City of Scottsbluff, Nebraska

Monday, April 1, 2019

Regular Meeting

Item Resolut.2

Council to discuss and consider a Resolution establishing approval of the Preliminary Plans, Specifications, and Estimates (PS&E) for the Scottsbluff Monument Valley Pathway North Project.

Staff Contact: Mark Bohl, Public Works Director

RESOLUTION

APPROVAL OF PRELIMINARY PLANS, SPECIFICATIONS, AND ESTIMATES (PS&E)

City of Scottsbluff

Resolution No. _____

Whereas: City of Scottsbluff (City) and State entered into an LPA Program Agreement for State to assist City in the development and construction of an LPA Federal-aid transportation project;

Whereas: The State or the design consultant has developed the project plans to the point where they are ready to submit to State's PS & E Section for final edits for a bid letting;

Whereas: The LPA Program Agreement requires the city to review the preliminary PS & E package and either request modification or approve them as acceptable at this stage;

Whereas: City wishes to approve the preliminary PS & E package as prepared.

Be It Resolved by the City Council of the City of Scotts Bluff that:

The Mayor, Raymond Gonzales, is hereby authorized to sign the bottom of this resolution and submit it to the State signifying the City's approval of the preliminary PS & E package.

NDOR Project Number: 51512

NDOR Control Number: ENH-79(42)

NDOR Project Description: Scottsbluff Monument Valley Pathway North

Adopted this _____ day of _____, _____at _____Nebraska.
(Month) (Year)

The City Council of the City of Scottsbluff, Nebraska

_____ _____

_____ _____

_____

Board/Council Member_____
Moved the adoption of said resolution
Member _____ Seconded the Motion
Roll Call: _____Yes _____No _____ Abstained _____ Absent
Resolution adopted, signed and billed as adopted

CITY OF SCOTTSBLUFF
Raymond Gonzales

_____
Mayor

Attest:

_____
Signature City Clerk

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

March 25, 2019

Mr Mark Bohl
Public Works Director
2525 Circle Drive
Scottsbluff NE 69361-2945

Dear Mark:

RE: Project No. ENH-79(42), CN 51512, Scottsbluff Monument Valley Pathway North

The consultant has developed the project plans and documents to the point where they have been submitted to the State's PS&E Section for final edits for a bid letting. The LPA Program Agreement requires the City of Scottsbluff to review the preliminary PS&E package, and either request modification or approve it as acceptable at this stage.

We have attached the Preliminary PS&E package for the City Council's review. This package includes the Preliminary Plans, Consultant's Estimate of Construction costs, Special Provisions, and the Status of Utilities. If approved, please obtain the required signatures on the attached Resolution 'G' and return it to me via email at judy.borer@nebraska.gov for our records.

Thank you.

Sincerely,

Judy Borer
Project Coordinator | Local Projects
Phone 402-479-4435
Email judy.borer@nebraska.gov

Enclosures

Kyle Schneweis, P.E., Director
Department of Transportation
1500 Highway 2
PO Box 94759
Lincoln, NE 68509-4759

OFFICE 402-471-4567 FAX 402-479-4325
NDOT.ContactUs@nebraska.gov

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ENGINEER'S COST ESTIMATE
ENH-79(42), CN 51512
SCOTTSBLUFF VALLEY PATHWAY NORTH (PS&E PLANS - 3/13/19)

