



MARYLAND TRANSIT ADMINISTRATION

MARYLAND DEPARTMENT OF TRANSPORTATION

Martin O'Malley, Governor • Anthony G. Brown, Lt. Governor  
Beverley K. Swaim-Staley, Secretary • Ralign T. Wells, Administrator

TO: All Planholders

FROM: Maryland Transit Administration

SUBJECT: **ADDENDUM NO. 2**  
**Contract No.: T-0248-0640**  
**Rehabilitation of Aerial Structures – Baltimore Light Rail Line**

DATE: January 24, 2012

Enclosed and effective this date is Addendum No. 2 to the subject Contract. This change does not delay the Bid Opening Date of **Friday, January 27, 2012 at 2:00 p.m., 6 St. Paul Street, Conference Room #731.**

A conformed copy of the revised specification sections is attached. A list of the changes made to this contract is attached to this Addendum.

The Bidder shall acknowledge receipt of this Addendum by completing and returning this form with the bid package.

All other terms and conditions remain unchanged.

Sincerely,

Vanessa Ashe, Procurement Officer  
Professional Services/Construction/Installation Section  
Procurement Division

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Acknowledgement of receipt of ADDENDUM # 2 to Solicitation #T-0248-0640

Vendor Name: \_\_\_\_\_

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Authorized Representative's Signature

Date

ADDENDUM NO.: 2  
DATE: 1/24/12  
CONTRACT NO.: T-0248-0640

The following additions, deletions, and modifications are hereby made a part of the Contract Documents for Rehabilitation of Aerial Structures, Baltimore Light Rail Line, Contract No.: T-0248-0640.

<b>Item No.</b>	<b>Section/Page</b>	<b>Modification</b>
<b>I. CONTRACT SPECIFICATION BOOK</b>		
1	Table of Contents/Page v	Added APPENDIX E to Table of Contents.
2	Table of Contents/Page v	Added APPENDIX F to Table of Contents.
3	Table of Contents/Page v	Added APPENDIX G to Table of Contents.
4	Table of Contents/Page v	Added APPENDIX H to Table of Contents.
5	Section 01150/SP-17	Added APPENDIX G to related Sections.
6	Section 01150/SP-17	Removed APPENDIX F from Related Sections.
7	Section 01150/SP-25	Added Section C – Amtrak Interface.
8	Section 01150/SP-25a	Addition of Section C forced the remainder of Section 01150 to a new page.
9	Section 01500/SP-65	Changed reference to Permits to Appendix F.
10	Section 01500/SP-67	Changed reference to Permits to Appendix F.
11	Section 09910/SP-137	Revised note to allow the cleaning and painting operations to be performed by a Contractor or a Subcontractor.
12	APPENDIX E	Added APPENDIX E to include the necessary paperwork for Standard Operating Procedures from MTA.
13	APPENDIX F	Added APPENDIX F to include Environmental and MOT permits.
14	APPENDIX G	Added APPENDIX G to include the necessary material for Amtrak permits and safety training.
15	APPENDIX H	Added APPENDIX H to include the Contract Data Requirements Checklist.

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BALTIMORE LIGHT RAIL LINE  
CONTRACT NO. T-0248-0640  
CONTRACT SPECIFICATIONS BOOK**

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**SECTION 01150****INTERFACE REQUIREMENTS****PART 1 – GENERAL****1.01 DESCRIPTION:**

- A. This Section describes the Contractor's obligations and other pertinent information relative to the various interfaces between the Contractor and the Administration and other third parties.
- B. Related Sections:
  - 1. Section 01110 – Summary of Work
  - 2. Section 01130 – Construction Procedures
  - 3. Section 01300 – Submittals
  - 4. Section 01310 – Coordination and Meetings
  - 5. Section 01550 – Maintenance of Traffic
  - 6. Appendix E – Standard Operation Procedures Of Contractors Working On The Baltimore Light Rail
  - 7. Appendix G – Amtrak Access

**1.02 BASIC INTERFACES:**

- A. The Contractor shall be responsible for the design, development and implementation of the interface procedures between its work and work performed by others, and for Contractor work at all interface locations with existing Administration and other third party facilities.
- B. RAILROAD Interfaces:
  - 1. The Contractor is alerted that elements of the work under this Contract are to be performed on, over, under, and adjacent to existing operating railroad facilities, some of which are electrified. The term RAILROAD used throughout this Section shall mean the Administration, their operations, facilities, and representatives, etc. Refer to the article SPECIFIC INTERFACES elsewhere in this Section for any additional specific information pertinent to each RAILROAD.

