DEPARTMENT OF TRANSPORTATION

Planning & Engineering
Office of Project Development
700 E Broadway Avenue
Pierre, South Dakota 57501-2586
O: 605.773.3275 | F: 605.773.2614
dot.sd.gov

April 1, 2024

ADDENDUM NO. 1

RE: Item #6, April 4, 2024 Letting - IM 0020(205), PCN 07CV, Minnehaha County - Approach Slab Repair, Polymer Chip Seal, Crash Wall

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:
Bid Item 900E1250 "High Friction Surface Treatment"

Quantities for Bid Items were changed:
Bid Item 491E0007 "Two Coat Bridge Deck Polymer High Friction Chip Seal" changed from 1,724.8 to 1259.8 SqYd

Bid Items were removed:
Bid Item 900E1256 "Abrasive Blasting of PCC Pavement"

PLANS: Please destroy sheets 2, 88, 109 and replace with the enclosed sheets, dated 3/28/24.

Sheet 2: **Section F - Surfacing**
Bid Items were added:
Bid Item 900E1250 "High Friction Surface Treatment"

Bid Items were removed:
Bid Item 491E0007 "Two Coat Bridge Deck Polymer High Friction Chip Seal"
Bid Item 900E1256 "Abrasive Blasting of PCC Pavement"

Sheet 88: BRIDGE DECK GRINDING note was revised.

Sheet 109: Table of Quantities was revised.

Sincerely,

Sam Weisgram
Engineering Supervisor

CC: Travis Dressen, Mitchell Region Engineer
Harry Johnston, Sioux Falls Area Engineer

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-0020(205)	2	135

ESTIMATE OF QUANTITIES

Revised 3/28/2024

Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0700	Remove 3 Cable Guardrail	1,464	Ft
110E0730	Remove Beam Guardrail	175.0	Ft
110E0800	Remove W Beam Guardrail End Terminal	4	Each
110E1010	Remove Asphalt Concrete Pavement	305.0	SqYd
110E1100	Remove Concrete Pavement	512.0	SqYd
110E6410	Remove Type 1 MGS for Reset	75.0	Ft
110E6500	Remove Type 1 Guardrail Transition for Reset	2	Each
110E7700	Remove Drop Inlet Frame and Grate Assembly for Reset	4	Each
120E0600	Contractor Furnished Borrow	965	CuYd
260E1010	Base Course	314.0	Ton
260E2010	Gravel Cushion	190.0	Ton
320E1200	Asphalt Concrete Composite	83.7	Ton
380E0090	10" Nonreinforced PCC Pavement	512.0	SqYd
380E6000	Dowel Bar	180	Each
380E6110	Insert Steel Bar in PCC Pavement	144	Each
410E2600	Membrane Sealant Expansion Joint	320.0	Ft
630E0500	Type 1 MGS	1,162.5	Ft
630E1501	Type 1 Retrofit Guardrail Transition	4	Each
630E2018	MGS MASH Tangent End Terminal	4	Each
630E5010	Reset Type 1 MGS	75.0	Ft
630E5301	Reset Type 1 Retrofit Guardrail Transition	2	Each
632E2220	Guardrail Delineator	30	Each
633E3000	Durable Pavement Marking, 4" White	1,589	Ft
633E3005	Durable Pavement Marking, 4" Yellow	1,550	Ft
633E5100	Grooving for Durable Pavement Marking, 4"	3,139	Ft
633E6005	Pavement Marking Masking, 5"	4,108	Ft
634E0110	Traffic Control Signs	1,093.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	221	Each
634E0600	4" Temporary Pavement Marking Tape Type I	4,108	Ft
634E0700	Traffic Control Movable Concrete Barrier	221	Each
634E0705	Remove and Reset Traffic Control Movable Concrete Barrier	221	Each
634E0750	Temporary Concrete Barrier End Protection	4	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	6	Each
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each
670E7000	Reset Drop Inlet Frame and Grate Assembly	4	Each
734E0010	Erosion Control	Lump Sum	LS
900E1250	High Friction Surface Treatment	465.0	SqYd

Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
900E1310	Concrete Washout Facility	1	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

