

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract Number
DCKA-2012-B-0076

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2. Amendment/Modification Number
Three (3)

3. Effective Date

4. Requisition/Purchase Request No.

5. Solicitation Caption
DDOT Centralized Dynamic Message Signs

6. Issued By:
Office of Contracting and Procurement
Roadways and Highway
55 M Street SE 7th Floor
Washington, D.C. 20003

7. Administered By (If other than line 6)

8. Name and Address of Contractor (No. Street, city, country, state and ZIP Code)

(X) 9A. Amendment of Solicitation No.
DCKA-2012-B-0076
9B. Dated (See Item 11)
9/7/2012
10A. Modification of Contract/Order No.
10B. Dated (See Item 13)

Code Facility

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

X The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or fax, provided each letter or telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data (If Required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14

- A. This change order is issued pursuant to: (Specify Authority)
The changes set forth in Item 14 are made in the contract/order no. in item 10A.
- B. The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation date, etc.) set forth in item 14, pursuant to the authority of 27 DCMR, Chapter 36, Section 3601.2.
- C. This supplemental agreement is entered into pursuant to authority of:
- D. Other (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return 1 copies to the issuing office.

14. Description of amendment/modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)

The solicitation is amended as follows:

**Response to questions posed at the pre-bid conference (attach with the addendum).
No additional questions will be considered.**

The Bid Opening Date has been extended from October 12, 2012 October 26, 2012.

Delete: the following pages in its entirety and replace with the Revised pages, b,c,17,21,23, 23a and 23b, 78 and 110 (attach with the addendum).

Delete: the Pay Item Schedule pages 1 thru 10 in its entirety and replaced with the Revised Pages 1R thru 10R.

Contract Plans (attach with the addendum).

Except as provided herein, all terms and conditions of the document referenced in Item (9A or 10A) remain unchanged and in full force and effect

15A. Name and Title of Signer (Type or print) 16A. Name of Contracting Officer
Jerry M. Carter

15B. Name of Contractor 15C. Date Signed 16B. District of Columbia 16C. Date Signed

(Signature of person authorized to sign) (Signature of Contracting Officer) 10/4/12

DDOT Centralized DMS System Design and Integration
City-Wide Installation of DMS Signs

Questions and Answers

1. Material – 6.e. Walk-In access DMS. The DMS housing doors shall be furnished with a door lock that is keyed to DDOT standard lock. What is the DDOT standard lock?

DDOT standard lock is Corbin Number 3

2. Material – 9. Beacon Flasher System – This section describes the beacon flasher system. Where are the beacons to be located? Will beacons be required for both Type I and Type II displays?

Type I and II will have Beacon Flasher Systems. A proposed layout diagram will be provided in Addendum No. 1.

3. (B) Material 1.f. Cabinet Enclosure - The [controller] cabinet door shall be fitted with a three-point latching mechanism and number 3 Corbin lock. Industry standard is a Corbin number 2 lock. Please verify Corbin lock number.

It is Corbin number 3

4. Under schedule of items – line number 0010 – Employee Training – 2080 HR – is this for a trainee for a full year or two trainees for half of year?

Two trainees for a full year.

5. Provide are MOT devices and quantities, however the document states that the Contractor is to develop a MOT plan by a DC license engineer incidental the MOT devices pay items. Should this MOT plan have a separate pay item?

Refer to Special Provision #44. It is a part of pay item 616 004.

6. Line number 0110 wireless 900 MHz spread spectrum radio link pay item is EA and number is 4. Does it mean 4 links with 8 radio or 2 links with 4 radios?

A 900 MHz radio link uses two radios as detailed on Sheet 53 of the contract plans. The project uses radio links at 4 separate locations, which will require 8 radio units.

7. The walk-in states that they are looking for a 27x145 configuration, and then they state in the next line down, 3 lines of 21 characters per line? The 145 pixel wide would be 24 characters per line and would also push the sign housing passed the 30 foot requirement.

Character font is 35 pixels using 5 columns and 7 rows. The 27x145 sign using 66mm pitch spacing can accommodate 3 lines of 21 18-inch characters in a space of 5.8ft H x 31.4 ft W. The maximum width should be changed from 31ft even to 31.5ft.

8. Please describe the item description for 616004 construction lane closing line number 0280.

See SP# 44

9. What does the line number 0350 Repair of Damaged Major Traffic Control Devices –LS.

Refer to 616.20 of DDOT Standard Specifications

10. Line number 0380 and 0390 is for Lane Closures day and night have a unit of LF is this correct?

Revised. The unit is "EACH" for both pay items.

11. The FAT test will it be required for the Contractor and DDOT to be present. If the travel and lodging cost of the DDOT's personnel be included in this bid?

DDOT personnel cost is not included in this bid

12. As part of the measure and payment in page 83 it states:

Major Work Signs shall be erected on the limits of work at least five (5) calendar days prior to commencement of the work. Cost of these signs shall be considered incidental to the work and shall be distributed among various maintenance of traffic pay items.

What are these signs to indicate? Size? Mounting?

Temporary traffic control signs and temporary sign supports. Size as per MUTCD.

13. Please clarify the following statement:

The Contractor shall furnish two (2) each of any special tools and test equipment, that are designed to perform diagnostic tests or to meet specific tests, operation and maintenance requirements after the equipment is placed into service. The special tools and test equipment shall be handed over to DDOT upon successful completion of the 30-day Test.

Does this include laptop for testing the signs and its associated (NTCIP) software? Voltmeters? Etc.

This is to include all equipment necessary to test and maintain the signs, other than common hand tools. All equipment should be itemized and provided to the District for approval.

14. Under the **HARDENED ETHERNET SWITCH, ITEM: 629 017** – it states “*The Contractor shall not use existing GFI outlets in the controller cabinets to plug in Ethernet Field Switch power cord.*” Does the Ethernet switch need a separate power supply?

Ethernet switch and all other cabinet equipment shall be connected to the UPS as shown on the plans. Non-GFI receptacles shall be used for all permanent equipment in the cabinet. The purpose of the GFI is only to power temporary test equipment.

Page 76 states “1. The switch shall be mountable inside the OMS controller cabinet in a location and method shown on the plans and designated by the District Engineer.

3. The switch shall be rack mounted inside the controller cabinet in a secure location, accessible by field technicians” Where does the Ethernet switch get installed? On page 54 of the plans, it shows the fiber connecting to the DMS. Is this correct? The plan and specifications refer to CAT 5, is CAT 5e acceptable?

Pg 50 shows the typical equipment mounting details inside the DMS cabinet. Pg 54 shows the various communication cable connections with fiber optic cable being the communications medium between controller and DMS cabinet. Cat 5e within the cabinet is acceptable.