2. RAILROAD operations shall be maintained at all times with safety and continuity. The Contractor shall conduct all of its operations on, over, under, or adjacent to RAILROAD right-of-way fully within the rules, regulations, and requirements of the RAILROAD. The Contractor shall be responsible for acquainting itself with such requirements as the RAILROAD may demand.
3. The Contractor is hereby notified that work encroaching on the RAILROAD schedules and operations will not be permitted. Such work must be accomplished in accordance with days/nights and times in these Special Provisions and shall be performed at such times and in such manner as not to interfere with the movement of trains or traffic upon the tracks of the RAILROAD. All work to be done within (on, over, or under) or adjacent to the RAILROAD right-of-way shall be performed by the Contractor in a manner satisfactory to RAILROAD. The Contractor shall use all necessary care and precaution in order to eliminate accidents, delay or interference with the RAILROAD trains, or properties.
4. The Contractor shall obtain verification of the time and schedule of track occupancy from the RAILROAD before proceeding with any construction or demolition work within or adjacent to the RAILROAD right-of-way. The Contractor shall submit for approval to the RAILROAD, staging plans, computations, and a detailed description of the methods or procedures for accomplishing the construction work required under this Contract, including methods of protecting rail operations. The work shall not proceed until these plans and procedures have been approved by the RAILROAD. However, such approval shall not serve in any way to relieve the Contractor of its complete responsibility for the adequacy and safety of its methods or procedures or from responsibility for any damage to the RAILROAD facilities by the acts of the Contractor.
5. The Contractor shall consult the RAILROAD in order to determine the type of protection required to insure safety and continuity of RAILROAD operations based on the particular construction methods and equipment to be used. The Contractor shall be responsible for furnishing all required flagmen, watchmen, and other protective measures for the CLRL. Contractor's personnel working as flagmen, etc., shall be exclusively assigned to this task and not be involved in other work during this time.
6. The providing of such flagmen, watchmen, and other precautionary measures, shall not, however relieve the Contractor from liability for payment of damages caused by its operations.
7. The Contractor will not be permitted to use RAILROAD personnel for purposes of its own even though such personnel may be required at the

immediate site of project construction by the RAILROAD solely for the safe operations of trains or protection of facilities, etc.

8. Before proceeding with any construction or work within or adjacent to RAILROAD property, a pre-construction meeting shall be held with the Contractor specific to this work. The Contractor's staging plans and methods or procedures for construction work and protection of rail operations shall be discussed in detail and modified if necessary, at the sole discretion of the Engineer.
9. All equipment to be used by the Contractor shall be in first-class condition so as to fully prevent failures of defective equipment that might cause delay in the operation of trains or damage to RAILROAD facilities. All equipment shall be equipped with an operating yellow flashing light. This equipment shall not be placed or put into operation adjacent to tracks without first obtaining access permission from the RAILROAD. Under no circumstances shall any equipment or materials be placed or stored within fifteen (15) feet from the centerline of any track or catenary wire, unless approved by the Engineer.
10. Materials and equipment belonging to the Contractor shall not be stored on RAILROAD property without first having obtained permission from the RAILROAD and such permission will be on the condition that the RAILROAD will not be liable for damage to such materials and equipment from any cause. The storage of materials or equipment shall not block access roads. The Contractor shall keep the tracks adjacent to the site clear of all refuse and debris that may accumulate from its operations, and shall leave the RAILROAD property in the condition existing before the start of its operation. The Contractor shall also be liable for any damages to RAILROAD property or facilities caused by the storage, failure, vandalism, etc., of stored material or equipment.
11. The Contractor shall request approval/permission from the RAILROAD to install any temporary grade crossings of RAILROAD tracks. The Contractor shall be responsible for all costs associated with installing, maintaining, and removing the temporary grade crossings, including flagman protection during construction, gates/chains and locks across the crossing, and any other requirements deemed necessary by the RAILROAD. There is no guarantee that the use of temporary grade crossings will be approved by the RAILROAD.
12. Upon completion of the Work, and before final payment is made, the Contractor shall remove from within the limits of the RAILROAD right-of-way all machinery, equipment, surplus materials, falsework, rubbish, and temporary buildings and other property of the Contractor, and shall leave the right-of-way in a condition satisfactory to RAILROAD.

- C. NON-RAILROAD Interfaces (Utilities and other Third Parties):
1. The Contractor shall be responsible for coordinating all utility and other third party interfaces and notifications directly with the appropriate utility company or third party. A copy of all written correspondence and a transcription of all verbal communication between the Contractor and the utility or third party shall be forwarded to the Engineer.
  2. For all work under this Contract, any lighting and electric power, where not specifically provided by others, including on a temporary basis when permanent facilities are out of service or not available, shall be provided by the Contractor at no cost to the Administration.
  3. Refer to the article SPECIFIC INTERFACES elsewhere in this Section for any additional specific information pertinent to utilities or other third parties.

### 1.03 SPECIFIC INTERFACES:

- A. Administration Interface:
1. The Contractor shall comply with the requirements for prior notification to the Administration and the receipt of Administration approval for all work on or adjacent to the tracks as defined in this Section or elsewhere in the Specifications. All work interfacing with the existing Baltimore Light Rail shall be scheduled with the approval of the Engineer to minimize disruption of train service. The Contractor shall not disrupt, inhibit or in any way interfere with Baltimore Light Rail operations without prior approval of the Engineer. The Contractor shall review and follow the Procedures outlined in Appendix E.
  2. Administration Interface will be required whenever the Contractor's work occurs on, over, under or adjacent to Administration right-of-way. In those instances when the Contractor's work occurs within vertical planes established ten (10) feet from the centerline of an Administration track or catenary wire, this work will be considered as "fouling" the track and a "Red Tag" will be required to perform the work, unless otherwise authorized by the Engineer. (The Contractor is alerted that Red Tags are usually not issued while service is operating for and during special events).
    - a. The Contractor shall conduct its work and handle its equipment and materials so that no part of any equipment shall foul an operating track or overhead wire line without the written permission of the Engineer. When the Contractor desires to foul an operating track it shall request approval in writing from the

Engineer twenty-one (21) days in advance so that, if approved, arrangements may be made for proper protection of the Baltimore Light Rail.