NO	ITEM CODE	ITEM	QTY	UNIT	UNIT COST	TOTAL
1	0030.00	MOBILIZATION	1.0	LS	$ 500,000.00	$ 500,000.00
2		TRAFFIC CONTROL & SAFETY	1.0	LS	$ 50,000.00	$ 50,000.00
3	1000.00	LARGE TREE REMOVAL	2.0	EA	$ 500.00	$ 1,000.00
4	1009.00	GENERAL CLEARING & GRUBBING	1.0	LS	$ 60,000.00	$ 60,000.00
5	1011.00	WATER	765.0	MGAL	$ 35.00	$ 26,775.00
6	1021.10	REMOVE DELINEATOR	31.0	EA	$ 15.00	$ 465.00
7	1030.00	EARTHWORK MEASURED IN EMBANKMENT	26,463.0	CY	$ 20.00	$ 529,260.00
8	1101.00	REMOVE PAVEMENT	2,795.0	SY	$ 9.00	$ 25,155.00
9	1106.00	REMOVE DRIVEWAY	1,200.0	SY	$ 9.00	$ 10,800.00
10	1107.00	REMOVE WALK	3,042.0	SY	$ 9.00	$ 27,378.00
11	1108.00	REMOVE COMBINATION CONCRETE CURB & GUTTER	617.0	LF	$ 7.00	$ 4,319.00
12	1111.00	REMOVE FENCE	243.0	LF	$ 5.00	$ 1,215.00
13	1116.12	REMOVE BOLLARD	14.0	EA	$ 250.00	$ 3,500.00
15	1119.00	REMOVE INLET	2.0	EA	$ 750.00	$ 1,500.00
16	2021.05	REMOVE & RESET MAILBOX	13.0	EA	$ 150.00	$ 1,950.00
17		REMOVE PARKING BLOCK	23.0	EA	$ 200.00	$ 4,600.00
18	4035.00	REMOVE FLARED END SECTION	2.0	EA	$ 250.00	$ 500.00
19	4040.00	REMOVE HEADWALL FROM CULVERT	3.0	EA	$ 400.00	$ 1,200.00
20	4043.00	REMOVE CULVERT PIPE	102.0	LF	$ 35.00	$ 3,570.00
22	4043.51	REMOVE STORM DRAIN PIPE	92.0	LF	$ 15.00	$ 1,380.00
23	3014.00	30-INCH COMBINATION CONCRETE CURB & GUTTER, CLASS 47B-3500	793.0	LF	$ 30.00	$ 23,790.00
24	3016.39	DETECTABLE WARNING PANEL	932.0	SF	$ 35.00	$ 32,620.00
25	3016.71	6" CONCRETE CLASS 47B-3500 BIKEWAY	31,235.0	SY	$ 50.00	$ 1,561,750.00
26	3020.24	CONCRETE 47B-3500, DRIVEWAY, 6"	2,420.0	SY	$ 50.00	$ 121,000.00
27	3075.32	8-INCH CONCRETE PAVEMENT CLASS 47B-3500	698.0	SY	$ 65.00	$ 45,370.00
28	3106.03	CONCRETE CLASS 47B-3000 SIDEWALK 5"	362.0	SY	$ 40.00	$ 14,480.00
29	4011.11	CURB INLET	1.0	EA	$ 3,500.00	$ 3,500.00
30	4011.60	AREA INLET	6.0	EA	$ 2,000.00	$ 12,000.00
31	4015.00	RECONSTRUCT MANHOLE TO GRADE	30.0	EA	$ 600.00	$ 18,000.00
32	4016.00	MANHOLE	1.0	EA	$ 4,000.00	$ 4,000.00
33	4016.96	96-INCH STORM DRAIN MANHOLE	6.0	EA	$ 12,000.00	$ 72,000.00
35	4360.12	12-INCH METAL FLARED END SECTION	4.0	EA	$ 300.00	$ 1,200.00
36	4360.18	18-INCH METAL FLARED END SECTION	1.0	EA	$ 400.00	$ 400.00
37	4360.24	24-INCH METAL FLARED END SECTION	1.0	EA	$ 500.00	$ 500.00
38	4460.30	30-INCH CONCRETE FLARED END SECTION	4.0	EA	$ 800.00	$ 3,200.00
39	4350.12	12-INCH CULVERT PIPE, TYPE 3	32.0	LF	$ 50.00	$ 1,600.00
40	4600.15	15-STORM SEWER PIPE, TYPE 1	8.0	LF	$ 65.00	$ 520.00
41	4350.18	18-INCH CULVERT PIPE, TYPE 3	24.0	LF	$ 65.00	$ 1,560.00
42	4600.18	18-INCH SEWER PIPE, TYPE 1	767.0	LF	$ 60.00	$ 46,020.00
43	4600.24	24-INCH REINFORCED CONCRETE CULVERT PIPE, TYPE 1	50.0	LF	$ 75.00	$ 3,750.00
44	4350.24	24-INCH CULVERT PIPE, TYPE 3	12.0	LF	$ 60.00	$ 720.00
45	4350.30	30-INCH CULVERT PIPE, TYPE 2	56.0	LF	$ 75.00	$ 4,200.00
46	4600.42	42-INCH REINFORCED CONCRETE CULVERT PIPE, TYPE 2	12.0	LF	$ 140.00	$ 1,680.00
47	4350.48	48-INCH ROUND EQUIVALENT CULVERT PIPE, TYPE 3	24.0	LF	$ 100.00	$ 2,400.00
48	4600.60	60-INCH REINFORCED CONCRETE CULVERT PIPE, TYPE 1	1,109.0	LF	$ 175.00	$ 194,075.00
49	4605.66	66-INCH ROUND EQUIVALENT CULVERT PIPE, TYPE 1	16.0	LF	$ 250.00	$ 4,000.00
50	4600.72	72-INCH REINFORCED CONCRETE CULVERT PIPE, TYPE 1	24.0	LF	$ 300.00	$ 7,200.00
51	4100.06	CONCRETE FOR HEADWALL, CLASS 47B-3500	20.5	CY	$ 1,150.00	$ 23,575.00
54	6404.50	PEDESTRIAN SAFETY RAIL	536.0	LF	$ 100.00	$ 53,600.00
55	L001.01	SEEDING, TYPE "B"	12.000	AC	$ 1,000.00	$ 12,000.00
56	L006.00	COVER CROP SEEDING	12.000	AC	$ 300.00	$ 3,600.00
57	L032.75	MULCH	27.000	TON	$ 300.00	$ 8,100.00
58	L019.13	EROSION CONTROL CLASS "1D"	7,115.000	SY	$ 2.00	$ 14,230.00
59	L022.00	FABRIC SILT FENCE, LOW POROSITY	21,832.000	LF	$ 3.50	$ 76,412.00
60	4900.24	AREA INLET SEDIMENT FILTER	18.000	EA	$ 500.00	$ 9,000.00
61	W600.00	ADJUST CURB STOP TO GRADE	5.0	EA	$ 250.00	$ 1,250.00
62	W600.03	ADJUST VALVE TO GRADE	1.0	EA	$ 300.00	$ 300.00

