

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-6a  
Rev. 3-22-05

CNSP (F) 1-9-06

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**  
**BID PROPOSAL AND CONTRACT**

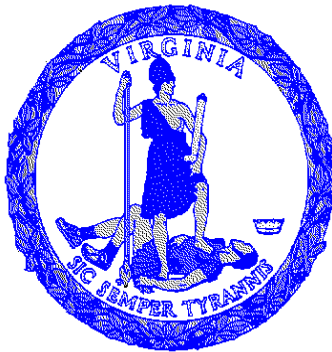
ROUTE NUMBER: 613,614

FHWA NUMBER: CM-5A03(710)

PROJECT NUMBER: 0614-047-640,M501

COUNTY: JAMES CITY

DISTRICT: Hampton Roads



DESCRIPTION: CENTERVILLE ROAD INTERSECTION IMPROVEMENTS  
AT NEWS ROAD

FROM: 0.086 MI. SOUTH INT. NEWS ROAD

TO: 0.172 MI. NORTH INT. NEWS ROAD

DATE BID SUBMITTED: 10:00 A.M. WEDNESDAY SEPTEMBER 25, 2019

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-118  
Rev. 7-6-05

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**  
**NOTICE TO BIDDERS**

As a matter of information, the bidder's attention is directed to the points noted herein. Every point enumerated below is fully covered by proposal documents that describe them in detail. Bidders should check their proposal against all requirements, as strict compliance with all provisions is mandatory.

1. Bids shall be filed electronically through Bidx ([www.bidx.com/main/index.html](http://www.bidx.com/main/index.html)) at the times designated in the Notice of Advertisement for Bids. For information see (<http://cabb.virginiadot.org/cabb/>)
2. Unless otherwise specified or permitted in the proposal, prices shall be submitted on all items shown in the proposal.
3. Proposals conditioned by proposed alternates, other than those specified or permitted, or by reserving the right to accept or reject an award or to enter into a contract pursuant to an award will not be considered.
4. A bid total shall be shown in each space provided.
5. Bid bonds shall conform to Section 102.07. The bid bond number shall be placed in the appropriate space in your electronic bid. As an alternative you may complete the bottom line of the Form C-24. This form may be mailed or faxed but must be received prior to the opening of the bids.
6. Joint venture proposals shall show the Firm Name of each party and shall be signed by an authorized representative of each Firm. A letter shall be filed with the prequalification office describing responsibility of each firm and the amount of maximum capacity pledge by each firm of a joint venture.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-24  
Rev. 7-6-05

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**  
**PROPOSAL GUARANTY**

KNOW ALL MEN BY THESE PRESENTS, THAT WE \_\_\_\_\_ As  
principal, and \_\_\_\_\_ Surety, are held and firmly bound unto the  
Commonwealth of Virginia as obligee, in the amount of FIVE PERCENT OF THE DOLLAR VALUE OF THE  
BID, lawful money of the United States of America, for the payment of which, well and truly to be made, we  
bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly  
by these presents.

SIGNED, sealed and dated this \_\_\_\_\_ Day of \_\_\_\_\_, 20 \_\_\_\_\_

WHEREAS, the above said principal is herewith submitting its proposal for:

PROJECT NUMBER: 0614-047-640,M501

NOW, THEREFORE, the condition of the above obligee is such, that if the aforesaid principal shall be awarded  
the contract upon said proposal and shall within the time specified in the Specifications after the notice of such  
award enter into a contract and give bond for the faithful performance of the contract, then this obligation shall  
be null and void; otherwise to remain in full force and effect and the principal and surety will pay unto the  
obligee the difference in money between the amount of the bid of the said principal and the amount for which  
the obligee may legally contract with another party to perform the said work if the latter amount be in excess  
of the former; but in no event shall the liability exceed the penal sum hereof.

\_\_\_\_\_  
(Principal\*)  
  
By: \_\_\_\_\_  
(Officer, Partner or Owner) (Seal)

\_\_\_\_\_  
(Surety Company)  
  
By: \_\_\_\_\_  
(Attorney-in-Fact\*\*) (Seal)

\_\_\_\_\_  
(Principal\*)  
  
By: \_\_\_\_\_  
(Officer, Partner or Owner) (Seal)

\_\_\_\_\_  
(Address)  
  
By: \_\_\_\_\_  
(Surety Company)

\_\_\_\_\_  
(Principal\*)  
  
By: \_\_\_\_\_  
(Officer, Partner or Owner) (Seal)

\_\_\_\_\_  
(Attorney-in-Fact\*\*) (Seal)  
  
By: \_\_\_\_\_  
(Address)

\*Note: If the principal is a *joint venture*, each party thereof must be named and execution made by same hereon. If there is more than  
one surety to the bid bond, each surety must be named and execution shall be made by same hereon.

**Electronic Bid Only:** In lieu of completing the above section of the Contract Performance Bond, the Principal shall file an Electronic  
Bid Bond when bidding electronically. By signing below the Principal is ensuring the identified electronic bid bond has been executed  
and the Principal and Surety are firmly bound unto the Commonwealth of Virginia under the same conditions of the bid bond as shown  
above.

Electronic Bid Bond ID#	Company/Bidder Name	Signature and Title
-------------------------	---------------------	---------------------

\*\*Attach copy of Power of Attorney

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-48  
Rev. 2-23-11

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
**SUBCONTRACTOR/SUPPLIER SOLICITATION AND UTILIZATION FORM (ALL BIDDERS)**

PROJECT NO.: 0614-047-640,M501

CONTRACT ID. NO.: C0000102944M01

FHWA NO: CM-5A03(710)

DATE SUBMITTED\_\_\_\_\_

**All bidders, including DBEs bidding as Prime Contractors, shall complete and submit the following information as requested in this form within ten (10) business days after the opening of bids.**

The bidder certifies this form accurately represents its solicitation and utilization or non-utilization, as indicated, of the firms listed below for performance of work on this contract. The bidder also certifies he/she has had direct contact with the named firms regarding participation on this project.

BIDDER\_\_\_\_\_SIGNATURE\_\_\_\_\_

TITLE\_\_\_\_\_

**SUBCONTRACTOR/SUPPLIER SOLICITATION AND UTILIZATION (ALL)**

VENDOR NUMBER	NAME OF SUBCONTRACTOR/SUPPLIER	TELEPHONE NUMBER	DBE OR NON-DBE	UTILIZED (Y/N)

**NOTE:** ATTACH ADDITIONAL PAGES, IF NECESSARY.

BIDDER MUST SIGN EACH ADDITIONAL SHEET TO CERTIFY ITS CONTENT AND COMPLETION OF FORM.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-7  
Rev. 1-19-12  
SHEET 1 of 1

**TERMS OF THE PROPOSAL\CONTRACT**  
**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**

**SUBMITTED: 10:00 A.M. WEDNESDAY SEPTEMBER 25, 2019**

PROJECT NUMBER: 0614-047-640,M501  
ROUTE NUMBER: 613,614  
FHWA NUMBER: CM-5A03(710)

DESCRIPTION: CENTERVILLE ROAD INTERSECTION IMPROVEMENTS AT NEWS ROAD  
FROM: 0.086 MI. SOUTH INT. NEWS ROAD  
TO: 0.172 MI. NORTH INT. NEWS ROAD

DISTRICT: Hampton Roads

COUNTY: JAMES CITY

I/we declare that no other person, firm or corporation is interested in this proposal; that I/we have carefully examined the plans, job specifications, current Road and Bridge specifications, and all other documents pertaining thereto and thoroughly understand the contents thereof; that I/we meet the prequalification requirements for bidding on this proposal; that I/we understand that the plans and current Road and Bridge specifications, are a part of this proposal; that all of the quantities shown herewith are a part of this proposal; that all the quantities shown herewith are approximate only; that I/we have examined the location of the proposed work and source of supply of materials; and that I/we agree to bind myself/ourselves upon award by the Commonwealth under this proposal to a contract with necessary surety bond to start work according to project specifications, and to complete all work in accordance with the plans, job specifications and current Road and Bridge Specifications within the time limit set forth in the contract.

**COMPLETION DATE: OCTOBER 20, 2020**

BID TOTAL \$ \_\_\_\_\_

Attached is a bond conforming to the requirements of the current Road and Bridge Specifications, it being understood that such bond is to be forfeited as liquidated damages if, upon acceptance of the terms of this proposal, I/we fail to execute the contract and furnish bond as provided in the current Road and Bridge Specifications.

\_\_\_\_\_  
(Names of Individual(S), Firm(S) Or Corporation)

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Vendor#/Fin#

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

In consideration of the commitments made as shown herein, the Commonwealth of Virginia by The Commonwealth Transportation Commissioner agrees to pay for all items of work performed and materials furnished at the unit price(s) and under the conditions set forth in this proposal, in witnessed by the affixing of the name below.

Contract Execution Date \_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
CHIEF ENGINEER  
VIRGINIA DEPARTMENT OF TRANSPORTATION

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0010	513	00100 MOBILIZATION	LUMP SUM	LUMP SUM			
0020	517	00102 CONSTRUCTION SURVEYING MIN.-PLAN	LUMP SUM	LUMP SUM			
0030	301	00111 CLEARING AND GRUBBING	0.200 ACRE				
0040	303	00120 REGULAR EXCAVATION	2,009.000 CY				
0050	305	00305 SELECT MATERIAL SELECT MATERIAL TYPE II, MIN. CBR 10	603.000 CY				
0060	305	00355 GEOTEXTILE SUBGRADE STABILIZATION	2,929.000 SY				
0070	302 504	00525 CONCRETE CLASS A3 MISC.	15.590 CY				
0080	302	01120 12" PIPE	31.000 LF				
0090	302	01156 STORM SEWER PIPE 15"	895.000 LF				
0100	302	01186 STORM SEWER PIPE 18"	242.000 LF				
0110	302	01246 STORM SEWER PIPE 24"	704.000 LF				
0120	302	06151 15" END SECTION ES-1	1.000 EA				
0130	302	06241 24" END SECTION ES-1	1.000 EA				
0140	302	06815 DROP INLET DI-3A	2.000 EA				

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0150	302	06817 DROP INLET DI-3B,L=4'	2.000 EA	_____	_____	_____	_____
0160	302	06819 DROP INLET DI-3B,L=8'	1.000 EA	_____	_____	_____	_____
0170	302	06820 DROP INLET DI-3B,L=10'	3.000 EA	_____	_____	_____	_____
0180	302	06821 DROP INLET DI-3B,L=12'	3.000 EA	_____	_____	_____	_____
0190	302	06822 DROP INLET DI-3B,L=14'	1.000 EA	_____	_____	_____	_____
0200	302	06835 DROP INLET DI-3C,L=6'	5.000 EA	_____	_____	_____	_____
0210	302	06838 DROP INLET DI-3C,L=12'	1.000 EA	_____	_____	_____	_____
0220	302	07506 DROP INLET DI-5	2.000 EA	_____	_____	_____	_____
0230	302	09056 MANHOLE MH-1 OR 2	21.800 LF	_____	_____	_____	_____
0240	302	09057 FRAME & COVER MH-1	3.000 EA	_____	_____	_____	_____
0250	414	09150 EROSION CONTROL STONE CLASS I, EC-1	7.330 TON	_____	_____	_____	_____
0260	306	10000 LIME	3.290 TON	_____	_____	_____	_____
0270	308	10100 AGGR. MATL. NO. 21B	1,292.000 TON	_____	_____	_____	_____
0280	315	10607 ASPHALT CONCRETE TY. SM- 12.5A	642.000 TON	_____	_____	_____	_____

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0290	515	10628 FLEXIBLE PAVEMENT PLANING 0" - 2"	4,761.000 SY	_____	_____	_____	_____
0300	315	11070 SAW-CUT ASPH CONC FULL DEPTH	2,157.000 LF	_____	_____	_____	_____
0310	316	11071 SAW-CUT HYD.CEM.CON.PAV FULL DEPTH	12.000 LF	_____	_____	_____	_____
0320	502	12030 STD. CURB CG-3	1,535.000 LF	_____	_____	_____	_____
0330	502	12032 RADIAL CURB CG-3	193.000 LF	_____	_____	_____	_____
0340	502	12940 ENTRANCE GUTTER CG-9D	87.000 SY	_____	_____	_____	_____
0350	506	13530 RETAINING WALL RW-3	150.000 CY	_____	_____	_____	_____
0360	506	13565 RETAINING WALL EXCAVATION	1,026.000 CY	_____	_____	_____	_____
0370	ATTD	14260 CRUSHER RUN AGGREGATE NO. 25 OR 26	62.000 TON	_____	_____	_____	_____
0380	310	16249 NONTRACKING TACK COAT	800.000 GAL	_____	_____	_____	_____
0390	315	16365 ASPHALT CONC. TY. IM-19.0A	271.000 TON	_____	_____	_____	_____
0400	315	16390 ASPH. CONC. TY. BM-25.0A	432.000 TON	_____	_____	_____	_____
0410	511	24100 ALLAYING DUST	113.000 HR	_____	_____	_____	_____



Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0420	512	24160 TEMPORARY (CONSTRUCTION) SIGN	376.000 SF	_____	_____	_____	_____
0430	ATTD	24262 PORTABLE TEMPORARY RUMBLE STRIP ARRAY	63.000 DAY	_____	_____	_____	_____
0440	512	24272 TRUCK MOUNTED ATTENUATOR	1,920.000 HR	_____	_____	_____	_____
0450	512	24278 GROUP 2 CHANNELIZING DEVICES	7,800.000 DAY	_____	_____	_____	_____
0460	512	24282 FLAGGER SERVICE	500.000 HR	_____	_____	_____	_____
0470	508	24420 DEMOLITION OF PAVEMENT RIGID	53.000 SY	_____	_____	_____	_____
0480	508	24430 DEMOLITION OF PAVEMENT FLEXIBLE	1,025.000 SY	_____	_____	_____	_____
0490	514	25507 FIELD OFFICE TY.III	12.000 MO	_____	_____	_____	_____
0500	414	26117 DRY RIPRAP CL. AI	167.000 TON	_____	_____	_____	_____
0510	602	27012 TOPSOIL CLASS A 2"	0.730 ACRE	_____	_____	_____	_____
0520	603	27102 REGULAR SEED	110.000 LB	_____	_____	_____	_____
0530	603	27103 OVERSEEDING	88.000 LB	_____	_____	_____	_____
0540	603	27112 HYDRAULIC EROSION CONTROL PRODUCT TYPE 3	3,533.000 SY	_____	_____	_____	_____

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0550	603	27113 HYDRAULIC EROSION CONTROL PRODUCT TYPE 4	4,417.000 SY	_____	_____	_____	_____
0560	603	27120 SEDIMENT RETENTION ROLL 18" MIN	300.000 LF	_____	_____	_____	_____
0570	603	27230 FERTILIZER NITROGEN - N	70.000 LB	_____	_____	_____	_____
0580	603	27231 FERTILIZER PHOSPHOROUS - P	96.000 LB	_____	_____	_____	_____
0590	603	27232 FERTILIZER POTASSIUM - K	48.000 LB	_____	_____	_____	_____
0600	303	27284 EROSION CONTROL MULCH	1,000.000 SY	_____	_____	_____	_____
0610	604	27300 SOD	97.000 SY	_____	_____	_____	_____
0620	606	27327 ROLLED EROSION CTRL PRODUCT EC-3 TYPE 3	25.000 SY	_____	_____	_____	_____
0630	303	27415 CHECK DAM ROCK TY. II	9.000 EA	_____	_____	_____	_____
0640	303	27422 DEWATERING BASIN EC-8	1.000 EA	_____	_____	_____	_____
0650	303	27430 SILTATION CONTROL EXCAVATION	817.000 CY	_____	_____	_____	_____
0660	303	27451 INLET PROTECTION TYPE A	2.000 EA	_____	_____	_____	_____
0670	303	27461 INLET PROTECTION TYPE B	18.000 EA	_____	_____	_____	_____

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0680	303	27500 GEOTEXTILE FABRIC	130.000 SY	_____	_____	_____	_____
0690	303	27505 TEMP. SILT FENCE TYPE A	782.000 LF	_____	_____	_____	_____
0700	303	27545 STORM WATER MANAGEMENT BASIN EXCAVATION	785.000 CY	_____	_____	_____	_____
0710	ATTD	27548 STORM WATER MANAGEMENT CONSTRUCTION RECORD DOCUMENT	LUMP SUM	LUMP SUM	_____	_____	_____
0720	303	27580 TEMP. SEDIMENT BASIN EXCAVATION	1,122.000 CY	_____	_____	_____	_____
0730	605	38900 PLANT OR TREE Little Princess Spirea (3 Gallon)	54.000 EA	_____	_____	_____	_____
0740	605	38900 PLANT OR TREE Radiant Rose Dogwood (12')	21.000 EA	_____	_____	_____	_____
0750	605	38900 PLANT OR TREE SHASTA VIBURNUM (6' - 8')	24.000 EA	_____	_____	_____	_____
0760	605	38901 BED PREPARATION BED PREPARATION	168.000 SY	_____	_____	_____	_____
0770	ATTD 605	39005 ORGANIC BACKFILL Improved Backfill	257.000 CY	_____	_____	_____	_____
0780	520	40002 3/4" WATER SERVICE LINE	187.000 LF	_____	_____	_____	_____
0790	520	40003 1" WATER SERVICE LINE	50.000 LF	_____	_____	_____	_____

Proposal ID: C0000102944M01      Oversight/State Project No.: (NFO)0614-047-640, M501  
 Order No.: B49      Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001      REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:      Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0800	520	40060 6" WATER MAIN	16.000 LF	_____	_____	_____	_____
0810	520	40120 12" WATER MAIN	831.000 LF	_____	_____	_____	_____
0820	520	40121 12" DI WATER MAIN	60.000 LF	_____	_____	_____	_____
0830	520	40912 12" OFFSET EXIST. PIPE	30.000 LF	_____	_____	_____	_____
0840	520	41006 6" GATE VALVE & BOX	1.000 EA	_____	_____	_____	_____
0850	520	41012 12" GATE VALVE & BOX	3.000 EA	_____	_____	_____	_____
0860	520	41815 2" BLOW-OFF VALVE & BOX	1.000 EA	_____	_____	_____	_____
0870	520	41820 FIRE HYDRANT	1.000 EA	_____	_____	_____	_____
0880	520	41967 5/8" WATER METER BOX & YOKE	9.000 EA	_____	_____	_____	_____
0890	520	41970 5/8" WATER METER & BOX	1.000 EA	_____	_____	_____	_____
0900	701	50108 SIGN PANEL	98.000 SF	_____	_____	_____	_____
0910	700	50340 RELOCATE EXISTING 1 POST GROUND MOUNTED SIGN PANEL	4.000 EA	_____	_____	_____	_____
0920	700	50430 SIGN POST STP-1, 2", 14 GAUGE	20.000 LF	_____	_____	_____	_____

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
0930	700	50436 SIGN POST STP-1, 2 1/2", 12 GAUGE	83.000 LF	_____	_____	_____	_____
0940	700	50488 CONCRETE SIGN FOUNDATION STP-1, TYPE D	2.000 EA	_____	_____	_____	_____
0950	700	50489 CONCRETE SIGN FOUNDATION STP-1, TYPE E	7.000 EA	_____	_____	_____	_____
0960	ATTD	50902 TRAFFIC SIGN REMOVE AND SALVAGE SIGN STRUCTURE AND PANEL	1.000 EA	_____	_____	_____	_____
0970	703	51185 TRAFFIC SIGNAL HEAD SECTION 12" HVS BACKPLATE	22.000 EA	_____	_____	_____	_____
0980	700	51238 CONCRETE FOUNDATION SIGNAL POLE PF-8	27.000 CY	_____	_____	_____	_____
0990	700, ATTD	51243 CONC FOUNDATION CONCRETE FOUNDATION CF-5	1.000 EA	_____	_____	_____	_____
1000	700	51475 SIGNAL MAST ARM POLE MP- 3, TYPE A	1.000 EA	_____	_____	_____	_____
1010	700	51478 SIGNAL MAST ARM POLE MP- 3, TYPE C	1.000 EA	_____	_____	_____	_____
1020	700	51486 MAST ARM 40'	2.000 EA	_____	_____	_____	_____
1030	700	51487 MAST ARM 49'	1.000 EA	_____	_____	_____	_____

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
1040	703	51523 EVP DETECTION SYSTEM 3- WAY	1.000 EA	_____.	_____.	_____.	_____.
1050	703	51525 EVP DETECTOR CABLE	620.000 LF	_____.	_____.	_____.	_____.
1060	703	51540 LOOP DETECTOR AMPLIFIER	4.000 EA	_____.	_____.	_____.	_____.
1070	700	51598 8/3 CONDUCTOR CABLE	40.000 LF	_____.	_____.	_____.	_____.
1080	700	51602 14/4 CONDUCTOR CABLE	860.000 LF	_____.	_____.	_____.	_____.
1090	700	51607 14/7 CONDUCTOR CABLE	280.000 LF	_____.	_____.	_____.	_____.
1100	700	51615 14/1 ENCLOSED COND. CABLE	1,910.000 LF	_____.	_____.	_____.	_____.
1110	700	51700 14/2 CONDUCTOR CABLE SHIELDED	1,550.000 LF	_____.	_____.	_____.	_____.
1120	703	51830 HANGER ASSEMBLY SM-3, ONE WAY	7.000 EA	_____.	_____.	_____.	_____.
1130	703	51912 LOOP SAW CUT 3/8"	500.000 LF	_____.	_____.	_____.	_____.
1140	703	51913 LOOP SAWCUT 5/8"	80.000 LF	_____.	_____.	_____.	_____.
1150	703	51993 UNINTERRUPTIBLE POWER SUPPLY TYPE 1	1.000 EA	_____.	_____.	_____.	_____.
1160	703	51995 UNINTERRUPTIBLE POWER SUPPLY BATTERY PACK	1.000 EA	_____.	_____.	_____.	_____.

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
1170	ATTD	52002 TRAFFIC SIGNALIZATION ATC CABINET - 5 DOOR CONFIGURATION	1.000 EA	_____	_____	_____	_____
1180	ATTD 703	52002 TRAFFIC SIGNALIZATION MCCAIN 2070LX CONTROLLER	1.000 EA	_____	_____	_____	_____
1190	700	52425 ELECTRICAL SERVICE SE-3 TYPE B	1.000 EA	_____	_____	_____	_____
1200	704	54032 TYPE B CLASS I PVMT LINE MRKG 4"	7,204.000 LF	_____	_____	_____	_____
1210	704	54034 TYPE B CLASS I PVMT LINE MRKG 6"	1,437.000 LF	_____	_____	_____	_____
1220	704	54042 TYPE B CLASS I PAVE. LINE MARKING 24"	418.000 LF	_____	_____	_____	_____
1230	ATTD 704	54100 PAVEMENT MARKING TEMP. PVMT LINE MRKG, TY. A, 24"	20.000 LF	_____	_____	_____	_____
1240	ATTD 704	54100 PAVEMENT MARKING TEMP. PVMT LINE MRKG, TY. A, 4"	10,606.000 LF	_____	_____	_____	_____
1250	512	54105 ERADICATE EXIST. LINEAR PVMT MARKING	10,606.000 LF	_____	_____	_____	_____
1260	704	54575 PVMT SYMB MRKG SGL TURN ARROW TY B, CL II	9.000 EA	_____	_____	_____	_____
1270	704	54652 PVMT SYMB MRKG BICYCLE THRU ARROW TY B CL II	7.000 EA	_____	_____	_____	_____

Proposal ID: C0000102944M01

Oversight/State Project No.: (NFO)0614-047-640, M501

Order No.: B49

Federal Project No.: CM-5A03(710)

Contractor: \_\_\_\_\_

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Cat Alt Set ID:

Cat Alt Mbr ID:

Proposal Line Number	Spec No.	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
1280	704	54660 PVMT SYMB MRKG HELMETED BICYCLIST TY B CL II	7.000 EA	_____	_____	_____	_____
1290	700	55587 JUNCTION BOX JB-S2	11.000 EA	_____	_____	_____	_____
1300	700	55588 JUNCTION BOX JB-S3	1.000 EA	_____	_____	_____	_____
1310	700	56014 ELECT. SER. GRD. ELECTRODE 10'	5.000 EA	_____	_____	_____	_____
1320	700	56021 1" PVC CONDUIT	50.000 LF	_____	_____	_____	_____
1330	700	56050 BORED CONDUIT 2"	150.000 LF	_____	_____	_____	_____
1340	700	56051 BORED CONDUIT 3"	370.000 LF	_____	_____	_____	_____
1350	700	56053 2" PVC CONDUIT	800.000 LF	_____	_____	_____	_____
1360	700	56054 3" PVC CONDUIT	280.000 LF	_____	_____	_____	_____
1370	700	56200 TRENCH EXCAVATION ECI-1	1,120.000 LF	_____	_____	_____	_____
1380	700	56205 TEST BORE	2.000 EA	_____	_____	_____	_____
1390	807	57190 CELLULAR/PCS WIRELESS MODEM	1.000 EA	_____	_____	_____	_____
1400	509	69007 FLOWABLE BACKFILL	7.000 CY	_____	_____	_____	_____
Section: 0001				Total:	_____	_____	_____



Total Bid: \_\_\_\_\_.

**Bid Items Eligible For Fuel Adjustment**

Instructions: This form shall be completed in accordance with the Special Provision for Optional Adjustment for Fuel. If you choose to have Fuel Adjustment applied to any of the items listed below, write the word "Yes" in the "OPTION" column beside the item. The form must be signed, dated, and submitted to the Contract Engineer within the timeframe required in the Special Provision.

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Item Number	Item Description	Fuel Factor gal/unit	Option
00120	REGULAR EXCAVATION	0.290	_____
00525	CONCRETE CLASS A3 MISC.	1.892	_____
09150	EROSION CONTROL STONE CLASS I, EC-1	0.600	_____
10100	AGGR. MATL. NO. 21B	0.600	_____
10607	ASPHALT CONCRETE TY. SM-12.5A	3.500	_____
10628	FLEXIBLE PAVEMENT PLANING 0" - 2"	0.071	_____
13530	RETAINING WALL RW-3	1.892	_____
13565	RETAINING WALL EXCAVATION	0.290	_____
14260	CRUSHER RUN AGGREGATE NO. 25 OR 26	0.400	_____
16365	ASPHALT CONC. TY. IM-19.0A	3.500	_____
16390	ASPH. CONC. TY. BM-25.0A	3.500	_____
24420	DEMOLITION OF PAVEMENT RIGID	0.200	_____
24430	DEMOLITION OF PAVEMENT FLEXIBLE	0.200	_____
26117	DRY RIPRAP CL. AI	0.400	_____
27430	SILTATION CONTROL EXCAVATION	0.290	_____
27545	STORM WATER MANAGEMENT BASIN EXCAVATION	0.290	_____

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

\_\_\_\_\_  
(Firm or Corporation)\_\_\_\_\_  
(Vendor No.)

**Bid Items Eligible For Steel Price Adjustment**

Instructions: This form shall be completed in accordance with the Special Provision. If you choose to have Steel Price Adjustment applied to any of the items listed below, write the word "Yes" in the "OPTION" column beside the item. The form must be signed, dated, and submitted to the Contract Engineer within the timeframe required in the Special Provision.

SECTION: 0001

REGULAR BID ITEMS ROADWAY

Item Number	Item Description	Option
50430	SIGN POST STP-1, 2", 14 GAUGE	_____
50436	SIGN POST STP-1, 2 1/2", 12 GAUGE	_____
50902	TRAFFIC SIGN REMOVE AND SALVAGE SIGN STRUCTURE AND PANEL	_____
51475	SIGNAL MAST ARM POLE MP-3, TYPE A	_____
51478	SIGNAL MAST ARM POLE MP-3, TYPE C	_____
51486	MAST ARM 40'	_____
51487	MAST ARM 49'	_____

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

\_\_\_\_\_  
(Firm or Corporation)\_\_\_\_\_  
(Vendor No.)

### Determination of Major Items

Item Number	Item Description
40120	12" WATER MAIN

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-111  
Rev. 2-15-11

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**  
**MINIMUM DBE REQUIREMENTS**

PROJECT NO: 0614-047-640,M501

FHWA NO: CM-5A03(710)

**\*\*\*INSTRUCTIONS\*\*\***

THIS FORM CAN BE USED BY THE CONTRACTOR TO SUBMIT THE NAMES OF DBE FIRMS TO BE UTILIZED ON THE PROJECT. THE CONTRACTOR SHALL INDICATE THE DESCRIPTION OF THE CATEGORY (S, M, SP or H) AND THE TYPE OF WORK THAT EACH DBE WILL PERFORM AND THE ALLOWABLE CREDIT PER ITEM(S). ADDITIONAL SHEETS TO SHOW THE ALLOWABLE CREDIT PER ITEM MAY BE ATTACHED IF NECESSARY. PLEASE NOTE: THE AMOUNT OF ALLOWABLE CREDIT FOR A DBE SUPPLIER IS 60% OF THE TOTAL COST OF THE MATERIALS OR SUPPLIES OBTAINED AND 100% FOR A DBE MANUFACTURER OF THE MATERIALS AND SUPPLIES OBTAINED. A CONTRACTOR MAY COUNT 100% OF THE FEES PAID TO A DBE HAULER FOR THE DELIVERY OF MATERIALS AND SUPPLIES TO THE PROJECT SITE, BUT NOT FOR THE COST OF THE MATERIALS AND SUPPLIES THEMSELVES.

**SECTION I:**

DBE REQUIREMENT 16%

**SECTION II:**

PERCENT ATTAINED BY BIDDER           %          

NAME(s) AND CERTIFICATION NO. OF DBE(s) TO BE USED	USED AS SUBCONTR. (S) MFG. (M) SUPPLIER (SP) HAULER (H)	TYPE OF WORK & ITEM NO(s)	AMT. OF ALLOWABLE CREDIT PER ITEM
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TOTAL: \$ \_\_\_\_\_

Total Contract Value \$ \_\_\_\_\_ X Required DBE \_\_\_\_\_ % = \$ \_\_\_\_\_

I/WE CERTIFY THAT THE PROPOSED DBE (S) SUBMITTED WILL BE USED ON THIS CONTRACT AS STATED HEREON AND ASSURE THAT DURING THE LIFE OF THE CONTRACT, I/WE WILL MEET OR EXCEED THE PARTICIPATION ESTABLISHED HEREON BY THE DEPARTMENT.

\_\_\_\_\_ By \_\_\_\_\_  
BIDDER SIGNATURE

\_\_\_\_\_ By \_\_\_\_\_  
TITLE DATE

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-112  
Rev. 3-1-11  
Page 1 of 2

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**  
**CERTIFICATION OF BINDING AGREEMENT WITH**  
**DISADVANTAGED BUSINESS ENTERPRISE FIRMS**

Project No.: 0614-047-640,M501

FHWA NO: CM-5A03(710)

This form is to be submitted in accordance with the Department's Special Provision for Section 107.15.

It is hereby certified by the below signed Contractors that there exists a written quote, acceptable to the parties involved preliminary to a binding subcontract agreement stating the details concerning the work to be performed and the price which will be paid for the aforementioned work. This document is not intended to, nor should it be construed to, contain the entire text of the agreement between the contracting parties. This document does not take the place of, nor may it be substituted for, an official subcontracting agreement in those situations that may require such an agreement. A copy of the fully executed *subcontract agreement* shall be submitted to the Engineer within fourteen (14) working days after contract execution.

It is further certified that the aforementioned mutually acceptable quote and fully executed subcontract agreement represent the entire agreement between the two parties involved and that no conversations, verbal agreements, or other forms of non-written representations shall serve to add to, delete, or modify the terms as stated.

The prime Contractor further represents that the aforementioned mutually acceptable quote and fully executed subcontract agreement shall remain on file for a period of not less than one year following completion of the prime's contract with the Department or for such longer period as provisions of governing Federal or State law or regulations may require. For purposes of this form, the term Prime Contractor shall refer to any Contractor utilizing a DBE subcontractor, regardless of tier, in which they are claiming DBE credit toward the contract goal.

Contractors further jointly and severally represent that said binding agreement is for the performance of a "commercially useful function" as that term is employed in 49 C.F.R. Part 26.55 (c), (d).

**TO BE SIGNED BY THE SUBCONTRACTOR TO THE PRIME CONTRACTOR, AND ANY LOWER TIER**  
**SUBCONTRACTORS HAVING A CONTRACT WITH THE BELOW NAMED DBE FIRM**

Prime Contractor: \_\_\_\_\_

By: \_\_\_\_\_  
Signature Title

Date: \_\_\_\_\_

First Tier  
Subcontractor  
If Applicable:

By: \_\_\_\_\_  
Signature Title

Date: \_\_\_\_\_

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Form C-112  
Rev. 3-1-11  
Page 2 of 2

Second Tier  
Subcontractor  
If Applicable:

By: \_\_\_\_\_  
Signature Title  
Date: \_\_\_\_\_

Third Tier  
Subcontractor  
If Applicable

By: \_\_\_\_\_  
Signature Title  
Date: \_\_\_\_\_

DBE Contractor

By: \_\_\_\_\_  
Signature Title  
Date: \_\_\_\_\_

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**TABLE OF CONTENTS FOR PROVISIONS**

**FORMS and SCHEDULE OF ITEMS PRECEDE SPCNs, SPs and SUPPLEMENTAL SPECS.**

<b>*CN100-000026-04</b>	<b>GEN. PROJ. REQUIRE., SSS/SPS/SPCNS</b>	<b>4-29-19 (SPCN)</b>	<b>1</b>
<b>CN102-000510-00</b>	<b>SEC. 102.05—PREP. OF BID (CARGO PREFER. ACT)</b>	<b>R-7-12-16 (SPCN)</b>	<b>1</b>
<b>CN315-000100-00</b>	<b>SEC. 315.05(C) PLACING AND FINISHING</b>	<b>1-18-17 (SPCN)</b>	<b>2</b>
<b>CN512-000110-00</b>	<b>CONTRACTOR ALT. TRAFF. CONTR. PLANS</b>	<b>R-7-12-16 (SPCN)</b>	<b>3</b>
	<b>SEC. 703—TRAFFIC SIGNALS (CONTROLLERS)</b>	<b>8-1-19 (SPCN)</b>	<b>4</b>
	<b>CRUSHER RUN AGGREGATE NO. 25 OR 26</b>	<b>4-19-18 (SPCN)</b>	<b>4</b>
	<b>ORGANIC BACKFILL</b>		<b>5</b>
	<b>REMOVE AND SALVAGE SIGN STRUCTURE AND PANEL</b>	<b>7-16-19 (SPCN)</b>	<b>5</b>
	<b>CONCRETE FOUNDATION CF-5</b>	<b>7-23-19 (SPCN)</b>	<b>5</b>
<b>CN108-000411-01</b>	<b><u>EARLY COMPLETION INCENT./DISINCENT.</u></b>	<b>1-17-17 (SPCN)</b>	<b>6</b>
	<b>*DRUG-FREE WORKPLACE</b>	<b>7-3-19 (SPCN)</b>	<b>6</b>
	<b>CONSTRUCTION GENERAL PERMIT FOR 2019</b>		<b>7</b>
<b>SP0F0-000100-00</b>	<b>PREDETERMINED MIN. WAGE RATES</b>	<b>R-7-12-16</b>	<b>8</b>
<b>SP0F0-000130-00</b>	<b>FHWA 1273—REQ. PROVISIONS, FED-AID</b>	<b>R-7-12-16</b>	<b>15</b>
<b>SP0F0-000150-01</b>	<b>AFFIRMATIVE ACTION / EEO NOTICE</b>	<b>7-17-17</b>	<b>37</b>
<b>SP102-000120-00</b>	<b>NON-DISCRIMIN. EMPLOY. &amp; CONTRACT. PRACTICES (EO-61)</b>	<b>1-10-17</b>	<b>44</b>
<b>*SP102-000510-02</b>	<b>USE OF DOMESTIC MATERIAL</b>	<b>12-19-18</b>	<b>45</b>
<b>SP105-001000-01</b>	<b>CRD'S FOR PERMANENT SWMF'S</b>	<b>2-1-18</b>	<b>47</b>
<b>SP107-000110-00</b>	<b>C-45—SWPPP GEN. PERMIT—CONTRACTOR CERTIFICATION</b>	<b>R-10-27-16</b>	<b>49</b>
<b>SP107-001510-01</b>	<b>SEC. 107.15 (DBES)</b>	<b>8-18-17</b>	<b>50</b>
<b>SP108-000110-00</b>	<b>PROGRESS SCHEDULE FOR CATEGORY II PROJ.</b>	<b>R-7-12-16</b>	<b>70</b>
<b>SP109-000100-02</b>	<b>ASPHALT MATERIAL PRICE ADJUSTMENT</b>	<b>4-28-17</b>	<b>77</b>
<b>SP109-000120-00</b>	<b>PRICE ADJUSTMENT FOR STEEL</b>	<b>R-7-12-16</b>	<b>81</b>
<b>*SP512-000130-00</b>	<b>EMPLOYMENT OF PTRS</b>	<b>1-24-19</b>	<b>90</b>
	<b>SEC. 105.06—SUBCONTRACTING (FEDERAL FUNDED PROJECTS)</b>	<b>2-9-17</b>	<b>92</b>
	<b>*TTC'S FOR PTRS</b>	<b>3-18-19</b>	<b>93</b>
<b>SS106-002016-02*</b>	<b>SEC. 106—CONTROL OF MATERIAL</b>	<b>7-6-18</b>	<b>99</b>
<b>*SS202-002016-01</b>	<b>SEC. 202—FINE AGGREGATE</b>	<b>11-14-18</b>	<b>102</b>
<b>SS238-002016-01</b>	<b>SEC. 238 – ELECTRICAL AND SIGNAL COMPONENTS</b>	<b>8-9-18</b>	<b>103</b>
<b>*SS244-002016-02</b>	<b>SEC. 244 – ROADSIDE DEVELOPMENT MATERIALS</b>	<b>4-15-19</b>	<b>104</b>
<b>*SS247-002016-01</b>	<b>SECTION 247 – REFLECTIVE SHEETING</b>	<b>3-6-19</b>	<b>107</b>
<b>*SS302-002016-02</b>	<b>SEC. 302 – DRAINAGE STRUCTURES</b>	<b>3-13-19</b>	<b>110</b>
<b>SS303-002016-04</b>	<b>SEC. 303 – EARTHWORK</b>	<b>3-14-19</b>	<b>114</b>
<b>*SS701-002016-01</b>	<b>SECTION 701 – TRAFFIC SIGNS</b>	<b>3-11-19</b>	<b>118</b>
	<b>SECTION 703 – TRAFFIC SIGNALS</b>	<b>12-14-18</b>	<b>122</b>
	<b>CONCRETE FORM LINERS AND COLOR STAIN COATING</b>	<b>7-2-19</b>	<b>123</b>
	<b>ATC CABINET—5 DOOR CONFIGURATION</b>	<b>8-14-18</b>	<b>130</b>
	<b>SECTION 704—PAVEMENT MARKINGS AND MARKERS</b>	<b>7-29-19</b>	<b>145</b>



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[cn100-000026-04](#)

**GENERAL PROJECT REQUIREMENTS, SUPPLEMENTAL SPECIFICATIONS (SSs), SPECIAL PROVISIONS (SPs) AND SPECIAL PROVISION COPIED NOTES (SPCNs)**

This project shall be constructed according to: the plans; the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2016 and the Supplement thereto, dated 2019; the *Virginia Department of Transportation Road and Bridge Standards*, dated 2016, with revisions issued online as of the advertisement date for this project incorporated; the 2011 edition of the *Virginia Work Area Protection Manual with Revision Number 1* incorporated, dated April 1, 2015; the 2009 edition of the *MUTCD with Revision Numbers 1 and 2* incorporated, dated May 2012; and the 2011 edition of the *Virginia Supplement to the MUTCD with Revision Number 1* dated September 30, 2013; and the Supplemental Specifications, Special Provisions and Special Provision Copied Notes in this contract. The status in the Contract of each of these documents will be according to Section 105.12 of the Specifications.

