



# Invitation

## For Bids (Federal)

MULTI-STEP BID

Volume 2

Construction General Provisions

IFB No.: FQ15198

CONSTRUCTION

### STORAGE TANK REPLACEMENT

TWO LOCATIONS

*Forest Glen Station*

*Shady Grove Yard*

Construction General Provisions

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## **CONSTRUCTION GENERAL PROVISIONS**

### **1.1 Definitions (07/03)**

- a. Authority: The term Authority as used herein means the Washington Metropolitan Area Transit Authority, created effective February 20, 1967, by Interstate Compact by and between Maryland, Virginia and the District of Columbia, pursuant to Public Law 89-774, approved November 6, 1966.
- b. Contracting Officer: A Contracting Officer is an employee within the Authority's Office of Procurement and Materials with authority duly delegated from the powers of the General Manager and CEO to legally bind the Authority by signing a contractual instrument. The Office of Procurement and Materials has been delegated broad authority regarding acquisition functions, independent from the project office. Contracting Officers have the authority to make related determinations and findings, and take other significant actions normally reserved for the Office of Procurement and Materials including, but not limited to: awards, modifications, final payments, suspensions, terminations, debarments, assessment of liquidated damages, and issuances of final decisions under the Disputes article. The term includes certain other representatives of the Authority acting within delegated limits of authority. In general, the Authority's primary point of contact for pre-award administration and fiscal closeout resides with the Contracting Officer, and the primary point of contact for the post-award contract administration is the COTR.
- c. Contracting Officer's Technical Representative (COTR): The COTR is an authorized representative appointed by the Contracting Officer. The COTR performs those contract administration functions specifically delegated in writing by the Contracting Officer. The COTR has no contractual authority and cannot enter into contractual agreements. Upon Contract award, the COTR is the Authority's primary point of contact with the Contractor. Unless the Contractor is directed to the contrary, all correspondence with respect to the Contract shall be sent to the COTR.
- d. Project Representative: The term Project Representative means the individual(s), including but not limited to the Resident Engineer or the Alternate COTR, to whom the COTR has delegated Project responsibilities. If a Project Representative is appointed, the Project Representative represents the COTR on the Project within the limits of that delegation with respect to any part of the Work.
- e. Engineer: The term Engineer is used in numerous locations in the specifications. The term Engineer may be the COTR or the COTR's designee.
- f. Board of Directors: The term Board of Directors means the Board of Directors of the Washington Metropolitan Area Transit Authority.
- g. The term Contractor as used in the Specifications shall mean the individual, partnership or corporation that agrees to provide all labor, material and services required under the Contract.
- h. Wherever in the Contract Documents the words "directed," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription" of the Contracting Officer or other delegated Authority representative, or Engineer, as specified, is intended and similarly the words "approved," "acceptable," "satisfactory," or words of like import, shall mean "approved by," "acceptable to," or "satisfactory to" the Contracting Officer or other delegated Authority representative or Engineer, as specified, unless otherwise expressly stated.

- i. Where the terms "as shown", "as indicated", "as detailed" or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this Contract unless stated otherwise. The word provided as used herein shall be understood to mean provided complete in place, that is furnished and installed.

## 1.2 Contract Documents

### 1.2.1 INTENT OF THE CONTRACT DOCUMENTS:

- a. The intent of the Contract Documents is to prescribe the construction and completion of the work. Where the Contract Drawings and Specifications describe portions of the work in general terms, but not in complete detail, the best general practice shall be followed and only new materials and workmanship of best standard quality shall be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment and incidentals which are necessary to complete the work in a proper, substantial and workmanlike way.
- b. Throughout the Specifications requirements have been specified for Contract performance. Each such Contract item is mandatory and shall be performed by the Contractor.
- c. Reference to any article or paragraph within the Specifications shall imply reference to all subparagraphs there under.

### 1.2.2 ELEMENTS OF THE CONTRACT DOCUMENTS:

- a. The Contract Documents: The Contract Drawings, the General Provisions, the Contract Specifications and all Amendments.
- b. Contract Drawings: The official plans, profiles, cross sections, elevations, schedules and details listed or referenced in the Contract Specifications or amendments thereto and which show the locations, character, dimensions and details of the work to be performed.
- c. General Provisions: Compilation of contractual and legal requirements. In case of variance between the General Provisions, the Special Conditions and/or the Technical Provisions, the General Provisions shall take precedence.
- d. Special Conditions and Technical Provisions: Project requirements and technical specifications which include materials and construction requirements.
- e. Amendments: A document which is added to the original bidding documents during the bidding period to clarify, revise, add to or delete from the original documents or previous amendments.



1.2.3 SPECIFICATIONS AND DRAWINGS:

- a. The Contractor shall keep on the work a copy of the Drawings and Specifications and shall at all times give the Contracting Officer or other delegated Authority representative access thereto.
- b. Omissions: Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.
- c. Discrepancies:
  - (1) In case of discrepancy between Drawings and Specifications, the Specifications shall govern.
  - (2) In case of discrepancy in the figures, in the Drawings or in the Specifications, the matter shall be promptly submitted to the Contracting Officer or other delegated Authority representative who shall promptly make a determination in writing.
  - (3) Any adjustment by the Contractor without such a determination shall be at his own risk and expense.
- d. The Contracting Officer or other delegated Authority representative shall furnish from time to time such detail drawings and other information as he may consider necessary unless otherwise provided.

1.3 Differing Site Conditions

- a. The Contractor shall promptly, and before such conditions are disturbed, notify the Contracting Officer or other delegated Authority representative in writing of the following:
  - (1) Subsurface or latent physical conditions at the site differing materially from those indicated in this Contract.
  - (2) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.

The Contracting Officer or other delegated Authority representative will promptly investigate the conditions, and if he 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.

- b. No claim of the Contractor under this Article shall be allowed unless the Contractor has given the notice required in Paragraph a. above; provided, however, the time prescribed therefor may be extended by Contracting Officer or other delegated Authority representative.
- c. No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Contract.

1.4 Termination For Default, Damages For Delay And Time Extensions

**a. Please also see Volume 1 - Chapter VI**

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

The Contracting Officer may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. 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 materials, appliances and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, he and his sureties shall be liable for any damage to the Authority resulting from his refusal or failure to complete the work in the specified time.

- c. The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

(1) The delay in the completion of the work 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 of the public enemy, acts of the Authority in its contractual capacity, acts of another contractor in the performance of a contract with the Authority, fires, flood, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of subcontractors or suppliers at any tier arising from causes other than normal weather beyond the control and without the fault or negligence of both the Contractor and such subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any such delay, unless the Contracting Officer grants a further period of time before the date of final payment under the Contract, notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in his judgment, the findings of fact justify such an extension, and his findings of fact shall be final and conclusive on the parties, subject only to appeal as provided in the DISPUTES Article of these General Provisions.

(3) Unusually severe weather conditions:

(a) Pursuant to Paragraph d.(1) above, the Authority will use the following table as a basis for determining allowable time extensions to the Contract for unusually severe weather conditions and the impact of such weather at the construction site.

(b) The column below labeled Work Days represents work-day delays which may be expected in each month named within the Washington Metropolitan Area, based on a five-day work week:

MONTH	WORK DAYS	MONTH	WORK DAYS
January	4	July	2
February	4	August	3
March	4	September	2
April	5	October	3
May	5	November	4
June	2	December	4

- (c) Time extensions for weather delays during a given month will be allowed only for actual work days in excess of those 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.

If the Contractor, within 10 Days from the beginning of any such delay, unless the Contracting Officer grants a further period before the date of Final Payment under the Contract, notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer will ascertain the facts and the extent of the delay and extend the time for completing the Work 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 the Disputes clause of the Contract.

(4) Authority Operations and Emergencies:

- (a) The possibility exists that access to work may be impeded or that interruption to the work may occur, both scheduled and unscheduled, at the Authority's convenience, or specific direction, for operational or emergency reasons during contract performance ("delays from authority operations and emergencies"). It is the intent of this clause to ease the administration of delays from authority operations and emergencies.
- (b) Allowable time extensions to the contract for delays from Authority operations and emergencies shall be determined as follows:
- (1) There shall be no allowable time extension nor equitable adjustment for any delay from Authority operations and emergencies causing work stoppage of less than 15 minutes.
  - (2) The contractor shall immediately bring to the COTR's attention any delay from authority operations and emergencies causing continuous work stoppage of 15 minutes or more. Any delay from authority operations and emergencies not brought to the COTR's attention on the day of the delay or the following work day will not be recognized.
  - (3) If the contractor and COTR agree that a delay in part (b) (2) has delayed the completion of the work, the delay shall be considered a recognized delay.
  - (4) The contractor shall submit to the COTR on a weekly basis a report of recognized delays occurring during the previous week, as a precondition to the Authority considering any claim for delays from authority operations and emergencies.
  - (5) Upon the contractor submitting a claim for delays from authority operations and emergencies, the COTR shall grant a non-compensable time extension of one day for any working day in which the contractor accumulates 60 or more minutes of timely submitted recognized delays, unless granting the time extension would result in providing the contractor with more than a one day time extension relating to any working day. Simultaneously, the COTR shall respond to the contractor's claim, if any, for costs associated with any working day in which the contractor accumulates 60 or more minutes of timely submitted recognized delays.
- d. If, after notice of termination of the Contractor's right to proceed under the provisions of this Article, it is determined for any reason that the Contractor was not in default under the provisions of this Article, or that the delay was excusable under the provisions of this Article, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to the TERMINATION FOR CONVENIENCE OF THE AUTHORITY Article of these General Provisions.

- e. The rights and remedies of the Authority provided in this clause are in addition to any other rights and remedies provided by law under this Contract.

1.5 Payments To Contractor

- a. The Authority will pay the Contract price as hereinafter provided.
- b. The Authority will make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer or other delegated Authority representative, on estimates approved by the Contracting Officer or other delegated Authority representative.

The Contracting Officer or other delegated Authority representative shall review and approve the Contractor's progress payment requests based on the scheduled and actual progress of the work as reflected on the schedules and monthly updates if required by an Appendix of this Contract. The Contractor shall not be entitled to progress payments and the Contracting Officer or other delegated Authority representative shall have no obligation to review or approve progress payment requests if the Contractor has failed to submit or update the schedules if required by an Appendix of this Contract, or 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 or other delegated Authority 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 updates submission requirements, if required by an Appendix of this Contract, is committed under this Contract to the sole and absolute discretion of the Contracting Officer or other delegated Authority representative.

- c. If requested by the Contracting Officer or other delegated Authority representative, the Contractor shall furnish a breakdown of the total Contract price or lump sum bid items 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 or other delegated Authority representative, at his discretion, may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site may also be taken into consideration:
  - (1) If such consideration is specifically authorized by the Contract and
  - (2) If the Contractor furnishes satisfactory evidence that he has acquired title to such material and that it will be utilized on the work covered by this Contract.
- d. Unless otherwise provided in the Specifications, 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 by him 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 or other delegated Authority representative. Before each such payment is made for delivered material on the site, the Contractor shall furnish to the Contracting Officer or other delegated Authority representative such evidence as he may require as proof of the ownership, quantity and value of such materials. Before each such payment is made for delivered materials off the site, the Contractor shall furnish the Contracting Officer or other delegated Authority representative evidence of ownership, properly executed bills of sale to the Authority for the delivered material upon which payment is being made.

- e. In making such progress payments, five percent of the estimated amount of work completed shall 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 or other delegated Authority representative considers the amount retained to be in excess of the amount adequate for the protection of the Authority, he may, at his discretion, release to the Contractor all or a portion of such excess amount. Furthermore, upon completion and acceptance of each separate building, public work, or other division of the Contract, on which the price is stated separately in the Contract, the Contracting Officer or other delegated Authority representative may direct the payment to be made without retention.

Where the time originally specified for completion of this Contract exceeds one year, the Contracting Officer or other delegated Authority representative, at any time after 50 percent of the work has been completed, if he finds that satisfactory progress (satisfactory progress includes prosecution of physical work, adherence to DBE, SAP, 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.

- f. 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.
- g. Upon completion and acceptance of all work, the amount due the Contractor under this Contract shall be paid upon the presentation of a properly executed voucher and after the Contractor shall have furnished the Authority with a release, if required, 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.
- h. Payment under this contract shall be subject to any 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.
- i. Subcontract Payments .....[ see Volume 1 - Chapter V ]

1.6 Assignment

- a. The Contractor shall not transfer the rights and obligations of the Contract to third parties. The Contracting Officer or other delegated Authority representative 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 within the discretion of the Contracting Officer or other delegated Authority representative after review of the facts and circumstances surrounding each request, but the assignment shall not be approved unless the surety, in writing, agrees to that assignment and accepts the assignee as the Contractor and principal on the payment and/or performance bonds.
- b. If this Contract provides for payments aggregating \$1,000 or more, claims for monies due or to become due the Contractor from the Authority under this Contract may be assigned to a bank, trust company or other financing institution, including any Federal lending agency, and may thereafter be further assigned and reassigned to any institution. Notice of such assignment shall be made to the Contracting Officer or other delegated Authority representative. Any such assignment or reassignment shall cover all amounts payable under this Contract and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing. It is the Authority's intent to recognize assignment only to bona fide lending institutions; therefore, assignment to any private corporation, business or individual which does not qualify as such is specifically prohibited.
- c. Any attempt to transfer by assignment not authorized by this Article shall constitute a breach of the Contract and the Contracting Officer or other delegated Authority representative may for such cause terminate the right of the Contractor to proceed as provided in TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS Article of these General Provisions, and the Contractor and his sureties shall be liable to the Authority for any excess costs incurred by the Authority.

1.7 Material And Workmanship

- a. Unless otherwise specifically provided in this Contract, all equipment, materials and articles incorporated in the work covered by this Contract are to be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in this Contract, reference to any equipment, material, article or patented process, by trade name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition, and the Contractor may, at his option, use any equipment, material, article or process which, in the judgment of the Contracting Officer or other delegated Authority representative, is equal to that named. The Contractor shall furnish to the Contracting Officer or other delegated Authority representative for his approval the name of the manufacturer, the model number and other identifying data and information respecting the performance, capacity, nature and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the work. When required by this Contract or when called for by the Contracting Officer or other delegated Authority representative, the Contractor shall furnish the Contracting Officer or other delegated Authority representative for approval full information concerning the material or articles which he contemplates incorporating in the work. When so directed, samples shall be submitted for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material and articles installed or used without required approval shall be at the risk of subsequent rejection.
- b. All work under this Contract shall be performed in a skillful and workmanlike manner. The Contracting Officer or other delegated Authority representative may, who may require the Contractor to correct defective workmanship or materials at no additional cost to the Authority.

1.8 Inspection And Acceptance

- a. All work, which term includes but is not restricted to materials, workmanship, and manufacture and fabrication of components, shall be subject to inspection and test by the Contracting Officer or other delegated Authority representative or the Engineer at all reasonable times prior to acceptance. Any such inspection and test is for the sole benefit of the Authority and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the work strictly complies with the Contract requirements. No inspection or test by the Contracting Officer or other delegated Authority representative or the Engineer shall be construed as constituting or implying acceptance. Inspection or test shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the continuing rights of the Authority after acceptance of the completed work under the terms of Paragraph f. of this Article, except as hereinabove provided.
- b. The Contractor shall, without charge, replace any material or correct any workmanship found by the Contracting Officer or other delegated Authority representative or the Engineer not to conform to the Contract requirements, unless in the public interest the Contracting Officer or other delegated Authority representative consents to accept such material or workmanship with an appropriate adjustment in Contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
- c. If the Contractor does not promptly replace rejected material or correct rejected workmanship, the Contracting Officer or other delegated Authority representative may:
  - (1) By contract or otherwise, replace such material or correct such workmanship and charge the costs thereof to the Contractor, or
  - (2) Terminate the Contractor's right to proceed in accordance with the TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS Article of these General Provisions.
- d. The Contractor shall furnish promptly, without additional charge, all facilities, labor and material reasonably needed for performing such safe and convenient inspection and test as may be required by the Contracting Officer or other delegated Authority representative. All inspections and tests by the Authority shall be performed in such manner as not unnecessarily to delay the work. Special, full-size and performance tests shall be performed as described in this Contract. The Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.
- e. Should it be considered necessary or advisable by the Contracting Officer or other delegated Authority representative at any time before acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor and material. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, an equitable adjustment shall be made in the Contract price to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the work has been delayed thereby, he shall, in addition, be granted a suitable extension of time.
- f. Unless otherwise provided in this Contract, acceptance by the Contracting Officer or other delegated Authority representative shall be made as promptly as practicable after completion and inspection of all work required by this Contract. Acceptance shall be final and conclusive except as regards latent defects, fraud or such gross mistakes as may amount to fraud, or as regards the Authority's rights under any warranty or guarantee.

- g. The Contractor shall give the Contracting Officer or other delegated Authority representative at least 10 days advance notice of the date the work will be fully completed and ready for final inspection, test and acceptance.

1.9 Project Management And Superintendence By Contractor

The Contractor shall give his personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the Contracting Officer or other delegated Authority representative, on the work at all times during progress, with authority to act for him.

1.10 Permits And Responsibilities

The Contractor shall, without additional expense to the Authority, be responsible for obtaining any necessary licenses and permits, and for complying with any applicable Federal, State, Local or Municipal laws, codes or regulations, in connection with the prosecution of the work. He shall be similarly responsible for all damages to persons or property that occur as a result of his fault or negligence. He shall take proper safety and health precautions to protect the work, the workers, the public and the property of others. He shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of construction thereof which theretofore may have been accepted.

1.11 Conditions Affective the Work

The Contractor shall be responsible for having taken steps 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. Any failure by the Contractor to do so will not relieve the Contractor from responsibility for successfully performing the 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.

1.12 Other Contracts

The Authority may undertake or award other contracts for additional work, and the Contractor shall fully cooperate with such other contractors and Authority employees and carefully fit his own work to such additional work as may be directed by the Contracting Officer or other delegated Authority representative. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor or by Authority employees.

1.13 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 provision 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 his tenure and one year thereafter shall have any interest, direct or indirect, in this Contract or the proceeds thereof.



1.14 Notice To The Authority Of Labor Disputes

- a. Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice thereof, including all relevant information with respect thereto, to the Contracting Officer or other delegated Authority representative.
- c. The Contractor agrees to insert the substance of this Article, including this Paragraph b., in any subcontract 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 his next higher tier subcontractor, or the Contractor, as the case may be, of all relevant information with respect to such dispute.

1.15 Civil Rights

**Please also see Volume 1 – Chapter IX**

Special DOL EEO Clause for Construction Projects:

- (a) 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 nonsegregated 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).

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

1.16 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.
- d. 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.

1.17 Gratuities [ *Please also see Volume 1 - Chapter IX* ]

- a. Reported instances of the giving or offering to give gratuities within the context of this GRATUITIES Article will be investigated by the Board of Directors or its duly authorized representative. A preliminary investigation will be made to determine whether there is probable cause to suspect that a violation of this Article has been committed. If such probable cause is found to exist, the Board of Directors, or its duly authorized representative, shall formally notify the suspected donor corporation or individual in writing of the particulars of the event; and provide such donor the opportunity to be heard on the matter. The aim of the investigations and hearing shall be to ensure due process and to preserve the best interests and rights of all parties by the full and fair disclosure of all relevant and material information. Accordingly, the Board of Directors, or its duly authorized representative, shall require production of all pertinent documents and records, and sworn testimony from witnesses. During the pendency of any investigation or hearing treating with a violation of this GRATUITIES Article, the Board of Directors, or its duly authorized representative, may exercise its power granted by the Washington Metropolitan Area Transit Authority Compact, Public Law 774, 80 Stat. 1324, Article V, General Powers, subparagraph (k), by issuing subpoenas to compel the attendance of necessary witnesses, and to compel production of papers, records, accounts, ledgers and documents. The subpoenas shall be enforceable by order of an appropriate United States

District Court. If, after notice and hearing, or notice of the opportunity to be heard, the Board of Directors, or its duly authorized representative, finds that a violation of this GRATUITIES Article has been committed, the Authority shall have the right to:

- (1) Require that the individual(s) giving or offering the gratuity be removed from further participation on any Authority projects (be terminated);
  - (2) Deny the Contractor any General and Administrative (G&A) mark-ups for all changes and/or modifications found to be tainted by the giving of or offering to give gratuities.
  - (3) Preclude the Contractor from bidding or proposing on, receiving or participating as joint venturer, subcontractor or otherwise in any Authority project for a period of five years;
  - (4) Have complete access to all of the Contractor's financial books, records and accounts for the purpose of performing a comprehensive audit of the entire project.
  - (5) In the event of repeated violations of this GRATUITIES Article or of gross or extreme conduct indicative of a corrupt intent to gain special advantage, by written notice to the Contractor, terminate the right of the Contractor to proceed under the Contract.
- b. The existence of the facts upon which the Board of Directors, or its duly authorized representative, makes findings in connection with investigations and hearings in consonance herewith shall be an issue and may be reviewed in any competent court.
  - c. In the event this Contract is terminated as provided in Paragraph b.(5) hereof, the Authority shall be entitled:

- (1) To pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor, and
  - (2) As a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in any amount, as determined by the Board or its duly authorized representative, which shall be not less than three nor more than 10 times the costs incurred by the Contractor in providing any such gratuities to any such officer or employee.
- e. The rights and remedies of the Authority provided in this Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

1.18 Termination for Convenience of the Authority Gratuities

a. **Please also see Volume 1 – Chapter VI.**

1. After receipt of a Notice of Termination, the Contractor shall submit to the Contracting Officer his termination claim, in the form and with certification prescribed by the Contracting Officer. Such claim shall be submitted promptly but in no event later than one 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 within such one year period or authorized extension thereof. However, if the Contracting Officer determines that the facts justify such action, he may receive and act upon any such termination claim at any time after such one year period or any extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the Contracting Officer may determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon authorize payment to the Contractor the amount so determined.
2. Subject to the provisions of Paragraph b 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 by reason of the total or partial termination of work pursuant to this Article, which amount or amounts may include a reasonable allowance for profit on work done; provided, that such agreed amount or amounts, 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.
3. The Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount. Nothing in Paragraph f. below, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the Contracting Officer to agree upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this Article, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this Paragraph c.

4. In the event of the failure of the Contractor and the Contracting Officer to agree, as provided in Paragraph d. above, upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this Article, the Contracting Officer shall authorize payment to the Contractor of the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed upon in accordance with Paragraph c.:
- (1) With respect to all Contract work performed prior to the effective date of the Notice of Termination, the total, without duplication of any items, of the following:
    - [a] The cost of such work;
    - [b] The cost of settling and paying claims arising out of the termination of work under subcontracts or orders, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the subcontractor or suppliers prior to the effective date of the Notice of Termination of work under this Contract, which amount shall be included in the cost on account of which payment is made under Paragraph [a] above; and
    - [c] A sum, as profit on Paragraph [c] above, determined by the Contracting Officer pursuant to Section 49.202 of the Federal Acquisition Regulation (FAR), in effect on the date of this Contract, and determined to be fair and reasonable; provided, however, that the Contracting Officer allows no anticipated profit on design services not performed by the Contractor, and, further if it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and
  - (2) The reasonable cost of the preservation and protection of property incurred pursuant to complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and  
take such action as may be necessary, or as the Contracting Officer may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Authority has or may acquire an interest;  
and any other reasonable cost incidental to termination of work under this Contract, including expense incidental to the determination of the amount due to the Contractor as the result of the termination of work under this Contract.
5. The total sum to be paid to the Contractor under Paragraph (1) above shall not exceed the total Contract price as reduced by the amount of payments made as further reduced by the Contract price of work not terminated. Except for normal spoilage, and except to the extent that the Contracting Officer shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor under Paragraph (1) above, 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 to a buyer pursuant to Transfer title and deliver the following to the Authority in the manner, at the times, and to the extent, if any, directed by the Contracting Officer.
6. The cost principles and procedures of FAR Part 31 effect on the date of this Contract, shall govern all costs claimed, agreed to, or determined under this clause, except that the Authority shall not be obligated to pay interest, however represented, on any claimed costs.

1.19 Notice and Assistance Regarding Patent and Copyright Infringement

- a. The Contractor shall report to the Contracting Officer or other delegated Authority representative, 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 claim or suit against the Authority on out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Authority, when requested by the Contracting Officer or other delegated Authority representative, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Authority except where the Contractor has agreed to indemnify the Authority.
- c. This Article shall be included in all subcontracts.

1.20 Composition of Contractor

If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

1.21 Site Investigation

The Contractor acknowledges that he has investigated and satisfied himself 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. The Contractor further acknowledges that he has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Authority, as well as from information presented by the Drawings and Specifications made a part of this Contract, the character and extent of existing work within or adjacent thereto, and any other work being performed thereon at the time of the submission of his bid. Nothing in this requirement shall be construed as being determinative of the character, scope or extent of the work required under this Contract. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Authority assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Authority.