PREPARED BY M.C. SCHAFF ASSOCIATES

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63	A449.00	ADJUST PULL BOX TO GRADE	4.0	EA	$ 300.00	$ 1,200.00
64	4014.68	ADJUST INLET TO GRADE	3.0	EA	$ 850.00	$ 2,550.00
65	W750.09	RELOCATE FIRE HYDRANT AND VALVE	4.0	EA	$ 1,500.00	$ 6,000.00
66	7321.01	TYPE 'A' SIGN	287.500	SF	$ 30.00	$ 8,625.00
67	7333.00	SIGN POST (STEEL)	1,172.000	LB	$ 10.00	$ 11,720.00
68	7517.06	6" WHITE WET REFLECTIVE PREFORMED PAVEMENT MARKING, TYPE 4, GROOVED	687.0	LF	$ 7.50	$ 5,152.50
69	7517.12	12" WHITE WET REFLECTIVE PREFORMED PAVEMENT MARKING, TYPE 4, GROOVED	730.0	LF	$ 12.00	$ 8,760.00
70	9173.20	SUBGRADE PREPARATION	31,933.0	SY	$ 2.50	$ 79,832.50
SITE LANDSCAPING						$ -
71		BOULDERS	370.0	LF	$ 100.00	$ 37,000.00
72		METAL EDGING	710.0	LF	$ 7.00	$ 4,970.00
73	L032.10	ROCK MULCH	9.4	TON	$ 230.00	$ 2,162.00
74		WEED BARRIER FABRIC	82.2	SY	$ 9.00	$ 739.80
75	L741.30	MALUS 'PRAIRIEFIRE' (PRAIRIEFIRE CRABAPPLE), 1.5-2' CAL C.G.	8.0	EA	$ 350.00	$ 2,800.00
76	L301.11	PICEA GLAUCA DENSATA (BLACKHILLS SPRUCE), 5-6' HGT. B&B	15.0	EA	$ 400.00	$ 6,000.00
77	L302.19	PICEA PUNGENS (COLORADO BLUE SPRUCE), 5-6' HGT. B&B	5.0	EA	$ 400.00	$ 2,000.00
78		POPULUS TREMULOIDES 'NE ARB' (PRAIRIE GOLD ASPEN), 2-2.5" CAL B&B	15.0	EA	$ 400.00	$ 6,000.00
79		QUERCUS ROBUR 'HERITAGE' (HERITAGE OAK), 2.5-3" CAL B&B	11.0	EA	$ 450.00	$ 4,950.00
80		ULMUS 'FRONTIER' (FRONTIER ELM), 2.5-3" CAL B&B	12.0	EA	$ 450.00	$ 5,400.00
81	L441.19	CORNUS SERICEA 'ISANTI' (ISANTI DOGWOOD), 24-30" HGT C.G.	14.0	EA	$ 50.00	$ 700.00
82	L428.10	PRUNUS CISTENA (PURPLELEAF SANDCHERRY), 30-36" HGT C.G.	44.0	EA	$ 60.00	$ 2,640.00
83	L559.17	RHUS AROMATICA 'GRO-LO" (GRO-LO FRAGRANT SUMAC), 15-18" HGT C.G.	35.0	EA	$ 50.00	$ 1,750.00
84	L952.11	HEMEROCALLIS 'STELLA D'ORO' (STELLA D'ORO DAYLILLY), 1 GAL	74.0	EA	$ 15.00	$ 1,110.00
85		NEPETA RACEMOSA (WALKERS LOW CATMINT), 1 GAL	109.0	EA	$ 15.00	$ 1,635.00
86	L010.43	PANICUM VIRGATUM 'SHENANDOAH' (SHENANDOAH SWITCHGRASS), 1 GAL	16.0	EA	$ 20.00	$ 320.00
87	L946.79	SCHIZACHYRIUM SCOPARIUM 'THE BLUES' (THE BLUES LITTLE BLUESTEM), 1 GAL	15.0	EA	$ 20.00	$ 300.00
88	L010.42	SPOROBOLIS HETEROLEPIS (PRAIRIE DROPSEED), 1 GAL	75.0	EA	$ 20.00	$ 1,500.00
SITE LIGHTING						
