ - | 1200 | \$ - | Per ft #10 |
| | 06804 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 06805 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 06806 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 06807 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 06808 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 06809 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 06810 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 06811 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 06812 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 06813 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 06814 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 06815 | | | | | CAT6 module | \$ - | 22 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 06816 | | | | | Outlet box | \$ - | 22 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 06817 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 06818 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| 06819 | Supplies | \$ - | 3.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 028 | 09000 | 1 | BENNING ROAD | G01 | 090 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 09001 | | | | | CAT6 Cable | \$ - | 250 | \$ - | Per ft |
| | 09002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09003 | | | | | Cable #10 | \$ - | 850 | \$ - | Per ft #10; extra FG ckt |
| | 09004 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09006 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 09007 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09008 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09009 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09010 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09011 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09012 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09013 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09015 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09016 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09017 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 09018 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 09019 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 029 | 09100 | 1 | CAPITOL HEIGHTS | G02 | 091 | 1-1/2" Conduit | \$ - | 130 | \$ - | Per ft, GRS with accessories |
| | 09101 | | | | | CAT6 Cable | \$ - | 250 | \$ - | Per ft |
| | 09102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09103 | | | | | Cable #10 | \$ - | 1200 | \$ - | Per ft #10; extra FG ckt |
| | 09104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09106 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 09107 | | | | | U/F Duct (new) | \$ - | 30 | \$ - | #4 duct / ft |
| | 09108 | | | | | U/F Duct (new) | \$ - | 30 | \$ - | #2 duct / ft |
| | 09109 | | | | | Duct Coupler | \$ - | 4 | \$ - | Straight section coupler |
| | 09110 | | | | | Duct HH/JB (new) | \$ - | 11 | \$ - | Per Piece /w cover |
| | 09111 | | | | | Duct Run Bend | \$ - | 3 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09112 | | | | | Duct Vertical Elbow | \$ - | 2 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09113 | | | | | Duct Adapter | \$ - | 7 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09115 | | | | | CAT6 module | \$ - | 12 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09116 | | | | | Outlet box | \$ - | 12 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09117 | | | | | Concrete | \$ - | 0.7 | \$ - | Per cubic yard (Metro Brown) |
| | 09118 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 09119 | | | | | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 030 | 09200 | 1 | ADDISON ROAD | G03 | 092 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 09201 | | | | | CAT6 Cable | \$ - | 280 | \$ - | Per ft |
| | 09202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09203 | | | | | Cable #10 | \$ - | 370 | \$ - | Per ft #10; extra FG ckt |
| | 09204 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09206 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 09207 | | | | | U/F Duct (new) | \$ - | 20 | \$ - | #4 duct / ft |
| | 09208 | | | | | U/F Duct (new) | \$ - | 20 | \$ - | #2 duct / ft |
| | 09209 | | | | | Duct Coupler | \$ - | 3 | \$ - | Straight section coupler |
| | 09210 | | | | | Duct HH/JB (new) | \$ - | 6 | \$ - | Per Piece /w cover |
| | 09211 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09212 | | | | | Duct Vertical Elbow | \$ - | 2 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09213 | | | | | Duct Adapter | \$ - | 8 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09214 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09215 | | | | | CAT6 module | \$ - | 17 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09216 | | | | | Outlet box | \$ - | 17 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09217 | | | | | Concrete | \$ - | 0.5 | \$ - | Per cubic yard (Metro Brown) |
| | 09218 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 09219 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|----------|------------------------------|------------|----------|---------------|--|
| 031 | 11000 | 1 | MORGAN BOULEVARD | G04 | 110 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 11001 | | | | | CAT6 Cable | \$ - | 700 | \$ - | Per ft |
| | 11002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 11003 | | | | | Cable #10 | \$ - | 860 | \$ - | Per ft #10; extra FG ckt |
| | 11004 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 11005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 11006 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 11007 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #4 duct / ft |
| | 11008 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #2 duct / ft |
| | 11009 | | | | | Duct Coupler | \$ - | 5 | \$ - | Straight section coupler |
| | 11010 | | | | | Duct HH/JB (new) | \$ - | 14 | \$ - | Per Piece /w cover |
| | 11011 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 11012 | | | | | Duct Vertical Elbow | \$ - | 2 | \$ - | Vertical 90, sealant and/or other needed items |
| | 11013 | | | | | Duct Adapter | \$ - | 14 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 11014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 11015 | | | | | CAT6 module | \$ - | 28 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 11016 | | | | | Outlet box | \$ - | 28 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 11017 | | | | | Concrete | \$ - | 1.2 | \$ - | Per cubic yard (Metro Brown) |
| | 11018 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 11019 | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, etc | | | | |
| | | | | | | Station Subtotal | \$ - | | | |
| 032 | 11100 | 1 | LARGO TOWN CENTER | G05 | 111 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 11101 | | | | | CAT6 Cable | \$ - | 450 | \$ - | Per ft |
| | 11102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 11103 | | | | | Cable #10 | \$ - | 790 | \$ - | Per ft #10; extra FG ckt |
| | 11104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 11105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 11106 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 11107 | | | | | U/F Duct (new) | \$ - | 40 | \$ - | #4 duct / ft |
| | 11108 | | | | | U/F Duct (new) | \$ - | 40 | \$ - | #2 duct / ft |
| | 11109 | | | | | Duct Coupler | \$ - | 4 | \$ - | Straight section coupler |
| | 11110 | | | | | Duct HH/JB (new) | \$ - | 12 | \$ - | Per Piece /w cover |
| | 11111 | | | | | Duct Run Bend | \$ - | 1 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 11112 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 11113 | | | | | Duct Adapter | \$ - | 12 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 11114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 11115 | | | | | CAT6 module | \$ - | 24 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 11116 | | | | | Outlet box | \$ - | 24 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 11117 | | | | | Concrete | \$ - | 1.0 | \$ - | Per cubic yard (Metro Brown) |
| | 11118 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 11119 | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, etc | | | | |
| | | | | | | Station Subtotal | \$ - | | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 033 | 09400 | 1 | VAN DORN STREET | J02 | 094 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 300 | \$ - | Per ft | |
| | 09402 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09403 | | | | | Cable #10 | \$ - | 550 | \$ - | Per ft #10; extra FG ckt |
| | 09404 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09405 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09406 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 09407 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09408 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09409 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09410 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09411 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09412 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09413 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09414 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09415 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09416 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09417 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 09418 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 09419 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 034 | 09500 | 1 | FRANCONIA-SPRINGFIELD | J03 | 095 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 570 | \$ - | Per ft | |
| | 09502 | | | | | MMFO Cable | \$ - | | \$ - | Per ft + connectors |
| | 09503 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 09504 | | | | | Cable #8 | \$ - | 1200 | \$ - | Per ft #8 |
| | 09505 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09506 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 09507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09514 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09515 | | | | | CAT6 module | \$ - | 23 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09516 | | | | | Outlet box | \$ - | 23 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09517 | | | | | Concrete | \$ - | 0 | \$ - | Per cubic yard (Metro Brown) |
| | 09518 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 09519 | | | | | Supplies | \$ - | 1 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------|---------------------------|--------------|------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 035 | 09600 | 1 | COURT HOUSE | K01 | 096 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 09601 | | | | | CAT6 Cable | \$ - | 350 | \$ - | Per ft |
| | 09602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09603 | | | | | Cable #10 | \$ - | 690 | \$ - | Per ft #10; extra FG ckt |
| | 09604 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09606 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 09607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09615 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09616 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 09618 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 09619 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |
| 036 | 09700 | 1 | CLARENDON | K02 | 097 | 1-1/2" Conduit | \$ - | 25 | \$ - | Per ft, GRS with accessories |
| | 09701 | | | | | CAT6 Cable | \$ - | 190 | \$ - | Per ft |
| | 09702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09703 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 09704 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 09705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09706 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 09707 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09709 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09710 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09712 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09715 | | | | | CAT6 module | \$ - | 10 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09716 | | | | | Outlet box | \$ - | 10 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09717 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 09718 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 09719 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 037 | 09800 | 1 | VIRGINIA SQUARE | K03 | 098 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 290 | \$ - | Per ft | |
| | 09802 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09803 | | | | | Cable #10 | \$ - | 1100 | \$ - | Per ft #10; extra FG ckt |
| | 09804 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09805 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09806 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 09807 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09808 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09809 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09810 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09811 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09812 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09813 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09814 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09815 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09816 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09817 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 09818 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 09819 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 038 | 10000 | 1 | EAST FALLS CHURCH | K05 | 100 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 390 | \$ - | Per ft | |
| | 10002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10003 | | | | | Cable #10 | \$ - | 1200 | \$ - | Per ft #10; extra FG ckt |
| | 10004 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 10005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10006 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 10007 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 10008 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 10009 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10010 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 10011 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10012 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10013 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10015 | | | | | CAT6 module | \$ - | 15 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10016 | | | | | Outlet box | \$ - | 15 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10017 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 10018 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 10019 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 039 | 10100 | 1 | WEST FALLS CHURCH | K06 | 101 | 1-1/2" Conduit | \$ - | 100 | \$ - | Per ft, GRS with accessories |
| | 10101 | | | | | CAT6 Cable | \$ - | 390 | \$ - | Per ft |
| | 10102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10103 | | | | | Cable #10 | \$ - | 900 | \$ - | Per ft #10; extra FG ckt |
| | 10104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 10105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10106 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 10107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 10108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 10109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 10111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10115 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10116 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 10118 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 10119 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 040 | 10200 | 1 | DUNN LORING | K07 | 102 | 1-1/2" Conduit | \$ - | 40 | \$ - | Per ft, GRS with accessories |
| | 10201 | | | | | CAT6 Cable | \$ - | 440 | \$ - | Per ft |
| | 10202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10203 | | | | | Cable #10 | \$ - | 460 | \$ - | Per ft #10; extra FG ckt |
| | 10204 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 10205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10206 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 10207 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 10208 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 10209 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10210 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 10211 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10212 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10213 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10214 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10215 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10216 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10217 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 10218 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 10219 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------|---------------------------|--------------|------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 041 | 10300 | 1 | VIENNA | K08 | 103 | 1-1/2" Conduit | \$ - | 150 | \$ - | Per ft, GRS with accessories |
| | 10301 | | | | | CAT6 Cable | \$ - | 650 | \$ - | Per ft |
| | 10302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10303 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 10304 | | | | | Cable #8 | \$ - | 1100 | \$ - | Per ft #8 |
| | 10305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10306 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 10307 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #4 duct / ft |
| | 10308 | | | | | U/F Duct (new) | \$ - | 40 | \$ - | #2 duct / ft |
| | 10309 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10310 | | | | | Duct HH/JB (new) | \$ - | 14 | \$ - | Per Piece /w cover |
| | 10311 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10313 | | | | | Duct Adapter | \$ - | 12 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10314 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10315 | | | | | CAT6 module | \$ - | 25 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10316 | | | | | Outlet box | \$ - | 25 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10317 | | | | | Concrete | \$ - | 1.1 | \$ - | Per cubic yard (Metro Brown) |
| | 10318 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 10319 | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |
| 042 | 04500 | 1 | CRYSTAL CITY | C09 | 045 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 04501 | | | | | CAT6 Cable | \$ - | 500 | \$ - | Per ft |
| | 04502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04503 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 04504 | | | | | Cable #8 | \$ - | 1200 | \$ - | Per ft #8 |
| | 04505 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04506 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 04507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 04508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 04510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 04511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04514 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04515 | | | | | CAT6 module | \$ - | 24 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04516 | | | | | Outlet box | \$ - | 24 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04517 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 04518 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 04519 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|--------------------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 043 | 04600 | 1 | REAGAN NATIONAL AIRPORT (SOUTH MEZZ) | C10 | 046 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 04601 | | | | | CAT6 Cable | \$ - | 400 | \$ - | Per ft |
| | 04602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04603 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 04604 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 04605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04606 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 04607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 04608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 04610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 04611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04615 | | | | | CAT6 module | \$ - | 18 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04616 | | | | | Outlet box | \$ - | 18 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 04618 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 04619 | Supplies | \$ - | 3.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 044 | 09300 | 1 | REAGAN NATIONAL AIRPORT (NORTH MEZZ) | C10 | 093 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 09301 | | | | | CAT6 Cable | \$ - | 550 | \$ - | Per ft |
| | 09302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 09303 | | | | | Cable #10 | \$ - | 1100 | \$ - | Per ft #10; extra FG ckt |
| | 09304 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 09305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 09306 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 09307 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 09308 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 09309 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 09310 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 09311 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 09312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 09313 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 09314 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 09315 | | | | | CAT6 module | \$ - | 22 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 09316 | | | | | Outlet box | \$ - | 22 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 09317 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 09318 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 09319 | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|-------------------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 045 | 093M00 | 1 | REAGAN NATIONAL AIRPORT (MINI MEZZ) | C10 | 093M | CAT6 Cable | \$ - | 200 | \$ - | Per ft |
| | 093M01 | | | | | MMFO Cable | \$ - | 700 | \$ - | Per ft + connectors |
| | 093M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 093M03 | | | | | Misc supplies | \$ - | 1 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 093M04 | | | | | Pull string | \$ - | 1000 | \$ - | Pull String 500lb rated |
| | 093M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 093M06 | | | | | CAT6 module | \$ - | 6 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 093M07 | | | | | Outlet box | \$ - | 6 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 093M08 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 093M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 093M10 | | | | | Supplies | \$ - | 2.0 | \$ - | Misc equipment, lubricants |
| Station Subtotal | | | | | | | | | \$ - | |
| 046 | 04700 | 1 | BRADDOCK ROAD | C12 | 047 | 1-1/2" Conduit | \$ - | 89 | \$ - | Per ft, GRS with accessories |
| | 04701 | | | | | CAT6 Cable | \$ - | 300 | \$ - | Per ft |
| | 04702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04703 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 04704 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 04705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04706 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/genral wiring/pulling application |
| | 04707 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #4 duct / ft |
| | 04708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04709 | | | | | Duct Coupler | \$ - | 5 | \$ - | Straight section coupler |
| | 04710 | | | | | Duct HH/JB (new) | \$ - | 2 | \$ - | Per Piece /w cover |
| | 04711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04712 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04713 | | | | | Duct Adapter | \$ - | 1 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04715 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04716 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04717 | | | | | Concrete | \$ - | 0.6 | \$ - | Per cubic yard (Metro Brown) |
| | 04718 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 04719 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 047 | 04800 | 1 | KING STREET-OLD TOWN (SOUTH MEZZ) | C13 | 048 | 1-1/2" Conduit | \$ - | 70 | \$ - | Per ft, GRS with accessories |
| | 04801 | | | | | CAT6 Cable | \$ - | 750 | \$ - | Per ft |
| | 04802 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 04803 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 04804 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 04805 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 04806 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/genral wiring/pulling application |
| | 04807 | | | | | U/F Duct (new) | \$ - | 120 | \$ - | #4 duct / ft |
| | 04808 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 04809 | | | | | Duct Coupler | \$ - | 12 | \$ - | Straight section coupler |
| | 04810 | | | | | Duct HH/JB (new) | \$ - | 6 | \$ - | Per Piece /w cover |
| | 04811 | | | | | Duct Run Bend | \$ - | 3 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 04812 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 04813 | | | | | Duct Adapter | \$ - | 1 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 04814 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 04815 | | | | | CAT6 module | \$ - | 20 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 04816 | | | | | Outlet box | \$ - | 20 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 04817 | | | | | Concrete | \$ - | 1.5 | \$ - | Per cubic yard (Metro Brown) |
| | 04818 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 04819 | Supplies | \$ - | 5.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|-------------------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 048 | 048M00 | 1 | KING STREET-OLD TOWN (NEW ENTRANCE) | C13 | 048M | CAT6 Cable | \$ - | 700 | \$ - | Per ft |
| | 048M01 | | | | | MMFO Cable | \$ - | 330 | \$ - | Per ft + connectors |
| | 048M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 048M03 | | | | | Misc supplies | \$ - | 2 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 048M04 | | | | | Pull string | \$ - | 1200 | \$ - | Pull String 500lb rated |
| | 048M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 048M06 | | | | | CAT6 module | \$ - | 7 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 048M07 | | | | | Outlet box | \$ - | 7 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 048M08 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 048M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 048M10 | | | | | Supplies | \$ - | 2.0 | \$ - | Misc equipment, lubricants |
| | | | | | | Station Subtotal | | | \$ - | |
| 049 | 11200 | 1 | KING STREET-OLD TOWN (NORTH MEZZ) | C13 | 112 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 11201 | | | | | CAT6 Cable | \$ - | 200 | \$ - | Per ft |
| | 11202 | | | | | MMFO Cable | \$ - | | \$ - | Per ft + connectors |
| | 11203 | | | | | Cable #10 | \$ - | 1000 | \$ - | Per ft #10; extra FG ckt |
| | 11204 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 11205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 11206 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 11207 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 11208 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 11209 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 11210 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 11211 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 11212 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 11213 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 11214 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 11215 | | | | | CAT6 module | \$ - | 8 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 11216 | | | | | Outlet box | \$ - | 8 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 11217 | | | | | Concrete | \$ - | 0 | \$ - | Per cubic yard (Metro Brown) |
| | 11218 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 11219 | | | | | Supplies | \$ - | 1 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 050 | 05000 | 1 | HUNTINGTON (NORTH MEZZANINE) | C15 | 050 | 1-1/2" Conduit | \$ - | 90 | \$ - | Per ft, GRS with accessories |
| | 05001 | | | | | CAT6 Cable | \$ - | 300 | \$ - | Per ft |
| | 05002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05003 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 05004 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 05005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05006 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 05007 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #4 duct / ft |
| | 05008 | | | | | U/F Duct (new) | \$ - | 30 | \$ - | #2 duct / ft |
| | 05009 | | | | | Duct Coupler | \$ - | 5 | \$ - | Straight section coupler |
| | 05010 | | | | | Duct HH/JB (new) | \$ - | 2 | \$ - | Per Piece /w cover |
| | 05011 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05012 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05013 | | | | | Duct Adapter | \$ - | 14 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05015 | | | | | CAT6 module | \$ - | 14 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05016 | | | | | Outlet box | \$ - | 14 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05017 | | | | | Concrete | \$ - | 1.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05018 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 05019 | | | | | Supplies | \$ - | 5.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------------|------------|----------|---|------------|----------|---------------|--|
| 051 | 05100 | 1 | HUNTINGTON (SOUTH MEZZANINE) | C15 | 051 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 05101 | | | | | CAT6 Cable | \$ - | 300 | \$ - | Per ft |
| | 05102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 05103 | | | | | Cable #10 | \$ - | 960 | \$ - | Per ft #10 |
| | 05104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 05105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 05106 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 05107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 05108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 05109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 05110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 05111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 05112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 05113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 05114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 05115 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 05116 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 05117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 05118 | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location | | | | |
| | 05119 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | |
| | | | | | | Station Subtotal | | \$ - | | |
| 052 | 07000 | 1 | MOUNT VERNON SQUARE | E01 | 070 | 1-1/2" Conduit | \$ - | 190 | \$ - | Per ft, GRS with accessories |
| | 07001 | | | | | CAT6 Cable | \$ - | 450 | \$ - | Per ft |
| | 07002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07003 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 07004 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 07005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07006 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 07007 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07008 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07009 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07010 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07011 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07012 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07013 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07015 | | | | | CAT6 module | \$ - | 17 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07016 | | | | | Outlet box | \$ - | 17 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07017 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07018 | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location | | | | |
| | 07019 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | |
| | | | | | | Station Subtotal | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|---------------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 053 | 07100 | 1 | SHAW-HOWARD U (SOUTH MEZZANINE) | E02 | 071 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 07101 | | | | | CAT6 Cable | \$ - | 200 | \$ - | Per ft |
| | 07102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07103 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 07104 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 07105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07106 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 07107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07115 | | | | | CAT6 module | \$ - | 8 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07116 | | | | | Outlet box | \$ - | 8 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07118 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 07119 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 054 | 07200 | 1 | SHAW-HOWARD U (NORTH MEZZANINE) | E02 | 072 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 07201 | | | | | CAT6 Cable | \$ - | 200 | \$ - | Per ft |
| | 07202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07203 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 07204 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 07205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07206 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 07207 | | | | | U/F Duct (new) | \$ - | 30 | \$ - | #4 duct / ft |
| | 07208 | | | | | U/F Duct (new) | \$ - | 30 | \$ - | #2 duct / ft |
| | 07209 | | | | | Duct Coupler | \$ - | 4 | \$ - | Straight section coupler |
| | 07210 | | | | | Duct HH/JB (new) | \$ - | 8 | \$ - | Per Piece /w cover |
| | 07211 | | | | | Duct Run Bend | \$ - | 1 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07212 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07213 | | | | | Duct Adapter | \$ - | 6 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07214 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07215 | | | | | CAT6 module | \$ - | 12 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07216 | | | | | Outlet box | \$ - | 12 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07217 | | | | | Concrete | \$ - | 0.7 | \$ - | Per cubic yard (Metro Brown) |
| | 07218 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| | 07219 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|---------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 055 | 07300 | 1 | U STREET (EAST MEZZANINE) | E03 | 073 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 07301 | | | | | CAT6 Cable | \$ - | 210 | \$ - | Per ft |
| | 07302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07303 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 07304 | | | | | Cable #8 | \$ - | 1600 | \$ - | Per ft #8 |
| | 07305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07306 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 07307 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07308 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07309 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07310 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07311 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07313 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07314 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07315 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07316 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07317 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07318 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location |
| 07319 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 056 | 07400 | 1 | U STREET (WEST MEZZANINE) | E03 | 074 | 1-1/2" Conduit | \$ - | 200 | \$ - | Per ft, GRS with accessories |
| | 07401 | | | | | CAT6 Cable | \$ - | 210 | \$ - | Per ft |
| | 07402 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07403 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 07403 | | | | | Cable #8 | \$ - | 1800 | \$ - | Per ft #8 |
| | 07404 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07404 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 07405 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07405 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07406 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07406 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07407 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07407 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07408 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07408 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07409 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07409 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07410 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07410 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 07411 | Supplies | \$ - | 3.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------|---------------------------|--------------|------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 057 | 07600 | 1 | GEORGIA AVENUE | E05 | 076 | 1-1/2" Conduit | \$ - | 95 | \$ - | Per ft, GRS with accessories |
| | 07601 | | | | | CAT6 Cable | \$ - | 280 | \$ - | Per ft |
| | 07602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07603 | | | | | Cable #10 | \$ - | 900 | \$ - | Per ft #10 |
| | 07604 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 07605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07606 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 07607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07615 | | | | | CAT6 module | \$ - | 17 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07616 | | | | | Outlet box | \$ - | 17 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07618 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 07619 | Supplies | \$ - | 3.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |
| 058 | 07700 | 1 | WEST HYATTSVILLE | E07 | 077 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 07701 | | | | | CAT6 Cable | \$ - | 400 | \$ - | Per ft |
| | 07702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07703 | | | | | Cable #10 | \$ - | 900 | \$ - | Per ft #10 |
| | 07704 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 07705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07706 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 07707 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07709 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07710 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07712 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07715 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07716 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07717 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07718 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 07719 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 059 | 07800 | 1 | PRINCE GEORGE'S PLAZA | E08 | 078 | 1-1/2" Conduit | \$ - | 160 | \$ - | Per ft, GRS with accessories - |
| | 07801 | | | | | CAT6 Cable | \$ - | 470 | \$ - | Per ft |
| | 07802 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07803 | | | | | Cable #10 | \$ - | 1300 | \$ - | Per ft #10 (3 ckts (kiosk) + 8 faregates) |
| | 07804 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 07805 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07806 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 07807 | | | | | U/F Duct (new) | \$ - | 50 | \$ - | #4 duct / ft |
| | 07808 | | | | | U/F Duct (new) | \$ - | 20 | \$ - | #2 duct / ft |
| | 07809 | | | | | Duct Coupler | \$ - | 7 | \$ - | Straight section coupler |
| | 07810 | | | | | Duct HH/JB (new) | \$ - | 10 | \$ - | Per Piece /w cover |
| | 07811 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07812 | | | | | Duct Vertical Elbow | \$ - | 2 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07813 | | | | | Duct Adapter | \$ - | 11 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07814 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07815 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07816 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07817 | | | | | Concrete | \$ - | 0.9 | \$ - | Per cubic yard (Metro Brown) |
| | 07818 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| | 07819 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 060 | 07900 | 1 | COLLEGE PARK | E09 | 079 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 07901 | | | | | CAT6 Cable | \$ - | 320 | \$ - | Per ft |
| | 07902 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 07903 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 07904 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 07905 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 07906 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 07907 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 07908 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 07909 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 07910 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 07911 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 07912 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 07913 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 07914 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 07915 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 07916 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 07917 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 07918 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| | 07919 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|-------------------------|---------------------|------------|----------|---------------|--|
| 061 | 08000 | 1 | GREENBELT | E10 | 080 | 1-1/2" Conduit | \$ - | 60 | \$ - | Per ft, GRS with accessories |
| | 08001 | | | | | CAT6 Cable | \$ - | 400 | \$ - | Per ft |
| | 08002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08003 | | | | | Cable #10 | \$ - | 1000 | \$ - | Per ft #10 |
| | 08004 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 08005 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08006 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 08007 | | | | | U/F Duct (new) | \$ - | 120 | \$ - | #4 duct / ft |
| | 08008 | | | | | U/F Duct (new) | \$ - | 30 | \$ - | #2 duct / ft |
| | 08009 | | | | | Duct Coupler | \$ - | 12 | \$ - | Straight section coupler |
| | 08010 | | | | | Duct HH/JB (new) | \$ - | 16 | \$ - | Per Piece /w cover |
| | 08011 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08012 | | | | | Duct Vertical Elbow | \$ - | 2 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08013 | | | | | Duct Adapter | \$ - | 9 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08014 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08015 | | | | | CAT6 module | \$ - | 19 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08016 | | | | | Outlet box | \$ - | 19 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08017 | | | | | Concrete | \$ - | 1.9 | \$ - | Per cubic yard (Metro Brown) |
| | 08018 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| | 08019 | | | | | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| | | | | | Station Subtotal | | | \$ - | | |
| 062 | 08100 | 1 | ARCHIVES | F02 | 081 | 1-1/2" Conduit | \$ - | 90 | \$ - | Per ft, GRS with accessories |
| | 08101 | | | | | CAT6 Cable | \$ - | 350 | \$ - | Per ft |
| | 08102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08103 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 08104 | | | | | Cable #8 | \$ - | 1300 | \$ - | Per ft #8 |
| | 08105 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08106 | | | | | Electr. Box | \$ - | 3 | \$ - | Other/general wiring/pulling application |
| | 08107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 08108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 08110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 08111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08114 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08115 | | | | | CAT6 module | \$ - | 16 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08116 | | | | | Outlet box | \$ - | 16 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 08118 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| | 08119 | | | | | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc |
| | | | | | Station Subtotal | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|----------------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 063 | 08200 | 1 | L'ENFANT PLAZA (NORTH MEZZANINE) | F03 | 082 | 1-1/2" Conduit | \$ - | 60 | \$ - | Per ft, GRS with accessories |
| | 08201 | | | | | CAT6 Cable | \$ - | 430 | \$ - | Per ft |
| | 08202 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08203 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 08204 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 08205 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08206 | | | | | Electr. Box | \$ - | 4 | \$ - | Other/general wiring/pulling application |
| | 08207 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 08208 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08209 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 08210 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 08211 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08212 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08213 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08214 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 08215 | | | | | CAT6 module | \$ - | 0 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08216 | | | | | Outlet box | \$ - | 0 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08217 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 08218 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 08219 | Supplies | \$ - | 3.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 064 | 08300 | 1 | WATERFRONT | F04 | 083 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 08301 | | | | | CAT6 Cable | \$ - | 300 | \$ - | Per ft |
| | 08302 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08303 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 08304 | | | | | Cable #8 | \$ - | 1200 | \$ - | Per ft #8 |
| | 08305 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08306 | | | | | Electr. Box | \$ - | 2 | \$ - | Other/general wiring/pulling application |
| | 08307 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 08308 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08309 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 08310 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 08311 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08312 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08313 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08314 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08315 | | | | | CAT6 module | \$ - | 14 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08316 | | | | | Outlet box | \$ - | 14 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08317 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 08318 | | | | | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location + scaffold |
| 08319 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|-------------------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 065 | 10500 | 1 | NAVY YARD-BALLPARK (WEST MEZZANINE) | F05 | 105 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 10501 | | | | | CAT6 Cable | \$ - | 610 | \$ - | Per ft |
| | 10502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10503 | | | | | Cable #10 | \$ - | 600 | \$ - | Per ft #10; extra FG ckt |
| | 10504 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 10505 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10506 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 10507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 10508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 10509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 10511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10514 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10515 | | | | | CAT6 module | \$ - | 22 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10516 | | | | | Outlet box | \$ - | 22 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10517 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 10518 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 10519 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 066 | 08500 | 1 | ANACOSTIA (NORTH MEZZANINE) | F06 | 085 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 08501 | | | | | CAT6 Cable | \$ - | 350 | \$ - | Per ft |
| | 08502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08503 | | | | | Cable #10 | \$ - | 650 | \$ - | Per ft #10; extra FG ckt |
| | 08504 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 08505 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08506 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 08507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 08508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 08510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 08511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08514 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08515 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08516 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08517 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 08518 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 08519 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------|---------------------------|--------------|-----------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 067 | 10600 | 1 | ANACOSTIA (SOUTH MEZZANINE) | F06 | 106 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 10601 | | | | | CAT6 Cable | \$ - | 390 | \$ - | Per ft |
| | 10602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10603 | | | | | Cable #10 | \$ - | 400 | \$ - | Per ft #10; extra FG ckt |
| | 10604 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 10605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10606 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 10607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 10608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 10609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 10611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10615 | | | | | CAT6 module | \$ - | 18 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10616 | | | | | Outlet box | \$ - | 18 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 10618 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 10619 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |
| 068 | 08600 | 1 | CONGRESS HEIGHTS | F07 | 086 | 1-1/2" Conduit | \$ - | 90 | \$ - | Per ft, GRS with accessories |
| | 08601 | | | | | CAT6 Cable | \$ - | 250 | \$ - | Per ft |
| | 08602 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08603 | | | | | Cable #10 | \$ - | 850 | \$ - | Per ft #10; extra FG ckt |
| | 08604 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 08605 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08606 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 08607 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 08608 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08609 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 08610 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 08611 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08612 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08613 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08614 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08615 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08616 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08617 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 08618 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 08619 | Supplies | \$ - | 2.0 | \$ - | Saw blades, pull string, etc | | | | | |
| | | | | | Station Subtotal | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-----|---------------------------|--------------|------------------------|------------|----------|-------------------------|------------|----------|---------------|--|
| 069 | 10700 | 1 | SOUTHERN AVENUE | F08 | 107 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 10701 | | | | | CAT6 Cable | \$ - | 320 | \$ - | Per ft |
| | 10702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 10703 | | | | | Cable #10 | \$ - | 830 | \$ - | Per ft #10; extra FG ckt |
| | 10704 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 10705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 10706 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 10707 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 10708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 10709 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 10710 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 10711 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 10712 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 10713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 10714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 10715 | | | | | CAT6 module | \$ - | 15 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 10716 | | | | | Outlet box | \$ - | 15 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 10717 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 10718 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 10719 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |
| 070 | 08700 | 1 | NAYLOR ROAD | F09 | 087 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 08701 | | | | | CAT6 Cable | \$ - | 200 | \$ - | Per ft |
| | 08702 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08703 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 08704 | | | | | Cable #8 | \$ - | 1500 | \$ - | Per ft #8 |
| | 08705 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08706 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 08707 | | | | | U/F Duct (new) | \$ - | 100 | \$ - | #4 duct / ft |
| | 08708 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08709 | | | | | Duct Coupler | \$ - | 10 | \$ - | Straight section coupler |
| | 08710 | | | | | Duct HH/JB (new) | \$ - | 4 | \$ - | Per Piece /w cover |
| | 08711 | | | | | Duct Run Bend | \$ - | 2 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08712 | | | | | Duct Vertical Elbow | \$ - | 1 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08713 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08714 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08715 | | | | | CAT6 module | \$ - | 13 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08716 | | | | | Outlet box | \$ - | 13 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08717 | | | | | Concrete | \$ - | 1.2 | \$ - | Per cubic yard (Metro Brown) |
| | 08718 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 08719 | | | | | Supplies | \$ - | 4.0 | \$ - | Saw blades, pull string, etc |
| | | | | | | Station Subtotal | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|-------------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 071 | 08900 | 1 | BRANCH AVENUE | F11 | 089 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 450 | \$ - | Per ft | |
| | 08902 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 08903 | | | | | Cable #10 | \$ - | 900 | \$ - | Per ft #10; extra FG ckt |
| | 08904 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 08905 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 08906 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 08907 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 08908 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 08909 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 08910 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 08911 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 08912 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 08913 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 08914 | | | | | Quad-Outlet | \$ - | 2 | \$ - | 120V power + connectors |
| | 08915 | | | | | CAT6 module | \$ - | 19 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 08916 | | | | | Outlet box | \$ - | 19 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 08917 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 08918 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 08919 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 072 | 00100 | 1 | METRO CENTER (WEST MEZZANINE) | A01 | 001 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | CAT6 Cable | | | | | \$ - | 60 | \$ - | Per ft | |
| | 00102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 00103 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 00104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 00105 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 00106 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 00107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 00108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 00109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 00110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 00111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 00112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 00113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 00114 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 00115 | | | | | CAT6 module | \$ - | 1 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 00116 | | | | | Outlet box | \$ - | 1 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 00117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 00118 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 00119 | | | | | Supplies | \$ - | 0.5 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|----------------------------------|------------|------------------------------|---------------------|------------|----------|---------------|--|
| 073 | 00400 | 1 | FARRAGUT NORTH (NORTH MEZZANINE) | A02 | 004 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 00401 | | | | | CAT6 Cable | \$ - | 100 | \$ - | Per ft |
| | 00402 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 00403 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 00404 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8; extra FG ckt |
| | 00405 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 00406 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 00407 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 00408 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 00409 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 00410 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 00411 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 00412 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 00413 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 00414 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 00415 | | | | | CAT6 module | \$ - | 2 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 00416 | | | | | Outlet box | \$ - | 2 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 00417 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 00418 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 00419 | Supplies | \$ - | 0.5 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |
| 074 | 01000 | 1 | TENLEYTOWN-AU | A07 | 010 | 1-1/2" Conduit | \$ - | 25 | \$ - | Per ft, GRS with accessories |
| | 01001 | | | | | CAT6 Cable | \$ - | 0 | \$ - | Per ft |
| | 01002 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 01003 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 01004 | | | | | Cable #8 | \$ - | 1750 | \$ - | Per ft #8 |
| | 01005 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 01006 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 01007 | | | | | U/F Duct (new) | \$ - | 20 | \$ - | #4 duct / ft |
| | 01008 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 01009 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 01010 | | | | | Duct HH/JB (new) | \$ - | 2 | \$ - | Per Piece /w cover |
| | 01011 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 01012 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 01013 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 01014 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 01015 | | | | | CAT6 module | \$ - | 0 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 01016 | | | | | Outlet box | \$ - | 0 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 01017 | | | | | Concrete | \$ - | 0.2 | \$ - | Per cubic yard (Metro Brown) |
| | 01018 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 01019 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|--------------------------------------|------------|---|---------------------|------------|----------|---------------|--|
| 075 | 011M00 | 1 | TENLEYS TOWN-AU | A07 | 010M | CAT6 Cable | \$ - | 100 | \$ - | Per ft |
| | 011M01 | | | | | MMFO Cable | \$ - | 510 | \$ - | Per ft + connectors |
| | 011M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 011M03 | | | | | Misc supplies | \$ - | 1 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 011M04 | | | | | Pull string | \$ - | 700 | \$ - | Pull String 500lb rated |
| | 011M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 011M06 | | | | | CAT6 module | \$ - | 4 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 011M07 | | | | | Outlet box | \$ - | 4 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 011M08 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 011M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| 011M10 | Supplies | \$ - | 2.0 | \$ - | Misc equipment, lubricants | | | | | |
| Station Subtotal | | | | | | | | \$ - | | |
| 076 | 01100 | 1 | FRIENDSHIP HEIGHTS (NORTH MEZZANINE) | A08 | 011 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 01101 | | | | | CAT6 Cable | \$ - | 70 | \$ - | Per ft |
| | 01102 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 01103 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 01104 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 01105 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 01106 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/genral wiring/pulling application |
| | 01107 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 01108 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 01109 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 01110 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 01111 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 01112 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 01113 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 01114 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 01115 | | | | | CAT6 module | \$ - | 1 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 01116 | | | | | Outlet box | \$ - | 1 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 01117 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| 01118 | Mobilization | \$ - | 1 | \$ - | Per mezzanine location | | | | | |
| 01119 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc | | | | | |
| Station Subtotal | | | | | | | | \$ - | | |
| 077 | 01500 | 1 | WHITE FLINT | A12 | 015 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 01501 | | | | | CAT6 Cable | \$ - | 180 | \$ - | Per ft |
| | 01502 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 01503 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10 |
| | 01504 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 01505 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 01506 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/genral wiring/pulling application |
| | 01507 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 01508 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 01509 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 01510 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 01511 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 01512 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 01513 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 01514 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 01515 | | | | | CAT6 module | \$ - | 2 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 01516 | | | | | Outlet box | \$ - | 2 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 01517 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| 01518 | Mobilization | \$ - | 1.0 | \$ - | Per mezzanine location | | | | | |
| 01519 | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, Kiosk floor fire-stop, etc | | | | | |
| Station Subtotal | | | | | | | | \$ - | | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|-----------------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 078 | 021M00 | 1 | GALLERY PLACE EAST | B01 | 021M | CAT6 Cable | \$ - | 550 | \$ - | Per ft |
| | 021M01 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 021M02 | | | | | Fiber Field Housing | \$ - | 0 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 021M03 | | | | | Misc supplies | \$ - | 0 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 021M04 | | | | | Pull string | \$ - | 0 | \$ - | Pull String 500lb rated |
| | 021M05 | | | | | Switch and SFP | \$ - | 0 | \$ - | Switch and SFP module |
| | 021M06 | | | | | CAT6 module | \$ - | 8 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 021M07 | | | | | Outlet box | \$ - | 8 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 021M08 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 021M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 021M10 | | | | | Supplies | \$ - | 1.0 | \$ - | Misc equipment, lubricants |
| Station Subtotal | | | | | | | | | \$ - | |
| 079 | 022M00 | 1 | JUDICIARY SQUARE (WEST MEZZANINE) | B02 | 022M | CAT6 Cable | \$ - | 300 | \$ - | Per ft |
| | 022M01 | | | | | MMFO Cable | \$ - | 450 | \$ - | Per ft + connectors |
| | 022M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 022M03 | | | | | Misc supplies | \$ - | 1 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 022M04 | | | | | Pull string | \$ - | 800 | \$ - | Pull String 500lb rated |
| | 022M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 022M06 | | | | | CAT6 module | \$ - | 8 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 022M07 | | | | | Outlet box | \$ - | 8 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 022M08 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 022M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 022M10 | | | | | Supplies | \$ - | 2.0 | \$ - | Misc equipment, lubricants |
| Station Subtotal | | | | | | | | | \$ - | |
| 080 | 02500 | 1 | UNION STATION (NORTH MEZZANINE) | B03 | 025 | CAT6 Cable | \$ - | 120 | \$ - | Per ft |
| | 02501 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 02502 | | | | | Fiber Field Housing | \$ - | 0 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 02503 | | | | | Misc supplies | \$ - | 0 | \$ - | Connectors, fiber cleaning materials , jumpers etc |
| | 02504 | | | | | Pull string | \$ - | 0 | \$ - | Pull String 500lb rated |
| | 02505 | | | | | Switch and SFP | \$ - | 0 | \$ - | Switch and SFP module |
| | 02506 | | | | | CAT6 module | \$ - | 1 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 02507 | | | | | Outlet box | \$ - | 1 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 02508 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 02509 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 02510 | | | | | Supplies | \$ - | 1.0 | \$ - | Misc equipment, lubricants |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|-------------------------|---------------------------|--------------|------------------------|------------|----------|---------------------|------------|----------|---------------|--|
| 081 | 02900 | 1 | TAKOMA | B07 | 029 | 1-1/2" Conduit | \$ - | 110 | \$ - | Per ft, GRS with accessories |
| | 02901 | | | | | CAT6 Cable | \$ - | 580 | \$ - | Per ft |
| | 02902 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 02903 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 02904 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 02905 | | | | | Distribut. Box | \$ - | 1 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 02906 | | | | | Electr. Box | \$ - | 1 | \$ - | Other/general wiring/pulling application |
| | 02907 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 02908 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 02909 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 02910 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 02911 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 02912 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 02913 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 02914 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 02915 | | | | | CAT6 module | \$ - | 4 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 02916 | | | | | Outlet box | \$ - | 4 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 02917 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 02918 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 02919 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |
| 082 | 029M00 | 1 | TAKOMA | B07 | 029M | CAT6 Cable | \$ - | 90 | \$ - | Per ft |
| | 029M01 | | | | | MMFO Cable | \$ - | 520 | \$ - | Per ft + connectors |
| | 029M02 | | | | | Fiber Field Housing | \$ - | 1 | \$ - | Fib-or-cop fiber housing with adapter and module |
| | 029M03 | | | | | Misc supplies | \$ - | 1 | \$ - | Connectors, fiber cleaning materials, jumpers etc |
| | 029M04 | | | | | Pull string | \$ - | 650 | \$ - | Pull String 500lb rated |
| | 029M05 | | | | | Switch and SFP | \$ - | 1 | \$ - | Switch and SFP module |
| | 029M06 | | | | | CAT6 module | \$ - | 4 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 029M07 | | | | | Outlet box | \$ - | 4 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 029M08 | | | | | Concrete | \$ - | | \$ - | Per cubic yard (Metro Brown) |
| | 029M09 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 029M10 | | | | | Supplies | \$ - | 2.0 | \$ - | Misc equipment, lubricants |
| | Station Subtotal | | | | | | | | | \$ - |
| 083 | 03400 | 1 | GLENMONT | B11 | 034 | 1-1/2" Conduit | \$ - | 0 | \$ - | Per ft, GRS with accessories |
| | 03401 | | | | | CAT6 Cable | \$ - | 140 | \$ - | Per ft |
| | 03402 | | | | | MMFO Cable | \$ - | 0 | \$ - | Per ft + connectors |
| | 03403 | | | | | Cable #10 | \$ - | 0 | \$ - | Per ft #10; extra FG ckt |
| | 03404 | | | | | Cable #8 | \$ - | 0 | \$ - | Per ft #8 |
| | 03405 | | | | | Distribut. Box | \$ - | 0 | \$ - | Under Kiosk floor (JB, LFMC, connectors) |
| | 03406 | | | | | Electr. Box | \$ - | 0 | \$ - | Other/general wiring/pulling application |
| | 03407 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #4 duct / ft |
| | 03408 | | | | | U/F Duct (new) | \$ - | 0 | \$ - | #2 duct / ft |
| | 03409 | | | | | Duct Coupler | \$ - | 0 | \$ - | Straight section coupler |
| | 03410 | | | | | Duct HH/JB (new) | \$ - | 0 | \$ - | Per Piece /w cover |
| | 03411 | | | | | Duct Run Bend | \$ - | 0 | \$ - | Horizontal bend, sealant and/or other needed items |
| | 03412 | | | | | Duct Vertical Elbow | \$ - | 0 | \$ - | Vertical 90, sealant and/or other needed items |
| | 03413 | | | | | Duct Adapter | \$ - | 0 | \$ - | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | 03414 | | | | | Quad-Outlet | \$ - | 0 | \$ - | 120V power + connectors |
| | 03415 | | | | | CAT6 module | \$ - | 1 | \$ - | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | 03416 | | | | | Outlet box | \$ - | 1 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 03417 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 03418 | | | | | Mobilization | \$ - | 1 | \$ - | Per mezzanine location |
| | 03419 | | | | | Supplies | \$ - | 1.0 | \$ - | Saw blades, pull string, etc |
| Station Subtotal | | | | | | | | | \$ - | |