1.22 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 site of work which is not to be removed and which does not unreasonably interfere with the work. Care shall be taken in removing trees authorized for removal to avoid damage to vegetation to remain in place.
- b. The Contractor shall protect from damage all existing improvements or utilities at or near the site of the work and shall repair or restore any damage to such facilities resulting from failure to comply with the requirements of this Contract 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 or other delegated Authority representative may have the necessary work performed and charge the cost thereof to the Contractor.

1.23 Operations and Storage Areas

- a. All operations of the Contractor, including storage of materials, shall be confined to areas authorized or approved by the Contracting Officer or other delegated Authority representative. The Contractor shall hold and save the Authority, its officers and agents, free and harmless from liability of any nature occasioned by his operations.
- b. Temporary buildings, such as storage sheds, shops and offices, may be erected by the Contractor only with the approval of the Contracting Officer or other delegated Authority representative, and shall be built with labor and materials furnished by the Contractor without expense to the Authority. Such temporary buildings and utilities shall remain the property of the Contractor and shall be removed by him at his expense upon the completion of the work. With the written consent of the Contracting Officer or other delegated Authority representative, such buildings and utilities may be abandoned and need not be removed.
- c. The Contractor shall, under regulations prescribed by the Contracting Officer or other delegated Authority representative, use only established roadways or construct and use such temporary roadways as may be authorized by the Contracting Officer or other delegated Authority representative. 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 any damaged roads, curbing or sidewalks shall be repaired by or at the expense of the Contractor.

1.24 Progress Schedules and Requirements for Maintaining Progress

- a. The Contractor shall submit a schedule to the Contracting Officer or other delegated Authority representative for approval, within 15 days after the award of the Contract, showing the order in which the Contractor proposes to carry on the work, the dates on which he will start the several major features, including procurement of materials, plant and equipment, and the contemplated dates for completing the same. The schedule shall be in the form of a graphic network diagram or progress chart indicating appropriately the work scheduled for accomplishment at any time. Unless otherwise specified, the Contractor shall enter on the schedule the actual progress at monthly intervals and shall immediately deliver to the Contracting Officer or other delegated Authority representative four copies thereof.
- b. Failure to comply with the terms of this Article may affect the processing of progress payment requests submitted by the Contractor as provided in Article 1.7, PAYMENTS TO THE CONTRACTOR, of this Contract.

- c. If, in the opinion of the Contracting Officer or other delegated Authority representative, the Contractor falls significantly behind the approved progress schedule, the Contractor shall take any and all steps necessary to improve his progress. The Contracting Officer or other delegated Authority representative, in this instance, 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, or all of them. The Contracting Officer or other delegated Authority representative may also require the Contractor to submit for approval supplemental progress schedules detailing the specific operational changes to be instituted to regain the approved schedule, all without additional cost to the Authority.
- d. Failure of the Contractor to comply with the requirements of the Contracting Officer or other delegated Authority representative under this provision shall be grounds for determination by the Contracting Officer or other delegated Authority representative that the Contractor is not prosecuting the work with such diligence as will ensure completion within the time specified. Upon such determination the Contracting Officer or other delegated Authority representative may terminate the Contractor's right to proceed with the work, or any separate part thereof, in accordance with the TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS Article of these General Provisions.

#### 1.25 Subcontractors

Within seven days after the award of any subcontract either by himself or a subcontractor, the Contractor shall deliver to the Contracting Officer or other delegated Authority representative a statement setting forth the name and address of the subcontractor and a summary description of the work subcontracted. The Contractor shall at the same time furnish a statement signed by the subcontractor acknowledging the inclusion in his subcontract of the clauses of this Contract entitled CIVIL RIGHTS and LABOR PROVISIONS, and other such articles specifically mentioned. Nothing contained in this Contract shall create any contractual relation between the subcontractor and the Authority.

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 with the price deleted. The terms of payment shall be in conformance with the "Payments to Contractor" clause in the General Provisions. 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 WORK TO BE PERFORMED BY THE CONTRACTOR article of these Special Conditions, without the written permission of the Contracting Officer.
- B. No subcontractor shall be permitted to perform work at the site until the subcontractor, or the Contractor, in compliance with the provisions of the INDEMNIFICATION AND INSURANCE article of the Special Conditions, has furnished satisfactory evidence of insurance as required.
- C. The Authority or its representatives will not undertake to settle any difference between the Contractor and its subcontractor or between subcontractors.

#### 1.26 Use and Possession Prior To Completion

The Authority, through the Contracting Officer or other delegated Authority representative, 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,

notwithstanding the provisions of the Contract entitled PERMITS AND RESPONSIBILITIES, shall be relieved of the responsibility for loss or damage to the work other than that resulting from the Contractor's fault or negligence. If such prior possession or use by the Authority delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment in the Contract price or the time of completion will be made and the Contract shall be modified in writing accordingly.

1.27 Cleaning Up

- a. The Contractor shall at all times keep the construction area, including storage areas used by him, free from accumulations of waste material or rubbish and prior to completion of the work remove any rubbish from the premises and all tools, scaffolding, equipment and materials not the property of the Authority.
  - 1. Upon completion of construction, the Contractor shall leave the work and premises in a clean, neat and workmanlike condition satisfactory to the Contracting Officer or other delegated Authority representative.

1.28 Contract Modifications - Requirements for Proposals, Price Breakdown and Negotiation of Profit

- a. The Contractor, in connection with any proposal he makes for a Contract modification, shall furnish a price breakdown, itemized as required by the Contracting Officer or other delegated Authority 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 therefor shall also be furnished. The proposal, together with the price breakdown and time extension justification shall be furnished by the date specified by the Contracting Officer or other delegated Authority 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:

FACTOR	RATE	WEIGHT	VALUE
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		
	100		%

- (2) Based on the circumstances of each modification, each of the above factors shall be weighted from .03 to .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 .03; as the degree of risk increases the weighting should be increased up to a maximum of .12. Lump sum items will generally have a higher weighted value than unit price items for which quantities are provided. 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 cost 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 .12 and should be proportionately reduced to .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 .12. Work estimated between \$100,000 and \$5,000,000 shall be proportionately weighted from .12 to .05. Work from \$5,000,000 to \$10,000,000 shall be weighted at .04 and work in excess of \$10,000,000 at .03.
  - [d] **Period of performance:** Modifications providing for an extension of time in excess of 30 days are to be weighted at .12. Jobs of lesser duration are to be proportionately weighted to a minimum of .03 for jobs not to exceed one day. No weight is to be granted for this factor where there is no extension of the Contract performance period of interim dates due to work under this modification.
  - [e] **Contractor's investment:** To be weighted from .03 to .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:** To be weighted from .12 to .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:** To be weighted inversely proportional to the amount of subcontracting. Where 80 percent or more of the work is to be subcontracted the weighting is to be .03 and such weighting proportionately increased to .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 .15 if supported by adequate justification and if approved by the Contracting Officer or other delegated Authority representative.
- (4) When negotiations between the Contracting Officer or other delegated Authority 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 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 other delegated Authority

representative and the Contractor and subcontractor(s) involved, then at the request of the subcontractor(s) concerned, the Contracting Officer or other delegated Authority 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 other delegated Authority 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 or other delegated Authority representative. Any payments received by the Contractor under this procedure shall be passed along within 10 days thereafter to the subcontractor(s) concerned.

- c. Change Orders: When the Contracting Officer or other delegated Authority representative directs a change in accordance with the General Provisions and the Progress Schedule requirements of the PROGRESS SCHEDULES Article of the Special Conditions, the Contractor shall identify in his 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.

1.29 Accident Prevention

- a. In order to provide safety controls for protection to the life and health of employees and other persons, for prevention of damage to property, materials, supplies and equipment, and for avoidance of work interruptions in the performance of this Contract, the Contractor shall comply with all pertinent provisions of the SAFETY REQUIREMENTS Article of the Special Conditions, and shall also take or cause to be taken such additional measures as the Contracting Officer or other delegated Authority representative may determine to be reasonably necessary for the purpose.
- b. The Contractor shall maintain an accurate record of, and shall report to the Contracting Officer or other delegated Authority representative in the manner and on the forms prescribed by the Contracting Officer or other delegated Authority representative exposure data and all accidents resulting in death, traumatic injury, occupational disease and damage to property, materials, supplies and equipment incidental to work performed under this Contract.
- k. The Contracting Officer or other delegated Authority representative will notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer or other delegated Authority 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 orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.
- d. Compliance with the provisions of this Article by subcontractors shall be the responsibility of the Contractor.
- e. Prior to commencement of the work the Contractor shall:
  - (1) Submit in writing his proposals for effectuating this provision for accident prevention.
  - (2) Meet in conference with representatives of the Contracting Officer or other delegated Authority representative to discuss and develop mutual understanding relative to administration of the overall safety program.

1.30 Equipment

- a. The Contractor shall provide equipment, in first class working order and safe condition of sufficient quantities and sizes to complete the work as specified and detailed on the Contract Drawings within the Contract time, and shall provide adequate maintenance of this equipment throughout the length of the project.
- b. All equipment shall be approved by the COTR or Engineer upon delivery to the site; and any item of equipment that at any time proves ineffectual or hazardous to personnel and/or property shall be promptly brought to acceptable condition, or shall be removed from the site as directed by the COTR or Engineer.

1.31 Suspension of Work

- a. The Contracting Officer or other delegated Authority representative may order the Contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as he may determine to be appropriate for the convenience of the Authority.
- b. If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed or interrupted by an act of the Contracting Officer or other delegated Authority representative in the administration of this Contract, or by his failure to act within the time specified in this Contract, or if no time is specified, within a reasonable time, an adjustment shall be made for any increase in the cost of performance of this Contract, excluding profit, necessarily caused by such unreasonable suspension, delay or interruption and the Contract modified in writing accordingly. However, no adjustment shall be made under this Article for any suspension, delay, or interruption to the extent:
  - (1) That performance would have been so suspended, delayed or interrupted by any other cause including the fault or negligence of the Contractor or
  - (2) For which an equitable adjustment is provided for or excluded under any other provision of this Contract.
- c. No claim under this clause shall be allowed:
  - (1) For any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer or other delegated Authority representative in writing of the act or failure to act involved, but this requirement shall not apply as to a claim resulting from a suspension order, and
  - (2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension, delay or interruption, but no later than the date of final payment under the Contract.

1.32 Audit and Inspection of Records

- a. This Article is applicable if this Contract was entered into by means of negotiation and shall become operative with respect to any modification to this Contract whether this Contract was initially entered into by means of negotiation or by means of formal advertising.
- b. The Contractor shall maintain records, and the Contracting Officer or other delegated Authority representative, the U.S. Department of Transportation, and the Comptroller General of the United States or any of their duly authorized representatives shall, until the expiration of three years after final payment 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 transcriptions.
- c. The Contractor further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the Contracting Officer or other delegated Authority representative, the U.S. Department of Transportation and the Comptroller General of the United States or any of their duly authorized representatives shall, until the expiration of three years after final payment under the Contract, have access to and the right to examine any directly pertinent books, documents, papers and records of such subcontractor, involving transactions related to the subcontract, for the purpose of making audit, examination, excerpts and transcriptions.

1.33 Price Reduction for Defective Cost or Pricing Data - Price Adjustments

- a. This Article shall become operative only with respect to any modification of this Contract which involves aggregate increases and/or decreases 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 general public, or prices set by law or regulation. The right to price reduction under this Article 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:
  - (1) The Contractor furnished cost or pricing data which was not complete, accurate and current as certified in the Contractor's Certificate of Current Cost or Pricing Data;
  - (2) A subcontractor, pursuant to the Article of this Contract entitled SUBCONTRACTOR COST AND PRICING DATA AND PRICE ADJUSTMENTS or any subcontract article therein required, furnished cost or pricing data which was not complete, accurate and current as certified in the subcontractor's Certificate of Current Cost or Pricing Data;
  - (3) A subcontractor or prospective subcontractor furnished cost or pricing data which was required to be complete, accurate and current and to be submitted to support a subcontract cost estimate furnished by the Contractor 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
  - (4) The Contractor or a subcontractor or prospective subcontractor furnished any data, not within Paragraph (1), (2) or (3) above, which was not accurate, as submitted; 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, provided the actual subcontract price was not affected by defective cost or pricing data. (Note: Since the Contract is subject to reduction under this Article 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 his lower tier subcontractors.)

1.34 Audit - Price Adjustments

- a. General: The Contracting Officer or other delegated Authority representative shall have the audit and inspection rights described in the applicable Paragraphs b., c. and d. below.
- b. Examination of costs: If this is a cost-reimbursement type, incentive, time and materials, labor hour or price redeterminable Contract, or any combination thereof, the Contractor shall maintain, and the Contracting Officer or other delegated Authority representative 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 plants, 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, unless such pricing was 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 Contracting Officer or other delegated Authority representative shall have the right to examine all books, records, documents and other data of the Contractor related to the negotiation, pricing or performance of 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. Not used.
- e. The Contractor shall insert a clause containing all the provisions of this Article, including this Paragraph e., in all subcontracts hereunder except altered as necessary for proper identification of the contracting parties and the Contracting Officer or other delegated Authority representative under this Contract.



1.35 Subcontractor Cost or Pricing Data and Price Adjustments

- a. Paragraphs b. and c. of this Article shall become operative only with respect to any change or other modification made pursuant to one or more provisions of this Contract which involves a price adjustment in excess of \$100,000. The requirements of this Article shall be limited to such price adjustments.
- b. The Contractor shall require subcontractors hereunder to submit cost or pricing data under the following circumstances:
  - (1) Prior to award of any cost-reimbursement type, incentive, or price redeterminable subcontract;
  - (2) Prior to the award of any subcontract the price of which is expected to exceed \$100,000;
  - (3) Prior to the pricing of any subcontract change or other modification for which the price adjustment is expected to exceed \$100,000; except in the case of (2) or (3) 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.
- c. The Contractor shall require subcontractors to certify that to the best of their knowledge and belief the cost and pricing data submitted under Paragraph b. above 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.
- d. The Contractor shall insert the substance of this Article including this Paragraph d. in each subcontract hereunder which exceed \$100,000.

1.36 Value Engineering Incentive

- a. This Article applies to those Value Engineering Change Proposals (VECP's) which are initiated and developed by the Contractor to change the Drawings, Specifications or other requirements of this Contract. In order to be accepted under this Article each VECP shall:
  - (1) Be identified by the Contractor at the time of submittal to the Contracting Officer or other delegated Authority representative as submitted pursuant to this Article using the prescribed WMATA VECP proposal form;
  - (2) Require a change to this Contract.
  - (3) Decrease the Contract price;
  - (4) 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, and;
  - (5) Not require an unacceptable extension of original Contract duration.
  - (6) Be reviewed and evaluated by way of a two-phase process.

- b. Phase One - Conditional Approval: In addition to the use of the WMATA VECP proposal form, any VECP the Contractor submits shall be in sufficient detail to clearly define the proposed change including the following items:
- (1) A description of the difference between the existing and the proposed Contract requirements, and the comparative advantages and disadvantages of each;
  - (2) Contract requirements recommended by the Contractor to be changed;
  - (3) 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 and implementation and Authority review of the VECP and the sharing arrangement as set forth in the following Paragraph e.;
  - (4) A statement from the Contractor predicting any effects the proposed VECP will have on the life-cycle cost of the work to include and identify separately the cost for increased maintenance and operations;
  - (5) A statement of the time by which the proposal must be accepted so as to obtain the maximum price reduction effect and not delay the original Contract completion time. The time required for VECP review shall be considered and included in this statement and also in a separate bar chart;
  - (6) A list of codes and WMATA 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;
  - (7) The identification of a project where the materials, methods of construction and special equipment, where required, have been previously and successfully performed on construction similar to that which is being proposed for implementation on this Contract; and
  - (8) Preliminary architectural and engineering analysis, including calculations and 22 x 34 inch drawings in sufficient detail for each requirement of the Contract which must be changed if the VECP is accepted, with recommendations for accomplishing each change and its effect on unchanged work.
- c. The Contracting Officer or other delegated Authority 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 is issued, the Contractor shall remain obligated to perform in accordance with the terms of the original Contract. VECP's will be processed expeditiously; however, the Authority shall not be liable for any delay in acting upon any proposal submitted pursuant to this Article. The decision of the Contracting Officer or other delegated Authority representative about acceptance or rejection of any such proposal shall be final and shall not be subject to the DISPUTES Article of this Contract.
- (1) The Contractor has the right to withdraw part or all of the VECP at any time prior to acceptance or rejection by the Contracting Officer or other delegated Authority representative. Such withdrawal shall be made in writing to the Contracting Officer or other delegated Authority representative. If the Contractor desires to withdraw the proposal, he 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 items:
- (1) The Contractor shall address, to the Authority's satisfaction, all design issues and review comments.
  - (2) An equitable adjustment in the Contract price and appropriate changes in any other affected provisions of the Contract shall be made and the Contract modified in accordance with this Article and the CHANGES or other applicable articles of this Contract.
  - (3) The net savings resulting from the change shall be shared between the Contractor and the Authority on the basis of 50 percent for the Contractor and 50 percent for 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.
  - (4) The Contractor is entitled to share in instant Contract savings only, to the full extent provided for in this Article. 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.
  - (5) 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 or 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 clause are in addition to any other rights or remedies provided by law or under this Contract.
- f. The Contractor will use his best efforts to include Value Engineering arrangements in any subcontract, which in his judgement, 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 Article 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."

1.37 Variations in Estimated Quantities

- a. Where the quantity of a pay item in this Contract is an estimated quantity 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 or other delegated Authority representative shall, upon receipt of a written request 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 or other delegated Authority representative prior to the date of final settlement of the Contract, ascertain the facts and make such adjustment for extending the completion date as in his judgment the findings justify.

1.38 Contract Prices - Unit Price Schedule

Payment for the various bid items listed in the Unit Price Schedule shall constitute full compensation for furnishing all plant, labor, equipment, appliances and materials and for performing all operations required to complete the work in conformity with Drawings and Specifications. All costs for work not specifically mentioned in the Unit Price Schedule shall be included in the Contract prices for the bid items listed.

1.39 Progress Payment for Lump Sum Items

The Contractor shall furnish to the Contracting Officer or other delegated Authority representative a breakdown of the total Contract price for every lump sum item on the Unit Price 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 or other delegated Authority representative may require.

1.40 Warranty of Construction

- a. Except as otherwise expressly provided in this Contract, the Contractor shall remedy at his own expense any failure of the work for a period of one year, including equipment, to conform to Contract Specifications and any defect of material, workmanship, or design in the work, but excluding any defect of any design furnished by the Authority under the Contract, provided that the Contracting Officer or other delegated Authority representative gives the Contractor notice of any such failure or defect promptly after discovery but not later than one year after final acceptance of the work, except that in the case of defects or failures in a part of the work of which the Authority take possession prior to final acceptance, such notice shall be given not later than one year from the date the Authority take such possession. The Contractor, at his own expense, shall also remedy damage to equipment, the site, or the buildings or the contents thereof which is the result of any failure or defect, and restore any work damaged in fulfilling the terms of this Article. Should the Contractor fail to remedy any such failure or defect within a reasonable time after receipt of notice thereof, the Authority shall have the right to replace, repair or otherwise remedy such failure or defect at the Contractor's expense. This warranty shall not delay final acceptance of or final payment for the Contract work.

- b. All subcontractors', manufacturers' and suppliers' warranties and guarantees, expressed or implied, respecting any part of the work and any materials used therein shall be deemed obtained and shall be enforced by the Contractor as the agent and for the benefit of the Authority without the necessity of separate transfer or assignment thereof; provided that, if directed by the Contracting Officer or other delegated Authority representative, the Contractor shall require such subcontractors, manufacturers and suppliers to execute such warranties and guarantees in writing to the Contracting Officer or other delegated Authority representative.
- c. Any work repaired or replaced pursuant to this Article shall also be subject to the provisions of this Article to the same extent as work originally performed. The rights and remedies of the Authority provided in this Article are in addition to and do not limit any rights afforded to the Authority by any other article of this Contract.

1.41 Time and Materials Work

- a. In the event equitable adjustment pursuant to the CHANGES Article or other articles of these General Provisions cannot be agreed to in a timely manner, the Contracting Officer or other delegated Authority representative reserves the right to order work on a time and materials basis. When work is ordered under this Article and notwithstanding the provisions of other articles, 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 COTR or Engineer.
- b. Work performed by or for the Contractor: Labor, materials, 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 therefor as hereinafter provided, except where agreement has been reached to pay in accordance with Paragraph c. below. To the totals, completed as indicated in Paragraphs b. (1) through b. (4), shall be added the following percentages, which in the aggregate shall be limited up to a maximum of:

Labor:	10 percent.
Materials:	5 percent.
Equipment rental:	5 percent.

- c. Profit shall be negotiated as provided in the CONTRACT MODIFICATIONS - REQUIREMENTS FOR PROPOSALS, PRICE BREAKDOWN AND NEGOTIATION OF PROFIT Article of these General Provisions.

A percentage for subcontract work, limited up to a maximum of 10 percent, may be added to the totals computed above. This subcontract percentage will be a one-time markup regardless of tier of the subcontractor performing the work. A percentage for Contractor's bond not to exceed one percent, may also be added to the total. 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 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 therefor will be made by the Authority by reason of performance of the work by a subcontractor or by others.

- (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 Paragraph b. (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 Paragraph b. (1) [a] above and subsistence and travel allowance as specified in Paragraph b. (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 COTR or Engineer. All computed percentages shall be submitted to the COTR or Engineer for approval within 90 days after receipt of Notice to Proceed or as directed by the COTR or Engineer prior to any 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 form 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 COTR or Engineer.
  - [c] If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefor 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 discounts as provided in Paragraph b. (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 Paragraph b.(2)[d] above.

The Contractor shall not be compensated for indirect costs and profit on Authority-furnished materials.

- (3) Equipment: The Contractor shall be paid for the use of equipment in accordance with the PAYMENT FOR USE OF EQUIPMENT Article of the Special Conditions. The Contractor shall furnish all data which might assist the COTR or Engineer in the establishment of such rates.
- [a] Operators of rented equipment will be paid for as provided under Paragraph b. (1) above.
- (4) Subcontracts: The cost for subcontract work will be the actual cost to the Contractor for work performed by a subcontractor as computed in accordance with Paragraph b. above.
- c. Special items of work: If the Contracting Officer or other delegated Authority representative and the Contractor, by agreement, determine that either (1) an item of time and materials work does not represent a significant portion of the total Contract price, or (2) such item of work cannot be performed by the forces of the Contractor or the forces of any of his subcontractors, or (3) it is not in accordance with the established practice of the industry involved to keep the records which the procedure outlined in Paragraph b. 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 five percent of the discounted price, in lieu of the negotiated lump sum not to exceed the percentages provided for in Paragraph b. above.
- d. Records: The Contractor shall maintain his 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 COTR or Engineer, report sheets in duplicate of each day's work paid for on a time and materials basis the day after such work was performed. The daily report sheets 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 Paragraph c. above. The daily report sheets shall provide names or identifications and classifications of workmen, the hours worked, and also 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 COTR or Engineer 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 Paragraph b.(2)[a] above.
- (3) Said daily report sheets shall be signed by the Contractor or his authorized agent.
- (4) The COTR or Engineer will compare his 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 COTR or Engineer. 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.
- (5) Not used.

- e. Payment: Payment as provided in Paragraphs b. and c. 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 therefor, except as provided in Paragraph f. below.
- f. If the work under this Article is emergency in nature or is on a critical path, i.e., completion of a milestone or overall Contract completion and affects efficient work and/or delays completion of other Contract work, the Contractor may propose a lump sum amount, adequately analyzed and certified for negotiation with the Contracting Officer or other delegated Authority representative as an added cost not covered by Paragraph b. (1) through b. (4) above.