15. Line items 380 & 390: Item descriptions have a unit of measurement of “EACH”, but quantity is for 50 and 100 “LF”. Please clarify.

Revised. The unit is “EACH” for both pay items.

16. Line items 410 & 420: DDOT typically provides a value for these line items. If DDOT does not intend to provide this value, what happens if the cost of fees exceeds the bid amount?

See the revised pay item schedule.

17. Line items 510 & 520: Units of measurement are in “LF” for step-down and step-up transformers. Please clarify.

Unit is revised to “LUMP SUM”

18. Line 280: Construction Lane Closing. This is a lump sum item. How will this item be paid?

This will be paid under pay item #616004

19. DMS #5094: Sheet 13 Sections A & B show the median barrier with a brick finish. The existing median on this road has a stone block veneer and stone cap. Please confirm that the new barrier does not need to match existing.

Answer: Stone Masonry shall match existing.

20. Who will be responsible for permits for signs in Virginia? How will permit fees for work in Virginia be paid?

DDOT is responsible for the VDOT land-use permit.

21. For the signs in Virginia, has DDOT communicated with Virginia DOT? If so, to what extent?

DDOT has coordinated the project with VDOT during the design stage. VDOT has reviewed the full design package.

8. For the signs in Virginia, has DDOT communicated with Dominion Virginia Power? If so, to what extent?

DDOT has coordinated the project with Dominion Virginia Power.

9. What assistance will DDOT provide the Contractor in coordinating work with VDOT and Dominion Power?

DDOT Project Manager will coordinate meetings with VDOT and Dominion if necessary.

10. Sheet 2: Overhead Sign Structure note #11 calls for sign structure materials to be in accordance with DDOT Standard Specification 824. Section 824 specifies that the structural steel meet ASTM A53, which pertains to circular steel pipe. However, the drawings have the structures as rectangular tubing. Please clarify.

Special Provision #57 revises Standard Specification 824.

11. We respectfully request a one week extension for this bid.

Done

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- Appendix A: Specific Equal Employment Opportunity Responsibilities (6 Pages)
- Appendix B: Training Special Provisions (3 Pages)
- Required Contract Provisions (12 Pages)
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- Monthly Employment Utilization Report (2 Pages)
- Disadvantaged Business Enterprise Participation (3 Pages)
- General Wage Rate Determination (12 Pages)
- Employee Training Requirements (2 Pages)

The "STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES, 2009"
is incorporated herein by reference and is made a part of the requirements of this contract.

26. SALVAGED MATERIALS

(A) DESCRIPTION

Any salvaged materials considered by the District Engineer to be useful to the District shall be delivered to a designated DDOT storage yard. All other materials shall be removed from the job site and be disposed of properly by the Contractor.

(B) MEASURE AND PAYMENT

No direct measure will be made for this work. Payment for this work shall be reflected in the unit prices for the appropriate pay items for removal.

27. PUBLIC SAFETY AND CONVENIENCE

The Contractor shall take every measure necessary to ensure the protection of personnel and property. When in the opinion of the District Engineer, construction operations constitute a hazard to traffic in any area, the Contractor may be required to suspend operations during certain hours to remove equipment from the roadway.

28. ELECTRICAL WORK, ITEMS: 618 310, 618 298, 618 292, 618 001, 618 003, 618 021, 618 023, 618 025, 618 027 [ADDENDUM NO. 3 REVISED]

This S.P. modifies and supplements 621 of the Standard Specifications.

(A) GENERAL

Electrical work consists of:

1. Where routing of conduit is shown schematically, or the conduits are embedded, the Contractor shall field-verify that he has located the correct conduit.
2. Installation of DMS and cabinet conduit, junction boxes, cables, and other appurtenances are as shown on the contract plans.
3. The work shall include cabling and installation of radio system equipment and antennas on existing poles and traffic signal control cabinets as shown on the plans.
4. Where existing wiring or equipment is disturbed beyond the contract limit due to construction, the Contractor shall restore the disturbed wiring or equipment to the original condition upon completion of the contract.
5. Where conduits are to be installed under existing roadway and other existing surfaces which are outside the limits of reconstruction as indicated on the contract plans, the contractor shall provide trenching for the required electrical work. Trenching,

Telephone: (571) 203-5355

(D) MATERIALS

1. All materials and equipment used in performance of work shall meet requirements as specified herein and requirements of the Standard Specifications. All materials shall be galvanized or corrosion-resistant. Materials shall be submitted for approval.
2. Junction Boxes – shall be cast iron and as specified in 618.11 of the Standard Specifications.
3. Splices in 621.12 of the Standard Specifications shall be revised as follows:
 - a. Splices in wires and cable shall be accomplished by means of compression pressure connectors. The connector shall be suitable for the size of wire used and shall be of one-piece tubular tinned copper construction. The indenture shall be such as to assure maximum electrical connection and sufficient physical strength. The connection shall be covered with cross-linked Polyethylene shrinkable tubing. The tubing shall be heavy wall rated 600 V90 C and conform to UL 486D, CSA C22.2 No. 198.2 and ANSI C119.1, and Western Underground Guides 2.4, 2.5 and IEEE 383. If shrinkable tubing is not feasible for a particular connection, the connection shall be covered with No. 88 Scotch plastic electric tape as manufactured by Minnesota Mining Manufacturing Company, or approved equal. It shall be half-lapped into a thickness not less than 50 percent greater than the conductor insulation. An approved waterproof coating shall be applied on the outer cover.
4. Conduit Expansion and Deflection Fittings – Shall be as specified in 621.10 of the Standard Specifications and be incidental to the conduit runs.
5. [ADD. NO. 3 ADDED] Flexible Metal Conduit shall conform to, and be galvanized in accordance with the requirements of UL-360 for Liquid-tight Flexible Steel Conduit. Fittings for all conduits shall conform to, the requirements of UL-514B.

29. RELIABILITY AND OPERATIONAL STABILITY

(A) GENERAL

The Contractor shall furnish all necessary equipment, unless stated otherwise in these specifications, for a completely operational DMS system that is of high quality, proven, high reliability, and has operational stability. Compliance with the operational and technical specifications of these Technical Specifications pertaining to individual elements of the DMS system does not in itself constitute compliance with the reliability and operational stability of the complete system.