- b. Cranes, shovels, or any other construction equipment shall be considered as fouling the track when located in such position that a failure of same with or without load, brings the equipment within ten (10) feet from centerline of track or catenary wire, regardless of height. The Contractor's employees and equipment will not be permitted to work near any live overhead wires or apparatus unless approved by the Administration and the Contractor takes necessary safety precautions before starting and during the progress of such work. The Contractor shall also supply a grounding cable (minimum size: 4/0 copper) for each piece of equipment working adjacent to any electrified lines. The Contractor, prior to the commencing any work, shall obtain the Engineer's approval of the type of grounding cable and the Contractor's installation of it.
  - c. All materials and equipment shall be capable of being operated, stored and maintained without impairment resulting from overhead contact system (catenary) or other electric lines owned and operated by the Administration or others.
  - d. A clearance of one (1) foot minimum shall be maintained between catenary poles and operating equipment at all times, unless otherwise authorized by the Engineer.
  - e. Any staging, construction, installation, or testing work which affects the existing light rail operations shall be done during the hours specified or as modified by agreement with the Administration. All construction work shall be completed in sufficient time to allow for the agreed-upon resumption of normal light rail service. It is the Contractor's responsibility to utilize sufficient competent employees and reserves to assure restoration of scheduled train service within the allotted time. The Contractor shall furnish all safety personnel and equipment such as, but not limited to, flags, safety vests, flares, lanterns, phones, and radios.
3. The Contractor shall submit for approval an installation and construction sequence plan for each area of construction which affects existing Baltimore Light Rail operations. Detailed plans of the Contractor's procedures, including an itemized time schedule and breakdown of the labor force shall be submitted as part of the plan. The plan shall be submitted to the Engineer twenty-one (21) days prior to commencing any field staging, construction, installation, or testing work for each area of construction. The development and implementation of an integrated

construction schedule that provides for Systems interface (construction, modification, testing, and/or shutdown and startup of the signal, communication, catenary, and/or traction power systems) shall be provided by the Contractor.

Where the Contractor's submitted sequencing schedule necessitates a Systems interface and integration, the Engineer shall provide information on specific activities and durations necessary for this interface and integration. These shall be provided for by the Contractor in a revised sequencing plan submittal. The Contractor shall be responsible for providing work around plans to allow continued productivity during the Systems activities. No claim for delay or additional compensation to the Contractor will be made for the provision of Systems integration and interface.

In accordance with Section 01300, the Contractor shall identify and submit for approval as part of the CPM Schedule those elements of work that will be done during red tag outages and those that will be done during normal revenue service. The Contractor shall also identify any System interface elements as part of the overall schedule.

4. Work that does not affect rail operations may be performed, with the authorization of the Engineer, during normal light rail operation hours. General Orders/Bulletins will be issued as required, by the Administration. The Contractor shall furnish such flagmen, watchmen or other employees as may be deemed necessary by the Engineer for safe and continuous operations at no additional cost.

The Administration reserves the right to determine the number of flagmen necessary, based on the Contractor's work plan.

5. The Baltimore Light Rail will require protection during all periods when the Contractor is working on, over, or under the right-of-way, or as may be found necessary in the opinion of the Engineer. When protection is required, the Contractor shall make the requests in writing to the Engineer at least twenty-one (21) days before such protection is required. Measures for track protection shall be at the Contractor's expense and with the Engineer's approval.
6. The Contractor shall, before commencing any work or entering the Administration's right-of-way, attend the Administration's Track Access Safety Course and Flagman Training. The Contractor shall comply with the Administration's Safety Requirements throughout the entire construction period. The Safety Course and Flagman Training will be provided by the Administration at no cost to the Contractor. All costs

- encountered due to complying with the Administration's safety requirements will be at the sole expense of the Contractor.
7. During the passing of trains all equipment within the fouling area shall cease operation and idle in a static position until the flagman allows resumption, unless otherwise approved by the Engineer.
  8. The Contractor is alerted that any erection equipment utilized for construction on the bridge will not be permitted to reposition itself on the bridge except during a track outage, regardless of whether it is outside of the ten (10) foot fouling zone. The outage will only be permitted during non-revenue service hours and with the approval of the Engineer.
  9. Light Rail Vehicle
    - a. The light rail vehicle train (LRV) characteristics, dynamic envelope width and height, and other dimensions are available from the Administration at the Contractor's request.
    - b. Train Elements:
      - i. The standard train for the purpose of operations, design or testing will consist of one to three LRV's coupled together.
      - ii. Under normal operations the train will consist of three LRV's coupled together during rush hours and special events, and one, two, or three LRV's at all other times.
  10. Operating hours for the Baltimore Light Rail are subject to change at any time and may be changed to accommodate special events, i.e. Artscape, AFRAM Festival, Sports Events, State Fair, Circus, etc. The complete current Light Rail Schedule for revenue service is available from the Administration at the Contractor's request. The Baltimore Light Rail Normal Operating Hours currently are:
    - a. Weekdays (Monday through Friday):
      - i. Morning - Southbound inspection train leaves the North Ave. Baltimore Light Rail Yard (YARD) at 4:00 a.m., begins Revenue Service from Cromwell Station at 5:00 a.m. First Southbound Revenue train that goes beyond Camden Yards Station leaves the YARD at 4:17 a.m.
      - ii. Nighttime - Last Northbound train leaves Cromwell Station at 12:33 a.m., arrives at the YARD at 1:12 a.m.