| No. | Contract Line Item Number | Survey Phase | Station/Mezzanine Name | Station ID | Mezz. ID | Product Category | Unit Price | Quantity | Product Total | Notes |
|---|---------------------------|--------------|------------------------|------------|----------|---------------------|------------|---------------|---------------|--|
| 084 | 00X00 | 1 | Estimated 16 Locations | | 00X | CAT6 Cable | \$ - | 5600 | \$ - | |
| | 00X01 | | | | | CAT6 module | \$ - | 112 | \$ - | 16 Mezzanine @ 125 vendors + 50 Exitfare @ average 50ft each |
| | 00X02 | | | | | Pull string | \$ - | 6000 | \$ - | Pull String 500lb rated |
| | 00X03 | | | | | Outlet box | \$ - | 112 | \$ - | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | 00X04 | | | | | Concrete | \$ - | 0.0 | \$ - | Per cubic yard (Metro Brown) |
| | 00X05 | | | | | Mobilization | \$ - | 16 | \$ - | Per mezzanine location |
| | 00X06 | | | | | Supplies | \$ - | 16.0 | \$ - | Misc equipment, lubricants testing etc |
| Station Subtotal | | | | | | | | | <u>\$ -</u> | |
| Product Category Quantity Totals | | | | | | | | | | |
| | | | | | | 1-1/2" Conduit | \$ - | 2,794 | | Per ft, GRS with accessories |
| | | | | | | CAT6 Cable | \$ - | 34,990 | | Per ft |
| | | | | | | MMFO Cable | \$ - | 3,618 | | Per ft + connectors |
| | | | | | | Cable #10 | \$ - | 31,320 | | Per ft #10; extra FG ckt |
| | | | | | | Cable #8 | \$ - | 42,370 | | Per ft #8 |
| | | | | | | Distribut. Box | \$ - | 66 | | Under Kiosk floor (JB, LFMC, connectors) |
| | | | | | | Electr. Box | \$ - | 103 | | Other/general wiring/pulling application |
| | | | | | | U/F Duct (new) | \$ - | 970 | | #4 duct / ft |
| | | | | | | U/F Duct (new) | \$ - | 350 | | #2 duct / ft |
| | | | | | | Duct Coupler | \$ - | 93 | | Straight section coupler |
| | | | | | | Duct HH/JB (new) | \$ - | 139 | | Per Piece /w cover |
| | | | | | | Duct Run Bend | \$ - | 24 | | Horizontal bend, sealant and/or other needed items |
| | | | | | | Duct Vertical Elbow | \$ - | 18 | | Vertical 90, sealant and/or other needed items |
| | | | | | | Duct Adapter | \$ - | 118 | | Conduit 2" "T" per faregate + 1" reducer (PWR duct also) |
| | | | | | | Quad-Outlet | \$ - | 126 | | 120V power + connectors |
| | | | | | | CAT6 module | \$ - | 1,224 | | CAT6 single-jack module, Ortronics part #OR-S21600 |
| | | | | | | Outlet box | \$ - | 1,224 | | Surface-mount outlet box, Ortronics part #OR-404S21U |
| | | | | | | Concrete | \$ - | 16 | | Per cubic yard (Metro Brown) |
| | | | | | | Mobilization | \$ - | 98 | | Per mezzanine location |
| | | | | | | Supplies | \$ - | 177 | | Saw blades, pull string, etc |
| | | | | | | Fiber Field Housing | \$ - | 7 | | Fib-or-cop fiber housing with adapter and module |
| | | | | | | Misc supplies | \$ - | 8 | | Connectors, fiber cleaning materials , jumpers etc |
| | | | | | | Pull string | \$ - | 12,250 | | Pull String 500lb rated |
| | | | | | | Switch and SFP | \$ - | 7 | | Switch and SFP module |
| Common Items | | | | | | | | | | |
| | | | | | | Confined Space | \$ - | \$ - | | Safety equipment for project; 1 full set |
| | | | | | | Test Instruments | \$ - | \$ - | | OTDR |
| | | | | | | Floor Scanning | \$ - | \$ - | | GPR floor scan for rebar and metal ID, M&L (per site-task) |
| | | | | | | Disposal | \$ - | \$ - | | Removing of damaged or old Ethernet cables from conduit |
| | | | | | | Training | \$ - | \$ - | | RoW training for 15 ppl |
| | | | | | | Quality Plan | \$ - | \$ - | | Living document (Allowance) |
| | | | | | | Standby Cost | \$ - | \$ - | | Insufficient client site support/no show, (Allowance) |
| | | | | | | SSWP Submittal | \$ - | \$ - | | Site-Specific Safety Work Plan |
| | | | | | | Documentation | \$ - | \$ - | | Paper, as-builts (CAD), photos, etc |
| | | | | | | Tile Coordination | \$ - | \$ - | | Floor tile hand-off coordination with WMATA |
| Common Items Total | | | | | | | | | <u>\$ -</u> | |