30. STANDARDS AND GUIDELINES

(A) GENERAL

3. The Contractor shall follow the approved quality control program for the duration of the contract.
4. The Contractor shall not order equipment and/or materials without an approved quality control program.
5. Any deviations from the contract plans shall be submitted for approval by the District Engineer.
6. At a minimum the quality control program shall include:
 - a. Key staff for the project, as well as their responsibilities
 - b. Quality control review milestones
 - c. Delivery time based on project schedule

32. FURNISH AND INSTALL LED FULL MATRIX DMS, ITEMS: 629 001, 629 003, 629 005, AND 629 019 [ADDENDUM NO. 3 REVISED]

(A) GENERAL

This work shall consist of furnishing, installing, and testing full-matrix LED modular Dynamic Message Signs (DMS) of two sizes meeting or exceeding the specifications.

Equipment to be furnished at each DMS field site shown in the plans shall include, but not be limited to LED DMS, sign controller, and other systems such as DMS Controller Cabinet and Communications Equipment specified elsewhere. The DMS message display, including character and interline spacing, shall be in conformance with the Manual on Uniform Traffic Control Devices (MUTCD) 2009. To ensure overall system compatibility, all DMS signs shall be from the same manufacturer.

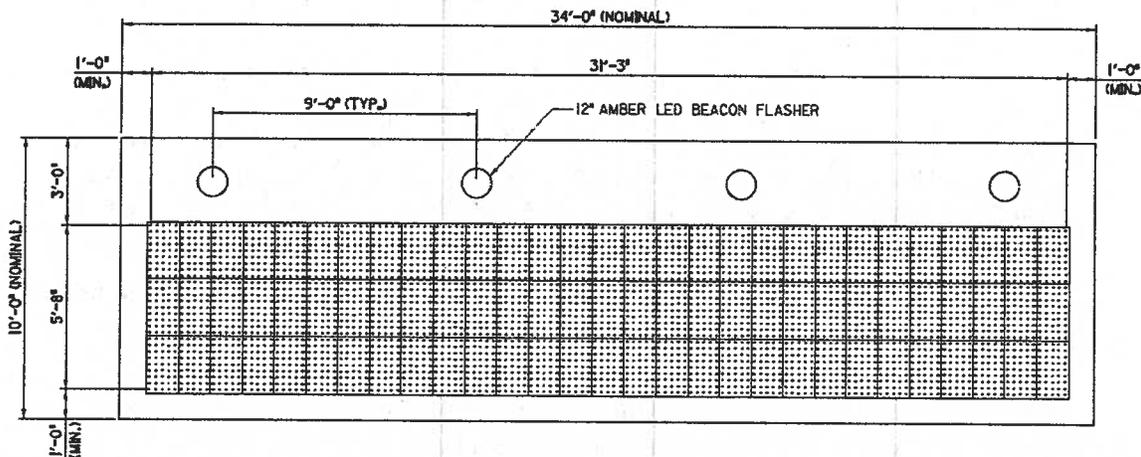
1. **DMS Type – The DMS to be supplied under this contract shall be of the following types:**
 - a. **Type I** shall be LED Full-Matrix DMS (27 x 145 pixels, 66 mm pitch), 30-degree viewing cone, capable of displaying at least 3 lines, each with 21 18-inch characters per line, flashing beacons where applicable, and walk-in housing for installation on major freeways and arterials. [ADDENDUM NO. 3 REVISED] Nominal dimensions for cabinet shall be 10ft H x 34ft W x 4ft D and 4,500 lbs.
 - b. **Type II** shall be LED Full-Matrix DMS (27 x 105 pixels, 44 mm pitch), 30-degree viewing angle, capable of displaying 1, 2, or 3 lines, with 15 12-inch characters per line, cantilever or pedestal mounted, and front access for installation on city streets. Nominal dimensions for cabinet shall be 6ft H x 18ft W x 2ft D and 2,000 lbs.
 - c. DMS 5094, 6007, and 6025 cabinets shall provide attachment for a static sign. This detail shall be included with the calculations and drawings submitted to the Engineer for approval.

[ADDENDUM NO. 3 ADDED]

- d. Type III shall be LED Full-Matrix DMS (27 x 125 pixels, 66 mm pitch), 30-degree viewing cone, capable of displaying at least 3 lines, each with 18 18-inch characters per line, flashing beacons where applicable, and walk-in housing for installation on major freeways and arterials. Nominal dimensions for cabinet shall be 10ft x 30ft x 4ft and 4,500 lbs.

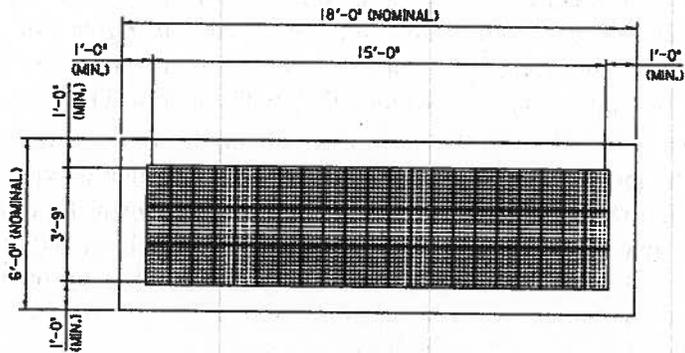
DMS CABINET LAYOUT DIAGRAMS

[ADDENDUM NO. 3 ADDED]



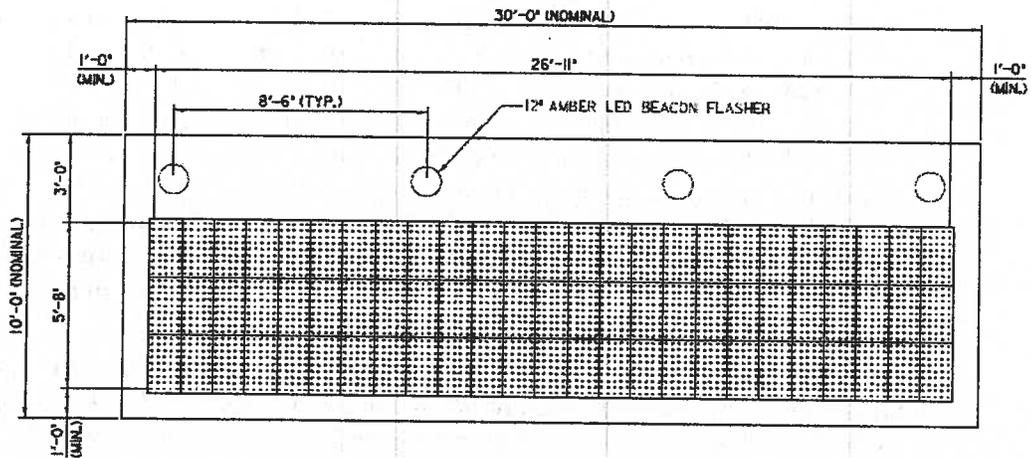
LED Full-Matrix DMS Type I

DMS 5094
DMS 6025
DMS 7021/7022
DMS 8016/8017
DMS 9100



LED Full-Matrix DMS Type II

DMS 5046
DMS 7097
DMS 9101



LED Full-Matrix DMS Type III

DMS 6007

Integration into the District central system, programming, troubleshooting, adjustments, and testing at the time of installation are the responsibility of the District or its designated representative. Due to changing technology and the possibility of mismatched equipment, the District reserves the right to request a substitution of any hardened Ethernet switch for another model or manufacturer.