- b. Saturday:
    - i. Morning - Southbound inspection train leaves the YARD at 4:00 a.m., begins Revenue Service from Cromwell Station at 5:00 a.m. First Southbound Revenue train that goes beyond Camden Yards Station leaves the YARD at 4:17 a.m.
    - ii. Nighttime - Last Northbound train leaves Cromwell Station at 12:33 a.m., arrives at the YARD at 1:12 a.m.
  - c. Sunday:
    - i. Morning - Southbound inspection train leaves the YARD at 9:49 a.m., begins Revenue Service from Cromwell Station at 10:40 a.m. First Southbound Revenue train that goes beyond Camden Yards Station leaves the YARD at 10:02 a.m.
    - ii. Nighttime - Last Northbound train leaves Cromwell Station at 8:18 p.m. arrives at the YARD at 8:57 p.m.
  - d. Additional train service will be operated for all home baseball and football games and other special events at the discretion of the Administration. Baseball, football and other special event service may include decreased headways (increased frequencies) and stacked train, first-in/first-out, local service, express service and operating hours longer or shorter than those listed above.
11. The Contractor is alerted that trains may run in either direction on any track at any time. Any trackage from Mount Royal Station to Linthicum Station is considered dual service territory, i.e., two separate light rail operating services run simultaneously with trains from each service interspersed. Train Headways (frequencies) currently are:
- a. Hunt Valley to Cromwell Service: Every 17 minutes each for Northbound and Southbound trains.
  - b. Penn Station to BWI Service: Every 17 minutes each for Northbound and Southbound trains.
  - c. For single-track areas in dual service territory, the above headways are equivalent to a train passing by in one direction or the other an average of every 4 minutes and 15 seconds.

- d. Depending on actual operating conditions, trains may and often do run more frequently or infrequently, or may be spaced closer together or further apart, than the times listed above.
12. The Contractor shall cooperate fully with the Administration and respond within a period of seven (7) days following receipt of any request for information on behalf of the Administration and, in case of an emergency, immediately upon request. The Administration will be required to respond within a period of fifteen (15) days following receipt of any request for information on behalf of the Contractor and, in case of an emergency, immediately upon request.
- B. CSXT Interface
1. No work of any type shall be performed on, over, or under CSXT right-of-way, or which could affect CSXT roadbed, trackage, or operations, without written permission by CSXT and evidence of proper insurance as required.
- C. Amtrak Interface
1. Contractors who require access to railroad property must submit a letter requesting a 'Temporary Permit to Enter Upon Property' as shown in Appendix G. If any subsurface work is required, the letter should clearly specify whether the work is geotechnical or environmental in nature.
  2. Prior to any work on or access to Amtrak ROW, the Contractor must execute Amtrak's then current 'Temporary Permit to Enter Upon Property'. The permit will include a force account estimate based on the Contractor's scope of work and projected duration of work. Amtrak will provide engineering, flag protection, and/or other protection services at the sole cost and expense of the Contractor. Advance payment for these services is required. The Contractor shall submit to Amtrak a fully executed permit, payment for applicable fees, and approval of the proposed work plans and/or access requirements. Once Amtrak receives this material and verifies that all insurance requirements have been met, the appropriate Division Engineer's representative will be notified that the work may proceed.
  3. All Contractor employees who will work on railroad property are required to attend the Amtrak safety training outlined in Appendix G prior to entry on railroad property. The Contractor must coordinate all access with Amtrak's Division representative.

**PART 2 – PRODUCTS  
NOT USED**

**PART 3 – EXECUTION  
NOT USED**

**PART 4 – MEASUREMENT AND PAYMENT**

**4.01 INTERFACE REQUIREMENTS:**

- A. Interface Requirements will not be measured for payment.
- B. Interface Requirements will not be paid for directly, but will be considered incidental to the appropriate work item.

**END OF SECTION**

**SECTION 01500****TEMPORARY FACILITIES AND CONTROL****PART 1 – GENERAL****1.01 DESCRIPTION:**

A. This Section specifies the general requirements for furnishing, installing, and operating temporary facilities and controls. This Section includes:

1. Temporary Utility Service
2. Temporary Sanitary Facilities
3. Project Identification
4. Work and Storage Areas
5. Community Relations
6. Maintenance and Control of Traffic
7. Construction Operations Under Traffic
8. Safety Requirements
9. Pollution Abatement
10. Historical and Scientific Specimens
11. Salvage Material and Equipment
12. Temporary Maintenance of Stream Flow

B. Related Sections:

1. Section 01550 – Maintenance of Traffic
2. Section 01570 – Environmental Protection

**1.02 TEMPORARY UTILITY SERVICE:**

A. Determine the need for such temporary utility service as may be required to prosecute the work and make arrangements with utility companies for such service. Remove all materials and equipment involved with temporary utility

service as part of final cleanup. All costs incurred in obtaining permits; utility service, including connection and disconnection; and furnishing, installing, maintaining, and removing such materials shall be borne by the Contractor.

