

MINIMUM REFLECTIVE INTENSITY VALUES FOR HIGH PERFORMANCE WIDE ANGLE PRISMATIC LENS SHEETING [Minimum Coefficient of Retroreflection (R_a) cd/ft^2 ($cd \cdot lx^{-1} \cdot m^{-1}$)]								
Observation Angle	Entrance Angle	White	Yellow	Red	Orange	Green	Blue	Fluorescent Orange
0.2	-4	800	660	215	450	75	43	200
0.2	+30	400	340	100	250	30	20	120
0.2	+50	35	23	6.6	16	1.8	1.0	50
0.5	-4	200	160	45	120	18	9.8	80
0.5	+30	100	85	26	70	10	5.0	50
0.5	+50	30	20	6.4	16	2.5	2.0	20

52. REFLECTIVE MARKERS AND DELINEATORS:

THIS SP IS DELETED

This S.P. modifies Section 612.11 of the Standard Specifications.

(A) GENERAL—Temporary reflective delineators (white or yellow) shall be used to delineate barriers and guide traffic during the construction work zone, at the spacing shown on the Contract drawings, this S.P. and as directed by the COTR.

(B) MATERIALS—Temporary delineators shall be, white or yellow as required, with adhesive suitable for direct application to the barrier surface, in general accordance with the S.P. for REFLECTIVE BARRIER MARKERS & DELINEATORS.

(C) METHODS—Install and remove markers as necessary for each construction phase at a maximum spacing of 25 feet for each direction of traffic in the adjacent lane. Stagger location of markers for each direction of flow as needed. Temporary delineators may be reused if not damaged. Temporary Reflective Delineators shall be installed on the traffic side of Portable PCC Barriers. After completion of the project, all traffic control devices except those otherwise specified, shall remain the property of the contractor and shall be removed from the project site.

(I) MEASURE—The unit of measure will be that as required for the following pay items which will constitute the payment for the MAINTENANCE OF HIGHWAY TRAFFIC. The total for any item given below shall be the maximum number of that item required and furnished for any one phase of construction. The estimated quantities will be as listed in the PAY ITEM SCHEDULE.

<u>Item No.</u>	<u>Unit</u>	<u>DESCRIPTION</u>
612 006	LS	Construction Lane Closing
612 008	S.F.	Remove Lane Marking
612 010	Each	Temporary Construction Sign Supports
612 014	S.F.	Construction Warning and Detour Signs
612 022	Each	Sequential Arrow Boards

612 034	Each	Traffic Drums
612 089	L.F.	Taped Lane Marking 4"
612 091	L.F.	Taped Lane Marking 6"
612 096	Each	Construction Zone Attenuator (Quadguard Device)

~~(J) PAYMENT~~ Payment for the traffic control items listed above will include providing all materials, tools, labor and equipment necessary to complete that item of work. Except as provided in the following paragraph, payment will be made at the contract unit price bid for each item of work listed above and in the Pay Item Schedule. When the number of traffic control devices required for any single phase of work exceeds the quantity specified in the pay item schedule, the Contractor shall be paid for additional devices at the contract unit price.
~~The Contractor shall be required to replace all damaged traffic control devices including those damaged by vandalism, at his own expense.~~

53. **THERMOPLASTIC PAVEMENT MARKING, 4 Inch. Item 612 054**
THERMOPLASTIC PAVEMENT MARKING, 4 Inch dashed Item 612 056
THERMOPLASTIC PAVEMENT MARKING, 6 Inch. Item 612 058.
THERMOPLASTIC PAVEMENT MARKING, 12 Inch. Item 612 064.
THERMOPLASTIC PAVEMENT MARKING, 24 Inch. Item 612 066.

This S.P. supplements Section 612.12 of the Standard Specifications.

(A) GENERAL - Work under these items consists of furnishing all materials for, and installation of, permanent thermoplastic lane markings, including thermoplastic markings in green color at locations shown on plans. Permanent markings shall be placed within 24 hours after placement of final surface, if roadway is opened to traffic.

(B) CONSTRUCTION METHODS -The newly applied markings shall be protected from intrusion by traffic by means of traffic cones, safety barrels or other approved means until such time as the material has dried sufficiently to bear traffic.