| ICE Product Category | Product Category Details (may include but not necessarily limited to any or all of the following items) |
|-------------------------|---|
| 1-1/2" Conduit | 1-1/2" Galvanized Rigid Steel conduit; 1-1/2" conduit LB; 1-1/2" threaded coupler; 1-1/2" 45- and 90-degree manufactured elbows; 1-1/2" plastic bushings; 1-1/2" 1-hole clamp; 1-1/2" clampback spacer; metallic enclosure (8" H x 6" W x 4" D); 1/4" nuts; 1/4" bolts; 1/4" washers; 1/4" concrete drop-in anchors; 1-5/8" unistrut; 1" and 1-1/2" liquidtight flexible conduit; 1-1/2" liquidtight connectors & fittings; 1" liquidtight connectors; Fire Stop sealant; NEMA 4X Pull Box (8x8x4); pull box connectors |
| CAT6 Cable | Low-Smoke Zero-Halogen CAT6 cable; CAT6 single-jack module; CAT6 surface-mounted outlet box; CAT6 RJ45 connector |
| MMFO Cable | Multi-mode fiber optic cable; multi-mode fiber optic cable hub/connector/switch as needed |
| Electrical Cable | Low-Smoke Zero-Halogen #8 electrical cable Low-Smoke Zero-Halogen #10 electrical cable |
| U/F Duct (new) | #2 and/or #4 Walker Duct under-floor duct; #4 duct couplers; #4 duct adjustable horizontal elbow; #4 duct opening closure; typical/standard round junction box; 8"-diameter Terrazzo Handhole assembly; #2 duct end-cap; left-hand and right-hand #4 duct to #2 duct reducer; under-floor duct vertical elbow; 2.5" female duct-to-conduit adapter; duct afterset (field-installed); #2 and #4 duct hold-down straps; waterproof sealing compound; activation kit |
| Quad-Outlet | Quad-receptacle boxes; stainless-steel quad-receptacle cover; 120V, 20A outlets |
| Concrete (Trenching) | Concrete; tile setting-bed mortar; tile grout; 3/4" fire-rated plywood; 2x4" studs & shims; 3" gorilla tape |
| Supplies | 500lb-rated pull-string; faregate-base sealant; misc. covers, screws, tapes, etc. |