Special Provision Copied Notes in this contract are designated with "(SPCN)" after the date.

The information at the top and left of each Special Provision Copied Note in this contract is file reference information for Department use only. The information in the upper left corner above the title of each Supplemental Specification and Special Provision in this contract is file reference information for Department use only.

4-29-19 (SPCN)

[cn102-000510-00](#)

**SECTION 102.05—PREPARATION OF BID** of the Specifications is amended to include the following:

**(g) Compliance with the Cargo Preference Act**

As required by [46 CFR 381.7 \(a\)-\(b\)](#) "Use of United States-flag vessels, when materials or equipment are acquired for a specific highway project, the Contractor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States. a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

This requirement will not be applicable when materials or equipment used on the Project are obtained from the existing inventories of suppliers and contractors; they are only applicable when the materials or equipment are acquired for the specific project, and have been transported by ocean vessel.

12-14-15; Reissued 7-12-16 (SPCN) [formerly cn102-050100-00]

[cn315-000100-00](#)

**SECTION 315.05(c) PLACING AND FINISHING** is modified by replacing the third paragraph with the following:

The longitudinal joint in one layer shall offset that in the layer immediately below by approximately 6 inches or more. The joint in the wearing surface shall be offset 6 inches to 12 inches from the centerline of the pavement if the roadway comprises two traffic lanes. The joint shall be offset approximately 6 inches from the lane lines if the roadway is more than two lanes in width. The longitudinal joint shall be uniform in appearance. On all roads except secondary routes, if the offset for the longitudinal joint varies from a straight line more than 2 inches in 50 feet on tangent alignment, or from a true arc more than 2 inches in 50 feet on curved alignment, the Contractor shall seal the joint using a water-proof sealer at no cost to the Department. The Contractor shall recommend a sealant and installation procedure to the Engineer for approval before proceeding. On all roads except secondary routes, if the offset for the longitudinal joint varies from a straight line more than 3 inches in 50 feet on tangent alignment, or from a true arc more than 3 inches in 50 feet on curved alignment, the Engineer may reject the paving. The Engineer will not require offsetting layers when adjoining lanes are paved in echelon and the rolling of both lanes occurs within 15 minutes after laydown.

1-18-17 (SPCN)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[cn512-000110-00](#)

**CONTRACTOR PROPOSED ALTERNATIVE TRAFFIC CONTROL PLANS —**

The Contractor may prepare his own Contractor Alternative Traffic Control Plan (CATCP) as an alternative to that shown in the Contract. This alternative plan must be prepared in conformance with the requirements of AASHTO; the latest approved editions of the *Manual of Uniform Traffic Control Devices (MUTCD)* and the *Virginia Work Area Protection Manual*. The Contractor must provide, as part of this alternative plan, information and explanations consistent with, and to the same level of detail, as the project-specific Traffic Control plans in the Contract prepared by VDOT or its consultants. The alternative plan must clearly demonstrate coordination with the Contractor's overall, comprehensive plan for prosecuting the work, through its various phases or stages of construction and sequencing. The plan must be supported by a detailed transportation network traffic operations analysis, consistent with the complexity of the project, using a methodology or computer software program approved by the Department. This analysis must satisfactorily demonstrate the operating conditions of the network, and particularly, the work zone given expected traffic volumes during the length of the construction schedule.

As a necessary and integral part of the plan, the Contractor shall be responsible for identifying all utilities and right of way that will be impacted by his proposed CATCP, to include but not be limited to: underground utility designations, securing any additional or supplemental permissions or permits required to construct the project and preparing all analyses, plans, summaries, specifications, special provisions, etc., necessary to secure approvals to construct the project according to his alternative plan. The analyses, plans, summaries, specifications, and special provisions shall be directly prepared by or prepared under the supervision of a Professional Engineer registered to practice civil engineering in the Commonwealth of Virginia who is trained and/or certified in traffic control analysis and design. All such documents shall be signed and sealed by the Professional Engineer.

The Department reserves the right to accept or reject any CATCP developed under the provisions of this specification. The Contractor must obtain the Engineer's written approval before beginning any work using a Contractor Alternative Traffic Control Plan for Maintenance of Traffic. The Engineer's written approval is required for all modifications to the accepted Contractor Alternative Traffic Control Plan. The Engineer will permit changes to the CATCP without proper documentation and authorization only in emergency situations where incident management is critical.

The Engineer's acceptance of the Contractor's Alternative Traffic Control Plan will not relieve the Contractor of his responsibility for all related project impacts, costs, delays, or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those detailed in the original Contract specifications, design plans, including the Department's temporary traffic control plans or other Contract Documents and which effect a change in project work different from that shown in the plans, joint project agreements, or other project construction schedules. No additional compensation or extension of time for contract completion will be considered in conjunction with the Contractor's decision to proceed with use of a Contractor Alternative Traffic Control Plan that is approved by the Engineer.

3-27-08; Reissued 7-12-16 (SPCN)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**SECTION 703—TRAFFIC SIGNALS** of the Specifications is amended as follows:

**Section 703.02 - Equipment** is amended to replace the first paragraph with the following:

Traffic signal controllers, Controllers shall be the manufacturer's standard design and shall contain all modules and parts for the specified model number per the manufacturer.. The manufacturer's name, model number, serial number, and part identification number shall be permanently attached to the cover of the equipment.

**Section 703.02 (a) Traffic Signal Controllers** is replaced with the following:

(a) Traffic Signal Controllers: Controllers shall be McCain 2070LX, 20LXN1, 2070LXN2, NEMA ATCeX2 TS1, or NEMA ATCeX2 TS2 controllers, unless specified otherwise on the plans. Controllers shall be warranted for a minimum of five years. Controllers shall be supplied with Advanced Traffic Solution D4 Firmware.

**Section 703.04 Measurement and Payment** is amended to include the following:

**Traffic Signal Controller** will be measured in units of each for the type specified and will be paid for at the contract unit price per each. This price shall include timing data (if specified in the Contract), timing implementation, controller unit functionality, circuit diagrams, manufacturer's instructions, relays, auxiliary equipment, conductor cables, grounding systems, wiring, and fittings.

Payment will be made under

<b>Pay Item</b>	<b>Pay Unit</b>
Traffic Signalization McCain 2070LX Controller	Each

8-1-19 (SPCN)

**CRUSHER RUN AGGREGATE NO. 25 OR 26** will be measured in tons and will be paid for at the Contract ton price. The bid price shall be full compensation for furnishing, placing, and compacting the aggregate material; and for all materials, labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Crusher Run Aggregate No. 25 or 26	Ton

4-19-18 (SPCN)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Organic Backfill** (Improved Backfill) shall consist of 40 percent organic compost and 60 percent Class B topsoil and shall be in accordance with Section 244.02 of the Specifications. Compost and topsoil used for organic backfill will be inspected and approved by the Engineer during construction activities.

Organic Backfill (Improved Backfill) will be measured in cubic yards and will be paid for at the contract unit price per cubic yard. This price shall include furnishing, delivering, and applying backfill material.

Payment will be made under

<b>Pay Item</b>	<b>Pay Unit</b>
Organic Backfill (Improved Backfill)	Cubic Yard

6-28-19 (SPCN)

**Remove and Salvage Sign Structure and Panel** Existing sign structures or sign panels to be salvaged shall be disassembled and delivered to the designated Department facilities as directed by the Engineer. The Contractor shall give at least 48 hours notice to VDOT prior to delivering such equipment to the Department facilities. Underground items such as conduit and conductors may be abandoned in ground and items such as foundations, manholes and junction boxes shall be removed.

**Remove and Salvage Sign Structure and Sign Panel** will be measured and paid for at the contract bid price of each, which bid price shall include removal of the sign structure, sign panel, removal of the foundation and anchor bolts and restoration of the disturbed area, delivery to Department facility, and any required maintenance of traffic.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Remove and Salvage Sign Structure and Sign Panel ADD	Each

7-16-19 (SPCN)

**CONCRETE FOUNDATION CF-5** – Concrete Foundation CF-5 shall be in accordance with the Cabinet Foundation Details drawing and Section 700 of the Specifications.

**Concrete foundation CF-5** will be measured units of each and will be paid for at the contract unit price per each for the standard, type and size designated. This price shall include providing foundation design and shop drawings; concrete, reinforcing steel, anchor bolts, washers, nuts, bolt circle templates, lubricant, torque, ultrasonic test on anchor bolts, grounding electrodes (including grounding electrode clamps, grounding electrode conductors, and installation), conduits, testing grounding conductor-to-electrode continuity, excavating, backfilling, compacting, disposing of surplus and unsuitable material, and restoring disturbed areas.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Concrete Foundation CF-5	Each

7-23-19 (SPCN)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[cn108-000411-01](#)

**EARLY COMPLETION INCENTIVE/DISINCENTIVE**

**Early Completion** is defined as completing all of the Work as detailed in the Plans and Specifications to the Department's satisfaction for Final Acceptance, including, but not limited to, punch list, seeding, landscaping, and signal burn-in before the Completion Date.

The Department will pay an incentive of **\$2,500** for each Calendar Day the Contractor completes the Work prior to the Completion Date. The incentive is capped at **\$75,000**.

If the Contractor does not complete the Work on or before the Completion Date, the Department will assess a disincentive of **\$520** per Calendar Day after the Completion Date, including Sundays and Holidays, that the Contractor does not complete the Work. The disincentive is capped at **\$62,400**.

The disincentive will be assessed, not as a penalty, but as agreed compensation for damages resulting from the Contractor's delay in completion of construction operations on the Department and road users. The disincentive amount is calculated based on Department related traffic control and maintenance costs, detour costs, or daily road user costs, as applicable.

The Contractor waives any defense as to the validity of any disincentives stated in the Contract, the Specifications, or this Special Provision, and assessed by the Department against the Contractor on the grounds that such disincentives are void as penalties or are not reasonably related to actual damages.

1-17-17 (SPCN) [\[formerly cn108-040110-01\]](#)

**DRUG-FREE WORKPLACE**– The Contractor shall:

- Provide a Drug-Free Workplace for the Contractor's employees.
- Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- State in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a Drug-Free Workplace.
- Include the provisions of the foregoing clauses in every Subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each Subcontractor or vendor.

For the purposes of this provision, "Drug-Free Workplace" means a site for the performance of work done in connection with the Contract. The Contractor's employees, and those of his Subcontractors, shall be prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession, or use of any controlled substance or marijuana during the performance of the Work.

7-3-19 (SPCN)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**CONSTRUCTION GENERAL PERMIT FOR 2019 - SECTION 107 – LEGAL REQUIREMENTS** of the Specifications is revised as follows:

**Section 107.16(b)1 – Water** is amended by inserting the following:

The Contractor shall cover all dumpsters at the end of each work shift and when not in use during a rain event.

**Section 107.16(e)4a – Inspection Requirements** is replaced with the following:

**Inspection Requirements:** The Contractor shall be responsible for conducting site inspections according to the requirements herein. Site inspections shall include erosion, sediment control, and pollution prevention practices and facilities; all areas of the site disturbed by construction activity; all on-site support facilities; and all off site support facilities within VDOT right of way or easement. The Contractor shall document such inspections by completion of Form C-107 according to the directions contained within the form. This inspection shall be incorporated into the SWPPP no later than 4 days after the inspection. Inspections shall be conducted using one of the following schedules:

- **Schedule 1** - At least once every 7 calendar days (equivalent to the once every five business days schedule in the *General VPDES Permit for Discharge of Stormwater from Construction Activities*) and within 24 hours following any measureable storm event. If a measureable storm event occurs when there are more than 24 hours between business days, the Contractor shall perform his inspection no later than the next business day. The Contractor shall install a rain gauge at a central location on the project site for the purposes of determining the occurrence of a measureable storm event. Where the project is of such a length that one rain gauge may not provide an accurate representation of the occurrence of a measurable storm event over the entire project site, the Contractor shall install as many rain gauges as necessary to accurately reflect the amount of rainfall received over all portions of the project. The Contractor shall observe all rain gauges no less than once each business day at the time prescribed in the SWPPP General Information Sheet notes in the construction plans or other contract documents to determine if a measureable storm event has occurred. The procedures for determining the occurrence of a measurable storm event are identified in the SWPPP General Information Sheet notes in the construction plans or other contract documents.
- **Schedule 2** - At least each Monday and Thursday (equivalent to the once every four business days schedule in the *General VPDES Permit for Discharge of Stormwater from Construction Activities*). Where Monday or Thursday is a non-business day, the inspection may be performed on the next business day afterward. In no case shall the inspections be performed less than once every four business days. A rain gauge will not be required when using Schedule 2.

The inspection schedule (1 or 2) is to be selected prior to the beginning of land disturbance. Once an inspection schedule is selected, it shall be defined in the appropriate note in the SWPPP General Information Sheets contained in the construction plan set and shall be used for the duration of the project. A business day is defined as Monday through Friday excluding State holidays. A measurable storm event is defined as one producing 0.25 inches of rainfall or greater over a 24 hour time period.

For those areas of the site that have been temporarily stabilized or where land disturbing activities have been suspended due to continuous frozen ground conditions and stormwater discharges are unlikely, the inspection schedule may be reduced to once per month. If weather conditions (such as above freezing temperatures or rain or snow events) make stormwater discharges likely, the Contractor shall immediately resume the regular inspection schedule. Those definable areas where final stabilization has been achieved will not require further inspections provided such areas have been identified in the project's Stormwater Pollution Prevention Plan.

7-15-19 (SPCN)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SP0F0-000100-00

Reissued July 12, 2016

**PREDETERMINED MINIMUM WAGE RATES**

General Decision Number: VA190195 01/04/2019 VA195

Superseded General Decision Number: VA20180206

State: Virginia

Construction Type: Highway

Counties: Chesapeake\*, Gloucester, Hampton\*, James\*, Mathews, Newport News\*, Norfolk\*, Poquoson\*, Portsmouth\*, Suffolk\*, Virginia Beach\* and York Counties in Virginia.

\*including the independent cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Poquoson, Suffolk and Virginia Beach

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate).

The EO minimum wage rate will be adjusted annually.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/04/2019

ELEC0080-011 06/01/2018

	Rates	Fringes
ELECTRICIAN, Includes Traffic Signalization.....	\$ 27.94	12.56%+6.95
-----		
SUVA2016-080 07/02/2018		

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 20.21	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 16.03	0.00
IRONWORKER, REINFORCING.....	\$ 24.03	0.00
IRONWORKER, STRUCTURAL.....	\$ 27.38	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 18.62	2.62
LABORER: Common or General.....	\$ 14.85	0.00
LABORER: Grade Checker.....	\$ 14.88	0.00
LABORER: Pipelayer.....	\$ 17.76	0.00
LABORER: Power Tool Operator....	\$ 15.69	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 20.74	0.00

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 19.16	4.45
OPERATOR: Broom/Sweeper.....	\$ 17.40	2.01
OPERATOR: Crane.....	\$ 24.42	4.69
OPERATOR: Drill.....	\$ 24.66	0.00
OPERATOR: Gradall.....	\$ 19.26	0.00
OPERATOR: Grader/Blade.....	\$ 23.21	0.00
OPERATOR: Hydroseeder.....	\$ 16.64	0.00
OPERATOR: Loader.....	\$ 17.86	0.00
OPERATOR: Mechanic.....	\$ 21.43	0.00
OPERATOR: Milling Machine.....	\$ 23.12	3.60
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 20.12	3.81
OPERATOR: Piledriver.....	\$ 21.83	4.08
OPERATOR: Roller.....	\$ 21.32	0.00
OPERATOR: Screed.....	\$ 22.13	4.89
OPERATOR: Asphalt Spreader and Distributor.....	\$ 19.09	1.81
OPERATOR: Bulldozer, Including Utility.....	\$ 19.43	0.00
TRAFFIC CONTROL: Flagger.....	\$ 12.89	0.00
TRUCK DRIVER : HEAVY 7CY & UNDER.....	\$ 15.53	0.00
TRUCK DRIVER: 1/Single Axle Truck.....	\$ 18.26	4.88
TRUCK DRIVER: Fuel and Lubricant Service.....	\$ 18.25	0.00

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

TRUCK DRIVER: HEAVY OVER 7  
CY.....\$ 16.98 0.00

TRUCK DRIVER: MULTI AXLE.....\$ 18.77 4.63

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

=====

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

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

-----

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

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Union Average Rate Identifiers

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

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

-----  
END OF GENERAL DECISION

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

U.S. DEPARTMENT OF LABOR  
OFFICE OF THE SECRETARY  
WASHINGTON  
**DECISION OF THE SECRETARY**

This case is before the Department of Labor pursuant to a request for a wage predetermination as required by law applicable to the work described.

A study has been made of wage conditions in the locality and based on information available to the Department of Labor the wage rates and fringe payments listed are hereby determined by the Secretary of Labor as prevailing for the described classes for labor in accordance with applicable law.

This wage determination decision and any modifications thereof during the period prior to the stated expiration date shall be made a part of every contract for performance of the described work as provided by applicable law and regulations of the Secretary of Labor, and the wage rates and fringe payments contained in this decision, including modifications, shall be the minimums to be paid under any such contract and subcontractors on the work.

The Contracting Officer shall require that any class of laborers and mechanics which is not listed in the wage determination and which is to be employed under the Contract, shall be classified or reclassified conformably to the wage determination, and a report of the action taken shall be sent by the Federal agency to the Secretary of Labor. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question accompanied by the recommendation of the Contracting Officer shall be referred to the Secretary for determination.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U.S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the Contractor shall submit evidence of approval and registration by the U.S. Bureau of Apprenticeship and Training.

The Contractor shall submit to the Contracting Officer written evidence of the established apprentice-journeyman ratios and wage in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

Fringe payments include medical and hospital care, compensation for injuries or illness resulting from occupational activity, unemployment benefits, life insurance, disability and sickness insurance, accident insurance (all designated as health and welfare), pensions, vacation and holiday pay, apprenticeship or other similar programs and other bona fide fringe benefits.

By direction of the Secretary of Labor

A handwritten signature in black ink, appearing to read "E. Irving Manger", is written over a horizontal line.

E. Irving Manger, Associate Administrator  
Division of Wage Determinations  
Wage and Labor Standards Administration

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP0F0-000130-00](#)

May 1, 2012; Reissued July 12, 2016  
FHWA-1273 (Electronic Version)

The following Form **FHWA-1273** titled **REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS** shall apply to this contract:

FHWA-1273 – Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS**  
**FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

**ATTACHMENTS**

- A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

- 1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The Contractor (or Subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services).

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the Contract by the Contractor's own organization and with the assistance of workers under the Contractor's immediate superintendence and to all work performed on the Contract by piecework, station work, or by subcontract.
3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the Contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
4. Selection of Labor: During the performance of this contract, the Contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

## **II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the Contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the Contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the Contractor agrees to comply with the following minimum specific requirement activities of EEO:
  - a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the Contract.
  - b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."
2. **EEO Officer:** The contractor will designate and make known to the Contracting Officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.
3. **Dissemination of Policy:** All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
  - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
  - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the Contractor's EEO obligations within thirty days following their reporting for duty with the Contractor.
  - c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the Contractor's procedures for locating and hiring minorities and women.
  - d. Notices and posters setting forth the Contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

- 4. **Recruitment:** When advertising for employees, the Contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the Contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the Contractor for employment consideration.

In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the Contractor is expected to observe the provisions of that agreement to the extent that the system meets the Contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the Contractor to do the same, such implementation violates Federal nondiscrimination provisions.

The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

- 5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of their avenues of appeal.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**6. Training and Promotion:**

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the Contractor's work force requirements and as permissible under Federal and State regulations, the Contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the Contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- d. In the event the union is unable to provide the Contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the Contractor from the requirements of this paragraph. In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.
- 8. **Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
  - a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
  - b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.
- 10. **Assurance Required by 49 CFR 26.13(b):**
  - a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
  - b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

11. **Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the Contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
- a. The records kept by the Contractor shall document the following:
    - (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
    - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
    - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
  - b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the Contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

**III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the Contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

**IV. Davis-Bacon and Related Act Provisions**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**1. Minimum wages**

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
- (I) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (II) The classification is utilized in the area by the construction industry; and
  - (III) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- (2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.
  - (3) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.
  - (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the Contract, the contracting agency may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**3. Payrolls and basic records**

- a. Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:
    - (I) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
    - (II) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
    - (III) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.
  - (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
  - (4) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the Contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**4. Apprentices and trainees**

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

b. Trainees (programs of the USDOL).

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

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

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

In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. **Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

7. **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
8. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
10. **Certification of eligibility.**
  - a. By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
  - b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
  - c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
3. **Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.
4. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

**VI. SUBLETTING OR ASSIGNING THE CONTRACT**

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the Contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the Contractor's own organization (23 CFR 635.116).
  - a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
    - (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
    - (2) the prime contractor remains responsible for the quality of the work of the leased employees;

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
    - (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
  - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the Contract as a whole and in general are to be limited to minor components of the overall contract.
- 2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the Contractor under the contract provisions.
  - 3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the Contracting Officer determines is necessary to assure the performance of the Contract.
  - 4. No portion of the Contract shall be sublet, assigned or otherwise disposed of except with the written consent of the Contracting Officer, or authorized representative, and such consent when given shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the Contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.
  - 5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

**VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

- 1. In the performance of this contract the Contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the Contracting Officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the Contract.
- 2. It is a condition of this contract, and shall be made a condition of each subcontract, which the Contractor enters into pursuant to this contract, that the Contractor and any subcontractor shall not permit any employee, in performance of the Contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

**VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

2. That the Contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

**1. Instructions for Certification – First Tier Participants:**

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
  - (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
  - (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--  
Lower Tier Participants:**

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
  - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
  - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SP0F0-000150-01

July 17, 2017

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE  
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals for female and minority participation, expressed in percentage terms of the Contractor's aggregate work force in each trade on all construction works in the covered area, are as follows:

Females- 6.9%

Minorities - See Attachment "A"

The goals are applicable to all the Contractor's construction work performed in the covered area, whether or not it is Federal or federally assisted. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications, set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established herein. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executives Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days the award of any construction subcontract in excess of \$10,000 at any tier for construction works under this contract. The notification shall list the name, address and telephone number of the subcontractor, employer identification number, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the Contract is to be performed.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

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

1. As, used in this provision:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;
  - d. "Minority" includes:
    - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors and Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
  - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, shall assign two or more women to each construction project. The Contractor shall specifically ensure that all foreman, superintendents and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union, or if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union or unions which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
  - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper or annual report; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents and General Foremen prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.
  - h. Disseminate the Contractor's EEO policy externally by including in any news media advertisement that the Contractor is "An Equal Opportunity Employer" for minority and female, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
  - i. Directs its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.
  - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of Contractor's workforce.
  - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
  - l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for such opportunities through appropriate training or other means.
  - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

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

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**ATTACHMENT A**

<u>Economic Area</u>	<u>Goal (Percent)</u>
Virginia:	
021 Roanoke-Lynchburg, VA	
SMSA Counties:	
4640 Lynchburg, VA .....	19.3
VA Amherst; VA Appomattox; VA Campbell; VA Lynchburg	
6800 Roanoke, VA .....	10.2
VA Botetourt; VA Craig; VA Roanoke; VA Roanoke City; VA Salem	
Non-SMSA Counties .....	12.0
VA Alleghany; VA Augusta; VA Bath; VA Bedford; VA Bland; VA Carroll;	
VA Floyd; VA Franklin; VA Giles; VA Grayson; VA Henry; VA Highland;	
VA Montgomery; VA Nelson; VA Patrick; VA Pittsylvania; VA Pulaski;	
VA Rockbridge; VA Rockingham; VA Wythe; VA Bedford City; VA Buena	
Vista:	
VA Clifton Forge; VA Covington; VA Danville; VA Galax; VA Harrisonburg;	
VA Lexington; VA Martinsville; VA Radford; VA Staunton; VA Waynesboro;	
WV Pendleton.	
022 Richmond, VA	
SMSA Counties:	
6140 Petersburg - Colonial Heights - Hopewell, VA .....	30.6
VA Dinwiddie; VA Prince George; VA Colonial Heights; VA Hopewell;	
VA Petersburg.	
6760 Richmond, VA .....	24.9
VA Charles City; VA Chesterfield; VA Goochland, VA Hanover; VA	
Henrico; VA New Kent; VA Powhatan; VA Richmond.	
Non-SMSA Counties .....	27.9
VA Albemarle; VA Amelia; VA Brunswick; VA Buckingham, VA Caroline;	
VA Charlotte; VA Cumberland; VA Essex; VA Fluvanna; VA Greene; VA	
Greensville; VA Halifax; VA King and Queen; VA King William; VA	
Lancaster; VA Louisa; VA Lunenburg; VA Madison; VA Mecklenburg; VA	
Northumberland; VA Nottoway; VA Orange; VA Prince Edward; VA Richmond	
VA Sussex; VA Charlottesville; VA Emporia; VA South Boston	
023 Norfolk - Virginia Beach - Newport News VA:	
SMSA Counties:	
5680 Newport News- Hampton, VA .....	27.1
VA Gloucester; VA James City; VA York; VA Hampton; VA Newport	
News; VA Williamsburg.	
5720 Norfolk - Virginia Beach - Portsmouth, VA - NC .....	26.6
NC Currituck; VA Chesapeake; VA Norfolk; VA Portsmouth; VA	
Suffolk; VA Virginia Beach.	
Non-SMSA Counties .....	29.7
NC Bertie; NC Camden; NC Chowan; NC Gates; NC Hertford;	
NC Pasquotank; NC Perquimans; VA Isle of Wight; VA Matthews;	
VA Middlesex; VA Southampton; VA Surry; VA Franklin.	
Washington, DC:	
020 Washington, DC.	
SMSA Counties:	
8840 Washington, DC - MD - VA .....	28.0
DC District of Columbia; MD Charles; MD Montgomery MD Prince	
Georges; VA Arlington; VA Fairfax; VA Loudoun; VA Prince William	
VA Alexandria; VA Fairfax City; VA Falls Church.	
Non- SMSA Counties .....	25.2
MD Calvert; MD Frederick; MD St. Marys; MD Washington; VA Clarke;	

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VA Culpeper; VA Fauquier; VA Frederick; VA King George; VA Page; VA  
Rappahannock; VA Shenandoah; VA Spotsylvania; VA Stafford; VA  
Warren; VA Westmoreland; VA Fredericksburg; VA Winchester WV Berkeley;  
WV Grant; WV Hampshire; WV Hardy; WV Jefferson; WV Morgan.

Tennessee:

052 Johnson City - Kingsport - Bristol, TN - VA

SMSA Counties:

3630 Johnson City - Kingsport -Bristol, TN-VA ..... 2.6  
TN Carter; TN Hawkins; TN Sullivan; TN Washington; VA Scott: VA  
Washington; VA Bristol.

Non-SMSA Counties ..... 3.2

TN Greene; TN Johnson; VA Buchanan; VA Dickenson; VA Lee;  
VA Russell; VA Smyth; VA Tazewell; VA Wise; VA Norton; WV McDowell;  
WV Mercer.

Maryland:

019 Baltimore MD

Non-SMSA Counties ..... 23.6

MD Caroline; MD Dorchester; MD Kent; MD Queen Annes; MD Somerset;  
MD Talbot; MD Wicomico; MD Worcester; VA Accomack; VA  
Northampton.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP102-000120-00](#) [formerly SP102-010100-00]

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**NON-DISCRIMINATION IN EMPLOYMENT AND CONTRACTING PRACTICES**

January 10, 2017

**I. Description**

This Special Provision implements Executive Order 61, ensuring equal opportunity and access for all Virginians in state contracting and public services.

**II. Non-Discrimination**

The Contractor shall maintain a non-discrimination policy, which prohibits discrimination by the Contractor on the basis of race, sex, color, national origin, religion, sexual orientation, gender identity, age, political affiliation, disability, or veteran status. This policy shall be followed in all employment practices, subcontracting practices, and delivery of goods or services. The Contractor shall also include this requirement in all subcontracts valued over \$10,000.

**III. Measurement and Payment**

Conformance with this Special Provision will not be measured for individual payment, and will be considered incidental to the Work.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP102-000510-02](#)

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**USE OF DOMESTIC MATERIAL**

December 19, 2018

**SECTION 102.05 PREPARATION OF BID** of the Specifications is amended to include the following:

In accordance with the provisions of Section 635.410(b) of Title 23 CFR, hereinafter referred to as "Buy America", except as otherwise specified, all iron and steel (including miscellaneous items such as fasteners, nuts, bolts and washers) to be permanently incorporated for use on federal aid projects shall be produced in the United States of America. This applies to any iron or steel item brought onto the project, regardless of the percentage of iron or steel that exists in the pay item or in the final form they take; however, electrical components (i.e., combination products such as signal controllers and similar products which are only sold as a unit) are not subject to Buy America provisions if the product as purchased by the Contractor is less than 50% steel and iron. "Produced in the United States of America" means all manufacturing processes occur in one of the 50 United States, the District of Columbia, Puerto Rico or in the territories and possessions of the United States. "Manufacturing processes" are defined as any process which alters or modifies the chemical content, physical size or shape, or final finish of iron or steel material (such as rolling, extruding, bending, machining, fabrication, grinding, drilling, finishing, or coating). For the purposes of satisfying this requirement "coating" is defined as the application of epoxy, galvanizing, painting or any other such process that protects or enhances the value of the material to which the coating is applied. Non-iron and non-steel materials used in the coating process do not need to be produced in the United States as long as the application of the coating occurred in the United States. The manufacturing process is considered complete when the resultant product is ready for use as an item in the project (e.g. fencing, posts, girders, pipe, manhole covers, etc.) or is incorporated as a component of a more complex product by means of further manufacturing. Final assembly of a product may occur outside of the United States of America provided no further manufacturing processes take place.

For the purposes of this provision, all steel or iron material meeting the criteria as produced in the United States of America will be considered as "Domestic Material." All iron and steel items not meeting the criteria as produced in the United States of America will be considered "Non-Domestic Material."

A minimal amount of "Non-Domestic" steel or iron material may be incorporated in the permanent work on a federal-aid contract provided that the cost of such materials or products does not exceed one-tenth of one percent of the Contract amount or \$2500, whichever is greater. The cost of the "Non-Domestic Material" is defined as its monetary value delivered to the job site and supported by invoices or bill of sale to the Contractor. This delivered-to-site cost must include transportation, assembly, installation and testing.

Buy America provisions do not apply to iron or steel products used temporarily in the construction of a project such as temporary sheet piling, temporary bridges, steel scaffolding, falsework or such temporary material or product or material that remains in place for the Contractor's convenience.

Raw materials such as iron ore, pig iron, processed, pelletized and reduced iron ore, waste products (including scrap, that is, steel or iron no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, or the like and steel trimmings from mills or product manufacturing) and other raw materials used in the production of steel and/or iron products may, however, be imported. Extracting, handling, or crushing the raw materials which are inherent to the transporting the materials for later use in the manufacturing process are exempt from Buy America.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Any items containing foreign source steel or iron billet shall be considered "Non-Domestic Materials." Additionally, iron or steel ingots or billets produced in the United States, but shipped outside the United States of America for any manufacturing process and returned for permanent use in a project shall be considered "Non-Domestic Materials."

**Waivers:**

The process for receiving a waiver for Buy America provisions is identified in 23 CFR 635.410(c). The Contractor shall not anticipate that any Buy America provisions will be waived.

**Certification of Compliance:**

The Contractor is required to submit a Certificate of Compliance prior to incorporating any items containing iron or steel items into the project. This shall be accomplished by the Contractor submitting the Form C-76 Certificate of Compliance to the Department when the items are delivered to the project site. The Certification of Compliance will certify whether the items are considered "Domestic Material" or "Non-Domestic Material" as referenced in this Special Provision. The certificate must be signed and dated by the Prime Contractor's Superintendent and include a Buy America Submittal Number. The Buy America Submittal Number is simply the Contractor's project specific sequential numbering system that will allow the Contractor and Department to track the total number of certificates provided and the individual items containing iron or steel associated with each certificate.

**Supporting Documentation:**

Supporting documentation to demonstrate compliance with Buy America provisions (such as mill test reports manufacturer/supplier certifications, etc.) shall be organized by Buy America Submittal Number and maintained by the Contractor from the date of delivery until three years after project acceptance. The Contractor may maintain this documentation electronically or in paper format.

The Department or FHWA may review the Contractor's supporting documentation to verify compliance with the Buy America provisions at any time. Supporting documentation shall be provided within five business days of the request. The burden of proof to meet the Buy America provisions rests with the Contractor. If the supporting documentation does not undeniably demonstrate to FHWA or the Department that the "Domestic Materials" identified in the Certificates of Compliance were produced in the United States of America, then the Department may deduct payment from moneys due the Contractor for the value of the iron and steel that did not meet the Buy America provisions.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SP105-001000-01 [formerly SP105-100100-01]

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**CONSTRUCTION RECORD DOCUMENTATION OF PERMANENT STORMWATER MANAGEMENT  
FACILITIES**

February 1, 2018

**I. Description**

This specification covers the requirement for the Contractor to provide Construction Record Documents of permanent stormwater management facilities (SWMF).

**II. Definitions**

- 1. Construction Record Documents (CRDs).** Documents that record and detail the construction and final state of a SWMF, including, but not limited to, construction record surveys, shop drawings, and all certifications required in the Contract for the specific type of SWMF.
- 2. Licensed Professional.** A Professional Engineer, Land Surveyor, or Certified Landscape Architect licensed to practice in the Commonwealth of Virginia.

**III. Requirements**

The Contractor shall provide CRDs and other required information identified in Section IV for all permanent SWMF shown in the Plans. CRDs shall comply with Section 105.10(c) of the Specifications. All survey work and drawings shall comply with the VDOT Survey Manual and CADD Manual. CRDs shall document the items summarized in Section IV for each type or category of SWMF on the Project. The CRDs shall be signed and sealed by a Licensed Professional.

A digitally signed and sealed copy of the CRDs and other required information for permanent SWMF on the Project shall be provided to the Engineer prior to Final Acceptance.

Deviations from the Plans that result in a decrease in the water quality or quantity volumes, or any change to the shape, size, location or elevations of the facility or its associated structures shall be shown on the CRDs for the Engineer's review. The Contractor shall be responsible for making any corrections to the SWMF required by the Engineer and updating the CRDs prior to Final Acceptance.