Section E - Structure 50-217-217

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
110E0010	Remove Concrete Bridge Approach Slab	328.8	SqYd
410E2600	Membrane Sealant Expansion Joint	83.8	Ft
430E0300	Granular Bridge End Backfill	14.6	CuYd
460E0150	Concrete Approach Slab for Bridge	261.3	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	67.5	SqYd
480E0504	No. 4 Rebar Splice	38	Each
480E0505	No. 5 Rebar Splice	48	Each
480E0506	No. 6 Rebar Splice	60	Each
491E0007	Two Coat Bridge Deck Polymer High Friction Chip Seal	1,255.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	1,255.8	SqYd
491E0120	Bridge Deck Grinding	1,255.8	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd
491E0172	Concrete Patching Material, Bridge Deck	26.4	CuFt

SPECIFICATIONS
Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

REGISTERED PROFESSIONAL ENGINEER
13793
KEVIN L. ARP
SOUTH DAKOTA
3-28-2024

Revised - 3-28-2024

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	IM-0020(205)	88	135

ESTIMATE OF STRUCTURE QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
420E0100	Structure Excavation, Bridge	164.0	CuYd
460E0050	Class A45 Concrete, Bridge	91.0	CuYd
460E0380	Install Dowel in Concrete	606	Each
480E0100	Reinforcing Steel	18,562	Lb
491E0005	Two Coat Bridge Deck Polymer Chip Seal	1,397.0	SqYd
491E0110	Abrasive Blasting of Bridge Deck	1,397.0	SqYd
491E0120	Bridge Deck Grinding	1,397.0	SqYd

SPECIFICATIONS FOR BRIDGE

1. Design Specifications: AASHTO Standard Specifications for Highway Bridges 17th Edition using Working Stress Design.

2. Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

DETAILS AND DIMENSIONS OF EXISTING BRIDGE

1. All details and dimensions of the existing bridge, contained in these plans, are based on the original construction plans and shop plans. It is the Contractor's responsibility to inspect and verify the actual field conditions and any necessary as-built dimensions affecting the satisfactory completion of the work required for this project.

2. The elevations shown in the original construction plans are not based on the National Geodetic Survey (NGS) North American Vertical Datum of 1988 (NAVD88).

SCOPE OF WORK & SEQUENCE OF OPERATIONS

All work on this structure will be accomplished with the traffic control shown elsewhere in the plans. Alternate sequence of operations may be submitted by the contractor for approval by the engineer a minimum of two weeks prior to the preconstruction meeting.

1. Grind deck as required prior to placement of Two Coat Bridge Deck Polymer Chip Seal for phase one.

2. Place Two Coat Bridge Deck Polymer Chip Seal for phase one.

3. Switch traffic and repeat steps 1 through 2 for the second phase of construction.

4. Construct pier protection wall struts as detailed in these plans.

GENERAL CONSTRUCTION NOTES

1. All mild reinforcing steel shall conform to ASTM A615, Grade 60.

2. All exposed concrete corners and edges shall be chamfered 3/4" unless noted otherwise in the plans. Match existing chamfer if the existing chamfer differs.

3. Use 2" clear cover on all reinforcing steel except as shown otherwise.

4. Request for construction joints or reinforcing steel splices at points other than those shown, must be submitted to the Engineer for prior approval. If additional splices are approved, no payment will be allowed for the added quantity of reinforcing steel.

5. All lap splices shown are contact lap splices unless noted otherwise.

DESIGN MIX OF CONCRETE

Class A45 Concrete will be used for the crash wall struts.

BRIDGE DECK GRINDING

1. The Contractor will have the option of grinding the entire deck surface during phase one. Any additional costs incurred for grinding the entire deck surface such as additional traffic control or cleaning will be at no additional cost to the Department.

2. The existing bridge deck has a HFST polymer chip seal and pavement marking that will be removed.

TWO COAT BRIDGE DECK POLYMER CHIP SEAL

The polymer will conform to Type I per the Department's Approved Products List for Bridge Deck Polymer Chip Seal.

DOWELS INSTALLED IN CONCRETE

1. The epoxy resin mixture shall be of a type of bonding steel to hardened concrete and shall conform to AASHTO M235 Type IV, Grade 3 (Equivalent to ASTM C881 Type IV, Grade 3). Grade 1, 2 or 3 may be used for vertical dowels, and Grade 3 epoxy will be used for all horizontal dowels.