Attachment 4

Site-Specific Work Plan (SSWP)

Template

SITE-SPECIFIC WORK PLAN (SSWP) TEMPLATE

(Contractor to complete highlighted sections and fields)

SSWP Summary

SSWP Number:

Project Start Date:

Revision Number:

Project End Date:

SSWP Status:

Date Created:

Expiration Date:

Title: *(PCN Number and Title)*

Summary Statement: (Example: K01 - JDAC 251xxx Monitoring of OB tunnel adjacent to 2001 Clarendon Blvd by ABC Monitoring Inc.)

SSWP Summary/Distribution

Requested From: *(Contractor and contractor representative submitting this SSWP)*

Contract/Project Number:

Project Manager:

Work:

Work2:

Cell:

Home:

Distribution:

Description of Work (Work Plan)

Purpose:

(Type as much as necessary)

Scope of Work:

(Provide details. Type as much as needed)

SITE-SPECIFIC WORK PLAN (SSWP) TEMPLATE

(Contractor to complete highlighted sections and fields)

Location

Location: *(Non-Wayside, Other)*

Location Type: *(Station, Electrical Rooms, Comm Rooms, etc.)*

Track Access: Yes No

| | From Chain Marker: | To Chain Marker: |
|-----------|--------------------|------------------|
| Track 1 | | |
| Track 2 | | |
| Track 3 | | |
| Yard Lead | | |

Station: *(Ex: Van Ness/UDC Station Traction Power Substation)*

Power Outage: *(Type - Supervisory, Red Tag, None)*

Project Dates/Support/Equipment

Project Start Date:

Proposed Work Start Date:

Project End Date:

Proposed Work End Date:

Equipment:

Staging:

ESCORT Group Crew Size

TRST/STR

SMNT/PWR

SMNT/COMM

PLNT

ELES

Other:

Safety Plan

Safety Plan:

PPE and Other Safety Equipment:

SITE-SPECIFIC WORK PLAN (SSWP) TEMPLATE

(Contractor to complete highlighted sections and fields)

Work Activity Schedule

Activity Name:

Start Date & Time:

End Date & Time:

Person/Dept: *(Contractor & contractor onsite representative)*

Work Location:

Locations:

Critical Milestones:

Contingency Plans:

Work Activity Schedule

Activity Name:

Start Date & Time:

End Date & Time:

Person/Dept: *(Contractor & contractor onsite representative)*

Work Location:

Locations:

Critical Milestones:

Contingency Plans:

Work Activity Schedule

Activity Name:

Start Date & Time:

End Date & Time:

Person/Dept: *(Contractor & contractor onsite representative)*

Work Location:

Locations:

Critical Milestones:

Contingency Plans:

SITE-SPECIFIC WORK PLAN (SSWP) TEMPLATE

(Contractor to complete highlighted sections and fields)

Work Activity Schedule

Activity Name:

Start Date & Time:

End Date & Time:

Person/Dept:

(Contractor & contractor onsite representative)

Work Location:

Locations:

Critical Milestones:

Contingency Plans:

(Add additional activities using same format as above)

Worksite Contacts

| Date/Hours: | Name: | Organization: | Title: | Phone: | Work Phone: | Cell Phone: | Email: |
|-------------|-------|---------------|--------|--------|-------------|-------------|--------|
|-------------|-------|---------------|--------|--------|-------------|-------------|--------|

Supporting Documents (Attachments in support of this work)

| Title | Description | Location | Contact | Contact Information |
|-------|-------------|----------|---------|---------------------|
|-------|-------------|----------|---------|---------------------|

Attachment 5

Kiosk AFC Patch Panel Port ID Layout

Kiosk Patch Panel Port ID Layout

Location:

Patch Panel Row 1

Port #

Label

| Kiosk Mezzanine # xxx | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-----|-----|-----|-----|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| SOC | SOC | TDM | TDM | TDM | TDM | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES |

Patch Panel Row 2

Port #

Label

| Kiosk Mezzanine # xxx | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|----------|-------|-------|
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | FAREGATES | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | VENDING MACHINE | EXITFARE | EXITFARE | SPARE | SPARE |

Attachment 6

IT/AFC Equipment Labeling Conventions

IT/AFC Equipment Labeling Conventions

CAT6 Labeling:

Cable label shall be a wrap-around label on the Cat 6 cable itself 4"-6" back from termination point at both the biscuit jack and behind the patch panel; true wrap-around labels and not just regular label maker labels shall be used (As example, Brady has good wrap around label makers). Biscuit jack itself shall be labeled in the window made for the labels (per BICSI standards).

While on site WMATA inspectors shall label the patch panel.

Cat6 cable label example: MZ 038-PP2/28-FG 010

Patch Panel/Biscuit label example: MZ 038-FG 010

Source: The number following MZ should always be 3 digits. MZ 1 would be labelled MZ 001, MZ 20 would be labelled MZ 020.

Patch panel number/ patch panel port number: Next is the patch panel number, in the kiosks it always be the bottom patch panel and they should be numbered as **PP2**. After the patch panel / and then put the port number on the patch panel that the cable is terminated to.

Fare gate number or fare vendor number: The last number should indicate which fare gate or fare vendor machine number the cable feeds and is terminated in. This number will also always need to be 3 digits. For example fare gate 1 would be **FG 001**, fare gate 20 would be **FG 020**.

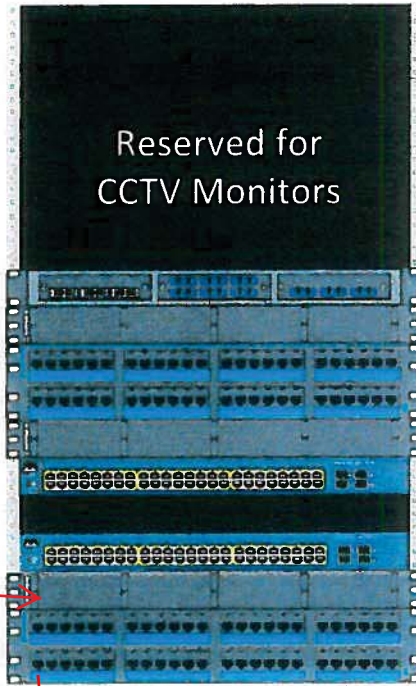
This last designator will provide the AFC information using their 'standard' nomenclature already in use on the inventory list.

FG = Fair Gate
VM = Vending Machine
EF = Exit Fare
TDM = TDM
SOC = SOCS

Different colors used are just for the brief explanation; labels on the cable can be standard black on white labels. Following BICSI standards is in WMATA IT cabling standards and design guidelines which you can access in the link below next to NCS Infrastructure.

See the attached Graphic for additional clarification.

Electrical wires and Fire Alarm system control cable shall be labeled per WMATA standard specifications.