54. **TRAFFIC SIGNAL AND STREET LIGHTING**
~~(Atlantic Street at Livingston Road/Valley Avenue, SE)~~

THIS SP IS DELETED

- ~~1. **Furnish and Install Inductive Loop Detector, Item 613-002**~~

~~These items shall follow 613.34 of the Standard Specifications.~~

- ~~2. **Remove Abandoned Traffic Signal or Streetlight Pole Foundation, Item 613-006**~~

~~These items shall follow 613.50 of the Standard Specifications.~~

- ~~3. **PCC Foundation, Item 613-008, 613-054, 613-050 and 613-052**~~

~~These items shall follow 613.13 of the Standard Specifications.~~

- ~~4. **Transformer base, Item 613-030**~~

~~This SP supplements 613.17 of the Standard Specifications.~~

a. DESCRIPTION

The transformer base with a hinged door shall be fabricated with dimensions as detailed on the Standard Drawing. The base shall be fabricated from hot rolled carbon steel meeting ASTM A36. The base shall be 20" high, 16" square at the base, and 13" square at the top. The top and bottom plates shall be made of 3/4" minimum thick steel plate. The body of the base shall be made of 7 gauge steel. The base shall be provided with 4 (four) loose steel plate anchor clips to fasten the base to the anchor bolts. Each base shall be provided with 1" x 3" bolts with nuts and washers to connect the post shaft to the base. The door opening in the base shall be 8 1/2" x 9" x 13 1/4". The door shall be secured in place with a stainless steel piano hinge at the top with 4 (four) stainless steel rivets and a latch locking device at the bottom. Each base will also include 4" x 1" x 40" anchor bolts, nuts, and washers. The base will be cleaned of all rolled in mill scale, impurities and non-metallic foreign materials. The welds will be cleaned of all weld flux. The base is to be degreased by immersion in a heated caustic solution, and then pickled in a heated sulfuric acid solution. The base will then be rinsed in a fresh water bath to remove any residual effects of the caustic or acid baths. The base will then be immersed in a concentrated zinc ammonium chloride solution and allowed to air dry before being galvanized. The base, door and anchor clips are to be hot dip galvanized to the requirements of ASTM A 123.

5. PVC Encased electrical conduits, Item 613-036, 613-038, 613-040 and 614-122

This SP supplements 613.10 of the Standard Specifications.

b. DESCRIPTION

Conduits shall conform to the requirements of the Standard Specifications. Conduit sizes are specified on the plans. All conduits shall be rigid, gray Polyvinyl Chloride (PVC) Schedule 40 (for concrete encased). Conduits and fittings shall bear Underwriter's Laboratories, Inc. label. Conduit shall be in factory supplied lengths, and shall be marked with the manufacturer's name, trade name, or trademark, nominal trade size, and type of material. All joints shall be water tight. Solvent cement used for joining shall conform to the requirements of ASTM D2564.

All bends shall be of long sweep, free of kinks and of such easy curvature as to permit cable pulling without undue tension on conductors or damage to insulation.

Conduit runs shown on the plans may be changed to avoid underground obstructions with written approval by the Engineer.

Unless otherwise shown, conduits shall be placed at a minimum depth of 36 inches below final grade, or at greater depths if required to obtain the necessary utility clearance, and shall slope at a minimum rate of three (3) inches per 100 feet of length to a foundation or manhole.

All conduit fittings shall be free from burrs and rough places and all conduit runs shall be cleaned and swabbed before cables are installed. Cut conduits shall be reamed before fittings and cables are installed. Standard manufactured elbows, bushings, reducers, bends, couplings, etc. of the same materials as the straight conduit pipe shall be used throughout the conduit system.

6. Remove electrical conduits, Item: 614-190

This SP supplements 613.12 of the Standard Specifications.

7. Electrical CABLES, Items: 614 230 and 614 272

— This SP supplements 613.15 of the Standard Specifications.

A. DESCRIPTION

All electrical connections shall conform to the National Electrical Code (NEC) section 110.14 that shall add to the relevant specifications (for splices) and DC Electrical Code S. All wiring methods and materials shall conform to the NEC section 300 to 398.

The neutral conductor in District owned manholes shall be marked with white tape or paint.

8. GROUND WIRE, Items: 614 334, 614 344

This SP supplements 613.14 of the Standard Specifications.