2. The diameter of the drilled holes shall not be less than 1/8 inch greater, nor more than 3/8 inch greater than the diameter of the dowels or as per Manufacturer's recommendations. Use compressed air or other techniques to insure that the hole is free of any loose material before epoxy resin is applied.

3. Holes drilled in the existing concrete shall be true and normal or as shown in the plans. Care shall be taken not to damage the existing reinforcing steel or spall the bottom of the bridge deck during drilling operations. It is likely that some of the existing reinforcing steel shown in the plans may have been placed out of position during construction. Therefore, prior to the start of drilling any holes, an effort will be made by Department forces to mark on the concrete surface, where practical, any locations of in-place reinforcing steel. In spite of this precaution, the Contractor can still expect to encounter reinforcing steel which will require shifting of the dowel spacing, as approved by the Engineer, to miss the existing reinforcing steel.

4. No loads shall be applied to the epoxy grouted dowel bars until the epoxy resin has had sufficient time to cure as specified by the epoxy resin Manufacturer.

5. Mix the epoxy resin as recommended by the Manufacturer and apply with an injection method as approved by the Engineer. Fill the holes from the bottom up 1/3 to 1/2 full of epoxy, or as recommended by the Manufacturer, prior to insertion of the steel bar. Rotate the steel bar during installation to eliminate voids and ensure complete bonding of the bar. Insertion of the bars by the dipping method will not be allowed.

6. Embed dowels 7 ½ inches into the existing concrete.

7. The cost of epoxy resin, dowels, drilling, installation and other incidental items shall be incidental to the contract unit price each for Install Dowel in Concrete.

REGISTERED PROFESSIONAL ENGINEER
REG. No.
13793
KEVIN L.
ARP
SOUTH DAKOTA
3-28-2024

ESTIMATE OF STRUCTURE QUANTITIES & NOTES FOR
322' – 4 ¾" CONT. COMP. GIRDER BRIDGE

Str. No. 50-216-220

AUGUST 2023

2 OF 17

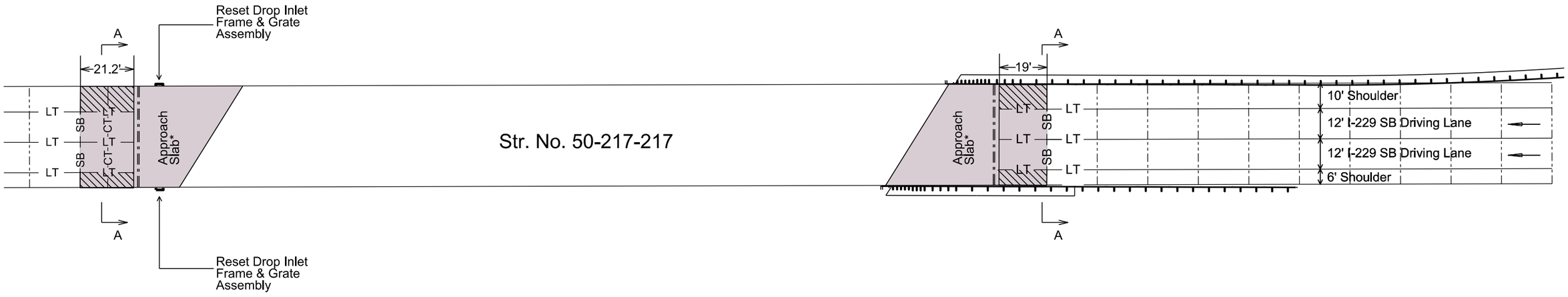
DESIGNED BY:	DRAWN BY:	CHECKED BY:	
K.A.	R.L.	T.A.	BRIDGE ENGINEER

SURFACING DETAILS (PLACEMENT)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-0020(205)	109	135

Revised 3/28/2024

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 13793
KEVIN L. ARP
SOUTH DAKOTA
3-28-2024



Item	Quantity	Unit
Reset Drop Inlet Frame & Grate Assembly	2	Each
Membrane Sealant Expansion Joint	80	Ft
10" Nonreinforced PCC Pavement	178	SqYd
Insert Steel Bar in PCC Pavement	72	Each
Dowel Bar	36	Each
Gravel Cushion	33	Ton
High Friction Surface Treatment*	465	SqYd

* Limits of High Friction Surface