44. MAINTENANCE OF HIGHWAY TRAFFIC, [ADDENDUM NO. 3 REVISED]
ITEM: 614 012, 616 005, 616 006, 616 007, 616 009, 616 012, 616 016, 616 020,
616 028, 616 080, 616 110, 616 150 AND 616004

This S.P. supplements 104.02 and 616.01 of the Standard Specifications.

(A) GENERAL

1. **Description** – Work consists of temporary traffic control of vehicular traffic within and adjacent to the project site and includes, but is not limited to the following for the contract duration: flagmen and watchmen; public convenience and safety; furnishing, placing, maintenance, removal and disposal of all traffic temporary control devices as defined in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009, U.S. Department of transportation, Federal Highway Administration and subsequent revisions. Reference to latest revisions of Part VI of the MUTCD shall be to the MUTCD 2009.
2. Work includes all operational needs for proper traffic maintenance and coordination with the District of Columbia Division of Transportation (DDOT) within the limits of the project and limits outside the project as defined in the approved Traffic Control Plan.
3. Work includes coordinating the Contractor's maintenance of traffic work with other contractors and utility companies working in the same general location to maintain continuity of traffic flow and minimize congestion.
4. The Contractor shall provide Maintenance of Traffic (MOT) when necessary for DMS equipment inspection, installation, testing, and acceptance.
5. The Contractor is responsible for submitting permits necessary for MOT plan approvals.

(B) TRAFFIC CONTROL

1. The Contractor must develop the maintenance of traffic plans necessary for all work. When developing the traffic control plans, the minimum clear width of an open traffic lane that is adjacent to a closed traffic lane shall be eleven ft. Other open traffic lanes shall have a minimum width of twelve feet.
2. In all cases, the work hours and the minimum number of open traffic lanes shall conform to the requirements of the S.P. entitled WORK HOURS.

ADDENDUM NO. 3 [ADDED]

67. PAYMENT TO DOMINION-VIRGINIA POWER FOR CONNECTION, DISCONNECTION, AND INSPECTION OF SERVICE TO SIGN STRUCTURES, ITEM: 618 997

(A) GENERAL. The Contractor shall make payments to the Dominion-Virginia Power (DVP) for service connections, disconnections and DVP manholes entry fees. This shall include all conduit, cabling, handholes, meter, and all other labor and materials required to provide service at the project sites. Up to two (2) visits by DVP forces may be needed. The DVP manhole entry fee package will be enclosed with the contract documents. The Contractor must schedule his work around two (2) DVP manhole entries per manhole; any additional service visits will be the responsibility of the Contractor at no additional cost to the District. The Contractor shall include in his bid the amount shown in the Pay Item Schedule to pay DVP for work performed as required in the contract. DVP will submit all invoices to the Contractor for payment. After payment has been made, the Contractor shall submit the paid invoices to the Chief Engineer for reimbursement by the District. The District will pay the Contractor only the invoice amount.

(B) WORK INCLUDED. Work shall include providing service at the following project sites:

- DMS 9100
- DMS 9101

(C) MEASURE AND PAYMENT. The unit of measure will be Lump Sum for all locations requiring service from DVP. Payment shall be for all labor and materials provided by DVP to provide service at all sites designated in the contract. Payment will be made to the Contractor based on the paid DVP invoices. Contractor markup shall not be allowed

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 PARTICIPATING DDOT CENTR WORK100% (FA)

0010	000003 Employee Training	2080.000 HR	.	.	.	.
0020	000504 Unassigned Special Item -CY - REMOVE EXISTING BARRIER CONCRETE 205001	90.000 CY	.	.	.	.
0030	000505 Unassigned Special Item -DAYS - PORTABLE CHANGEABLE MESSAGE SIGN 616110	220.000 DAYS	.	.	.	.
0040	000505 Unassigned Special Item -DAYS - SEQUENTIAL ARROW BOARDS 616020	190.000 DAYS	.	.	.	.
0050	000505 Unassigned Special Item -DAYS - TRUCK MOUNTED ATTENUATORS 616080	600.000 DAYS	.	.	.	.
0060	000506 Unassigned Special Item -EACH - DMS CENTRAL CONTROLLER 629009	1.000 EACH	.	.	.	.
0070	000506 Unassigned Special Item -EACH - DMS CENTRAL CONTROLLER SOFTWARE 629011	1.000 EACH	.	.	.	.
0080	000506 Unassigned Special Item -EACH - DMS TEST FIXTURE 629007	1.000 EACH	.	.	.	.

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR :

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0090	000506 Unassigned Special Item -EACH - FURNISH AND INSTALL 3G CELLULAR DATA RADIO 629015	EACH 5.000	.	.	.	.
0100	000506 Unassigned Special Item -EACH - FURNISH AND INSTALL HARDENED ETHERNET SWITCH 629017	EACH 9.000	.	.	.	.
0110	000506 Unassigned Special Item -EACH - FURNISH INSTALL WIRELESS 900 MHZ SPREAD SPECTRUM RADIO LINK 629013	EACH 4.000	.	.	.	.
0120	000506 Unassigned Special Item -EACH - FURNISH/INST. LED FULL MATRIX 27X105 PEL 44MM PITCH FRONT ACCESS SIGN 629003	EACH 3.000	.	.	.	.
0130	000506 Unassigned Special Item -EACH - FURNISH/INSTALL LED FULL MATRIX 27X145 PEL, 66MM PITCH, WALK-IN SIGN 629001	EACH 8.000	.	.	.	.
0140	000509 Unassigned Special Item -LF - FURNISH AND INSTALL FIBER OPTIC CABLE 629005	LF 1650.000	.	.	.	.
0150	000511 Unassigned Special Item -LS - MAINTENANCE TRAINING 000007	LUMP	LUMP	.	.	.