1.42 Equitable Adjustment for Minor Contract Modifications

- a. When the Contracting Officer or other delegated Authority representative and Contractor agree to an additive or deductive amount for a modification to this Contract made pursuant to Articles of this Contract titled, CHANGES, DIFFERING SITE CONDITIONS or VALUE ENGINEERING INCENTIVE, when the fair and reasonable price in aggregate amount does not exceed \$100,000 and further agree to an adjustment in the time for Contract performance resulting from said modification which increases or decreases the completion date 10 or less calendar days, the equitable adjustment in Contract amount shall consist of the sum of the following:
  - (1) Direct costs as agreed to by the Contracting Officer or other delegated Authority representative and Contractor.
  - (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 five percent of direct equipment costs (small tools, defined as equipment less than \$2,000 in acquisition costs, are included and computed at a maximum of five percent of direct base labor wages); and a maximum of five percent of subcontract costs.
  - (3) Home Office General and Administrative (G&A) costs, the sum of which shall be limited to a maximum of three percent or the audited rate of the direct costs plus job office overhead costs computed as above.
  - (4) Profit will be determined in accordance with the guidelines specified in the CONTRACT MODIFICATIONS-REQUIREMENTS FOR PROPOSALS, PRICE BREAKDOWN AND NEGOTIATION OF PROFIT Article of the General Provisions.
- b. In using the above rates, the following shall apply:
  - (1) Payroll Tax (FICA, FUTA & 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 Contract time 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 (PCO's) 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 Contract Performance Period is recognized.
  - (5) Bond 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 from the current Contractor's Equipment Cost Guide (monthly rate divided by 176).

#### 1.43 Cost or Pricing Data

- a. The Contractor shall submit to the Contracting Officer or other delegated Authority representative, either actually or by specific identification in writing, cost or pricing data under the conditions described in this Paragraph and certify that, to the best of his 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 his proposal for the pricing of any modification to his 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 and/or decreases in costs plus applicable profits expected to exceed \$100,000, or less at the discretion of the Contracting Officer or other delegated Authority representative.
- b. The submittal of certified cost or pricing data shall 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" shall be determined by the Contracting Officer or other delegated Authority representative in accordance with the guidelines as set forth in Subpart 15.4 of the Federal Acquisition Regulations (48 CFR 15.4).
- 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 cost or projections. The certificate does, however, apply to the data upon which the Contractor's judgment is based.

#### 1.44 Pricing of Adjustments

- a. When costs are a factor in any determination of a Contract price adjustment pursuant to the CHANGES Article or any other provision of this Contract, such costs shall be in accordance with the contract cost principles and procedures in Subpart 31 of the Federal Acquisition Regulations (48 CFR 31). 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 Contractor'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 Contractor'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.

- 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 adjustment) arises under the Contract or otherwise.

1.45 Accounting and Record Keeping

- a. Applicability. This Article 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 c. of this Article 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 or other delegated Authority representative, the Contractor shall furnish to the Contracting Officer or other delegated Authority representative 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 the CONTRACT MODIFICATIONS - REQUIREMENTS FOR PROPOSALS, PRICE BREAKDOWN AND NEGOTIATION OF PROFIT Article. The Contractor shall initiate such records as are necessary to substantiate all elements of the pricing proposal, current to the date of agreement on the pricing adjustment. 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. In addition to the records required to be originated under b. above, in the event pricing of an adjustment under this Contract is not agreed upon between the Contractor and the Contracting Officer or other delegated Authority 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 or other delegated Authority representative of all incurred segregable costs related to the work for which the pricing adjustment is requested. 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 between (1) work required under the base Contract; (2) work requested to be reimbursed under the pricing adjustment; and (3) other claim, including but not limited to, changes, 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 or other delegated Authority representative. Subject to agreement between the Contractor and the Contracting Officer or other delegated Authority representative, or upon direction of the Contracting Officer or other delegated Authority representative for work under the TIME AND MATERIALS WORK Article, the Contractor shall use Form C-113 (Daily Report - Labor, Materials and Equipment). The terms of Paragraph d. of the TIME AND MATERIALS WORK Article of this Contract shall apply regardless of the form used.
- d. Availability. The accounts, records and costs information required to be originated under b. and 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):
  - (1) 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 or other delegated Authority representative, or pursuant to any other provisions of this Contract;

- (2) 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 Subpart 4.7 of the Federal Acquisition Regulations and for such longer period, if any, as is required by applicable statute, or by any other articles of this Contract, or by Paragraphs (a) and (b) below:
- (a) If the Contract is completely or partially terminated, for a period of three years from either the date of any resulting final settlement or the date of final payment, whichever is the greater period; and
  - (b) If a pricing adjustment is involved in any appeal under the DISPUTES Article of this Contract or in any litigation related to this Contract, for a period of one (1) year following the final disposition of the appeal or litigation.
- e. When asserting a claim under the various provisions 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 or other delegated Authority representative. No payment shall be made to the Contractor on its claim until such records are made available and access is permitted.
- f. Limitation on Pricing Adjustment. 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 article of the Contract, any pricing adjustment or portion thereof previously granted by the Contracting Officer or other delegated Authority representative for which records are not available shall be rescinded and recomputed, 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 mark-up for indirect expenses not to exceed 10 percent of the direct costs so determined by the Contracting Officer or other delegated Authority representative. The adjustment will be established by the Contracting Officer or other delegated Authority representative based upon, at his or her election, either:
- (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 other delegated Authority representative; or (3) a combination of (1) and (2); plus a single mark-up for indirect expenses not to exceed 10 percent of the direct costs so determined by the Contracting Officer or other delegated Authority representative. The Contractor and subcontractors shall not be allowed any profit for the work for which the Contractor or subcontractor fails to originate, or to maintain, or to make available any accounts or records as required under this Contract.
- g. The Contractor shall insert a clause containing all the provisions of this Article in all subcontracts issued under this Contract, modified as necessary, for proper identification of the contracting parties and the Contracting Officer or other delegated Authority representative under this Contract.

1.46 Certificate of Current Cost or Pricing Data

The Contractor shall provide a Certificate of Current Cost or Pricing Data as required in Subpart 15.406 of the Federal Acquisition Regulations (48 CFR Part 15.406) 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 or other delegated Authority representative at his discretion may request cost or pricing data for modifications on which cost are \$100,000 or less and an attendant certificate of current cost or pricing data.

1.47 Revolving Door

- a. The Contractor warrants that it will not offer employment to any officer or employee of the Washington Metropolitan Area Transit Authority (WMATA) who has been involved, directly or indirectly, in any matter of financial interest to the Contractor until at least one year after the officer or employee has ceased involvement in or responsibility for the matter.
- b. The Contractor further warrants that it will not employ any WMATA officer or employee who has had direct responsibility for any matter of financial interest to the Contractor within the year prior to the retirement or termination of the officer or employee until at least one full year after such officer or employee has left the employment of the Authority.
- c. The one year requirement described in a. and b. above may be waived at the discretion of the Contracting Officer or other delegated Authority representative if the WMATA employee or former employee has been subject to a Reduction in Force; in such case, the Contracting Officer or other delegated Authority representative will provide the Contractor with a letter to that effect.
- d. If a waiver is granted, or if a former employee of WMATA is eventually hired, the Contractor shall be responsible for ensuring that the former employee is not directly involved in negotiating or otherwise dealing with WMATA on any particular matter over which such employee had responsibility during his or her period of employment at WMATA.
- e. Should the Contractor fail to comply with paragraphs a., b. or d. above, the Contracting Officer or other delegated Authority representative shall have the right to withhold payment under this Contract in an amount not to exceed two percent of the total Contract amount as liquidated damages to the Authority, such withholding to be in addition to any other withholding under this Contract. Further, the Contracting Officer or other delegated Authority representative shall consider such violation in evaluating the Contractor's responsibility in connection with award of any other Authority contract.

1.48 **Davis-Bacon and Copeland Anti-Kickback Acts** **Please also see Volume 1 - Chapter IX**  
**a. Minimum wages –**

- (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 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 which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one 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 subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- (ii) (A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:
- (1) Except with respect to helpers as defined in 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (2) The classification is utilized in the area by the construction industry; and
  - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 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 contracting officer within the 30-day period that additional time is necessary.

- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination 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.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, submitted through the Contracting Officer, 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.
- b. **Withholding** - The Authority shall upon its own action or upon written request of an authorized representative of the U.S. Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, 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 until such violations have ceased.

**c. Payrolls and basic records -**

- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii) (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Authority for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

This contract is subject to the Davis-Bacon and Related Acts. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3 and 5 are herein incorporated by reference in this contract. The Davis-Bacon Act requires contractors and subcontractors under construction contracts and subcontracts greater than \$2,000 to submit weekly certified payroll reports to the COTR.

- (B) 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 shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR part 5 and that such information is correct and complete;
  - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
  - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.
- (D) 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*.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.
- (4) Apprentices and trainees –
- (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in 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 journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.



- (ii) **Trainees** - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) **Equal employment opportunity** - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- (5) **Subcontracts** – The Contractor shall insert the clause in section (5) 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.
- (6) **Contract termination: debarment** - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (7) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

- (8) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
- (9) **Certification of eligibility** –
- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who 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 CFR 5.12(a)(1).
  - (ii) 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 CFR 5.12(a)(1).
  - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001

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**CONSTRUCTION SPECIAL PROVISIONS**

**2.1 COMMENCEMENT, PROSECUTION AND PERIOD OF PERFORMANCE**

**2.1.1 WORK COMMENCEMENT (09/03)**

- a. The Contractor shall commence work within ten (10) calendar days after the date of receipt of NTP and shall prosecute said work diligently to completion.
- b. In the event the signed Contract with required insurance and bonds is not returned to the Authority within ten (10) calendar days after date of award and/or further, if approval has not been obtained within that ten (10)-day period for the Safety Superintendent, the Contracting Officer or other delegated Authority representative may issue the NTP and Contract time will start upon its receipt. However, no work at the site shall be performed until the above requirements have been met. When NTP is issued by facsimile, the date of the facsimile transmission shall constitute receipt.
- c. Upon issuance of NTP, contract time will start. When NTP is issued by facsimile, the date of the facsimile transmission shall constitute receipt.
- d. WMATA S&I facilities are in operation for 24 hours/7 days a week/365 days a year. Contract work must be sequenced and scheduled and scheduled to minimize impact on facility work.

2.1.2 Material delivery may be to a contractor controlled facility in advance of installation at the WMATA metro station(s). The contractor shall store the materials off the worksite. No storage shall be allowed in public areas including the platforms.

**2.1.3 Substantial Completion Inspection**

The Authority shall conduct a Substantial Completion Inspection at the completion of the work. The Substantial Completion date shall establish the cut-off date for liquidated damages liability and the commencement of the warranty.

**2.1.4 Work Hours**

All work under this contract that is performed on site shall be performed Monday through Friday between the hours of 7:00 a.m. and 3:30 p.m., excluding holidays. Work may be performed outside these hours only upon written approval from the COTR.

**2.1.5 Work Area Access**

- a. Forest Glen Metrorail Station and Shady Grove Rail Yard
  - i Contractor activities shall not restrict Metrorail operations or public access.
  - ii All work and access must be coordinated with the COTR.
- b. Royal Street Bus Division
  - i This facility is not in operation. All work and access must be coordinated with the COTR.

- c. Without approval of the COTR, Contractor shall work at no more than one site at any time. Contractor shall complete the Substantial Completion Inspection for one site before commencing work at another site.
- d. Contractor shall coordinate all work with the COTR and facility staff to maintain WMATA operations at all times.

#### 2.1.6 PERIOD(S) OF PERFORMANCE (FINAL WORK COMPLETION DATES)

- a. The Contractor shall complete the Base contract items (Forest Glen Station and Shady Grove Rail Yard), including the final cleanup, and receipt of all deliverables within 210 calendar days after the issuance of Notice to Proceed (NTP).
- b. If WMATA elects to award Option work (Royal Street Bus Division), the Contractor shall complete the work, within 60 calendar days after issuance to NTP.

#### 2.1.7 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.

### 2.2 LIQUIDATED DAMAGES

#### 2.2.1 ASSESSMENT OF DAMAGES – N/A

### 2.3 CONTRACT AND BONDS

*Please see Volume 1 – Phase II (Page 21).*

Failure to furnish: In the event the required bonds are not furnished as specified, the Contracting Officer or other delegated Authority representative may issue the NTP as specified in the article titled COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK. However, no payment will be made to the Contractor until the required bonds are furnished.

### 2.4 AUTHORITY-FURNISHED DOCUMENTS

#### 2.4.1 CONTRACT WORK

- a. The work shall conform to the Contract Drawings listed in Volume 4 Drawings of this Contract.
- b. The general character and scope of the work are shown. The Contractor shall conduct the work within the areas defined on the Contract Drawings as the limits of work, except when otherwise authorized by the Contracting Officer or other delegated Authority's Representative.

#### 2.4.2 CONTRACT DOCUMENTS

- a. One set of Contract Documents, each set consisting of Contract Drawings, and Specifications, will be furnished the Contractor without charge, except for applicable publications referenced in the technical provisions. Additional documents will be furnished on request at the cost of reproduction.
- b. In case of differences between half-size and full-size Contract Drawings, the full-size Contract Drawings shall govern. In case of differences between small-scale details and large-scale details, the large-scale details shall govern. Schedules on Contract Drawings shall take precedence over conflicting information on any other Contract Drawings. On the Contract Drawings where a portion of the work is drawn out and the remainder is shown in outline, the parts drawn out shall apply also to all other like portions of the work.
- c. Standard drawings may be included in the Contract Drawings. Their application is made specific by notation on each such drawing included.
- d. Omissions from the Contract Drawings or Specifications or the inadequate description of details of the work which are manifestly necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or inadequately described details of the work.
- e. The Contractor shall check all Contract Drawings furnished him immediately upon receipt and shall promptly notify the Contracting Officer or other delegated Authority's Representative in writing of discrepancies. Dimensions on Drawings shall be followed in preference to scale measurements. The Contractor shall compare Drawings and verify the figures before laying out the work and shall be responsible for any errors which might have been avoided thereby.
- f. The dimensions and descriptions given on the Contract Drawings for adjacent work are based on design drawings. It shall be the responsibility of the Contractor to verify all as-built conditions and interface information.

#### 2.5 CONTRACTOR'S SUBMITTALS

Unless otherwise required by the technical specifications:

##### 2.5.1 GENERAL

- a. Interpretation of approval and review: The approval or review of submittals will be general; neither approval nor review shall be construed as:
  - (1) Permitting any departure from the Contract requirements,
  - (2) Relieving the Contractor of the responsibility for any errors including details, dimensions and materials, or
  - (3) Approving departures from details furnished by the COTR except as otherwise specified.
- b. The Contractor shall make submittals sufficiently in advance of construction requirements to permit no less than **30** calendar days for checking and appropriate action. Submittals shall be shown on the Progress Schedules.

- c. The Contractor shall be responsible for and bear all cost of damages which may result from the ordering of material or from proceeding with any part of the work prior to the approval of specified or directed submittals.

#### 2.5.2 SHOP DRAWINGS

- a. The Contractor shall, unless otherwise directed, submit one reproducible and two legible copies of shop drawings to the COTR for approval using standard transmittal forms in accordance with detailed instructions furnished by the COTRAR. A supply of these forms is available without cost to the Contractor.
- b. Shop drawings shall be complete, detailed and dimensioned and shall include the following:
  - (1) Fabrication, erection, layout and setting drawings.
  - (2) Complete list of materials.
  - (3) Schedules.
  - (4) Manufacturer's drawings.
  - (5) Wiring and control diagrams, as applicable.
  - (6) Catalog cuts or entire catalogs: Six originals.
  - (7) Descriptive literature.
  - (8) Performance and test data.
  - (9) Drawings prepared by the Contractor for permanent structures, equipment and systems designed by him to comply with the Specifications.
  - (10) Additional requirements specified in the technical specifications.
- c. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for approval and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. The QC Manager shall review drawings and schedules to verify Contractor approval and compliance with the terms of the Contract prior to submittal, and shall indicate QC verification by signature or stamp thereon. Drawings or schedules submitted without this stamp of approval may be returned to the Contractor for resubmittal. Where specified to be certified by a professional engineer, certification of shop drawings shall comply with such requirements of the WORKING DRAWINGS article.
- d. The maximum size of each sheet shall be 22 inches by 34 inches. Each shop drawing shall have a blank area 3½inches by 3½inches, located adjacent to the title block. The title block in the lower right hand corner shall display the following:
  - (1) Number and title of the Drawing.
  - (2) Date of Drawing or revision.
  - (3) Name of project.
  - (4) Name of Contractor and subcontractor submitting drawing.
  - (5) Clear identification of contents and location of the work.
  - (6) Title and number of Specifications section.

- e. Drawings for work on utility facilities, street and other facilities which are constructed for owners other than the Authority shall be coordinated so that the information required by these owners is included on the shop drawings for their facilities.
- f. If drawings show variations from the Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, the COTR may approve any or all such variations, subject to a proper adjustment in the Contract. If the Contractor fails to describe such variations he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been approved.
- g. If the drawings or schedules as submitted include such variations and show a departure from the Contract requirements, which the COTR finds to be in the interest of the Authority and to be so minor as not to involve a change in the Contract price or time for performance, the COTR may approve the drawings.
- h. If approved by the COTR, each copy of the shop drawings will be identified as having received such approval by being so stamped and dated. Shop drawings stamped NOT APPROVED and with required corrections shown will be returned to the Contractor for correction and resubmittal. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing or on resubmitted shop drawings, to revisions other than the corrections requested by the COTR on previous submittals. The Contractor shall make corrections as directed. If the Contractor considers any corrections indicated on the drawings to constitute a change to the Contract Drawings or Specifications, notice as required under the CHANGES article shall be given to the Contracting Officer or other delegated Authority representative. One reproducible and two prints of each shop drawing will be returned to the Contractor.
- i. When the shop drawings have been completed, to the satisfaction of the COTR, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the COTR.
- j. After written approval of the drawings, the Contractor shall supply the COTR with four additional prints of the approved drawings if the drawings have been approved subject to certain revisions prior to commencing such work.
- k. Before final substantial completion, the Contractor shall furnish to the COTR one set of record shop drawings, all clearly revised and completed and brought up to date, showing the permanent construction as actually made. Drawings shall be either drawn in ink on tracing cloth, or reproduced on Mylar from which clear prints can be made.

### 2.5.3 WORKING DRAWINGS

- a. When used in the Specifications, the term WORKING DRAWINGS shall be considered to mean the Contractor's plan for temporary structures such as decking, temporary bulkheads, support of excavation, support of utilities, groundwater control systems, and forming and falsework; for underpinning; and for such other work as may be required for construction but which do not become an integral part of the completed project.
- b. The Contractor shall, unless otherwise directed, submit one reproducible and two copies of each working drawing.



- c. Working drawings and calculations as submitted shall meet the requirements of Article 2.5.2.d., and be certified by a professional engineer registered in the area where the work will be performed and shall convey, or be accompanied by, information sufficient to completely explain the structure, machine or system described and its intended manner of use.

#### 2.5.4 SAMPLES

- a. The Contractor shall submit samples for approval as specified or as directed which shall be delivered to the COTR as specified or directed. The Contractor shall prepay shipping charges on samples. Materials or equipment for which samples are required shall not be used in the work until approved.
- b. Each sample shall be labeled as follows:
  - (1) Name of project.
  - (2) Name of Contractor and subcontractor.
  - (3) Material or equipment represented.
  - (4) Place of origin.
  - (5) Name of producer and brand, if any.
  - (6) Location in project. Samples of finish materials shall have additional markings identifying them under the schedules.
- c. The Contractor shall mail, under separate cover, a letter in triplicate submitting each shipment of samples and containing the information required in Paragraph b. above. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the COTR. Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify Contract requirements. Substitutions will not be permitted unless they are considered to be in the best interests of the Authority.
- d. Approved samples not destroyed in testing shall be sent to the COTR. Approved samples in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in the work shall match the approved samples. Samples which fail testing or are not approved will be disposed of, unless the Contractor requests, at the time of submittal, that they be returned to him at his expense.
- e. Failure of any material to pass the specified tests will be sufficient cause for refusal to consider, under this Contract, further samples of the same brand or make of that material. The COTR reserves the right to disapprove any material or equipment which has previously proved unsatisfactory in service.
- f. Samples of various materials or equipment delivered on the site or in place may be taken by the COTR for testing. When a sample fails to meet Contract requirements, it will automatically void previous approvals of the item(s) tested. The Contractor shall replace such materials and equipment to meet Contract requirements or proper adjustment of the Contract price shall be made as determined by the COTR.

- g. When tests are required, only one test of each sample will be made at the expense of the Authority. Samples which do not meet specified requirements will be rejected. Retesting of additional samples will be made by the COTR at the expense of the Contractor.

#### 2.5.5 CERTIFICATION

- a. The Contractor shall submit the original and two copies of certification, unless otherwise specified.

- b. Certificates:

- (1) The Contractor shall submit the following:

- (a) Certificates to demonstrate proof of compliance with requirements specified in the technical specifications for each of the following:

- [1] Products and materials.

- [2] Functioning and testing of equipment and systems.

- [3] Qualifications of personnel, manufacturers, fabricators and installers.

- (2) Each certificate shall be signed by an official authorized to certify in behalf of the issuing organization and shall bear the name and address of the Contractor, the project name and location; if for a material, quantity and date(s) of shipment or delivery to which the certificates apply shall be indicated.

- (3) Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specified requirements.

- c. Certified test reports:

- (1) Submit original.

- (2) Unless otherwise specified, testing shall be conducted by an independent testing agency which certifies that it complies with the recommended requirements of the American Council of Independent Laboratories or ASTM E329.

#### 2.5.6 DOCUMENTATION

The Contractor shall submit to the COTR the original and two copies of each of the following when so specified in the technical specifications and as follows:

- a. Test reports of previous testing:

- (1) Where specified in the technical specifications, the Contractor may in lieu of testing submit certified test reports of previous testing of factory supplied components, if approved under similar Authority contracts.

- (2) Include the following:
  - (a) Certification that materials meet or exceed specified test requirements.
  - (b) Name and address of testing laboratory.
  - (a) Dates of tests to which reports apply.
  - (d) Certification that materials provided are the same as those tested.
- b. Calculations including, but not limited to, the support for the stinger system at all locations by a professional engineer licensed in the respective jurisdiction.
- c. Miscellaneous documentation:
  - (1) Specified items such as delivery tickets, batch tickets and bills of materials.

## **2.6 WORK TO BE PERFORMED BY THE CONTRACTOR**

- a. The Contractor shall execute on the site, with his own organization, work equivalent to at least **50** percent of the Contract work, the percentage being determined by the dollar value of the Contract work done by his own organization in comparison to the Contract Price. The cost of 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 percentages. The Contractor's mark-up for overhead and profit on work performed by subcontractor(s) shall not be included in determining this percentage.
- b. If, during the progress of the work hereunder, the Contractor requests a reduction in such percentage; and the Contracting Officer or other delegated Authority representative determines that it would be to the Authority's advantage, the percentage of the work required to be performed by the Contractor may be reduced provided written approval of such reduction is obtained by the Contractor from the Contracting Officer or other delegated Authority representative.

## **2.7 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)**

- a. The work will be conducted under the general direction of the Contracting Officer or other delegated Authority representative. The COTR has authority to take all actions authorized herein and as may be otherwise delegated.
- b. Not Used.
- c. The presence or absence of the COTR or other Authority inspection staff will not relieve the Contractor from the requirements of the Contract.
- d. Upon failure of the Contractor to comply with any of the requirements of the Contract Drawings, Specifications, or other Contract documents, the COTR may stop any operation of the Contractor affected by such failure until the failure is corrected. Time lost during such work stoppage will be regarded as Contract time for which no extension will be granted, and no increase in cost to the Contractor caused by the stoppage shall be subject to claim against the Authority.

- e. The authorized representatives of public and private utilities, and other agencies, have the right to inspect their facilities, communicating through the COTR as follows:
  - (1) Inspection or supervision of work by utility forces and utility's contractors.
  - (2) Inspection of work by Authority contractors on, or adjacent, to utility facilities.
  - (3) Access to the site construction and the right to inspect all project works by the U.S. Government, jurisdictional agencies and public and private interests and utilities.
- f. In the event that the Contractor's work endangers utility property or facilities, the utility's representative shall immediately inform the COTR of the impending hazard. When time does not permit this action, the utility representative is authorized to stop such work until the COTR is present, or until safety of the utility property is ensured. Any such stop order is to be delivered to the Contractor's representative in writing and the Contractor shall report in writing and explain the stop order to the COTR at the earliest opportunity. Any handwritten note with date, time and inspector's signature is acceptable.
- g. Highway and roadway facilities which may be affected by Authority construction are considered for the purpose herein as utility facilities.

## 2.8 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 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 progress schedule and all subsequent submissions shall be prepared using the latest version of Microsoft Project, or other software approved by the COTR, with an electronic file copy submitted to the COTR. 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 COTR **shall** have a minimum of 15 calendar days after receipt of the submittal to respond. Upon receipt of the COTR's comments, the Contractor shall make necessary changes and deliver the corrected initial progress schedule to the COTR 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 detailed 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 CD duration.
    - (d) Activity description for each activity bar. Activity descriptions 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 COTR..
- 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.
  - (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 COTR 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 of systems currently working and percent complete on each. 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 COTR. 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 COTR 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 COTR 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.
- d. 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 COTR.