A. DESCRIPTION

All electrical connections shall conform to the National Electrical Code (NEC) section 110.14 that shall add to the relevant specifications (for splices) and DC Electrical Code S. All wiring methods and materials shall conform to the NEC section 300 to 398.

9. 20 Foot Tall Steel Traffic Signal Pole, Item 613 058

— This item shall follow 613.17 of the Standard Specifications.

10. 8 Foot Long Clamp on Mast Arm, Item 613 078

— This item shall follow 613.21 of the Standard Specifications.

11. CCTV Camera System AND ASSOCIATED EQUIPMENT, Item 613 096

— This SP supplements 613.49 of the Standard Specifications.

A. DESCRIPTION

After receiving the Engineer's approval of the catalog cuts, the contractor shall procure the CCTV camera, encoder and DSL modem for the cabinet, decoder and DSL modem for the TMC, mast arms and all other associated equipment as determined to be necessary according to the DDOT Standard Drawings, this special provision and as directed by DDOT personnel.

The following is a list of materials that are needed for the installation of CCTV Cameras:

1. 1 ea, Honeywell ACUIX 35X Outdoor Pendant with clear lower dome and 8" pigtail with 14 pin connector factory installed, including ACUIX Pigtail Assembly, smoked Cover. **Note:** Camera must operate with existing DDOT Philips/Bosch protocol.
2. 1 ea PMA18BS Pole Mount Adapter
3. 1 each DWM19S Wall Mount
4. 1 ea Remote Vision System panel mount camera interface power supply with surge protection on power data and video. 120 VAC Input, 24VAC camera power and heater/blower. Video output for local test monitor. Includes Phillips to Honeywell standard protocol conversion. Dimensions: 9" X 7" X 5" (HWD). Includes NEMA4X fiberglass enclosure (or approved equal)
5. 1 ea, 25 foot Honeywell Composite Cable, for ACUIX model camera
6. 2 ea, ML624 Actelis Ethernet Access Device (EDA)
7. 2 ea, ML688 Actelis Copper Drop/Add (EDA)
8. 1 ea, Siquira Model C-60 encoder, with DC power adapter, and mating AC power cord
9. 1 ea, Siquira Model S-60 decoder, with DC power adapter, and mating AC power cord

10. RG-6 flooded coax cable (West Penn Wire # 6325 or equiv.)
11. 3 pair 19 gauge solid distribution cable (Type IMSA 60-6 or RUS Spec. PE-54 BWFG)
12. IMSA 19-1, 7 conductor, 14 gauge, stranded cable
13. 2ea, 1½" cast iron hub plate (Pelco SE4124 or equivalent)
14. 2ea, Rubber grommet (sized to fit hole drilled into pole for cable)
15. 1 ea, 1½" malleable iron LR or LL threaded conduit body (drilled and tapped for 5/16-24 set screws)
16. 2 ea, neoprene gasket
17. 1 ea, galvanized conduit body cover (1½")
18. 30', ¾" stainless steel metal strap banding (Band-It C206 or equivalent)
19. 6 ea, ¾" stainless steel metal strap banding buckles (Band-It C256 or equivalent)
20. 2 ea universal channel clamp (Band-It SX0220 or equivalent)
21. 2 ea medium extrusion 8½" long (Band-It SX0073 or equivalent)
22. 1 ea Kellum Grip (Hubbell part # 02201037 or equiv.)
23. 2 ea 3M 4460-D shield connector
24. 1 ea BNC connector (West Penn Wire # CN-BM73-2 or equiv.)
25. 2 ea BNC connector (West Penn Wire # CN-BM73-5 or equiv.)
26. 1 ea RJ-11 jack (Suttle # 625A2-4-50)
27. 1 ea RJ-45 jack (Suttle # 625A28NK50)
28. 1 ea McCain Accessory Power Tap
29. 1 ea Tripp-Lite Power Strip (Model #PDU1215)
30. 1 ea RJ-11 telephone cord (comes with Modem)
31. 2 ea 3' Category 5 straight patchcord
32. 2 ea splicing sleeves for safety cable
33. 1 ea Hubbell HBL5965VY plug for camera cable

- Contractor shall install all required Cables to pole and mount equipment according to DDOT CCTV standards and as directed by DDOT ITS personnel.
- Communications pairs shall be assigned by DDOT.