Reserved for CCTV Monitors

- OR-FCM-19-1XL
- OR-60400131
- OR-PHD66U48
- OR-60400131
- CISCO 35601
- CISCO 35602
- OR-60400131
- OR-PHD66U48

AFC / NEPP
 This label will be placed on all the patch panels we do, in about this location.

FG 010

PP Labels will be affixed here, these label will have only the source and destination

'Blank' cable management panel/space

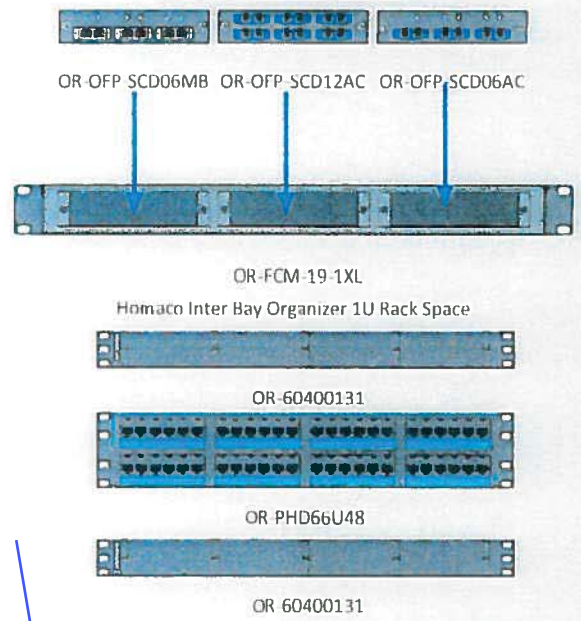
This is the AFC patch panel

MZ 038-PP2/28-FG 010

Cable labels should be affixed to the cables approximately 6" from it's termination point. This is also the label that should be installed on the biscuit jack.

Cat 6 Cable

Material List:



General Notes
 Info shown in the cloud is commentary, not a permanent note
 Notes shown this way are affixed to the panel

| | | | | | |
|----------|-----|-----------|--|--|--|
| DESIGNED | RDH | | | | |
| DRAWN | RDH | 1/22/2014 | | | |
| CHECKED | | | | | |
| APPROVED | | | | | |

| NUMBER | DESCRIPTION | REV | DES |
|--------|-------------|-----|-----|
| | | | |
| | | | |
| | | | |
| | | | |



WMA IA IT RCS (Network & Communication Services)

Kiosk As-Built

| | | | | | | | |
|-------|-----|-------|------------|----------|-------|-----|---|
| SCALE | NYS | DATE | 02/06/2014 | DRAWN BY | KP007 | REV | 1 |
| SCALE | NYS | SHEET | | TITLE | | | |

Attachment 7

WMATA

Department of

Information Technology

Network & Communications Services

Infrastructure Design & Wiring Standards

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF
INFORMATION TECHNOLOGY
NETWORK & COMMUNICATIONS SERVICES

INFRASTRUCTURE DESIGN & WIRING STANDARDS



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PART 1 - GENERAL SPECIFICATIONS

1.1 SCOPE

This document describes the standards, products and execution requirements relating to furnishing and installing Telecommunications Cabling at new or remodeled buildings for the Washington Metropolitan Area Transit Authority, herein after called WMATA. These standards are provided for use in planning spaces, budgeting for communications infrastructure, and as a technical description suitable for use in Requests for Proposals.

These standards, used in conjunction with published current ANSI/TIA standards represent a structured communications wiring system which will accommodate technological developments over the next several years. As technology changes this document will be amended to provide the most current and effective information available. Any aspects of communications wiring or design, which are not sufficiently addressed in this document, shall be brought to the attention of Network Technology Operations & Infrastructure Design (IT-NCSInfrastructure@wmata.com) in the department of Information Technology, Network and Communications Services.

1. Backbone and horizontal cabling comprised of copper and fiber cabling, and support systems are covered under this document.
2. The Horizontal (workstation) Cabling System shall consist of a minimum of two (2) 4-pair category 6 Unshielded Twisted Pair (UTP) Copper Cables to each work area outlet unless otherwise noted for specific locations. The cables shall be installed from the Work Area Outlet to the Telecommunications Room (TR) located on the same floor, and routed to the appropriate rack serving that area and terminated as specified in this document.
3. All cables and related terminations, support and grounding hardware shall be furnished, installed, wired, tested, labeled, and documented by the Telecommunications contractor/installer as detailed in this document unless otherwise noted.
4. Product specifications, general design considerations, and installation guidelines are provided in this document. Typical installation details, cable routing and outlet types will be provided as an attachment to this document. If bid documents are in conflict, this specification shall take precedence. The contractor/installer shall meet or exceed all requirements for the cable system described in this document.

1.2 REGULATORY REFERENCES:

All work and materials shall conform in every detail to the rules and requirements of the National Fire Protection Association, the local Electrical Code and present manufacturing standards.

All materials shall be UL Listed and shall be marked as such. If UL has no published standards for a particular item, then other national independent testing standards shall apply and such items shall bear those labels. Where UL has an applicable system listing and label, the entire system shall be so labeled. The cabling system described in this document is derived from the recommendations made in recognized telecommunications industry standards. The following documents are incorporated by reference:

1. ANSI/TIA-568-C.0, Generic Communications Cabling for Customer Premises, February 2009
2. ANSI/TIA - 568-C.1, Commercial Building Telecommunications Cabling Standard Part 1: General Requirements
3. ANSI/TIA - 568-C.2, Commercial Building Telecommunications Cabling Standard Part 2: Balanced Twisted-Pair Cabling Components
4. ANSI/TIA - 568-C.3, Commercial Building Telecommunications Cabling Standard Part 3: Optical Fiber Cabling Components
5. 5. ANSI/TIA – 569-C, Commercial Building Standard for Telecommunications Pathways and Spaces,
6. TIA-527, Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant – OFSTP-7

7. TIA-526-14-A, Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant - OFSTP-14A
8. TIA-598-C, Optical Fiber Cable color Coding, January, 2005
9. ANSI/TIA – 570-B, Residential Telecommunications Infrastructure Standard, April 2004
10. ANSI/TIA – 606 - B, Administration Standard for Commercial Telecommunications Infrastructure April 2012
11. ANSI/TIA- 607-B - Commercial Building Bonding and Grounding (Earthing) Requirements for Telecommunications, August 2011
12. TIA– 758-A, Customer-Owned Outside Plant Telecommunications Infrastructure Standard, August 2004
13. BICSI - TDMM, Building Industries Consulting Services International, Telecommunications Distribution Methods Manual (TDMM) – 13th Edition, 2014
14. National Fire Protection Agency (NFPA – 70),
15. National Electrical Code (NEC) -2014
16. National Fire Protection Agency (NFPA-130) Standard for Fixed Guideway Transit and Passenger Rail Systems, 2010

If this document or any of the documents listed above are in conflict, then the more stringent requirement shall apply. All documents listed are believed to be the most current releases of the documents. The contractor/installer has the responsibility to determine and adhere to the most recent release when installing or designing for installation.

This document does not replace any code, either partially or wholly. The contractor/installer must be aware of local codes which may have an impact on the design or installation of any cabling.

1.3 APPROVED CONTRACTOR

The Telecommunications contractor must be an approved Legrand/Ortronics Certified Installer at a CIP or CIP-ESP level. A copy of certification documents must be submitted initially to this office (IT-NCSInfrastructure@wmata.com). The Telecommunications contractor/installer is responsible for workmanship and installation practices in accordance with the Legrand/Ortronics Certification Program. Legrand/Ortronics/Superior Essex will extend an nCompass Limited Lifetime warranty to the end user once the Telecommunications contractor/installer fulfills all requirements under Legrand/Ortronics Certification Program. The contractor must be in good standing with a minimum of 30 percent of the technicians on site and at least one manager current with the required training. **See Appendix A, Legrand/Ortronics Certified Installation Contractors.**

1.4 APPROVED PRODUCTS

Superior Essex and Legrand/Ortronics have been listed here as a WMATA preferred solution; however any other manufacture’s solution meeting or exceeding the listed criteria may be submitted for review and approval. Any solution submitted must also be capable of providing a manufacturers warranty equal to, or greater than the preferred Superior Essex-Legrand/Ortronics nCompass solution. **See Appendix B, Approved Material List. This is not an all-inclusive list and represents our most commonly used products.**

1.5 WORK INCLUDED

The work included under this design standard consists of furnishing all labor, equipment, materials, and supplies and performing all operations necessary to complete the installation of this structured cabling system in compliance with the specifications and drawings. The Telecommunications contractor/installer will provide and install all of the required material to form a complete system whether specifically addressed in the technical specifications or not.

The work shall include, but not be limited to the following:

- Furnish and install a complete telecommunications wiring infrastructure
- Furnish, install, and terminate all UTP and Optical Fiber cable
- Furnish and install all wall plates, jacks, patch panels, and patch cords

- Furnish and install all required cabinets and/or racks as required and as indicated
- Furnish any other material required to form a complete system
- Perform link or channel testing (100% of horizontal and/or backbone links/channels) and certification of all components
- Furnish test results of all cabling to the owner on compact disk and paper format, listed by each closet, then by workstation ID
- Adhere and comply with all requirements of Legrand/Ortronics Certification program
- Provide owner training and documentation. (Testing documentation and As-built drawings)

1.6 SUBMITTALS

Under the provisions of this design and wiring standard, prior to the start of work the telecommunications contractor/installer shall:

- Submit copies of the certification of the company and names of staff that will be performing the installation and termination of the installation to provide proof of compliance of this design and installation standard.
- Submit proof from manufacturer of contractor's good standing in manufacturer's program. This certification must be completed annually and submitted to this office (IT-NCSInfrastructure@wmata.com).
- Submit appropriate cut sheets and samples for all products, hardware and cabling.
- Work shall not proceed without the Owner's approval of the submitted items.
- The telecommunications contractor/installer shall receive approval from the Owners on all substitutions of material. No substituted materials shall be installed except by written approval from the Owner and this office.

1.7 QUALITY ASSURANCE

The Legrand/Ortronics CIP / CIP-ESP telecommunications contractor/installer shall be a company specializing in communication cabling installation. The contractor must be in good standing with a minimum of 30% of the technicians on site and at least one manager current with the required training.

IT/NCS Cable Installation Quality Control Process

1. QA Phase 1
 - IT/NCS Cable Installation Practices. Inspections will ensure the following conform to TIA/EIA, WMATA Design & Wiring Standards, and all Local codes
 - Cable bend radius
 - Cable support in ceiling (Hangers/J hooks/ladder racks)
 - Cable slack at the work area and the TR
 - TR Configuration (Proper cable placement based on scope of work)
2. QA Phase 2
 - IT/NCS Cable Termination Practices. Inspections will ensure the following conform to TIA/EIA, WMATA Design & Wiring Standards, and all Local codes
 - Correct type, style and color of work area outlet
 - Correct jack pin out configuration
 - Correct TR termination: Pin out, Hardware and placement
 - Correct backbone termination
3. QA Phase 3
 - IT/NCS Cable Installation Practices. Inspections will ensure the following conform to TIA/EIA, WMATA Design & Wiring Standards, and all Local codes
 - Final check of horizontal / Backbone cable route
 - Correct racks/enclosure installation. Type and placement
 - Overall progress
4. QA Phase 4 (Final)
 - IT/NCS Final Testing and Inspection. Inspections will ensure the following conform to

- TIA/EIA, WMATA Design & Wiring Standards, and all Local codes
- Complete work area installation, including work area outlets, face plates and label
- Complete TR installation. Hardware installation, correct labeling, installation, type and the complete installation of all wire management
- Complete Backbone cable installation, termination and labeling
- View a percentage of the actual field testing to ensure correct procedures are being adhered to and the proper test equipment is being used

Final sign off: IT/NCS will sign a document provided by the telecommunications contractor/installer approving the installation process and materials demonstrated in this project.

1.8 DELIVERY, STORAGE AND HANDLING

- Delivery and receipt of products shall be at the contractor's main place of business/office.
- WMATA will not be responsible for the acceptance or delivery of any materials.
- Cable shall be stored according to manufacturer's recommendations as a minimum. In addition, cable must be stored in a location protected from vandalism and weather. If cable is stored outside, it must be covered with opaque plastic or canvas with provision for ventilation to prevent condensation and for protection from weather. If air temperature at cable storage location will be below 40 degrees F., the cable shall be moved to a heated (50 degrees F. minimum) location. If necessary, cable shall be stored off site at the contractor's expense.
- If the telecommunications contractor/installer wishes to have a trailer on site for storage of materials, arrangements shall be made with the Owner.

1.9 DRAWINGS

- It shall be understood that the electrical details and drawings provided with the specification package are diagrammatic. They are included to show the intent of the specifications and to aid the telecommunications contractor/installer in bidding the job. The telecommunications contractor/installer shall make allowance in the bid proposal to cover whatever work is required to comply with the intent of the plans and specifications.
- The telecommunications contractor/installer shall verify all dimensions at the site and be responsible for their accuracy.
- Prior to submission of any bid package, the telecommunications contractor/installer shall call to the attention of the Engineer of any materials or apparatus the telecommunications contractor/installer believes to be inadequate and to any necessary items of work omitted.

PART 2 – PRODUCTS

2.1 EQUIVALENT PRODUCTS

Due to the nature and type of communications, all products including but not limited to faceplates, jacks, patch panels, racks, 110 blocks, and patch cords, for the purpose of this document, shall be manufactured by Legrand/Ortronics. All copper and optical fiber cable products shall be manufactured by Superior Essex. Substitutions meeting or exceeding the listed criteria may be submitted for review and approval. Any solution submitted must also be capable of providing a manufacturer's warranty equal to, or greater than the preferred Superior Essex-Legrand/Ortronics nCompass solution.

2.2 WORK AREA OUTLETS

Work area cables shall each be terminated at their designated work area location in the connector types described in section 1.4, Approved Products.

The Telecommunications Outlet Assembly shall accommodate:

- A minimum of two (2) modular jacks
- Additional accommodations for specific locations as noted in the plans for optical fiber and/or additional copper cables as necessary.
- A blank filler will be installed when extra ports are not used.
- A dust cap shall be provided on all modular jacks with the circuit number on the identifier strip.
- Multiple jacks that are identified in close proximity on the drawings (but not separated by a physical barrier) may not be combined in a single assembly unless pre-approved through the use of a Request for Information (ROI). The telecommunications contractor/installer shall be responsible for determining the optimum compliant configuration based on the products proposed.
- The same orientation and positioning of jacks and connectors shall be utilized throughout the installation. Prior to installation, the telecommunications contractor shall submit the proposed configuration for each outlet assembly for review by the Owner.
- The modular jack shall incorporate printed label strip on the dust cap module for the purpose of identifying the outlet. Printed labels shall be permanent and compliant with ANSI/TIA-606-B standard specifications. Labels shall be printed using Legrand/Ortronics label template or using a printer such as a Dymo or Brady hand held printer. Hand printed labels shall not be accepted.