## **2.9 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 COTR 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.

## **2.10 LAYOUT OF WORK**

- a. The Engineer has established, or will establish, such general reference points, including horizontal and vertical control points and benchmarks as will enable the Contractor to proceed with the work. If the Contractor finds that any previously established reference points have been destroyed or displaced, or that none have been established, he shall promptly notify the COTR.
- b. The Contractor shall layout his work from reference points established by previous construction or from Authority-established reference points shown and shall be responsible for all measurements in connection therewith. The Contractor shall furnish, at his own expense, stakes, templates, platforms, equipment, tools, and materials and labor as may be required in laying out any part of the work from the reference points established by previous construction or by the Authority. The Contractor will be held responsible for the execution of the work to such lines and grades as may be directed.

- c. The Contractor shall protect and preserve the established reference points and shall make no changes in locations without approval. Reference points lost, destroyed, disturbed by construction, or which require shifting because of necessary changes in grades or locations shall, subject to prior approval, be replaced and accurately located at the Contractor's expense by a surveyor registered in the area where the work is to be performed. Reference points replaced by the Contractor's registered surveyor shall be done in accordance with the FGCC Standards and Specifications for Geodetic Control Networks<sup>®</sup> using First Order, Class 1 specifications for horizontal control work and Second Order, Class 1 specifications for vertical control work.
- d. For the purpose of this article, the Contractor shall provide competent engineering services as necessary to execute the work in accordance with the Contract requirements. He shall verify the dimensions shown before undertaking any construction work and shall be responsible for the accuracy of the finished work.
- e. All survey personnel shall be Certified Survey Technicians (CST) by and through ACSM - National Society of Professional Surveyors (NSPS).
- f. The Contractor shall maintain minimum accuracy standards for all surveys performed under the terms of this Contract in accordance with the following:
  - 1. Primary horizontal control surveys: first order.
  - 2. Primary vertical control surveys: second order, class 1.
  - 3. Secondary horizontal control surveys: second order, class 1.
  - 4. Secondary vertical control surveys: second order, class 1.

In order to maintain the minimum accuracies stated above the Contractor is required to follow the procedures defined by the Federal Geodetic Control Committee (FGCC) "Standards and Specifications for Geodetic Control Networks" September 1984 or latest version. The Contractor shall not use GPS technology to perform any survey control replacement without submittal and approval of the proposed procedures. Primary control is defined as the original control provided to the Contractor at the start of the Contract. Secondary control is the control established and used by the Contractor during construction. All secondary control traverse stations shall be set with permanent markers. All horizontal traverses shall be adjusted by the least squares method and shall be provided to the Authority. In addition, all adjusted vertical traverses shall be provided to the Authority.

- g. All electronic distance measuring instruments shall be checked by the Contractor against a NGS (or similar facility) range of known distances at least once every six months. The results of this exercise shall be computed using the procedures in NOS NGS-10 "Use of Calibration Base Lines". The actual measurements shall be recorded, atmospheric corrections applied, and then adjusted by least squares to compute a constant, as well as a relative correction factor (scale correction). A copy of the final results from this exercise shall be provided to the Authority.

## 2.11 PHYSICAL DATA - NOT USED



## **2.12 TEMPORARY UTILITY AND ELECTRICAL SERVICES**

- a. The Contractor will be permitted the use of existing water facilities. The fire line facilities shall be used only with approval before each use and inspection after use.
- b. The Contractor will be permitted the use of existing electrical facilities, providing the Contractor ensures that he does not overload circuits. Contractor shall coordinate with the facility manager the location of 120-volt service.
- c. The Contractor shall provide temporary electrical service of sufficient capacity to serve his requirements during the life of the Contract. The source of temporary power for testing may be the temporary service, portable generator or other approved system which will deliver power at the voltage and other characteristics required to accomplish testing as specified. Circuits and construction for temporary systems shall suit the needs of the work and comply with NEC and the codes and regulations of the jurisdictional authorities.
- d. The Contractor shall provide temporary compressed air as necessary during the construction work at the site.
- e. Under no circumstances shall the contractor foul the running rails through the facility with temporary services.
- f. Temporary services shall be furnished, installed, connected and maintained by the contractor in an approved manner. Prior to completion of the work, the Contractor shall remove all temporary services and restore affected areas as approved.

## **2.13 INDEMNIFICATION AND INSURANCE**

**Please see Volume 1 – Chapter VII**

## **2.14 NOT USED**

## **2.15 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 System Safety & Risk Protection (SARP) 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. **This project is Category II.**

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 Marshal.
- E. Contractors must submit Safety Data Sheets (SDSs) 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 SDSs 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 SAFE's criteria for approval in addition to WMATA's Representative criteria for performance. The SDSs 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 SDS and WMATA Approval Package.

- 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.
- m. 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.
- n. 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.
- o. 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.
- p. 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. SAFE and EMIH 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.
- q. 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.

- r. 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).
- s. 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 Conversation 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. SDSs for replacement paints/coatings must be reviewed by WMATA prior to use on WMATA property.

- t. 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.

- u. 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 ( $5 \text{ mg/m}^3$ ), in any 15 minute period. NIOSH provides recommendations for control of asphalt fumes.
- v. 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.
- w. 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.
- x. 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.
- y. 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.
- z. 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.
- aa. 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.
- bb. 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.
- cc. The Contractor shall immediately report all accidents and incidents (including near misses) that occur during the performance of the work, to WMATA's Representative.



- dd. 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.
- ee. 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.
- ff. 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.
- gg. 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.
- hh. 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.
- ii. 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.
- jj. 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**

- kk. 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.
  
- ll. 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.
  
- mm. 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.
  
- nn. All hazardous materials and hazardous substances, must be stored in "Performance Oriented Packaging" in compliance with 49 CFR ' 178, Subpart L.
  
- oo. 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.
  
- pp. 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.

qq. **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 shall submit the following documentation.

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.
29. Results of laboratory analysis for any additional sampling (paint, soil, water, or other materials) conducted during the project.
30. Results of laboratory analysis for any sampling (paint, soil, water, or other materials) collected after completion of activities at each site.
31. 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.

### **2.16 SANITARY PROVISIONS**

The OSHA standard for sanitation, 29 CFR 1910.141, shall be followed. Prior to starting work, the Contractor shall furnish for the use of his force on the work necessary toilet conveniences secluded from public view. They shall be kept in a clean and sanitary condition and shall 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.

### **2.17 SUBCONTRACTS**

- a. 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.
- b. The Contractor shall not enter into subcontracts totaling in amount more than the percentage of the total Contract price permissible under WORK TO BE PERFORMED BY THE CONTRACTOR article of these Special Conditions, without the written permission of the Contracting Officer or other delegated Authority representative.
- c. Before entering into any subcontracts, the Contractor shall submit a written statement to the Contracting Officer or other delegated Authority's Representative giving the name and address of the proposed subcontractor, the portion of the work and material which he is to perform and furnish, and any other information tending to prove that the proposed subcontractor has the necessary facilities, skill, integrity, past experience and financial resources to perform the work in accordance with the terms and conditions of this Contract.
- d. No subcontractor shall be permitted to perform work at the site until he, or the Contractor, in compliance with the provisions of the INDEMNIFICATION AND INSURANCE article of these Special Conditions, has furnished satisfactory evidence of insurance as required.
- e. The Contractor shall promptly, upon request, file with the COTR a conformed copy of the subcontract, with the price and terms of payment deleted.
- f. The Authority or its representatives will not undertake to settle any difference between the Contractor and his subcontractors or between subcontractors.

**2.18 NOT USED**

**2.19 HISTORICAL AND SCIENTIFIC SPECIMENS**

Articles of historical or scientific value including, but not limited to, coins, fossils and articles of antiquity which may be uncovered by the Contractor during the progress of the work shall become the property of the Authority. Such findings shall be reported immediately to the COTR who will determine the method of removal, where necessary, and the final disposition thereof.

**2.20 SALVAGE OF MATERIALS AND EQUIPMENT**

- a. The Contractor shall maintain adequate property control records for materials or equipment specified to be salvaged. The Contractor shall be responsible for the adequate storage and protection of salvaged materials and equipment and shall replace all salvage materials and equipment which are broken or damaged during salvage operations as the result of his negligence or while in his care.
- b. All material not reused shall become the property of the Contractor and removed from the site.

**2.21 ENVIRONMENTAL CONTROL**

- a. The Contractor shall:
  - (1) Maintain temperature and humidity to protect work, in progress and in place, as well as permanent equipment and materials, stored and installed, against damage from heat, cold and dampness.
  - (2) Take such steps as necessary to protect such work from other adverse conditions.

**2.22 SIGNS**

- a. The Contractor shall furnish and erect at the work site one portable Authority project sign.
- b. Sign size, content, lettering and format shall be as shown at the end of this Section.
- c. The exact location of the sign shall be as directed.
- d. The sign shall be maintained during the work and removed upon its completion.

**2.23 CONSTRUCTION SEQUENCE AND STAGING**

**2.23.1 CONSTRUCTION SEQUENCE**

- a. Not Used.
- b. The Contractor shall conduct his work in a manner that will minimize interference with the operations of other contractors involved in the performance of related work. He shall bring his work to a stage of completion that will conform to the requirements specified in the WORK BY OTHERS article of these Special Conditions.

- c. The Contractor's particular attention is directed to the fact that both vehicular and pedestrian traffic must be maintained on the various existing streets within and adjacent to the project site at all times during the duration of the Contract.
- d. The Contractor shall coordinate all staging activities with the appropriate facilities managers as to work area, storage area and equipment movement

#### 2.23.2 CONSTRUCTION STAGING - NOT USED

### 2.24 MEASUREMENTS

Dimensions shown on existing work and dimensions required for work that is to connect with work not in place shall be verified by the Contractor by actual measurement of the existing work. Discrepancies between the Contract Drawings and Specifications and the existing conditions shall be referred to the COTR before work affected thereby has been performed.

### 2.25 OPERATION AND MAINTENANCE

Unless otherwise required by the technical specifications:

#### 2.25.1 OPERATION AND MAINTENANCE MANUALS

- a. The Contractor shall furnish manuals for equipment and systems as required by the Specifications.
- b. Data copy included from standard catalogs shall be edited to reflect only conditions pertinent to this Contract.
- c. Data copy shall be suitable for dry-copy reproduction on standard office copy machines.
- d. All Drawings shall be in AutoCAD 2014 or later and the written portion of the manuals shall be Microsoft Word latest version. All electronic information shall be stored on CDs which shall be compatible with the current CD readers at WMATA. The contractor shall test each CD in one computer designated by the COTR before final acceptance of any manuals.
- e. Manuals shall be prepared using the following materials.
  - (1) Binder:
    - (a) One of the following:
      - [1] Loose-leaf; three-ring with elliptical rings; stiff cover with covering resistant to oil, water and wear; reinforced hinges; label holder on spine; mechanical device to open, close and lock rings; and sheet lifters. Size for 8½- inch by 11-inch paper, three-inch maximum capacity.
      - [2] Loose-leaf three-post binder conforming to FS UU-B-320, Type II, Class 2, with covering resistant to oil, water and wear; label holder on spine; size for 8-½ inch by 11-inch paper; capacity as required, four-inch maximum thickness.



- (b) When the assembled data exceeds the capacity of one binder, provide additional binders as necessary.
- (2) Pages:
- (a) Originals: White, 60-pound bond with plastic-reinforced binding edge.
  - (b) Catalog data: Offset-printed copy on white paper, with plastic-reinforced edge.
  - (c) Standard: 8-½ inches by 11 inches.
  - (d) Fold-out: 11 inches by 8-½ inches for binding portion of page plus 7-½ inches for each additional portion of folded page; title and page number visible without unfolding. Provide filler at the binding edge of fold-out pages, equal in thickness to the folded portion.
  - (e) Holes punched for standard three-ring binder.
  - (f) Consecutively numbered (format Page 1 of last number in section).
- f. Manuals shall include the following data (split into the following numbered sections):
- (1) Table of contents.
  - (2) Contractors name, address and telephone number, with similar data for his 24-hour service organization (format shall be in table form rows and columns).
  - (3) Manufacturer's name, address and telephone number, with similar data for his local representative, distributor and service agency (format shall be in table form rows and columns).
  - (4) Catalog, model and serial number of equipment installed. Include WMATA unit numbers where applicable (format shall be in table form rows and columns).
  - (5) Description of equipment.
  - (6) Statement of warranty as specified.
  - (7) Description of modification, servicing and repairs performed prior to start of warranty.
  - (8) Dates warranty begins and expires.
  - (9) Standard starting, stopping and operating procedures.
  - (10) Emergency and special operating procedures.
  - (11) Routine maintenance procedures.
  - (12) Servicing and lubrication schedule (format shall be in table form rows and columns).

- (13) Manufacturers printed operating and maintenance instructions, manufacturer's parts list, illustrations and diagrams.
- (14) One copy of each wiring diagram for each shop track stinger system at each Rail Shop.
- (15) List of spare parts, prices and recommended stock quantities for routine maintenance of the equipment for one year and list of spare parts that are considered critical and for which extended time frames for acquisition would create undesirable down-time for the equipment.
- (16) List of special tools required to perform inspection, adjustment, maintenance and repair. Special tools are those developed to perform a unique function related to the particular equipment and are not available from commercial sources.
- (17) Copy of each approved shop drawing of the equipment and system. Include drawings which show outline dimensions weights and assembly data; do not include drawings which show manufacturing details.

g. Submittals: Manuals shall be submitted as follows:

- (1) Four copies of sample formats and outlines of contents in draft form 120 calendar days prior to the scheduled date of final substantial completion of the first location if applicable.
- (2) Two copies of complete manual in final form 45 calendar days prior to the scheduled date of final substantial completion.
- (3) Six copies of approved manual(s) with electronic format as specified herein 10 calendar days after the scheduled date of final substantial completion.
- (4) If operation and maintenance training is included in this Contract, the Contractor shall provide to each trainee, a copy of approved Operation and Maintenance Manuals for this purpose.

OPERATION AND MAINTENANCE TRAINING

Unless otherwise required by the technical specifications:

a. General:

- (1) Where specified the Contractor shall develop and conduct a program to train selected Authority personnel in the operation and maintenance of equipment and systems furnished.
- (2) The Contractor shall furnish instructors, instructional materials and audiovisual aids and equipment.
- (3) The Authority will furnish physical facilities and equipment.

b. Qualification of instructors:

- (1) Instructors shall have full, precise and detailed knowledge of the design and functional characteristics of all aspects of the equipment and systems furnished with particular emphasis on operational and maintenance considerations and requirements.
- (2) Instructors shall present the instructional program in an effective manner.
- (3) Instructors will be subject to approval.

c. Program content:

As a minimum, instruction will include material covered in the operation and maintenance manual as well as the following:

- (1) Theory of operation.
- (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) Diagnosis and problem solving (troubleshooting).
- (10) Repair.
- (11) Overhaul.

d. Submittals:

(1) The Contractor shall submit the following at the times stated:

(a) Preliminary submittal: Not later than 10 calendar days after NTP.

[1] Instructional outline: A complete, accurate and detailed listing of topics to be addressed in the instructional program using the specified content list.

[2] Specimens of instructional material to be used.

[3] Descriptions of audio-visual material and equipment to be used.

(b) Intermediate submittal: Not later than 60 calendar days after approval of preliminary submittal.

[1] All material submitted for preliminary submittal incorporating or resolving comments.

[2] Complete instructional plans including audio-visual aids and descriptions of instructional techniques and procedures.

(c) Final submittal: Not later than 30 calendar days prior to scheduled date of final substantial completion.

[1] All material submitted for intermediate submittal incorporating or resolving comments.

[2] Complete instructional plans including audio-visual aids and descriptions of instructional techniques and procedures.

(2) Operation and maintenance training shall be completed prior to scheduled date of final substantial completion.

## 2.26 ABBREVIATIONS

AASHTO:	American Association of State Highway and Transportation Officials
ABS:	Acrylonitrile-Butadiene-Styrene
ac:	Alternating Current
ACI:	American Concrete Institute
ACGIH:	American Conference of Governmental Industrial Hygienists
AFD:	Alexandria Fire Department
AHDGA:	American Hot Dip Galvanized Association, Inc
AI:	Asphalt Institute
AISC:	American Institute of Steel Construction
AISI:	American Iron and Steel Institute
AMTRAK:	National Railroad Passenger Corporation
ANSI:	American National Standards Institute (synonymous with USASI-ASA)
API:	American Petroleum Institute
APPROX	Approximately
AREA:	American Railway Engineering Association
ASHRAE:	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASNT:	American Society of Nondestructive Testing
AST:	Aboveground Storage Tank
ASTM:	American Society for Testing and Materials
AWG:	American Wire Gauge (synonymous with Brown and Sharpe)
AWS:	American Welding Society
AWPA:	American Wood Preservers' Association
AWQB:	Air and Water Quality Bureau (Department of DCDES)
BG&E:	Baltimore Gas and Electric Company
BLS:	Bureau of Labor Statistics

B&O:	Baltimore & Ohio Railroad (Division of CSX Transportation)
BOCA:	Building Officials and Code Administrators International
BTEX:	Benzene, Toluene, Ethylbenzene, Xylene
BTU:	British Thermal Unit
BTUH:	British Thermal Units Per Hour
C:	Celsius (Centigrade)
CAGI:	Compressed Air and Gas Institute
CE:	U.S. Army Corps of Engineers
cfm:	Cubic Feet Per Minute
CFR:	Code of Federal Regulations
CISPI:	Cast Iron Soil Pipe Institute
CMU:	Concrete Masonry Unit
C&O:	Chesapeake and Ohio Railroad (Division of CSX Transportation)
COMAR:	Code of Maryland Annotated Regulations
CONRAIL:	Consolidated Rail Corporation (formerly Penn Central)
C&P:	Chesapeake and Potomac Telephone Company
CQCS:	Contractor's Quality Control System
CRSI:	Concrete Reinforcing Steel Institute
CY:	Cubic Yard
dB:	Decibel
dc:	Direct Current
DFT:	Dry Film Thickness
DIA:	Diameter
DILM:	Ductile Iron Pipe, Cement-Lined and Coated, Mechanical Joint
DILP:	Ductile Iron Pipe, Cement-Lined and Coated, Push-On Joint

DOEE:	District Department of Energy and Environment
DOT:	Department of Transportation
DPST:	Double Pole, Single Throw
DRO:	Diesel Range Organics
DTS:	Data Transmission System
EA:	Each
EPA:	Environmental Protection Agency
EPR:	Ethylene Propylene Rubber
EX:	Existing
F:	Fahrenheit
FAA:	Federal Aviation Administration
FCCCR:	Foundation for Cross Connection Control Research of the University of Southern California Engineering Center
FHWA:	Federal Highway Administration
FID:	Flame Ionization Detector
FM:	Factory Mutual Associates
FRC:	Fiber Reinforced Composite
FRP:	Fiber Reinforced Plastic
FS:	Federal Specifications
FED STD:	Federal Standard
FTA:	Federal Transit Administration
GAL:	Gallon
GPH:	Gallons Per Hour
GRO:	Gasoline Range Organics
GSA:	General Services Administration
HOA:	HAND/OFF/AUTOMATIC
HP:	Horsepower

HVAC:	Heating, Ventilating and Air Conditioning
ICEA:	Insulated Cable Engineers Association
ICI	Industrial Coatings International
ID:	Inside Diameter
IEEE:	Institute of Electrical and Electronic Engineers
IPS:	Iron Pipe Size
ISEA:	Industrial Safety Equipment Association
JGB:	Jackson Graham Building (formerly OCCB)
kHz:	Kilo Hertz
kV:	Kilovolts
kVA:	Kilovolts amperes
kW:	Kilowatts
L/DR:	Length-to-Diameter Ratio
LED:	Light Emitting Diode
LF:	Linear Feet
mV:	1,000 volts
mVA:	1,000-amperes
MCM:	1,000 Circular Mils
MCP:	Motor Circuit Protector
MDE:	Maryland Department of the Environment
MDNR:	Maryland Department of Natural Resources
METRO:	Logo for the Washington Metropolitan Area Transit Authority
MIN:	Minimum
MNCPPC:	Maryland National Capitol Park and Planning Commission
MS:	Military Specification
MSG:	Manufacturers' Standard Gauge
MIL STD:	Military Standard



MSHA:	Maryland State Highway Administration
MSS:	Manufacturer's Standardization Society of the Valve and Fitting Industry
MWRA:	Maryland Water Resources Administration (Part of MDNR)
NAAMM:	National Association of Architectural Metal Manufacturers
NACE:	National Association of Corrosion Engineers
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
NWS:	National Weather Service (Formerly U.S. Weather Bureau)
OCCB:	Operations Control Center Building 600 Fifth Street, N.W. Washington, D.C. 20001 (See JGB)
OCEW:	On Center Each Way
OD:	Outside Diameter
ORD:	Operation Readiness Date
OS&Y:	Outside Stem and Yoke
OSHA:	Occupational Safety and Health Administration
OWS:	Oil/Water Separator

PCI:	Pre-stressed Concrete Institute
PDI:	Plumbing and Drainage Institute
PE:	Polyethylene
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
PID:	Photoionization Detector
PPHM:	Parts Per Hundred Million
PPL:	Plantation Pipeline Company
PPM:	Parts Per Million
psf:	Pounds Per Square Foot
psi:	Pounds Per Square Inch
psig:	Pounds Per Square Inch Gauge
PVC:	Polyvinyl Chloride
RF&P:	Richmond, Fredricksburg and Potomac Railroad
rms:	Root Mean Square
rpm:	Revolutions Per Minute
ROD:	Revenue Operation Date
RQD:	Rock Quality Designation
RLA:	Redevelopment Land Agency (Department of DCHCD)
SCH:	Schedule
SDI:	Steel Deck Institute or Steel Door Institute, depending upon context in which it occurs

SDS:	Safety Data Sheet
SMACNA:	Sheet Metal and Air Conditioning Contractors National Association
S1S:	Smooth One Side
S2S:	Smooth Both Sides
SJI:	Steel Joist Institute
SR:	Southern Railway Company
SPDT:	Single Pole, Double Throw
SPST:	Single Pole, Single Throw
SSPC:	Steel Structures Painting Council
TCLP:	Toxicity Characteristic Leachate Procedure
TGA:	Thermo gravimetric Analysis
TPH:	Total Petroleum Hydrocarbons
TYP:	Typical
UL:	Underwriter's Laboratories, Incorporated
UPS:	Unit Price Schedule or Uninterruptible Power System, depending upon context in which it occurs
USBR:	U. S. Bureau of Reclamation
USCG:	U. S. Coast Guard
USCS:	U. S. Commercial Standard
USDA/SCS:	U. S. Department of Agriculture - Soil Conservation Service
USDOT:	U. S. Department of Transportation
USN/CD:	U. S. Navy, Chesapeake Division
USPS:	U. S. Product Standard
USSG:	United States Standard Gauge
UST:	Underground Storage Tanks
VDEQ:	Virginia Department of Environmental Quality
VOC:	Volatile Organic Compound

WAD: Washington Aqueduct Division (Element of U.S. Army C.E., Baltimore District)

WGL: Washington Gas Light Company

WMATA: Washington Metropolitan Area Transit Authority

WSSC: Washington Suburban Sanitary Commission

WTC: Washington Terminal Company (AMTRAK)

XLPE: Cross-Linked Polyethylene

## **2.27 CONTRACT RECORD DRAWINGS**

### a. General:

- (1) During construction, the Contractor shall maintain a record set of Contract Drawings annotated to show all changes incorporated as work progresses. Information shall include, but not be limited to, the following:
  - (a) Depths of various elements of foundations in relation to survey data.
  - (b) Horizontal and vertical locations of underground electrical and utility facilities referenced to survey data. Unless otherwise specified, verify measurements within a 12-inch tolerance; verify storm and sanitary sewer pipe inverts within 0.01 foot.
  - (c) Location of interior utilities and appurtenances concealed in construction, referenced to visible and accessible features of the structure.
  - (d) Field changes of dimensions and detail.
  - (e) Changes accomplished by change orders.
  - (f) Construction left in place, such as temporary support systems and concrete outside neat lines of permanent structures, including notes defining types and locations of items.
- (2) Before the scheduled date of final substantial completion, the Contractor shall submit approved as-built drawings and microfilmed record drawings for the completed work.