12. Electrical Traffic Signal Cable, Item 613-098, 613-100, 613-106, and 613-108

This SP supplements 613.15 of the Standard Specifications.

A. DESCRIPTION

WIRING SYSTEM. The Contractor shall furnish and install the type, and size of copper wire cables indicated on the plans and/or specified herein in strict compliance with all codes and standards cited in 618.02. Wires shall be drawn into place free from electrical and mechanical injury. No lubricant other than an approved type will be permitted to be used on wire installed in conduit. All wires shall be permanently marked with approved fiber tags as described to expedite tracing of circuits where device terminals are not otherwise identified. Wire shall be placed in rigid conduit unless otherwise specified and the total cross sectional area of the wire shall not exceed 40 percent of the conduit cross section area.

Wires in underground streetlight circuit shall be Type RHW-2, copper, stranded, conforming to IPCEA standard S-68-516/NEMA WC8 for ethylene-propylene-rubber insulated cable. The jacket shall conform to IPCEA standard S-19-81, and have a HYPALON outside jacket.

CABLE CONNECTIONS. All wire and cable shall be continuous from origin to destination without running splices in intermediate trays, pull boxes or manholes. In cases where splices are necessary because of long lengths, approval of splice locations shall be obtained from the COTR. Splices will not be permitted in conduits, ducts, or trays.

All below grade wires and cable shall be spliced by compression only and with an approved resin splice kit.

The connector and the kit shall be suitable for the size of wire used. Bolted type copper connector may be used on overhead only installation. The indenture shall be such as to assure maximum electrical connection and sufficient physical strength.

If approved soldered connections are specified in the Special Provisions, each splice shall be covered with polyvinylchloride plastic insulating tape to provide insulation equivalent to that on the wire. Neoprene tape shall then be applied over the splice in half lap wrappings to a thickness equivalent to the wire or cable outer jacket. Two final laps of polyvinylchloride tape shall be applied and the splice shall then be painted with an approved air-drying insulating varnish.

CIRCUIT IDENTIFICATION. The Contractor shall furnish and install identifying tags on all circuit cables, in all junction boxes for line and luminaire identification. Tags shall be as per 820.14. Identification markings, designated by the Engineer, shall be stamped on the tags by means of small tool dies. Each tag shall be securely tied to the proper conductor by non-metallic core plastic. Self-adhesive plastic tags shall not be used unless approved by the Engineer.

13. ~~TRAFFIC SIGNAL LIGHT EMITTING DIODE (LED) MODULE, Item 613 150, 613 156, 613 162, 613 192, and 613 194~~

~~These items shall follow 613.22 of the Standard Specifications.~~

14. ~~3 Section Conventional Traffic Signal Head, Item 613 202 and 613 208~~

~~These items shall follow 613.23 of the Standard Specifications.~~

15. ~~Pedestrian Push Button, Item 613 236~~

~~This item shall follow 613.31 of the Standard Specifications.~~

16. ~~Traffic Signal Controller and Cabinet, Item 613 322~~

~~— This item shall follow 613.47 of the Standard Specifications.~~

17. ~~BOLT ON UPS CABINET ASSEMBLY WITH INVERTER CHARGER AND BATTERY BANK, Item 613 317~~

~~— This item shall follow 825.05 of the Standard Specifications.~~

18. ~~IP communications equipment, Item 613 324, 613 319, 613 321, 613 323 and 613 325~~

~~— This SP is for IP communications equipment.~~

~~A. DESCRIPTION~~

~~DDOT communicates with Traffic signals over a copper, twisted pair network by utilizing VDSL technology devices, and an IP modem module that must be installed in the traffic controller. These systems also require miscellaneous wiring devices to facilitate connection with the twisted pair network.~~

~~This equipment shall be delivered separately packaged when the controller cabinet is delivered to DDOT for programming.~~

~~1. VDSL Devices (The Enable-IT 860 Pro Extreme Distance Ethernet Extension Kit, or approved equal)~~