**IV. CRDs for Permanent Stormwater Management Facilities**

CRDs shall be provided for the following types of permanent SWMF's shown in the Plans:

- 1. Constructed Wetlands, Wet Ponds, Extended Detention, and Dry Detention Basins.** These facilities require a construction record survey which shall include:
  - A. Finished elevations, including pretreatment areas, basin floor elevations, bench elevations, pool elevations, and embankment contours and elevations.
  - B. Horizontal location of basin footprint, spillway, outfall structure and outlet protection.
  - C. Spillway dimensions and elevations.
    - (1) Riser shape and elevations (crest and bottom).
    - (2) Orifice shape, dimensions, and elevations.
    - (3) Weir shape, dimensions, and elevations.
    - (4) Barrel shape, dimensions, and elevations (inlet and outlet).
    - (5) Emergency spillway shape, dimensions, and elevations.
  - D. Baffle location, shape and dimensions.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

2. **Infiltration, Bioretention, and Filtering Practices.** These facilities require a construction record survey which shall include:
- A. Finished elevations including pretreatment areas, filter bed surface, berm and earthen spillway.
  - B. Horizontal location of observation wells, cleanouts, spillways and outfall.
  - C. Types of outlet and overflow structures, shape and elevations (crest and bottom).
  - D. Pipe barrel shape, dimensions, and elevations (inlet and outlet).
  - E. Underdrain pipe shape, size and invert elevations.
  - F. Underground storage structure type, shape, dimensions, and elevations.
3. **Manufactured Treatment Devices (MTDs) and Permeable Pavement.** Manufacturer's shop drawings shall be provided for all manufactured components of MTDs and Permeable Pavement. A statement for planting in conformance with the Plans shall be included. MTDs require a construction record survey which shall include:
- A. Horizontal location of the facility and outfall.
  - B. Horizontal location of observation wells and cleanouts.
  - C. Rim and invert elevations of associated structures or access location.

**V. Measurement and Payment**

**Construction Record Documents** for permanent SWMF will be paid for at the Contract lump sum price. This price shall include performing the work described herein on all SWMF's shown on the Plans.

Payment will not be made until the Contractor provides the Engineer with CRDs, signed and sealed by a Licensed Professional, and they are accepted by the Engineer.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Construction Record Documents	Lump sum



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SP107-000110-00

**C-45**

Rev. 10-9-14; Reissued 10-27-16

VIRGINIA DEPARTMENT OF TRANSPORTATION

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND THE VIRGINIA POLLUTANT  
DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR THE DISCHARGE OF  
STORMWATER FROM CONSTRUCTION ACTIVITIES**

**CONTRACTOR CERTIFICATION STATEMENT**

Order No.: B49 Project Number: 0614-047-640,M501  
Route: 613/614 Contract ID. #: C0000102944M01

I certify under penalty of law that I understand the terms and conditions of the project contract, plans, permits, specifications and standards related to the erosion and sediment control, stormwater management and stormwater pollution prevention plan requirements for the affected activities associated with this project, and the requirements of the VPDES General Permit for the Discharge of Stormwater from Construction Activities (the VPDES Construction Permit) , if applicable to this project, issued by the Virginia Department of Environmental Quality. The VPDES Construction Permit authorizes the storm water discharges associated with the construction activities from the project site identified and described in the bid documents and subsequent contract including any onsite or off-site support facility areas located within VDOT right of way or easement and required for the complete fulfillment of the work therein.

Signature: \_\_\_\_\_

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

Title: \_\_\_\_\_

Contracting Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

\* Project  
Address/Location: \_\_\_\_\_  
\_\_\_\_\_

Certified on this date: \_\_\_\_\_

\* Include any off-site support facility areas located within VDOT right of way or easement.  
(Note: This form must be returned with performance and payment bonds)

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP107-001510-01](#) [formerly SP107-150100-01]

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**DBE REQUIREMENTS**

August 18, 2017

**SECTION 107 – LEGAL RESPONSIBILITIES** of the Specifications is revised as follows:

**Section 107.15 – Use of Small, Women-Owned, and Minority-Owned Business** is renamed **Use of Disadvantaged Business Enterprises (DBEs)** and replaced with the following:

**(a) Disadvantaged Business Enterprise (DBE) Program Requirements**

Any Contractor, subcontractor, supplier, DBE firm, and contract surety involved in the performance of work on a federal-aid contract shall comply with the terms and conditions of the United States Department of Transportation (USDOT) DBE Program as the terms appear in Part 26 of the Code of Federal Regulations (49 CFR as amended), the USDOT DBE Program regulations; and the Virginia Department of Transportation's (VDOT or the Department) Road and Bridge Specifications and DBE Program rules and regulations.

For the purposes of this provision, Contractor is defined as the Prime Contractor of the Contract; and sub-contractor is defined as any DBE supplier, manufacturer, or subcontractor performing work or furnishing material, supplies or services to the Contract. The Contractor shall physically include this same contract provision in every supply or work/service subcontract that it makes or executes with a subcontractor having work for which it intends to claim credit.

In accordance with 49 CFR Part 26 and VDOT's DBE Program requirements, the Contractor, for itself and for its subcontractors and suppliers, whether certified DBE firms or not, shall commit to complying fully with the auditing, record keeping, confidentiality, cooperation, and anti-intimidation or retaliation provisions contained in those federal and state DBE Program regulations. By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations and to bind the Contractor's subcontractors contractually to the same at the Contractor's expense.

The Contractor or subcontractor shall not discriminate on the basis of race, color, sex, sexual orientation, gender identity, or national origin in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein. Appeal requirements, processes, and procedures shall be in accordance with guidelines stated herein and current at the time of the proceedings. Where applicable, the Department will notify the Contractor of any changes to the appeal requirements, processes, and procedures after receiving notification of the Contractor's desire to appeal.

All time frames referenced in this provision are expressed in business days unless otherwise indicated. Should the expiration of any deadline fall on a weekend or holiday, such deadline will automatically be extended to the next normal business day.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**(b) DBE Certification**

The only DBE firms eligible to perform work on a federal-aid contract for DBE contract goal credit are firms certified as Disadvantaged Business Enterprises by the Virginia Department of Small Business and Supplier Diversity (DSBSD) or the Metropolitan Washington Airports Authority (MWAA) in accordance with federal and VDOT guidelines. DBE firms must be certified in the specific work listed for DBE contract goal credit. A directory listing of certified DBE firms can be obtained from the Virginia Department of [Small Business and Supplier Diversity website: www.sbsd.virginia.gov](http://www.sbsd.virginia.gov).

**(c) Bank Services**

The Contractor and each subcontractor are encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals. Such banking services and the fees charged for services typically will not be eligible for DBE Program contract goal credit. Such information is available from the VDOT's Internet Civil Rights Division website: [http://www.virginiadot.org/business/resources/Civil\\_Rights/VDOT\\_DBE\\_Program\\_Plan.pdf](http://www.virginiadot.org/business/resources/Civil_Rights/VDOT_DBE_Program_Plan.pdf)

**(d) DBE Program-Related Certifications Made by Bidders\Contractors**

By submitting a bid and by entering into any contract on the basis of that bid, the bidder/Contractor certifies to each of the following DBE Program-related conditions and assurances:

1. That the management and bidding officers of its firm agree to comply with the bidding and project construction and administration obligations of the USDOT DBE Program requirements and regulations of 49 CFR Part 26 as amended, and VDOT's Road and Bridge Specifications and DBE Program requirements and regulations.
2. Under penalty of perjury and other applicable penal law that it has complied with the DBE Program requirements in submitting the bid, and shall comply fully with these requirements in the bidding, award, and execution of the Contract.
3. To ensure that DBE firms have been given full and fair opportunity to participate in the performance of the Contract. The bidder certifies that all reasonable steps were, and will be, taken to ensure that DBE firms had, and will have, an opportunity to compete for and perform work on the Contract. The bidder further certifies that the bidder shall not discriminate on the basis of race, color, age, sex, sexual orientation, gender identity, or national origin in the performance of the Contract or in the award of any subcontract. Any agreement between a bidder and a DBE whereby the DBE promises not to provide quotations for performance of work to other bidders is prohibited.
4. As a bidder, good faith efforts were made to obtain DBE participation in the proposed contract at or above the goal for DBE participation established by VDOT. It has submitted as a part of its bid true, accurate, complete, and detailed documentation of the good faith efforts it performed to meet the Contract goal for DBE participation. The bidder, by signing and submitting its bid, certifies the DBE participation information submitted within the stated time thereafter is true, correct, and complete, and that the information provided includes the names of all DBE firms that will participate in the Contract, the specific line item(s) that each listed DBE firm will perform, and the creditable dollar amounts of the participation of each listed DBE. The specific line item must reference the VDOT line number and item number contained in the proposal.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

5. The bidder further certifies, by signing its bid, it has committed to use each DBE firm listed for the specific work item shown to meet the Contract goal for DBE participation. Award of the Contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents. By signing the bid, the bidder certifies on work that it proposes to sublet; it has made good faith efforts to seek out and consider DBEs as potential subcontractors. The bidder shall contact DBEs to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain on file proper documentation to substantiate its good faith efforts. Award of the Contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents.
6. Once awarded the Contract, the Contractor shall make good faith efforts to utilize DBE firms to perform work designated to be performed by DBEs at or above the amount or percentage of the dollar value specified in the bidding documents. Further, the Contractor understands it shall not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract in whole or in part with another DBE, any non-DBE firm, or with the Contractor's own forces or those of an affiliate of the Contractor without the prior written consent of VDOT as set out within the requirements of this provision.
7. Once awarded the contract, the Contractor shall designate and make known to the Department a liaison officer who is assigned the responsibility of administering and promoting an active and inclusive DBE program as required by 49 CFR Part 26 for DBEs. The designation and identity of this officer need be submitted only once by the Contractor during any twelve (12) month period at the preconstruction conference for the first contract the Contractor has been awarded during that reporting period. The Department will post such information for informational and administrative purposes at VDOT's Internet Civil Rights Division website.
8. Once awarded the Contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each DBE firm participating in the Contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract regulations and/or requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the Contract in the event of such a contract breach.
9. In the event a bond surety assumes the completion of work, if for any reason VDOT has terminated the prime Contractor, the surety shall be obligated to meet the same DBE contract terms and requirements as were required of the original prime Contractor in accordance with the requirements of this specification.

**(e) Disqualification of Bidder**

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the Contract specifications, and VDOT Road and Bridge Specifications.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

(f) **Bidding Procedures**

The following bidding procedures shall apply to the Contract for DBE Program compliance purposes:

1. **Contract Goal, Good Faith Efforts Specified:** All bidders evidencing the attainment of DBE goal commitment equal to or greater than the required DBE goal established for the project must submit completed Form C-111, Minimum DBE Requirements, and Form C-48, Subcontractor/Supplier Solicitation and Utilization, as a part of the bid documents.

Form C-111 may be submitted electronically or may be faxed to the Department, but in no case shall the bidder's Form C-111 be received later than 10:00 a.m. the next business day after the time stated in the bid proposal for the receipt of bids. Form C-48 must be received within ten (10) business days after the bid opening.

If, at the time of submitting its bid, the bidder knowingly cannot meet or exceed the required DBE contract goal, it shall submit Form C-111 exhibiting the DBE participation it commits to attain as a part of its bid documents. The bidder shall then submit Form C-49, DBE Good Faith Efforts Documentation, within two (2) business days after the bid opening.

The lowest responsive and responsible bidder must submit its properly executed Form C-112, Certification of Binding Agreement, within three (3) business days after the bids are received. DBEs bidding as prime contractors are not required to submit Form C-112 unless they are utilizing other DBEs as subcontractors.

If, after review of the apparent lowest bid, VDOT determines the DBE requirements have not been met, the apparent lowest successful bidder must submit Form C-49, DBE Good Faith Efforts Documentation, which must be received by the Contract Engineer within two (2) business days after official notification of such failure to meet the aforementioned DBE requirements.

Forms C-48, C-49, C-111, and C-112 can be obtained from the VDOT website at:  
<http://vdotforms.vdot.virginia.gov/>

Instructions for submitting Form C-111 can be obtained from the VDOT website at:  
[http://www.virginiadot.org/business/resources/const/Exp\\_DBE\\_Commitments.pdf](http://www.virginiadot.org/business/resources/const/Exp_DBE_Commitments.pdf)

2. **Bid Rejection:** The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may be cause for rejection of that bidder's bid.

If the lowest bidder is rejected for failure to submit the required documentation in the specified time frames, the Department may award the work to the next lowest bidder, or re-advertise the proposed work at a later date or proceed otherwise as determined by the Commonwealth.

3. **Good Faith Efforts Described:** In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were made actively and aggressively to meet the DBE requirements. Efforts to obtain DBE participation are not good faith efforts if they could not reasonably be expected to produce a level of DBE participation sufficient to meet the DBE Program and contract goal requirements.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Good faith efforts may be determined through use of the following list of the types of actions the bidder may make to obtain DBE participation. This is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts of similar intent may be relevant in appropriate cases:

- a. Soliciting through reasonable and available means, such as but not limited to, attendance at pre-bid meetings, advertising, and written notices to DBEs who have the capability to perform the work of the Contract. Examples include: advertising in at least one daily/weekly/monthly newspaper of general circulation, as applicable; phone contact with a completely documented telephone log, including the date and time called, contact person, or voice mail status; and internet contacts with supporting documentation, including dates advertised. The bidder shall solicit this interest no less than five (5) business days before the bids are due so that the solicited DBEs have enough time to reasonably respond to the solicitation. The bidder shall determine with certainty if the DBEs are interested by taking reasonable steps to follow up initial solicitations as evidenced by documenting such efforts as requested on Form C-49, DBE Good Faith Efforts Documentation.
- b. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to completely perform all portions of this work in its entirety or use its own forces;
- c. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the Contract in a timely manner, which will assist the DBEs in responding to a solicitation;
- d. Negotiating for participation in good faith with interested DBEs;
  - (1) Evidence of such negotiation shall include the names, addresses, and telephone numbers of DBEs that were considered; dates DBEs were contacted; a description of the information provided regarding the plans, specifications, and requirements of the Contract for the work selected for subcontracting; and, if insufficient DBE participation seems likely, evidence as to why additional agreements could not be reached for DBEs to perform the work;
  - (2) A bidder using good business judgment should consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and should take a firm's price, qualifications, and capabilities, as well as contract goals, into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not sufficient reason for a bidder's failure to meet the Contract goal for DBE participation, as long as such costs are reasonable and comparable to costs customarily appropriate to the type of work under consideration. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make diligent good faith efforts. Bidders are not, however, required to accept higher quotes from DBEs if the price difference can be shown by the bidder to be excessive, unreasonable, or greater than would normally be expected by industry standards;
- e. A bidder cannot reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities. The DBE's standing within its industry, membership in specific groups, organizations, associations, and political or social affiliations, and union vs. non-union employee status are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal for DBE participation;

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- f. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by VDOT or by the bidder/Contractor;
- g. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services subject to the restrictions contained in these provisions;
- h. Effectively using the services of appropriate personnel from VDOT and from DMBE; available minority/women community or minority organizations; contractors' groups; local, state, and Federal minority/ women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and utilization of qualified DBEs.

**(g) Documentation and Administrative Reconsideration of Good Faith Efforts**

**During Bidding:** As described in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision, the bidder must provide Form C-49, DBE Good Faith Efforts Documentation, of its efforts made to meet the DBE contract goal as proposed by VDOT within the time frame specified in this provision. The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. The bidder shall attach additional pages to the certification, if necessary, in order to fully detail specific good faith efforts made to obtain the DBE firms participation in the proposed contract work.

However, regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed forms C-111, C-112, C-48, and C-49, as aforementioned, or face potential bid rejection.

If a bidder does not submit its completed and executed forms C-111, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected.

Where the Department upon initial review of the bid results determines the apparent low bidder has failed or appears to have failed to meet the requirements of the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision and has failed to adequately document that it made a good faith effort to achieve sufficient DBE participation as specified in the bid proposal, that firm upon notification of the Department's initial determination will be offered the opportunity for administrative reconsideration before VDOT rejects that bid as non-responsive. The bidder shall address such request for reconsideration in writing to the Contract Engineer within five (5) business days of receipt of notification by the Department and shall be given the opportunity to discuss the issue and present its evidence in person to the Administrative Reconsideration Panel. The Administrative Reconsideration Panel will be made up of VDOT Division Administrators or their designees, none of who took part in the initial determination that the bidder failed to make the goal or make adequate good faith efforts to do so. After reconsideration, VDOT shall notify the bidder in writing of its decision and explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.

If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the Contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected.

If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the Contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is still encouraged to seek additional DBE participation during the life of the Contract.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

However, such action will not relieve the Contractor of its responsibility for complying with the reduced DBE requirement during the life of the Contract or any administrative sanctions as may be appropriate.

**During the Contract:** If a DBE, through no fault of the Contractor, is unable or unwilling to fulfill his agreement with the Contractor, the Contractor shall immediately notify the Department and provide all relevant facts. If a Contractor relieves a DBE subcontractor of the responsibility to perform work under their subcontract, the Contractor is encouraged to take the appropriate steps to obtain a DBE to perform an equal dollar value of the remaining subcontracted work. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the performance of the Contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, and the Contractor has not taken the preceding actions, the Contractor and any aforementioned affiliates may be subject to disallowance of DBE credit until such time as conformance with the schedule of DBE participation is achieved.

**Project Completion:** If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects for a period of 90 days.

Prior to enjoinder from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s), elimination of items subcontracted to DBEs, or to circumstances beyond their control, and that all feasible means have been used to obtain the required participation. The State Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the Contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. If the decision is made to enjoin the Contractor from bidding on other VDOT work as described herein, the enjoinder period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

**(h) DBE Participation for Contract Goal Credit**

1. Cost-plus subcontracts will not be considered to be in accordance with normal industry practice and will not normally be allowed for credit.
2. The applicable percentage of the total dollar value of the Contract or Subcontract awarded to the DBE will be counted toward meeting the Contract goal for DBE participation in accordance with the **DBE Program-Related Certifications Made by Bidders\Contractors** section of this Special Provision for the value of the work, goods, or services that are actually performed or provided by the DBE firm itself or subcontracted by the DBE to other DBE firms.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

3. When a DBE performs work as a participant in a joint venture with a non-DBE firm, the Contractor may count toward the DBE goal only that portion of the total dollar value of the Contract equal to the distinctly defined portion of the Contract work that the DBE has performed with the DBE's own forces or in accordance with the provisions of this Section. The Department shall be contacted in advance regarding any joint venture involving both a DBE firm and a non-DBE firm to coordinate Department review and approval of the joint venture's organizational structure and proposed operation where the Contractor seeks to claim the DBE's credit toward the DBE contract goal.
4. When a DBE subcontracts part of the work of the Contract to another firm, the value of that subcontracted work may be counted toward the DBE contract goal only if the DBE's subcontractor at a lower tier is a certified DBE. Work that a DBE subcontracts to either a non-DBE firm or to a non-certified DBE firm will not count toward the DBE contract goal. The cost of supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or the prime's affiliated firms will not count toward the Contract goal for DBE participation.
5. The Contractor may count expenditures to a DBE subcontractor toward the DBE contract goal only if the DBE performs a Commercially Useful Function (CUF) on that contract.
6. A Contractor may not count the participation of a DBE subcontractor toward the Contractor's final compliance with the DBE contract goal obligations until the amount being counted has actually been paid to the DBE. A Contractor may count sixty (60) percent of its expenditures actually paid for materials and supplies obtained from a DBE certified as a regular dealer, and one hundred (100) percent of such expenditures actually paid for materials and supplies obtained from a certified DBE manufacturer.
  - a. For the purposes of this Special Provision, a regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required and used under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the DBE firm shall be an established business that regularly engages, as its principal business and under its own name, in the purchase and sale or lease of the products or equipment in question. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions will not be considered regular dealers.
  - b. A DBE firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business where it keeps such items in stock if the DBE both owns and operates distribution equipment for the products it sells and provides for the Contract work. Any supplementation of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis to be eligible for credit to meet the DBE contract goal.
  - c. If a DBE regular dealer is used for DBE contract goal credit, no additional credit will be given for hauling or delivery to the project site goods or materials sold by that DBE regular dealer. Those delivery costs shall be deemed included in the price charged for the goods or materials by the DBE regular dealer, who shall be responsible for their distribution.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- d. For the purposes of this Special Provision, a manufacturer will be defined as a firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract and of the general character described by the project specifications. A manufacturer shall include firms that produce finished goods or products from raw or unfinished material, or purchase and substantially alter goods and materials to make them suitable for construction use before reselling them.
- e. A Contractor may count toward the DBE contract goal the following expenditures to DBE firms that are not regular dealers or manufacturers for DBE program purposes:
  - (1) The entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of the federal-aid contract, if the fee is reasonable and not excessive or greater than would normally be expected by industry standards for the same or similar services.
  - (2) The entire amount of that portion of the construction contract that is performed by the DBE's own forces and equipment under the DBE's supervision. This includes the cost of supplies and materials ordered and paid for by the DBE for contract work, including supplies purchased or equipment leased by the DBE, except supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or its affiliates.
- f. A Contractor may count toward the DBE contract goal one hundred (100) percent of the fees paid to a DBE trucker or hauler for the delivery of material and supplies required on the project job site, but not for the cost of those materials or supplies themselves, provided that the trucking or hauling fee is determined by VDOT to be reasonable, as compared with fees customarily charged by non-DBE firms for similar services. A Contractor shall not count costs for the removal or relocation of excess material from or on the job site when the DBE trucking company is not the manufacturer of or a regular dealer in those materials and supplies. The DBE trucking firm shall also perform a Commercially Useful Function (CUF) on the project and not operate merely as a pass through for the purposes of gaining credit toward the DBE contract goal. Prior to submitting a bid, the Contractor shall determine, or contact the VDOT Civil Rights Division or its district Offices for assistance in determining, whether a DBE trucking firm will meet the criteria for performing a CUF on the project. See section on **Miscellaneous DBE Program Requirements; Factors used to Determine if a DBE Trucking Firm is Performing a CUF.**
- g. The Contractor will receive DBE contract goal credit for the fees or commissions charged by and paid to a DBE broker who arranges or expedites sales, leases, or other project work or service arrangements provided that those fees are determined by VDOT to be reasonable and not excessive as compared with fees customarily charged by non-DBE firms for similar services. For the purposes of this Special Provision, a broker is defined as a person or firm that regularly engages in arranging for delivery of material, supplies, and equipment, or regularly arranges for the providing of project services as a course of routine business but does not own or operate the delivery equipment necessary to transport materials, supplies, or equipment to or from a job site.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

(i) **Performing a Commercially Useful Function (CUF)**

No credit toward the DBE contract goal will be allowed for contract payments or expenditures to a DBE firm if that DBE firm does not perform a CUF on that contract. A DBE performs a CUF when the DBE is solely responsible for execution of a distinct element of the Contract work and the DBE actually performs, manages, and supervises the work involved with the firm's own forces or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. To perform a CUF the DBE alone shall be responsible and bear the risk for the material and supplies used on the Contract, selecting a supplier or dealer from those available, negotiating price, determining quality and quantity, ordering the material and supplies, installing those materials with the DBE's own forces and equipment, and paying for those materials and supplies. The amount the DBE firm is to be paid under the Contract shall be commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance.

**Monitoring CUF Performance:** It shall be the Contractor's responsibility to ensure that all DBE firms selected for subcontract work on the Contract, for which he seeks to claim credit toward the Contract goal, perform a CUF. Further, the Contractor is responsible for and shall ensure that each DBE firm fully performs the DBE's designated tasks with the DBE's own forces and equipment under the DBE's own direct supervision and management or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. For the purposes of this provision the DBE's equipment will mean either equipment directly owned by the DBE as evidenced by title, bill of sale or other such documentation, or leased by the DBE, and over which the DBE has control as evidenced by the leasing agreement from a firm not owned in whole or part by the prime Contractor or an affiliate of the Contractor under this contract.

VDOT will monitor the Contractor's DBE involvement during the performance of the Contract. However, VDOT is under no obligation to warn the Contractor that a DBE's participation will not count toward the goal.

**DBEs Must Perform a Useful and Necessary Role in Contract Completion:** A DBE does not perform a commercially useful function if the DBE's role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

**DBEs Must Perform The Contract Work With Their Own Workforces:** If a DBE does not perform and exercise responsibility for at least thirty (30) percent of the total cost of the DBE's contract with the DBE's own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involve, VDOT will presume that the DBE is not performing a CUF and such participation will not be counted toward the Contract goal.

**VDOT Makes Final Determination On Whether a CUF Is Performed:** VDOT has the final authority to determine whether a DBE firm has performed a CUF on a federal-aid contract. To determine whether a DBE is performing or has performed a CUF, VDOT will evaluate the amount of work subcontracted by that DBE firm or performed by other firms and the extent of the involvement of other firms' forces and equipment. Any DBE work performed by the Contractor or by employees or equipment of the Contractor shall be subject to disallowance under the DBE Program, unless the independent validity and need for such an arrangement and work is demonstrated.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**(j) Verification of DBE Participation and Imposed Damages**

Within fourteen days after contract execution, the Contractor shall submit to the Responsible Engineer, with a copy to the District Civil Rights Office (DCRO), a fully executed subcontract agreement for each DBE used to claim credit in accordance with the requirements stated on Form C-112. The subcontract agreement shall be executed by both parties stating the work to be performed, the details or specifics concerning such work, and the price which will be paid to the DBE subcontractor. Because of the commercial damage that the Contractor and its DBE subcontractor could suffer if their subcontract pricing, terms, and conditions were known to competitors, the Department staff will treat subcontract agreements as proprietary Contractor trade secrets with regard to Freedom of Information Act requests. In lieu of subcontract agreements, purchase orders may be submitted for haulers, suppliers, and manufacturers. These too, will be treated confidentially and protected. Such purchase orders must contain, as a minimum, the following information: authorized signatures of both parties; description of the scope of work to include contract item numbers, quantities, and prices; and required federal contract provisions.

The Contractor shall also furnish, and shall require each subcontractor to furnish, information relative to all DBE involvement on the project for each quarter during the life of the Contract in which participation occurs and verification is available. The information shall be indicated on Form C-63, DBE and SWAM Payment Compliance Report. The department reserves the right to request proof of payment via copies of cancelled checks with appropriate identifying notations. Failure to provide Form C-63 to the District Civil Rights Office (DCRO) within five (5) business days after the reporting period may result in delay of approval of the Contractor's monthly progress estimate for payment. The names and certification numbers of DBE firms provided by the Contractor on the various forms indicated in this Special Provision shall be exactly as shown on the DMBE's or MWAA's latest list of certified DBEs. Signatures on all forms indicated herein shall be those of authorized representatives of the Contractor as shown on the Prequalification Application, Form C-32 or the Prequalification/Certification Renewal Application, Form C-32A, or authorized by letter from the Contractor. If DBE firms are used which have not been previously documented with the Contractor's bid and for which the Contractor now desires to claim credit toward the project goal, the Contractor shall be responsible for submitting necessary documentation in accordance with the procedures stipulated in this Special Provision to cover such work prior to the DBE beginning work.

Form C-63 can be obtained from the VDOT website at: <http://vdotforms.vdot.virginia.gov/>

The Contractor shall submit to the Responsible Engineer its progress schedule with a copy to the DCRO, as required by Section 108.03 of the Specifications or other such specific contract scheduling specification that may include contractual milestones, i.e., monthly or VDOT requested updates. The Contractor shall include a narrative of applicable DBE activities relative to work activities of the Contractor's progress schedule, including the approximate start times and durations of all DBE participation to be claimed for credit that shall result in full achievement of the DBE goal required in the Contract.

On contracts awarded on the basis of good faith efforts, narratives or other agreeable format of schedule information requirements and subsequent progress determination shall be based on the commitment information shown on the latest Form C-111 as compared with the appropriate Form C-63.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Prior to beginning any major component or quarter of the work, as applicable, in which DBE work is to be performed, the Contractor shall furnish a revised Form C-111 showing the name(s) and certification number(s) of any current DBEs not previously submitted who will perform the work during that major component or quarter for which the Contractor seeks to claim credit toward the Contract DBE goal. The Contractor shall obtain the prior approval of the Department for any assistance it may provide to the DBE beyond its existing resources in executing its commitment to the work in accordance with the requirements listed in the **Good Faith Efforts Described** section of this Special Provision. If the Contractor is aware of any assistance beyond a DBE's existing resources that the Contractor, or another subcontractor, may be contemplating or may deem necessary and that have not been previously approved, the Contractor shall submit a new or revised narrative statement for VDOT's approval prior to assistance being rendered.

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received VDOT. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received.

**(k) Documentation Required for Semi-final Payment**

On those projects nearing completion, the Contractor must submit Form C-63 marked "Semi-Final" within twenty (20) days after the submission of the last regular monthly progress estimate to the DCRO. The form must include each DBE used on the Contract work and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the accepted creditable work on the Contract. The form shall be certified under penalty of perjury, or other applicable law, to be accurate and complete. VDOT will use this certification and other information available to determine applicable DBE credit allowed to date by VDOT and the extent to which the DBEs were fully paid for that work. The Contractor shall acknowledge by the act of filing the form that the information is supplied to obtain payment regarding a federal participation contract. A letter of certification, signed by both the prime Contractor and appropriate DBEs, will accompany the form, indicating the amount, including any retainage, if present, that remains to be paid to the DBE(s).

**(l) Documentation Required for Final Payment**

On those projects that are complete, the Contractor shall submit a final Form C-63 marked "Final" to the DCRO, within thirty (30) days of the final estimate. The form must include each DBE used on the Contract and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the creditable work on the Contract. VDOT will use this form and other information available to determine if the Contractor and DBEs have satisfied the DBE contract goal percentage specified in the Contract and the extent to which credit was allowed. The Contractor shall acknowledge by the act of signing and filing the form that the information is supplied to obtain payment regarding a federal participation contract.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**(m) Prompt Payment Requirements**

The Contractor shall make prompt and full payment to the subcontractor(s) of any retainage held by the prime Contractor after the subcontractor's work is satisfactorily completed.

For purposes of this Special Provision, a subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted as required by the contract documents by VDOT. When VDOT has made partial acceptance of a portion of the prime contract, the Department will consider the work of any subcontractor covered by that partial acceptance to be satisfactorily completed. Payment will be made in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

Upon VDOT's payment of the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor for that portion of the work satisfactorily completed and accepted by the Department. For the purposes of this Special Provision, payment of the subcontractor's portion of the work shall mean the Contractor has issued payment in full, less agreed upon retainage, if any, to the subcontractor for that portion of the subcontractor's work that VDOT paid to the Contractor on the monthly progress estimate.

The Contractor shall make payment of the subcontractor's portion of the work within seven (7) days of the receipt of payment from VDOT in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

If the Contractor fails to make payment for the subcontractor's portion of the work within the time frame specified herein, the subcontractor shall contact the Responsible Engineer and the Contractor's bonding company in writing. The bonding company and VDOT will investigate the cause for non-payment and, barring mitigating circumstances that would make the subcontractor ineligible for payment, ensure payment in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations, and to bind the Contractor's subcontractors contractually to those prompt payment requirements.

Nothing contained herein shall preclude the Contractor from withholding payment to the subcontractor in accordance with the terms of the subcontract in order to protect the Contractor from loss or cost of damage due to a breach of agreement by the subcontractor.

**(n) Miscellaneous DBE Program Requirements**

1. **Loss of DBE Eligibility:** When a DBE firm has been removed from eligibility as a certified DBE firm, the following actions will be taken:
  - a. When a Bidder/Contractor has made a commitment to use a DBE firm that is not currently certified, thereby making the Contractor ineligible to receive DBE participation credit for work performed, and a subcontract has not been executed, the ineligible DBE firm does not count toward either the Contract goal or overall goal. The Contractor shall meet the Contract goal with a DBE firm that is eligible to receive DBE credit for work performed, or must demonstrate to the Contract Engineer that it has made good faith efforts to do so.
  - b. When a Bidder/Contractor has executed a subcontract with a certified DBE firm prior to official notification of the DBE firm's loss of eligibility, the Contractor may continue to use the firm on the Contract and shall continue to receive DBE credit toward its DBE goal for the subcontractor's work.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- c. When VDOT has executed a prime contract with a DBE firm that is certified at the time of contract execution but that is later ruled ineligible, the portion of the ineligible firm's performance on the Contract before VDOT has issued the notice of its ineligibility shall count toward the Contract goal.
- 2. **Termination of DBE:** If a certified DBE subcontractor is terminated, or fails, refuses, or is unable to complete the work on the Contract for any reason, the Contractor must promptly request approval to substitute or replace that firm in accordance with this section of this Special Provision.

The Contractor, as aforementioned in **DBE Program-Related Certifications Made by Bidders/Contractors**, shall notify VDOT in writing before terminating and/or replacing the DBE that was committed as a condition of contract award or that is otherwise being used or represented to fulfill DBE contract obligations during the Contract performance period. Written consent from the Department for terminating the performance of any DBE shall be granted only when the Contractor can demonstrate that the DBE is unable, unwilling, or ineligible to perform its obligations for which the Contractor sought credit toward the Contract DBE goal. Such written consent by the Department to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE with another DBE. Consent to terminate a DBE shall not be based on the Contractor's ability to negotiate a more advantageous contract with another subcontractor whether that subcontractor is, or is not, a certified DBE.

- a. All Contractor requests to terminate, substitute, or replace a certified DBE shall be in writing, and shall include the following information:
  - (1) The date the Contractor determined the DBE to be unwilling, unable, or ineligible to perform.
  - (2) The projected date that the Contractor shall require a substitution or replacement DBE to commence work if consent is granted to the request.
  - (3) A brief statement of facts describing and citing specific actions or inaction by the DBE giving rise to the Contractor's assertion that the DBE is unwilling, unable, or ineligible to perform;
  - (4) A brief statement of the affected DBE's capacity and ability to perform the work as determined by the Contractor;
  - (5) A brief statement of facts regarding actions taken by the Contractor which are believed to constitute good faith efforts toward enabling the DBE to perform;
  - (6) The current percentage of work completed on each bid item by the DBE;
  - (7) The total dollar amount currently paid per bid item for work performed by the DBE;
  - (8) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and with which the Contractor has no dispute;
  - (9) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and over which the Contractor and/or the DBE have a dispute.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- b. Contractor's Written Notice to DBE of Pending Request to Terminate and Substitute with another DBE.

The Contractor shall send a copy of the "request to terminate and substitute" letter to the affected committed DBE firm, in conjunction with submitting the request to the DCRO. The affected DBE firm may submit a response letter to the Department within two (2) business days of receiving the notice to terminate from the Contractor. The affected DBE firm shall explain its position concerning performance on the committed work. The Department will consider both the Contractor's request and the DBE's response and explanation before approving the Contractor's termination and substitution request, or determining if any action should be taken against the Contractor.

If, after making its best efforts to deliver a copy of the "request to terminate and substitute" letter, the Contractor is unsuccessful in notifying the affected DBE firm, the Department will verify that the affected, committed DBE firm is unable or unwilling to continue the Contract. The Department will immediately approve the Contractor's request for a substitution.

- c. Proposed Substitution of Another Certified DBE

Upon termination of a DBE, the Contractor shall use reasonable good faith efforts to replace the terminated DBE. The termination of such DBE shall not relieve the Contractor of its obligations pursuant to this section, and the unpaid portion of the terminated DBE's contract will not be counted toward the Contract goal.

When a DBE substitution is necessary, the Contractor shall submit an amended Form C-111 with the name of another DBE firm, the proposed work to be performed by that firm, and the dollar amount of the work to replace the unfulfilled portion of the work of the originally committed DBE firm. The Contractor shall furnish all pertinent information including the Contract I.D. number, project number, bid item, item description, bid unit and bid quantity, unit price, and total price. In addition, the Contractor shall submit documentation for the requested substitute DBE as described in this section of this Special Provision.

Should the Contractor be unable to commit the remaining required dollar value to the substitute DBE, the Contractor shall provide written evidence of good faith efforts made to obtain the substitute value requirement. The Department will review the quality, thoroughness, and intensity of those efforts. Efforts that are viewed by VDOT as merely superficial or pro-forma will not be considered good faith efforts to meet the Contract goal for DBE participation. The Contractor must document the steps taken that demonstrated its good faith efforts to obtain participation as set forth in the **Good Faith Efforts Described** section of this Special Provision.

**3. Factors Used to determine if a DBE Trucking Firm is performing a CUF:**

The following factors will be used to determine whether a DBE trucking company is performing a CUF:

- a. To perform a CUF the DBE trucking firm shall be completely responsible for the management and supervision of the entire trucking operation for which the DBE is responsible by subcontract on a particular contract. There shall not be a contrived arrangement, including, but not limited to, any arrangement that would not customarily and legally exist under regular construction project subcontracting practices for the purpose of meeting the DBE contract goal;



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- b. The DBE must own and operate at least one fully licensed, insured, and operational truck used in the performance of the Contract work. This does not include a supervisor's pickup truck or a similar vehicle that is not suitable for and customarily used in hauling the necessary materials or supplies;
- c. The DBE receives full contract goal credit for the total reasonable amount the DBE is paid for the transportation services provided on the Contract using trucks the DBE owns, insures, and operates using drivers that the DBE employs and manages;
- d. The DBE may lease trucks from another certified DBE firm, including from an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE will receive credit for the total fair market value actually paid for transportation services the lessee DBE firm provides on the Contract;
- e. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE lessees, *not to exceed the value of transportation services provided by DBE-owned trucks on the Contract*. For additional participation by non-DBE lessees, the DBE will only receive credit for the fee or commission it receives as a result of the lease arrangement.

*EXAMPLE*

DBE Firm X uses two (2) of its own trucks on a contract. The firm leases two (2) trucks from DBE Firm Y and six (6) trucks from non-DBE Firm Z.

		Value of Trans. Serv.
<u><b>Firm X</b></u>		(For Illustrative Purposes Only)
Truck 1	Owned by DBE	\$100 per day
Truck 2	Owned by DBE	\$100 per day
 <u><b>Firm Y</b></u>		
Truck 1	Leased from DBE	\$110 per day
Truck 2	Leased from DBE	\$110 per day
 <u><b>Firm Z</b></u>		
Truck 1	Leased from Non DBE	\$125 per day
Truck 2	Leased from Non DBE	\$125 per day
Truck 3	Leased from Non DBE	\$125 per day
Truck 4	Leased from Non DBE	\$125 per day
Truck 5	Leased from Non DBE*	\$125 per day
Truck 6	Leased from Non DBE*	\$125 per day

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

DBE credit would be awarded for the total transportation services provided by DBE Firm X and DBE Firm Y, and may also be awarded for the total value of transportation services by four (4) of the six (6) trucks provided by non-DBE Firm Z (not to exceed the value of transportation services provided by DBE-owned trucks).