Faceplates: The faceplates shall:

- Be as described in section 1.4, Approved Products
- Be UL listed and CSA certified
- Be constructed of high impact, ABS plastic UL 94V-0 construction (except where noted otherwise)
- Shall match the faceplate color used for other utilities in the building or match the color of the raceway if installed in surface raceway
- Be compliant with the above requirements along with the following when incorporating optical fiber
- Be a low profile assembly
- Incorporate a mechanism for storage of cable and fiber slack needed for termination
- Position the fiber optic couplings to face downward or at a downward angle to prevent contamination
- Incorporate a shroud that protects the optical couplings from impact damage
- Be available as single-gang or dual-gang
- Shall provide easy access for adds, moves, and changes by front removal of jack modules
- Possess recessed designation windows to facilitate labeling and identification
- Shall include a clear plastic cover to protect labels in the designation window
- Have mounting screws located under recessed designation windows
- Comply with ANSI/TIA-606-B work area labeling standard
- Allow for the UTP modules to be inverted in place for termination purposes

Voice / Data Jacks/Outlets

- Voice/Data jacks shall be 8-position modular jacks and shall be Category 6 performance as defined by the references in this document including ANSI/TIA-568-C.2. All pair combinations must be considered, with the worst-case measurement being the basis for compliance
- Be as described in section 1.4, Approved Products
- The modular jack shall be backwards compatible to Category 3, 5, and 5e
- All horizontal category 6 user end outlet cable will be terminated on a category 6 rated patch panel
- User end outlets are utilized for both voice and/or data connectivity
- 568B pin out configuration to be used

2.3 110 COPPER TERMINATION BLOCK

The copper cross connect shall be a passive connection between the horizontal termination patch panels and the backbone termination blocks. The wall mount frames shall be field terminated kits including all blocks, connecting blocks, and designation strips. Management rings shall be mounted between vertical columns of blocks to provide management of cross-connect wire. Backbone blocks shall use 5-pair connecting blocks.

110 Block Kits shall

- Include both the wiring block in a 50, 100 and 300 pair footprint
- Be OR-110ABC6050, OR-110ABC6100 AND OR-110ABC6300
- Be as described in section 1.4, Approved Products
- Support termination of 22-24 AWG solid conductor
- Wiring block shall contain back openings for the feed through of cable
- Have color-coded tips on the wiring block and color coding on the connector blocks for installation identification
- Shall use standard termination practice requiring a single conductor 110 impact tool
- Termination hardware shall maintain the paired construction of the cable to facilitate minimum untwisting of the wires
- Be labeled in compliance with ANSI/TIA-606-B labeling specifications using permanent labels and Ortronics 110 block template (or other labeling software/printer)

110 Cross-Connect System Backboard Channels Shall

- Be available in 300 and 900 pair sizes
- Allow the mounting of 110 100-pair blocks without legs
- Include bottom trough and grounding bar
- Be wall mountable

110 Wall Mount Vertical Trough Shall

- Be available in single channel or dual channel configurations
- Be in dual channel configuration shall be used to provide separation for different wiring media
- Be available in 300 pair and 900 pair sizes
- Be wall mountable
- Be used with wall mountable backboard channels. Acceptable configurations include a 300 pair and a 900 pair

2.4 MODULAR PATCH PANELS

The Modular Patch Panels shall

- Meet category 6 component compliance
- Be as described in section 1.4, Approved Products
- Require standard termination practices using a 110 impact tool
- Use a single piece IDC housing designed to accept larger Category 6 conductors
- Support both T568B and T568A wiring
- Include easy to follow wiring labels
- Include label fields

- Allow for the use of icons
- Include full length metal rear cable management
- Be available in standard or high density
- Be backward compatible to category 3, 5 and 5e

2.5 RACKS

All racks and wire management shall be Legrand/Ortronics specific. The equipment rack shall provide vertical cable management and support for the patch cords at the front of the rack and wire management, support, and protection for the horizontal cables inside the legs of the rack. Waterfall cable management shall be provided at the top of the rack for patch cords and for horizontal cables entering the rack channels for protection and to maintain proper bend radius and cable support. Wire management shall also be mounted above each patch panel and/or piece of equipment on the rack. The rack shall include mounting brackets for cable tray ladder rack to mount to the top of the rack. Velcro cable ties shall be provided inside the rack channels to support the horizontal cable. Rack shall be black in color to match the patch panels and cable management.

Free-Standing Rack

Free-standing rack shall:

- Provide the necessary strain relief, bend radius and cable routing for proper installation of high performance cross connect products, meeting all specifications of ANSI/TIA-568-C
- Have top cable trough with waterfall and built in patch/horizontal cable distribution separator
- Have EIA hole pattern on front and rear
- Be available with a 6.5" (165 mm) channel depth
- Be available with hook and loop straps for securing bulk cables inside the vertical U-channels
- Assemble as 19" (483 mm) or 23" (584 mm) with no additional hardware
- Be available with three styles of vertical patch cord management: interbay with latches, cable management rings, or finger duct with covers
- Provide floor and ceiling access for cable management and distribution
- Provide pre-drilled base for floor attachment of rack
- Rack height shall be specified as 7 ft / 2.13 m (44 rack units) or 4.0 ft/1.22 m (22 rack units)
- Be available with vertical cable management rings for cord routing organization and strain relief

Wall Mounted Rack

Wall mount rack shall:

- Provide the necessary strain relief, bend radius and cable routing for proper installation of high performance cross connect products, meeting all specifications of ANSI/TIA-568-C
- Have EIA hole pattern
- Be available with hook and loop straps for securing cables inside the vertical U-channels
- Be available with vertical U-channels to protect and conceal distribution cables
- Provide floor and ceiling access for cable management and distribution
- Have wall mount braces with locator posts for easy wall mounting
- Have side access points that allow for access to manage/install distribution cables in the vertical channels

2.6 HORIZONTAL DISTRIBUTION CABLE

All horizontal distribution cable shall be Superior Essex specific. All horizontal station cable shall terminate on modular patch panels (copper or fiber), or patch/splice cabinets (fiber) in their respective Telecommunications Room or Equipment Room as specified on the drawings. In all instances, unless otherwise specified, all horizontal user end outlet cables will be category 6 and terminate on an appropriate category 6 patch panel.

100 OHM Category 6 UNSHIELDED TWISTED PAIR CABLE (UTP)

Physical Characteristics:

- (For Plenum) shall be plenum rated and meet applicable requirements of ANSI/ICEA S-116-732-2013.
- UL listed and UL Verified Cat 6.
- All 4 pairs must be insulated with FEP.
- Be as described in section 1.4, Approved Products
- The outer jacket shall be flame retardant, low smoke PVC.
- Shall be suitable for the environment in which they are to be installed.

Transmission Characteristics:

- Electrical transmission performance testing of a cabling configuration to the requirements of ANSI/TIA-568-C.2 Balanced Twisted-Pair Telecommunications Cabling and Component Standards for Category 6 Channel.
- Channel Margin Guarantees: Improved channel performance that exceeds the ANSI/TIA-568-C.2 standard. Margins supported over standard compliant channels from 7 to 100 meters.

| Parameter | Margin vs. TIA-568-C.2 |
|----------------|------------------------|
| Insertion Loss | 3% |
| NEXT | 5 dB |
| PSNEXT | 5 dB |
| Return Loss | 3 dB |
| ACRF | 5 dB |
| PSACRF | 5 dB |
| ACR | 5 dB |
| PSACR | 5 dB |

2.7 HORIZONTAL AND BACKBONE CABLE

Premise Optical Fiber Plenum (OFNP) Tight Buffered With Laser Optimized OM3 50/125 Optical Fibers

Each Multimode Fiber shall be:

- Graded-index Multi-mode optical fiber wave-guide with TeraFlex Bend Resistant Laser Optimized 50/125nm-core/cladding.
- Be as described in section 1.4, Approved Products
- Shall comply with the requirements of the latest revision of ICEA S-83-596.
- Attenuation shall be measured in accordance with the latest revision of TIA-455-78-B.
- Information transmission capacity shall be measured in accordance with the latest revision of TIA-455-220-A.
- Maximum attenuation dB/Km @ 850/1300 nm: Per manufacturer's specifications

Physical Characteristics:

- Shall be suitable for use in intra-building backbone, conduit pathways and service entrance to communication closet applications.
- Shall be suitable for use in risers, plenums and horizontal applications.
- Shall be available with a fiber strand count range from 6 to 144.
- Shall have and be marked with an UL-OFNP (OFCP if armored) and OFN (OFC if armored) FT6 Flame Rating.
- Strength members shall be dielectric aramid yarn.
- Subunits shall be numbered and color-coded in accordance with the latest TIA-598-C with an

- overall aqua jacket.
- Subunits shall be manufactured with a reverse oscillating lay (ROL) stranded around a flexible high-strength glass reinforced rod.
- Suitable for operation between -20°C to +75°C for riser and 0°C to +75°C for plenum
- Shall be available in Aluminum Interlock Armor construction as needed

Premise Optical Fiber Plenum (OFNP) Tight Buffered With Enhanced (Low Water Peak) Single-mode Optical Fibers

Each Single-mode Fiber shall be:

- Class IVa dispersion - unshifted single mode optical fibers with TeraFlex Bend Resistant G657.A1 complying with the latest revision of ANSI/ICEA S-83-596.
- Be as described in section 1.4, Approved Products
- The zero dispersion wavelengths shall be between 1300 nm and 1324 nm. The ANSI/TIA-455-175-B maximum value of the dispersion slope shall be no greater than 0.090 ps/km-nm². Dispersion measurements shall be made in accordance with the latest revision of ANSI/TIA-455-175.

Transmission Characteristics:

- Maximum cabled attenuation dB/km @ 1310/1550 nm: 0.5/0.4
- The cabled cutoff wavelength shall be ≤1260 nm when measured in accordance with the latest revision of ANSI/TIA-455-80.

Physical Characteristics:

- Shall be suitable for use in intra-building backbone, conduit pathways and service entrance to communication closet applications.
- Shall be suitable for use in risers, plenums and horizontal applications.
- Shall be available with a fiber strand count range from 6 to 144.
- Shall have and be marked with an UL-OFNP and OFN FT6 Flame Rating.
- Shall comply with the requirements of the latest revision of ANSI/ICEA S-83-596.
- Strength members shall be dielectric aramid yarn.
- Subunits shall be numbered and color-coded in accordance with TIA-598-C with an overall aqua jacket.
- Subunits shall be manufactured with a reverse oscillating lay (ROL) stranded around a flexible high-strength glass reinforced rod.
- Suitable for operation between -20°C to +75°C for riser and 0°C to +75°C for plenum
- Shall be available in Aluminum Interlock Armor construction as needed

Indoor/Outdoor Optical Fiber Plenum (OFNP) With Laser Optimized 50/125 Optical Fibers

Each Multimode Fiber shall be:

- Graded-index Multi-mode optical fiber wave-guide with TeraFlex Bend Resistant Laser Optimized 50/125nm-core/cladding.
- Be as described in section 1.4, Approved Products
- Shall comply with the latest revision of ANSI/TIA-492AAAB.
- Shall comply with the latest revision of ANSI/ICEA S-104-696.
- Attenuation shall be measured in accordance with the latest revision of ANSI/TIA-455-78.
- Information transmission capacity shall be measured in accordance with the latest revision of ANSI/TIA-455-220.
- Maximum attenuation dB/km @ 850/1300 nm: Per manufacturer's specifications

Physical Characteristics:

- Shall be available in either tight buffered or loose tube construction for use in both outdoor and

- indoor applications without the use of a transition at the building entrance.
- Shall be suitable for use in risers, plenums and horizontal applications.
- Shall have a dry water blocking system for cable core and buffer tubes.
- Shall be available with a fiber strand count range from 6 to 144.
- Shall have and be marked with an UL-OFNP (OFCP for armored) and OFN (OFC for armored) FT6 Flame Rating.
- Shall comply with the requirements of the latest revision of ANSI/ICEA S-104-696.
- Strength members shall be dielectric.
- Suitable for underground or above ground conduits.
- Cable shall be color coded in accordance with the latest revision of ANSI/TIA-598 with an overall black jacket.
- Suitable for operation between -40°C to +70°C
- Shall be UV resistant
- Shall be available in either aluminum interlock or steel construction armor.

Indoor/Outdoor Optical Fiber Plenum (OFNP) With Enhanced (Low Water Peak) Single-mode Optical Fibers

Each Single-mode Fiber shall be:

- Class IVa dispersion - unshifted single mode optical fibers with TeraFlex Bend Resistant G657.A1 complying with the latest revision of ANSI/ICEA S-104-696.
- Be as described in section 1.4, Approved Products
- The zero dispersion wavelengths shall be between 1300 nm and 1320 nm. The ANS/TIA-455-168 maximum value of the dispersion slope shall be no greater than 0.090 ps/km-nm². Dispersion measurements shall be made in accordance with the latest revision of ANSI/TIA-455-175.

Transmission Characteristics:

- Maximum cabled attenuation dB/km @ 1310/1550 nm: 0.5/0.4
- The cabled cutoff wavelength shall be ≤ 1260 nm when measured in accordance with the latest revision of ANSI/TIA-455-80.

Physical Characteristics:

- Shall be available in either tight buffered or loose tube construction for use in both outdoor and indoor applications without the use of a transition at the building entrance.
- Shall be suitable for use in risers, plenums and horizontal applications.
- Shall have a dry water blocking system for cable core and buffer tubes.
- Shall be available with a fiber strand count range from 6 to 144.
- Shall have and be marked with an OFNP (OFCP for armored) and OFN (OFC for armored) FT-6 Flame Rating.
- Shall comply with the latest revision of ANSI/ICEA S-104-696.
- Strength members shall be dielectric.
- Suitable for underground or above ground conduits.
- Cable shall be color coded in accordance with the latest revision of ANSI/TIA-598 with an overall black jacket.
- Shall have a ripcord for overall jacket.
- Suitable for operation between -40°C to +70° C
- Shall be UV resistant
- Shall be available in either aluminum interlock or steel construction armor.