- ~~1.1 The Contractor shall two (2) pairs of extreme distance (unmanaged) VDSL modem kits with each controller supplied, for short haul communications, capable of the following:~~
 - ~~1.1.1 Each VDSL modem kit shall be supplied as a prepackaged pair with power supplies.~~
 - ~~1.1.2 Each VDSL modem kit shall be capable of 100-Mbps Ethernet link between them at 7920 feet, over a single twisted pair copper wiring.~~
 - ~~1.1.3 Each VDSL modem kit shall be capable of 40 Mbps Ethernet link between them at 6,000 feet, over a single twisted pair copper wiring.~~
 - ~~1.1.4 Each VDSL modem kit shall include a, 4 port, 100baseT Ethernet switch on each individual unit.~~
 - ~~1.1.5 Include as a minimum, field configurable, settable dip switch options, to determine the upstream and downstream unit.~~
- ~~1.2 Contractor shall deliver VDSL devices to DDOT forces at the time the traffic controller cabinet is delivered for programming.~~
- ~~2. Contractor shall deliver 2 dual ports, surface mount RJ-11 jacks with each controller cabinet assembly supplied.~~**
 - ~~2.1 Surface mount jacks shall be installed by DDOT forces to establish upstream and downstream communications on the communications network.~~
- ~~3. Contractor shall supply 2 Modular, RJ-11 patch cables with each controlled cabinet assembly supplied.~~**
 - ~~3.1 Modular RJ-11 cables shall be no less than 6 feet in length and shall be delivered pre-assembled by a quality manufacturer.~~
- ~~4. Contractor shall supply 3 Modular, RJ-45 patch cables with each controlled cabinet assembly supplied.~~**
 - ~~4.1 Modular RJ-45 cables shall be no less than 3 feet in length and shall be delivered pre-assembled by a quality manufacturer.~~
- ~~5. Contractor shall furnish, 1 (one) IP communications modem modules designed to install in 170 controllers.~~**
 - ~~5.1 IP modem module may be units currently supplied by McCain Inc., or approved equal.~~
 - ~~5.2 IP modem module shall be capable of directly replacing model 400 serial modem modules.~~
 - ~~5.3 IP modem module shall conform to the following requirements:~~
 - ~~5.3.1 direct IP addressable~~
 - ~~5.3.2 auto-sensing, 10 Base-T or 100 Base-T~~
 - ~~5.3.3 Automatic discoverable by the utilization of a vendor-supplied discovery software tool.~~
 - ~~5.3.4 Programmable via standard web browser, when IP address is already known.~~

19. Remove Abandoned Traffic Signal Controller Cabinet Foundation, Item 613-334

— This item shall follow 613.51 of the Standard Specifications.

20. Remove Traffic Signal Pole and Traffic Signal Equipment, Item 613-338

— This item shall follow 613.52 of the Standard Specifications.

21. Remove Traffic Signal Controller and Cabinet, Item 613-340

— This item shall follow 613.53 of the Standard Specifications.

22. **PCC Foundation for Streetlight, Item 614 422**
— This item shall follow 614.26 of the Standard Specifications.

23. **28'-6" Steel Pendent Pole with up to 8' Arm, Item 614 014**
— This SP supplements 614.29 of the Standard Specifications.

A. — DESCRIPTION

The post will come with either a regular pendant arm or a decorative arm.

The post will be octaflute monotube 11 gauge steel, 8" x 4" x 28'-6" (in case of 28'-6" pole) or 9.5" x 5.65" x 38'-6" (in case of 38'-6" pole) with a continuous 0.14 inches per foot taper. The post will be according to D.C. Streetlight Standard Drawings.

The shaft will be fabricated from 11 gauge steel meeting ASTM A595 GR A with a yield point of a no less than 55,000 psi. A cast steel anchor base will be welded to the bottom of the shaft in an escalated pattern. The base will have four (4) bolt holes per the drawing. The base will be complete with ornamental bolt covers and the attaching screws. All posts will have a strain cable grip installed to support the post cables. Poles that are not mounted on a transformer base will have a 3" x 5" hand hole with reinforced frame and cover provided 12 inches above the base.

All lighting standards for use on bridge structures shall be provided with a vibration damper and damper pads. A vibration damper consisting of a weighted device shall be attached inside the pole to dampen the vibration of the pole. The vibration damper shall be suitable for mounting in steel poles and shall be fabricated from corrosion resistant materials. The dampers shall be factory installed and blocked in place during shipping. A damper pad shall be provided at the base of each pole. The vibration and damper pads shall be tested and approved design and certified copies of test reports shall be submitted together with installation details for approval.