**Credit = 8 Trucks**  
**Total Value of Transportation Services = \$820**

In all, full DBE credit would be allowed for the participation of eight (8) trucks (twice the number of DBE trucks owned and leased) and the dollar value attributable to the Value of Transportation Services provided by the 8 trucks.

\* With respect to the other two trucks provided by non-DBE Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks that DBE Firm X receives as a result of the lease with non-DBE Firm Z.

- f. For purposes of this section, the lease must indicate that the DBE firm leasing the truck has exclusive use of and control over the truck. This will not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, provided the lease gives the DBE absolute priority for and control over the use of the leased truck. Leased trucks must display the name and identification number of the DBE firm that has leased the truck at all times during the life of the lease.
4. **Data Collection:** In accordance with 49CFR Section 26.11, all firms bidding on prime contracts and bidding or quoting subcontracts on federal-aid projects shall provide the following information to the Contract Engineer annually.
- Firm name
  - Firm address
  - Firm's status as a DBE or non-DBE
  - The age of the firm and
  - The annual gross receipts of the firm

The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. However, the above information can be submitted by means of the Annual Gross Receipts Survey as required in the Prequalification/Certification application.

All bidders, including DBE prime Contractor bidders, shall complete and submit to the Contract Engineer the Subcontractor/Supplier Solicitation and Utilization Form C-48 for each bid submitted; to be received within ten (10) business days after the bid opening. Failure of bidders to submit this form in the time frame specified may be cause for disqualification of the bidder and rejection of their bid in accordance with the requirements of this Special Provision, the Contract specifications, and VDOT Road and Bridge specifications.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**(o) Suspect Evidence of Criminal Behavior**

Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted, prosecution.

**Suspected DBE Fraud**

In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

**(p) Summary of Remedies for Non-Compliance with DBE Program Requirements**

Failure of any bidder\Contractor to comply with the requirements of this Special Provision for Section 107.15 of the Virginia Road and Bridge Specifications, which is deemed to be a condition of bidding, or where a contract exists, is deemed to constitute a breach of contract shall be remedied in accordance with the following:

**1. Disadvantaged Business Enterprise (DBE) Program Requirements**

The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein.

**2. DBE Program-Related Certifications Made by Bidders\Contractors**

Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each certified DBE firm participating in the Contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the Contract in the event of such a contract breach.

**3. Disqualification of Bidder**

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the Contract specifications, and VDOT Road and Bridge Specifications.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**4. Bidding Procedures**

The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may be cause for rejection of that bidder's bid. If the lowest bidder is rejected for failure to submit required documentation in the specified time frames, the Department may either award the work to the next lowest bidder, or re-advertise and construct the work under contract or otherwise as determined by the Commonwealth.

In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were to the extent a bidder actively and aggressively seeking to meet the requirements would make. Regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed Forms C-111, C-112, C-48, and Form C-49, as aforementioned, or face potential bid rejection. If a bidder does not submit its completed and executed C-111, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected. If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the Contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected. If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the Contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is encouraged to seek additional participation during the life of the Contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, the Contractor and any aforementioned affiliates may be enjoined from bidding for 60 days or until such time as conformance with the schedule of DBE participation is achieved. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the prosecution of the Contract.

If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects for a period of 90 days.

Prior to enjoinder from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s) or elimination of items subcontracted to DBEs, and that all feasible means have been used to obtain the required participation. The State Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the Contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. The enjoinder period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**5. Verification of DBE Participation and Imposed Damages**

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received by VDOT. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received.

**(q) Suspect Evidence of Criminal Behavior**

In addition to the remedies described heretofore in this provision VDOT also exercises its rights with respect to the following remedies:

- Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted prosecution.
- In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP108-000110-00](#)

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**PROGRESS SCHEDULE FOR CATEGORY II PROJECTS**

April 29, 2008; Reissued July 12, 2016

**Section 103.06(e) Progress Schedule** of the Specifications is deleted and replaced by this provision.

**Section 108.03 Progress Schedule** of the Specifications is deleted and replaced by this provision.

**I. GENERAL REQUIREMENTS**

The Contractor shall plan and schedule the work and shall submit his initial plan in the form of a Baseline Progress Schedule for the Engineer's review and acceptance. Upon acceptance, the Progress Schedule shall become the project Schedule of Record (SOR). The Contractor shall maintain the SOR regularly to ensure that the schedule continues to represent the Contractor's current actual work plan and progress. The SOR shall be used by the Engineer for planning and coordination of the Department activities, and for evaluation of the Contractor's progress and the effects of impacts on the project.

Prior to preparing the schedule, the Engineer or the Contractor may request a schedule development planning meeting to discuss any project specific items required for preparation of the progress schedule. The Contractor shall prepare and submit a practicable schedule to reflect a logical progress of the work. The Progress Schedule shall represent the Contractor's overall work plan to accomplish the entire scope of work according to the Contract. It shall include all items of work required for coordination and inspection and to show progress of the work including, but not limited to the controlling items of work and other relevant time-based tasks required for timely completion of the work, including as applicable, the work to be performed by sub-contractors, suppliers, the Department, and/or others. When preparing the schedule, the Contractor shall consider all known constraints and restrictions such as holidays, seasonal, weather, traffic, utility, railroad, right-of-way, environmental, permits, or other limitations to the work.

The Contractor may be required, as determined by the Engineer, to attend a scheduling conference. If required, the scheduling conference may be held in conjunction with the pre-construction conference or at a separate meeting called by the Engineer. The Contractor shall be prepared to discuss his planned or contemplated operations relative to the contract requirements and this special provision. Until the Baseline Progress Schedule is accepted by the Engineer, the Contractor shall keep the Engineer informed of his planned or contemplated operations on a continuing basis.

**II. PROGRESS SCHEDULE SUBMITTAL REQUIREMENTS**

**Baseline Progress Schedule** – The Contractor shall submit to the Engineer his initial progress schedule in the form of a Baseline Progress Schedule at least seven (7) calendar days prior to beginning work. The Baseline Progress Schedule submittal shall include three (3) sets of the written Progress Schedule Narrative, Bar-Chart Progress Schedule, and the Progress Earnings Schedule; as well as two (2) sets of data compact disks containing the electronic working files of the Bar-Chart Progress Schedule and Progress Earnings Schedule as specified below:

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

1. Progress Schedule Narrative: The Progress Schedule Narrative shall consist of the following written information:
  - a) A description of the Contractor's overall plan of operations in terms of:
    - i) The proposed overall sequence of construction;
    - ii) The general procedures for completing each feature or major operation;
    - iii) Planned resources in terms of number and types of crew and equipment;
    - iv) Anticipated daily production rates for each major operation;
  - b) A Tabular Milestone Schedule to establish interim milestones to complete each phase or stage of work, feature, major traffic switch, or other milestone dates specified in the Contract or required to assess progress of the work;
  - c) A description of the proposed working calendar to indicate the number of work days per week, number of shifts per day, and number of hours per day as well as the anticipated number of non-working days per month with considerations for:
    - i) Holidays;
    - ii) Normal weather conditions;
    - iii) Known constraints and restrictions (i.e. traffic, local events, time of year, environmental, permits, utility, etc.);
  - d) A description of any potential issues that may impact the schedule.
2. Bar-Chart Progress Schedule: The Bar-Chart Progress Schedule shall be submitted in a format wholly compatible with Microsoft Excel or the latest Primavera project and program management software with the capability to import and export project data in the Primavera proprietary exchange format (XER). The Bar-Chart schedule shall be time-scaled and shall show the following:
  - a) A listing of activities to represent the major categories of work and the related time-based tasks required for timely completion of each feature, including but not limited to the controlling items of work. Each activity shall contain the following schedule properties:
    - i) Activity Identification;
    - ii) Activity Description;
    - iii) Original Duration (total anticipated number of days to complete the activity);
    - iv) Remaining Duration (remaining number of days required to complete the activity shall equal the original duration for activities that have not started);
    - v) Planned Start and Finish Dates;
    - vi) Critical Dates (must start by or finish by dates) for the critical activities;
    - vii) Percent Complete;
  - b) Activity bars shall be sequenced according to their relationship to time, other activities, and in order of the intended sequence of progress;
  - c) The Bar-Chart Schedule shall allow for sufficient space for an additional plot per activity for comparison of the actual progress to the baseline schedule.
3. Progress Earnings Schedule: The Progress Earnings Schedule shall be submitted on the Department electronic Form C-13C template. The Progress Earnings Schedule shall be prepared according to the following:

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- a) The Progress Earnings Schedule shall indicate the Contractor's anticipated cumulative percent complete for each month as of the Contractor's progress estimate date as defined in Section 109.08(a) of the Specifications;
- b) It shall be based on the dollar value of the work to be completed each month as depicted on the Bar-Chart Schedule;
- c) The anticipated cumulative percent complete shall be based on the anticipated cumulative progress earnings relative to the total contract value. Total contract value will be considered to mean the original amount of the contract including any authorized adjustments for changes to the work according to, but not limited to, the provisions of Sections 109.04 and 109.05 of the Specifications;
- d) Anticipated payments for Material on Hand according to Section 109.09 of the Specifications or for other adjustments including asphalt, fuel, retainage, incentives, disincentives, etc., will not be considered in the Progress Earnings Schedule;
- e) The Progress Earnings Schedule shall include a plot of the anticipated monthly cumulative earnings progress curve.

**Progress Schedule Update** – The Contractor shall on a monthly basis submit for the Engineer's review and acceptance the Contractor's Progress Schedule Update within five (5) working days after the Contractor's progress payment estimate cut-off date. The Contractor shall update the Bar-Chart and Progress Earnings Schedule to reflect the actual progress of accomplished work and the proposed plan for completing the remaining work as of the progress payment estimate cut-off date. The Progress Schedule Update submittal shall include three (3) sets of the printed copies and two (2) sets of data compact disks containing the electronic working files of the Bar-Chart Progress Schedule and Progress Earnings Schedule Update as defined below:

- 1. Bar-Chart Progress Schedule Update: The Bar-Chart Progress Schedule Update shall be based on the currently accepted Bar-Chart Progress Schedule and shall show the following:
  - a) Actual start/finish dates for completed activities, actual start/planned finish dates for on-going activities, and planned start/finish dates for the remaining activities.
  - b) Remaining duration for unfinished activities shall be based on the amount of time required to complete the remaining work;
  - c) Activity percent complete for work-in-place shall be based on the amount of work completed relative to the total amount of work represented by the activity (cumulative actual dollar value of work completed relative to the total allocated contract value for the activity);
  - d) A parallel plot of the Progress Schedule Update activity bars against the currently accepted Baseline Progress Schedule.
- 2. Progress Earnings Schedule Update: The Progress Earnings Schedule Update shall be based on the currently accepted Progress Earnings Schedule and shall show the following:
  - a) Actual monthly and cumulative earnings for each payment period for work completed and the projected monthly and cumulative earnings for each period for the remaining work;
  - b) A plot of the actual and projected cumulative earnings progress curve against the currently accepted Baseline or Revised Progress Earnings curve.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Revised Progress Schedule** - A Revised Progress Schedule will be required when:

- The Contractor proposes to revise his work plan. (The Contractor may revise his Progress Schedule at any time at his discretion.)
- The Engineer determines the **Contractor's work plan** or the progress of the work differs or deviates significantly from the SOR. Differs or deviates significantly will be construed to mean major deviations from the SOR that will affect the schedule milestone(s), progress earnings, or project completion.
- The Engineer issues a written request for changes or a directive for changes.
- Any of the above conditions impacts or will impact the progress earnings or scheduled dates of any project milestones including project completion.

Examples of changes, relative to the above, that will prompt the Engineer to require a Revised Progress schedule include but are not limited to: major deviations from the SOR such as changes to phasing, changes to the general sequence, changes to the proposed method or means, additions or deletions to the work, unanticipated changes deemed beyond the Contractor's control such as those caused by other parties (utilities and railroads) or changes as defined in Section 104 of the Specifications.

The Contractor shall submit a **Schedule Impact Analysis (SIA)** for all changes to the work that will impact the schedule, including changes requested by the Engineer or the Contractor. If the Engineer and the Contractor agree changes to the work do not or will not affect or impact the progress schedule, the Engineer will not require a written Schedule Impact Analysis (SIA) be submitted but will require the Contractor to certify in writing that such changes did not impact the schedule.

**Schedule Impact Analysis (SIA)** – The Contractor will be required, as determined by the Engineer to submit a written Schedule Impact Analysis for any of the following reasons:

1. The Contractor discovers any previously unknown or unanticipated issue that he believes may impact the work plan or schedule; in such cases the Contractor shall notify the Engineer within forty-eight (48) hours of any discovered issues;
2. When the Engineer issues a written request for changes to the work that will impact the work plan or schedule;
3. When the work is impacted by other changes that are deemed by the Engineer to be beyond the control of the Contractor

The written Schedule Impact Analysis (SIA) shall explain the effects of the impact(s) on the Contractor's work plan or schedule; and if appropriate shall substantiate any requests for adjustment of the Contract. Such changes may include, but not be limited to, changes caused by others (i.e. railroads, utilities, etc.) or changes to the work as defined in Section 104 of the Specifications. The Contractor shall submit the written SIA within fourteen (14) calendar days after the finish date of the impact. The written SIA shall include a description of the impact; explanation and justification of the effects of the impact on the work plan or schedule; and a description of any proposed plan to mitigate the effects of the impact. The SIA will be evaluated against the SOR for any adjustments to the Contract according to the provisions of Section 108.04 of the Specifications.

If no SIA is required for changes to the work the Contractor shall submit a Revised Progress Schedule within the timeframe stated below.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

When a Revised Progress Schedule is required by the Engineer for revisions in the work plan or schedule or for authorized changes to the Contract, the Contractor shall submit for the Engineer's review and acceptance the Revised Progress Schedule within fourteen (14) calendar days of receipt of the Engineer's written request. The Revised Progress Schedule shall be prepared and submitted in the form of a Baseline Progress Schedule; however, it shall reflect the actual progress of accomplished work as of the submittal date, any impact as a result of the change(s), and the proposed plan for completing the remaining work. The Revised Progress Schedule submittal will be reviewed by the Engineer for acceptance as specified herein. The accepted Revised Progress Schedule shall then replace the previous SOR for the remainder of the work.

**Failure to Furnish Progress Schedules** – Work shall not commence until the Contractor submits his complete Baseline Progress Schedule according to this special provision, unless otherwise approved in writing by the Engineer.

If the Contractor fails to provide an acceptable Baseline Progress Schedule within sixty (60) calendar days from the Contract Notice to Proceed date, a Progress Schedule Update, or if a Revised Progress Schedule is required as specified herein and the Contractor fails to provide such a schedule, the Engineer will delay approval for payment of the Contractor's monthly progress estimate until such time as the Contractor has satisfied the submittal requirements.

Delays resulting from the Contractor's failure to provide the progress schedule according to the requirements set forth herein will not be considered just cause for extension of the contract time limit or for additional compensation.

### **III. REVIEW AND ACCEPTANCE**

The Engineer will review all progress schedule submittals within seven (7) calendar days of receipt of the Contractor's complete submittal. The progress schedule submittal shall be considered complete only when all required submittal items and schedule information as defined herein are provided. Acceptance by the Engineer will be based on completeness and conformance with this provision and the Contract. Such contract requirements may include phasing, sequence of construction, Maintenance of Traffic (MOT), interim milestone(s), or other specified constraints or restrictions.

If the Contractor's progress schedule is deemed to be unacceptable, the Engineer will issue a written notification of non-conformance or incompleteness with a request for resubmission. The Engineer's response will include comments describing the deficiencies prompting the Engineer's decision.

If the Contractor's progress schedule is deemed to be acceptable, the Engineer will issue a written notice of acceptance that may include comments or concerns on the schedule or a request for clarification. When the Engineer's responses include any comments, concerns, or requests for clarification, the Contractor shall respond accordingly within seven (7) calendar days of receipt of the Engineer's response. Failure on the part of the Contractor to respond to the Engineer may adversely affect the Engineer's ability to completely evaluate the Contractor's schedule.

Upon acceptance, the Baseline or Revised Progress Schedule will become the Schedule of Record (SOR) and will replace any previous SOR. For the purposes of this Special Provision the SOR is defined as the currently accepted progress schedule by which all schedule references will be made and progress will be compared. The currently accepted Progress Schedule Update will not replace the SOR, but will be used as the contemporaneous schedule with which to assess current progress, and to evaluate the effects of any time-related changes or impacts on the work.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Review and acceptance by the Engineer will not constitute a waiver of any contract requirements and will in no way assign responsibilities of the work plan, scheduling assumptions, and validity of the schedule to the Department. Failure of the Contractor to include in the Progress Schedule any element of work required by the Contract for timely completion of the project will not excuse the Contractor from completing the entire scope of work within the Contract specified completion milestone(s).

**IV. MONITORING THE WORK AND ASSESSING PROGRESS**

**Monitoring The Work** – The Engineer will monitor the work regularly to identify any deviations from the Contractor's scheduled performance relative to the SOR. The Engineer may request a meeting with the Contractor to discuss the Contractor's current progress or to review the approximate date for starting each critical inspection stage during the following thirty (30) days. At least once a week, the Contractor shall advise the Engineer of the approximate timing for anticipated critical stages for the subsequent week. The Contractor must advise the Engineer at least twenty-four (24) hours in advance of any changes in the Contractor's planned operations or critical stage work requiring Department inspection.

**Progress Evaluation** – Progress will be evaluated by the Engineer at the time of the monthly progress estimate relative to the Schedule of Record (SOR). The Contractor's actual progress may be considered unsatisfactory if any of the following conditions occurs:

1. The actual Total earnings to date percentage for work completed is more than ten (10) percentage points behind the cumulative earnings percentage for work scheduled; or
2. Any interim milestone or critical activity completion date is later than the scheduled completion date by more than twenty-one (21) calendar days or ten (10) percent of the contract duration, whichever is less; or
3. The projected project completion date is later than the contract completion date by twenty-one (21) calendar days or ten (10) percent of the contract duration, whichever is less.

**Progress Deficiency and Schedule Slippage** – When the Contractor's actual progress is trending toward unsatisfactory status, the Engineer will encourage the Contractor to meet to specifically and substantially discuss reversing this trend and the steps he is taking to recover satisfactory progress.

When the Contractor's actual progress is deemed to be unsatisfactory as defined by any of the conditions listed under **Progress Evaluation** of this provision, the Engineer will issue a written notice of unsatisfactory performance to advise the Contractor that five (5) percent retainage of the monthly progress estimate is being withheld and will continue to be withheld as described in Section 109.08(c) of the Specifications, for each month the Contractor's actual progress is determined to be unsatisfactory. When the Contractor fails to respond with good faith efforts as described herein to restore satisfactory progress, the Engineer will issue a notice to indicate that he may recommend the Contractor be temporarily disqualified from bidding on contracts with the Department as described in Section 102.08 of the Specifications, if progress remains unsatisfactory at the time of preparation of the next monthly progress estimate following the Engineer's notice. Prior to recommendation for removal from the list of pre-qualified bidders, the Engineer will allow the Contractor fourteen (14) calendar days from the date of the notice to respond. As an example of good faith efforts, the Contractor may submit to the Engineer, a proposed recovery plan in the form of a Revised Progress Schedule and a written statement to describe the Contractor's proposed actions and timeframe to correct the progress deficiency or schedule slippage. The Contractor may also submit to the Engineer a written explanation and supporting documentation to establish that such delinquency was attributable to conditions beyond his control. Any schedule revisions resulting from a recovery plan will be reviewed according to Section III, but shall not replace the current SOR.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

When the Engineer determines the Contractor's progress is again satisfactory the five (5) percent retainage previously withheld will be released to the Contractor according to the provisions of Section 109.08(c) of the Specifications.

If the Contractor is temporarily disqualified from bidding on contracts with the Department, the Contractor will not be reinstated until either the Engineer deems that his progress has improved to the extent that the work can be completed within the contract time limit or the project has received final acceptance according to the provisions of Section 108.09 of the Specifications.

**V. MEASUREMENT AND PAYMENT**

Category II progress schedule submittals including the baseline and any subsequent revisions requested by the Engineer as described herein, will not be measured or paid for separately. All associated costs to prepare, update, revise, and/or furnish the progress schedules for Category II projects according to the requirements herein shall be considered incidental to the work.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP109-000100-02](#)

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**ASPHALT MATERIAL PRICE ADJUSTMENT**

April 28, 2017

All asphalt material contained in the attached master listing of eligible bid items and designated by pay items in the contract will be price adjusted according to the provisions as set forth herein. Other items will not be adjusted, except as otherwise specified in the contract. If new pay items which contain asphalt material are established by Work Order, they will not be subject to Price Adjustment unless specifically designated in the Work Order to be subject to Price Adjustment.

Each month, the Department will publish an average state-wide PG 64S-22 f.o.b. price per ton and an average PG 64E-22 f.o.b. price per ton developed from the average terminal prices provided to the Department from suppliers of asphalt cement to contractors doing work in Virginia. The Department will collect terminal prices from approximately 12 terminals each month. These prices will be received once each month from suppliers on or about the last weekday of the month. The high and low prices will be eliminated and the remaining values averaged to establish the average statewide price for the following month. The monthly state-wide average price will be posted on the Construction Division website on or about the first weekday of the following month. In the event the average prices were to change by 10 percent or more of the Base Index during the middle of the month the Contractor can submit a letter to the Department and supplier that provides evidence of the difference in price. Upon receipt of the letter consideration will be given to extend additional adjustments as deemed necessary.

This monthly statewide average price will be the Base Index for all contracts on which bids are received during the calendar month of its posting and will be the Current Index for all asphalt placed during the calendar month of its posting. In the event an index changes radically from the apparent trend, as determined by the Engineer, the Department may establish an index which it determines to best reflect the trend.

The amount of adjustment applied will be based on the difference between the contract Base Index and the Current Index for the applicable calendar month during which the work is performed. The quantity of asphalt cement for asphalt concrete pavement to which adjustment will be applied will be the quantity based on the percent of asphalt cement shown on the appropriate approved job mix formula.

Adjustment of any asphalt material other than PG 64S-22 and PG 64E-22 will be based on the indexes for PG 64S-22.

The quantity of asphalt emulsions to which adjustment will be applied will be the quantity based on 65 percent residual asphalt.

Price adjustment will be shown as a separate entry on the monthly progress estimate; however, such adjustment will not be included in the total cost of the work for progress determination or for extension of contract time.

Any apparent attempt to unbalance bids in favor of items subject to price adjustment or failure to submit required cost and price data as noted hereinbefore may result in rejection of the bid proposal.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
**MASTER LISTING OF**  
**ASPHALT MATERIAL ITEMS ELIGIBLE FOR PRICE ADJUSTMENT**

ITEM	DESCRIPTION	UNITS	SPECIFICATION
10062	Asphalt-Stab. Open-Graded Material	Ton	313
10416	Liquid Asphalt	Gal	311 312
10417	Tack Coat	Gal	310
10420	Blotted Seal Coat Ty. B	SY	ATTD
10422	Blotted Seal Coat Ty. C	SY	ATTD
10423	Blotted Seal Coat Ty. C-1	SY	ATTD
10424	Blotted Seal Coat Ty. D	SY	ATTD
10598	NS Asphalt Concrete	Ton	315
10603	Asphalt Concrete Ty. SM-19.0A	Ton	315
10604	Asphalt Concrete Ty. SM-19.0D	Ton	315
10605	Asphalt Concrete Ty. SM-19.0E (76-22 or 64E)	Ton	315
10606	Asphalt Concrete Ty. SM-9.5	Ton	315
10607	Asphalt Concrete Ty. SM-12.5A	Ton	315
10608	Asphalt Concrete Ty. SM-12.5D	Ton	315
10609	Asphalt Concrete Ty. SM-12.5E (64E-22)	Ton	315
10610	Asphalt Concrete Ty. IM-19.0A	Ton	315
10611	Asphalt Concrete Ty. IM-19.0D	Ton	315
10612	Asphalt Conc. Base Cr. Ty. BM-25.0	Ton	315
10613	Asphalt Concrete Ty. BM-37.5	Ton	315
10614	Asphalt Concrete Ty. IM-19.0E (76-22 or 64E)	Ton	315
10635	Asphalt Concrete Ty. SM-9.5A	Ton	315
10636	Asphalt Concrete Ty. SM-9.5D	Ton	315
10637	Asphalt Concrete Ty. SM-9.5E (64E-22)	Ton	315
10639	Asphalt Concrete Ty. SM-19.0	Ton	315
10642	Asphalt Concrete Ty. BM-25.0A	Ton	315
10643	Asphalt Concrete Ty. BM-25.0D	Ton	315
10650	Stone Matrix Asphalt SMA-9.5(64H-22)	Ton	317
10651	Stone Matrix Asphalt SMA-9.5(64E-22)	Ton	317
10652	Stone Matrix Asphalt SMA-12.5(64H-22)	Ton	317
10653	Stone Matrix Asphalt SMA-12.5(64E-22)	Ton	317
10654	Stone Matrix Asphalt SMA-19.0(64H-22)	Ton	317
10655	Stone Matrix Asphalt SMA-19.0(64E-22)	Ton	317
10701	Liquid Asphalt Coating	SY	ATTD
12505	Asphalt Concrete Curb Backup Material	Ton	315
13240	Asphalt Concrete Sidewalk	Ton	504
16110	Emul. Asph. Slurry Seal Type A	SY	ATTD
16120	Emul. Asph. Slurry Seal Type B	SY	ATTD
16130	Emul. Asph. Slurry Seal Type C	SY	ATTD
16144	Latex Mod. Emul. Treat. Type B	Ton	ATTD
16145	Latex Mod. Emul. Treat. Type C	Ton	ATTD
16146	Latex Mod. Emul. Treat. Rutfilling	Ton	ATTD
16161	Modified Single Seal	SY	ATTD
16162	Modified Double Seal	SY	ATTD

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

ITEM	DESCRIPTION	UNITS	SPECIFICATION
16249	Nontracking Tack Coat	Gal.	ATTD
16250	Liquid Asphalt Matl. CMS-2 (Mod)	Gal	ATTD
16251	Liquid Asphalt Matl. CMS-2	Gal	ATTD
16252	Liquid Asphalt Matl. CRS-2	Gal	ATTD
16253	Liquid Asphalt Matl. CRS-2H	Gal.	ATTD.
16254	Liquid Asphalt Matl. RC-250	Gal	ATTD
16256	Liquid Asphalt Matl. RC-800	Gal	ATTD
16257	NS Liquid Asphalt Matl.	Gal	ATTD
16260	Liquid Asphalt Matl. CRS-2L	Gal	ATTD
16325	NS Asphalt Concrete	Ton	N/A
16326	Asphalt Concrete Ty. SM-4.75A	Ton	315
16327	Asphalt Concrete Ty. SM-4.75D	Ton	315
16328	Asphalt Concrete Ty. SM-4.75E	Ton	315
16330	Asphalt Concrete Ty. SM-9.0A	Ton	315
16335	Asphalt Concrete Ty. SM-9.5A	Ton	315
16337	Asph. Conc. Ty. SM-9.5ASL (Spot Level)	Ton	315
16340	Asphalt Concrete Ty. SM-9.5D	Ton	315
16342	Asph. Conc. Ty. SM-9.5DSL (Spot Level)	Ton	315
16345	Asphalt Concrete Ty. SM-9.5E (64E-22)	Ton	315
16350	Asphalt Concrete Ty. SM-12.5A	Ton	315
16352	Asph. Con. Ty. SM-12.5ASL (Spot Level)	Ton	315
16355	Asphalt Concrete Ty. SM-12.5D	Ton	315
16357	Asph. Con. Ty. SM-12.5DSL (Spot Level)	Ton	315
16360	Asphalt Concrete Ty. SM-12.5E (64E-22)	Ton	315
16362	Asphalt Concrete Ty. SM-19.0A	Ton	315
16363	Asphalt Concrete Ty. SM-19.0D	Ton	315
16364	Asphalt Concrete Ty. SM-19.0E (76-22 or 64E)	Ton	315
16365	Asphalt Concrete Ty. IM-19.0A	Ton	315
16370	Asphalt Concrete Ty. IM-19.0D	Ton	315
16371	Asphalt Concrete Ty. IM-19.0E (76-22 or 64E)	Ton	315
16373	Asphalt Concrete Ty. IM-19.0A (T)	Ton	315
16374	Asphalt Concrete Ty. IM-19.0D (T)	Ton	315
16377	Asphalt Concrete Ty. BM-37.5	Ton	315
16379	Asphalt Concrete Ty. IM-19.0T	Ton	315
16390	Asphalt Concrete Ty. BM-25.0A	Ton	315
16392	Asphalt Concrete Ty. BM-25.0D	Ton	315
16395	Asphalt Concrete Ty. BM-25.0A (T)	Ton	315
16397	Asphalt Concrete Ty. BM-25.0D (T)	Ton	315
16400	Stone Matrix Asphalt SMA-9.5(64H-22)	Ton	ATTD
16401	Stone Matrix Asphalt SMA-9.5(64E-22)	Ton	ATTD
16402	Stone Matrix Asphalt SMA-12.5(64H-22)	Ton	ATTD
16403	Stone Matrix Asphalt SMA-12.5(64E-22)	Ton	ATTD
16404	Stone Matrix Asphalt SMA-19.0(64H-22)	Ton	ATTD
16405	Stone Matrix Asphalt SMA-19.0(64E-22)	Ton	ATTD
16490	Hot Mix Asphalt Treatment	Ton	ATTD
16500	Surf.Preparation & Restoration Type I	Ton	ATTD
16502	Surf.Preparation & Restoration Type II	Ton	ATTD

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

ITEM	DESCRIPTION	UNITS	SPECIFICATION
16504	Surf.Preparation & Restoration Type III	Ton	ATTD
67201	NS Asphalt Concrete Overlay	Ton	315
67210	NS Asphalt Concrete	Ton	315
68240	NS Asphalt Concrete	Ton	315



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SP109-000120-00](#)

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**PRICE ADJUSTMENT FOR STEEL**

June 15, 2015; Reissued July 12, 2016

The Department will adjust monthly progress payments up or down as appropriate for cost changes in steel used on specific items of work identified in the Contract according to this provision. This Special Provision provides a master listing of standard bid items the Department has determined are eligible for steel price adjustment.

An automatically generated *project-specific* listing of *standard* bid items the Department has identified as eligible for steel price adjustment is included with the bidding proposal. Only items on this listing will be eligible for steel price adjustment. Generally, *non-standard* pay items will not be eligible for steel price adjustment unless such steel items are project-specific modifications of items normally eligible, are clearly and specifically identified by a separate and distinct steel pay item and the quantities present on the project constitute major items of the work. These items may be addressed by project specific provisions and their related pay items designated as being eligible in the bid proposal. Items eligible for steel price adjustment for a particular project will be shown on Form C-21C "Bid Items Eligible for Steel Price Adjustment" and included with the bidding documents. The Bidder may choose to have steel price adjustment applied to any, all or none of the eligible items shown on Form C-21C. The Bidder's selection of items for steel price adjustment or non-selection (non-participation) may not be changed once he has submitted Form C-21C to the Department

The Contractor shall use Form C-21C to submit to the State Contract Engineer, no later than 15 calendar days after the date of Contract Award letter, those pay items he chooses to have steel price adjustment applied on. Items the Contractor chooses for steel price adjustment must be designated by writing the word "Yes" in the column titled "Option" by each bid item chosen for adjustment. The Contractor's designations on Form C-21C must be written in ink or typed, and signed by the Contractor to be considered complete. Items not properly designated, or designated with "No" or left blank on the Contractor's C-21C "Bid Items Eligible for Steel Price Adjustment" form will automatically not be considered for adjustment. No steel items will be eligible for steel price adjustment on this project if the Contractor fails to return his Form C-21C on time.

**Please note:** Inventoried materials from the listing of eligible items are specifically excluded for consideration. Items from the listing of eligible items for which the Contractor has requested payment as Material on Hand according to Section 109.09 are also specifically excluded for consideration past the delivery date to the fabricator. This provision also does not allow for price adjustment for embedded steel where the steel item is a component of the finished bid item and there is no separate or distinct payment for the steel item or for steel used for pre-tensioned or post-tensioned precast components where furnishing steel is included in the unit price of the finished bid item.

This provision shall apply only to material cost changes that occur between the date of the receipt of bids by the Department and the date the material is shipped to the fabricator. The Contractor, subcontractor and/or supplier are required to place their purchase order for the steel items designated in this contract for price adjustment within 30 calendar days after the date of execution of this contract with the Department. The timeliness of the Contractor's response is also to ensure the receipt of such items in a timely manner that shall not adversely affect his progress schedule or contract completion date. The items shall further be specifically stored, labeled, or tagged, recognizable by color marking, and identifiable by project for inspection and audit verification immediately upon arrival at the fabricator.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The Contractor shall submit documentation to the appropriate District Construction Engineer for all items listed in the Contract for which it is requesting a steel price adjustment. This documentation shall consist of material price quotes, bid papers, or other similar type of documentation satisfactory to the Department, and support the completion of the form establishing the average price per pound for the eligible steel bid item. The Contractor must use the format as shown with this provision; no other format for presenting this information will be permitted. The Contractor shall certify that all items of documentation are original and were used in the computation of the amount bid for the represented eligible pay items for the month bids were opened. This documentation shall support the base line material price ("Base Price") of the steel item only. No adjustment will be made for changes in other components of the contract unit bid price, including, but not limited to, fabrication, shipping, storage, handling, and erection.

The Contractor will not be eligible for price adjustment of steel items if he fails to submit specifically required information (i.e., purchase order, price data, bill of lading, material information or other requested information) as noted herein.

Price adjustment of each qualifying item will only be considered if there is an increase or decrease in the cost of eligible steel materials in excess of 10 percent up to a maximum of 60 percent from the Base Price when compared with the latest published price index ("Price Index") in effect at the time material is shipped to the fabricator.

The Price Index the Department is using is based on The U.S. Department of Labor, Bureau of Labor Statistics, Producers Price Index (PPI), which measures the average price change over time of the specific steel eligible item from the perspective of the seller of goods. The specific Producers Price Index (PPI) to be used to adjust the price for the eligible VDOT steel items is shown in the table below. **Please note:** The Producers Price Index (PPI) is subject to revision 4 months after original publication, therefore, price adjustments and payments will not be made until the index numbers are finalized.

Items under consideration for price adjustment will be compared to the steel category index items and the corresponding I.D. numbers shown in the table attached to the end of this provision.

The price adjustment will be determined by comparing the percentage of change in index value beyond 10 percent above or below the index on the bid date to the index value on the date the steel material is shipped to the fabricator (Please see included sample examples). Weights and date of shipment must be documented by a bill of lading provided to the Department. The final price adjustment dollar value will be determined by multiplying this percent increase or decrease in the index (after 10%) by the represented quantity of steel shipped, by the Base Price per pound subject to the limitations herein.

**Price increase/decrease will be computed as follows:**

$$A = B \times P \times Q$$

- Where;
- A = Steel price adjustment in lump sum dollars
  - B = Average weighted price of steel submitted with bid on project in \$ per pound
  - P = Adjusted percentage change in PPI average from shipping date to bid date minus 10% (0.10) threshold
  - Q = Total quantity of steel in pounds shipped to fabricator for specific project

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Delays to the work caused by steel shortages may be justification for a contract time extension but will not constitute grounds for claims for standby equipment, extended office overhead, or other costs associated with such delays.

The Engineer will determine, and specify in the Work Order, the need for application of the adjustments herein to extra work on an individual basis.

This price adjustment is capped at 60 percent. This means the maximum "P" value for increase or decrease that can be used in the above equation is 50% (60%-10% threshold).

Calculations for price adjustment shall be shown separate from the monthly progress estimate and will not be included in the total cost of work for determination of progress or for extension of contract time.

Any apparent attempt to unbalance bids in favor of items subject to price adjustment may result in rejection of the bid proposal.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

20-Jan-05

**Sample Form to be turned in for Steel Price Adjustment Provision**

(All prices to be supported by project-specific quotes)

**BID DATE**

28-Apr-04

Bid Item 61720 High Strength Structural Steel

Supplier	Description of material	Unit price f.o.b supplier \$/lbs	Quantity In lbs.	Price Extension	Date of Quote
XYZ mill	Structural beams Various sizes (see quote)	\$0.28	1,200,000	\$336,000.00	21-Apr-04
ABC distributing	Various channel & angle shapes (see quote)	\$0.32	35,000	\$11,200.00	20-Apr-04

Total	1,235,000	\$347,200.00
-------	-----------	--------------

Average weighted price = \$0.2816

Note: All prices are to include any surcharges on materials quoted as if they are shipped in the month the bid is submitted. Vendors must include this surcharge along with their base price on their quotes.

v

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

20-Jan-05

---

**Sample Calculation of a Price Adjustment (increase)**

---

Project bid on April 28, 2004.

Project has 450,000 lb. of structural steel.

Orders placed in timely manner and according to contract.

Contractor's \*f.o.b. supplier price for the structural steel in bid is \$0.2816 per pound.                      \*free on board

Adjusted\*\* BLS Producers Price Index (PPI) most recently published average at time of bid is 139.6.