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR :

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT		
			DOLLARS	CTS	DOLLARS	CTS	
0160	000511 Unassigned Special Item -LS - OPERATION TRAINING 000005	LUMP	LUMP				
0170	207002 Trench Excavation and Backfill	CY 375.000					
0180	215002 Trench Excavation and Restoration - Composite Pavement	CY 75.000					
0190	215004 Trench Excavation and Restoration - Concrete Pavement	CY 75.000					
0200	409991 Asphalt Patching Special Item - TON - ASPHALT PATCHING, 409001	TON 4.000					
0210	505991 Replace PCC Pavement Special Item - SY - PCC PAVEMENT PATCHING FULL DEPTH 505001	SY 71.000					
0220	605002 W Beam Guiderail	LF 257.000					
0230	605016 Guiderail Approach Terminal	EACH 1.000					
0240	605048 Crash Cushion Attenuating Terminal (CAT)	EACH 17.000					
0250	610004 Seed with 4 Inch Topsoil	SY 2525.000					

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0260	612002 Mobilization	LUMP	LUMP			
0270	614012 Portable Precast PCC Barrier	3750.000 LF				
0280	614992 PCC Traffic Barriers Special Item - LF - MOVE PORTABLE PCC BARRIERS	1500.000 LF				
0290	616004 Construction Lane Closing	LUMP	LUMP			
0300	616006 Remove Lane Markings	14500.000 SF				
0310	616012 Construction Warning and Detour Signs	7620.000 SF				
0320	616014 ReflectORIZED Traffic Cones	150.000 EACH				
0330	616016 Flashing Amber Warning Lights, Type "B"	810.000 EACH				
0340	616022 Construction Sign Warning Flags	80.000 EACH				
0350	616024 Type III PVC Barricade	20.000 EACH				
0360	616028 Traffic Drums	1140.000 EACH				

SCHEDULE OF ITEMS

DATE:
REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0370	616044 Thermoplastic Pavement Marking, 6 Inch	12300.000 LF	.	.	.	.
0380	616046 Thermoplastic Pavement Marking, 6 Inch Dash	29100.000 LF	.	.	.	.
0390	616150 Repair of Damaged Major Traffic Control Devices DEVICES	LUMP	LUMP	.	37000.00	.
0400	616992 Traffic Control Special Item - EACH - TRAFFIC CONTROL DAY-TIME CLOSURES (SINGLE LANE) EACH 616 007 EACH	50.000 EACH	.	.	.	.
0410	616992 Traffic Control Special Item - EACH - TRAFFIC CONTROL NIGHT-TIME CLOSURES (SINGLE-LANE) EACH 616009 EACH	10.000 EACH	.	.	.	.
0420	616994 Traffic Control Special Item - LF - TEMPORARY PERFORMED PAVEMENT MARKING, 616003	12300.000 LF	.	.	.	.
0430	616994 Traffic Control Special Item - LF - TEMPORARY PREFORMED PAVEMENT 6 INCH DASH 616005	29100.000 LF	.	.	.	.
0440	617016 Furnish And Install One 4 Inch Pvc Encased Electrical Conduit	2700.000 LF	.	.	.	.

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0450	618991 ELECTRICAL WORK SPECIAL ITEM -LS- FURNISH AND INSTALL STEP DOWN TRANS- FORMER FOR DMS 7021/7022 ITEM 618019	LUMP	LUMP			
0460	618991 ELECTRICAL WORK SPECIAL ITEM -LS- FURNISH AND INSTALL STEP UP TRANSFORMER FOR DMS 7021/7022 ITEM 618017	LUMP	LUMP			
0470	618991 ELECTRICAL WORK SPECIAL ITEM -LS- PAYMENT TO DOMINION VIRGINIA POWER FOR CONNECTION/DISCON SERS 618015	LUMP	LUMP			6700.00
0480	618991 ELECTRICAL WORK SPECIAL ITEM -LS- PAYMENT TO PEPCO FOR CONNECTION/ DISCONNECTION SERVICES 618999	LUMP	LUMP			350000.00
0490	618992 ELECTRICAL WORK SPECIAL ITEM -EACH- FURNISH AND INSTALL METER SOCKET AND SUP PORTING MATERIALS 618011	EACH	6.000			
0500	618992 ELECTRICAL WORK SPECIAL ITEM -EACH- FURNISH AND INSTALL POLE MOUNTED ROADSIDE DMS CABINET 618005	EACH	9.000			

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0510	618992 ELECTRICAL WORK SPECIAL ITEM -EACH- FURNISH AND INSTALL POLE MOUNTED LIGHTING CONTROL CABINET 618009	EACH 3.000				
0520	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH AND INSTALL #1/0 AWG GROUND TYPE THHN/THWN, 600V WIRE INSTAL MATER 618021	LF 50.000				
0530	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH AND INSTALL #2/0 AWG GROUND TYPE THHN/THWN, 600V WIRE INST MATER 618023	LF 5040.000				
0540	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH AND INSTALL #4/0 AWG GROUND TYPE THHN/THWN, 600V WIRE INST MATER 618025	LF 5280.000				
0550	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH AND INSTALL NEW FLEXIBLE CONDUIT 618 027	LF 310.000				
0560	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH AND INSTALL NEW GRS CONDUIT 618003	LF 1185.000				
0570	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH INSTALL #10 AWG GROUND TYPE THHN THWN, 600V WIRE 618001	LF 805.000				

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0580	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH INSTALL #2 AWG TYPE THHN/THWN 600V WIRE 618310	1955.000 LF				
0590	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH INSTALL #6 AWG TYPE THHN/THWN, 600V WIRE 618298	2575.000 LF				
0600	618993 ELECTRICAL WORK SPECIAL ITEM -LF- FURNISH INSTALL #8 AWG GROUND TYPE THHN THWN, 600V WIRE 618292	1825.000 LF				
0610	620012 Guide Sign Panels	1417.000 SF				
0620	620030 Remove Existing Overhead Sign	1126.000 SF				
0630	620034 Remove Overhead Sign Structure	LUMP	LUMP			
0640	620993 Traffic Signing Special Item - EACH - REMOVE EXISTING DMS CABINET/PANELS 620001	5.000 EACH				
0650	628002 Erosion and Sediment Control	LUMP	LUMP			
0660	701062 Cassion (No Bell) 42 Inch CAISSON (NO BELL) 42 INCH	40.000 LF				

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR :

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0670	701064 Cassion (No Bell) 48 Inch	345.000 LF	.	.	.	.
0680	703991 Concrete for Structures Special Item - CY - CLASS B CONCRETE/PILE CAP/ BARRIER 703001	160.000 CY	.	.	.	.
0690	703991 Concrete for Structures Special Item - CY - CLASS F CONCRETE/MAINTENANCE PAD 703003	6.000 CY	.	.	.	.
0700	706004 Structural Steel - AASHTO M270, Grade 36	800.000 LBS	.	.	.	.
0710	708004 Stone Masonry, Class B	240.000 CF	.	.	.	.
0720	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS #8016/8017) 713013	LUMP	LUMP	.	.	.
0730	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS# 5046) 713001	LUMP	LUMP	.	.	.
0740	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS# 6007) 713005	LUMP	LUMP	.	.	.

