ESTIMATED QUANTITIES - SUPERSTRUCTURE ONLY				
Item	Units	Quantity		
Preformed Elastomeric Joint Sealer 1¾"⊗	LF	82		
Preformed Elastomeric Joint Sealer 21/2" ⊗	LF	41		
Preformed Elastomeric Joint Sealer 3" ⊗	LF	82		
NS Bridge-End Diaphragm Reconstruction	EA	8		
Concrete Superstructure Surface Repair *	SY	5		

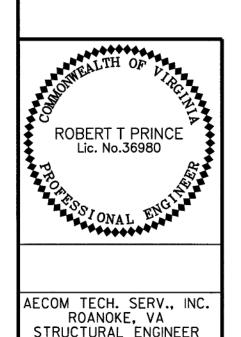
∅ Denotes items to be paid for on the basis of plan quantities in accordance with current Road and Bridge Specifications.

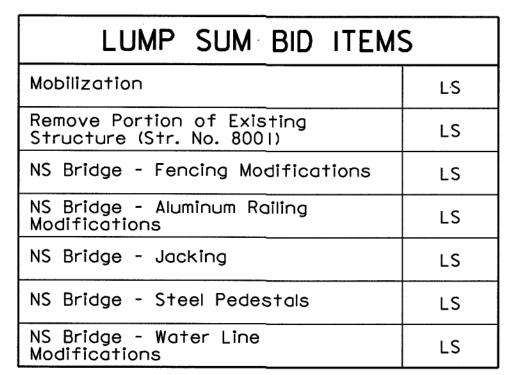
* Damage located on Beam | Span 2 above 1-581 SBL.

NS Bridge - End Diaphragm Reconstruction

Bid item shall include all material, labor and incidentals necessary to complete the end diaphragm reconstruction as noted in these plans at locations directed by the Engineer. Bid item shall include removal and disposal of deteriorated concrete and providing and installing the headed expansion bolts and the BD06 series bars.

CONCRETE	SUBSTRUCTURE	SURFACE REPAIR
Pier	Cap SY	Column SY
Pier I	43	14
Pier 2	46	29
Pier 3	29	20





Unit price bid for Concrete Substructure Surface Repairs shall include providing and installing galvanic anode units. The galvanic anodes shall be approved by the Engineer and be installed in accordance with Manufacturers recommendations. Minimum requirements of the units shall be as follows:

 Embedded anodes shall be pre- manufactured, and containing metallic zinc in compliance with either ASTM B418 or ASTM B/6B/69 or better.

 Zinc shall comply with the following limits of impurity: Copper (Cu) - 0.05% maximum Lead (Pb) - 0.006% maximum Iron (Fe) - 0.005% maximum

3. The anodes shall have a proven track record showing a minimum of five years of satisfactory performance in a similar field environment. Records shall demonstrate satisfactory flow of protective current throughout this five-year period.

4. Anodes shall have a capacity of 780 Amp-hr/Kg. Documentation shall be provided to confirm.

5. Anodes shall contain an amount of zinc sufficient to supply at least 0.20 milliamps of protective current per anode for a minimum of 10 years according to Faraday's Law. Calculations, including anode efficiency, shall be provided to confirm.

Approximate number of galvanic anode units to be installed is 800.

Remove Portion of Existing Structure (Str. No. 8001)

Bid item shall include the removal and disposal of the following:

- Existing expansion joint seals in the deck slab and sidewalks.
- 2. Aluminum nuts and washers removed from the rail posts as designated in these plans.
- 3. Sections of the aluminum rails as designated in these
- 4. Miscellaneous pieces of fencing, rails, ties, etc. that are removed as part of the modifications to the fencing system.
- Neoprene bearing pads beneath the concrete beams.
- 6. Pier stay blocks to the limits shown in these plans.
 7. Miscellaneous sections of water line, valves, joints, supports, etc. that are removed as part of the modifications to the water line system.