### b. As-built drawings:

- (1) The Authority will furnish the original computer data diskette copies of the Contract Drawings in AUTOCAD 2014 which the Contractor shall use in preparing as-built drawings. As built reproductions shall be on Mylar. Images shall be clear, sharp and readily legible. The original Contract Drawings computer data diskettes shall be returned to the Authority not later than 10 calendar days after their receipt from the Authority.
- (2) Drafting shall be performed by skilled drafters using AUTOCAD 2014 and shall match original Contract Drawings in line weights, symbols and lettering style and size.
- (3) The Contractor shall submit three sets of prints of as-built drawings for review and approval.
- (4) Additions and corrections shall be incorporated and as-built original computer drawing files. Contractor shall submit one set of computer drawing diskette files in AUTOCAD 2014, three sets of prints and one set of reproducible prints on Mylar not later than 30 calendar days after receipt of review comments.
- (5) Completed as-built drawings shall bear the signature of an officer of the Contractor organization, certifying compliance with as-built conditions, using a rubber stamp as follows:

AS - BUILT

\_\_\_\_\_  
(DATE)

I CERTIFY THAT THIS DRAWING  
ACCURATELY DEPICTS THE WORK  
AS CONSTRUCTED

\_\_\_\_\_  
(AN OFFICER OF THE CONTRACTOR)

\_\_\_\_\_  
CONTRACTOR'S NAME

**2.28 CERTIFICATION OF NONSEGREGATED FACILITIES BY CONTRACTORS AND SUBCONTRACTORS**

Prior to the award of any subcontract, or federally assisted construction contract or subcontract, required to contain the Equal Opportunity article contained in his Contract, the Contractor shall obtain the certification set forth in the Invitation for Bids. This certification may be required by the Contractor, either for each subcontract or for all subcontracts during a period, i.e., quarterly, semiannually, or annually.

**2.29 WAGE RATES**

- a. The minimum wages, which in addition to basic hourly rate of pay include fringe benefit payments to be paid laborers and mechanics on this project pursuant to the LABOR PROVISIONS article of the General Provisions, as determined by the Secretary of Labor to prevail for corresponding classes of laborers and mechanics employed on projects similar in character to the Contract work in the pertinent locality, are set forth as an appendix to these Special Conditions.
- b. Any class of laborers and mechanics not listed but employed on this Contract shall be classified or reclassified conformably to the schedule set out therein by mutual agreement between the Contractor and class of labor concerned, subject to the prior approval of the Contracting Officer or other delegated Authority's Representative. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question, accompanied by the recommendation of the Contracting Officer or other delegated Authority representative, shall be referred to the Secretary of Labor for final determination.

### 2.30 AFFIRMATIVE ACTION PROGRAM

- a. The Affirmative Action Program submitted in accordance with the Instructions to Bidders shall be implemented and maintained in force by the Contractor during the term of the Contract and be made available to affected disadvantaged groups. If such program is denied a group, the burden shall be on the Contractor to show that the group is not an affected group. Emphasis is placed on the following requirements not to the exclusion of other requirements of these instructions or the Contract Documents.
- (1) To ensure equal employment opportunity the Contractor shall recruit disadvantaged individuals necessary to meet the requirements of the Affirmative Action Program and involve to the fullest, local vocational institutions and trade unions in the effort. Disadvantaged individuals shall be afforded every reasonable opportunity for training and advancement to ensure equality with non-disadvantaged employees. The Contractor, insofar as practicable, shall employ in the performance of the work, qualified citizens who are residents of the area comprising the Authority Transit Zone.
  - (2) It is the policy of the Authority that equal opportunity to participate in Authority procurements be provided to disadvantaged business enterprises. In order to ensure that a fair proportion of the purchases and contracts for supplies and services for the Authority are placed with disadvantaged business enterprises, the Contractor agrees to take affirmative action, to identify qualified disadvantaged firms, solicit bids and quotations from them and, in making awards and purchases, give equitable consideration to disadvantaged business enterprises. The method for accomplishing this shall be in accordance with the Instructions to Bidders.
  - (3) To implement the Affirmative Action Program on each of those contracts exceeding \$5,000,000, the Contractor shall provide for, and maintain, an Affirmative Action Officer (AAO) who will be a full-time employee who shall work full time on AAO duties and the Contractor may not designate the individual who is approved as AAO for this Contract as an AAO for a concurrent period on any other contract. On contracts of a lesser amount, the Contractor shall designate a person part time to act as the AAO. The AAO shall be the liaison between the Contractor and the Authorized Representative of the Contracting Officer or other delegated Authority representative with regard to Equal Employment Opportunity (EEO) and Disadvantaged Business Enterprise (DBE). The AAO shall be subject to approval by the Contracting Officer or other delegated Authority representative who will delegate such approval authority to the Director of Civil Rights. Once approved, the AAO shall not be replaced without prior written approval of the Director of Civil Rights. An approved AAO, who performs satisfactorily, shall be present (at the construction site) throughout the duration of the Contract. If at any time, the project is without the services of an approved AAO for a period exceeding 30 calendar days, or if the Director of Civil Rights notifies the Contractor that the AAO's performance is unsatisfactory and if, in the sole judgment of the Director of Civil Rights, that performance remains unsatisfactory for 30 days, the Contracting Officer or other delegated Authority representative may withhold progress payments until such time as an approved AAO, who performs satisfactorily, is present (on the site of the work). The AAO shall:
    - (a) Submit all required or requested reports and shall record all efforts concerning the implementation of the Contractor's EEO Affirmative Action Program.
    - (b) Submit all required or requested reports and shall record all efforts to implement the Contractor's DBE Affirmative Action Programs.
    - (c) Record all efforts to inform the disadvantaged community of available employment and procurement opportunities with the Contractor and record their responses.

- (d) Investigate and make every effort to resolve all complaints of discrimination based on race, color, sex, religion or national origin within the company or at the construction site. Failure to resolve such problems shall be reported in writing to the Authorized Representative of the Contracting Officer or other delegated Authority representative.
- (4) The Contractor shall implement a uniform method of keeping data concerning ethnic classifications of all personnel and furnish all subcontractors with guidelines to develop a system of maintaining such records. The company format for such data keeping shall be as submitted to the Contracting Officer or other delegated Authority representative prior to the award of the Contract. Where the Contractor, after reasonable efforts, is unable to locate sufficient disadvantaged individuals and/or businesses to carry out the intent of the Affirmative Action Program, the Contracting Officer or other delegated Authority representative will:
- (a) Review the documentation recording the Contractor's efforts, and
- (b) Offer to the Contractor any reasonable alternatives or additional resources.
- (c) The Contractor's efforts and Contracting Officer or other delegated Authority representative's review of these efforts should normally be accomplished in a time period of 30 calendar days after NTP during which time the Contractor shall proceed with his adopted construction schedule.
- (5) The Contractor shall publicly display in every employment advertisement that it practices equal opportunity employment. Additionally, posters issued by the Equal Employment Opportunity Commission and the Office of Federal Contract Compliance shall be posted in places highly visible to all workers, supervisors and employees.
- (6) The Contractor shall make contact with local Contractor Associations and other organizations whose purpose is to promote equal employment opportunity.
- (7) The Contractor shall maintain a program for the advancement of apprentices. Apprentices shall be advanced in the trade as their abilities develop in accordance with the Manpower Development Training Program.
- (8) With respect to subcontractors, the Contractor shall:
- (a) Determine those areas in which DBE subcontractors may be used.
- (b) Determine if there are DBE subcontractors available to perform such Contract work and identify them.
- (c) Contact the WMATA Office of Civil Rights if assistance in identifying DBE contractor capability is needed.
- (d) Solicit bids from these subcontractors and award as appropriate.
- (9) The Contractor shall consult with the DBE subcontractor regarding the Contractor's requirements as they pertain to ability to perform, financial stability, and the utilization of subcontracts.
- (10) The primary obligation to establish and maintain a complete and effective program rests with the Contractor.



**2.31 TECHNICAL REFERENCES**

- a. When reference is made to codes, regulations, reference standards and specifications, the work shall conform to the edition current as of the date of receipt of bids, unless otherwise specified.
- b. Where reference standards and specifications conflict with Contract requirements, the Contract requirements shall govern.

**2.32 COMMUNITY RELATIONS - NOT USED**

**2.33 DEFINITION OF TERMS**

For the purposes of this Contract, the following terms and their derivative forms shall be accorded the meanings assigned below:

- a. Specified: Unless otherwise stated, as required by the Contract Specifications for the project.
- b. Shown: Unless otherwise specified, as shown on the Contract Drawings. Synonyms: Detailed, scheduled.
- c. Approved: Unless otherwise specified, as approved by the Engineer. Synonyms: Satisfactory, accepted.
- d. Directed: Unless otherwise specified, as directed by the COTR or Contracting Officer. Synonyms: Designated, ordered, prescribed.
- e. COTR: Contracting Officer's Technical Representative.
- f. Jurisdictional Authorities: State, federal and local authorities or agency thereof having jurisdiction over work to which reference is made.
- g. Work: Labor, supervision, services, materials, machinery, equipment, tools, supplies and facilities to accomplish the requirements of the Contract.
- h. Provided: Furnished, installed complete in place and successfully tested to demonstrate satisfactory operation.
- i. Submit: Unless otherwise specified, transmit to the COTR for approval, information or record.
- j. Shall/Will/May:
  - (1) Shall: Indicates action which is mandatory on the part of the Contractor.
  - (2) Will: Indicates probable action by the Authority or its representatives.
  - (3) May: Indicates permissible action.
- k. 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.

- I. Including/consisting of:
  - (1) Including: Introduces a partial, representative listing of things or actions.
  - (2) Consisting of: Introduces a complete listing of things or actions which constitutes the whole.
- m. Article: An element of the Specifications bearing its own alphanumeric designation.

#### **2.34 IDENTIFICATIONS**

- a. Not used.
- b. Not used.
- c. CTC: Capital Transit Consultants.
- d. The Jurisdictional agencies:
  - (1) Occupational Safety and Health Administration
  - (2) Environmental Protection Agency
  - (3) Washington, D.C.
  - (4) State of Maryland.
    - (a) Prince Georges County
    - (b) Montgomery County
  - (5) Commonwealth of Virginia
    - (a) Arlington County
    - (b) Fairfax County
    - (c) City of Alexandria and all sub-agencies therein.

#### **2.35 ENGINEER'S FACILITY - NOT USED**

#### **2.36 PRECONSTRUCTION INSPECTION**

- a. 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 by and be the responsibility of the Contractor.
- b. The Contractor shall document in writing, including photographs, the general condition and defects from the inspection and submit to the COTR within five calendar days after inspection.

**2.37 DETECTION OF MOVEMENT - NOT USED**

**2.38 PHOTOGRAPHS -**

- A. As soon as the construction operations has been initiated at the site, the Contractor shall submit (to the COTR) a series of digital photographs taken each month of progress and/or problems which effect his performance. These photos shall be submitted monthly or weekly (if needed by COTR) until completion of all physical work. The actual number of photos and locations shall be based on the amount of progress/and or problems encountered each month. The photo's need to be coordinated with the COTR and staff to ensure proper coverage or areas. For informational purposes, each new stage of work shall be photographed to include major work areas and activities in progress. Contractor shall not be paid until the photographs are submitted to the Engineer within 10 days after taking.
- B. Digital photo's shall be submitted to the COTR monthly via CD's (i.e. by mail) and via email set (to COTR's office) or as directed. Each print shall be identified on a permanent file so that the following data is recorded for each photo to include: the specific contract number; photo number, ex. Photo #1 of ..., job location such as survey stationing, to include looking north... or west...etc., date of the photo, progress or problems identified....in the lower right hand corner of the photo or on a separate file. The data shall be typewritten and arranged similar to the data listed below:

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Contract No. \_\_\_\_\_  
Contract Title: \_\_\_\_\_  
Prime Contractor: \_\_\_\_\_  
Date photo taken: \_\_\_\_\_ Photograph No. \_\_\_\_\_  
Identify Job location, area, elev., Room#, facing north, south, etc. on each photo:  
Description of work in progress: \_\_\_\_\_  
or Problems encountered: \_\_\_\_\_

**2.39 WORK BY OTHERS**

- a. This Contract is one of a series of contracts for the construction of the Washington Metropolitan Area Transit System. During the progress of the work under this Contract it will be necessary for other contractors and persons employed by the Authority to work in or about the project. The Authority reserves the right to put such other contractors to work and to afford such access to the site of the work to be performed hereunder at such times as the Authority deems proper. The Contractor shall not impede or interfere with the work of such other contractors engaged in or about the work and shall so arrange and conduct his work that such other contractors may complete their work at the earliest date possible. The cooperation of the Contractor with the other contractors is mandatory.
- b. The exercise of such right aforesaid by the Authority to permit other Contractors and others to do work in or about the contract area shall in no way nor to any extent relieve the Contractor from liability for loss and damage to the work due to or resulting from his operations.
- c. The COTR will decide any disputed questions regarding the performance of the work, access to the site, cleaning up the site and priority of performance between the various contractors.

- d. The Contractor shall inform the COTR in writing of all agreements pertaining to coordinating his work with the work of other contractors engaged upon the project.
- e. Provisions similar to the above shall apply to the relations between the Contractor and utility companies performing work in connection with Authority construction. Permit free and clear access to utility personnel for purposes of inspection, maintenance, providing for additional service requirements and construction of new facilities.
- f. The Contractor shall cooperate with all other contractors requiring access to the work, regarding access to the site, maintenance of security, temporary facilities, cleaning of the site and like matters requiring common effort.
- g. Other contracts, as necessary, may be performed at this location at the sole discretion of the Authority. Further, the Authority may perform work with its own forces at any time during the contract period of performance.
- h. When transportation services, or other activities of the Authority are to be disrupted, the Contractor shall provide such advance notice as directed.

#### **2.40 UTILITIES**

- a. Within the limits of and adjacent to the project there may exist public and private utilities in the form of sanitary sewers, storm drains, traffic and street light systems, parking meters, streetcar tracks, gas lines, steam lines, water lines, fire hydrants, oil fill lines, and aerial and underground power, fire alarm, police, telegraph and telephone lines. The Contract or Informational Drawings may show some known public and private utilities in their approximate locations within the limits of the project which are expected to interfere with the work. The Contractor is, however, cautioned that these locations are not guaranteed, nor is there any guarantee that all utility lines in existence within the limits of the project have been shown. All utilities shown or encountered in the work shall be maintained and protected in their locations unless otherwise shown or specified.
- b. The Contractor shall, through the COTR, establish and maintain direct and continuous contact, with the owners or operators of the respective utilities and shall cooperate with them at all times and in all places of the work. Before commencing construction, the Contractor shall verify the locations of all utilities which may be affected by his operations, and shall submit his plan for performing the work to the COTR for review and approval and to the utility owner. No work in the vicinity of or which may affect utilities shall be started until approved.
- c. The Contractor shall notify the COTR, "Miss Utility,"@ utility companies and the jurisdictional agencies at least 48 hours in advance of construction which may interfere with the operation of such utilities.
- d. Damage to utility lines caused by the Contractor's operations shall be immediately reported by him to the COTR and to the utility company or jurisdictional agency affected, which will, in general, make its own repairs at the Contractor's expense.

**2.41 ACCESS TO FIRE HYDRANTS AND FIRE ALARM BOXES**

- a. Whenever the work is being carried on, free access must be given to each fire hydrant, fire alarm box and connection to standpipe; when required, hydrants shall be extended by suitable tubes or piping to an accessible point as approved and to the satisfaction of the jurisdictional fire department. Obstructions shall not be piled at any time or placed within 10 feet of any fire hydrant, standpipe connections and other suppression devices or fire alarm box; where materials are unavoidably piled or placed in the vicinity of a fire hydrant, standpipe connections and other suppression devices or fire alarm box and to such height as to prevent the same from being readily seen, the position of such hydrants, standpipe connections and other suppression devices or fire alarm box shall be indicated by suitable signs and lights, both day and night.
- b. The Contractor shall safeguard, maintain and protect the wires, cables, ducts, manholes, posts and poles, signals, and alarm boxes of the fire departments. He shall not cause any interruption to fire department fire alarm telegraph service, and in case of accident, shall promptly notify the fire department. No fire department wire, cable, duct, manhole, post or pole, signal or fire alarm box shall be disturbed, except in the presence of a representative of the Bureau of Fire Alarm Telegraph. In case any such wire, cable, duct, manhole, post or pole, signal or fire alarm box is disturbed, the Contractor shall immediately notify the COTR, and it shall be restored immediately to its original condition.

**2.42 CONTRACTOR'S PLANT**

- a. The Contractor shall submit a plan of his plant layout for approval within seven calendar days after receipt of NTP. All necessary construction in connection therewith shall be done in a neat workmanlike manner to the COTR's satisfaction.
- b. Sufficient construction plant shall be provided and maintained at points where work is in progress to adequately meet demands of the work and with ample margin for emergencies or overload. The plant shall be of sufficient capacity, in the opinion of the COTR, to permit a rate of progress which will ensure completion of the work within the time specified in the Contract. The COTR shall have the right to reject or condemn each plant, apparatus, staging, or other appliance which in his opinion is unsafe, improper or inadequate. Whether the COTR exercises this authority or not, the Contractor is not relieved from his responsibility for the safe, proper and lawful construction, maintenance and use of such plant, apparatus or staging. Condemned plants or equipment shall be brought to acceptable condition or shall be removed from the site.
- c. The location of all stationary equipment and the location of all miscellaneous mobile equipment shall be subject to approval.

**2.43 CONTRACTOR'S EMPLOYEES (07/03)**

- a. The Contractor and his subcontractors shall provide their personnel with distinctive badges showing the employer's name and employee's name or number. These badges shall be displayed in a prominent manner on each person while engaged on the work. Access to the sites shall be granted only to properly accredited representatives of the Contractors and his subcontractors.
- b. If any subcontractor or person employed by the Contractor appears to the COTR to be incompetent or careless or to act in a disorderly or improper manner, his services in connection with the work shall be immediately terminated upon request by the COTR and he shall not again be employed on the work.
- c. The Contractor and subcontractors requiring entry into the rail operating system for performance of Contract work shall provide such employees requiring entry with photo identification cards issued by the Authority. The Contractor shall obtain and be responsible for administering the use of the identification cards in accordance with most recent governing Authority POLICY/INSTRUCTION. The ID cards are not valid for transportation on Metrobus or Metrorail and will be valid for the duration of the contract up to a maximum of one year.

**2.44 HOURS OF WORK**

Within the limitations of these specifications, the Contractor shall work within the defined Hours of Work to complete the various parts of the work and the entire work within the dates specified. Refer to Section 2.1.4.

**2.45 NOISE CONTROL**

- a. The Contractor shall take every action possible to minimize noise caused by his operations. When required by jurisdictional agencies, 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 time periods specified.

**2.45.1 PROTECTION OF 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 closest point adjacent to the site in normal use by the public while construction work is in progress. The Contractor is required to adhere to 29 CFR 1910.95 *Occupational Noise Exposure*, for all work on Authority property, including construction. Employee noise exposure levels will be measured at the employees' normal work station. In either case sound levels shall not exceed the following:

Exposure per day in hours	Sound level in dBA*
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
2	110
1/4 or less	115

- b. Sound levels shall be measured on the A-weighted network of a general purpose sound level meter, conforming to ANSI S1.4 at slow response. Sound level for impulse or impact noise, i.e., noise of duration less than one second, shall not exceed a peak sound pressure level of 140 dB when measured on an approved impact noise analyzer. Instruments used for measurements should have a pulse range of at least 60 decibels (dB) and be capable of measuring impulses of duration down to 20 milliseconds.
- c. In underground or tunnel construction, individual hearing protection devices capable of reducing noise exposures to OSHA permissible exposure limits, shall be provided.
- d. The Contractor and all Subcontractors shall comply with all 29 CFR 1910.95 *Occupational Noise Exposure* for all work on Authority property, including construction. This standard requires that employees exposed to noise in excess of 85 dBA (slow response), participate in a Hearing Conservation Program.

2.45.2 NOISE RESTRICTIONS AT AFFECTED STRUCTURES

In addition to the provisions of Article 2.45.1, sound levels for noise due to construction activities will be monitored at the building line of structures affected acoustically by the Contractor's operations and plant. Sound levels for noise from equipment shall be measured at the building line on the A weighting network of a general purpose sound level meter at slow response. To minimize the effect of reflective sound waves at buildings, measurements may be taken three to six feet in front of the building face.

2.45.2.1 MOBILE EQUIPMENT

Sound levels for nonscheduled, intermittent, short term noise from mobile equipment shall not exceed the following dBA levels:\*\*

RESIDENTIAL STRUCTURES	CATEGORIES			
	I	II	III	IV
Daily, except Sundays and Legal Holidays 7:00 AM to 7:00 PM	75	80	85	85
All other times	60	65	70	75
BUSINESS-COMMERCIAL STRUCTURES	CATEGORIES			
Daily, including Sundays and Legal Holidays, all hours; maximum	I	II	III	IV
	85	85	85	85

2.45.2.2 STATIONARY EQUIPMENT

Sound level limits for repetitively scheduled and relatively long-term noise from stationary equipment shall not exceed the following dBA levels:\*\*

RESIDENTIAL STRUCTURES	CATEGORIES			
	I	II	III	IV
Daily, except Sundays and Legal Holidays				

7:00 AM to 7:00 PM	60	65	70	75
All other times	50	55	60	65
<b>BUSINESS-COMMERCIAL STRUCTURES</b>	<b>CATEGORIES</b>			
	I	II	III	IV
Daily, including Sundays and Legal Holidays, all hours, maximum.	70	70	75	75

2.45.2.3 NOISE ABATEMENT MEASURES

The Contractor shall provide such equipment and sound-deadening devices and take such noise abatement measures that are necessary to comply with the requirements of this Contract, consisting of, but not limited to, the following:

- a. Shields or other physical barriers to restrict the transmission of noise.
- b. Soundproof housings or enclosures for noise-producing machinery.
- c. Efficient silencers on air intakes of equipment.
- d. Efficient intake and exhaust mufflers on internal combustion engines.
- e. Line hoppers and storage bins with the sound-deadening material.
- f. The prohibition of the use of air-driven or gasoline-driven saws.
- g. Conducting truck loading, unloading and hauling operations so that noise is kept to a minimum.
- h. Routing of construction equipment and vehicles carrying spoil, concrete or other materials over streets that will cause the least disturbance to residents in the vicinity of the work. The COTRO shall be advised in writing of the proposed haul routes prior to the Contractor securing a permit from the local government.
- i. Siting of stationary equipment shall be subject to the approval of the COTR in accordance with the CONTRACTOR'S PLANT article of these Special Conditions.



### 2.45.3 CONSTRUCTION EQUIPMENT NOISE

Powered equipment, truck or power hand tool that produce a maximum sound level exceeding the following limits shall not be used during construction operations. The sound level limits specified are referenced to a distance of 50 feet from the equipment. Sound levels shall be measured in substantial conformity with the Standards and Recommended Practices established by the Society of Automotive Engineers, Inc., including the latest revisions to SAE J366a and SAE J952b.

- a. Construction and industrial machinery, such as crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic power equipment. Sound level limit: 90 dBA.
- b. Highway trucks: Sound level limit: 88 dBA.

2.45.4 Where required by agencies having jurisdiction, certain noise-producing work may have to be performed during other than regular working hours or only at specified periods.

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*\*Measured on the A-weighted network of a general purpose sound level meter that conforms to the current American National Standards Institute specification S1.4, at slow response. Sound level for impulse or impact noise (noise of duration less than one second) shall not exceed a peak sound pressure level of 140 dB when measured on an approved impact noise analyzer. Instruments used for measurements should have a pulse range of at least 60 dB and be capable of measuring impulses of duration down to 20 milliseconds.*

*Sound level for impulsive or impact noise (noise of duration less than one second) shall not exceed a peak sound pressure level of 140 dB when measured on an approved impact noise analyzer. In lieu of the above procedure, 125 dB measured on the C weighting network of a General Purpose sound level meter at fast response will be accepted as an equivalent measure of the peak sound pressure level.*

*\*\*Measured at the building line on the A-weighted network of a general purpose sound level meter at slow response. To minimize the effect of reflective sound waves at buildings, measurements may be taken three to six feet in front of building face.*

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### 2.46 WORK, STORAGE AND PARKING AREA

- a. Parking facilities for the Contractor's personnel and those of his subcontractors personnel shall be the Contractor's responsibility. The storage and work facilities provided by the Authority shall not be used for parking by the Contractor or his personnel.
- d. The areas shown as the Contractor's work and storage area will be provided to the Contractor without charge. Additional work and storage space, if required, shall be obtained by the Contractor.