SCHEDULE OF ITEMS

DATE:

REVISED:

CONTRACT ID: 2012B0076

PROJECT(S): STP-8888 (410)

CONTRACTOR :

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0750	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS# 6025) 713007	LUMP	LUMP			
0760	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS# 7097) 713011	LUMP	LUMP			
0770	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS# 9101) 713017	LUMP	LUMP			
0780	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS#5094) 713003	LUMP	LUMP			
0790	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS#7021/7022) 713009	LUMP	LUMP			
0800	713991 Steel Sign Structure Special Item - LS - FURNISH AND INSTALL NEW SIGN STRUCTURE (DMS#9100) 713015	LUMP	LUMP			
	SECTION 0001 TOTAL					
	TOTAL BID					

DATE	BY	REV. NO.	APP. NO.
02/28/12	JAC	1	1

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
000 003	2,080	HR	Employee Training
000 005	1	LS	Operation Training
000 001	1	LS	Maintenance Training
205 001	90	CY	Remove Existing Barrier Concrete
201 002	375	CY	Trench Excavation and Backfill
215 002	75	CY	Trench Excavation and Restoration - Composite Pavement
215 004	75	CY	Trench Excavation and Restoration - Concrete Pavement
409 001	4	TON	Asphalt Patching
505 001	11	SY	PCC Pavement Patching - Full Depth
605 002	291	LF	W Beam Culvert
605 016	1	EACH	Culvert Approach Terminal
605 048	11	EACH	Crash Cushion Attenuating Terminal
610 004	2,525	SY	Seed with 4-inch Topsoil
612 002	1	LS	Mobilization
614 912	3,120	LF	Portable Precast PCC Barrier
614 992	1500	LF	Move Portable Precast PCC Barrier
616 003	12,300	LF	Temporary Formed Pavement Marking, 4 inch
616 004	1	LS	Construction Sign Cabinet
616 005	29,100	LF	Temporary Formed Pavement Marking, Dash, 4 inch
616 006	14,500	SF	Remove Lane Markings
616 007	50	EACH	Traffic Control Special Team - Day Time Closures (Single Lane)
616 009	10	EACH	Traffic Control Special Team - Night Time Closures (Single Lane)
616 012	7,820	SF	Construction Warning and Detour Signs
616 014	150	EACH	Reflective Traffic Cones
616 016	810	EACH	Training Area Warning Lights, Type 'B'
616 020	190	DAYS	Sequential Arrow Boards
616 022	80	EACH	Construction Sign Warning Flare
616 024	20	EACH	Type B PVC Barricade
616 028	1,140	EACH	Traffic Drums
616 044	12,300	LF	Thermoplastic Pavement Marking, 6 inch
616 046	29,100	LF	Thermoplastic Pavement Marking, 6 inch Dash
616 050	600	DAYS	Truck Mounted Attenuator
616 110	220	DAYS	Portable Changeable Message Sign
616 150	1	LS	Repair of Damaged Major Traffic Control Devices
617 016	2,700	LF	Furnish and Install One 4-inch PVC Encased Electrical Conduit
618 310	1,955	LF	Furnish and Install #2 AWG Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 298	2,575	LF	Furnish and Install #6 AWG Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 292	1,825	LF	Furnish and Install #8 AWG Ground Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 001	805	LF	Furnish and Install #10 AWG Ground Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 003	1,185	LF	Furnish and Install New GRS Conduit
618 005	9	EACH	Furnish and Install Pole Mounted Roadside DMS Cabinet
618 009	3	EACH	Furnish and Install Pole Mounted Lighting Control Cabinet
618 011	6	EACH	Furnish and Install Meter Socket and Supporting Materials
618 013	1	LS	Furnish and Install Power Service for DMS 8016/8017
618 015	1	LS	Furnish and Install Power Service for DMS 9106 and 9107
618 017	1	LS	Furnish and Install Step-Up Transformer for DMS 7001/7002
618 019	1	LS	Furnish and Install Step Down Transformer for DMS 1021/1022
618 021	50	LF	Furnish and Install #10 AWG Ground Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 023	5,040	LF	Furnish and Install #2/0 AWG Ground Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 025	5,280	LF	Furnish and Install #4/0 AWG Ground Type THHN/THWN, 600V Wire (per each conductor) and Associated Installation Material
618 027	310	LF	Furnish and Install New Flexible Conduit
618 991	1	LS	Payment to Dominion-Virginia Power For Connection, Disconnection, and Inspection of Service to Sign Structures
618 999	1	LS	Payment to PERC For Connection, Disconnection, and Inspection of Service to Sign Structures
620 001	5	EACH	Remove Existing DMS Cabinet

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
620 012	1,411	SF	Guide Sign Panels
620 030	1,726	SF	Remove Existing Overhead Sign
620 034	1	LS	Remove Overhead Sign Structure
628 002	1	LS	Erosion and Sediment Control
629 001	1	EACH	Furnish and Install LED Full Matrix 127 x 145 pixels, 66 mm pitch Walk-In Access, Type I Sign
629 003	3	EACH	Furnish and Install LED Full Matrix 127 x 105 pixels, 44 mm pitch Front Access, Type I Sign
629 005	1,650	LF	Furnish and Install Fiber Optic Cable, Priced per Foot with a Maximum 150' Length
629 007	1	EACH	Furnish DMS Test Fixture
629 009	1	EACH	DMS Central Controller
629 011	1	EACH	DMS Central Controller Software
629 013	4	EACH	Furnish and Install Ethernet Wireless 802.11g Spread Spectrum Radio Link
629 015	5	EACH	Furnish and Install 3G Cellular Data Radio
629 017	9	EACH	Furnish and Install Hardened Ethernet Switch
629 019	1	EACH	Furnish and Install LED Full Matrix 127 x 125 pixels, 66 mm pitch Walk-In Access, Type II Sign
701 062	40	LF	Collason No Ball 42 Inch
701 064	345	LF	Collason No Ball 48 Inch
703 001	160	CY	Class B Concrete/Pile Cap/Barrier
703 003	6	CY	Class F Concrete/Maintenance Pod
706 004	800	LBS	Structural Steel - AASHTO M270, Grade 36
708 004	240	CF	Stone Masonry, Class B
713 001	1	LS	Furnish and Install New Cantilever Structure (5046)
713 003	1	LS	Furnish and Install New Overhead Structure (5094)
713 005	1	LS	Furnish and Install New Overhead Structure (5007)
713 007	1	LS	Furnish and Install New Overhead Structure (16025)
713 009	1	LS	Furnish and Install New Overhead Structure (1021/1022)
713 011	1	LS	Furnish and Install New Pedestal Structure (17097)
713 013	1	LS	Furnish and Install New Overhead Structure (8016/8017)
713 015	1	LS	Furnish and Install New Overhead Structure (8100)
713 017	1	LS	Furnish and Install New Pedestal Structure (8104)