Indoor/Outdoor Optical Fiber Low Smoke Zero Halogen (LSZH) Loose Tube With Laser Optimized OM3 50/125 Optical Fibers - use in NFPA-130 required environments

Each Multimode Fiber shall be:

- Graded-index Multi-mode optical fiber wave-guide with TeraFlex Bend Resistant Laser

- Optimized 50/125nm-core/cladding.
- Be as described in section 1.4, Approved Products
- Shall comply with the latest revision of ANSI/ICEA S-104-696-2013.
- Attenuation shall be measured in accordance with the latest revision of ANSI/TIA-455-78.
- Information transmission capacity shall be measured in accordance with the latest revision of ANSI/TIA-455-220.
- Maximum attenuation dB/Km @ 850/1300 nm: Per manufacturer's specifications

Physical Characteristics:

- Shall be suitable for use in NFPA-130 tunnel, subway passages and passage station environments both outdoor and indoor applications without the use of a transition at the building entrance.
- Shall be suitable for use in low smoke zero halogen applications.
- Shall have a dry, fully water blocked core and buffer tubes water blocked with PFM.
- Shall be available with a fiber strand count range from 6 to 288.
- Shall have and be marked with an UL-1666 and OFNG-LS (OFCG-LS for armored) Flame Rating.
- Shall comply with the requirements of the latest revision of ANSI/ICEA S-104-696.
- Strength members shall be dielectric and may be aramid yarn.
- Suitable for underground or above ground conduits.
- Loose Tube fibers shall be color coded in accordance with TIA-598-C with an overall black jacket.
- Suitable for operation between -40°C to +70°C
- Shall be flame and sunlight resistant
- Shall be available in Corrugated Steel Armor construction as needed.

Indoor/Outdoor Optical Fiber Plenum (OFNP) Loose Tube With Enhanced (Low Water Peak) Single-mode Optical Fibers - use in NFPA-130 required environments

Each Single-mode Fiber shall be:

- Class IVa dispersion - unshifted single mode optical fibers with TeraFlex Bend Resistant G657.A1 complying with the latest revision of ANSI/ICEA S-104-696.
- Be as described in section 1.4, Approved Products
- The zero dispersion wavelengths shall be between 1300 nm and 1320 nm. The ANSI/TIA-455-168 maximum value of the dispersion slope shall be no greater than 0.090 ps/km-nm². Dispersion measurements shall be made in accordance with the latest revision of ANSI/TIA-455-169 or ANSI/TIA-455-175.

Transmission Characteristics:

- Maximum cabled attenuation dB/km @ 1310/1550 nm: 0.5/0.4
- The cabled cutoff wavelength shall be \leq 1260 nm when measured in accordance with the latest revision of ANSI/TIA-455-80.

Physical Characteristics:

- Shall be suitable for use in NFPA-130 tunnel, subway passages and passage station environments both outdoor and indoor applications without the use of a transition at the building entrance
- Shall be suitable for use in low smoke zero halogen applications.
- Shall have a dry, fully water blocked core and buffer tubes water blocked with PFM.
- Shall be available with a fiber strand count range from 6 to 288.
- Shall have and be marked with an UL-1666 and OFNG-LS (OFCG-LS for armored) Flame Rating.
- Shall comply with the latest revision of ANSI/ICEA S-104-696.
- Strength members shall be aramid/yarn.
- Suitable for underground or above ground conduits.
- Loose Tube fibers shall be color coded in accordance with TIA-598-C with an overall black

- jacket.
- Suitable for operation between -40°C to +70°C
- Shall be flame and sunlight resistant
- Shall be available in Corrugated Steel Armor construction as needed.

2.8 FIBER OPTIC CONNECTORS

Each Fiber Connector shall:

- WMATA's standard multimode and singlemode fiber optic connector is the SC style connector
- Be available in singlemode and multimode versions
- Be as described in section 1.4, Approved Products
- Accept a nominal fiber diameter of 125 micrometers
- Have a typical insertion loss of 0.3 dB for multimode and 0.2 dB for singlemode
- Be stable over an operating range of -40C to +75 degrees C.

2.9 COPPER CABLE PROTECTION UNITS

All copper circuits shall be provided with protection between each building with an entrance cable protector panel. See section 2.11 for additional requirements. All building-to-building circuits shall be routed through this protector. The protector shall be connected with a #6 AWG copper bonding conductor between the protector ground lug and the TC ground point. Approved manufacturer of protection units is Porta Systems.

2.10 PATCH CORDS

The contractor shall provide factory terminated and tested UTP and optical fiber patch cords and equipment cords for the complete cabling system. The UTP patch cables shall meet the requirements of ANSI/TIA/ -568-C for patch cord testing.

Copper (UTP) patch cords shall:

- Be as described in section 1.4, Approved Products
- Be an Ortronics category 6 Clarity patch cord with Paralign 2 Plug Design.
- Use 8 position connector with impedance matched contacts and designed using dual reactance.
- Be constructed of 100 ohm, 4 pair, 24 AWG, stranded conductor, unshielded twisted pair copper per the requirements of the ANSI/TIA-568-C.2 and ANSI/TIA-568-C.2-1 standard.
- Meet TIA category 6 component specifications in ANSI/TIA-568-C.2-1
- 100% factory tested to meet category 6 performance
- Be capable of universal T568A or T568B wiring schemes.
- Modular connector shall maintain the paired construction of the cable to facilitate minimum untwisting of the wires.
- Have a performance marking indelibly labeled on the jacket (by the manufacturer).
- Have the ability to accept color-coded labels and icons to comply with ANSI/TIA-606-B labeling specifications.
- Have "snagless" protection for the locking tab to prevent snagging and to protect locking tab in tight locations and provide bend relief
- Be backwards compatible to Category 3, 5 and 5e

Optical Fiber patch cords shall:

- Contain two (2) optical fibers.
- Be as described in section 1.4, Approved Products
- Include listing of actual loss of patch cord when packaged

2.11 BONDING AND GROUNDING

The facility shall be equipped with a Telecommunications Bonding Backbone (TBB). This backbone shall be used to ground all telecommunications cable shields, equipment, racks, cabinets, raceways, and other associated hardware that has the potential to act as a current carrying conductor. The TBB shall be installed independent of the building's electrical and building ground and shall be designed in accordance with the recommendations contained in the ANSI/TIA-607 Telecommunications Bonding and Grounding Standard.

- The main entrance facility/equipment room in each building shall be equipped with a telecommunications main grounding bus bar (TMGB).
- Each telecommunications room shall be provided with a telecommunications ground bus bar (TGB).
- The TMGB shall be connected to the building electrical entrance grounding facility. The intent of this system is to provide a grounding system that is equal in potential to the building electrical ground system. Therefore, ground loop current potential is minimized between telecommunications equipment and the electrical system to which it is attached.
- All racks, metallic backboards, cable sheaths, metallic strength members, splice cases, cable trays, etc. entering or residing in the TR or ER shall be grounded to the respective TGB or TMGB using a minimum #6 AWG stranded copper bonding conductor and compression connectors.
- All wires used for telecommunications grounding purposes shall be identified with a green insulation. Non-insulated wires shall be identified at each termination point with a wrap of green tape.
- All cables and bus bars shall be identified and labeled in accordance with the System Documentation Section of this specification.

2.12 FIRESTOP

A fire stop system is comprised of the item or items penetrating the fire rated structure, the opening in the structure and the materials and assembly of the materials used to seal the penetrated structure. Fire stop systems comprise an effective block for fire, smoke, heat, vapor and pressurized water stream.

- All penetrations through fire-rated building structures (walls and floors) shall be sealed with an appropriate fire stop system. This requirement applies to through penetrations (complete penetration) and membrane penetrations (through one side of a hollow fire rated structure). Any penetrating item i.e., riser slots and sleeves, cables, conduit, cable tray, and raceways, etc. shall be properly fire stopped.
- Fire stop systems shall be UL Classified to ASTM E814 (UL 1479) and shall be approved by a qualified Professional Engineer (PE), licensed (actual or reciprocal) in the state where the work is to be performed.
- A drawing showing the proposed fire stop system, stamped/embossed by the PE shall be provided to the Owner's Technical Representative prior to installing the fire stop system(s).

PART 3- EXECUTION

3.1 WORK AREA OUTLETS

Cables shall be coiled in the in-wall or surface-mount boxes if adequate space is present to house the cable coil without exceeding the manufacturer's bend radius. In hollow wall installations where box-eliminators are used, excess wire can be stored in the wall. No more than 12" of UTP and 36" of fiber slack shall be stored in an in-wall box, modular furniture raceway, or insulated walls. Excess slack shall be loosely coiled and stored in the ceiling above each drop location when there is not enough space present in the outlet box to store slack cable.

- Cables shall be dressed and terminated in accordance with the recommendations made in the ANSI/TIA/EIA-568-C.1 document, manufacturer's recommendations and best industry practices.
- Pair untwist at the termination shall not exceed 12 mm (one-half inch).
- Bend radius of the horizontal cable shall not be less than 4 times the outside diameter of the cable.
- The cable jacket shall be maintained to within 25mm (one inch) of the termination point.

All Work Area design and installation practices should adhere to the BICSI TDMM 13th Edition Chapter 3.

3.2 TELECOMMUNICATIONS SPACES

Telecommunications spaces are defined as:

- Telecommunications enclosure (TE)
- Telecommunications room (TR)
- Equipment room (ER)
- Entrance facility (EF)

Conduit Pathways between any of these spaces must be at minimum 4in (EMT) in size. The amount of these conduits must be calculated using a 40% fill ratio and maintaining at least 50% vacancy after completion. All design and installation practices should adhere to the BICSI TDMM 13th Edition Chapter 6. This should include but is not limited to location, sizing, conditioning, fire protection, flood protection, floor loading, grounding, lighting, physical protection & EMI.

3.3 HORIZONTAL DISTRIBUTION SYSTEMS

The horizontal distribution system consists of two basic elements—the horizontal pathways and related spaces, and the horizontal cabling system.

Horizontal pathways include:

- Physical pathways (e.g., conduit and cable tray) used for containment of telecommunications cabling.
- Non-physical pathways (e.g., the space between open-top cable supports [J-hooks]) through which cable is placed between physical support or containment components.

Horizontal pathways consist of structures that conceal, protect, support, and provide access to horizontal cables between the telecommunications outlet/connector used to connect work area equipment at the work area and HC (FD) in the serving TR or TE.

All horizontal distribution systems design and installation practices should adhere to the BICSI TDMM 13th Edition Chapter 4.

3.4 HORIZONTAL DISTRIBUTION CABLE INSTALLATION

- Cable shall be installed in accordance with manufacturer's recommendations and best industry practices.
- A pull cord (nylon; 1/8" minimum) shall be co-installed with all cable installed in any conduit.
- Cable raceways shall not be filled greater than the ANSI/TIA/-569-C maximum fill for the particular raceway type or 40%.
- Cables shall be installed in continuous lengths from origin to destination (no splices) except for transition points, or consolidation points.
- Where transition points or consolidation points are allowed, they shall be located in accessible locations and housed in an enclosure intended and suitable for the purpose.
- The cable's minimum bend radius and maximum pulling tension shall not be exceeded.
- If a J-hook or trapeze system is used to support cable bundles all horizontal cables shall be supported at a maximum of 48 to 60 inch (1.2 to 1.5 meter) intervals. At no point shall cable(s) rest on acoustic ceiling grids or panels.
- Horizontal distribution cables shall be bundled in groups of no more than 50 cables. Cable bundle quantities in excess of 50 cables may cause deformation of the bottom cables within the bundle and degrade cable performance.
- Cable shall be installed above fire-sprinkler systems and shall not be attached to the system or any ancillary equipment or hardware. The cable system and support hardware shall be installed so that it does not obscure any valves, fire alarm conduit, boxes, or other control devices.
- Cables shall not be attached to ceiling grid or lighting fixture wires. Where support for horizontal cable is required, the contractor/installer shall install appropriate carriers to support the cabling.
- Any cable damaged or exceeding recommended installation parameters during installation shall be replaced by the contractor prior to final acceptance at no cost to the Owner.
- Cables shall be identified by a self-adhesive label in accordance with the System Documentation Section of this specification and ANSI/TIA-606-B. The cable label shall be applied to the cable behind the faceplate on a section of cable (within 6" of termination) that can be accessed by removing the cover plate.
- Unshielded twisted pair cable shall be installed so that there are no bends smaller than four times the cable outside diameter at any point in the run and at the termination field.
- Pulling tension on 4-pair UTP cables shall not exceed 25-lbf for a four-pair UTP cable.

All horizontal distribution systems design and installation practices should adhere to the BICSI TDMM 13th Edition Chapter 4 & BICSI ITISM Chapter 4.

3.5 HORIZONTAL CROSS CONNECT INSTALLATION

- Cables shall be dressed and terminated in accordance with the recommendations made in the ANSI/TIA-568-C standard, manufacturer's recommendations and best industry practices.
- Pair untwist at the termination shall not exceed 13 mm (0.5 inch). Untwist should be as close to zero as possible.
- Bend radius of the cable in the termination area shall not exceed 4 times the outside diameter of the cable.
- Cables shall be neatly bundled and dressed to their respective panels or blocks. Each panel or block shall be fed by an individual bundle separated and dressed back to the point of cable entrance into the rack or frame.
- The cable jacket shall be maintained as close as possible to the termination point.
- Each cable shall be clearly labeled on the cable jacket behind the patch panel at a location that can be viewed without removing the bundle support ties. Cables labeled within the bundle, where the label is obscured from view shall not be acceptable.

All horizontal distribution systems design and installation practices should adhere to the BICSI

3.6 OPTICAL FIBER TERMINATION HARDWARE

- Fiber slack shall be neatly coiled within the fiber splice tray or enclosure. No slack loops shall be allowed external to the fiber panel.
- Each cable shall be individually attached to the respective splice enclosure by mechanical means. The cables strength member shall be securely attached the cable strain relief bracket in the enclosure.
- Each fiber bundle shall be stripped upon entering the splice tray and the individual fibers routed in the splice tray.
- Each cable shall be clearly labeled at the entrance to the splice enclosure. Cables labeled within the bundle shall not be acceptable.
- A maximum of 12 strands of fiber shall be spliced in each tray
- All spare strands shall be installed into spare splice trays.
- All connectors shall be mechanically installed. No pigtail splices without prior approval.

All fiber optic termination practices should adhere to the BICSI ITSIM Chapter 6.