89	A010.70	LUMINAIRE (TYPE BL)	3.0	EA	$ 372.50	$ 1,117.50
90	A010.86	LOW MOUNT LIGHTING UNIT (TYPE SL)	4.0	EA	$ 840.00	$ 3,360.00
91	A010.88	PEDESTRIAN WALKWAY LUMINAIRE (TYPE PL1)	39.0	EA	$ 3,095.00	$ 120,705.00
92	A010.88	PEDESTRIAN WALKWAY LUMINAIRE (TYPE PL2)	2.0	EA	$ 3,721.00	$ 7,442.00
93	A017.56	STREET LIGHT FOUNDATION	41.0	EA	$ 737.00	$ 30,217.00
94	A020.36	LIGHTING CONTROL CENTER, TYPE 'R-2'	1.0	EA	$ 6,393.00	$ 6,393.00
95	A100.10	ELECTRICAL SERVICE	1.0	EA	$ 3,605.47	$ 3,605.47
96	A079.48	GROUND ROD	43.0	EA	$ 126.25	$ 5,428.75
97	A079.50	GROUNDING CONDUCTOR	430.0	LIN FT	$ 1.24	$ 533.20
98	A080.12	#4 AWG CU CONDUCTOR	300.0	LIN FT	$ 2.76	$ 828.00
99	A079.34	#10 AWG CU CONDUCTOR	4,210.0	LIN FT	$ 0.48	$ 2,020.80
100	A079.35	#12 AWG CU CONDUCTOR	270.0	LIN FT	$ 0.45	$ 121.50
101	A065.69	1 1/2 INCH PCV CONDUIT IN TRENCH	100.0	LIN FT	$ 4.85	$ 485.00
102	A069.14	1 INCH CONDUIT IN TRENCH	866.0	LIN FT	$ 5.35	$ 4,633.10
103	A069.09	1" CONDUIT ON STRUCTURE	-	LIN FT	$ 14.00	$ -
104	A069.07	3/4" CONDUIT ON STRUCTURE	-	LIN FT	$ 12.00	$ -
105	A069.06	1/2" CONDUIT ON STRUCTURE	48.0	LIN FT	$ 8.00	$ 384.00
106		TYPE A JUNCTION BOX	3.0	EA	$ 831.00	$ 2,493.00
107		TYPE B JUNCTION BOX	4.0	EA	$ 750.00	$ 3,000.00
PEDESTRIAN BRIDGE OVER HWY 26						
108	6010.22	CLASS 47B-3000 CONCRETE FOR BRIDGE	30.1	CY	$ 650.29	$ 19,573.73
109	6070.50	PEDESTRIAN BRIDGE AT STA. 306+39.99	1.0	LS	$ 308,000.00	$ 308,000.00
110	6081.00	STRUCTURAL STEEL FOR SUPERSTRUCTURE	6,215.0	LB	$ 3.23	$ 20,074.45
111	6131.50	EPOXY COATED REINFORCING STEEL	4,099.0	LB	$ 1.07	$ 4,385.93
112	6210.14	HP 12 INCH X 53 LB STEEL PILING	432.0	LF	$ 44.12	$ 19,059.84
113	6005.36	PRECOMPRESSED POLYURETHANE FOAM JOINT TYPE A	22.0	LF	$ 100.98	$ 2,221.56
114	6600.01	1" CONDUIT IN BRIDGE	198.0	LF	$ 13.81	$ 2,734.38
115	6601.03	3/4" CONDUIT IN BRIDGE	102.0	LF	$ 12.00	$ 1,224.00
116	6602.35	SPECIAL SURFACE COATING	1.0	LS	$ 1,630.00	$ 1,630.00
117	6133.13	ANTI-GRAFFITI COATING	1.0	LS	$ 1,135.00	$ 1,135.00
PEDESTRIAN BRIDGE OVER SCOTTSBLUFF DRAIN						$ -
118	6000.10	ABUTMENT NO. `1 EXCAVATION	1.0	LS	$ 2,500.00	$ 2,500.00
119	6010.22	CLASS 47B-3000 CONCRETE FOR BRIDGE	17.3	CY	$ 650.29	$ 11,250.02
120	6070.50	PEDESTRIAN BRIDGE AT STA. 301+73.97	1.0	LS	$ 92,845.00	$ 92,845.00