D.C. DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATION ADMINISTRATION
CENTRALIZED DYNAMIC MESSAGE SIGN (DMS)
SYSTEM DESIGN & INTEGRATION
CITY-WIDE INSTALLATION OF 11 DMS

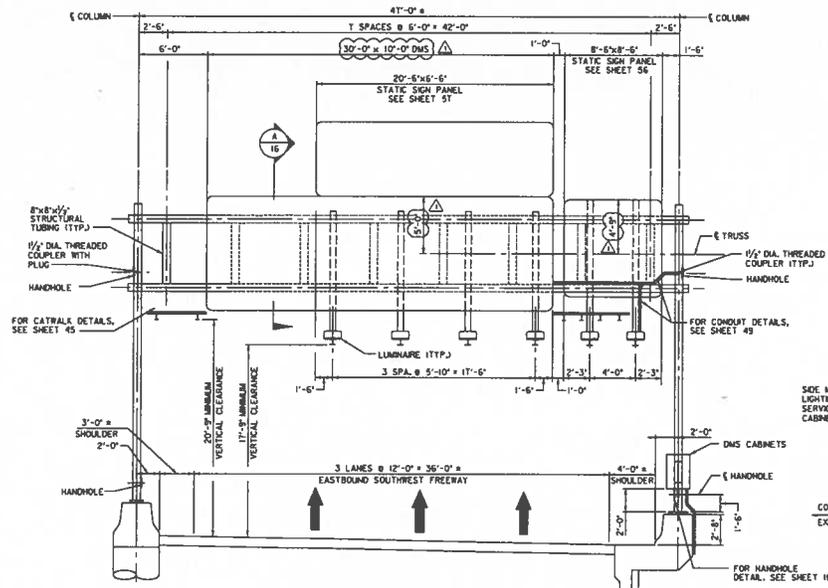
JACOBS
Jacobs Engineering Group Inc.
100 South Chimes Street
Towson, Suite 1000
Baltimore, Maryland 21286
410-527-5540 Fax: 410-527-3277

NO.	DESCRIPTION	DATE
1	REVISED VARIOUS ITEMS	3/28/12

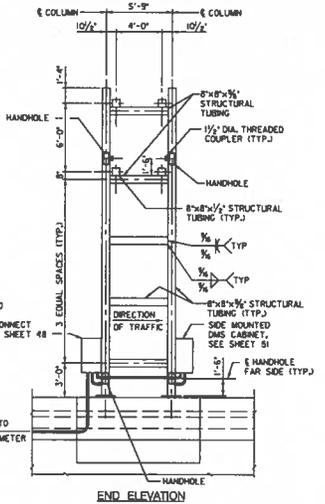
SUMMARY OF QUANTITIES	
PROJECT NO.	021
DESIGN BY	JAC
CHECKED BY	JAC
DATE	02/28/12
PROJECT NO.	021
DATE	02/28/12

D:\DCDOT\Projects\2011\021\021001\021001.dwg
DATE PLOTTED: 02/28/12 10:00 AM
PLOTTER: HP DesignJet T1100e
SCALE: 1/8"=1'-0"

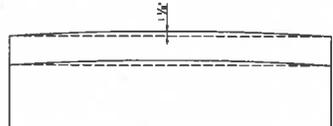
DATE	BY	FOR	APP'D	SCALE
08/28/12	JAC	DEN	JAC	1/4" = 1'-0"



DMS 6007 - ELEVATION
SCALE: 1/4" = 1'-0"



END ELEVATION
SCALE: 1/4" = 1'-0"