### **1.03 TEMPORARY SANITARY FACILITIES:**

- A. The Contractor shall furnish, for use of his work force, the necessary toilet conveniences, secluded from public observation. Keep it in a clean, sanitary condition. Comply with the requirements and regulations of the State of Maryland, Department of Health, and other agencies having jurisdiction.

### **1.04 PROJECT IDENTIFICATION:**

- A. Contractor's Identification Signs: The Contractor may erect his own signs to identify himself and, if he wishes, his subcontractors. The overall size of the Contractor's identification signs shall not exceed four (4) feet by eight (8) feet wide. The exact location, method of mounting and mounting height of the Contractor's identification signs will be subject to the approval of the Engineer.
- B. Sign Maintenance: Maintain all signs throughout the course of construction until final acceptance, keeping them clean, in good repair, and free of obstructions. Upon final acceptance of the work, remove and dispose of all signs.

### **1.05 WORK AND STORAGE AREAS:**

- A. MTA will describe work areas available to Contractor for storage of project materials and for parking of project construction equipment. These areas will be provided to the Contractor for the duration of construction without charge. Additional work and storage space, if required, shall be provided by the Contractor at his own expense. Parking facilities for Contractor's personnel shall be the Contractor's responsibility.

### **1.06 COMMUNITY RELATIONS:**

- A. The Administration will establish a program of public contact for conducting effective relationships with communities and businesses in proximity to construction areas. As part of these programs the Contractor shall establish and maintain continuing liaison with persons occupying property or doing business in the immediate area of the Worksite for the purpose of minimizing inconveniences resulting from construction.
- B. The Contractor shall contact those residents or businessmen who might reasonably be expected to be affected by the construction and make known to them the name of the Contractor representative on the Worksite with responsibility for community relations and explain to them the means by which the representative can be contacted expeditiously.

- C. The Contractor shall, as part of the monthly progress status report specified in Section 01300, note and explain all community relations activities undertaken during the report period.

#### **1.07 MAINTENANCE AND CONTROL OF TRAFFIC:**

- A. The Contractor shall furnish, install, maintain, and remove when no longer required, all traffic control and protective devices required on the approved traffic plan. Traffic control and protective devices shall include temporary directional electrical warning signs, detour signs, temporary barricades and guard rails; temporary lighting, overhead warning lights, and flashing lights; removal of permanent and temporary pavement markings; and services of qualified flagmen. The Contractor shall maintain constant communications with local jurisdictional agency regarding his operations in maintaining and controlling traffic.
  - 1. Traffic Plan and Permits: The Contract Drawings show the approved traffic for the work. The Contractor shall prepare working drawings showing proposed traffic control devices and shall apply to the local jurisdictional agency for a permit to work in the public right-of-way if required. Any proposed changes to the indicated traffic plan shall be shown on working drawing(s) prepared by the Contractor and shall be submitted to the Engineer for transmittal to the local jurisdictional agency for approval.
  - 2. Traffic Control Signs: Each change in location of traffic shall be adequately posted with signs mounted on barricades or standard posts. All regulatory signs required for the construction areas will be provided and removed by the appropriate jurisdictional agency. Temporary no parking signs which are to be used for short periods will be provided by the local police.
  - 3. Redirecting Traffic: All channelizing, shifting of traffic lanes, and barricading of traffic in connection with the work will be subject to approval of the appropriate jurisdictional agency. Existing local standards for signing and marking of construction will apply in addition to ANSI D6.1e, Manual of Uniform Traffic Control Devices. All lanes intended for traffic use shall be kept clear for width of eleven (11) feet except that ten (10) feet may be used provided all vertical obstructions are kept four or more feet from the edge of the lane unless otherwise noted on the approved traffic control plan.
  - 4. Temporary Closing: Prior to temporary closing to traffic part of any street, sidewalk or other access or to changing traffic patterns from those indicated on the Contract Drawings, the Contractor shall obtain approval from the appropriate jurisdictional agency, at least two weeks before such closures or changes are made. Deviations will be for emergency

conditions affecting life and property only and the Contractor shall immediately notify the Engineer and the appropriate jurisdictional agency of any such emergency changes. Copies of all approvals shall be furnished to the Engineer.

5. Contractor Surface Operations: The Contractor shall schedule his surface operations to not be working intermittently throughout the area. Excavation or construction activities shall be scheduled and pursued to completion as required to permit opening of the street areas to traffic without unnecessary delays.
6. Temporary Walkways: In areas where 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.
7. Temporary Paving and Patching: The Contractor shall construct, maintain and remove temporary pavement and patching required to safely and expeditiously handle vehicle and pedestrian traffic, within or adjacent to the construction site. Temporary pavement and patching composition shall conform to the specifications of the local jurisdictional agency. Any construction, maintenance or removal required by the Contractor's operations off the site shall conform to the requirements specified herein.
8. New and Existing Traffic Control Devices:
  - a. Street name and traffic signs which are useable but are in the way of construction activities will be salvaged by the jurisdictional agency. Forty-eight hours (48) notice to such agency is required.