#### **2.47 HAZARDOUS MATERIALS**

- a. Explosives - The use of explosives for the performance of Contract work will not be permitted.
- b. Flammable Materials - The jurisdictional Fire Marshals prohibit the use of oxygen-acetylene welding/cutting equipment or flammable materials anywhere in the Metrorail system during hours of system operation. After each work shift, all flammable materials must be removed from Authority property.
- c. Chemicals and Hazardous Materials - Safety Data Sheets for all chemicals and hazardous materials to be used by the Contractor and Subcontractors, must be submitted for approval prior to use on Authority property.
- d. The Contractor shall immediately notify the COTR in writing when it encounters suspect asbestos, PCBs, petroleum, and other hazardous materials and radioactive materials during the work that were unknown to the Contractor during preparation of its bid. The Contractor shall, upon encountering or recognizing such suspect Hazardous Materials, immediately stop work in the affected area and report the condition to the COTR.
- e. The Contractor shall remove all hazardous materials that were brought to WMATA property by the Contractor or any Subcontractor.

#### **2.48 MOBILIZATION AND PREPARATORY WORK**

- a. Mobilization and preparatory work shall include mobilization of construction equipment, materials, supplies, appurtenances and the like, manned and ready for commencing and continuing the work as well as subsequent demobilization and removal from the site of such equipment, appurtenances and the like upon completion of the work.
- b. Mobilization and preparatory work shall include assembly and delivery to the site of the plant, equipment, materials and supplies necessary for the prosecution of the work that 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 and hire of plant on work preparatory to commencing actual work; plus all other preparatory work required to permit commencement of the actual work on construction items for which payment is provided under the terms of the Contract.
- c. The Contractor shall conduct his work in accordance with the requirements of the SAFETY REQUIREMENTS article of these Special Conditions.
- d. When separate payment for mobilization and preparatory work is provided in the Contract, payment will be made in the amount provided in the UPS.
- e. When separate payment for mobilization and preparatory work is provided in the Contract, such payment will be made progressively, up to 100 percent of the fixed lump sum Contract price for mobilization as shown on the UPS, as mobilization occurs. The payment will be made in the form of six equal monthly payments with the first payment beginning 30 calendar days after receipt of NTP.
- f. Partial payments may be reduced by an amount determined by the COTR if, in his determination, one or a combination of the following conditions applies:

- (1) The plant and equipment at the site are insufficient or are not suitable for the performance of the work.
  - (2) The plant and equipment brought on the project are not being utilized or sufficiently utilized for prosecution of the work.
  - (3) The plant and equipment brought on the project and committed to the work are removed from the project without permission of the COTR.
- g. In the event of such a reduction in partial payments, the remainder of the partial payments which are unpaid at the date of such reduction will be paid with subsequent progress payments as and when the conditions stated are rectified.

**2.49 MAINTENANCE OF TRAFFIC**

- a. The Contractor shall be responsible for maintaining traffic on public roads and WMATA property and for erecting and maintaining traffic control devices, as required by the jurisdictional agency of the area where the work is to be performed including, but not limited to, the following:
  - (1) Temporary directional and electrical warning and detour signs.
  - (2) Temporary barricades and decking/plating.
  - (3) Temporary lighting, overhead warning lights, flashing lights and lanterns.
  - (4) Temporary paving and striping.
- b. Traffic control signs: Traffic control sign shall be standard signs of the jurisdictional agency. Each change in location of traffic shall be adequately posted with a minimum of two signs mounted on barricades or standard posts. All signing shall be done in accordance with the requirements of the latest published standard of the jurisdictional agency.
- c. Striping: The Contractor shall provide all necessary temporary striping required in connection with all temporary street work. The Contractor shall remove or obliterate existing or temporary pavement markings whenever vehicular traffic is moved to newly available pavement areas or to different traffic patterns.
- d. Redirecting traffic: All channeling, shifting of traffic lanes, and barricading of traffic in connection with this work will be subject to the approval of the jurisdictional agency.
- e. Temporary closing: Prior to the temporary closing to traffic of part of any street or other access to WMATA property or facilities, or prior to changing traffic patterns from those shown, approval shall be obtained from the appropriate jurisdictional agency by the Contractor at least 30 calendar days prior to the time such closures and changes are to be made. Deviations from this will be for a bona fide emergency condition only and as approved by the jurisdictional agency.
- f. Contractor's surface operations: The Contractor shall schedule his surface operations so as not to be working intermittently throughout the area. Excavation or construction activities shall be carefully scheduled and vigorously pursued to completion as required to permit opening of the street or paved areas to traffic as soon as possible without unnecessary delays.

- g. Temporary walkways: In areas where the removal of existing sidewalks is necessary, access to adjacent businesses, entrances, and properties shall be maintained by temporary walkways having a width of not less than six feet.
- h. Intersections: All intersections shall be excavated and decked in stages as indicated on the Contract Drawings. Construction shall be so phased that the required number of traffic lanes on each street will be provided at all times during these operations. Upon completion of decking, traffic in all intersections shall be fully maintained.
- i. Temporary pavement and patching: The Contractor shall construct, maintain and remove any temporary pavement and patching that are required to safely and expeditiously handle vehicular and pedestrian traffic, within or adjacent to the Contract site. The temporary pavement composition and patching shall conform to the requirements of the jurisdictional agency. Construction, maintenance or removal required by the Contractor's operations off the site shall be included under this article.

## 2.50 POLLUTION ABATEMENT

- a. The Contractor shall by every means possible conduct his 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 vehicles. Trucks arriving and leaving the site with materials shall be loaded so as to prevent dropping materials and debris on the streets. The Contractor shall 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 or erosion 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 work area. The Contractor shall develop methods to control waste and erosion including such means as filtration, settlement and manual removal.
    - (a) The Contractor shall comply with the following:
      - [1] Maryland:
        - [a] Chapter 245 of the Acts of the 1970 General Assembly of the State of Maryland which provides for a statewide erosion and sediment control program in Maryland under the guidance of the Department of Natural Resources.
        - [b] Prior to the start of the applicable earthwork construction the Contractor shall submit schedules for accomplishment of erosion control work in the State of Maryland as are applicable for earthwork under this Contract. No earthwork operations in the State of Maryland shall be started until the Contractor's erosion control schedules and methods of operation have been approved.

(3) Burning: No burning of waste shall be allowed without written permission. When permission is granted, burning shall be conducted in accordance with the regulations of the jurisdictional agency.

(4) Dust control: The Contractor shall by water sprinkling or other approved methods continuously control dust generated by his operations. These methods include but are not limited to:

Enclose the work area with full height dust proof barricades. Do not install barricades until plans for them are approved by COTR.

Cut Work so as not to damage adjacent areas to be maintained operational.

Where physical cutting is required, cut with sawing and grinding tools. Do not cut with hammer and chipping tools. Only wet cutting of concrete block, concrete, and asphalt shall be permitted.

Dust shall be kept down at all times. Use water and adequate ventilation to control dust.

Soil at the site disturbed by the Contractor's operations and materials stockpiled for the project shall be treated with dust suppressors or covered to control dust.

Dry power brooming shall not be permitted. Vacuuming, wet mopping, wet sweeping, or wet power brooming shall be used instead.

Air blowing shall be permitted only for cleaning off non-particle debris, such as that from reinforcing bars.

Sandblasting shall not be permitted.

(5) The Contractor, subcontractors and suppliers must submit evidence to the Authority that the governing air pollution criteria will be met. This evidence and related documents will be retained by the Authority for on-site examination by FTA.

- b. The Contractor shall submit a program for pollution control prior to beginning operations.
- c. Demolition shall be performed in compliance with the requirements of the United States Environmental Protection Agency, National Emission Standards for Hazardous Air Pollutants, Section 112 of the Clean Air Act as amended 42 U.S.C. 1857 et seq. (the Act). This act covers air pollution from asbestos, beryllium, and mercury and requires prior notification to the Agency of intent to demolish a building having these materials and certain precautionary measures during demolition.

d. Clean air and water:

(1) The Contractor agrees as follows:

(a) 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.

- (b) That no portion of the work required by this prime Contract will be performed in a facility listed on the EPA 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.
  - (c) To comply with clean air standards, clean water standards, and the Resource Conservation and Recovery Act (RCRA), at the facility in which the Contract is being performed.
  - (d) To insert the substance of the provisions of this clause into any nonexempt subcontract, including this paragraph.
  - (e) To obtain any necessary waste water discharge permits prior to discharging waste water generated at the work site.
- (2) The terms used in this article have the following meanings:
- (a) 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).
  - (b) 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).
  - (c) 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)).
  - (d) 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).
  - (e) The term compliance means compliance with clean air or water standards and with the Resource Conservation and Recovery Act (RCRA). 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, Water Act, RCRA, and regulations issued pursuant thereto.
  - (f) 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 a 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.

(g) The term RCRA means the Resource Conservation and Recovery Act of 1976.

**2.51 RESTORATION OF EXISTING FACILITIES**

During construction operations on this Contract certain areas currently grassed, landscaped or otherwise improved may be disturbed or damaged. The Contractor shall restore such areas disturbed or damaged by his operations.

**2.52 ACCESS TO ADJACENT PROPERTY**

The Contractor shall conduct construction operations in such a manner as to cause as little inconvenience as possible to owners of property affected by such operations. Convenient access to all property from roads and highways along the line of work shall be maintained. When access to adjacent properties is temporarily cut off due to the Contractor's operations, the Contractor shall render every assistance to provide access to the property and the transfer of commodities, including refuse, to and from the property.

**2.53 PAVEMENT RESTORATION -**

The Contractor shall secure permits from each jurisdictional agency for all pavement restoration within the limits of said agency's jurisdiction. The Contractor shall submit working drawings of such pavement restoration prepared in accordance with the requirements of the Contract Documents and the jurisdictional agency to the COTR for approval by the agency

**2.54 LICENSES**

**2.54.1 CONTRACTOR'S LICENSE**

a. The Contractor, whether resident or nonresident of the state in which the work will be performed, will be required to show evidence of a certificate of registration as required by the following:

- (1) District of Columbia
- (2) Maryland
- (3) Virginia and including any local jurisdictions therein.

**2.55 ENGINEER'S CHANGE HOUSE FACILITY - NOT USED**

**2.56 WORK ON OR UNDER NATIONAL PARK SERVICE LAND - NOT USED**

## **2.57 BASIS OF PAYMENT**

The basis of payment will be based on the breakdown of the Contractor's Total Bid Price as agreed and approved by the COTR and staff. The contractor's work effort and progress will be evaluated on a monthly basis, by the COTR and staff, and paid to the contractor as work is completed up to the Total Bid Price amount; which shall constitute complete compensation for the performance of all work required by the Contract.

## **2.58 QUALITY ASSURANCE & QUALITY CONTROL COMPLIANCE**

### **PART 1 GENERAL**

#### **2.58.1 Quality Management System/Project Specific Quality Management Plan**

- A. This Section specifies the Quality Management System (QMS) that shall be established, documented, maintained, and executed by the Contractor for the length of the contract to ensure that the performed work and services conform to the specified requirements. The selected bid contractor shall establish, document, maintain and execute a QMS which contains a Project Specific Quality Management Plan (PSQMP).
- B. The QMS/PSQMP shall be an executable system of Quality Assurance and Quality Controls that address the elements stated in FTA-IT-90-5001-02.1. The QMS/PSQMP shall follow FTA-IT-90-5001-02.1 (inclusive of all 15 elements) utilizing the FTA Quality Management System Guideline elements as stated in FTA-PA-27-5194-12.1 along with ISO9001:2015(E) and ISO 10013 Standards as guides. As a minimum the QMS 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.
- C. 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.
- D. The QMS/PSQMP shall be established and approved by the Authority prior to implementation.
- E. The contractor shall not perform any services and work until the Authority approves and validates the QMS and PSQMP meets or exceeds FTA-IT-90-5001.02.1 QA/QC guidelines; inclusive of all 15 required elements contained within.
- F. Initial submission and subsequent revisions of the Quality Management Manual and Quality Management Procedures shall require Authority approval. In addition, the execution of the QMS shall authorize the Authority to audit any contractor, subcontractor, consultant and/or supplier any time at the Authority's discretion, throughout the term of the Contract.



- G. The purpose for a QMS/PSQMP requirement is to document how the contractor will execute the work to assure that:
1. Material, equipment, construction, and workmanship are furnished in conformance with the original Contract Design Drawings and Design Specifications Issued for Construction and with all jurisdictional codes and regulations, including the requirement for certification of Americans with Disabilities Act Accessibility Guidelines (ADAAG) regulations compliance submittal at completion of construction by the Contractor. The Contractor's attention is directed to the fact that all projects are subject to FTA assessment for ADAAG compliance.
  2. The work is properly completed, tested, and furnished to the Authority on time as specified in this Contract and WMATA Safety and Security Certification Program Plan.
- H. 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.
- I. Certification of the Contractor to ISO 9001 is not required. However, certain suppliers and manufacturers shall be certified as required in the specifications.
- J. The principal role of the Authority, Quality Assurance, Internal Compliance and Oversight (QICO), will be oversight of the effectiveness and compliance of the Contractor's QMS including the PSQMP, Quality Assurance, quality control, inspections, testing and all processes and procedures therein.  
This notice extends to all subcontractors, consultants and suppliers.
- K. At its sole discretion, the Authority may conduct audits, tests, and inspections in addition to those performed by the Contractor. The Authority reserves the right to attendance and oversight of any audit, inspection, and/or testing performed by the contractor, subcontractor, consultant or supplier.

Any deficiencies discovered shall be documented and presented to the immediate attention of the Contractor including written follow-up notification to the Contractor.

## **2.58.2 Project Specific Quality Management Plan**

**2.58.2.(A)** The PSQMP shall include, at minimum, the following elements and supporting documentation:

### **1. Management Responsibility:**

- 1.A** The Contractor shall define and document a Quality Policy that includes objectives for each specific project and should communicate, implement, and maintain that Policy at all levels of its organization.
- 1.B** The contractor management shall designate a representative, who will have defined authority and responsibility for ensuring that the Quality Management System and Quality Management Plan is established, implemented, maintained, and continually evaluated and improved.
- 1.C** The contractor management shall also identify those persons responsible for the quality assurance functions and shall define, and document the responsibility, authority, and interrelation of those persons.
- 1.D** The contractor Quality Manager shall:
  - i. Have written authority from the contracting Executive to stop work, if necessary, for quality improvement.
  - ii. Have no other assigned duties except to establish, document, implement and maintain the Quality Management System for this contract.
  - iii. 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.
  - iv. Serve as a liaison officer with WMATA and the jurisdictional agencies on matters relating to the Contractor's quality system
  - v. Be responsible for ensuring that the Quality System is effective in ensuring that the Contract Requirements are satisfied.
  - vi. Be responsible for the oversight of onsite and offsite testing by the Contractor, subcontractors and suppliers.
- 1.E** The contractor shall establish, document, execute and maintain an Authority approved Project Specific Quality Management Plan for the successful completion of this project.

### **2. Documented Quality Management System:**

- 2.A** The Contractor shall established, document, maintained, and execute an operational and Authority approved QMS/PSQMP throughout the term of the Contract to ensure project quality objectives are met and satisfied.
- 2.B** The QMS/PSQMP requirements shall extend to the contractors consultants, subcontractors, and suppliers as appropriate.

**3. Design Control:**

- 3.A** During the development of the project's Design Criteria and/or Design Quality Plan, the designer shall insert Quality Assurance and Quality Control provisions and references to the project's Quality Management System within the Design Quality Plan.
- 3.B** The designer shall establish and maintain procedures in the Project Specific Quality Management plan to control and verify the design of the project in order to ensure that the design criteria, specified requirements, and other requirements of the relevant regulatory agencies are met.
- 3.C** Design Control includes ensuring that the design requirements are understood, planning and scheduling the design interfaces and the design verification activities, executing the design verification activities, and controlling design changes through project completion.

**4. Document Control:**

- 4.A** Current version of all documents shall be managed in the Authority's Project Management Software System (PMSS). The database shall be kept current throughout the project schedule of the contract.
- 4.B** The document control measures and procedures shall ensure that all relevant documents are current and readily available to all users who require them.
- 4.C** Electronic document distribution and management shall be managed and documented in the same manner as hard copy distribution and management.
- 4.D** The following rating scale shall be used for all documents and submittals requiring review:
  - i. **Code 1: Approved**..... (work may proceed)
  - ii. **Code 2: Approved as note**..... (notations that do not alter the document:  
i.e..... Grammatical errors.)
  - iii. **Code 3: Revise and resubmit** .....(Do not use until revised and approved)
  - iv. **Code 4: Review and not required** (work may proceed)
  - v. All submittals shall be submitted for approval to the Authority.
- 4.E** The Contractor shall use the Authority's Project Management Software System (PMSS) to identify and manage the current revision of instructions, procedures, drawings, software revision numbers and specifications.

**5. Purchasing:**

- 5.A** The Contractor shall establish documented procedures to ensure that the purchased service(s) or product(s) conforms to the specified requirements of this contract.
- 5.B** The QMS requirements of the prime contractor shall extend to suppliers as appropriate; to include audit schedules for the various phases, elements or segments of the project.
- 5.C** When Authority inspection is required, presented in written notification, the Contractor shall add to the purchasing document the following statement:
- i. **“Authority inspection is required prior to shipment from your plant”.**
  - ii. Upon receipt of this order, promptly notify the Authority’s Representative at the Authority, in writing, so that appropriate planning for Authority inspection can be accomplished.
- 5.D** Purchased material, equipment, and services shall be documented and controlled to ensure that they are properly integrated into the work.
- 5.E** Procedural means shall be included to assure that Contractor sub-consultants, suppliers and subcontractors satisfactorily demonstrate and document an adequate system for managing quality to the Contractor.
- 5.F** The Contractor shall have procedures for providing adequate surveillance of sub consultants, 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 sub consultants, subcontractors and suppliers.

**6. Product Identification and Traceability:**

Procedures shall be established and maintained within the QMS/PSQMP for identifying and controlling items of production (batch, materials, parts, and components) to prevent the use of incorrect or defective items, nonconformance control, perform effective corrective action(s) and to ensure that only correct and acceptable items are used or installed.

**7. Process Control:**

- 7.A** Suppliers and contractors shall establish procedures which identify and plan the production and installation processes that directly affect quality and shall ensure these processes are performed under controlled conditions.
- 7.B** Special processes, the results of which cannot be verified by subsequent inspection and testing of the product, shall be continuously monitored and documented.
- 7.C** The contractor shall ensure that any activities related to the expectations of the Authority or other involved agencies are carefully monitored and controlled by identifying and documenting any necessary specification(s) and determining a method to verify that they are met.

**8. Inspection and Testing:**

- 8.A** Inspection and testing procedures shall be established, planned and executed as necessary to verify quality.
- 8.B** Procedures shall be specified, documented, implemented, and the results documented for receiving incoming products, and for final inspection and testing.
- 8.C** Testing shall be included, where appropriate, in the specifications; including references to testing procedures, frequency and location, requirements for witnessing of tests and necessary "hold points", and where factory inspection and/or testing is recommended prior to shipping.
- 8.D** Procedures shall be established to show as part of any test plan for, specifications, tolerances, type of test, applicable standard, how the tests are to be conducted, recorded and completion status.
- 8.E** The contractor shall develop, document and implement subcontractor quality oversight; including inspection and testing required by the Contract Documents.
- 8.F** Daily Quality Reports shall be provided to the Authority that summarizes the construction activities, record the inspections and tests completed and associated results, and record deficiencies identified during the previous 24 hours.
- 8.G** The inspection and Test Plans shall include the following:
- i. A matrix of all tests required by the Contract Documents to be performed by Contractor, suppliers, or subcontractors.
  - ii. Samples of test reports (documentation to be used) – the test reports are to meet the minimum requirements called for in the applicable test standards or specifications.
  - iii. Provisions for coordinating onsite and offsite testing.
  - iv. Provisions for meeting the Authority notification criteria for planned tests and inspections specified to be witnessed by the Authority. Provided the Authority a minimum of 14 calendar days advance notice.
  - v. Test Plans shall delineate the specific inspections and tests required to assure that characteristic design and Contract requirements of structures, components and systems are fully complied with.

**9. Inspection, Measuring, and Test Equipment:**

- 9.A** Contractor shall establish documented inspection, measuring, and test equipment procedures and processes to identify, control, calibrate, and maintain inspection, measuring, and test equipment in order to demonstrate the conformance of work to the specified requirements.
- 9.B** Documented procedures and records shall be made for recalibration of such equipment in a timely manner and documented in the QMS.
- 9.C** A schedule of testing equipment that needs periodic and regularly scheduled recalibration shall be required of the sub-contractor(s) and be checked by the contractor(s) QA personnel.
- 9.D** All contractor(s), subcontractor, consultant or supplier testing equipment shall be calibrated prior to its use on the project.

**10. Inspection and Test Status:**

Means and procedures shall be established and provided for identifying the inspection and test status of work during production and installation. The purpose of this is to ensure that only work that has passed the required and testing is accepted.

**11. Nonconformance:**

**11.A** Procedures shall be established and maintained for the immediate control of nonconforming work, in order to ensure that such work is not inadvertently used or installed.

**11.B** Nonconforming work shall be identified, documented, and evaluated to determine appropriate disposition and immediately reported to the Authority, Office of Quality Assurance & Warranty.

**12. Corrective Action:**

**12.A** Corrective action procedures shall be established, documented, and maintained throughout the term of the project.

**12.B** These procedures shall include directions for investigation of the root cause of nonconforming work and the corrective active needed to prevent recurrence, and procedures for analysis to detect and eliminate potential causes of nonconforming work.

**12.C** Qualified Authority personnel shall verify and document that the corrective action has been accomplished.

**12.D** The contractor shall determine and document preventive action to eliminate the causes of potential nonconformance(s) in order to prevent their occurrence and shall submit such documentation to the Authority for review.

**12.E** The contractor shall implement and document all changes in procedures resulting from preventive action, corrective action, and continual improvement initiatives.

**12.F** If the corrective action cannot be performed within the 30 days, immediate notification to the Authority shall be made in writing.

**13. Quality Records:**

**13.A** Procedures shall be established, documented and maintained for all quality records and security of those records throughout the length of the project.

**13.B** Quality Record procedures shall identify which records should be kept, responsibility for production and collection, and responsibility for indexing, filing, storage, maintenance, and disposition of quality records.

**14. Quality Audits:**

- 14.A** A Quality audit program shall be established, documented and maintained to ensure that the elements of the QMS and PSQMP are functioning as intended.
- 14.B** Procedures for the audit schedule shall be established, documented and maintained for each required element, phase, test, consultant(s), sub-contractor, and supplier(s), as appropriate.
- 14.C** Internal Quality Audits shall be performed at least quarterly.
- 14.D** The contractor shall immediately provide the audit results to the Authority Representative and complete required corrective actions within 30 days of the audit. If the corrective action cannot be performed within the 30 days, immediate notification to the Authority shall be made in writing.

**15. Training:**

- 15.A** Procedures shall be established and documented to ensure all training documentation, to include but not limited to, operational manuals, technical manuals, manufacturer documentation, drawings, and technical specifications are delivered to the Authority prior to final payment. Delivery of the above mentioned documents shall be in the form of hard-copy and electronic format.
- 15.B** The contractor shall provide Authority trainers all necessary training to ensure full understanding and operational knowledge of the products(s), service(s) and systems(s).

**2.58.2.(B) Quality Assurance Standards applicable to the work include the following:**

- 1. FTA Quality Management System Guidelines **FTA-PA-27-5194-12.1**
- 2. FTA Quality Assurance & Quality Control Guidelines **FTA-IT-90-5001-02.1**
- 3. ISO 9001:2015(E): Quality management systems.
- 4. ISO 10013 – Guidelines for Developing Quality Manuals.

**2.58.2.(C) Definitions:**

For definitions regarding quality used in this clause 2.58, refer to FTA Quality Management System Guidelines - **FTA-PA-27-5194-12.1**

**2.58.3 PROGRAM REQUIREMENTS:**

- A. Roadway Worker Protection Manual (RWP)
- B. Metrorail Safety Rules and Procedures Handbook (MSRPH)

**2.58.4 PROGRAM REQUIREMENTS:**

- A. During the term of the Contract, the Contractor shall exercise positive control over all of the work, including that of sub consultants, subcontractors, fabricators, manufacturers, installers, and suppliers (suppliers and subcontractors) in accordance with the Quality Manual and Quality Procedures described in an approved Contractor Quality Management System.
- B. In addition to the QMS and PSQMP, the contractor shall develop, implement and update any plan that fundamentally impacts the satisfactory execution of work or production. These plan(s) shall supplement and shall be integral components of the QMS and PSQMP; to be added to the PSQMP within 10 business days of plan approval.

**2.58.5 OVERVIEW OF PROPOSED QUALITY MANAGEMENT SYSTEM:**

For the purpose of pre-qualification only, bidders shall submit a previously utilized QMS/PSQMP from a past, similar, project that was modeled on as one of the following:

- FTA Quality Management System Guidelines **FTA-PA-27-5194-12.1**
- FTA Quality Assurance & Quality Control Guidelines **FTA-IT-90-5001-02.1**
- ISO 9001:2015(E): Quality management systems.  
Or similar quality control systems(s).