The post shall be galvanized to ASTM A-123 and powder coated with a Urethane or Triglycidyl Isoecyanurate (TGIC) polyester powder to a minimum dry film thickness of 2.0 mils. Prior to application, the surfaces to be powder coated are to be mechanically etched by brush blasting (ref. SSPC-SP7) and the zinc coated substrates preheated to 232°C (450°F) for a minimum of one (1) hour in a gas-fired convection oven. The coating will electrostatically apply and cured by elevating the zinc coated substrate temperature to a minimum of 177°C (350°F) in a gas-fired convection oven. The color of the poles depends on the roadway (DC Gray to Federal Color #16099, or Black to Federal Color # 27038) and will be announced for each job or as directed by the Engineer.

The pole will be wrapped in either a 3/16" U.V. inhibited plastic backed packing foam or cradled in a 1" rubberized foam base. The arms will be wrapped in a 3/16" U.V. inhibited plastic packed packing foam. As part of the catalog cuts, the contractor shall submit copies of the following certifications:
That the welds meet the requirements of AWS D1.1.

Material will be provided for all ASTM number referred to in this specification.

Copy of factory certification that it meets the requirement of American Institute of Steel Construction (AISC) category.

Arm Mounting Mechanism: For regular pendant arm attachment, the 28'-6" posts will include a single welded simplex to accommodate 3 to 8 foot single member arm, or a double welded simplex to accommodate 3 to 8

foot truss type arm for post installed on structures; the 38' 6" posts shall include a double welded simplex to accommodate an 8,10,12 or 15 foot truss type arm. For decorative arm, the post will include necessary mounting mechanism to accommodate 1 or 2 eight (8) foot decorative arms.

Regular Pendant Arm: The arms will be fabricated from steel. The post and arm will be cleaned of all rolled-in mill scale, impurities and nonmetallic foreign materials. The welds will be cleaned of all weld flux. The post and arm to be degreased by immersion in a heated caustic solution, then pickled in a heated sulfuric acid solution. The base will then be rinsed in a fresh water bath to remove any residual effects of the caustic or acid baths. The post and arm will then be immersed in a concentrated zinc ammonium chloride solution and allowed to air dry before being galvanized. The post and arm are to be hot dip galvanized to the requirements of either ASTM A123 or ASTM A153. The galvanized coating will be free of any debris or flux ash.

Decorative Arm for Teardrop Fixture: The lighting arm shall be 'DC Signature Decorative Type'. This upsweep arm will be made of aluminum (meeting the requirements of 6063-T6), or steel (meeting ASTM A53). The arm shall have the desired rise from the mounting bracket on the post. The arm shall be welded to a cast simplex mounting bracket/plate, for attachment to the post. The finish is to be Powder Coat DC Gray to Federal Color #16099, or Black to Federal Color # 27038. The color will be announced for each job or as directed by the Engineer. The Contractor must submit shop drawings of the hardware to be used to DDOT for review and approval for use in the contract.

24. ~~Remove Luminaires and arm from wood pole, Item 614 662~~

~~— This item shall follow 614.40 of the Standard Specifications.~~

25. ~~LED fixture with photocell, Item 614 800~~

~~— This item shall follow 614.37 of the Standard Specifications.~~

26. ~~Relocate SIGNAL from one pole to temporary pole, Item 613 232~~

~~— This SP supplements 613.55 of the Standard Specifications.~~

A. ~~Description~~

~~The Contractor shall supply all labor, material and equipment necessary to install temporary signal at locations identified in the plans. It will include: a) installation of the temporary pole, b) attach the signal devices and cables to the temporary pole, and c) detach the signal devices and cables from the temporary pole, once new pole is installed. Note that the existing signal devices will be used on the temporary pole and will be reused on the new pole, unless otherwise noted on the plan.~~

~~The contractor shall furnish and install the temporary portable signal base and 20' tall traffic signal pole with any mast arm for the temporary signal, and attach all signal devices and associated cables removed from the existing signal pole. Twenty eight (28) foot poles must not be used for this purpose. The contractor shall supply all necessary cables and any other materials to make the temporary signal fully operational and satisfactory to DDOT Engineer.~~