CAMBER DIAGRAM
NOT TO SCALE

D.C. DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATION ADMINISTRATION

CENTRALIZED DYNAMIC MESSAGE SIGN (DMS) SYSTEM DESIGN & INTEGRATION
CITY-WIDE INSTALLATION OF 11 DMS

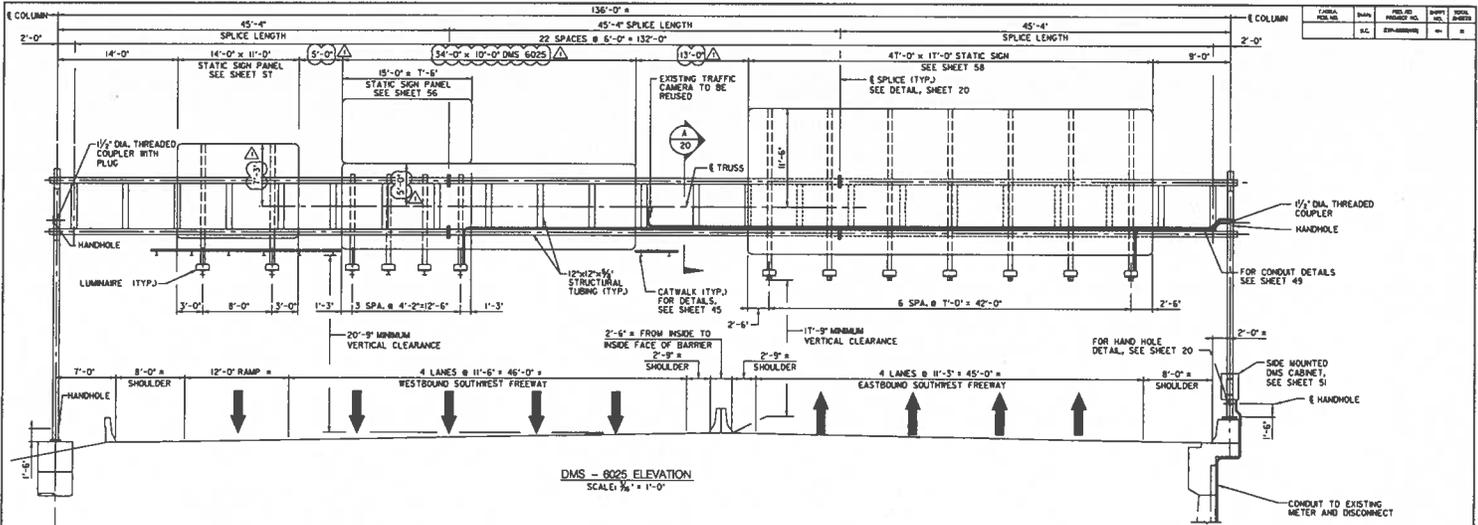
OVER-HEAD SIGN STRUCTURE
FULL-SPAN SIGN SUPPORT
DMS 6007

PROJECT DIR.	JAC
DESIGNED BY	JAC
CHECKED BY	JAC
DRAWN BY	JAC
PROJECT MGR.	JAC
DATE	08/28/12
FILE	08/28/12
REV	08/28/12

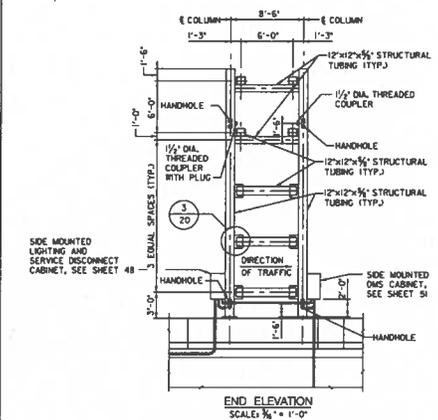
JACOBS
Jacobs Engineering Group Inc.
100 South Charles Street
Tower Two, Suite 1000
Baltimore, Maryland 21201
410-637-6840 Fax: 410-637-3277

NO.	DESCRIPTION	DATE	BY
1	REVISED DMS CABINET DIMENSION	DEN 07/28/12	JAC

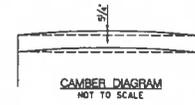
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES AND DECIMALS THEREOF. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED.



DMS - 8025 ELEVATION
SCALE: 3/8" = 1'-0"



END ELEVATION
SCALE: 3/8" = 1'-0"



JACOBS
Jacobs Engineering Group Inc.
100 South Charles Street
Tower Two, Suite 1000
Baltimore, Maryland 21201
410-637-6840 Fax: 410-637-3277

NO.	DESCRIPTION	DATE
1	REVISED DMS CABINET DIMENSION	9/28/10

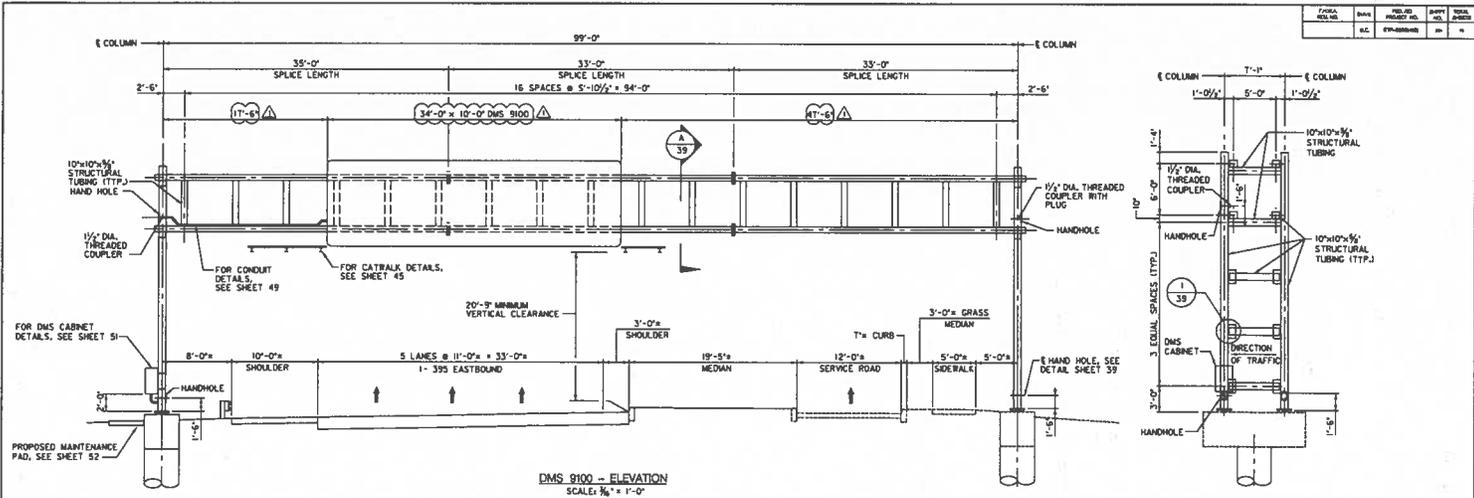
D.C. DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATION ADMINISTRATION
CENTRALIZED DYNAMIC MESSAGE SIGN (DMS)
SYSTEM DESIGN & INTEGRATION
CITY-WIDE INSTALLATION OF 11 DMS

PROJECT NO. ...
DESIGNED BY ...
CHECKED BY ...
DRAWN BY ...
PROJECT MGR. ...

OVERHEAD SIGN STRUCTURE
FULL-SPAN SIGN SUPPORT
DMS 8025

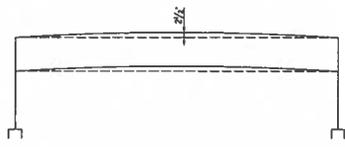
DATE: JANUARY 2010
FILE: ...
SHEET NO. 12 OF 15

FORM	DATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
		EW-484008	10	10



DMS 9100 - ELEVATION
SCALE: 3/8" = 1'-0"

END ELEVATION
SCALE: 3/8" = 1'-0"



CAMBER DIAGRAM
NOT TO SCALE

D.C. DEPARTMENT OF TRANSPORTATION TRANSPORTATION OPERATION ADMINISTRATION		PROJECT NO. EW-484008
CENTRALIZED DYNAMIC MESSAGE SIGN (DMS) SYSTEM DESIGN & INTEGRATION CITY-WIDE INSTALLATION OF 11 DMS		DESIGNED BY JAC
OVERHEAD SIGN STRUCTURE FULL-SPAN SIGN SUPPORT DMS 9100		DRAWN BY JAC
		DATE: 02/28/02
		FILE: 02-02

JACOBS
Jacobs Engineering Group Inc.
100 South Charles Street
Tower Two, Suite 1000
Baltimore, Maryland 21201
410-527-5800 Fax 410-527-3277

NO.	DESCRIPTION	DATE
1	REVISED DMS CABINET DIMENSION	02/28/02

PROJECT NO. EW-484008, SHEET NO. 10 OF 10, DATE: 02/28/02, DRAWN BY: JAC, CHECKED BY: JAC, SCALE: AS SHOWN, UNIT: FEET AND INCHES.