This shall be submitted with the Pre-Award Qualifications.



**2.58.6 SUMMARY OF SUBMITTALS: Quality Management System**

**All reports submitted “must” be one (1) Original & one (1) Electronic Copy**

1.	Finalized Quality Management System (Quality Manual & Quality Procedures)	NTP plus 30 calendar days & when revised
2.	Finalized Project Specific Quality Management Plan	NTP plus 30 calendar days & when revised
3.	Daily Quality Reports	(Daily)
4.	Summary of Management Review	Monthly during the first six (6) months after NTP; no less than quarterly thereafter
5.	Review and Disposition of Nonconforming Product	(as occurring)
6.	Report of Audit Results including sub/supplier Audits	
7.	Report of Completion of Corrective Actions. <i>If the corrective action cannot be performed within the 30 days, immediate notification to the Authority shall be made in writing.</i>	Within 30 days of an audit
8.	Statement of Compliance Quality Certification for Payment Verification	Included with each payment request
9.	Inspection and Test Plans	
	Civil & Structural Work	NTP plus 60 calendar days for Civil and Structural work,
	Others	Minimum thirty (30) calendar days in advance of the covered work scheduled to start.

**2.58.7 QUALITY MANAGER**

- A. The Contractor shall provide a full-time Quality Manager.  
 The Quality Manager shall be trained as a Lead Auditor through an approved certification agency (RAB, ASQ, etc...) and shall have 10 years of related experience including 5 years of management positions in a production, manufacturing, or construction environment and experience in QA/QC auditing.
- B. In the event that the Quality Manager is not found to be competent or to have sufficient relevant experience, the Authority will request that the Quality Manager be removed from the project. In the event, the Contractor shall submit a new candidate for consideration within ten (10) calendar days by submitting a resume.

- C. In addition to the Quality Manager, the Contractor shall assign additional trained and experienced staff to fulfil Contract and Contractor requirements for meeting quality. The contractor shall provide sufficient resources to effectively manage quality related functions including the following:
1. Quality Management System Administration
  2. Document Review and Control
  3. Construction Quality
  4. Subcontractor Quality
  5. Oversight of Quality Control
  6. Configuration Management
  7. Inspection & Testing

#### **2.58.8 CONTRACT DATA REQUIREMENTS LIST (CDRL)**

- A. The contract data requirements list (CDRL) is a list of authorize data requirement for a specific procurement that forms a part of the contract. CDRLS identify the data and documentation products that shall be formally delivered by the Contractor to the Authority for approval.
- B. The contractor shall be responsible for submitting CDRL's within ninety (90) days of award of contract based on the Scope of Work (SOW).

#### **2.58.9 STATEMENT OF COMPLIANCE QUALITY CERTIFICAITON FOR PAYMENT CERTIFICATION**

- A. The contract shall provide the original and six (6) paper copies and an electronic copy of an approved QA/QC Manager's Statement of Compliance Quality Certification with each pay request stating that the PSQMP has effectively ensured that the items requested for payment have been designed or constructed to meet the design requirements, and/or have been inspected and tested as required to comply with Contract requirements including those of the PSQMP.
- B. Work for which satisfactory records for design, drawings, testing, inspection, or other quality elements are not available shall not qualify for payment.

**PART 2 PRODUCTS [Not Applicable]**

**PART 3 EXECUTION**

**2.58.9 EXECUTION**

**A. QUALITY SYSTEM**

The Contractor will submit and execute a Quality Management System and the executable Plans as prescribed in this Section.

**B. QUALITY SYSTEM MANAGER AND OTHER RESOURCES**

1. The Contractor shall appoint a Quality System Manager. The Quality System Manager shall be a degreed engineer, trained as a Lead Auditor in a RAB approved course to the requirements of ISO 9000:2000; and shall have 10 years of related experience including 5 years of management positions in a production, manufacturing, or construction environment and experience in QA/QC auditing
2. The Quality System Manager shall:
  - a. 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.
  - b. Serve as a liaison officer with WMATA and the jurisdictional agencies on matters relating to the Contractor's quality system
  - c. Be responsible for ensuring that the Quality System is effective in ensuring that the Contract requirements are satisfied.
  - d. Be responsible for the oversight of onsite and offsite testing by the Contractor.
  - e. In the event that the Quality System Manager is not found to be competent or to have sufficient relevant experience, the Authority will request that the Quality System Manager be removed from the project pursuant to Section 00710, PROJECT MANAGEMENT, SUPERINTENDENT AND KEY PERSONNEL. In that event, the Contractor shall submit a new candidate for consideration within 10 calendar days by submitting a resume.

3. In addition to the Quality System Manager, the Contractor shall assign additional trained and experienced staff to fulfill Contract and Contractor requirements for meeting quality. The Contractor shall provide sufficient resources to effectively manage quality related functions including the following:
  1. Quality Management System Administration
  2. Design Quality
  3. Construction Quality
  4. Subcontractor Quality
  5. Oversight of Quality Control
  6. Configuration Management

**C. AUTHORITY QUALITY OVERSIGHT**

1. 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. However, the Authority reserves the right to conduct inspection of all phases of design of the Designer of the Contractor and onsite construction work activities of the Builder of the Contractor and subcontractors by Authority field staff. Any deficiencies discovered shall be brought to the immediate attention of the Contractor including written follow-up notification to the Contractor.
2. At its sole discretion, the Authority may conduct audits, tests, and inspections in addition to those performed by the Contractor. The Office of Quality Assurance and Warranty shall conduct the necessary audits and oversight activity for this project.

**2.58.10 QUALITY MANAGER AND OTHER RESOURCES**

- A. The Contractor shall appoint a full-time Quality Manager. The Quality Manager shall be a degreed engineer, trained as a Lead Auditor in a RAB approved course to the requirements of ISO 9000; and shall have 10 years of related experience including 5 years of management positions in a production, manufacturing, or construction environment and experience in QA/QC auditing.
- B. The Quality Manager shall:
  1. Have no other assigned duties except to establish, implement and maintain the Quality Management System for this contract.
  2. 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
  3. Serve as a liaison officer with WMATA and the jurisdictional agencies on matters relating to the Contractor's quality system
  4. Be responsible for ensuring that the Quality System is effective in ensuring that the Contract requirements are satisfied.
  5. Be responsible for the oversight of onsite and offsite testing by the Contractor.

- C. In the event that the Quality Manager is not found to be competent or to have sufficient relevant experience, the Authority will request that the Quality Manager be removed from the project. In that event, the Contractor shall submit a new candidate for consideration within ten (10) calendar days by submitting a resume.
- D. In addition to the Quality Manager, the Contractor shall assign additional trained and experienced staff to fulfill Contract and Contractor requirements for meeting quality. The Contractor shall provide sufficient resources to effectively manage quality related functions including the following:
  - 1. Quality Management System Administration
  - 2. Construction Quality
  - 3. Subcontractor Quality
  - 4. Oversight of Quality Control
  - 5. Configuration Management
  - 6. System Testing

#### **2.58.11 AUTHORITY QUALITY OVERSIGHT**

- A. The principal role of the Authority in the implementation of the Contractor Quality Program will be oversight of the effectiveness of the Contractor's Quality Management System including quality control and quality assurance activities. However, the Authority reserves the right to inspect onsite construction work activities of the Contractor and subcontractors by Authority field staff. Any deficiencies discovered shall be brought to the immediate attention of the Contractor including written follow-up notification to the Contractor.
- B. At its sole discretion, the Authority may conduct audits, tests, and inspections in addition to those performed by the Contractor.
- C. When the Authority determines that the approved Quality Management System or Plans, or any portion or feature thereof, is not controlling work sufficiently for the work to conform to Contract standards, the Contractor shall take appropriate action to correct such deficiencies. The COTR may stop the work activities if the Quality Management System is not working due to lack of Contractor's staff or for any other Contract non-compliance.
- D. 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.
- E. When Authority inspection is required, the Contractor shall add to the purchasing document the following statement:

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

**2.58.12 AUDITS OF THE CONTRACTOR'S QUALITY PROGRAM**

- A. 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. 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 at the appropriate percentage for any and all work it deems to be deficient or nonconforming to the Contract Documents, approved Final Design Specifications, approved Final Design Drawings, and/or appropriate standards. The Contractor will be expected to make whatever changes are necessary in the organization or in the Contractor Quality Management System to provide effective control of the quality of the work.
- B. 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 Contractor Quality Management System and the Contract Documents and Final Design Drawings and Final Design Specifications Issued for Construction.

**2.58.13 INSPECTION AND TESTING PROGRAM**

- A. The Inspection and Test programs shall be designed by the Contractor to assure that testing is performed to demonstrate that systems or components perform satisfactorily in service. Testing shall be performed by qualified and experienced personnel in accordance with approved test procedures. These procedures shall incorporate acceptance limits defined by industry codes and standards or by the Specifications; the more restrictive standard shall take precedence. All test results shall be documented and submitted to the Authority for review.
- B. Inspection and test equipment shall be controlled and maintained in serviceable condition and within correct calibration with primary standards traceable to the NIST, or an approved alternative, shall be maintained. The system shall assure the accuracy of equipment and tools used to support this procurement.
- C. Subcontractors testing their own work shall be supervised and managed by the Contractor. Overall, responsibility for testing and subcontractor performance remains with the Contractor.
- D. If tests or certifications conducted by the Authority disclose that work is not in conformance with the Contract Documents and Final Design Drawings and Final Design Specifications Issued for Construction, then the Authority will advise the Contractor as to the particular defects to be remedied. Upon correction of the defects, Contractor shall provide written notification to the COTR 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 Contract Documents and Final Design Drawings and Final Design Specifications Issued for Construction, the Contractor shall provide details on the preventive action taken consistent with the requirements of ISO 9001; Article 4.14 and the Contractor's approved Quality Management System.

**2.58.14 STATEMENT OF COMPLIANCE QUALITY CERTIFICATION FOR PAYMENT  
ERIFICATION**

The Contractor shall provide the original and six (6) paper copies and an electronic copy of an approved QA/QC Manager's Statement of Compliance Quality Certification with each pay request stating that the Quality System has effectively ensured that the items requested for payment have been designed or constructed to meet the design requirements, or have been

inspected and tested as required to comply with Contract requirements including those of the Quality Management System. Work for which satisfactory records for design, testing, inspection or other quality elements are not available shall not qualify for payment.

**2.59 EXISTING SURFACES**

- a. Existing surfaces shall be carefully protected during placing of concrete and other operations under this Contract to avoid damaging existing surfaces.
- b. Existing surfaces marred or damaged by operations under this Contract shall be repaired or replaced by the Contractor as directed and at no additional cost to the Authority.
- e. The Contractor shall maintain precast concrete protective coverings, if provided under a previous contract, from the completion of the previous contract to the completion of this Contract, at which time he shall remove and dispose of the precast concrete protective covering.

**2.60 EMBEDDED ITEMS**

When reinforcing steel or other items embedded in the concrete are encountered in a drilling or coring operation, the operation shall be stopped. The COTR shall be notified and determination made by him whether the embedded item may be cut through. If it is not permissible to cut through the embedded item, the holes shall be drilled in another location and the original holes patched to the COTR's satisfaction.

**2.61 PROTECTIVE DEVICES**

- a. General requirements:
  - (1) Wherever necessary, shown or specified, the Contractor shall erect and maintain signs, fences, barricades and pedestrian bridges and provide watchmen for the protection of public travel, the work site, adjoining property and adjoining public places.
  - (2) The Contractor shall take positive measures to prevent entry into the site of the work and storage areas by children, animals and unauthorized adults and vehicles.
  - (3) Protective devices shall be in accordance with the regulations of the jurisdictional agencies.
- b. Fences - Not Used
- c. Barricades - The Contractor shall provide and maintain during the stinger installation a fall warning device system along all adjacent shop floor pits.

**2.62 WORKING AREA WOODEN FENCING - NOT USED**

**2.63 AUTHORITY-FURNISHED PROPERTY - NOT USED**

**2.64 SPARE PARTS**

- a. This Contract includes the requirement for spare parts, either specifically identified in the unit price schedule or to be identified later during the term of the Contract. The Contractor shall assure that all spare parts required by this Contract are provided and delivered in accordance with the following paragraphs.
- b. The Contractor shall submit to the Engineer a list of required spare parts either specifically identified in the unit price schedule or later identified by the Authority in accordance with a separate provision of this Contract. The list provided by the Contractor shall include model numbers, part numbers, component name, manufacturer's name, price, quantities, available packaging, special storage and handling requirements, and anticipated annual usage. In addition, the spare parts listing will include the following additional information as appropriate:
  - (1) Group the list by system and subsystem for stocking identification. Include order and procurement information for subassemblies and components.
  - (2) Correlate the required quantities with the reliability requirements and lead time considering the following classifications:
    - (a) Wear: Components which may be expected to require regular replacement under normal maintenance schedule and operations, such as mechanical parts subject to continuous operation within projected mean time between failure levels.
    - (b) Consumables or expendables: Components which are consumed, used up, destroyed or, upon failure, are otherwise made unusable for their intended purpose and are economically unrecoverable except for inherent scrap value.
    - (c) Recoverable or repairable: Components which, upon failure, are capable of being repaired or remanufactured to a serviceable, operational condition and maintained available for use within their initial intended purpose. Such items should be accounted for via appropriate asset records.
    - (d) Long lead: Components which are not available at short notice from commercial distributors or within 48 hours from the manufacturer, such as specially made or selected components.
    - (e) Cross referencing: Where replacement components are common to more than one system or subsystem, include a cross reference and indexing system in the replacement components list.
    - (f) Non-unique parts: In all components lists, items which are not unique to the system and have been manufactured by others shall be identified by the manufacturer's name and part number, as well as by the proposer's component number, if any.



- c. Within 30 days after the Contractor submits the required spare parts listing, the Engineer will provide the Contractor with shipping instructions and with WMATA stock numbers for each item the Contractor is required to furnish. The Contractor agrees to ship the required parts to the destination points specified by the Engineer and to include the Contract number, manufacturer part number, quantity, unit price, and WMATA part number on the shipping document.
- d. The identification of the individual manufacturer's part numbers will be cross referenced to the assigned WMATA stock numbers by including a column with appropriate heading adjacent to the manufacturer's part numbers in any parts manual or listing provided in accordance with paragraph b. above.
- e. Parts furnished in accordance with this provision shall not be used to satisfy replacement needs under any warranty provision of this Contract.
- f. Spare parts will be the same in all respects as their counterparts furnished as part of the assembled equipment to be delivered under the terms of this Contract.
- g. Unless otherwise specified in this Contract, the spare parts are to be delivered at the same time as the counterpart equipment delivery. The spare parts are to be properly packaged or crated so as to prevent damage during shipment and long term storage. The spare parts will be labeled in accordance with the instructions contained in paragraph c. above.

**2.65 RELIABILITY – NOT USED**

**2.66 CORRECTION OF DEFICIENCIES**

- a. Definitions: As used in this Article:

- (1) Deficiency:

- (a) 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 24 months following final acceptance by the Authority.
- (b) Systems or subsystems will be regarded as having a deficiency if they exhibit any condition or characteristics which are not in compliance with the requirements and intent of this Contract anytime during a period extending for 24 months following their final acceptance by the Authority.

- (2) Correction:

- (a) 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 Engineer.
- (b) 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 Engineer.

b. General:

- (1) The rights and remedies of the Authority provided in this Article:
  - (a) Shall not be affected in any way by any other provisions under this Contract concerning the conclusiveness of inspection and acceptance; and
  - (b) Are in addition to and do not limit any rights afforded to the Authority by any other article of this Contract.
- (2) This Article shall apply only to those deficiencies discovered by either the Authority or the Contractor within 24 months after acceptance.
- (3) The Contractor shall not be responsible under this Article 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.
- (4) The Contractor shall not be responsible under this Article for the correction of deficiencies caused by the Authority.

c. Deficiencies of accepted materials, equipment, systems or subsystems:

- (1) Notice of deficiency to Contractor: If the Contracting Officer determines that a deficiency exists in any of the materials, equipment, systems or subsystems provided the Authority under this Contract, he shall promptly notify the Contractor of the deficiency, in writing, within 30 days.
- (2) 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 Contracting Officer his recommendation for corrective actions, together with supporting information in sufficient detail for the Contracting Officer to determine what corrective action, if any, shall be undertaken. The recommendation shall be submitted to the Contracting Officer within 15 working days of discovery or receipt of notice of the deficiency.
- (3) 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 his sole discretion, shall 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.

- (4) Correction of deficiencies by Contractor: The Contractor shall promptly comply with any timely written direction 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 data and reports applicable to any correction required under this Article (including revision and updating of all other affected data called for under this Contract) at no increase in the Contract price.
  - (5) Schedule of deficiency corrections: The Contractor shall prepare Schedule of Deficiency Corrections and deliver it to the Authority for approval within 15 working days of discovery of deficiency by the Contractor or receipt of notice of discovery of a deficiency by the Authority.
  - (6) 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 within 15 working days, a technical and cost proposal to amend the Contract 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.
- d. Deficiencies in materials, equipment, systems or subsystems: If the Contractor becomes aware at any time before acceptance by the Authority (whether before or after tender to the Authority) that a deficiency exists in any materials, equipment, systems or subsystems, he shall promptly correct the deficiency or, if he elects to invoke the procedures in Paragraph c. above, he shall promptly communicate information concerning the deficiency to the Contracting Officer, in writing, together with his detailed recommendation for corrective action.
- e. No extension in time for performance; no increase in Contract price:
- (1) In no event shall the Authority be responsible for extension or delays in the schedule 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 period of performance as a result of such correction of deficiencies, except as may be agreed to by the Authority in a supplemental agreement with adequate consideration.
  - (2) It is hereby specifically recognized and agreed by the parties hereto that this Article shall not be construed as obligating the Authority to increase the Contract price of this Contract.
- f. Transportation charges:
- (1) When the Authority returns supplies to the Contractor for correction or replacement pursuant to this Article, 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 by (2) below. The Contractor shall also bear the responsibility for the supplies while in transit.

- (2) When compliance with the terms of this Article 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 by (1) above. The Contractor shall also bear the responsibility for the supplies while in transit.
- g. Failure to correct: If the Contractor fails or refuses to (1) present a detailed recommendation for corrective action in accordance with c. above, (2) correct deficiencies in accordance with c.(3) above, or (3) prepare and furnish data and reports in accordance with Paragraph c.(4) above, the Contracting Officer shall 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:
- (1) Obtain detailed recommendations for corrective action;
  - (2) (a) Correct the materials, equipment, systems or subsystems, or
    - (b) 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; and
  - (3) Obtain applicable data and reports; and charge to the Contractor the cost occasioned to the Authority thereby.
- h. Correction of deficient replacements and reperformances: Any materials or equipment corrected or furnished in replacement and any systems or subsystems revised pursuant to this Article shall also be subject to all the provisions of the Contract to the same extent as materials, equipment, systems or subsystems initially accepted, i.e., for a new 24-month period.
- i. 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.

j. Warranties:

1. The Contractor shall remedy at his own expense any failure of the work for a period of **one year** to conform to Contract Specifications and any defect of material, workmanship, or design in the work, but excluding any defect of any design furnished by the Authority under the Contract, provided that the CO or the COTR gives the Contractor notice of any such failure or defect promptly after discovery but not later than two years after final acceptance of the work, except that in the case of defects or failure in part of the work of which the Authority takes possession prior to final acceptance, such notice shall be given not later than two years from the date the Authority took such possession. The Contractor, at his own expense, shall also remedy damage to equipment, the site, or the buildings or the contents hereof which is the result of any failure or defect, and restore any work damaged in fulfilling the terms of this Article. Should the Contractor fail to remedy any such failure or defect within a reasonable time after receipt of notice thereof, the Authority shall have the right to replace, repair or otherwise remedy such failure or direct at the Contractor's expense. This Warranty shall not delay final acceptance of or final payment for the Contract work.
2. The COTR shall perform a Substantial Completion Inspection (SCI) by Construction Phase. The warranty shall be applied by phase commencing with the SCI date by phase.
3. All subcontractor's, manufacturers' and suppliers' warranties and guarantees, expressed or implies, respecting any part of the work and any materials used therein shall be deemed obtained and shall be enforced by the Contractor as the agent and for the benefits of the Authority without the necessity of separate transfer or assignment thereof; provided that, if directed by CO, the Contractor shall require such subcontractors, manufacturers and suppliers to execute such warranties and guarantees in writing to the CO or the COTR.
4. Any work repaired or replaced pursuant to this Article shall also be subject to the provisions of this Article to the same extent as work originally performed, the rights and remedies of the Authority provided in this Article are in addition to and do not limit any rights afforded to the Authority by any other article of this Contract.

**2.67 CLEANING UP**

In addition to and in accordance with the requirements of the General Provisions, the Contractor shall accomplish the following:

- a. Clean up each work site and surrounding area at the end of each work day or work shift as directed, and secure equipment and materials so as to prevent safety hazards and to permit normal movement of passengers and Authority personnel on and along the station platform area.
- b. Ensure that the track drains and the trainway, consisting of trackbed and adjacent areas, remain continuously free of debris and other foreign matter.
- f. Take all necessary steps to ensure that public areas are entirely free of obstructions, tools, debris, etc., at all times during their use by the public.
- g. Dispose of removed materials off site in accordance with regulations of federal, state and/or local jurisdictional agencies as applicable.

## 2.68 CONTRACTOR'S QUALIFICATIONS

- a. In addition to the Bidder's Qualifications outlined in the Solicitation Instructions, the Contractor and/or its subcontractor(s) shall have performed at least three contracts of similar scope to these specified in Section 3 of the Technical Provisions within the past five years. The degree of difficulty of these projects must at least be equal to the scope of work outlined in this contract. The Contractor must show that he was the principal contractor for this work.
- b. Personnel: The contractor shall submit a list of the supervisory personnel that supervised the above projects. The contractor must also furnish the COTR with a list of personnel that will supervise the contract. Must have an approved individual, present for all shifts, with experience working on signaling circuits, in operating transit or railroad equipment rooms.

## 2.69 TIME EXTENSIONS DUE TO AUTHORITY ACTIONS

(NOTE: This provision is supplemental to General Provision Article 1.5 TERMINATION FOR DEFAULT, DAMAGES FOR DELAY AND TIME EXTENSIONS)

- a. The possibility exists that interruptions to work may occur, both scheduled and unscheduled, at the Authority's convenience, or specific direction, for operational or emergency reasons during contract performance. Such interruptions include, but are not limited to: access delays, power outages, equipment failure. For the purpose of determining whether or not such delay, if any, should result in an extension to the final completion date, two (2) types of delay will be recognized as follows:
  - (1) An Access Delay, defined as any recorded instance of contractor inability to enter a scheduled station location due to Authority action at the beginning of a work shift which the Contractor had scheduled and the COTR approved. In order to be recognized, any such delay must be of a continuous nature with a duration of not less than 30 minutes, and must be mutually agreed to by the Contractor and the COTR.
  - (2) A Work Stoppage Delay, defined as any recorded instance of Authority-directed or controlled delay (not including stop work orders issued for Safety or Work Quality problems as permitted by the Contract) to the actual work performance of the contractor during the period of work in and around the immediate work area during the work hours which the Contractor had scheduled and the COTR approved. In order to be recognized, any such work stoppage must be of a continuous nature with a duration of not less than 30 minutes per instance, and must be mutually agreed to by the Contractor and the COTR.
- b. An extension to the final completion date, as applicable, of one (1) day will be granted for each recognized instance of Access Delay combined with Work Stoppage Delay which has a cumulative impact of 90 minutes for work performed on Weekdays. The maximum time extension per week is seven (7) calendar days.

- c. If concurrent work will be performed at more than one station location on any given workday and that recognized delays could occur at more than one work location, a time extension will not be allowed for such concurrent delay. That location with the greatest amount of recognizable delay per day will be used to determine the applicable time extension, if any, with the following conditions:
- (1) Access Delay and Work Stoppage Delay of the greatest continuous duration will only be recognized at one location per day of work performance.
  - (2) Access Delays and Work Stoppage Delays will be cumulative within the workweek in which they occur, with the exception that concurrent delays will not be recognized for more than one location per day of work performance.
  - (3) Each recognized instance of Work Stoppage Delay will be applied to the cumulative total.
- d. Administration of these time extensions, if any, will be as follows: As stated under Section b. cumulative recognized instances of Access Delay shall total 120 minutes (in increments of 30 minutes or more) in order to be considered for a time extension. The Contractor shall submit his claim, if any, to the COTR on a weekly basis. Carryover, if any, will not be applied to the subsequent period for determination of time extension.