\*\* final change  
after 4 months

All steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 161.1

Adjustment formula is as follows:

$$A = B \times P \times Q$$

Where;

- A = Steel price adjustment in lump sum dollars
- B = Average weighted price of steel submitted with bid on project in \$ per pound
- P = Adjusted percentage change in PPI average from shipping date to bid date minus 10% (0.10) threshold
- Q = Total quantity of steel shipped to fabricator in October 2004 for this project in pounds

$$B = \$0.2816$$

$$P = (161.1 - 139.6) / 139.6 - 0.10 = 0.054$$

$$Q = 450,000 \text{ lb.}$$

$$A = 0.2816 \times 0.054 \times 450,000$$

$$A = \$6,842.88 \text{ pay adjustment to Contractor}$$

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

20-Jan-05

---

**Sample Calculation of a Price Adjustment (decrease)**

---

Project bid on April 28, 2004.

Project has 450,000 lb. of structural steel.

Orders placed in timely manner and according to contract.

Contractor's \*f.o.b. supplier price for structural steel in bid is \$0.2816 per pound. \*free on board

Adjusted BLS Producers Price Index (PPI) most recently published average at time of bid is 156.6.

All steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 136.3

Adjustment formula is as follows:

$$A = B \times P \times Q$$

Where;

- A = Steel price adjustment in lump sum dollars
- B = Average weighted price of steel submitted with bid on project in \$ per pound
- P = Adjusted percentage change in PPI average from shipping date to bid date minus 10% (0.10) threshold
- Q = Total quantity of steel shipped to fabricator in October 2004 for this project in pounds

$$B = \$0.2816$$

$$P = (156.6 - 136.3) / 156.6 - 0.10 = 0.030$$

$$Q = 450,000 \text{ lb.}$$

$$A = 0.2816 \times 0.030 \times 450,000$$

$$A = \$3,801.60 \text{ credit to Department}$$

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**MASTER LISTING**

**STANDARD BID ITEMS ELIGIBLE FOR STEEL PRICE ADJUSTMENT**

Sept. 24, 2008 rev # 1 added 4 corrosion resistant re-bar items.  
 Dec. 4, 2008 rev # 2 deleted item 68138 straighten structural steel  
 January 14, 2009 rev # 3 identified BLS WPU used in \$ adjustment  
 March 18, 2009 added items 61813, 68109 & 68110

**BLS Series I. D.**

ITEM NUMBER	ITEM DESCRIPTION	UNITS	Number WPU used in \$ adjust.
00519	SHEET PILE, STEEL	SF	avg. 1017 & 101
00540	REINF. STEEL	LB	101704
00541	CORROSION RESISTANT REINF. STEEL CL. I	LB	101704
00542	EPOXY COATED REINF. STEEL	LB	101704
00560	STRUCTURAL STEEL JB-1	LB	avg. 1017 & 101
11030	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
11181	PATCH. HYDR. CEM. CONC. PAVE.	SY	101704
13290	GUARDRAIL GR-8 (NCHRP 350 TL-3)	LF	avg. 1017 & 101
13292	GUARDRAIL GR-8A (NCHRP 350 TL-3)	LF	avg. 1017 & 101
13294	GUARDRAIL GR-8B (NCHRP 350 TL-3)	LF	avg. 1017 & 101
13310	GUARDRAIL TERMINAL GR-6 (NCHRP 350)	LF	avg. 1017 & 101
13312	GUARDRAIL TERMINAL GR-7 (NCHRP 350)	EA	avg. 1017 & 101
13315	GUARDRAIL TERMINAL GR-11	EA	avg. 1017 & 101
13320	GUARDRAIL GR-2	LF	avg. 1017 & 101
13323	GUARDRAIL GR-2A	LF	avg. 1017 & 101
13331	RAD. GUARDRAIL GR-2	LF	avg. 1017 & 101
13333	RAD. GUARDRAIL GR-2A	LF	avg. 1017 & 101
13335	GUARDRAIL GR-3	LF	avg. 1017 & 101
13345	ALTERNATE BREAKAWAY CABLE TERMINAL (GR-9)	EA	avg. 1017 & 101
13351	GUARDRAIL GR-8	LF	avg. 1017 & 101
13352	GUARDRAIL GR-8A	LF	avg. 1017 & 101
13353	GUARDRAIL GR-8B	LF	avg. 1017 & 101
13355	GUARDRAIL GR-10	LF	avg. 1017 & 101
13421	MEDIAN BARRIER MB-3	LF	avg. 1017 & 101
13450	MEDIAN BARRIER MB-5	LF	avg. 1017 & 101
13451	MEDIAN BARRIER MB-5A	LF	avg. 1017 & 101
13452	MEDIAN BARRIER MB-5B	LF	avg. 1017 & 101
13545	REINF. STEEL	LB	101704
13594	TRAF. BARR. SER. GUARD RAIL TER. GR-7	EA	avg. 1017 & 101
13594	TRAF. BAR. SER. GD. RAIL TER. GR-7	EA	avg. 1017 & 101
14502	REINFORCING STEEL	LB	101704
15290	PATCH. CEM. CONC. PAVE. TY. CRCP-A	SY	101704
15302	PATCH. CEM. CONC. PAVE. TY. II	SY	101704
15305	PATCH. CEM. CONC. PAVE. TY. IV-A	SY	101704
17323	GUARDRAIL BEAM	LF	avg. 1017 & 101
17325	RADIAL GUARDRAIL BEAM	LF	avg. 1017 & 101
17327	RUB RAIL	LF	avg. 1017 & 101
17342	STEEL TUBE GR-7	EA	avg. 1017 & 101
17348	BREAKAWAY POST GR-7	EA	101704
17353	CABLE GR-3	LF	avg. 1017 & 101
17381	POST (BENT PLATE OR S 75 X 8.5 STEEL) GR	EA	avg. 1017 & 101
22501	FENCE FE-W1	LF	avg. 1017 & 101
22643	FENCE FE-CL	LF	avg. 1017 & 101
22645	FENCE FE-CL VINYL COATED	LF	avg. 1017 & 101
23043	WATER GATE FE-4 TY. III	LF	avg. 1017 & 101

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

23501	FENCE FE-W1 (FABRIC ONLY)	LF	avg. 1017 & 101
45522	4" STEEL ENCASE. PIPE	LF	101706
45532	6" STEEL ENCASE. PIPE	LF	101706
45562	16" STEEL ENCASE. PIPE	LF	101706
45572	18" STEEL ENCASE. PIPE	LF	101706
45582	24" STEEL ENCASE. PIPE	LF	101706
45584	24" JACKED STEEL ENCASEMENT PIPE	LF	101706
45592	30" STEEL ENCASE. PIPE	LF	101706
50402	SIGN POST STEEL 3"	LF	101706
50404	SIGN POST STEEL 4"	LF	101706
50406	SIGN POST STEEL 6"	LF	101706
50410	SIGN POST STEEL 10"	LF	101706
50412	SIGN POST STEEL 12"	LF	101706
50414	SIGN POST STEEL 14"	LF	101706
50416	SIGN POST STEEL 16"	LF	101706
50418	SIGN POST STEEL 18"	LF	101706
51317	SIG. POLE MP-1 20' ONE ARM 30'	EA	101706
51319	SIG. POLE MP-1 20' ONE ARM 32'	EA	101706
51325	SIG. POLE MP-1 20' ONE ARM 38'	EA	101706
51327	SIG. POLE MP-1 20' ONE ARM 40'	EA	101706
51329	SIG. POLE MP-1 20' ONE ARM 42'	EA	101706
51331	SIG. POLE MP-1 20' ONE ARM 44'	EA	101706
51337	SIG. POLE MP-1 20' ONE ARM 50'	EA	101706
51339	SIG. POLE MP-1 20' ONE ARM 52'	EA	101706
51341	SIG. POLE MP-1 20' ONE ARM 54'	EA	101706
51344	SIG. POLE MP-1 20' ONE ARM 56'	EA	101706
51346	SIG. POLE MP-1 20' ONE ARM 58'	EA	101706
51347	SIG. POLE MP-1 20' ONE ARM 60'	EA	101706
51348	SIG. POLE MP-1 20' ONE ARM 62'	EA	101706
51368	SIG.POLE MP-1 20'TWO ARMS 36'& 42'	EA	101706
51400	SIG.POLE MP-1 CO.LU.ONE ARM 38	EA	101706
51402	SIG.POLE MP-1 CO.LU.ONE ARM 40	EA	101706
51408	SIG.POLE MP-1 CO.LU.ONE ARM 46	EA	101706
51412	SIG.POLE MP-1 CO.LU.ONE ARM 50	EA	101706
51414	SIG.POLE MP-1 CO.LU.ONE ARM 52	EA	101706
51416	SIG.POLE MP-1 CO.LU.ONE ARM 54	EA	101706
51418	SIG.POLE MP-1 CO.LU.ONE ARM 56	EA	101706
51420	SIG.POLE MP-1 CO.LU.ONE ARM 58	EA	101706
51422	SIG.POLE MP-1 CO.LU.ONE ARM 60	EA	101706
55162	LIGHTING POLE LP-1 30'-4'	EA	101706
55163	LIGHTING POLE LP-1 30'-6'	EA	101706
55166	LIGHTING POLE LP-1 30'-12'	EA	101706
55169	LIGHTING POLE LP-1 35'-6'	EA	101706
55171	LIGHTING POLE LP-1 35'-10'	EA	101706
55176	LIGHTING POLE LP-1 40'-8'	EA	101706
55185	LIGHTING POLE LP-2 TYPE A	EA	101706
55186	LIGHTING POLE LP-2 TYPE B	EA	101706
55187	LIGHTING POLE LP-2 TYPE C	EA	101706
55188	LIGHTING POLE LP-2 TYPE D	EA	101706
55189	LIGHTING POLE LP-2 TYPE E	EA	101706
55190	LIGHTING POLE LP-2 TYPE F	EA	101706
55192	LIGHTING POLE LP-2 TYPE H	EA	101706
60452	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
61700	REINF. STEEL	LB	101704
61704	CORROSION RESISTANT REINF. STEEL	LB	101704
61705	EPOXY COATED REINF. STEEL	LB	101704
61711	CORROSION RESISTANT REINF.STEEL CL. I	LB	101704



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

61712	CORROSION RESISTANT REINF.STEEL CL. II	LB	101704
61713	CORROSION RESISTANT REINF.STEEL CL. III	LB	101704
61750	STRUCT.STEEL HIGH STRG.PLT.GIRDERS	LB	avg. 1017 & 101
61811	STR.STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
61812	STR.STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
61813	STR.STEEL PLATE GIRDER ASTM A709 GRADEHPS50W	LB	avg. 1017 & 101
61814	STR.STEEL PLATE GIRDER ASTM A709 GRADEHPS70W	LB	avg. 1017 & 101
61820	STR.STEEL ROLLED BEAM ASTM A709 GRADE 36	LB	avg. 1017 & 101
61821	STR.STEEL ROLLED BEAM ASTM A709 GRADE50	LB	avg. 1017 & 101
61822	STR.STEEL ROLLED BEAM ASTM A709 GRADE50W	LB	avg. 1017 & 101
61990	STEEL GRID FLOOR	SF	avg. 1017 & 101
64110	STEEL PILES 10"	LF	avg. 1017 & 101
64112	STEEL PILES 12"	LF	avg. 1017 & 101
64114	STEEL PILES 14"	LF	avg. 1017 & 101
64768	DRIVING TEST FOR 12" STEEL PILE	LF	avg. 1017 & 101
64778	DRIVING TEST FOR 14" STEEL PILE	LF	avg. 1017 & 101
65200	REINF. STEEL	LB	101704
65204	CORROSION RESISTANT REINF. STEEL	LB	101704
65205	EPOXY COATED REINF. STEEL	LB	101704
65211	CORROSION RESISTANT REINF.STEEL CL. I	LB	101704
65212	CORROSION RESISTANT REINF.STEEL CL. II	LB	101704
65213	CORROSION RESISTANT REINF.STEEL CL. III	LB	101704
67086	PED. FENCE 6'	LF	avg. 1017 & 101
67088	PED. FENCE 8'	LF	avg. 1017 & 101
67089	PED. FENCE 10'	LF	avg. 1017 & 101
68091	CORROSION RESISTANT REINF.STEEL CL. I	LB	101704
68092	CORROSION RESISTANT REINF.STEEL CL. II	LB	101704
68093	CORROSION RESISTANT REINF.STEEL CL. III	LB	101704
68100	REINF. STEEL	LB	101704
68104	CORROSION RESISTANT REINF. STEEL	LB	101704
68105	EPOXY COATED REINF. STEEL	LB	101704
68107	STR.STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
68108	STR. STEEL PLATE GIRDER ASTM A709 GR50W	LB	avg. 1017 & 101
68109	STR. STEEL PLATE GIRDER ASTM A709 GR.HPS50W	LB	avg. 1017 & 101
68110	STR. STEEL PLATE GIRDER ASTM A709 GR.HPS70W	LB	avg. 1017 & 101
68112	STR.STEEL ROLLED BEAM ASTM A709 GR.36	LB	avg. 1017 & 101
68113	STR.STEEL ROLLED BEAM ASTM A709 GR.50	LB	avg. 1017 & 101
68114	STR.STEEL ROLLED BEAM ASTM A709 GR. 50W	LB	avg. 1017 & 101
68115	STRUCT. STEEL	LB	avg. 1017 & 101
68270	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
69060	SHEET PILES, STEEL	SF	avg. 1017 & 101
69091	CORROSION RESISTANT REINF.STEEL CL. I	LB	101704
69092	CORROSION RESISTANT REINF.STEEL CL. II	LB	101704
69093	CORROSION RESISTANT REINF.STEEL CL. III	LB	101704
69100	REINF. STEEL	LB	101704
69104	CORROSION RESISTANT REINF. STEEL	LB	101704
69105	EPOXY COATED REINF. STEEL	LB	101704
69110	STEEL PILES 10"	LF	avg. 1017 & 101
69112	STEEL PILE 12"	LF	avg. 1017 & 101
69113	DRIVING TEST FOR 12" STEEL PILE	LF	avg. 1017 & 101

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**SP512-000130-00**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**EMPLOYMENT OF PORTABLE TEMPORARY RUMBLE STRIPS**

January 24, 2019

**VI. Description**

This work shall consist of employing Portable Temporary Rumble Strips (PTRSs) in support of work-zone flagging operations at locations or times designated herein, on the Plans, in the VWAPM, or as directed by the Engineer. A PTRS is a transverse rumble strip that consists of intermittent, narrow, transverse areas of rough-textured or slightly raised or depressed surface that extends across the travel lane to alert drivers to unusual vehicular traffic conditions. PTRSs are not required during emergency work, or during rain, snow, or icy weather conditions, as determined by the Engineer.

**VII. Materials**

**PTRSs** shall be made of rubber or recycled rubber and the color shall be orange or black. Colors shall not be mixed within one work zone. It shall have a recessed, raised or grooved design to prevent movement and hydroplaning. A PTRS shall consist of hinged segments of equal length that prevent separation while in use. The combined usable length of the PTRS shall be between 10 feet 9 inches and 11 feet. The width of the PTRS shall be 12 to 13 inches. The maximum height of the PTRS shall be 1 inch; and the minimum height shall be 5/8 inch. The weight of each roadway strip shall be a minimum of 100 lbs. to a maximum of 120 lbs. The leading and departing edge taper shall be between 12 and 15 degrees. Each roadway length of the PTRS shall have either a minimum of one cutout handle in the end of the rumble strip, or an interlocking segment which can be used as a handle for easy deployment or removal.

**VIII. Requirements for Employment**

PTRSs shall be employed in accordance with the VWAPM when all of the following conditions are met:

- Work operations involving flaggers occurring on a two-lane roadway during daylight hours
- The duration of the activity at a location is greater than 3 hours but less than 72 consecutive hours
- Existing speed limit is 35 MPH or greater
- Existing roadway has a marked centerline

PTRSs shall not be used on loose gravel, bleeding asphalt, heavily rutted pavements as determined by the Engineer, or unpaved surfaces.

PTRSs shall be installed in advance of horizontal curves if determined necessary for driver visibility by the Engineer. PTRSs installed at the beginning of a non-stationary flagging operation in accordance with the VWAPM will not require repositioning as the work advances.

**IX. Installation and Employment**

The manufacturer of the PTRS shall provide a signed affidavit that states the PTRS is able to withstand being run over by an 80,000 pound vehicle and retain its original placement with minor incidental movement of 6 inches or less during an 8 hour deployment. Incidental movement of the PTRS shall be parallel with other rumble strips in an array but shall not move so that its placement compromises the performance and safety of the other rumble strips, workers or the traveling public.

PTRS shall be used in arrays of three rumble strips at the center to center spacing shown on the Typical Traffic Control figure in the VWAPM, placed transversely across the travel lane, without intruding into the opposing travel lane. . The PTRS shall be installed without the use of adhesives or fasteners.

The PTRS shall be repositioned ahead of queueing traffic if directed by the Engineer.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**X. Measurement and Payment**

**Portable Temporary Rumble Strip Array** will be measured in days per array and will be paid for at the Contract day price. This price shall include installing, maintaining, removing devices when no longer required, and relocating throughout the day.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Portable Temporary Rumble Strip Array	Day

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**SECTION 105.06—SUBCONTRACTING**  
**(FEDERAL FUNDED PROJECTS)**

February 9, 2017

**SECTION 105.06—Subcontracting** of the Specifications is amended to include the following:

- (d) According to Commonwealth of Virginia Executive Order 20, the Contractor is encouraged to seek out and consider Small, Women-owned, and Minority-owned (SWaM) businesses certified by the Department of Small Business and Supplier Diversity (DSBSD) as potential subcontractors and vendors. Further, the Contractor shall furnish and require each subcontractor (first-tier) to furnish information relative to subcontractor and vendor involvement on the project.

For purposes of this provision, the term “vendor” is defined as any consultant, manufacturer, supplier or hauler performing work or furnishing material, supplies or services for the contract. The Contractor and, or subcontractor (first-tier) must insert this provision in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). The applicable requirements of this provision are incorporated by reference for work done by vendors under any purchase order, rental agreement or agreement for other services for the contract. The Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or vendor.

The submission of a bid will be considered conclusive evidence that the Contractor agrees to assume these contractual obligations and to bind subcontractors contractually to the same at the Contractor’s expense.

When an approved Form C-31 “Subletting Request” is required according to IIM-CD-2013-06.01, the Contractor shall indicate on the Subletting Request if a subcontractor is a certified DBE or SWaM business.

The Contractor shall report all DBE, SWaM, and Non SWaM vendor payments quarterly to the District Civil Rights Office. The Contractor shall provide the information in a format consistent with Form C-63, Vendor Payment Compliance Report, subject to the approval of the Engineer.

DBE Participation and reporting shall be in accordance with the Special Provision for Section 107.15 (Use of Disadvantaged Business Enterprises).

If the Contractor fails to provide the required information, the Department may delay final payment according to Specification Section 109.10 of the Specifications.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**TYPICAL TRAFFIC CONTROL FOR PORTABLE TEMPORARY RUMBLE STRIPS**

March 18, 2019

The following Typical Traffic Controls are inserted into the VWAPM:

**Figure 1 Typical Traffic Control Notes –**  
*Lane Closure on a Two-Lane Roadway Using Flaggers and PTRS*

**Standard:**

1. **Tables 6H-2, 6H-3, 6H-4 and 6H-5 shall be used for installing temporary traffic control devices.**

**Guidance:**

2. *Care should be exercised when establishing the limits of the work zone to ensure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*

**Standard:**

3. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic. Intersecting roadways in between the work zone's flagger stations shall be controlled by a flagger.**
4. **A shadow vehicle with at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew.**

**Option:**

5. A supplemental flagger may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic.

**Guidance:**

6. *The location of the PTRS should be adjacent to the BE PREPARED TO STOP (W3-4) sign. If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs and PTRS, should be readjusted at greater distances. The PTRS and the RUMBLE STRIP AHEAD sign can be moved to other locations within the advance warning area based on field conditions.*
7. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*

**Standard:**

8. **At night, flagger stations shall be illuminated, except in emergencies.**

**Option:**

9. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.

**Standard:**

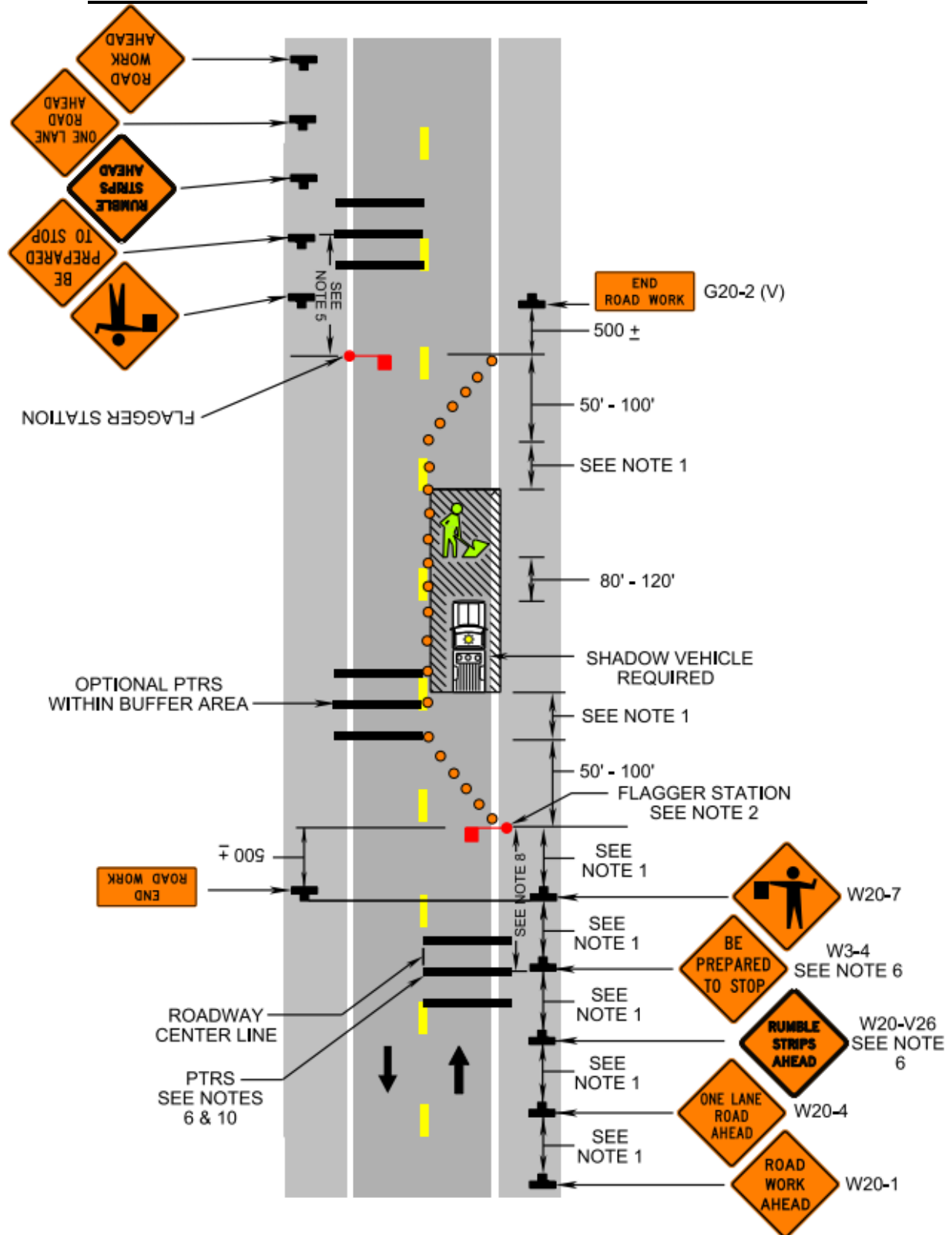
10. **The spacing of the PTRS shall be:**

Posted Speed	< 40 MPH	40-49 MPH	≥ 50 MPH
PTRS Spacing (Center to Center)	10 Feet	15 Feet	20 Feet

**Support:**

11. For additional information, see TTC-23 in the 2011 Virginia Work Area Protection manual.

**FIGURE 1 – TYPICAL INSTALLATION ON A TWO-LANE ROADWAY**



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Figure 2 Typical Traffic Control Notes –**  
*Non-Stationary Operation on a Two-Lane Roadway Using Flaggers and PTRS*

**Standard:**

1. **Tables 6H-2, 6H-3, 6H-4 and 6H-5 shall be used for installing temporary traffic control devices.**

**Guidance:**

2. *Care should be exercised when establishing the limits of the work zone to ensure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*

**Option:**

3. Where Right-of-Way or geometric conditions prevent the use of 48" x 48" signs, 36" x 36" signs may be used.

**Standard:**

4. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
5. **The Flagger (W20-7) symbol sign shall stay within ½ mile of each flagger.**

**Guidance:**

6. *Additional Flagger symbol signs should be placed at ½ mile intervals and either erected by the approaching flagger, or taken down as the operation proceeds past this point.*
7. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*
8. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the advance warning signs should be readjusted at greater distances.*

**Option:**

9. A SLOW (W21-V10) sign may be installed between the first and second Flagger Symbol (W20-7) sign.

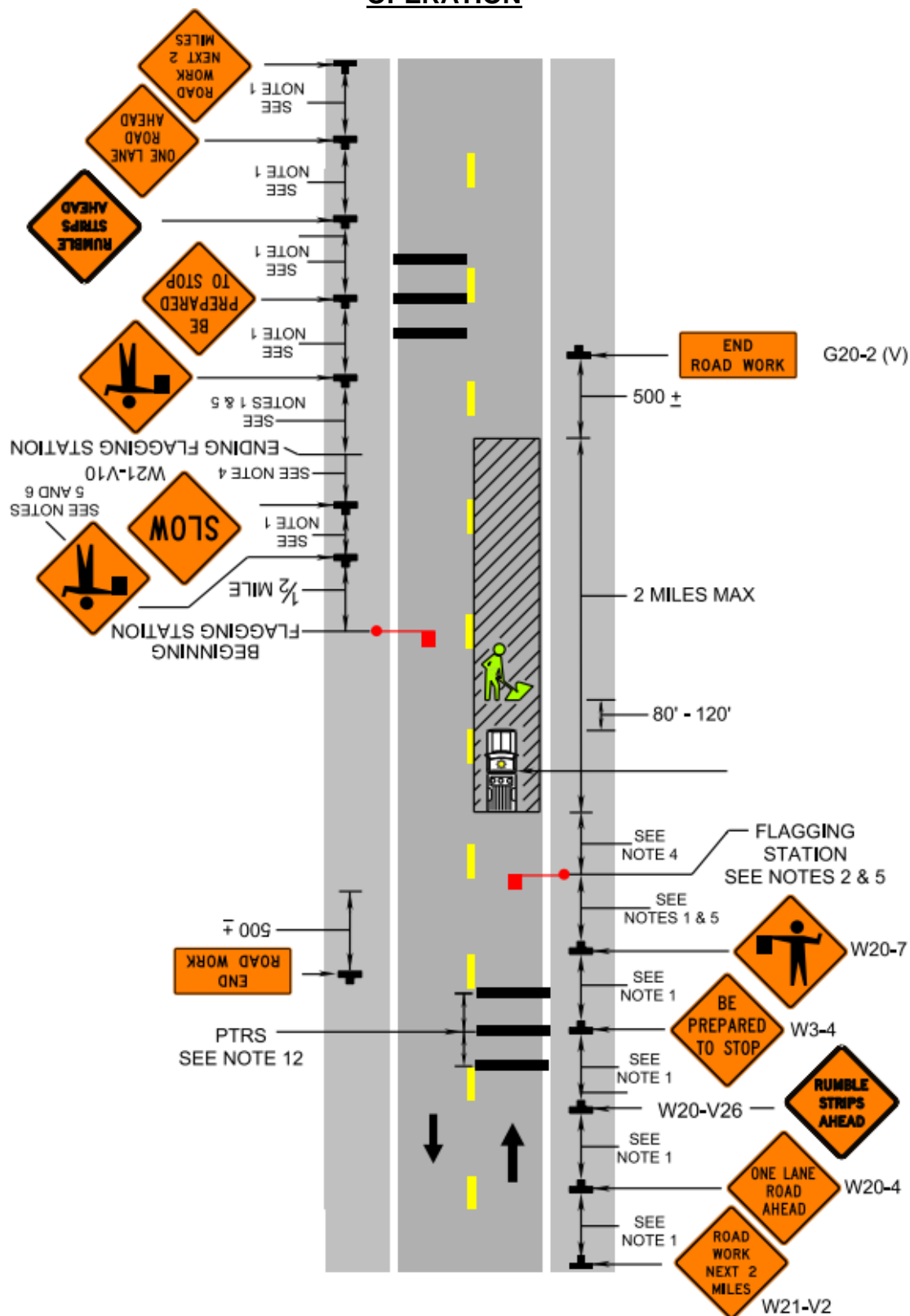
**Standard:**

10. **A shadow vehicle with at least one amber rotating, flashing or 1 oscillating lights shall be parked 80'-120' in advance of the first work crew.**
11. **The maximum length of the work area shall be two miles.**
12. **The spacing of the portable temporary rumble strips shall be:**

Posted Speed	< 40 MPH	40 – 49 MPH	≥ 50 MPH
PTRS Spacing (Center to Center)	10 Feet	15 Feet	20 Feet

**Support:**

13. For additional information, see TTC-24 in the 2011 Virginia Work Area Protection manual.





**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Figure 3 Typical Traffic Control Notes –**  
*Lane Closure on a Multi-Lane Roadway Using PTRS*

**Standard:**

1. On divided highways having a median wider than 8', right and left sign assemblies shall be required.
2. Tables 6H-2, 6H-3, 6H-4 and 6H-5 shall be used for installing temporary traffic control devices.

**Guidance:**

3. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.
4. The location of the PTRS should be adjacent to the RUMBLE STRIP WITH ARROW (W20-V28) sign. If the queue of traffic reaches the RUMBLE STRIP WITH ARROW sign, then the rumble strip signs and the PTRS, should be readjusted at greater distances.
5. All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.

**Standard:**

6. PTRS shall not be placed through pedestrian crossings.
7. PTRS shall not be placed on roadways used by bicyclists unless a minimum clear path of 4 feet is provided at each edge of the roadway or on each paved shoulder.

**Option:**

8. An additional array of PTRS may be installed at the beginning of the buffer area.

**Standard:**

9. The spacing of the PTRS shall be:

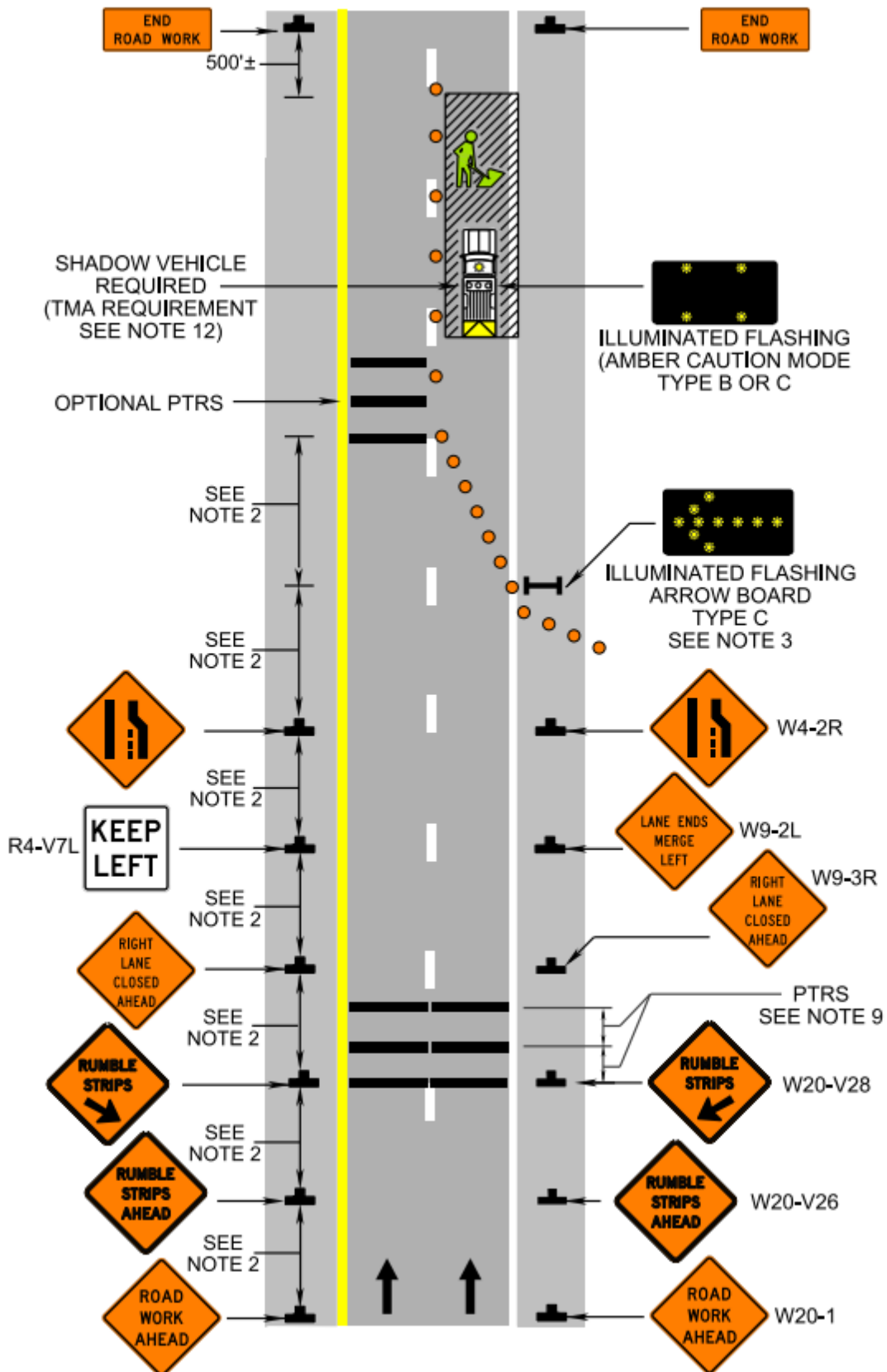
Posted Speed	< 40 MPH	41 – 49 MPH	≥ 50 MPH
PTRS Spacing (Center to Center)	10 Feet	15 Feet	20 Feet

10. TTC-13 shall be used to install the temporary traffic control. If Shadow Vehicle 1 cannot run completely on the shoulder and is partially in the travel lane, it shall be equipped with a truck-mounted attenuator. RUMBLE STRIP AHEAD signs shall be installed prior to placing Portable Temporary Rumble Strips (PTRS).
11. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights but can be used to supplement the amber rotating, flashing, or oscillating lights.
12. A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.
13. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.

**Support:**

14. For additional information, see TTC-16 or TTC-17 in the 2011 Virginia Work Area Protection manual.

**FIGURE 3 – TYPICAL INSTALLATION ON A MULTI-LANE ROADWAY**



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS106-002016-02

July 6, 2018

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 106 – CONTROL OF MATERIAL**

**SECTION 106 – CONTROL OF MATERIAL** of the Specifications is amended as follows:

**Section 106.03 – Local Material Sources (Pits and Quarries)** is replaced with the following:

The requirements set forth herein apply exclusively to non-commercial pits and quarries from which materials are obtained for use on contracts awarded by the Department.

Local material sources shall be concealed from view from the completed roadway and any existing public roadway. Concealment shall be accomplished by selectively locating the pit or quarry and spoil pile, providing environmentally compatible screening between the pit or quarry site and the roadway, or using the site for another purpose after removal of the material, or restoration equivalent to the original use (such as farm land, pasture, turf, etc.). The foregoing requirements shall also apply to any pit or quarry opened or reopened by a subcontractor or supplier. However, the requirements will not apply to commercial sand and gravel and quarry operations actively processing material at the site prior to the date of the Notice of Advertisement.

The Contractor shall furnish the Engineer a statement signed by the property owner in which the property owner agrees to the use of his property as a source of material for the project. Upon completion of the use of the property as a material source and before Final Acceptance, the Contractor shall furnish the Engineer a release signed by the property owner indicating that the property has been satisfactorily restored. The requirements for a signed statement and release will not apply to commercial sources, sources owned by the Contractor, or sources furnished by the Department.

Local material pits and quarries that are not operated under a local or State permit shall not be opened or reopened without authorization by the Engineer.

Topsoil on Department owned or furnished borrow sites shall be stripped and stockpiled as directed by the Engineer for use as needed within the construction limits of the project or in the reclamation of borrow and disposal areas.

If payment is to be made for material measured in its original position, material shall not be removed until Digital Terrain Model (DTM) or cross-sections have been taken. The material shall be reserved exclusively for use on the project until completion of the project or until final DTM or cross-sections have been taken.

If the Contractor fails to provide necessary controls to prevent erosion and siltation the Department may direct the Contractor to cease all other operations and direct his efforts toward corrective action in accordance with Section 105.03(a), or may perform the work with state forces or other means determined by the Engineer using the same procedure as Section 105.14(e).

Costs for applying seed, fertilizer, lime, mulch, and for restoration of drainage, erosion and siltation control, regrading haul roads, and screening for this work will not be paid for under those Pay Items, but shall be included in the Contract price for the type of excavation or other appropriate Contract items.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The Contractor shall be liable for penalties, fines, or the Department's costs or damages that result from his failure to prevent erosion or siltation and take restorative action.

After removing all the material needed from the local material sources, the Contractor shall remove metal, lumber, and other debris resulting from his operations and shall shape and landscape the area in accordance with the Contractor's agreement with the property owner.