#### **1.08 CONSTRUCTION OPERATIONS UNDER TRAFFIC:**

- A. General: Construction equipment is defined for the purpose of this article as all types of equipment, vehicles, and tools used in connection with construction work. The term 'workmen' includes every person or firm performing work in or adjacent to public streets.
- B. Construction Equipment: When in traffic lanes, all vehicles and equipment shall be operated at normal traffic speeds. If this is not practicable, a slow moving vehicle emblem must be displayed in accordance with Article 66½ (Motor Vehicle Code) of the Annotated Code of the State of Maryland. Construction equipment shall not be parked in any lane intended for use by normal traffic. Equipment parked or stored at the work site shall be behind a guard rail, barrier, curb or other protective device.

- C. One-Way Traffic: No construction equipment shall be operated on traffic lanes, except in the designated direction of travel for respective lanes.
- D. Construction Operations: No construction work involving occupancy of traffic lanes shall be performed during adverse weather conditions or adverse road conditions except when so authorized by the Engineer and traffic shall be properly safeguarded by the use of flashers, and lights in addition to the signs and other markings prescribed herein. During these periods, no construction deliveries shall take place over a travel lane or immediately adjacent thereto. When traffic conditions dictate, the Engineer may require the Contractor to modify his work operation for such length of time as required to alleviate the hazardous traffic conditions.
- E. Equipment Travel: No construction equipment other than that designed and used for general highway transportation shall be moved on streets during hours of darkness, periods of adverse weather conditions which reduce normal visibility, or when the roadway is covered with snow or ice. Any construction equipment or material required in construction which exceeds the maximum vehicle dimensions enumerated in Article 66½ (Motor Vehicle Code) of the Annotated Code of the State of Maryland, shall be moved only in accordance with the established State and Local regulations. No such load shall be moved over streets of the local jurisdictional agency without first obtaining approval of the appropriate agency.
- F. Crossing Traffic Lanes: When crossing open traffic lanes by construction equipment is necessary, such crossing shall be safeguarded with flagmen.
- G. Flagmen: Provide qualified flagmen thoroughly instructed in flagging procedures as required to safeguard and maintain vehicle and pedestrian traffic. All flagmen shall perform their duties courteously and in such a manner as will ensure the safety and convenience of the traffic within the limits of the guarded area. Traffic shall not be flagged to a stop unless such is necessary for safety. Flagmen shall be supplied with flares for adverse weather conditions and with red flags not less than twenty-four (24) inches square for slowing or directing traffic to another lane. Flagmen shall wear fluorescent orange safety vests and yellow hard hats.
- H. Removal of Traffic Control Devices: All temporary signs, barricades, barrier curbs, drums, and cones used for safeguarding traffic in connection with construction work shall be removed at the close of the work day, unless the state of the work is such that warning devices are still needed and are adapted for night closing. In such cases notify the Engineer reasonably in advance of the normal quitting time that he may review the status of the work and request additional safety measures as he deems necessary.
- I. Storage: No material shall be stored on any lane intended for traffic use.

**1.09 SAFETY REQUIREMENTS:**

- A. Refer to the General Provisions Sections GP-7 for safety and health requirements.
- B. Employ and assign to the work a full-time Safety Superintendent who has the specialized training and experience in construction safety supervision, is thoroughly familiar with OSHA requirements, and is acceptable to the Engineer. Employ the Safety Superintendent exclusively for purpose of supervising the safety of persons on or about the work and property affected thereby.

**1.10 POLLUTION ABATEMENT:**

- A. General: Refer to General Provisions Section GP-7. Conduct operations in a manner to minimize pollution of the environment surrounding the area of work by every means possible. Apply specific controls as follows:
  - 1. Material Transport: Trucks leaving the site and entering paved public streets shall be cleaned of mud and dirt clinging to body and wheels of the vehicle. Trucks arriving at and leaving the site with materials shall be loaded in a manner which will prevent dropping of materials or debris on the streets. Contractor shall maintain a suitable vehicle cleaning and inspection installation with permanent crew for this purpose. Spills of materials in public areas shall be removed immediately at no additional cost to the Administration.
  - 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. Contractor shall develop methods for control of waste and erosion which shall include such means as filtration, settlement and manual removal.
  - 3. Burning: No burning of waste will be allowed.
  - 4. Dust Control: the Contractor shall control the generation of dust by his operations. Control of dust is mandatory and shall be accomplished by water sprinkling or by other methods approved by the Engineer.
  - 5. Noise Control:
    - a. General: Minimize noise caused by work operations, and provide working machinery and equipment fitted with efficient noise suppression devices. Employ other noise abatement measures necessary for protection of both employees and the public. In addition, restrict working hours and schedule operations in a manner that will minimize disturbance to residents in the vicinity

of the work. Provide protection against noise exposure for employees in accordance with GP 7.05.

b. Definitions:

- i. Daytime, refers to the period from 7:00 a.m. to 10:00 p.m. local time daily except Sundays and legal holidays. Nighttime, refers to all other times including all day Sunday and legal holidays.
- ii. Construction Limits are defined for the purpose of these noise control requirements as the Administrations right-of-way lines or property lines as indicated on the drawings.
- iii. Zones, Special Zones and special Construction sites outside of Construction Limits shall be designated by the local agency having jurisdiction.

c. Monitoring: Monitor noise levels of work operations to assure compliance with the noise limitations contained herein. Retain record of noise measurements for inspection by the Engineer. Promptly inform the Engineer of any complaints received from the public regarding noise. Describe the action proposed and the schedule for implementation and subsequently inform the Engineer of the results of the action.

d. Measurement Procedure:

- i. Except where otherwise indicated, perform all noise measurements using the A-weight network and (slow) response of an instrument complying with the criteria for Type 2 General Purpose sound level meter as described in ANSI S1.4. Measure impulsive or impact noises with an impulse sound level meter complying with the criteria of IEC 179 for impulse sound level meters. As an alternative procedure, a type 2 General Purpose sound level meter on C-weighting and (fast) response may be used to estimate peak values of impulsive or impact noises. Transient meter indications of 125 dbC (fast) or higher will be considered as indications of impulsive noise levels of 140 db or greater.
- ii. Measure noise level at buildings affected acoustically by the Contractor's operations at points between three (3) feet and six (6) feet from the building face to minimize the effect of reflections.

- iii. Measure noise levels at points on the outer boundaries of Construction Limits or Special Construction Sites for noise emanating from within.
  - iv. Where more than one criterion of noise limits is applicable, use the more restrictive requirement for determining compliance.
  - e. Noise Restrictions: Noise restrictions shall be in accordance with local ordinances.
- B. Maintaining Flow of Sewers and Drains: The Contractor shall, at his own expense, provide for and maintain the flow of all sewers, drains, house or inlet connections, and all water courses which may be met during progress of the work. The Contractor shall not allow the contents of any sewer, drain, or house or inlet connection to flow into trenches. The Contractor shall, at his own expense, immediately remove from proximity of the work all offensive matter, using such precautions as are required by the Engineer.

#### **1.11 HISTORICAL AND SCIENTIFIC SPECIMENS:**

- A. All articles of historical or scientific value, including coins, fossils, and articles of antiquity, which may be uncovered by Contractor during progress of the work, shall become the property of the Administration. Such findings shall be reported immediately to the Engineer who will determine method of removal, where necessary, and final disposition thereof.

#### **1.12 SALVAGE MATERIALS AND EQUIPMENT:**

- A. The Contractor shall maintain adequate property control records for materials and equipment specified to be salvaged. Contractor shall be responsible for the adequate storage and protection of salvaged materials and equipment. The Contractor shall replace, at no cost to the Administration, salvage materials and equipment which are broken or damaged during the salvage operations as the result of the Contractor's negligence.
- B. Salvage material not specified for reuse shall be the property of the Contractor and shall be removed from the site.

#### **1.13 TEMPORARY MAINTENANCE OF STREAM FLOW:**

- A. The Contractor shall maintain stream flow in work areas as shown on the Contract Drawings and in accordance with MDE guidelines and requirements. Standard maintenance of stream flow permits are included in Appendix F of the Special Provisions.

**PART 2 – PRODUCTS****2.01 SANDBAG/STONE DIVERSION:**

- A. Sandbags for temporary maintenance of stream flow should consist of materials which are resistant to ultra-violet radiation, tearing, and puncture and should be woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel).

**2.02 IMPERVIOUS SHEETING:**

- A. Impervious sheeting used at sandbag/stone diversion for maintenance of stream flow should consist of a polyethylene or other material that is impervious and resistant to puncture and tearing.

**2.03 STRAW BALES:**

- A. Straw bales used for dewatering basins for maintenance of stream flow shall conform to all requirements of MD SHA Standard Specification Section 921.08.

**2.04 FILTER FABRIC:**

- A. Filter fabric used for dewatering basins for maintenance of stream flow shall be Geotextile Class SE, woven or non-woven, and shall conform to all requirements of MD SHA Standard Specification Section 921.09.

**2.05 STONE FOR OUTLET STRUCTURE:**

- A. Stone used for dewatering basin outlet structure for maintenance of stream flow shall be 4” to 6” diameter and shall conform to all requirements of MD SHA Standard Specification Section 901.05.

**PART 3 – EXECUTION****3.01 TEMPORARY MAINTENANCE OF STREAM FLOW:**

- A. The Contractor shall provide temporary maintenance of stream flow where required to facilitate the completion of repairs as shown on the Contract Drawings. The work shall include, but is not limited to installing, maintaining and removing diversion devices, pumps, dewatering basins and all other incidentals required to complete the work.
- B. The Contractor may submit alternate temporary maintenance of stream flow plans, including methods and materials to the Engineer and Maryland Department of the Environment (MDE) for review and approval.

- C. Temporary Maintenance of Stream Flow shall conform to all requirements of MD SHA Standard Specification Section 308 and the permits unless otherwise specified in the Contract Documents.
- D. The Contractor shall notify the MDE Water Management Administration (WMA) Compliance Program (410-537-3510) in writing 30-days prior to beginning the work and 30-days after completion of the work.
- E. During construction, the Contractor shall accommodate WMA inspection and have the Contract Drawings and specifications available at the site.
- F. Time of year restrictions for in-stream work, as discussed in permits in Appendix F and shown on the Contract Drawings on Drawing No. SD-2, will be enforced.