~~Furthermore, the contractor shall be responsible for maintaining the temporary signal and making sure that the equipment remains in proper position and functions appropriately for the entire duration that the temporary signal is required. When the contractor is ready to re-install the permanent signal back, it shall remove the signal equipment and associated cables from the temporary signal under this pay item.~~

~~The Contractor shall not damage any cables during the entire procedure. The Contractor shall notify and get~~

56. **TRAFFIC SIGN PANELS, Item 616 022**

THIS SP IS DELETED

~~This S.P. modifies and supplements Section 616.03 of the Standard Specifications,~~

~~Reflective sheeting for Traffic Sign Panels shall meet requirements of AASHTO M 268, Type III High Intensity and the provisions on Section 824.02.~~

57. **PROJECT SIGN LID-RETROFIT, Item No. 616 043**

POLLUTION CONTROL PROJECT SIGN Item No 616 045

Work under these items shall be performed following the detailed sketches included in the Specifications as Appendices D and E.

Requirements of material and work shall be generally in accordance with the Section 616.04 of the Standard Specifications.

The contractor shall prepare shop drawings and get the approval from COTR before ordering materials.

MEASURE AND PAYMENT - The unit of measure for Project Sign LID Retrofit and Pollution Control Project Sign will be per each sign furnished for the Contract, including furnishing, erecting, maintaining, and removal of the sign.

58. **BITUMINOUS CONCRETE MIXTURES**

THIS SP IS DELETED

~~This S.P. supplements Section 818 of the Standard Specifications.~~

~~**CERTIFICATION.** The manufacturer and hauler shall furnish certifications as specified in DDOT Standard Specifications.~~

~~The manufacturer shall also certify:~~

- ~~a. Date and time of loading.~~
- ~~b. Tank or blending system.~~
- ~~c. Identification of hauling unit.~~
- ~~d. Binder grade, temperature, and quantity of materials.~~
- ~~e. Complete certified analysis.~~
- ~~f. Lot number, if applicable.~~
- ~~g. Mixing and compaction temperatures when the binder is polymer modified.~~

~~The hauler shall also certify~~

- ~~1. Identification of hauling unit~~
- ~~2. Binder grade and source of delivery.~~
- ~~3. The date of the last delivery using this hauling tank and volume of material remaining in the tank at the time of current loading.~~

~~**A) Performance Graded Asphalt Binders.** For mixes containing all virgin materials shall conform to AASHTO MP Table 1 and all AASHTO Revisions, for elastomer polymer modified, PG 70-22 binder. The asphalt binder recovered from the final plant mixed material will be considered Rolling~~

~~Thin Film Oven (RTFO) material and shall conform to AASHTO MP1, Table I for the specified performance grade.~~

~~The PG Binder shall be pre approved by DDOT.~~

~~The Contractor shall submit a certificate of analysis showing conformance with the PG Binder Specification AASHTO MPI and the critical cracking temperature as described in the Binder ETO Draft, Standard Practice for Determination of Low Temperature Performance Grade (PG) of Asphalt Binder, for the binders specified in the Contract Documents.~~

~~The PG binder for HMA mixes shall be achieved by the use of Neat Asphalt with elastomer polymer modifications when needed.~~

59. PRE-BID CONFERENCE:

Prospective bidders are invited to attend a meeting to discuss the proposed work under this contract. Bidders will be notified of the location, room number, date and time by Addendum.

Representatives of the Department will be available to answer questions relative to the work. Bidders who expect to attend should inform the Department prior to the meeting date. Any pertinent date or change resulting from the conference will be included in any addendum issued to all prospective bidders after the conference; however, the importance of attending the meeting is stressed. Any questions or conflicts identified prior to bid should be brought out during this meeting.

60. DBE ASSURANCE

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

61. SUBCONTRACTING

The subcontractor approval request form included herein should be used to request approval of subcontractors on this project. The form should be completed for each subcontractor requested for approval and submitted to:

**Contracting Officer
Office of Contracting and Procurement
District Department of Transportation
55 M Street SE, 7th Floor
Washington, DC 20003**

Copies of these forms are available upon request

Copies of subcontracts shall be made available for review at any time by representatives of the District Department of Transportation and Federal Highway Administration.