- (a) Sources Furnished by the Department will be made available to the Contractor together with the right to use such property as may be required for a plant site, stockpiles, or haul roads. The Contractor shall confine his excavation operations to those areas of the property specified in the Contract. The Contractor shall be responsible for excavation that shall be performed in order to furnish the specified material.
- (b) Sources Furnished by the Contractor: The use of material from sources other than those furnished by the Department will not be permitted until test results have been approved by the Engineer and written authority for its use has been issued by the appropriate agency, organization, or individual.

The Contractor shall acquire the necessary rights to take material from sources he locates and shall pay all related costs, including costs that may result from an increase in the length of the haul. Costs of exploring, sampling, testing, and developing such sources shall be borne by the Contractor. The Contractor shall obtain representative samples from at least two borings in parcels of 10 acres or less and at least three additional borings per increment of 5 acres or portion thereof to ensure that lateral changes in material are recorded. Drill logs for each test shall include a soil description and the moisture content at intervals where a soil change is observed or at least every 5 feet of depth for consistent material. Samples obtained from the boring shall be tested by an approved laboratory for grading, Atterberg limits, CBR, maximum density, and optimum moisture. The Department will review and evaluate the material based on test results provided by the Contractor. The Department will reject any material from a previously approved source that fails a visual examination or whose test results show that it does not conform to the specific Contract requirements.

**Section 106.04(a) – Disposal Areas** is replaced with the following:

**Disposal Areas**

The Contractor shall dispose of materials not used on the project off the right of way. The Contractor's selection and use of off-right-of-way disposal areas shall comply with the Contract requirements and federal, state and local laws and regulations.

If an approved disposal area is not designated in the Contract, the Contractor shall obtain the necessary rights to property to be used as an approved disposal area. If the Contractor, having shown reasonable effort, is unsuccessful in obtaining the necessary rights to property to be used as an approved disposal area, the Department will obtain rights for a disposal area. Compensation will be in accordance with Sections 104.02 and 109.05.

Disposal areas shall be cleared without damaging grass, shrubs, or vegetation outside the limits of the approved area and haul roads thereto, but do not need to be grubbed. After the material has been deposited, the area shall be shaped to minimize erosion and siltation of nearby streams and landscaped in accordance with the Contractor's agreement with the property owner

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

If the Contractor fails to provide and maintain necessary controls to prevent erosion and siltation, the Department may direct the Contractor to cease all other operations and direct his efforts toward corrective action in accordance with Section 105.03(a), or may perform the work with state forces or other means determined by the Engineer using the same procedure as Section 105.14(e).

The Contractor shall furnish the Engineer a statement signed by the property owner in which the owner agrees to the use of his property for the deposit of material from the project. Upon completion of the use of the property as an approved disposal area and before Final Acceptance, the Contractor shall furnish the Engineer a release signed by the property owner indicating that the property has been satisfactorily restored. This requirement will not apply to commercial sources, sources owned by the Contractor, or sources furnished by the Department.

**Section 106.08 – Storing Materials** is amended to replace the third paragraph with the following:

Chemicals, fuels, lubricants, bitumens, paints, raw sewage, and other potential pollutant-generating materials as determined by the Engineer or defined in the *VPDES General Permit For Discharge of Stormwater from Construction Activities* shall not be stored within any flood-prone area unless no other location is available. A flood-prone area is defined as the area adjacent to the main channel of a river, stream or other waterbody that is susceptible to being inundated by water during storm events and includes, but is not limited to, the floodplain, the flood fringe, wetlands, riparian buffers or other such areas adjacent to the main channel. If stored in a flood-prone area, the material shall be stored in one or more secondary containment structures with an impervious liner and be removed entirely from the flood-prone area at least 24 hours prior to an anticipated storm event that could potentially inundate the storage area. Any storage of these materials outside of a flood-prone area that is in proximity to natural or man-made drainage conveyances where the materials could potentially reach a river, stream, or other waterbody if a release or spill were to occur, must be stored in a bermed or diked area or inside a secondary containment structure capable of preventing a release. Any spills, leaks or releases of such materials shall be addressed according to Sections 107.16 (b) and (e). Accumulated rain water shall be pumped out of impoundment or containment areas into approved filtering devices. All proposed pollution prevention measures and practices must be identified by the Contractor in his Pollution Prevention Plan as required by the Specifications, other Contract documents or the *VPDES General Permit for Discharge of Stormwater from Construction Activities*.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

[SS202-002016-01](#)

November 14, 2018

**VIRGINIA DEPARTMENT OF TRANSPORTATION**  
**2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS**  
**SECTION 202—FINE AGGREGATE**

**SECTION 202—FINE AGGREGATE** of the Specifications is revised as follows:

**Section 202.03(e) Deleterious Material** is replaced with the following:

**Deleterious Material:** The amount of deleterious material in sands shall be not more than the following:

<b>Material</b>	<b>% by Weight</b>	<b>AASHTO Test Method</b>
Clay lumps	0.25	T112
Shale, mica, coated grains, soft or flaky particles	1.0	T113
Organic material	0	T21
Total material passing No. 200 sieve by washing <sup>1,2</sup>		T11 and T27
For use in concrete subject to abrasion	3	
For other concrete	5	

<sup>1</sup>In the case of stone sand, if the material passing the No. 200 sieve is dust of fracture, essentially free from clay and shale, the percentages shown for use in concrete subject to abrasion and in other concrete may be increased to 5.0 percent and 7.0 percent, respectively.

<sup>2</sup>In the case of blends of stone sand and natural sand, provided the natural sand contains no greater than 3% passing the No. 200 sieve for use in concrete subject to abrasion and no greater than 5% for other concrete, then the stone sand limits of 5% and 7% shall apply to the blend.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS238-002016-01

August 9, 2018

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 238 – ELECTRICAL AND SIGNAL COMPONENTS**

**SECTION 238 – ELECTRICAL AND SIGNAL COMPONENTS** of the Specifications is amended as follows:

**Section 238.02(h)7 – Backplates for signal heads** is replaced with the following:

**Backplates for signal heads** may be either aluminum or aluminum composite, unless otherwise specified in the Plans. ABS plastic shall not be used.

**Aluminum** shall be 0.06-0.08 inch thick, smooth, flat, and free of metal burrs and splinters. Aluminum alloy shall conform to Section 229.

Aluminum Composite shall be a 0.07-0.09 inch thick aluminum plastic composite. The composite shall be manufactured by bonding two panels of aluminum to an extruded polyethylene core using a thermoset adhesive under tension and pressure in a continuous process. The interior coating of the aluminum panels shall be coated with an epoxy chromate primer for added bonding strength with the polyethylene.

a. **Black (non-reflective) Signal Backplates:**

Aluminum black signal backplates shall be entirely powder coated black in accordance with manufacturer's instructions.

For aluminum Composite black backplates, both sides of the aluminum composite exterior shall be entirely coated with black fluoropolymer paint.

b. **High-Visibility Signal Backplates (HVSBS)** shall be preassembled by the manufacturer with a 3-inch retroreflective fluorescent yellow border on the outside of the front of the backplate.

All retroreflective sheeting on the front surface of the backplate shall be ASTM D4956, Type XI fluorescent yellow from the Materials Division's Approved Products List 46, which shall be warranted in accordance with Section 247.03.

Retroreflective sheeting shall be applied to the backplate with a zero-degree orientation (downweb direction perpendicular to the road) and adhered to the backplate in accordance with the retroreflective sheeting manufacturer's instructions. Retroreflective sheeting shall be butt spliced when more than one piece of sheeting is adhered to the backplate. For each surface of the backplate, a maximum of five butt splices shall be used for three-section and four-section signal heads, and a maximum of nine butt splices shall be used for five-section signal heads.

Aluminum HVSBSs shall be manufactured by covering the entire front surface with the retroreflective sheeting specified above, then subsequently applying black color to the front surface, except for the outer 3 inches of the front of the backplate which shall remain fluorescent yellow. The black color on the front surface of the backplate shall be obtained by screen printing or applying acrylic film. Black color on the back surface of Aluminum HVSBS backplates shall be obtained by applying acrylic film to the aluminum or by screen printing on sheeting applied to the aluminum. Aluminum preparation and application of sheeting and film shall be in accordance with the sheeting manufacturer's instructions.

Aluminum Composite HVSBSs surfaces shall be coated with black fluoropolymer paint suitable for proper retroreflective sheeting adhesion. Retroreflective sheeting shall be applied to the outer 3 inches of the front surface of the backplate as specified above.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS244-002016-02

April 15, 2019

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 244 – ROADSIDE DEVELOPMENT MATERIALS**

**SECTION 244 – ROADSIDE DEVELOPMENT MATERIALS** of the Specifications is amended as follows:

**Section 244.02(b) – Topsoil** is amended by replacing the first paragraph with the following:

Topsoil may be naturally occurring or may be manufactured and shall be free of foreign objects such as refuse, woody vegetation, stumps, roots, brush, stone larger than 3/4 inches, viable noxious weeds or weed seed, plant propagules, and any other material toxic or deleterious to plant growth. Maximum size of other foreign objects shall be 2 inches. Topsoil shall conform to the following:

**Section 244.02(b)1 – Class A topsoil** is replaced by the following:

**Class A topsoil** shall be stockpiled topsoil that has been salvaged from within the project limits in accordance with Section 303.04(a). It shall be the original layer of the soil profile formed under natural conditions, and its physical, chemical, and biological characteristics shall be consistent with the “A” horizon soil profile as defined by the United States Department of Agriculture–Natural Resources Conservation Service (USDA–NRCS) Soil Survey Division.

**Section 244.02(b)2 – Class B topsoil** is amended by replacing the first paragraph with the following:

Class B topsoil shall be topsoil furnished from sources outside the project limits and shall be either the original top layer of a soil profile formed under natural conditions, or manufactured top soil. Regardless of the source, all topsoil shall have the physical, chemical, and biological characteristics consistent with the “A” horizon soil profile as defined by USDA–NRCS Soil Survey Division. If the topsoil is not manufactured topsoil, then it shall consist of natural, friable, loamy soil without admixtures of subsoil or foreign materials. The Contractor shall provide to the Engineer a source of materials for topsoil planned for use on the project prior to use.

**Section 244.02(l) – Rolled Erosion Control Products** is replaced by the following:

Rolled Erosion Control Products:

1. Rolled Erosion Control Products (Standard EC-2) shall conform to Table II-22C and the following requirements. EC-2 products shall be designed for use on geotechnically stable slopes and channels as detailed herein.
  - a. EC-2, Type 1 shall be a relative short-term single-net erosion control blanket or open weave textile. EC-2, Type 1 shall be one of the following materials: (1) an erosion control blanket composed of processed degradable natural or polymer fibers mechanically-bound together by a single degradable synthetic or natural fiber netting to form a continuous matrix; or (2) an open weave textile composed of processed degradable natural or polymer yarns or twines woven into a continuous matrix. EC-2, Type 1 shall typically have a 12-month functional longevity from the date of installation and be designed for shear stresses up to 1.50 pounds per square foot, for use on up to 1V:3H slopes and channels.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- b. EC-2, Type 2 shall be a relative short-term double-net erosion control blanket. The blanket shall be composed of processed natural or polymer fibers mechanically bound between two natural fiber or synthetic nettings to form a continuous matrix. EC-2, Type 2 materials shall typically have a 12-month functional longevity from the date of installation and be designed for shear stresses up to 1.75 pounds per square foot, for use on up to 1V:2H slopes and channels.
  - c. EC-2, Type 3 shall be an extended term erosion control blanket or open weave textile. EC-2, Type 3 blankets shall be one of the following materials: 1) an erosion control blanket composed of processed slow degrading natural or polymer fibers mechanically-bound together between two slow degrading synthetic or natural fiber nettings to form a continuous matrix; or 2) an open weave textile composed of processed slow degrading natural or polymer yarns or twines woven into a continuous matrix. EC-2, Type 3 material shall typically have a 24-month functional longevity from the date of installation and be designed for shear stresses up to 2.00 pounds per square foot, for use on slopes up to 1V:1.5H and channels.
  - d. EC-2 Type 4 shall be a long-term erosion control blanket or open weave textile. EC-2, Type 4 blankets shall be one of the following materials: (1) an erosion control blanket composed of processed slow degrading natural or polymer fibers mechanically-bound together between two slow degrading synthetic or natural fiber nettings to form a continuous matrix; or (2) an open weave textile composed of processed slow degrading natural or polymer yarns or twines woven into a continuous matrix. EC-2, Type 4 material shall typically have a 36-month functional longevity from the date of installation and be designed for shear stresses up to 2.25 pounds per square foot, for use on up to 1V:1H slopes and channels with.
2. **Permanent Rolled Erosion Control Products (Standard EC-3)** shall be permanent turf reinforcement mats conforming to Table II-22D and the following:
- a. **EC-3, Type 1** shall be a non-degradable mat of sufficient thickness, strength and void space for permanent erosion protection and vegetation reinforcement on geotechnically stable slopes with gradients up to 1V:1.5H, channels with design shear stresses up to 6.0 pounds per square foot, and on other areas where design flow conditions exceed the limits of sustainability for mature natural vegetation.
  - b. **EC-3, Type 2** shall be a non-degradable mat with sufficient thickness, strength and void space for permanent erosion protection and vegetation reinforcement on geotechnically stable slopes with gradients up to 1V:1H, channels with design shear stresses up to 8.0 pounds per square foot, and other areas where design flow conditions exceed the limits of sustainability for mature natural vegetation.
  - c. **EC-3, Type 3** shall be a non-degradable mat with sufficient thickness, strength and void space for permanent erosion protection and vegetation reinforcement for use on geotechnically stable slopes up to 1V:0.5H, channels with design shear stresses up to 10.0 pounds per square foot, and other areas where design flow conditions exceed the limits of sustainability for mature natural vegetation.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 244.02(o) – Sediment Tubes** is replaced with the following:

Sediment Tubes shall be composed of compacted material such as certified 100% weed free curled excelsior wood with 80% of the fiber being at least 4 inches in length, natural coconut fibers (bristle and mattress form obtained from freshwater cured coconut husk.), certified 100% weed free agricultural straw, certified 100% weed free hardwood mulch, or a mix of these materials or other VDOT-accepted materials enclosed by a tubular flexible outer netting material consisting of one of the following:

- Seamless, photo-degradable, high-density, polyethylene, polyester, or ethyl vinyl acetate, treated with ultraviolet stabilizers.
- Seamless, non-degradable, high-density polyethylene.
- Seamless, non-degradable, high-density polypropylene.
- Coir netting or coir fastening twine.

Sediment tubes of washed shredded recycled rubber particles with a minimum of 98% of metal removed contained in seamless, non-degradable, high-density polypropylene may be used for Inlet Protection and Temporary Check Dams in accordance with the Standard Drawings.

Straw, curled excelsior wood, or natural coconut products that are rolled up to create a sediment tube without an outer netting will not be allowed. Natural pine needles, leaf mulch, and grass clipping-filled sediment tubes will not be permitted.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS247-002016-01

March 6, 2019

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 247 – REFLECTIVE SHEETING**

**SECTION 247 – REFLECTIVE SHEETING of the Specifications is replaced with the following:**

**247.01 – Description**

This specification covers reflective sheeting used on traffic control devices to provide a retroreflective surface or message. The color of the reflective sheeting shall be as specified in the Contract. Reflective sheeting shall be certified in accordance with Section 106.06.

**247.02 – Detail Requirements**

Reflective sheeting shall be selected from the Department's Approved List 46. Except where outdoor testing is not required (as noted herein), the sheeting and any applied coatings including inks, overlay films, and all other coatings shall be tested by either NTPEP, the Department, or other Department-approved facilities, to ensure all the materials and the completed sign meet the outdoor weathering requirements in ASTM D4956 for both Retroreflectivity and Daytime Color (Chromaticity and Luminance Factor %).

Reflective inks and overlay films shall be approved by the sheeting manufacturer.

All orange and pink sheeting shall be fluorescent (except where noted).

- (a) **ASTM D4956, Type IX and XI Reflective Sheeting** shall be used for **Overhead Permanent Signs** as specified in Section 701.

Retroreflectivity and Color requirements shall be maintained for the values listed in ASTM D4956 after 3 years on the outdoor weathering test rack.

- (b) **ASTM D4956, Type IV, IX and XI Reflective Sheeting** shall be used for **Non-Overhead Permanent Signs** as specified in Section 701.

Retroreflectivity and Color requirements shall be maintained for the values listed in ASTM D4956 after 3 years on the outdoor weathering test rack.

- (c) **ASTM D4956 Type IX or XI Reflective sheeting** shall be used on **rigid devices that are not permanent signs or object markers**, including but not limited to the following:

- Temporary rigid (non-rollup) signs
- Delineators (Standard ED-2, Standard ED-3, barrier, and guardrail)
- Permanent impact attenuators (except permanent sand barrels)
- Guardrail end terminals
- Type 3 barricades (Orange sheeting does not have to be Fluorescent)
- Group 2 channelizing device vertical panels
- Directional indicator barricades
- STOP/SLOW hand paddles
- Rear panels of truck- and trailer-mounted attenuators
- Barrier panels temporarily installed on traffic barrier service

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The yellow portions of such devices shall be fluorescent.

Retroreflectivity and Color requirements for all colors (except fluorescent orange and fluorescent pink) shall be maintained for the values listed in ASTM D4956 after 3 years on the outdoor weathering test rack.

The retroreflectivity of fluorescent orange and fluorescent pink sheeting after 1 year on the outdoor weathering test rack shall be at least 50% of the retroreflectivity values specified for new (non-weathered) sheeting.

Color requirements for fluorescent orange and fluorescent pink sheeting shall be maintained after 1 year on the outdoor weathering test rack.

- (d) **ASTM D4956 Type IV reflective sheeting** meeting the ASTM D4956 Supplementary Requirements (S2) shall be used on the following traffic control devices:

- Tubular markers
- Flexible post delineators
- Drums (See Note 1 below)
- Temporary sand barrels (See Note 1 below)
- Permanent sand barrels
- Cones

Note 1 - Reflective sheeting on temporary sand barrels and drums shall also conform to the following table:

**Table 1 - Minimum Coefficient of Retroreflection  $R_A$**   
**( $R_A$  = Candelas per foot-candle per square foot)**

Observation Angle (°)	Entrance Angle (°)	White	Fluorescent Orange
0.2	-4	400	175
0.2	+30	200	100
0.2	+40	135	60
0.2	+45	120	40
0.5	-4	150	70
0.5	+30	50	30
0.5	+40	45	25
0.5	+45	40	20

The retroreflectivity of the sheeting after 1 year on the outdoor weathering test deck shall be at least 50 percent of the retroreflectivity values specified for new (non-weathered) sheeting, except that outdoor weathering testing is not required for reflective sheeting on cones.

- (e) Color requirements shall be maintained after 1 year on the outdoor weathering test rack, except that outdoor weathering testing is not required for reflective sheeting on cones. **Grade DOT-C2 Conspicuity Tape** shall conform to the retroreflectivity requirements of 49 CFR 571.108 and shall be used to delineate the back frame of trailer mounted traffic control devices (including, but not limited to, Portable Changeable Message Signs, Automatic Flagger Assistance Devices, electronic arrow boards, speed trailers, camera trailers, and portable lights) and traffic control devices equipped with gate arms. **Daytime Color shall conform to the requirements of ASTM D4956.**

Outdoor weathering testing is not required for Grade DOT-C2 conspicuity tape.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- (f) **Reflective sheeting used on Retroreflective Rollup Signs** shall conform to the following:

<b>Minimum Coefficient of Retroreflection <math>R_A</math> (<math>R_A</math> =Candelas per foot-candle per square foot)</b>					
<b>Observation Angle (°)</b>	<b>Entrance Angle (°)</b>	<b>White</b>	<b>Green</b>	<b>Fluorescent Orange</b>	<b>FluorescentPink</b>
0.2	-4	500	60	200	200
0.2	+30	200	24	80	100
0.5	-4	225	-	90	100
0.5	+30	85	27	35	35
1.0	-4	20	10	10	10
1.0	+30	15	-	8	10
1.5	-4	5	-	3	2
1.5	+30	4	-	1.5	2

Outdoor weathering testing is not required for reflective sheeting used on rollup signs.

- (g) **Reflective sheeting on hand signaling flags and gate-arm flags** shall conform to the following:

<b>Minimum Coefficient of Retroreflection <math>R_A</math></b>		
<b>Observation Angle (°)</b>	<b>Entrance Angle (°)</b>	<b>Orange/Red Sheeting (<math>R_A</math>)</b>
0.2	-4	50

### 247.03 – Reflective Sheeting Warranty Requirements

The minimum values of retroreflectivity maintained during the warranty period shall be the same as those required for the maintained coefficient of retroreflection values as indicated in ASTM D4956 for Outdoor Weathering Photometric Requirements for All Climates.

Loss of colorfastness is considered to have occurred if the color of the sheeting is not within the color specification limits in ASTM D4956 during the full duration of the warranty period.

Warranty periods shall begin on the date of installation. Contractor shall label permanent signs with date of installation as per Section 701.

- (a) **Permanent Devices with ASTM D4956 Types IX or XI sheeting:** 12-year warranty with 7 years being 100% full replacement covering all material and labor costs associated with fabrication and installation of the sign or device and the final 5 years being 100% sheeting material replacement cost.
- (b) **Permanent Devices with ASTM D4957 Types IV sheeting:** 10-year warranty with 7 years being 100% full replacement covering all material and labor costs associated with fabrication and installation of the sign or device and the final 3 years being 100% sheeting material replacement cost.
- (c) **Temporary rigid signs, rollup signs, and other temporary devices:** 3-year full replacement covering all material and labor costs associated with fabrication of the sign or device.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS302-002016-02

March 13, 2019

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 302 – DRAINAGE STRUCTURES**

**SECTION 302 – DRAINAGE STRUCTURES** of the Specifications is amended as follows:

**Section 302.03 – Procedures** is amended by inserting the following after the fourth paragraph:

The joint type for pipes and precast drainage units will be shown on the Plans. Joint types follow:

- **Soil Tight joints** shall resist infiltration of particles larger than those retained on the No. 200 sieve. Soil tight joints protect against infiltration of backfill material containing a high percentage of coarse grain soils.
- **Silt Tight joints** shall resist infiltration of particles smaller than particles that pass through a No. 200 sieve. Silt tight joints protect against infiltration of backfill material containing a high percentage of fines and typically include some type of filtering or sealing component such as geotextile or elastomeric rubber seals.
- **Leak Resistant joints** shall limit water leakage to no more than 200 gallons per inch in diameter per mile per day for the specified pipeline head or pressure.
- **Special Design joints** shall resist bending or shear and pull-apart. Special design joints include, but are not limited to, restrained joints, welded joints, and flanged and bolted joints. Water-tight joints providing zero leakage for the specified pipeline head or pressure are included in this category.

The Contractor shall install and join pipes and precast drainage units that will perform as specified for the joint type shown on the Plans. Joint materials shall be selected from the Department's Approved List 14. The Contractor shall install Silt Tight joints anytime the joint type is not specified on the Plans. The Inspector will verify the correct joint materials are used and installed correctly.

**Section 302.03(a)2d – Joining Pipe** is replaced with the following:

**Joining pipe:** The inspector will verify the correct joint materials are used and installed correctly, in accordance with the Department's Approved List 14 and the manufacturer's recommendations.

- (1) **Rigid pipe:** The Contractor's method of joining pipe sections shall be such that the sections are aligned and firmly joined to form the joint as specified on the Plans.
- (2) **Flexible pipe:** Flexible pipe sections shall be aligned and firmly joined to form the joint as specified on the Plans.

**Section 302.03(a)3 – Tunneling operations** is amended by replacing the sixth paragraph with the following:

Joints will be designed by the Engineer and specified on the Plans.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 302.03(b) – Precast Drainage Structures** is amended by inserting the following language after the first paragraph:

Precast units, excluding concrete pipe and prestressed concrete items, conforming to the requirements herein will only be accepted under a Quality Assurance (QA) Program. The Contractor shall have the producer perform quality control functions in accordance with a Department approved QA plan. Each piece, manufactured under the QA program, in addition to the date and other required markings, shall be stamped with the letters (QC), as evidence that the required quality control procedures have been performed by the producer. Each shipping document shall be affixed with the following:

We certify that these materials have been tested and conform to VDOT Precast Concrete Products Quality Assurance Program

---

Signature and Title

**Section 302.03(b)1 – Standard Precast Drainage Units** is replaced with the following:

**Standard precast drainage units** shall conform to the material requirements of AASHTO M 199 and the following:

- a. If the grade on the adjacent gutter is less than 1.5 percent, the grade on the invert of the throat section of the inlet shall be at least 1.5 percent. Precast throats having flat inverts will be permitted in sag locations provided the total length of the required throat opening does not exceed 6 feet.
- b. Pipe openings in precast drainage units shall not exceed the outside cross-sectional dimensions of the pipes by more than a total of 8 inches regardless of the placement of the pipes, the angles of intersection, or the shapes of the pipes. Pipe openings shall be formed, neatly drilled, or neatly cut.
- c. The Contractor shall use the connection specified on the Plans to connect pipe to structure.
- d. When precast units are to be located adjacent to the subbase or base pavement course, the Contractor shall furnish units with chambers having weep holes 3 inches in diameter and hardware cloth. Weep holes shall be located to drain the subbase or base.
- e. Precast units located adjacent to cast-in-place concrete items, such as flumes, ditches, and gutters shall be connected to the adjacent unit by means of No. 4 smooth steel dowels spaced on approximately 12-inch centers throughout the contact length and extending at least 4 inches into the precast unit and the cast-in-place item. If holes to receive the dowels are provided in the precast unit, they shall be not more than 5/8 inch in diameter. The Engineer must approve other methods of providing the connection, such as keyed joints prior to fabrication.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- f. The chamber section shall be installed in the plumb position. The throat and top sections shall have positive restraints, such as adjacent concrete, pavement, or soil, on all sides to prevent displacement and shall have a positive interlock, such as dowels, with the chamber section. The throat and top sections shall be installed to conform to the normal slope of the finished grade and may be canted up to a maximum grade of 10 percent. The chamber may be built up to a maximum of 12 inches at any point to provide for complete and uniform bearing of the throat and top sections on the chamber flat slab top or other approved top section. The built-up section shall be constructed using whole concrete spacer units where feasible and partial and whole sections of concrete block or brick with high-strength grout and mortar. High-strength grout shall be used to provide the final grade adjustment and uniform bearing. The width of the built-up section shall match the wall thickness of the chamber section. The concrete block and brick shall be thoroughly bonded with mortar and the inside and outside of the built-up section shall be plastered with mortar except that the concrete spacer unit shall not be plastered.

**Section 302.03(b)2 – Precast arches** is amended to replace c “**Joints**” with the following:

**Joints:** Precast arch joints shall meet the requirements of AASHTO R 82 and be on VDOT Materials Division Approved List No. 14 for pipe joints. The joint type shall be installed as specified on the Plans.

**Section 302.03(c) – Drop Inlets, Manholes, Junction Boxes, Spring Boxes, Intake Boxes, and Endwalls** is amended by replacing the ninth paragraph with the following:

Inlet and outlet pipe connections shall be as specified on the Plans. Pipe sections shall be flush on the inside of the structure wall and shall project outside sufficiently for proper connection with the next pipe section. When masonry connections are used, the masonry shall fit neatly and tightly around the pipe, and shall be finished on the exterior of the structure before backfilling, and finished on the interior of the structure after backfilling of the structure.

**Section 302.04 – Measurement and Payment** is amended by replacing the fifth paragraph with the following:

**Pipe** will be paid for at the contract unit price per linear foot. This price shall include excavating, when not paid for as minor structure excavation; sheeting; shoring; dewatering; disposing of surplus and unsuitable material; removing and disposing of existing drainage structures; and removing and restoring existing surfaces. The upper 4 inches of bedding material and the Class I backfill material within the neat lines shown for each foundation type on the Standard PB-1 drawings shall be included in the price for the related pipe. When unit prices for extended pipelines are not specified, the unit price for new pipe of the same size shall apply. When not a pay item, the cost of temporary stream relocation to facilitate the installation of the pipe shall be included in the price for the pipe. The cost of fittings, anti-seepage collars, and anchor blocks shall be included in the price for the pipe.

**Section 302.04 – Measurement and Payment** is amended by replacing the eighth paragraph with the following:

**Reinstalled pipe** will be measured in linear feet along a line parallel to the flow line and will be paid for at the contract unit price per linear foot of pipe. This price shall include excavation, when not paid for as minor structure excavation involved in removing pipe, hauling, cleaning, relaying, backfilling, necessary cutting for joining to other sections of pipe, furnishing and installing new coupling bands, joint sealer, etc.; disposing of surplus excavation, and replacing any otherwise usable sections damaged or broken because of the negligence of the Contractor. This price shall also include sheeting; shoring; dewatering; and removing and restoring existing surfaces.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 302.04 – Measurement and Payment** is amended by replacing the eleventh and twelfth paragraphs with the following:

**Minor structure excavation** for pipes and culverts will be measured and paid for in accordance with Section 303.06.

**Cast-in-place box culverts** will be measured in cubic yards of concrete and pounds of reinforcing steel and will be paid for at the contract unit price per cubic yard of concrete and per pound of reinforcing steel. These prices shall include sheeting, shoring, dewatering, waterproofing, disposing of surplus and unsuitable material, removing and restoring existing surfaces, the upper 6 inches of bedding material within the neat lines shown on the Standard PB-1 drawings, and all necessary work to key the bottom slab into an existing rock foundation. When not a pay item the cost of temporary stream relocation to facilitate the installation of the structure shall be included in the price for the concrete and steel.

**Section 302.04 – Measurement and Payment** is amended by replacing the fourteenth paragraph with the following:

**Precast box culverts** will be measured in linear feet along the centerline of the barrel from face of curtain wall to face of curtain wall and will be paid for at the contract unit price per linear foot, unless they are substituting for cast-in-place box culverts. If precast box culverts are substituted for cast-in-place box culverts, payment will be made at the contract unit price per cubic yard of concrete and per pound of reinforcing steel for the cast-in-place box culvert plan quantities. This price shall include designing, casting, reinforcing, sheeting, shoring, dewatering, installing, waterproofing, sealing joints, anchoring, disposing of surplus and unsuitable material, removing and restoring existing surfaces, the upper 6 inches of bedding material within the neat lines shown on the Standard PB-1 drawings, fittings, and providing buffer zones and porous backfill for multiple lines. When not a pay item the cost of temporary stream relocation to facilitate the installation of the structure shall be included in the price for the box culvert.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS303-002016-04

March 14, 2019

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 303 – EARTHWORK**

**SECTION 303 – EARTHWORK** of the Specifications is amended as follows:

**Section 303.02(c) – Geotextile materials used for embankment stabilization** is replaced with the following:

**Geotextile materials used for embankment stabilization** shall conform to Section 245.03(d).

**Section 303.02(f) – Fabric used for Turbidity Curtains** is inserted as follows:

**Fabric used for Turbidity Curtains** shall conform to Section 245.03(k).

**Section 303.03(b) – Soil Stabilization** is amended by replacing the first paragraph with the following:

**Soil Stabilization:** The Contractor shall begin soil stabilization as soon as practicable, but no later than the end of the next business day, following the day when the land-disturbing activities on any portion of the Project have permanently or temporarily ceased for an anticipated duration of greater than 14 days. The Contractor shall complete soil stabilization within seven days of reaching final grade or from when land-disturbing activities have permanently or temporarily ceased for an anticipated duration of greater than 14 days. Initiation of soil stabilization includes, but is not limited to, prepping the soil for vegetative or non-vegetative stabilization, applying mulch or other non-vegetative product to exposed soil, and seeding or planting the exposed area. The Contractor can initiate soil stabilization activities on a portion of the area to be stabilized and not on the entire area, so long as the initiation and completion of stabilization activities occurs on the entire disturbed area within the allowable timeframe for soil stabilization. Areas within 100 feet of the limits of ordinary high water or a delineated wetland are excluded from this requirement, but the work shall be continuously prosecuted until completed, and then stabilized immediately upon completion of the work in each impacted area. Soil stabilization includes: temporary and permanent seeding, riprap, aggregate, sod, mulching, and soil stabilization blankets and matting in conjunction with seeding. The applicable type of soil stabilization shall depend upon the location of areas requiring stabilization, time of year, weather conditions, and stage of construction operations.

**Section 303.03(c) – Check Dams** is replaced with the following:

**Check Dams:** The Contractor shall install required check dams at the interval and locations shown on the Plans in accordance with the standard specified. When the Plans do not provide locations or intervals the Contractor shall install check dams below the outfall end of drainage structures and other necessary locations in consultation with the Engineer and in accordance the check dam standard specified.

Temporary Check Dams conforming to Standard Drawing EC-16 for temporary erosion control shall conform to Section 244.02(o). Only products on the Department's Approved List 83 may be used for temporary check dams. Substitutions for Standard Drawing EC-4 Rock Check Dams, Type I or II are not permitted.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 303.03(e)1 – Temporary Silt Fences** is replaced with the following:

Temporary silt fences: Silt fences will be specified by type and shall be erected at locations shown on the Plans or as determined by the Engineer. Posts shall be driven no less than 24 inches into the ground uniformly installed with an inclination toward the potential silt load area of at least 2 degrees but not more than 20 degrees. Geotextile fabric used for silt fences shall be provided and erected at a height of 24 inches above original ground. The bottom of the fabric shall be entrenched in the ground 12 inches (6 inches vertically and 6 inches horizontally) in a minimum 6-inch by 6-inch trench. Silt fence may also be entrenched using a slicing method with a minimum of 8 inches sliced into the ground. A continuous roll of fabric cut to the length of the silt fence is preferred to avoid the use of joints. When joints are unavoidable, fabric shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed by double folding ends together. Attaching fabric to existing trees will not be permitted.

- a. Type A silt fence usage is limited to a fill height of 20 feet or less. Posts shall not be spaced more than 4 feet apart and shall be oak wood with nominal dimensions of 2 inch by 2 inch.
- b. Type B silt fence is required for fill heights greater than 20 feet. Post shall not be spaced more than 4 feet apart and shall be steel with a minimum weight of 1.25 pounds per linear foot. Type A and B Silt Fence post shall have a finished height of no less than 6 inches above the fabric. The fabric shall be firmly secured to the post at both the top and vertical midpoint of the fabric. The top of the fabric shall be installed with a 1-inch tuck or reinforced top end section.

Type A and B Silt Fence shall be in accordance with the Standard Drawing EC-5.

**Section 303.03(e)3 – Temporary Filter Barriers** is deleted.

**Section 303.03(g) – Erosion Control Mulch** is amended by replacing the second paragraph with the following:

Mulch shall be applied to exposed slopes requiring mulch or to areas to be stabilized or paved within 48 hours after performance of grading operations in accordance with Section 603.03(e).

**Section 303.03(i) – Turbidity Curtain** is replaced with the following:

Turbidity Curtain: This work consists of installation, maintenance, and removal of a turbidity curtain, including all necessary cables, weights, and floats in accordance with this provision and in conformity with the lines, grades and details shown on the Plans or established by the Engineer. The curtain shall be provided as a temporary measure to minimize the drift of suspended material during construction of the Project.

Type I turbidity curtain shall be used in protected areas that are sheltered from waves; and exposed only to light winds, and to current velocities of less than one foot per second.

Type II turbidity curtain shall be used in areas subject to small to moderate current velocities (up to 2 knots or 3.5 feet per second) or moderate wind and wave action.

**TYPE III** turbidity curtain shall be used in areas subject to considerable current (up to 3 knots or 5 feet per second), tidal action, or where the curtain is potentially subject to wind and wave action.

In locations with currents greater than 3 knots (5 feet per second) perpendicular to the barrier, or weather conditions that cause a turbidity barrier to be ineffective, a turbidity barrier shall not be used.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

Floatation shall be flexible, buoyant units contained in a floatation sleeve or collar attached to the curtain. Buoyancy provided by the floatation units shall be sufficient to support the required width of the curtain and maintain a freeboard of at least 3 inches above the water surface level, to a minimum of one foot above the bottom or a maximum ten foot depth at all stages of water levels.

Load lines shall be fabricated into the top and bottom of the curtain. The top load line shall consist of woven webbing or vinyl-sheathed steel cable and shall have a minimum break-strength of 9,800 pounds. The bottom load line shall consist of a chain incorporated into the bottom hem of the curtain of sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided if necessary to top load lines. The load lines shall have suitable devices, which develop the full breaking strength for connecting to load lines in adjacent sections.

The Contractor shall submit Working Drawings to the Engineer for review in accordance with Section 105.

The curtain shall be placed at the locations shown on the Plans and in accordance with the approved Working Drawings. The Contractor shall maintain the turbidity curtain in order to ensure the continuous protection of the waterway.

The curtain shall extend the entire depth of the watercourse whenever the watercourse is not subject to tidal action or significant wind or wave action.

In tidal or wind-and-wave action situations, the curtain shall never touch the bottom. A minimum 1-foot gap shall be established between the weighted lower end of the skirt and the bottom at the mean low water.

Turbidity curtains installed in a navigable waterway shall be marked with lighted buoys that conform to U.S. Coast Guard regulations.

When the curtain is no longer required as determined by the Engineer, the curtain and related components shall be removed in such a manner as to minimize turbidity. The curtain and related components shall become the property of the Contractor and shall be removed from the project.

**Section 303.03(j) – Inlet Protection** is inserted as follows:

When sediment retention rolls are used in accordance with the EC-6 standard for Type A or Type B inlet protection they shall conform to Section 244.02(o). Only sediment retention roll products on the Department's Approved List 83 may be used for inlet protection Type A or B.