3.7 BACKBONE CABLE INSTALLATION

- Backbone cables shall be installed separately from horizontal distribution cables
- A pull cord (nylon; 1/8" minimum) shall be co-installed with all cable installed in any conduit.
- Where cables are housed in conduits, the backbone and horizontal cables shall be installed in separate conduits
- Where backbone cables are installed in an air return plenum, riser rated cable shall be installed in metallic conduit.
- Where backbone cables and distribution cables are installed in a cable tray or wire way, backbone cables shall be installed first and bundled separately from the horizontal distribution cables.
- All backbone cables shall be securely fastened to the sidewall of the TR on each floor.
- Backbone cables spanning more than three floors shall be securely attached at the top of the cable run with a wire mesh grip and on alternating floors or as required by local codes.
- Vertical runs of cable shall be supported to messenger strand, cable ladder, or other method to provide proper support for the weight of the cable.
- Large bundles of cables and/or heavy cables shall be attached using metal clamps and/or metal banding to support the cables.

All backbone distribution systems design and installation practices should adhere to the BICSI TDMM 13th Edition Chapter 5.

3.8 COPPER TERMINATION HARDWARE

- Cables shall be dressed and terminated in accordance with the recommendations made in the ANSI/TIA-568-C standard, manufacturer's recommendations and best industry practice.
- Pair untwist at the termination shall not exceed 12 mm (one-half inch). Keep untwist as close to zero as possible.
- Bend radius of the cable in the termination area shall not exceed 4 times the outside diameter of the cable.
- Cables shall be neatly bundled and dressed to their respective panels or blocks. Each panel or block shall be fed by an individual bundle separated and dressed back to the point of cable entrance into the rack or frame.
- The cable jacket shall be maintained to within 25 mm (one inch) of the termination point.
- Each cable shall be clearly labeled on the cable jacket behind the patch panel at a location that can be viewed without removing the bundle support ties. Cables labeled within the bundle, where the

label is obscured from view shall not be acceptable.

All copper cable termination practices should adhere to the BICSI ITSIM Chapter 6.

3.9 RACKS

- Racks shall be securely attached to the concrete floor using the provided hardware or as required by local codes.
- Isolation pads and/or isolation spacer shall be used in all railway stations, TPSS, and TBS locations.
- Nonmetallic hardware shall be used to secure racks to flooring in all railway stations, TPSS, and TBS locations.
- Racks shall be placed with a minimum of 36 inch clearance from the walls on all sides of the rack. When mounted in a row, maintain a minimum of 36 inches from the wall behind and in front of the row of racks and from the wall at each end of the row.
- All racks shall be grounded to the telecommunications ground bus bar in accordance with Section 2.11 of this document.
- Rack mount screws not used for installing patch panels and other hardware or accessories shall be bagged and left with the rack upon completion of the installation.
- Wall mounted termination block fields shall be mounted on 4' x 8' x .75" void free plywood. The plywood shall be mounted vertically 12" above the finished floor. The plywood shall be painted with two coats of white fire retardant paint.
- Wall mounted termination block fields shall be installed with the highest point not to exceed 5'6" above the finished floor and with the lowest edge of the mounting frame 18" from the finished floor.

3.10 FIRESTOP SYSTEM

- All fire stop systems shall be installed in accordance with the manufacturer's recommendations and shall be completely installed and available for inspection by the local inspection authorities prior to cable system acceptance. UL Classified Fire stop Systems are to be included in the submittals.

All fire stopping practices should adhere to the BICSI TDMM 13th Edition Chapter 7 & BICSI ITSIM Chapter 5.

3.11 GROUNDING SYSTEM

- The TBB shall be designed and/or approved by a qualified PE, licensed in the state that the work is to be performed. The TBB shall adhere to the recommendations of the ANSI/TIA-607-B standard, and shall be installed in accordance with best industry practice.
- Installation and termination of the main bonding conductor to the building service entrance ground shall be performed by a licensed electrical contractor.

All Bonding and Grounding design and installation practices should adhere to the BICSI TDMM 13th Edition Chapter 8.

3.12 IDENTIFICATION AND LABELING

- The contractor shall develop and submit for approval a labeling system for the cable installation. The Owner will negotiate an appropriate labeling scheme in conjunction with the installer/contractor.
- At a minimum, the labeling system shall clearly identify all components of the system: racks, cables, panels and outlets.
- The labeling system shall designate the cables origin and destination and a unique identifier for the cable within the system.
- Racks and patch panels shall be labeled to identify the location within the cable system

- infrastructure.
- All labeling information shall be recorded on the as-built drawings and all test documents shall reflect the appropriate labeling scheme.
- Labeling shall follow the guidelines of ANSI/TIA-606-B.
- All label printing will be machine generated with Legrand/Ortronics templates using indelible ink ribbons or cartridges or equivalent.
- Self-laminating labels will be used on cable jackets, appropriately sized to the OD of the cable, and placed within view at the termination point on each end.
- Outlet, patch panel and wiring block labels shall be installed on or in the space provided on the device.

All identification and labeling practices should adhere to the BICSI TDMM 13th Edition Chapter 10.

3.13 TESTING AND ACCEPTANCE

General

- All cables and termination hardware shall be 100% tested for defects in installation and to verify cabling system performance under installed conditions according to the requirements of ANSI/TIA-568-C.
- All pairs of each installed cable shall be verified prior to system acceptance.
- Any defect in the cabling system installation including but not limited to cable, connectors, feed through couplers, patch panels, and connector blocks shall be repaired or replaced in order to ensure 100% useable conductors in all cables installed.
- All cables shall be tested in accordance with this document, the latest revision of the ANSI/TIA standards, the Legrand/Ortronics Certification Program Information Manual and best industry practice. If any of these are in conflict, the Contractor/Installer shall bring any discrepancies to the attention of this office for clarification and resolution.

Copper Channel Testing

- All twisted-pair copper cable links shall be tested for continuity, pair reversals, shorts, opens and performance as indicated below. Additional testing is required to verify Category performance.
- Horizontal cabling shall be tested using a Level III test unit for category 6 performance compliance.
- The basic tests required are:
 - Wire Map
 - Length
 - Attenuation
 - NEXT (Near end crosstalk)
 - Return Loss
 - ELFEXT Loss
 - Propagation Delay
 - Delay skew
 - PSNEXT (Power sum near-end crosstalk loss)
 - PSELFEXT (Power sum equal level far-end crosstalk loss)

Continuity

- Each pair of each installed cable shall be tested using a test unit that shows opens, shorts, polarity and pair-reversals, crossed pairs and split pairs.
- Shielded/screened cables shall be tested with a device that verifies shield continuity in addition to the above stated tests.
- The test shall be recorded as pass/fail as indicated by the test unit in accordance with the manufacturers' recommended procedures, and referenced to the appropriate cable identification number and circuit or pair number.

- Any faults in the wiring shall be corrected and the cable re-tested prior to final acceptance.

Length

- Each installed cable link shall be tested for installed length using a TDR type device.
- The cables shall be tested from patch panel to patch panel, block to block, patch panel to outlet or block to outlet as appropriate.
- The cable length shall conform to the maximum distances set forth in the ANSI/TIA-568-C Standard.
- Cable lengths shall be recorded, referencing the cable identification number and circuit or pair number.
- For multi-pair cables, the shortest pair length shall be recorded as the length for the cable.

Category 6 Performance

| Shall meet the channel requirements outlined below for a 100-meter, 4-conductor channel. Frequency (MHz) | Maximum Insertion Loss (dB) | Minimum NEXT (dB) | Minimum PSNEXT (dB) | Minimum ELFEXT (dB) | Minimum PSELFEXT (dB) | Minimum Return Loss (dB) |
|---|-----------------------------|-------------------|---------------------|---------------------|-----------------------|--------------------------|
| 1.0 | 2.1 | 70.0 | 67.0 | 68.3 | 65.3 | 24.0 |
| 4.0 | 4.0 | 68.0 | 65.5 | 56.2 | 53.2 | 24.0 |
| 10.0 | 6.3 | 61.6 | 59.0 | 48.3 | 45.3 | 24.0 |
| 20.0 | 9.0 | 56.6 | 54.0 | 42.2 | 39.2 | 24.0 |
| 31.25 | 11.3 | 53.4 | 50.7 | 38.4 | 35.4 | 22.1 |
| 62.5 | 16.4 | 48.4 | 45.6 | 32.3 | 29.3 | 19.1 |
| 100.0 | 21.2 | 44.9 | 42.1 | 28.3 | 25.3 | 17.0 |
| 155.0 | 26.6 | 41.7 | 38.8 | 24.4 | 21.4 | 15.1 |
| 200.0 | 31.5 | 39.8 | 36.9 | 22.2 | 19.2 | 14.0 |
| 250.0 | 36.0 | 38.1 | 35.2 | 20.3 | 17.3 | 13.0 |

Fiber Testing

- All fiber testing shall be performed on all fibers in the completed end-to-end system.
- There shall be no splices unless clearly defined in an RFI.
- Testing shall be conducted in accordance with the latest revision of TIA-526-7, Method B for single-mode fibers.
- Test shall be conducted in accordance with the latest revision of ANSI/TIA-526-14 Standard for multimode fibers.
- System loss measurements shall be provided at 850 and 1300 nanometers for multimode fibers and 1310 and 1550 nanometers for single mode fibers.
- These tests also include continuity checking of each fiber.
- Backbone multimode fiber cabling shall be tested at both 850 nm and 1300 nm (or 1310 and 1550 nm for single-mode) in both directions.
- Where links are combined to complete a circuit between devices, the Contractor/Installer shall test each link from end to end to ensure the performance of the system. **ONLY LINK TEST IS REQUIRED.**
- The contractor/installer can optionally install patch cords to complete the circuit and then test the entire channel.
- The test method shall be the same used for the test described above. The values for calculating loss shall be those defined in the latest revision of the ANSI/TIA Standard.
- Attenuation testing shall be performed with an approved hand held tester from an industry recognized test equipment manufacturer.

All field testing practices should adhere to the BICSI, TDMM 13th Edition Chapter 11.

3.14 SYSTEM DOCUMENTATION

- Upon completion of the installation, the telecommunications contractor/installer shall provide three (3) full documentation sets to the Engineer for approval. Documentation shall include the items detailed in the sub-sections below.
- Manufacturer's original certificate of origin with each fiber's factory attenuation results must be submitted. In the event the "birth certificate" was destroyed or lost the contractor/installer is responsible for contacting the factory of origin for a certified duplicate copy.
- Documentation shall be submitted within ten (10) working days of the completion of each testing phase (e.g. subsystem, cable type, area, floor, etc.). This is inclusive of all test result and draft as-built drawings.
- Draft drawings may include annotations done by hand. Machine generated (final) copies of all drawings shall be submitted within 30 working days of the completion of each testing phase.
- At the request of the Engineer, the telecommunications contractor/installer shall provide copies of the original test results.
- The Engineer may request that a 10% random field re-test be conducted on the cable system, at no additional cost, to verify documented findings.
- Tests shall be a repeat of those defined above. If findings contradict the documentation submitted by the telecommunications contractor, additional testing can be requested to the extent determined necessary by the Engineer, including a 100% re-test. This re-test shall be at no additional cost to the Owner.

3.15 TEST RESULTS

- Test documentation shall be provided on compact disk within three weeks after the completion of the project.
- The disk shall be clearly marked on the outside front cover with the words "Project Test Documentation", the project name, and the date of completion (month and year).
- The results shall include a record of test frequencies, cable type, conductor pair and cable (or outlet) I.D., measurement direction, reference setup, and crew member name(s).
- The test equipment name, manufacturer, model number, serial number, software version and last calibration date will also be provided at the end of the document. Unless the manufacturer specifies a more frequent calibration cycle, an annual calibration cycle is anticipated on all test equipment used for this installation.
- The test document shall detail the test method used and the specific settings of the equipment during the test as well as the software version being used in the field test equipment.
- The field test equipment shall meet the requirements of latest revision of ANSI/TIA-568-C including applicable TSB's and amendments.
- The appropriate Level III tester shall be used to verify Category 6 cabling systems.
- Printouts generated for each cable by the wire (or fiber) test instrument shall be submitted as part of the documentation package.
- The telecommunications contractor/installer must furnish this information in electronic form (CD-ROM) or acceptable pre-approved media.
- When repairs and re-tests are performed, the problem found and corrective action taken shall be noted, and both the failed and passed test data shall be documented.
- When repairs and re-tests are performed, the problem found and corrective action taken shall be noted, and both the failed and passed test data shall be documented.

3.16 AS-BUILT DRAWINGS

- The drawings are to include cable routes and outlet locations.
- Outlet locations shall be identified by their sequential number as defined elsewhere in this document.
- Numbering, icons, and drawing conventions used shall be consistent throughout all documentation provided.

- The Owner will provide floor plans in paper and electronic (DWG, AutoCAD rel. 14) formats on which as-built construction information can be added.
- These documents will be modified accordingly by the telecommunications contractor/installer to denote as-built information as defined above and returned to the Owner.
- The Contractors shall annotate the base drawings and return a hard copy (same plot size as originals) and electronic (AutoCAD rel. 14) form.

PART 4-WARRANTY AND SERVICES

Warranty

- An Extended Product Warranty shall be provided which warrants functionality of all components used in the system for 25 years from the date of registration. The Extended Product Warranty shall warrant the installed horizontal and/or backbone copper, and both the horizontal and the backbone optical fiber portions of the cabling system.
- The Application Assurance Warranty shall cover the failure of the wiring system to support the applications that are designed for the link/channel specifications of ANSI/TIA-568-C.1. These applications include, but are not limited to, 10BASE-T, 100BASE-T, 1000BASE-T, and 155 Mb/s ATM.
- The contractor/installer shall provide a warranty on the physical installation.

Final Acceptance & System Certification

- Completion of the installation, in-progress and final inspections, receipt of the test and as-built documentation, and successful performance of the cabling system for a two week period will constitute acceptance of the system.
- Upon successful completion of the installation and subsequent inspection, the end user shall be provided with a numbered certificate, from Ortronics or Berk-Tek, registering the installation.

PART 5 - INSTALLATION AND DESIGN PRACTICES

All installation practices will adhere to the Building Industry Consulting Service International (BISCI) Telecommunications Distribution Methods Manual (TDMM) Thirteenth edition, as well as the Information Transport Systems Installation Manual (ITSIM) & Outside Plant Design Reference Manual (OPDRM). These BISCI manuals shall take precedence in any situation regarding design and installation practices.

PART 6 - SAFETY

It is the responsibility of the user of this document to determine the use of applicable safety and health practices (e.g., WMATA's MSRP [Metrorail Safety Rules and Procedures Handbook], Occupational Safety and Health Administration [OSHA], *National Electrical Code*® [NEC®], *National Electrical Safety Code*® [NESC®] associated with telecommunications systems installation and design practices. No project is so important nor any completion deadline so critical as to justify nonconformance to industry safety standards.