The Contractor is advised of the following condition:

- I. The bridge railing pads contain Category II Regulated Asbestos Containing Materials (ACM). The current contract scope of work does not include disturbance of the pads.
- 2. The joint sealer on the water line adjacent to both abutments contains trace (<1%) amounts of asbestos fibers.
- The Asbestos Inspection Report for the structure is available for review by contacting the VDOT, Salem District Environmental Section.

NS Bridge - Fencing Modifications

Bid item shall include all material, labor and incidentals necessary to complete the fencing modifications noted in these plans.

NS Bridge - Aluminum Railing Modifications

Bid item shall include all material, labor and incidentals necessary to complete the aluminum railing modifications noted in these plans.

NS Bridge - Steel Pedestals

Bid item shall include all material, labor and incidentals necessary to fabricate, deliver, install, paint, and coat, per the details noted, to include all elastomeric pads required in these plans.

NS Bridge - Water Line Modifications

Bid item shall include all material, labor and incidentals necessary to complete the water line modifications noted in these plans. The pay item shall include submitting for review and approval a detailed sequence of operations related to the water line modifications to include but not limited to the plan for taking the water line out of service (maximum outage 14 consecutive days), modifying the water line and restoring service. The sequence of operations shall be coordinated with the superstructure jacking operations and shall clearly specify the anticipated outage time required for the process. The Contractor shall submit this sequence of operations for review and approval by VDOT and the Western Virginia Water Authority (WVWA) a minimum of 30 days prior to the anticipated start date of the water line outage. Point of contact for WVWA is Travis Lane (540-857-5772).

STATE	FEDERAL AID			SHEET	
	ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		STP-BR02(393)	0000	0000-128-376, B630	2

NS Bridge - Jacking

- 1. The price bid for this item shall include jacking and temporary support of the beams, to include preparation of the jacking plan for approval, modifications to the existing structure to permit jacking, all material, labor and incidentals needed to complete the jacking operations and implement the Contractor's jacking plan and removal of jacks and temporary supports required for jacking.
- 2. The Contractor's jacking plan, including jacking and temporary support design calculations and plan details shall be submitted to the Department for review and approval 30 days prior to Contractor installing the jacks. Details shall include the Contractor's plan for controlling operations to include a detailed sequence of construction addressing how the water line is affected, means of monitoring jacking pressures and strokes, anticipated modifications to the existing structure (if any) and associated repair details to the existing structure to accommodate the jacking scheme (if any), Calculations and plan details shall be sealed and signed by a Professional Engineer licensed in the Commonwealth of Virginia.
- 3. All jacking shall be done in a simultaneous manner with the jack stroke controlled to have each span reach its final jacked position at the same time. Jacking operations shall be controlled so as to limit no more than /4" difference between the stroke achieved at each beam along a bearing line at the end of each span.
- 4. Any structural modifications to the existing structure approved for implementation as part of the approved jacking plan may be, left in place, if approved by the Department. In addition, should the structural modifications made to the structure be damaged during jacking operations the Contractor may be required to make repairs to the Department's satisfaction and final acceptance at no additional cost to the Department.
- 5. Traffic shall not be placed on the structure until the steel pedestals are in place.

	INDEX OF SHEETS		
Sheet No.	Description		
l	Title sheet: Plan, profile, design exceptions and		
	general notes		
2	Estimated quantities and index of sheets		
3	Pier stay block details		
4	End diaphragm details		
5	Steel pedestal and bearing details		
6	Aluminum railing details		
7	Fencing details		
8	Joint details		
9	Reinforcing steel schedule		
10	Water line modifications		
10A-10F	A-10F Maintenance of traffic		

Rev. No.	Sheets Revised	Date
	TABLE OF REVISIONS	

			COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION			
					QUANTITIE OF SHEET	
No.	Description	Date	Designed: RIP	Date	Plan No.	Sheet No
	Revisions		Designed: RTP Drawn:FMP Checked: DRD	July 2015	164-06G	2 of 10

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