**Section 303.04(i)1 – Settlement plates** is amended to replace the third paragraph with the following:

Settlement plates shall remain in place until settlement has been completed as indicated by elevation readings taken by the Engineer at approximately 2-week intervals. Evaluation of the readings by the Engineer will be the final and sole governing factor for releasing embankments for grading operations. Upon written release by the Engineer, extensions of settlement plate pipe shall be removed to at least 2 feet below the subgrade, the pipe filled with lean grout, and the area backfilled and compacted. Other types of settlement gauges (e.g. Manometer Settlement Gauge) may be used as approved by the Engineer.

**Section 303.06(e)4 – Check dams** is replaced with the following:

Check dams (Rock Check and Temporary) will be measured in units of each and will be paid for at the contract unit price per each. This price shall include furnishing, excavating, constructing, maintaining and removing the check dams if, or when, no longer required.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 303.06(e)5 – Temporary silt fence type A** is renamed **Temporary silt fence type A or B** and replaced with the following:

Temporary silt fence type A or B will be measured in linear feet from edge of the fabric to edge of fabric, complete-in-place, excluding laps, and will be paid for at the Contract linear foot price. Decomposed or ineffective geotextile fabric replaced after 6 months from the installation date will be measured in linear feet of temporary silt fence type A or B and paid for at 1/2 the contract unit price for temporary silt fence. Decomposed geotextile fabric required to be replaced prior to 6 months after installation will not be measured for payment. This price shall include furnishing, installing and maintaining the silt fence, including fabric and posts; removing and disposing of these materials, and dressing and stabilizing the area.

Section 303.06(e)6 – Temporary silt fence type B is deleted.

**Section 303.06(e)8 – Temporary Filter Barriers** is deleted.

**Section 303.06(e)16c – Inlet Protection Type C** is deleted.

**Section 303.06(e)20 – Turbidity Curtain** is replaced with the following:

Turbidity curtain will be measured in linear feet from edge of the curtain along the support cable. Turbidity curtain will be paid for at the contract unit price per linear foot for the type specified. This price shall include design details, furnishing, installing, maintaining, and removal of all materials necessary to complete the work.

Section 303.06 – Measurement and Payment is amended by revising the Pay Item Table as follows:

The following Pay Items are removed:

<b>Pay Item</b>	<b>Pay Unit</b>
Check dam (Type) (Log, rock, or straw)	Each

The following Pay Items are inserted:

<b>Pay Item</b>	<b>Pay Unit</b>
Check dam (Type) (Temporary(Size) rock, or straw)	Each

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS701-002016-01

March 11, 2019

VIRGINIA DEPARTMENT OF TRANSPORTATION  
2016 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS  
**SECTION 701 – TRAFFIC SIGNS**

**SECTION 701 – TRAFFIC SIGNS** of the Specifications is amended as follows:

**Section 701.02 – Materials** is replaced with the following:

- (a) **Reflective sheeting** shall conform to Section 24 7 and shall be selected from the Department's Approved List 46. The color for the legend and background shall be in accordance with the MUTCD and as specified in the Plans.
1. **Overhead Permanent Signs** (signs attached to sign structures which overhang travel lanes) that are not illuminated with sign lighting shall use ASTM D4956 Type XI reflective sheeting. Overhead permanent signs that are illuminated with sign lighting shall use ASTM D4956 Type IX sheeting.
  2. **Non-Overhead Permanent Signs** (including ground-mount signs, signs attached to traffic signal supports, and signs attached to sign structures that do not overhang travel lanes) shall use ASTM D4956 reflective sheeting as follows:

Background Color of Sign	Sheeting Type <sup>1</sup>
White	ASTM D4956 Type XI
Red	ASTM D4956 Type XI
Yellow	ASTM D4956 Type XI <sup>2</sup>
Fluorescent Yellow-Green	ASTM D4956 Type XI <sup>3</sup>
Green	ASTM D4956 Type XI
Black	ASTM D4956 Type XI
Purple	ASTM D4956 Type XI
Brown	ASTM D4956 Types IV, IX, or XI
Blue	ASTM D4956 Types IV, IX, or XI

<sup>1</sup>The following signs may use ASTM D4956 Types IV, IX, or XI, regardless of color: Pushbutton education signs (R10-series signs mounted adjacent to pedestrian pushbuttons), Signs erected on bikeways physically separated from adjacent roads, R7- or R8-series parking restriction signs located on non-limited-access highways, D10-series Reference Location Signs (mile markers) and Intermediate Reference Location Signs, and Post-mounted street name signs.

<sup>2</sup>The yellow portions of all yellow W1-series (horizontal change of alignment) signs, W10-series (railroad warning) signs, and object markers, including supplemental plaques erected beneath those signs, shall be fluorescent. All other yellow sheeting on signs may be fluorescent or non-fluorescent.

<sup>3</sup>All temporary and permanent warning signs related to school zones, pedestrians, or bicyclists (including associated supplemental plaques) shall use fluorescent yellow-green sheeting where required by the VA Supplement to the MUTCD unless otherwise specified on the Plans.

- (c) **Sign panel rivets** for overhead signs attached to cantilever, butterfly, or truss sign structures shall be powder coated to match the color of the portion of the sign sheeting from which the rivets will protrude. The rivets shall be fabricated in accordance with Standard Drawing SPD-1.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- (c) **Sign panel substrates for permanent flat sheet signs** shall be in accordance with the below table, and shall be smooth, flat, and free of metal burrs and splinters.

<b>Sign width<sup>1</sup></b>	<b>Allowable substrate</b>
47 inches and less	0.080 or 0.100 inch aluminum
48 inches and more	0.100 inch aluminum
Overlay panel	0.063 inch aluminum

<sup>1</sup>For diamond-shaped signs, width is measured along the sign's edge.

Aluminum substrates for permanent flat sheet signs and overlay panels shall be aluminum alloy in accordance with Section 229.02(a).

- (d) **Extruded sign panels** shall conform to the Standard Drawings and Section 229.02(c).

- (e) **Temporary signs** shall conform to Section 512.02.

**Section 701.03(a)2 – Sign Panels** is deleted.

**Section 701.03(a)3 – Applying retroreflective background sheeting** is replaced with the following:

**Applying retroreflective background sheeting:** Sheeting shall be applied according to the manufacturer's instructions and the detailed requirements herein.

The Contractor shall fabricate sign panels 16 square feet or less from a single piece of applied sheeting with no joints, splices, or laps, except that one factory splice from each roll is permitted..

When applying more than one width of reflective sheeting to a sign panel, sheeting edges shall form a clean vertical joint. Sheeting edges shall be applied in accordance with manufacturer's installation instructions to prevent edge lifting and allow for sheeting expansion under high temperature and humidity conditions.

The finished sign shall be free from cracks, gaps, streaks, wrinkles, blisters, discoloration, buckles, and warps and shall have a smooth surface of uniform color.

**Section 701.03(a)4 – Letters, numerals, arrows, symbols, borders, and other features of the sign message** is amended to replace the first paragraph with the following:

**Letters, numerals, arrows, symbols, borders, and other features of the sign message:** Features of the sign message shall conform to the MUTCD and the Virginia Standard Highway Signs Book. Units of the sign message shall be formed to provide a continuous stroke width with smooth edges and a flat surface free from warps, blisters, wrinkles, burrs, and splinters. Features shall also conform to the following:

**Section 701.03(b) – Transportation and Storing Signs from the Fabricator** is amended to replace the third paragraph with the following:

The Contractor may remove signs from storage and install them on their structural supports before the structure is erected; however signs and structural supports placed in the field prior to erection shall be supported and stored at a sufficient angle to facilitate water runoff from the sign while preventing the sign from coming in contact with the ground and preventing sign structure elements from sitting in standing water.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 701.03(d) – Erection** is amended to replace the first paragraph with the following:

**Erection:** The Contractor shall install sign panels on overhead sign structures with the required minimum and maximum vertical clearances as shown on Standard Drawing OSS-1, and with the lateral and vertical placement shown on the Plans.

**Section 701.03(d) – Erection** is amended to replace the fifth paragraph with the following:

Vertical and horizontal spacing between installed signs shall be approximately 1 inch where multiple signs are installed on the same structure, unless shown otherwise on the Plans.

**Section 701.03(d) – Erection** is amended to replace the thirteenth paragraph with the following:

Overlay panels shall be erected with aluminum rivets no less than 3/16 inch in diameter and of such length as to fasten the panels securely and form a compressed head conforming to the manufacturer's recommendations. Rivets shall be located on 12-inch centers for 0.080 inch aluminum overlays and on 15-inch centers for 0.063 inch aluminum overlays, positioned 1 inch from each panel's edges, completely around the sign's perimeter. Where overlayment panels are 30 inches or greater in width, a column of rivets shall be installed on 12-inch centers for 0.080 inch aluminum overlays or 15-inch centers for 0.063 inch aluminum overlays down the centerline of the panel. Rivets shall be installed in such a sequence as to prevent buckling of the panels. When overlaying extruded aluminum signs, rivets shall be arranged to go through the flat part of the extrusion.

**Section 701.03(f) – Documentation Requirements** is replaced with the following:

1. **Labels.** All new permanent signs shall include fabrication labels, and a VDOT Identification Label. Labels may be made of either a self-adhesive, permanent weather resistant material or permanent sign material, and shall be a minimum 4-inch by 4-inch in size.

All information on such signs shall be indicated with sign ink or other permanent means capable of resisting weathering for the full duration of the sign sheeting warranty period, except that dates may be indicated with punching out of appropriate squares. All new signs shall be indicated "new" on the VDOT Identification Label.

Prior to applying the labels, the area shall be thoroughly cleaned to ensure proper adhesion or application of ink. Labels shall be placed on the back side of the sign panel in a location where they will not be obscured by sign supports or mounting hardware.

- a. **Fabrication labels.** Labels provided by the sign fabricator that indicates sheeting manufacturer's name or logo, sheeting product designations, lot numbers, sign fabricator's name or logo, and month and year the sign was fabricated. All text and logos shall be at least 1 inch in height. For signs with multiple sheeting designations and/or multiple lot numbers, additional labels or supplemental labels are permitted.
- b. **VDOT Identification Label.** VDOT's standard 4.5-inch by 4.5-inch label shall be affixed to all new permanent traffic control device signs, as per the Virginia Supplement to the MUTCD.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

2. **Inventory Sheet.** The Contractor shall provide an .xlsx formatted file to the Engineer, using a sign inventory template provided by the Engineer. The file shall include the information required above for the label, as well as the following:

- a. Route no.
- b. Project UPC no. (if applicable).
- c. Station or milepost information.
- d. Lane designation.
- e. *MUTCD*, if applicable and if denoted on the plans.
- f. Sign message.
- g. Sign width.
- h. Sign height.

The cost of preparing and submitting the .xlsx formatted file shall be included with the cost of the sign panel pay items.

**Section 701.04 – Measurement and Payment** is amended to replace the first paragraph with the following:

**Sign panels** will be measured in square feet and will be paid for at the Contract square foot price. This price shall include sign substrate, background sheeting, sign messages, finishing, framing units, hanger assemblies, bracing, stiffeners, splicing, backing strips, post clips/post clamps, warranty, and labeling.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

SS703-002016-01

December 14, 2018

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SUPPLEMENTAL SPECIFICATION FOR  
**SECTION 703 – TRAFFIC SIGNALS**

**SECTION 703 – TRAFFIC SIGNALS** of the Specifications is amended as follows:

**Section 703.02(d) – Signal Heads** is amended to replace the fourth and fifth paragraphs with the following:

Backplates shall be included with all vehicle traffic control signal heads unless otherwise specified in the Contract. Backplates shall be specifically manufactured for the type and brand of traffic signal heads used or shall be of a universal design expressly manufactured for various types and brands of traffic signal heads. Backplates shall have a border width of 5 inches, shall be without louvers, and be of one-piece construction with the exception of those for five-section cluster signal heads, which may be a maximum of three pieces. All outside corners on backplates shall have a 3 inch radius.

Black Signal Backplates (both sides) and signal leveling attachments shall be flat black. Black signal backplates shall be aluminum or aluminum composite. Aluminum and aluminum composite shall conform to Section 238.

High-Visibility Signal Backplates (HVSBs) shall be provided if specified in the plans. HVSBs may be aluminum or aluminum composite; ABS plastic shall not be used. HVSBs shall be preassembled by the manufacturer in accordance with Section 238 of the Specifications.

**Section 703.03(e)1a** is replaced with the following:

Unless otherwise directed by the Engineer, backplates shall be attached with either bolts, washers, and lock nuts, or with self-tapping screws and washers.

The minimum number of fasteners connecting the backplate to the traffic signal head shall be four for each 12-inch traffic signal head section. Fasteners and all miscellaneous hardware shall be stainless steel unless otherwise directed by the Engineer. The fasteners shall be a minimum 3/16 inch diameter and 1/2 inch long.

When HVSBs are to be installed on new signal heads, cutting the backplate is not required unless otherwise directed by the Engineer.

**Section 703.04 – Measurement and Payment** is amended to replace the thirteenth paragraph with the following:

**Traffic Signal Head Section** will be measured in units of each for the LED module size and backplate type specified and will be paid for at the Contract each price. This price shall include mountings, molded terminal block, visor, backplate, retroreflective sheeting (if required), fittings, realignments, and LED module.

**Section 703.04 – Measurement and Payment** is amended by revising the Pay Item Table as follows:

The following pay item is removed:

<b>Pay Item</b>	<b>Pay Unit</b>
Traffic signal head section (Size and type)	Each

The following pay item is inserted:

<b>Pay Item</b>	<b>Pay Unit</b>
Traffic Signal Head Section (LED module size, backplate type)	Each

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**CONCRETE FORM LINERS AND COLOR STAIN COATING**

July 2, 2019

**SECTION 506 RETAINING WALLS** of the Specifications is amended as follows:

**Section 506.03 Procedures** is amended to include the following:

**(d) Concrete Form Liners and Color Stain Coating**

**1. General**

a. Description

Construction of textured and colored formed concrete surfaces using simulated stone masonry form liners, and color stain system designed to duplicate the appearance of natural stone. The work covered by this special provision consists of constructing textured surfaces on formed reinforced concrete surfaces as indicated on the Plans and in this Special Provision. The Contractor shall furnish all materials, labor, equipment, and incidentals necessary for the construction of simulated rock face using simulated stone masonry form liners and a compatible concrete coloring system.

The Contractor is required to use the same source of form liner and coloration contractor for retaining walls, MSE retaining walls, cast-in-place facing on soldier pile walls and soil nail wall, and noise abatement barrier walls (sound walls).

b. Quality Assurance

Manufacturer of simulated stone masonry molds: Five years experience making stone masonry form liners to create formed concrete surfaces to match natural stone shapes and surface textures.

Pre-Installation Meeting: Schedule conference with manufacturer(s) representative to assure understanding of simulated stone masonry use, color application, requirements for construction of mockup, and to coordinate the work.

Source Limitations for Form-lined Concrete: Concrete form liners, form release agent, concrete stain, and application of concrete stain to be provided by one source with resources to provide technical assistance and products of consistent quality in appearance and physical properties without delaying the work to all associated manufacturer's, contractors, and sub-contractors.

c. Submittals

Sample Panel: Within 30 days of receiving the general contract Contractor is required to submit a 24" x 24" sample of the simulated stone masonry finish. Sample is to demonstrate the finish for noise abatement barriers, retaining walls, and MSE panels for this project. Approval of sample panel is required by the Engineer. County concurrence is requested for aesthetics.

Shop Drawings: Plan, elevation and details to show overall pattern, joint locations, form tie locations, and end, edge and other special conditions.

Samples: Form ties, sample and description, showing method of separation when forms are removed.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

d. Job Conditions

Environmental requirements: Apply color stain when ambient temperatures is between 50 and 100 degrees F. Consult manufacturer if conditions differ from this requirement.

- e. Schedule color stain application with earthwork and back-filling of any wall areas making sure that all simulated stone texture is colored to the minimum distance below grade. Delay adjacent plantings until color application is completed. Coordinate work to permit coloring applications without interference from other trades.

Design and pattern of the concrete surface shall follow the manufacturer's standard drawing. Patterning of simulated stone masonry shall appear natural and non-repeating. Seam lines or match lines caused from two of more form liners coming together will not be apparent when viewing final wall.

**2. Concrete Form Liners**

The materials used in construction of the architectural treatment shall comply with VDOT Road and Bridge Specifications for concrete materials and form work. Simulated ashlar stone form liners shall be used at locations designated on the Plans to receive an architectural finish. The Contractor shall submit samples to the Engineer for approval.

**a. Pre-Qualified Suppliers**

Available suppliers: Subject to compliance with requirements, suppliers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Hunt Valley Contractors, Inc.**

3705 Crondall Lane  
Owings Mills, MD 21117  
Telephone: (410) 356-9677  
<http://www.huntvalleycontractors.com/>

**Greenstreak**

3400 Tree Court Industrial Boulevard  
St. Louis, Missouri 63122  
Telephone: (800) 325-9504  
<http://www.greenstreak.com/>

**Symons Corporation**

200 E. Touhy Avenue  
Des Plaines, Illinois 60018  
Telephone: (847)298-3200  
<http://www.symons.com/index.htm>

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**b. Materials**

(1) Simulated Stone Finish Form Liners

Simulated stone form liners shall be used which will result in the finish detail indicated in the special provisions and approved by the Engineer. Samples shall be submitted by the Contractor for approval by the Engineer. Simulated stone form liners shall be a high quality re-usable product manufactured of high strength urethane, which attaches easily to the forming system and shall not compress more than 0.021' when poured at a rate of 10 vertical feet per hour. Single use form liners will not be acceptable for this project. The liners shall be capable of withstanding anticipated concrete pour pressures without leakage causing physical or visual defects. The liners shall be removable without causing concrete surface deterioration.

Form oil shall be a nonstaining petroleum distillate free from water, asphaltic and other insoluble residue or equivalent product. The Contractor is cautioned that the approved form oil shall be worked into all areas, especially pattern recesses. Form stripping methods and patching materials shall be compatible with the color system and be submitted to the Engineer for approval.

(2) Drystack Stone Pattern

This stone pattern shall consists of a random drystack stone pattern ranging in size between 6" and 36" in both height and width. Individual stone sizes shall vary. The dimension of form liner reveal from the outermost face of stone to the inside face of the grout joint shall be 2" on average with a 3" max. The width of joints between individual stones shall be between 1-1/8" and 2". It would be acceptable to provide the formliner in up to four segments that can be keyed together, and have the capability of being rotated 180 degrees to result in different pattern combinations. Any proposed segments shall be shown on shop drawing submittals. Any variation in the length of the form liner modules shown on the Contract Documents shall be accommodated by field adjusting (splicing in a matching textured liner or removing a segment and blending the joint) of the form liner without impacting the overall appearance of the pattern or individual stones. Any field adjustment shall be done within the body of the stones and not allow joints to line up between modules.

(3) Form Release Agent

Form release agent shall be a non-staining petroleum distillate free from water, asphaltic and other insoluble residue, or equivalent product. Form release agents shall be mutually compatible with the color system to be applied.

(4) Form Ties

When form or wall ties are used which result in a portion of the tie permanently embedded in the concrete, the Contractor shall submit the type of form ties to the Engineer for approval prior to use in this work.

(5) Color Stain

Color stain system application: Manufacturer or manufacturer's authorized representative.

**c. Construction**

(1) Shop Drawings

Prior to beginning any work for the concrete to receive the simulated stone finish, working drawings representing the full size of the unit shall be provided for the simulated stone form liner pattern. The working drawings shall be drawn at a scale sufficient to show the detail of all stone and joint patterns, and the layout of the finish pattern.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The working drawings shall be submitted to the Engineer for approval. Any revisions to the working drawings shall be performed at no additional cost to the Department.

(2) Sample Panel

Once the representative working drawings have been approved, the Contractor shall then provide and erect on site a 10'-0" high x 12'-0" long x 8 in. thick sample panel for the Drystack Stone Pattern simulated stone masonry form liner patterns. The sample panel shall be unreinforced, vertically cast, and shall be constructed with all materials including form or wall ties proposed for use for constructing the simulated stone masonry finish. Approval of the texture, size, joint dimension, stone size of the sample panel is required from the Engineer at least 30 days prior to starting construction of the structure. **James City County concurrence is requested on the sample panel.**

Approval of hand applied color to the sample panel is required from the Engineer at least 30 days prior to starting coloration of the structure. The sample panel shall show the simulated stone form liner patterns for the project. Sample panels deemed unacceptable by the Engineer shall be removed from the project and replaced by additional sample panels at no additional cost to the Department.

The location of the sample panel shall be readily visible from the proposed work where possible and placed as approved by the Engineer. The sample panel approved by the Engineer shall remain on the site as a basis for comparison for the work constructed on the project. All work constructed on the project shall duplicate this sample panel in form, architectural surface treatments, and appearance (texture, size, joint dimension and stone size). The Contractor shall dispose of the sample panel at the completion and acceptance of all work pertaining to the simulated stone finishes as determined by the Engineer.

(3) Architectural Finish

Simulated stone form liners shall be installed, prepared, stripped, handled or otherwise utilized in conformance with the manufacturer's recommendations, or as directed by the Engineer. The simulated stone form liners shall be capable of withstanding anticipated concrete pour pressures without leakage causing physical or visual defects. The simulated stone form liners shall be removable without causing concrete surface deterioration or weakness in the substrate. Form release agents, form stripping methods and patching materials, as well as related construction shall be mutually compatible with special surface finish and color system to be applied.

Liner butt joints shall be carefully blended into the approved pattern and be removed during finishing of the final concrete surface. Visible vertical or horizontal seams or conspicuous form marks created by butt joining the stone form liners will be cause for rejection. Form tie holes shall be placed in the grout pattern joints. The ties shall be designed so that all material in the device to a depth of at least 1 in. behind the concrete face (bottom of grout pattern joint) can be disengaged and removed without spalling or damaging the concrete. The tie holes shall be finished in conformance with standard concrete practices and acceptable to the Engineer. All patching material shall match the color and appearance of the cast concrete surface.

(4) Form Liner Preparation

Prior to each concrete pour, the form liners shall be clean and free of build-up. Each liner shall be visually inspected for blemishes and tears. Repairs shall be made in accordance with the manufacturer's recommendations. Repairs shall be accepted by the Engineer before being used. Form liner panels that do not perform as intended or are no longer repairable shall be replaced.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

(5) Form Liner Attachment

Form liners shall be securely attached to forms in accordance with the manufacturer's recommendations, with less than a 1/4" seam. Blend form liner butt joints into the stone pattern and finish off the final concrete surface. Create no visible vertical or horizontal seams or conspicuous form liner butt joint marks. At locations where the form liners are joined, carefully blend to match the balance of the stone pattern. Form liners shall be installed to withstand anticipated concrete placement pressures without leakage and without causing physical or visual defects. Wall ties shall be coordinated with the form liner system. The Contractor shall have a technical representative from the form liner manufacturer on site for technical supervision during the installation and removal of form liners. Unless directed by the Engineer, installation and removal of form liners shall not be permitted if the technical representative is not present.

Form stripping and related construction shall avoid creating defects in finished surface.

Where stone texture is to continue across top of wall, a finish to achieve a continuity of the formed pattern must be done by hand when concrete is being poured. Hand carve and emboss the wet, pliable concrete, aligning rustication joints with those in the formed pattern. Great care must be taken to achieve intended relief and texture as per the Engineer's direction.

Where an expansion joint must occur at a point other than at mortar or rustication joints, such as at the face of concrete texture that is to have the appearance of stone, the manufacturer for proper treatment of expansion material shall be consulted.

(6) Form Release

Form release agent shall be applied in accordance with the manufacturer's recommendations. The material shall be compatible with the form liner material and the concrete coloring system and in accordance with this Special Provision. Form release agent should be worked into all areas, especially pattern recesses.

(7) Finishing

All form tie holes and other defects in finished uncolored surface shall be filled or repaired within 48 hours of form removal. Use patching materials and procedures in accordance with the manufacturer's recommendations.

Final surface shall be free of blemishes, discolorations, surface voids, and other irregularities. All patterns should be continuous without visual disruption.

Reinforced concrete shall be finished in accordance with the VDOT Road and Bridge Specifications except that curing of concrete should be done to accommodate the application of coloring and surface finish treatment.

(8) Grout pattern joints

Grout pattern joints shall be constructed to simulate the appearance of mortared joints produced in laid up masonry work. Grout pattern joints shall be produced in accordance with the form liner / concrete color system manufacturer.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**3. Color Stain Coating**

**a. Description**

This work shall consist of furnishing and applying color stain coating in accordance with this provision and in conformity with the details and locations indicated on the plans. The color of the coating shall be Federal Standard Color number 595A-26400 or as approved by the Engineer.

**b. Materials**

Color stain coating shall be from the Department's current Approved List 30 concrete surface color coatings.

**c. Detail Requirements**

**(1) Locations**

Except as otherwise specified on the plans, the color stain coating shall be applied to all concrete surfaces which have the rustic ashlar stone pattern. Copings, parapets, overhangs, decks, barriers, etc. shall NOT have the color stain coating applied unless otherwise specified on the plans.

**(2) Procedures**

The concrete stain coating shall be applied in accordance with the manufacturer's recommendations, except as otherwise specified. The color surface color coating shall not be applied until all concrete placement operations for the particular structure have been completed. The concrete surface shall be clean, free of any curing agents, form release agents, foreign substances, or signs of efflorescence at the time of application.

All work shall be performed by experienced workmen familiar with concrete finishing work and with the materials specified. Surfaces not to be treated shall be protected from splatter.

Materials shall be delivered to the job site in sealed containers bearing the manufacturer's labels. Materials shall be mixed and applied in accordance with the manufacturer's printed instructions of which two copies shall be furnished the Engineer.

All Simulated Stone surfaces that are to be stained and any patching that has been done in these areas shall be at least 30 days old.

Clean surface prior to application of stain materials to assure that surface is free of latency, dirt, dust, grease, efflorescence, paint, or other foreign material, following manufacturer's instructions for surface preparation. Do not sandblast. Preferred method to remove latency is pressure washing with water, minimum 3000 psi (a rate of three to four gallons per minute), using fan nozzle perpendicular to and at a distance of one or two feet from surface. Surface shall be free of blemishes, discoloration, surface voids, and unnatural form marks.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

(3) Protection

Where exposed soil or pavement is adjacent which may spatter dirt or soil from rainfall, or where surface may be subject to over spray from other processes, provide temporary cover of completed work.

**4. Measurement and Payment**

No separate measurement and payment will be made for this work. All cost for the development and preparation of shop drawings, the furnishing of all form liners, the construction and finishing of the test panel, the services of the manufacturer's representative, the application of the simulated stone form liner finish including application of color stain coating, and all labor, equipment, and incidentals necessary to complete the work as specified above and in the plans should be included in the bid price for the pertinent retaining walls.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**ADVANCED TRANSPORTATION CONTROLLER (ATC) CABINET -  
5-DOOR CONFIGURATION**

August 14, 2018

**I. DESCRIPTION**

This Special Provision describes the Advanced Transportation Controller (ATC) Cabinet— 5-Door Configuration for the Virginia Department of Transportation. The ATC Cabinet— 5-Door Configuration shall include one ITS Housing #3 type cabinet, two Mounting Cages, and be mounted on an oversized base adapter. Facing the front, the right rack cage, Segment A, shall be the ATC cabinet side with modular and interchangeable ATC assemblies interconnected through an advanced serial data bus. The left rack cage, Segment B, shall include the Auxiliary Communications Panel, shelving for the backup power system and a power distribution unit for communications devices.

Common parts for the ATC Cabinet, Segment A, shall include: Service Assembly (SA); Input Assembly (IA); Output Assembly (OA); Power Assembly (PA) including the Alternating Current (AC) Clean Power Bus; combination Serial Bus #1 (SB1)/Serial Bus #2 (SB2) and DC Power Bus; Field Input Termination Assembly (FITA); and Field Output Termination Assembly (FOTA).

**II. EQUIPMENT**

**1. Composition**

The ATC Cabinet— 5-Door Configuration shall be furnished, ready for operation with the following composition.

**ATC Cabinet— 5-Door Configuration**

The ATC Cabinet— 5-Door Configuration shall consist of Housing 3 and two Mounting Cages as identified as Segment A and Segment B.

Segment A shall consist of:

- Service Assembly
- Power Assembly
- Input Assembly
  - Input Test Panel Assembly
- Field Input Termination Assembly
- Output Assembly
- Field Output Termination Assembly

The Power Assembly shall consist of:

- DC Power Supply
- AC Clean Power Bus
- SB1/SB2 and DC Power Bus
- Auxiliary Input / Output Assembly
- Advanced Detection Assembly

Segment B shall consist of:

- Auxiliary Communication Panel
- Power Distribution Unit
- (2) Shelf – Type I
  - (2) Shelf – Type II

## **2. General Requirements**

All Assemblies, switches, terminal blocks, and connectors in the ATC Cabinet shall be clearly and permanently labeled. All fuses, circuit breakers, switches (except police panel switches) and indicators shall be readily visible and accessible when the ATC Cabinet front door is open. All circuit breakers located on the rack shall have covers to prevent accidental tripping.

The marker strips shall be made of material that can be easily and legibly written on using a pencil or ballpoint pen. Marker strips shall be located immediately below the item they are to identify and must be clearly visible with the items installed.

Guides (top and bottom) shall be provided for assembly plug-in units. The guides shall begin 1/2 inch from the assembly front panel face.

High-voltage components (over 50 V) shall not be exposed per National Electric Code (NEC).

When servicing Segment A of the ATC Cabinet, the Input Assembly, Output Assembly, and Controller shall be replaceable in the flash mode condition, without putting the intersection in a dark condition.

All Assemblies shall be modular with pluggable cabling. All cabling shall be of sufficient length to allow for mounting the assemblies in any position within the rack. Assemblies shall not be hardwired. Wire raceways shall be integrated as part of Segment A of the ATC Cabinet allowing for neat internal and field wiring. The installation of standard rack mounted equipment shall not be blocked, hindered, or inhibited by wires and cables for the full height and width of the rack chassis.

A momentary push button switch labeled "24 VDC BYPASS" shall be located on the front of the Output Assembly that, when pressed, energizes 24 VDC to the High Density Switch Packs during flash mode for troubleshooting purposes.

### **A. Environmental and Electrical**

Ensure all components properly operate within the following limits:

- Applied Line Voltage: 90 to 135 VAC
- Frequency: 60 ( $\pm 3.0$ ) Hertz
- Humidity: 5% to 95%
- Ambient Temperature: -37 °C to +74 °C
- Shock - Test per Specification MIL-STD-810G Method 516.6
- Vibration - per Specification MIL-STD-810G Method 514.

### **B. Assemblies and Files**

All assemblies and files shall be mounted on the cage mounting rails per cabinet model detail. In Segment A, a clear area for the ATC controller unit shall be provided. The area shall extend 1-1/2 in. in front of and 16 in. behind the front Electronic Industries Association (EIA) mounting angles.

### **C. Cabinet Shipping Requirements**

The cabinet shall be delivered mounted with bolts on a ply board shipping pallet. The cabinet shall be enclosed in a slipcover cardboard packing shell. The housing doors shall be blocked to prevent movement during transportation.

### **D. Stainless Steel**

All bolts, nuts, washers, screws (size 8 or larger), hinges, and hinge pins shall be stainless steel unless otherwise specified.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**E. Protection**

All conductors, terminals and parts which could be hazardous to maintenance personnel shall be protected with suitable insulating material.

**3. ATC Cabinet Housing**

The ATC Cabinet Housing shall conform to the ITS Cabinet Standard v01.02.17b dated November 16, 2006, Section 6.2 Housings, except as specified below.

**A. General**

The ATC Cabinet Housing shall be based on the ITS Housing #3 enclosure and shall include, but not limited to, the following:

- Enclosure & Doors
- Gasketing
- Lifting Eyes & External Bolt Heads
- Door Latches & Locks
- Housing Ventilation
- Cage Supports and Mounting
- Door Hinges & Catches
- Police Panel
- Aluminum Surfaces

**B. Housing Dimensions**

The cabinet shall be 66-3/8 inches high by 44-1/2 inches wide by 26 inches deep ( $\pm 1/2$  inch). The front-to-back cabinet dimensions shall not exceed 32 inches at its widest point, including the door handles, louvers and roof overhang.

**C. Aluminum Surface Protection – Exterior Surfaces**

An aluminum surface protection shall be applied to the exterior surface of the cabinet housing. The surface protection shall be ANTI-GRAFFITI Paint.

**D. Anti-Graffiti Paint**

The anti-graffiti paint shall conform to the ITS Cabinet Standard v01.02.17b dated November 16, 2006, Section 6.2.2.3.1 for Anti-Graffiti Paint.

**E. Powder Coating – Interior Surfaces**

The interior of the cabinet housing and doors shall be powder coated white. Powder coat finish shall consist of a Urethane or Triglycidly Isocyanurate (TGIC) Polyester Powder. The interior aluminum surface shall be cleaned and prepared per the powder coating manufacturer's recommendations. The powder coating shall be electrostatically applied and then cured per the manufacturer's recommendations. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications as per ASTM D3359.

**F. Lifting Eyes and Exterior Bolt Heads**

The housing shall be provided with two lifting eyes for placing the cabinet on its foundation. Lifting eyes shall be mounted on the sides of the cabinet, centered, and extend above the top of the cabinet to provide unobstructed access to the eyes. Each eye opening shall have a minimum diameter of 3/4-inch. Each eye shall be able to support the weight load of 1,000 lbs. All bolt heads shall be tamperproof type.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**G. Door Latches and Locks**

**(1) General**

Five vertically hinged doors shall be mounted on the cabinet for interior access. Three doors, two vertically aligned on the left and one on the right, shall be located on the front face. Two doors shall be located on the rear face of the cabinet.

**(2) Enclosure Door Frames and Door Seals**

The right door on the front face and both doors on the rear face of the cabinet shall be 58-3/8 inches high by 22-1/8 inches wide ( $\pm 1/2$  inch). Each of these door openings shall not be less than 56-3/8 inches high by 20-1/8 inches wide ( $\pm 1/2$  inch).

The upper left face door, the fourth door, shall be 34 inches high by 22-1/8 inches wide ( $\pm 1/2$  inch) with a door opening not less than 30 inches high by 20-1/8 inches wide ( $\pm 1/2$  inch).

The lower left face door, the fifth door, shall be 24 inches high by 22-1/8 inches ( $\pm 1/2$  inch) wide with a door opening not less than 20 inches high by 20-1/8 inches wide ( $\pm 1/2$  inch).

**(3) Latching Handles**

The latching handles shall have provision for padlocking in the closed position. Each handle shall be 3/4 inch minimum diameter stainless steel with a minimum of 1/2 inch shank. The padlocking attachment shall be placed at 4 inches from the handle shank center. An additional 4-inch minimum gripping length shall be provided.

Door handles shall be vertical in the close position. All door handles shall rotate in a direction towards the door hinges, to open the cabinet door.

**(4) Latch and Lock Mechanism**

The latching mechanism shall be a three-point draw roller type. The pushrods shall be turned edgewise at the outward supports and have a cross section of 1/4 inch thick by 3/4 inch wide minimum. When the door is closed and latched, the door shall be locked. The lock and lock support shall be rigidly mounted on the door. The lock shall be mounted in the upper quadrant, above the handle when in its full open position. In the locked position, the bolt throw shall extend a minimum of 0.25 inch (+/-0.03125 inches) into the latch cam area. A seal shall be provided to prevent dust or water entry through the lock opening.

**(5) Lock and Keys**

The cabinet door locks shall be mounted to the cabinet with four bolts and the tumbler shall be keyed to a 2 type. One key shall be supplied with each lock. The keys shall be removable in the locked position only. A swing away cover shall be placed over the key entrance to protect the lock mechanism.

The fifth door shall be equipped with a lock. The lock shall be PELCO SM-1021/LOCKSM-1021 or equivalent. The lock shall be keyed for a master communication Key (PELCO SM-0213/KEYSM-0213) or equivalent, compatible with VDOT district interface box door locks. Two keys shall be furnished with each door lock. Each communication key shall have a shaft a minimum of 1.75 inches in length.

**H. Housing Ventilation**

Housing ventilation shall include intake, exhaust, filtration, and thermostat controlled fans.

**(1) Door Ventilation**

The front facing right door and the rear facing right door shall be provided with louvered vents. The louvered vent depth shall be a maximum of 1/4 inch. A removable and reusable air filter shall be housed behind the door

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

vents. The filter filtration area shall cover the vent opening area. A filter shell shall be provided that fits over the filter providing mechanical support for the filter. This shell shall be louvered to direct the incoming air downward. The shell sides and top shall be bent over a minimum of 1/4 inch to house the filter. The filter resident in its shell shall be held firmly in place with a bottom trough and spring loaded upper clamp. No incoming air shall bypass the filter. The bottom filter bracket shall be formed into a waterproof sump with drain holes to the outside housing.

**(2) Intake and Filter**

The intake (including filter with shell) and exhaust areas shall pass a minimum of 120 cu. ft. of air per minute.

**(3) Fans**

Four fans shall be mounted within the housing and protected with a finger guard. Each electric fan shall be equipped with ball or roller bearings and shall have a minimum capacity of 100 cu. ft. of free air delivery per minute. The fan shall be fastened to the cabinet with two thumb screws which shall not be fastened in a manner that requires any tools for removal or installation.