## **2.70 PROJECT MANAGEMENT SOFTWARE SYSTEM**

The Contractor shall use the Authority's internet based project management software system for submitting, reviewing and tracking documents of this Contract, The system is provided and administered by the Authority and is currently called "Procore".

The Contractor shall use this internet, web based project management software system to manage all the documents issued to the Authority. This system was selected by the Authority and is designed to address the record keeping and communications requirements for the Authority's contracts, including this Contract.

The Contractor is encouraged to include this requirement in contracts with its subcontractors to facilitate the flow of documentation. If a subcontract is executed without this requirement it shall not relieve the Contractor's obligation to the Authority.

1. The Authority retains control and ownership of the system's database during the duration and upon completion of the Contract.
2. The Contractor shall, at no additional cost to the Authority, provide the necessary equipment and services at the Contractor's facilities to actively participate in the above mentioned internet based project management software system.

As a minimum, this requirement shall include:

- a. All hardware to operate the system at the Contractor's facilities.
- b. The necessary telephone or other data lines to connect the hardware to the internet at the Contractor's facilities [a Digital Subscriber Line (DSL) is the minimum recommended for optimum performance];

- c. An internet service provider for access by the Contractor's personnel to the Web site of the internet based project management software system; and
  - d. The necessary project personnel to participate.
3. The Authority will provide informal training to Contractor's key project personnel in using the internet based project management software system. Training will be provided at the Authority's location that will be determined after the Contract award. The number of individuals that will be trained shall be limited to only those Contractor's employees who will actively participate in the system.
4. The Authority reserves the right during the period of this Contract to expand the data that is to be entered into the internet based project management software system for document control.

#### **2.71 PRE-INSTALLATION MEETINGS**

- a. When required in individual Specification Sections, convene pre-installation meetings at the Project Site before starting the Work of those specific Sections.
- b. Require attendance of the parties directly affecting, or affected by, the Work of specific Section.
- c. Notify the COTR 4 days in advance of the pre-installation meeting date.
- d. Prepare a meeting agenda for and preside over the pre-installation meeting.
  - (1) Review conditions of installation, preparation, and installation procedures.
  - (2) Review coordination with related Work.
- e. Notify the COTR 4 days in advance of the pre-installation meeting date.
- f. Record minutes and distribute copies to participants within 2 days after the pre-installation meeting, with 2 copies each to the Engineer, Owner, and those affected by decisions made.

#### **2.72 PRODUCT WARRANTIES**

- a. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers within 10 days after completion of the applicable item of Work.
- b. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.
- c. Verify the documents are in the proper form, contain full information, and are notarized.
- d. Co-execute submittals when required.
- e. Include a table of contents, and assemble the documents in a three D side ring binder with a durable plastic cover.
- f. Submit the warranties and bonds to the COTR prior to the final Application for Payment.
  - (1) For equipment or component parts of equipment put into service during construction with the Owner's permission, submit warranty and bond documents within 10 days after acceptance.



- (2) For equipment or component parts of equipment other than those put into service during construction with the Owner's permission, submit warranty and bond documents within 10 days after the date of final substantial completion, but prior to the final Application for Payment.

For items of Work for which acceptance is delayed beyond final substantial completion, submit warranty and bond documents within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty or bond period.

### **2.73 PRODUCT SUBSTITUTION PROCEDURES**

- a. The Contract is based on products and standards established in the Contract Documents without consideration of proposed substitutions.
- c. The products specified define the standard of quality, type, function, dimension, appearance, and performance required.
- d. Substitution proposals are permitted for specified products except where specified otherwise.
- (1) Do not substitute products unless the substitution has been accepted and approved in writing by the COTR.
- e. The COTR will consider requests for substitutions only within 15 days after date of execution of the Owner-Contractor Contract Agreement.
- f. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- g. Document each request with complete data, substantiating compliance of the proposed substitution with the requirements of the Contract Documents, including:
1. The proposed substitution's manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
  2. Itemized point-by-point comparison of the proposed substitution with the specified product, listing variations in quality, performance, and other pertinent characteristics.
  3. Reference to the Article and Paragraph numbers in Specification Section.
  4. Cost data comparing the proposed substitution with the specified product, and the amount of net change to the Contract Price.
  5. Changes required in other Work.
  6. Availability of maintenance service, and the source of replacement parts as applicable.
  7. Certified test data to show compliance with the performance characteristics specified.
  8. Samples when applicable or requested.
  9. Other information as necessary to assist COTR's evaluation.

- h. A request constitutes a representation that the Offeror or Contractor:
- (1) Has investigated the proposed product, and determined that it meets or exceeds the quality level of the specified product.
  - (2) Will provide the same warranty for substitution as for the specified product.
  - (3) Will coordinate the installation, and make changes to other Work that may be required for the Work to be complete with no additional cost to Authority.
  - (4) Waives claims for additional costs or time extension that may subsequently become apparent.
  - (5) Will coordinate the installation of the an accepted substitute, making such changes as may be required for the Work to be complete in all respects.

Will reimburse the Authority for review or redesign services associated with re-approval by the Authorities Having Jurisdiction.

- i. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without a separate written request or when acceptance will require revision to the Contract Documents.
- j. Substitution Submittal Procedure:
1. Submit requests for substitutions on the form attached to end of this Article.
  2. Submit 3 copies of each Request for Substitution for consideration.
    - (a) Limit each request to one proposed substitution.
  3. Submit Shop Drawings, Product Data, and certified test results attesting to the proposed product equivalence.
    - (b) The burden of proof is on the proposer.
  4. The COTR will notify the Offeror or Contractor in writing of the decision to accept or reject each substitution request.

<b>REQUEST FOR SUBSTITUTIONS FORM</b>				
<b>PROJECT:</b> _____	<b>DATE:</b> _____			
<b>LOCATION:</b> _____				
<b>PROJECT NO.:</b> _____	<b>SUBSTITUTION REQUEST NO.:</b> _____			
<b>RE:</b> _____				
SPECIFICATION SECTION(S) / DRAWING(S) TO WHICH THIS REQUEST APPLIES				
<b>Section Title(s):</b> _____	<b>Section/Drawing Number(s):</b> _____			
<b>Section Article(s)/ Paragraph(s)/ Subparagraph(s):</b> _____	<b>Section Page Number(s):</b> _____			
PROPOSED SUBSTITUTION				
<b>Substitution Description:</b>				
	Original	Proposed Substitution		
Supplier:				
Trade/Brand Name:				
Model Number(s):				
Installer(s):				
Differences Between Proposed Substitution and Specified Product:	<input type="checkbox"/> Point-by point comparative data attached			
Substitution History	<input type="checkbox"/> New Product	<input type="checkbox"/> 1-4 Years Old	<input type="checkbox"/> 5-10 Years Old	<input type="checkbox"/> More Than 10 Years Old
<b>Does the substitution affect other parts of the Work?</b> <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below)				



**CONTRACTOR CERTIFICATION AND SIGNATURES**

**Submitted by:** \_\_\_\_\_ **Firm:** \_\_\_\_\_

**The Undersigned certifies that the:**

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to the specified product.
- Same warranty will be furnished for the proposed substitution as for the specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay the progress schedule.
- Cost data as stated above is complete; claims for additional costs, related to the accepted substitution, which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Contractor will make payment for changes to design, including Engineer's design, equipment, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

**Contractors** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Signature:** \_\_\_\_\_

**ENGINEER'S REVIEW AND DISPOSITION**

**Substitution approved:** Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.

**Substitution approved as noted:** Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.

**Substitution rejected:** Provide specified materials and methods.

**Substitution request received too late:** Provide specified materials and methods.

**Engineers** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Signature:** \_\_\_\_\_

**Additional Comments:**     Contractor     Supplier     Subcontractor  
                                   Manufacturer     Engineer     Other \_\_\_\_\_

**2.74 MANUFACTURING'S INSTALLATION INSTRUCTIONS**

- a. Submit the manufacturer's installation instructions for the COTR's knowledge.
- b. Submit printed instructions for the delivery, storage, assembly, installation, startup, adjusting, and finishing, to the COTR in quantities specified for Product Data.
- c. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

**2.75 MANUFACTURER'S FIELD REPORTS**

- a. Submit reports for the COTR's knowledge.
- b. Submit the report in duplicate within 5 days 24 hours of observation to the COTR for information.
- c. Submit the reports for information for assessing conformance with the information given and the design concept expressed in Contract Documents.

**2.76 MANUFACTURING'S FIELD SERVICES**

- a. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions; conditions of surfaces and installation; quality of workmanship; startup of equipment; testing, adjusting, and balancing of equipment; and commissioning] as applicable, and to initiate instructions when necessary.
- b. Submit the qualifications of the observer to the COTR 30 days in advance of the required observations.
- c. The observer is subject to the approval of the COTR.
- d. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to the manufacturer's written instructions.
- e. Refer to the "Manufacturer's Field Reports" Article for reporting requirements.

**2.77 MOCK-UP REQUIREMENTS**

- a. Tests will be performed under provisions identified in this Article and identified in individual product Specification Sections.
- b. Assemble and erect the specified or indicated items with the specified or indicated attachment and anchorage devices, flashings, seals, and finishes.
- c. Accepted mockups shall be the comparison standard for remaining Work.
- d. Where a mockup has been accepted by the COTR and is specified in the product Specification Sections to be removed, remove the mockup and clear the area when directed to do so by the COTR.

## 2.78 TESTING AND INSPECTION SERVICES

- a. Employ and pay for the services of an independent testing agency or laboratory acceptable to Owner to perform specified testing.
  - (1) Before starting Work, submit the testing laboratory name, address, and telephone number, and the names of a full-time Professional Engineer or specialist and responsible officer.
  - (2) Certify that the independent testing agency or laboratory complies with the recommended requirements of the American Council of Independent Laboratories or ASTM E329.
  - (3) Submit a copy of the report of the laboratory facilities' inspection made by the Materials Reference Laboratory of the National Bureau of Standards during its most recent inspection, with the memorandum of remedies of deficiencies reported by the inspection.
- b. The independent testing agency or laboratory will perform tests, inspections, and other services specified in individual Specification Sections and as required by the COTR or the Authorities Having Jurisdiction.
  - (1) Laboratory: The laboratory must be authorized to operate at the Project location.
  - (2) Laboratory Staff: The laboratory must maintain a full-time Professional Engineer or other specialist on staff to review services.
  - (3) Testing Equipment: The laboratory must only use test equipment calibrated at reasonable intervals with devices of an accuracy traceable to the National Bureau of Standards or accepted values of natural physical constants.
  - (4) As specified in Paragraph 2.5.6, if specified in the technical specifications and approved under similar Authority contracts, the Contractor may in lieu of testing submit certified test reports of previous testing of factory supplied components.
- c. Testing, inspections, and source quality control may occur on or off the Project Site.
  - (1) Perform off-Site testing as required by the COTR.
- d. The original and two copies of Test Reports shall be submitted by the independent firm to the COTR, Contractor, and Authorities Having Jurisdiction, in duplicate, indicating the observations and results of tests and compliance or noncompliance with the Contract Documents.
  - (1) Submit a final report indicating correction of Work previously reported as noncompliant.
- e. Cooperate with the independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
  - (1) Notify the COTR and the independent firm 24 hours before the expected time for operations requiring services.
  - (2) Make arrangements with the independent firm, and pay for additional Samples and tests required for the Contractor's use.
- a. Employment of the testing agency or laboratory shall not relieve the Contractor of the obligation to perform the Work according to requirements of the Contract Documents.

- b. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by the same independent firm on instructions from the COTR.
  - (1) Payment for retesting or re-inspection will be charged to the Contractor by deducting testing charges from Contract Sum/Price
- c. Testing Agency/Laboratory Responsibilities:
  - (1) Test Samples of mixes submitted by the Contractor.
  - (2) Provide qualified personnel at the site.
  - (3) Cooperate with the COTR and Contractor in performance of services.
  - (4) Perform sampling and testing of products indicated in the Contract Documents according to specified standards.
  - (5) Ascertain compliance of materials and mixes with the requirements of Contract Documents.
  - (6) Promptly notify the COTR and Contractor of observed irregularities or nonconformance of Work or products.
  - (7) Perform additional tests required by the COTR.
  - (8) Attend preconstruction meetings and progress meetings.
- i. After each test, have the Testing Agency/Laboratory promptly prepare and submit the original copy of the test report to the COTR, Contractor, and certified copies to the Authorities Having Jurisdiction.
  - (1) When requested by the COTR, provide an interpretation of the test results.
  - (2) The test report shall include the following information:
    - (a) Date issued.
    - (b) Project title and number.
    - (c) Name of inspector.
    - (d) Date and time of sampling or inspection.
    - (e) Identification of product and Specification Section.
    - (f) Location in Project.
    - (g) Type of inspection or test.
    - (h) Date of test.
    - (i) Results of tests.
    - (j) Conformance with Contract Documents.
- j. Limits on Testing Agency/Laboratory Authority:
  - (1) The agency or laboratory may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
  - (2) The agency or laboratory may not approve or accept any portion of the Work.
  - (3) The agency or laboratory may not assume the duties of Contractor.
  - (4) The agency or laboratory has no authority to stop the Work.



**2.79 PRODUCT DELIVERY REQUIREMENTS**

- a. Transport and handle products according to the manufacturer's instructions.
- b. Promptly inspect shipments to ensure the products comply with the requirements, the quantities are correct, and the products are undamaged.
- c. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

**2.80 PRODUCT STORAGE AND HANDLING REQUIREMENTS**

- a. Store and protect products according to the manufacturer's instructions.
- b. Store products with seals and labels intact and legible.
- c. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable for the product.
- d. For exterior storage of fabricated products, place products on sloped supports aboveground.
- e. Provide bonded off-site storage and protection when the site does not permit on-site storage or protection.
- f. Cover products subject to deterioration with impervious sheet covering; and provide ventilation to prevent condensation and degradation of products.
- g. Store loose granular materials on solid flat surfaces in a well-drained area, and prevent mixing them with foreign matter.
- h. Provide equipment and personnel to store the products; and use methods to prevent soiling, disfigurement, or damage.
- i. Arrange the storage of products to permit access for inspection.
  - (1) Periodically inspect the stored products to verify they are undamaged and are maintained in acceptable condition.

**2.81 SPARE PARTS AND MAINTENANCE PRODUCT**

- a. Furnish spare parts in accordance with the requirements specified in Special Provision 2.64 (WMATA to Confirm Provision Number) and as indicated herein.
- b. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specification Sections.
- c. Deliver spare parts, maintenance, and extra products to the project site and place them in a location as directed by the COTR; and obtain receipts for them prior to final payment.

**2.82 MAINTENANCE SERVICE**

- a. Furnish service and maintenance of components indicated in Specification Sections during the warranty period.
- a. Examine system components at a frequency consistent with reliable operation.
- b. Clean, adjust, and lubricate components as required.
- d. Include a systematic examination, adjustment, and lubrication of components.
- e. Repair or replace parts whenever required.
- f. Use parts produced by the manufacturer of the original component.
- g. Do not assign or transfer maintenance service to an agent or Subcontractor without prior written consent of the COTR.

**2.83 CUTTING AND PATCHING**

- a. Employ skilled and experienced installers to perform cutting and patching.
- b. Submit written request in advance of cutting or altering elements affecting:
  - (1) Structural integrity of element.
  - (2) Integrity of weather-exposed or moisture-resistant elements.
  - (3) Efficiency, maintenance, or safety of element.
  - (4) Visual qualities of sight-exposed elements.
  - (5) Work of Owner or separate contractor.
- c. Execute cutting, fitting, and patching [including excavation and fill] to complete Work and to:
  - (1) Fit the several parts together, to integrate with other Work.
  - (2) Uncover Work to install or correct ill-timed Work.
  - (3) Remove and replace defective and nonconforming Work.
  - (4) Remove samples of installed Work for testing.
  - (5) Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- c. Execute Work by methods to avoid damage to other Work and to provide proper surfaces to receive patching and finishing.
- d. Cut masonry and concrete materials using masonry saw or core drill.
- e. Restore Work with new products according to requirements of Contract Documents.
- f. Fit Work tight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- g. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- h. At penetrations of fire-rated walls, partitions, ceiling, or floor construction, completely seal voids with fire-rated material according to the technical specifications to the full thickness of the penetrated element.

- i. Refinish surfaces to match adjacent finishes.
  - (1) For continuous surfaces, refinish to the nearest intersection; for assembly, refinish entire unit.
- j. Identify hazardous substances or conditions exposed during the Work to Architect/Engineer for decision or remedy.

#### **2.84 PROTECTING INSTALLED CONSTRUCTION**

- a. Protect installed Work and provide special protection where specified in individual Specification Sections.
- b. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- b. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- c. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.
- d. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- e. Prohibit traffic from landscaped areas.

#### **2.85 FINAL CLEANING**

- a. In addition to the requirements specified in Special Provision 2.67, perform the final cleaning specified in this Article.
- b. Execute final cleaning prior to final Project assessment.
  - 1. Employ experienced personnel or professional cleaning firm.
- c. Clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains, and foreign substances; polish transparent and glossy surfaces; and vacuum carpeted and soft surfaces.
- d. Clean equipment and fixtures to sanitary condition with appropriate cleaning materials.
- e. Replace filters of operating equipment.
- f. Clean debris from roofs, gutters, downspouts, and drainage systems.
- f. Clean the site; sweep paved areas, rake clean landscaped surfaces.
- g. Remove waste and surplus materials, rubbish, and construction facilities from the site.

**2.86 TESTING, ADJUSTING, AND BALANCING**

- a. Owner will appoint, employ, and pay for services of an independent firm to perform testing, adjusting, and balancing.
- b. The independent firm will perform services specified in the mechanical technical specifications.
- c. Reports will be submitted by independent firm to the COTR indicating observations and results of tests and indicating compliance or noncompliance with requirements of Contract Documents.

**2.87 STARTING OF SYSTEMS**

- a. Coordinate the schedule for startup of various equipment and systems.
- b. Notify the COTR 7 days prior to the startup of each item.
- c. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- d. Verify that tests, meter readings, and electrical characteristics agree with those required by the equipment or system manufacturer.
- e. Verify that wiring and support components for equipment are complete and tested.
- f. Execute startup under the supervision of manufacturer's representative or Contractors' personnel according to the manufacturer's instructions.
- g. When specified in individual Specification Sections, require the manufacturer to provide an authorized representative who will be present at site to inspect, check, and approve the equipment or system installation prior to startup and who will supervise placing the equipment or system in operation.
- h. Submit a written report that verifies the equipment or system has been properly installed and is functioning correctly.

**2.88 PROTECTION OF EXISTING BUILDINGS AND EQUIPMENT**

- a. The Contractor shall take precautions to protect both the existing building and the existing equipment. In addition, all shop equipment in and around the limits of work must remain operational throughout the entire construction process. Should the need to limit the use of a WMATA equipment item for any reason during construction, the Contractor must get prior approval from the owner.

## **2.89 SITE SPECIFIC WORK PLANS**

- a. Prior to performing the Work (**all** construction activities including but not limited to electrical, mechanical, plumbing, structural, concrete, etc. ), the Contractor shall prepare a Site Specific Work Plan (SSWP) in accordance with WMATA standards for review and approval by the COTR. The standard SSWP format is shown in Appendix F; prior to any submissions the contractor is to verify with the COTR for any changes in the format.
- b. The SSWP shall be submitted in Microsoft Word form a minimum of 90 days prior to the start of the portion of the construction for which the SSWP is applicable.
- c. The COTR will need to obtain switching orders (SO) for any power related work, as well as any work requiring support personnel (i.e. sprinkler, fire alarm, etc.). The SOs must be requested, in writing, a minimum of 30 days prior to beginning work on the task covered by the SO.
- d. Contractor shall prepare a Site Specific Work Plan (SSWP) for each Bid Items in this Contract.
- e. The contractor is to provide a detailed description of the work to be conducted under the SSWP, this information needs to be provided in the Description of work and in the Work Activity Schedule.
- f. Prior to performing the Work (all construction activities included but not limited to electrical, mechanical, plumbing, structural, concrete, etc. ), the Contractor shall prepare a Site Specific Work Plan (SSWP) in accordance with WMATA standards for review and approval by the COTR. The standard SSWP format is shown in Appendix F and shall be submitted in Microsoft Word form 90 days prior to the start of construction. The contractor shall verify with COTR for any changes in the format.

## **2.90 TEMPORARY STORAGE AND STAGING AREAS**

- a. WMATA will provide some onsite staging areas at each facility. It is the Contractor's responsibility to provide additional storage, where required.

## **2.91 BARRIERS**

- a. Description
  - (1) Contractor is required to provide and maintain barriers, enclosures and/or fencing required by the COTR, including barricades for designated Contractor work areas, Contractor laydown areas, and to protect shop areas that shall remain open during each phase of the project, including:
    - (a) Dustproof and smoke resistant barricades
    - (b) Drawings and general provisions of the Contract apply to this Section
- b. Submittals:
  - (1) The contractor shall submit drawings of proposed barricade construction and layout to the COTR for review and approval.
  - (2) Barricades shall not be installed until the drawings for them have been approved by the COTR.

c. Action Submittals:

- (1) Location plans for temporary barriers and enclosures to be used in each phase and stage of construction

Details of field assembled barricade construction

Product and manufacturer data for moveable prefabricated barricade elements such as concrete vehicle barriers and chain link fencing.

d. Project Conditions:

- (1) In all work areas, barricades shall enclose and prevent entry into the Work area and shall be full height and dustproof. Traffic cones and/or stakes with ribbons shall not be used.
  - (a) When this requirement is not feasible (equipment removal, equipment installation, etc.); written approval from the COTR to waive this requirement is required.
- (2) The Contractor shall take all means to alleviate any or all tripping and falling hazards, both within the work area and around the shop floor.
- (3) Temporary barricades shall be a minimum of 6 feet high of solidly sheathed construction to obstruct views and prevent passage of dust and debris created by construction activity. Areas used exclusively for lay down purposes, and gates provided for vehicle or equipment access, may be of chain link fence construction with opaque cloth vision and dust protection.

e. Requirements:

- (1) Sheet material for dust and smoke control: Reinforced, fire-retardant Polyethylene Sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- (2) For any materials used that are not fire-resistant treated, apply approved fire and smoke resistant paint coatings.

f. Installation and Maintenance:

- (1) Install barricades, including gates, doors, and dustproofing, in accordance with approved plans and details for each stage and phase of the Project.
- (2) Provide suitable temporary protection for all elements within the Project that are scheduled to remain. This protection shall be suitable to maintain the current condition of those existing elements.
- (3) When barricades are removed, restore the work area to its original location.
- (4) Maintain the temporary barricades as needed to they appear in "like new" conditions at all times. Maintenance on the barricades shall continue until they are removed.

**2.92 CONTRACTOR WORKING HOURS – NOT USED**

**2.93 PROJECT PROGRESS AND SAFETY MEETING**

- a. The Contractor shall conduct Progress meetings in the Washington Metropolitan Area bi-weekly 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 special pre-installation meetings. A two week work plan shall be developed by the Contractor prior to the start of the meeting as specified in Section 01322, CONTRACT 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. The COTR or designee shall attend all progress meetings.

- b. The Contractor shall determine, together with the COTR, who should attend the meeting in addition to representatives of the Authority, the Contractor, and those subcontractors, suppliers, or other entities critical to the current progress or involved in

planning, coordination or performance of future activities that are part of the Work. The parties shall each be represented by persons thoroughly familiar with and authorized to conclude matters relating to the work described in the approved Final Design Drawings and Final Design Specifications Issued for Construction.

- c. Agenda discussion items shall include, but are not limited to, review of minutes of the previous progress meeting prepared by the Contractor. The Contractor shall publish an agenda at least 3 calendar days prior to the meetings and submit to the COTR in accordance with Section 01330, DESIGN AND CONSTRUCTION SUBMITTAL and will document issues of significance including submittals, schedules, quality control/assurance, safety, problems encountered, and the assignment of responsibilities for future action. Agenda items may include other items of significance that could affect progress such as:

- Contractor's design and/or construction schedule.
- Interface requirements.
- Time.
- Sequences.
- Deliveries.
- Off-site fabrication problems.
- Access.
- Site utilization.
- Updated Submittals List and Submittals.
- Requests for Information.
- Non-Compliance Notices.
- Temporary facilities and services.
- Hours of Work.
- Resource allocation.
- Hazards and risks.
- Housekeeping.
- Quality and Work standards.
- Safety issues.
- Change Orders
- Documentation of information for payment requests.
- ADMG compliance.

- d. The Contractor shall record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting

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# End of Volume 2