#### **PART 4 – MEASUREMENT AND PAYMENT**

##### **4.01 TEMPORARY FACILITIES AND CONTROLS:**

- A. The Temporary Facilities and Controls work required under this Section will not be measured for payment, except as noted below.
- B. All costs in connection herewith will not be paid for directly, but will be considered incidental to the item of work to which they pertain.

##### **4.02 MAINTENANCE AND CONTROL OF TRAFFIC:**

- A. The Maintenance and Control of Traffic for Bridge Nos. 188-S, 294-S, and 425-S will not be measured for payment.
- B. The Maintenance and Control of Traffic for the specified bridges will be paid for as a lump sum for each bridge completed.

##### **4.03 TEMPORARY MAINTENANCE OF STREAM FLOW:**

- A. The Temporary Maintenance of Stream Flow for Bridge Nos. 692-N, 663-N, 545-N, and 325-N and for Culvert Nos. 331-N, 359-N, 430-N, 767-N, and 852-N will not be measured for payment.
- B. The Temporary Maintenance of Stream Flow for the structures listed above will each be paid for at the respective lump sum bid price, complete in place, accepted, which price will be full compensation for all material, equipment, tools, labor and all work incidental to complete the item as specified.

**END OF SECTION**

**SECTION 09910****CLEANING AND PAINTING STRUCTURAL STEEL****PART 1 – GENERAL****1.01 DESCRIPTION:**

- A. This work shall consist of cleaning and spot painting existing structural steel. The work shall conform to SSPC Standards. Any structural defects including cracks, missing bolts or rivets, deterioration, etc., detected during cleaning and painting shall be brought to the attention of the Engineer. The Contractor shall protect utility pipes, conductors, or conduits from these operations; they shall not be cleaned and painted unless specified in the Contract Documents.
- B. This work shall also include cleaning and painting of all surface areas of the coating on the existing steel that are damaged due to structural repairs.
- C. The Contractor shall conform to the requirements of OSHA for lead, arsenic, and cadmium, etc., exposure in construction standards; and the applicable Federal and State laws. Existing paint systems may include toxic metals such as lead, arsenic, cadmium, chromium, etc., which may be considered hazardous waste when removed and tested as specified in the Toxicity Characteristic Leaching Procedure (TCLP), EPA Method 1311.
- D. Prior to bidding, the Contractor should become familiar with the current environmental regulations and safety procedures. The Administration is considered the "Generator" of all waste associated with the work, however, the Contractor shall be responsible for preventing waste from entering into the environment by containing, collecting, storing, testing and disposing of all waste in conformance with Federal, State and local regulations.
- E. Cleaning and painting operations for existing structures shall be performed by the Contractor or Subcontractor. This requirement applies regardless of the percentage of the cost of the cleaning and painting items when compared to the total work in the Contract.
- F. Work related to this item shall conform to all requirements of MD SHA Standard Specification Section 435 unless otherwise specified.
- G. Related Sections:
  - 1. Section 01550 – Maintenance of Traffic

2. Section 01570 – Environmental Protection
3. Section 09920 – Paints and Coatings

## PART 2 – PRODUCTS

### 2.01 MATERIALS:

#### A. Paint Systems

ITEM	PAINT SYSTEM
Existing Steel (Includes Existing Structures with or without Widening)	Section 09920 Paint System C
Existing Coatings Damaged During Structural Repairs	2.01.B

All paint within paint system shall be from the same manufacturer.

- B. Existing Coatings Damaged During Structural Repairs. Existing coatings damaged during structural repairs shall conform to 3.15 and Section 09920, Paint Systems E, Coat I and II except that on fascia beams and trusses Coats I, II and III shall be applied. The color of the final coat shall match the existing finish coat. The requirement for each coat to be tinted to differentiate between coats will be waived for Coats II and III.

## PART 3 – EXECUTION

### 3.01 GENERAL:

- A. Surfaces to be painted shall be prepared as described in MD SHA Standard Specification Section 435. Surfaces shall be cleaned by solvent cleaning, power washing, and abrasive blast cleaning.

## PART 4 – MEASUREMENT AND PAYMENT

### 4.01 CLEAN AND SPOT PAINT GIRDERS:

- A. Clean and Spot Paint Girders will be measured for payment on a square foot basis.
- B. Clean and Spot Paint Girders will be paid per square foot, which price will be full compensation for all permits, working drawings, daily quality control records, and professional engineer's services used for containment, industrial hygienist services, air monitoring, sampling and testing materials for lead and heavy metal content, including any revisions, resubmissions of the Containment Plan and

Systems that may be required during the execution of the work, and all other incidentals necessary to complete all cleaning and painting operations including providing safe access for inspections, floodlighting, test plates, drums, collection and storage at the temporary storage site, hauling and disposal at an approved industrial waste site or hazardous waste site, removing and replacing planking, removal of debris, and all material (including primer and paint), labor, equipment (including test equipment), tools, and incidentals necessary to complete the work.

**END OF SECTION**