**(4) Temperature Controlling Panel**

Temperature Controlling Panels shall control one fan and include one thermostat, an on/off switch, fan test button, and fuses. Each fan shall be thermostatically controlled and shall be manually adjustable to turn on between 32°F and 140°F with a differential of not more than 20 degrees between automatic turn on and off. The fan circuit shall be protected at 125% of the fan motor ampacity. The manual adjustment shall be graded in 20°F increments scale. Temperature Controlling Panels shall be installed in the same section of the cabinet as the fans which they control.

**I. Hinges & Door Catches**

**(1) Hinges**

Stainless steel hinges (two bolts per leaf) shall be provided to bolt the enclosure to the doors. Provide two hinges for the fourth and fifth doors, and provide four hinges for all remaining doors. Each hinge shall be 3-1/2 inch minimum length and have a fixed pin. The pin ends shall be welded to the hinge and ground smooth. The pins and bolts shall be covered by the door edge and not accessible when the door is closed. A ground strap between the door and the main cabinet housing shall be required when 120 VAC components are mounted on the door.

**(2) Door Catches**

All five doors shall be provided with catches to hold the door open at both 90 and 165 (±10) degrees. The catch shall be 0.375 inch minimum diameter aluminum rods. The catches must be capable of holding the door open at 90 degrees in a 60 mph wind acting at an angle perpendicular to the plane of the door.

**J. Police Panel**

**(1) Manual Advance Cable**

Each cabinet shall be provided with an interval advance cord, six feet long, with a weatherproof manual police push button.

**(2) Toggle Power Switches**

The Police Panel shall include three double-pole, double-throw (DPST) switches and labelled as follows: "SIGNAL OFF / ON", "FLASH / AUTO", and "MANUAL CONTROL ENABLE OFF-ON". A receptacle for the MANUAL ADVANCE cord shall be provided.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

All switch shall be "ON" or "AUTO" when in the UP position.

The Police Panel switches shall be individually wired through factory molded connectors which allow the switches to be disconnected and not usable, as desired by the Department. These connectors shall be wired in such a way to provide full cabinet operation when any or all Police Panel switches are connected or disconnected.

**K. Cabinet Lights**

The cabinet shall include nine LED lighting fixtures AVA Technology US2324, one light shall be mounted inside the top portion of each cabinet door. Two lights shall be mounted, inside the front center structural member, equally spaced. Two lights shall be mounted, inside the rear center structural member, equally spaced.

**L. Door Switches**

Door actuated switches shall be installed on each cabinet door to turn on the cabinet lights when any of the doors are opened. There shall also be manual switches installed to activate and deactivate the lights.

Additional switches of the same type, shall be installed to actuate when either the front or rear doors are opened. A switch with similar function shall be installed to actuate when the police panel door is opened. All door open switches shall be wired as inputs to the ATC controller through SB1 or SB2. These switches will be used to provide the "Door Open" alarm when any cabinet door is opened.

**M. Drawer Shelf Unit**

A 2U, telescopic slide out drawer shall be provided to store documents. The Drawer Shelf Unit shall be mounted across the front EIA rails and extend the shelf mounting brackets to the rear EIA rails. The Drawer Shelf Unit shall be provided with a non-conductive top, locking provision when fully extended and lip or handle for pulling. The drawer storage area shall have no openings when fully closed to limit rodent intrusion, and minimum dimensions shall be 16 inches wide by 14 inches long by 3 inches deep.

**N. Backup Power Confirmation Lights**

The Cabinet shall include one red external LED confirmation light indicating when the traffic control system is not operating on primary service power. The LED confirmation light shall be approximately one inch in diameter and located above the left rear door, approximately 6 inches from the left edge of the cabinet. and halfway between the rear cabinet door and the top of the cabinet. The LED confirmation light shall have a durable gasket to ensure weatherproofing. The LED configuration light shall be neatly wired to a confirmation light relay panel mounted above the Service Assembly for ease of connecting to the backup power system. This panel shall be permanently labelled and include terminal blocks for wiring. The light shall be configured such that when the external LED confirmation light is on, the traffic control system is operating on backup power. When the external LED confirmation light is off, the traffic control system is operating on primary service power.

**O. AC- Copper Terminal Bus**

The AC- copper terminal bus shall not be grounded to the cabinet or connected to logic ground. Nylon screws with a minimum diameter of 1/4 inch shall be used for securing the bus to the service panel. The AC- copper terminal bus shall be provided with a minimum number of wiring lugs for each output channel.

If the Output Assembly is for 16 channels, a minimum of 16 available wiring lugs shall be present. If the Output Assembly is for 32 channels, a minimum of 32 available wiring lugs shall be present.

**P. External Generator Connection**

The cabinet shall be equipped with an external generator connection unless otherwise specified in the Contract. The connection access point shall be located on the hinge side of Segment B and shall have a fully gasketed, weatherproof, lockable door. The connection shall be wired such that power from the generator and the utility line passes through the UPS system, and when utility power has been restored, the generator shall be

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

automatically bypassed to utility power. The connector shall be a watertight, flange inlet, 30-amp, 125 VAC, NEMA L5-30, twist lock type receptacle, and shall be approved by the Engineer. The door shall be equipped with the same lock as specified for new controller cabinets.

#### **4. 5-Door Cabinet Rack Cages**

The 5-Door Cabinet Rack Cages shall conform to the ITS Cabinet Standard v01.02.17b dated November 16, 2006 for Cabinet Rack Cage Requirements.

#### **5. ATC Cabinet Assemblies**

##### **A. General**

The following equipment shall be completely removable from the cabinet without removing any other equipment and using only a slotted or Phillips screwdriver:

- Service Assembly (SA)
- Power Assembly (PA)
  - DC Power Supply
  - AC Clean Power Bus
  - SB1/SB2 and DC Power Bus
  - Advanced Detection Assembly
  - Auxiliary I/O Assembly
- Input Assembly (IA)
- Input Test Panel Assembly
- Field Input Termination Assembly (FITA)
- Output Assembly (OA)
- Field Output Termination Assembly (FOTA)

##### **B. Service and Power Assembly Overview**

Power for the ATC Cabinet shall originate at the Service Assembly and extend to the Power Assembly Unit of the cabinet. The Power Assembly may be a single unit or made up of separate standalone sub-assemblies.

The Serial Bus and DC power may be distributed to the Assemblies via direct connection to the SB1/SB2 and DC Power Bus or interconnected in a daisy chain method originating at the Power Assembly.

##### **C. Service Assembly**

The Service Assembly shall be modular, utilize no more than three EIA rack units (e.g. 3U) , and mount across two vertical cage angles when viewed from the front. The Service Assembly shall include, at a minimum the main breaker, a 15A circuit breaker protecting a ground fault circuit interrupter (GFCI) duplex outlet, a GFCI duplex outlet, service entrance conductor landing terminals, backup power conductor landing terminals, and a pluggable Cabinet Surge Protection Device.

If the Power Assembly is provided as multiple sub-assemblies, the Service Assembly shall also include the High-Density Flasher Unit with Serial Bus 3 interface, four raw AC+ convenience outlets NEMA 15-5 format, a Raw AC+ terminal block having a minimum of five terminal screws, and four circuit breakers for the clean power bus; raw power, GFCI, fans, and lights; HDFU, and Output Assembly.

##### **D. Power Assembly Unit**

###### **(1) General**

The Power Assembly Unit shall include the following sub-assemblies: the DC Power Supply, SB1/SB2 and DC Power Bus, AC Clean Power Outlets, Advanced Detection Assembly, and Auxiliary I/O Assembly.



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The Power Assembly may be provided as one standalone assembly coupled with a minimalized Service Assembly. The standalone assembly shall include all Service Assemble features including four flasher unit blades, blade fuses for each of the four flasher unit blades, the High-Density Flasher Unit with Serial Bus 3 interface, and four circuit breakers for the clean power bus; raw power, GFCI, fans, and lights; HDFU, and Output Assembly. The single unit Power Assembly shall also include the complete features of the DC Power Supply, SB1/SB2 and DC Power Bus, AC Clean Power Outlets, Advanced Detection Assembly, and Auxiliary I/O Assembly.

**(2) DC Power Supply**

The DC Power Supply shall be supplied with the ATC Cabinet and may be provided as standalone sub-assembly or as an integrated part of the Power Assembly. The standalone DC Power Supply shall be a modular, 19 inch EIA rack mounted device, and provide DC voltages necessary to operate the ATC Cabinet.

The DC Power Supply shall be powered from AC Line provided by the AC Line cord with NEMA Type 5-15 plug. The input voltage range shall be 80 to 270 VAC, 45 to 65 Hz. The DC Power Supply shall provide power factor corrected features and ensure a full load power factor of 0.95 or better, reducing peak AC Line input current and associated stress on wiring. The DC Power Supply shall use modern switching technology, provide full output regulation of 24 and 48 VDC across changes in AC Line voltage, and output load over the full operating temperature range of -37°C to +74°C without the need for a fan. The DC Output shall be electrically isolated from AC Mains, Earth Ground, and other DC outputs.

Separate clear LED indicators shall be provided to display green for AC input status, DC output status, and associated fuse integrity. The DC Power Supply shall be provided with fused outputs for over-current protection and shall be protected against voltage transients by a 1500 Watt suppressor.

For High Voltage (HV), 120VAC configuration, supply a. DC Power Supply rated at 168 Watts, 48 VDC at 1 Amp and 24 VDC at 5 Amps.

For Low Voltage (LV), 48 VDC configuration, supply a DC Power Supply rated at 450 Watts, 48 Vdc at 8 Amps and 24 Vdc at 5 Amps.

**(3) SB1/SB2 and DC Power Bus**

The SB1/SB2 and DC Power Bus shall be supplied with the ATC Cabinet and may be provided as a standalone sub-assembly or as an integrated part of the Power Assembly.

The SB1/SB2 and DC Power Bus as a standalone unit shall include a minimum of eight DB25 connectors or daisy chaining be permitted, to interconnect the SB1/SB2 communication ports of the assemblies and controller. It shall include a termination circuit at the end of the connections (S8) to prevent radio frequency signal reflection and exposure to environmental elements (e.g. rain). SB1/SB2 and DC Power Bus shall include one factory molded plug block to bring DC power to the SB1/SB2 and DC Power Bus; such power shall be distributed to the cabinet assemblies through eight factory molded receptacle blocks. The copper conductors for the DC voltages shall support a minimum of 10 Amps. The SB1/SB2 and DC Power Bus shall be mounted in the EIA rails and it shall swing out to provide access to the back of the assemblies mounted in the opposite side.

The SB1/SB2 and DC Power Bus as part of the Power Assembly unit shall include a minimum of two DB25 connectors marked as "IN" and "THROUGH" to interconnect the SB1/SB2 communication ports of the next adjacent assembly and the controller. The Power Assembly shall include a minimum of five assembly power factory molded plug blocks to bring DC voltages to the assemblies.

**(4) AC Clean Power Bus**

The AC Clean Power Bus shall be supplied with the ATC Cabinet and may be provided as standalone sub-assembly or as part of the Power Assembly unit. The standalone sub-assembly shall swing out to provide access to the back of the assemblies mounted in opposite side.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

The AC Clean Power Bus shall include a minimum of seven single NEMA 5-15 receptacles, to provide AC clean power to the ATC controller and auxiliary devices.

**(5) Advanced Detection Assembly**

The Advanced Detection Assembly shall be supplied with the ATC Cabinet and may be provided as a standalone sub-assembly or as an integrated part of other Assemblies. All necessary serial bus and power cabling shall be provided to connect the assembly to the cabinet busses.

The Advanced Detection Assembly shall include a minimum of three NEMA TS2 Port-1 (SDLC) 15 Pin connectors and used to interface with NEMA TS2 compatible detection systems and hardware. It shall utilize SB2 to interface with the controller and shall be configurable in the controller.

**(6) Auxiliary Input / Output Assembly**

The Auxiliary Input / Output (I/O) Assembly shall be supplied with the ATC Cabinet and may be provided as a standalone sub-assembly or as an integrated part of another Assembly. The auxiliary I/O Assembly shall provide functionality similar to a NEMA TS1 D Connector Panel allowing for 24 VDC inputs and outputs to be available to and from the controller. The Auxiliary I/O Assembly will be used to send special function outputs from the controller to cabinet devices or receive inputs from cabinet devices to the controller (e.g. UPS relay alarms, blank-out sign relay panels, preemption panels, or detection inputs) All necessary serial bus and power cabling shall be provided to connect the assembly to the cabinet busses.

The Auxiliary I/O Assembly shall include a minimum of eight inputs, eight outputs and a connection to Logic Ground (-24VDC). Each input and output shall be mapped to the controller through SB2 and shall be configurable. Each of the I/O points and the Logic Ground shall be terminated in factory molded plug blocks for ease of connection.

**E. Input Assembly (24-Channel)**

The ATC Cabinet shall include two 24-Channel Input Assemblies. The upper Input Assembly will be referred to as the "I" Assembly and the lower as the "J" Assembly.

The Input Assemblies shall be a 19 inch EIA rack mounted assembly providing twelve slots of 22/44 pin PCB sockets. A Serial Interface Unit shall be provided with each assembly, in its location mated to a DIN 96-pin connector. The Serial Interface Unit shall provide interface and control between the ATC Controller and the input assemblies via system SB1/SB2. Each slot shall be capable of providing two inputs into the controller. Slot 11 and 12 of the J Assembly shall be configured to support emergency vehicle preemption equipment. These two slots shall be configured in such a way as to provide sufficient power to the preemption detector modules. Input Assemblies shall be capable of supporting pedestrian push button detections through any slot, with the use of a DC Isolator.

Each Input Assembly shall be provided with an Opto Input Card. The Opto Input Card shall be equipped with four LED indicators and four toggle switches. Toggling any of the four switches will insert an input to the controller.

**F. Input Test Panel Assembly**

The ATC Cabinet shall include an Input Test Panel Assembly used to place vehicle, pedestrian, or preemption calls to the ATC controller through system SB1/SB2. The Input Test Panel Assembly may be a standalone 19 inch EIA rack mounted unit or integrated into another sub-assembly. The Input Test Panel Assembly shall be provided with 16 toggle switches and include a LED function indicator light for each switch. Switches shall be provided with the following three positions: ON (place call), OFF (normal detector operation), and Momentary ON (place momentary call and return to normal detector operation after the switch is released). Each switch shall be permanently labelled 1 through 16. The 16 toggle switches shall be mapped to an internal Serial Interface Unit and can be addressed to Serial Interface Unit 10-13 by a separate 4 position selector switch on the front panel.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**G. Field Input Termination Assembly**

The ATC Cabinet shall include two 24-Channel Field Input Termination Assemblies. The 24-Channel Field Input Termination Assembly shall be coupled with the corresponding 24-Channel Input Assembly. The Field Input Termination Assembly shall be provided with positions for landing 24, two-wire inputs and their associated earth ground wires. The Field Input Termination Assembly shall have positions for 12 Detection Module Suppressors. Supply the Detection Module Suppressors with the cabinet. The 24-Channel Field Output Termination Assembly shall be mounted across the EIA rails. The 24-Channel Field Input Termination Assembly shall swing down to provide access to the back of the assemblies mounted in the opposite side.

**H. Output Assembly (16- or 32-Channel)**

The ATC Cabinet with 16 output channels shall be a 19 inch EIA rack mounted device and include one 16 Channel Output Assembly. The Output Assembly shall house eight High Density Switch Packs and shall provide forty eight load circuits. One Serial Interface Unit shall provide interface and control between the Output Assembly and the ATC. The Output Assembly shall house the Cabinet Monitor Unit, Main Contactor, Stop Time Switch, Flash / Auto Switch, four Circuit Breakers and Momentary 24 VDC Bypass Switch.

The ATC Cabinet with 32 output channels shall be a 19 inch EIA rack mounted device and include one 32-Channel Output Assembly. The Output Assembly shall house sixteen High-Density Switch Packs and shall provide ninety six load circuits. Two Serial Interface Units shall provide interface and control between the Output Assembly and the ATC. The Output Assembly shall house the Cabinet Monitor Unit, the Main Contactor, Stop Time Switch, Flash / Auto Switch, eight Circuit Breakers and Momentary 24 VDC Bypass Switch.

**I. Field Output Termination Assembly**

The 16-Channel Field Output Termination Assembly (FOTA) shall be interconnected with the 16-Channel Output Assembly and shall house eight High Density Flash Transfer Relays (HDFTR) and 16 Flash Program Blocks (FPB). The HDFTRs and FPBs shall be provided to control and select the color (red, yellow, or dark) during ATC Cabinet flash mode. Pluggable and replaceable transient protectors shall be provided at the field terminals for the protection of the High Density Switch Packs. A visual method shall be provided to indicate when the transient protector has failed. Label each HDFTR position with the number of its associated High Density Switch Pack (1-16). Each FPB position shall be labelled with the number of its associated channel (1-16). A FOTA shall be provided with sixteen 6-position factory molded terminal blocks. Each terminal block receptacle shall be labelled with the number of its associated channel (1-16). Additional labels shall be provided to clearly indicate which terminals correspond to the red, yellow, and green switch pack outputs. The color of these labels shall be matched to the color of their associated output (red, yellow, or green).

Provide one Field Output Termination Assembly with a 16-Channel Output Assembly.

Provide two Field Output Termination Assemblies with a 32-Channel Output Assembly.

The 16-Channel Field Output Termination Assembly shall be mounted across the 19 inch EIA rack directly behind the Output Assembly. The 16-Channel Field Output Termination Assembly shall swing down to provide access to the HDSP transient protectors.

## **6. ATC Cabinet Components**

**A. Cabinet Monitor Unit**

A Cabinet Monitor Unit (CMUip) shall be provided for cabinet monitoring, to query various cabinet conditions, and, if the application requires action, transfer control from the ATC to a flashing control mode. The CMUip shall be developed specifically for the ATC Cabinet, pluggable, interconnect with the Output Assembly, and include communication circuitry to interface SB1 and SB3. The CMUip shall include a microprocessor, memory devices including non-volatile memory, and front panel indicators. The CMUip shall have the capability to fully monitor 32 output channels and utilize direct SB3 communication to each High Density Switch Pack – Flasher Unit for field voltage and load current status. The CMUip shall be programmed with an interchangeable Datakey and include an Ethernet port for diagnostics and remote management. The CMUip shall include a built-in

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

diagnostic wizard that: analyzes the ATC controller output commands and High Density Switch Pack – Flasher Unit field input status; isolates whether the cabinet fault was caused by an ATC malfunction, failure in the load bay, or field wiring; identifies the faulty channels and output directly; and provides guidance on how the technician should isolate the cause of the malfunction.

The High Voltage (HV) rated CMUip shall be provided for 120 VAC operation.

The Low Voltage (LV) rated CMUip shall be provided for 48 VDC operation.

**B. MonitorKey Programming Tool**

A MonitorKey Programming Tool shall be provided with the capability to Read and Write data from the CMUip Datakey device. The MonitorKey software shall be of the same manufacturer and fully compatible with the provided CMUip.

**C. Cabinet Monitor Unit – Auxiliary Display Unit**

A Cabinet Monitor Unit – Auxiliary Display Unit (ADU) shall be provided of the same manufacturer and fully compatible in function and operation with the CMUip. The ADU shall be a 19 inch rack mounted device, utilize one rack space, and powered from the cabinet 48 VDC supply. All indicators shall be clear LEDs and shall not depend on reflectors or diffusion as part of the design. Clear LEDs shall not appear to be on when exposed to ambient light. The ADU shall provide 32 columns of LED indicators corresponding to channels 1 through 32. Each column shall be composed of a Red, Yellow, and Green status plus a Blue LED for fault status. The ADU shall provide an enhanced user interface for the ATC Cabinet Monitor Unit system and provide the ability to view status, configuration settings, voltages, and event logs through an LCD menu driven display. The LCD display shall provide detailed status information from the CMUip and displays from the built-in diagnostic program providing views of the signal states involved in a fault, pinpoints faulty signal inputs, and guidance on how the technician should isolate the cause of a malfunction.

**D. High Density Switch Pack - Flasher Unit**

Compact, pluggable, modular PCB-based High Density Switch Pack – Flasher Units (HDSP-FU) shall be provided with the ATC Cabinet. The HDSP-FU shall be compatible with ultra-low power (less than 2 watts) LED signal heads and has a current monitoring feature for each output of each channel. The HDSP-FU shall use real-time standardized high speed SB3 communications to send a complete set of RMS voltage and load current measurements to the Cabinet Monitor Unit. The HDSP-FU shall be 4-1/2 inches high x 6-1/2 inches deep and equipped with a handle, reset push button switch, six RYG LED indicators, four flasher LED indicators, one power LED indicator and two Rx/Tx LED indicators. The HDSP-FU shall function as either a switch pack (HDSP) or as a flasher unit (HDFU). When installed in the Output Assembly, the HDSP-FU shall function as a switch pack with two RYG channels of operation (six outputs). When the HDSP-FU is installed in the Service/Power Assembly, it shall function as a four output flasher unit.

The High Voltage (HV) rated HDSP-FU shall be provided for 120 VAC operation.

The Low Voltage (LV) rated HDSP-FU shall be provided for 48 VDC operation.

**E. Serial Interface Unit**

The Serial Interface Unit (SIU) shall function as the cabinet communications and control unit. The SIU shall be a compact, modular PCB-based device with a half-width faceplate, and pluggable. The SIU shall use real-time standardized 614.4 Kbps communications with the ATC to transfer command and response data on SB1 and SB2. Each SIU shall be equipped with 54 programmable input/output pins, four optically isolated input pins, one line sync reference input pin and 4 address select input pins. The optically isolated inputs shall be either 120 VAC or 24 VDC. The SIU outputs shall be rated at 150 mA continuous sink current, a 500 mA typical current limit on each output, rated to 50 V, and utilize a voltage clamp for inductive transient protection. The SIU shall be equipped with a front panel LED indicator that can report the current SIU assembly address assignment for cabinet configuration verification. The SIU shall be equipped with a front panel serial port used to provide diagnostics using monitoring software.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**F. Flash Transfer Relays**

The High-Density Flash Transfer Relay (HDFTR) shall have a hermetically sealed cover to ensure it is moisture proof. The HDFTR shall be filled with dry nitrogen to protect contacts from corrosion and to prevent condensation. The HDFTR shall be provided with a shock and impact resistant metal can cover with solid and bend proof pins. The HDFTR shall be rated for 5 Amps at 120 VAC switching, 10 Amps surge. The coil Voltage shall be 48 VDC. The HDFTR shall have an LED indicator to display contact transfer position.

**G. Cabinet Surge Protection Device**

The Cabinet Surge Protection Device shall be modular, utilize a pluggable 12-position Beau 5412 connector, rated for 120 VAC, single phase, operation, and integrate as part of the Service Assembly. The Cabinet Surge Protection Device shall incorporate warning and failure indicators with a dry relay contact remote sensing circuit. The Cabinet Surge Protection Device shall be rated at continuous service current of 15 Amp, maximum clamp voltage of 340 VAC, and filter noise and spike from 10 KHz to 25 MHz with a peak surge current of 45.5 kA/total.

**H. High Density Switch Pack Transient Protector**

The High Density Switch Pack Transient Protector shall be designed specifically for traffic controller cabinet operation, modular, and pluggable. Provide the unit epoxy encapsulated and equipped with 9-position 5.08 mm factory molded connector. The unit shall protect up to six circuits. The High Density Switch Pack Transient Protector shall have an operating voltage of 120 VAC, clamping voltage of 340 VAC, and peak surge current of 39 kA. Ensure the unit dimensions are no greater than 2 inches high by 0.7 inches wide by 2 inches long.

**I. Detection Module Suppressor**

Ensure the Detection Module Suppressor is modular and pluggable. Provide the unit epoxy encapsulated and equipped with 6-position 5.08 mm factory molded connector. The unit shall provide differential and common mode protection for up to six circuits. Provide device operating voltage of 75 VDC and clamping voltage of 130 VDC. Ensure the unit dimensions are no greater than 2 inches high by 0.7 inches wide by 1.2 inches long.

**J. Main Contactor**

The Main Contactor (MC) shall be mercury free, rated at 120 VAC at 60 Amps. The MC coil shall be rated at 48 VDC and shall be equipped with an input indicator and SPST – N.O. contacts.

**K. Two-Channel DC Isolator**

Conform to the ITS Cabinet Standard v01.02.17b dated November 16, 2006 for Two-Channel DC Isolator.

**L. Two-Channel AC Isolator**

Conform to the ITS Cabinet Standard v01.02.17b dated November 16, 2006 for Two-Channel AC Isolator.

**M. Shelf - Type I**

Provide a shelf that mounts across all four 19 inch EIA rack rails and provides a surface that extends from the front to the back rails. The shelf shall be of the same material as the cage rails and have a minimum weight capacity of 200 lbs. to support up to two backup power system batteries. The shelf shall be vented to allow heat to pass through the shelf surface.

**N. Shelf - Type II**

Provide a cantilever shelf that mounts across a 19 inch EIA rack and is mounted behind the Auxiliary Communication Panel. The Shelf - Type II shall provide a minimum surface of two inches. The shelf shall be of the same material as the cage rails and have a minimum weight capacity of 200 lbs. to support up to two backup power system batteries. The shelf shall be vented to allow heat to pass through the shelf surface.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**O. AC Power Distribution Unit**

The AC Power Distribution Unit shall be a 19 inch EIA rack mounted device and installed in Segment B for the purpose of supplying clean AC power to communications equipment. The AC Power Distribution Unit shall interface with the Service Assembly, clean power receptacle mounted in Segment A. The Unit shall include a minimum of seven single NEMA 5-15 receptacles and include a resettable load protection device.

**P. Auxiliary Communications Panel**

**(1) Auxiliary Communications Panel**

The Auxiliary Communications Panel shall be used to mount lease line communication hardware on a vertical plywood back board installed behind the fifth door of the cabinet. The plywood backboard shall be attached to a metal panel structure that mounts across the EIA rails and is set back 8 inches into the rack cage.

The panel shall be made up of rack mount angles (ears), solid side walls, and the metal back plate. The panel shall be fabricated from the same material as the cabinet. The panel shall be mounted across the two front EIA rails with a minimum of four rail attachment points per side.

**(2) Panel Dimensions**

The Auxiliary Communications Panel shall be manufactured to mount across the two 19 in. EIA rails with a minimum opening of 17 inches inside the rails. The panel shall be 20 inches tall ( $\pm 1/2$  inch), and fabricated to provide 8 inches of depth into the rack cage.

**(3) Panel Board and Power Receptacles**

A 3/4 inch plywood backboard shall be mounted across the back panel. The panel board shall be centered on the panel, be 20 inches tall and have a minimum of a 1/2 inch gap between the backboard and the panel side walls. One 15 amp double duplex GCFI receptacle shall be installed, mounted to the comm. panel and passing through the panel board, 4 inches from the right and 6 inches from bottom of the panel. Install a 60 inch SJOOW rubber cord 15 Amp male cord cap inside the cabinet connected to raw AC power.

**7. Cabinet Base Adapter**

**A. Cabinet Base Adapter**

The Base Adapter shall be fabricated of the same material and finish as the cabinet housing.

**B. Base Adapter Dimensions**

The base adapter shall be a minimum of 12 inches high and similar dimensions as the ITS Housing #3, 44 1/2 inches wide by 26 inches deep ( $\pm 1/2$  inch). The top and bottom of the base adapter shall have an opening that matches the opening of the cabinet housing, approximately 36 inches wide by 20 inches long ( $\pm 1/2$  inch).

**C. Hardware**

Four bolt sets shall be supplied with each Cabinet Base Adapter. A bolt set shall consist of one bolt, two flat washers, and one nut. The bolt shall be stainless steel, 3/4 inch in diameter, and shall be 1-1/2 inches long. Flat washers and nut shall be made of the same material as the bolt.

**D. Anchor Bolt Holes**

Anchor bolt holes shall be installed on the top and bottom of the Cabinet Base Adapter. Four, 1 inch by 2 inch obround, punched holes shall be installed on the top of the adapter that match the anchor bolt holes of the ITS Housing #3 type cabinet. Provide bolts, nuts, washers, and lock washers to bolt the cabinet to the base adapter through these holes. Four, 1 inch by 2 inch obround, punched holes shall be installed on the bottom of the adapter that also match the anchor bolt holes of the ITS Housing #3 type cabinet.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**E. Structural Requirements**

Construct the base adapter so that it does not sag under the weight of the fully loaded cabinet. Any internal members must not obstruct cables going from Segment A to Segment B of the cabinet, nor to the conduits below. All seams shall be continuously welded and ground smooth.

**8. Documentation**

Provide one electronic version (PDF format) and two full size, 24 inch by 36 inch, prints of the cabinet circuit diagram. The prints shall be produced from the original drawing and shall be clear and legible. Place both hard copies of the circuit diagram inside the sliding drawer in a readily accessible waterproof enclosure.

**9. Integration and Testing**

Integration and Testing shall be conducted in accordance with Section 703.03(j) of the Specifications.

**10. Warranty**

Traffic signal equipment cabinets and all cabinet components shall be warranted to be free of defects in material and workmanship for three years from date of acceptance by the Department. The manufacturer's warranty shall be provided in writing with each traffic signal equipment cabinet. During the warranty period, the manufacturer shall repair with new materials, or replace at no charge, any product exhibiting a warranty defect. All materials returned for warranty repairs shall be made through the manufacturer or product distributor at no added charge to the Department.

**III. CONFIGURATIONS**

**1. ATC Cabinet Configuration**

The ATC Cabinet shall be loaded with the following components:

**A. General**

- MonitorKey Programming Tool

**B. Service Assembly/Power Assembly:**

- One Cabinet Surge Protection Device
- One High Density Flasher Unit (HV) for High Voltage Cabinets
- One High Density Flasher Unit (LV) for Low Voltage Cabinets

**C. Input Assembly - 24-Channel (Two Units):**

- Two Serial Interface Units
- Three DC Isolators
- Two AC Isolators
- Two Opto Input Cards

**D. Field Input Termination Assembly - 24-Channel (Two Units):**

- Twelve Detection Module Suppressors

**E. Output Assembly (16-Channel):**

- One Serial Interface Unit
- Eight High Density Switch Pack (HV) for High Voltage Cabinets
- One Cabinet Monitor Unit (HV) for High Voltage Cabinets

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

- Eight High Density Switch Pack (LV) for Low Voltage Cabinets
- One Cabinet Monitor Unit (LV) for Low Voltage Cabinets

**F. Output Assembly (32-Channel):**

- Two Serial Interface Units
- Sixteen High Density Switch Packs (HV) for High Voltage Cabinets
- One Cabinet Monitor Unit (HV) for High Voltage Cabinets
- Sixteen High Density Switch Packs (LV) for Low Voltage Cabinets
- One Cabinet Monitor Unit (LV) for Low Voltage Cabinets

**G. Field Output Termination Assembly (16-Channel):**

- Eight High Density Flash Transfer Relays
- Eight High Density Switch Pack Transient Protectors
- Sixteen Red Flash Program Blocks
- Four Yellow Flash Program Blocks
- Four White Flash Program Blocks

**H. Field Output Termination Assembly (32-Channel):**

- Sixteen High Density Flash Transfer Relays
- Sixteen High Density Switch Pack Transient Protectors
- Thirty-Two Red Flash Program Blocks
- Eight Yellow Flash Program Blocks
- Eight White Flash Program Blocks

**IV. PROCEDURES**

**1. Installing Ground-Mounted ATC Traffic Signal Cabinets**

Ground mounted traffic signal equipment cabinets shall be installed on a concrete foundation in conformance with Section 700 of the Specifications and the Standard Drawings. Foundations will be measured and paid for separately.

**2. Installing the Base Adapter**

Prior to bolting the Base Adapter to the foundation, apply silicone sealant to the mating surface of the adapter to prevent water from seeping between the adapter and foundation. Likewise, prior to bolting the cabinet to the base adapter, apply silicone sealant to the mating surface of the cabinet to prevent water entry. Ensure that the cabinet is plumb, using shims if necessary, and ensure that it is properly aligned with the front edge of the base adapter.

**V. MEASUREMENT AND PAYMENT**

**ATC Cabinet— 5-Door Configuration** will be measured in units of each and will be paid for at the Contract each price. This price shall include furnishing, installing, and testing of all equipment and materials, and for all tools, labor hardware, supplies, support, personnel training, shop drawings, documentation, and incidentals necessary to complete the work.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
ATC Cabinet— 5-Door Configuration ( <i>No. of Outputs, HV or LV</i> )	Each



**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**SECTION 704—PAVEMENT MARKINGS AND MARKERS**

July 29, 2019

**Section 704.03 Procedures** is amended to include the following:

**(e) Temporary Pavement Markings**

**Type A pavement markings** (temporary paint) shall be used where the roadway is to be resurfaced before changes in the traffic pattern or where pavement is to be demolished and traffic patterns will not change before demolition.

Premarking, dotting or layout marking shall not be used as a substitute for temporary pavement marking.

Type A temporary paint shall be installed in accordance with the manufacturer's installation instructions and as detailed in the following table:

	<b>Milled Surface</b>	<b>Intermediate Lifts or Final Surface</b>
<b>Thickness</b>	15 mils	8 to 10 mils <sup>1</sup>
<b>Glass Bead Application Rate</b>	6 lbs. of glass beads per gallon of material	3 lbs. of glass beads per gallon of material for 8 to 10 mils and 6 lbs. per gallon for 11 to 15 mils
<b>Long Line Width</b>	Same width as the permanent markings	75% of the permanent marking width
<b>Skip Line Pattern</b>	10-foot line segments / 30-foot gaps (approx.)	8-foot line segments / 32-foot gaps (approx.)

<sup>1</sup>Type A paint at approximately 15 mils thickness with 6 lbs. of glass beads per gallon will be permitted for the temporary lane line markings provided that the Type A is worn down to no more than 10 mils thickness prior to permanent marking installation. The contractor shall assess how long the temporary lane line, center-line and edge line temporary markings will be in service and may increase the thickness based upon the duration and expected wear.

Temporary Type A pavement markings on final surfaces shall be arranged and spaced so that they will be completely covered by the subsequent installation of permanent pavement markings atop those temporary paint markings.

The following Temporary markings location and placement types shall comply with the following:

- Skip and solid lane line markings shall be required at all locations unless otherwise directed in the Contract.
- Centerline markings shall be required at all locations unless otherwise directed in the Contract. Temporary passing zone changes shall be at the same location as the permanent marking passing zone change locations.
- Edgelines shall only be required where specified in the Contract, subject to the surface reaching a condition to support the markings and the equipment. Temporary edgelines are not required when the shoulder surface is in a milled condition.
- Temporary stop lines, when required by the Contract, shall be 12 inches wide unless otherwise directed.
- Temporary crosswalks, when required by the Contract, shall be two parallel 6-inch white lines unless otherwise directed.

Temporary lane lines, centerlines, and edge lines may be marked with Type D removable tape, Type A-temporary paint, or FTPMs. All temporary symbol and message markings and other types of temporary markings may be marked with Type D-removable tape or Type A-temporary paint.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

VTM-94 is not required for temporary pavement marking. However, if the VTM-94 moisture test is not performed, the Contractor shall document the approximate surface wetness on the Form C-85.

If the surface is visibly dry (does not have puddling or free-standing water present), the Contractor is responsible for installing and maintaining the temporary pavement markings. If the Contractor opts not to perform VTM-94 and the temporary markings applied to a visibly dry surface do not sufficiently adhere to the surface, temporary pavement markings shall be reapplied at no additional cost to the Department.

If the surface has puddling or free-standing water present, or if a VTM-94 moisture test result indicates that the condition of the surface is not suitable for temporary pavement marking application, the Engineer may direct the Contractor to install temporary pavement markings on the surface in order to avoid having traffic operate on an unmarked road. In such circumstances the Department may direct the Contractor to install one subsequent reapplication of the temporary markings once the surface has dried, if the previous installation did not satisfactorily adhere to the road. In such circumstances the Contractor will be compensated at the Contract bid price for those temporary markings.

In order to quicken the paint drying process, the Contractor may spray an Engineer-approved drying agent into the traffic paint during installation in accordance with the manufacturer's installation instructions, at no additional cost to the Department.

The Contractor may employ approved methods of drying the pavement surface that will not damage the pavement. Methods that may damage the pavement, such as "torching" of the pavement, will not be allowed. Any drying of pavement will be at no extra cost to the Department.

While in place, temporary pavement markings sizes, shapes and retroreflectivity shall be maintained at adequate visibility and retroreflectivity, as defined in Section 512, until the permanent markings are installed. No additional application (refreshing) is required as long as the temporary markings continue to meet these requirements.

If Type A temporary paint does not meet the requirements of Section 512 prior to the installation of permanent markings, such temporary markings shall be refreshed by the application of a lighter application (applied so as to enhance visibility but not as to require eradication before application of permanent markings) of Type A-temporary markings at the Contractor's expense.

Permanent pavement markings shall not be installed atop Type A temporary markings if the paint is not fully dry or if the paint exceeds the maximum specified thickness in Table VII-3. If the temporary pavement markings are not located directly underneath the location where the permanent markings are to be installed, they shall be 100% eradicated in accordance with Section 512 prior to installation of permanent markings at no additional cost to the Department.

**ORDER NO.: B49**  
**CONTRACT ID. NO.: C0000102944M01**

**Section 704.04—Measurement and Payment** is amended to include the following:

**Temporary pavement line markings** will be measured in linear feet and paid for at the Contract linear foot price for the type, class, and width specified. This price shall include furnishing, installing, and maintaining the pavement marking materials; surface preparation, inspections, testing, daily log, and guarding devices; providing primer, adhesive, glass beads, and drying agents; and disposal, and removing removable markings when no longer required.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Temporary pavement line marking (Type and/or Class and Width)	Linear foot