121	6131.50	EPOXY COATED REINFORCING STEEL	2,701.0	LB	$	1.07	$ 2,890.07
122	6210.44	HP 12 INCH X 53 LB STEEL PILING	183.0	LF	$	44.12	$ 8,073.96
123	6005.37	PRECOMPRESSED POLYURETHANE FOAM JOINT TYPE B	22.0	LF	$	94.35	$ 2,075.70
MSE WALL NO. 1							
124	4095.00	CONCRETE FACE PANELS	5,496.0	SF	$	28.73	$ 157,900.08
125	8024.75	SELECT GRANULAR BACKFILL FOR MSE WALLS	2,741.0	CY	$	19.16	$ 52,517.56
126	4095.2	COPING	292.4	LF	$	102.89	$ 30,085.04
127	4095.12	CONCRETE LEVELING PAD	287.0	LF	$	19.81	$ 5,685.47
128	6602.35	SPECIAL SURFACE COATING	1.0	LS	$	10,421.00	$ 10,421.00
129	6133.12	ANTI GRAFFITI COATING	1.0	LS	$	7,257.00	$ 7,257.00
130	4350.24	24" CMP SLEEVE	63.0	LF	$	27.77	$ 1,749.51
MSE WALL NO. 2							
131	4095.00	CONCRETE FACE PANELS	3,670.0	SF	$	28.73	$ 105,439.10
132	8024.75	SELECT GRANULAR BACKFILL FOR MSE WALLS	1,679.0	CY	$	19.16	$ 32,169.64
133	4095.2	COPING	207.9	LF	$	102.89	$ 21,390.83
134	4095.12	CONCRETE LEVELING PAD	204.0	LF	$	19.81	$ 4,041.24
135	6602.35	SPECIAL SURFACE COATING	1.0	LS	$	6,960.00	$ 6,960.00
136	6133.12	ANTI GRAFFITI COATING	1.0	LS	$	4,847.00	$ 4,847.00
137	4350.24	24" CMP SLEEVE	58.0	LF	$	27.77	$ 1,610.66
MSE WALL NO. 3							
138	4095.00	CONCRETE FACE PANELS	689.0	SF	$	28.73	$ 19,794.97
139	8024.75	SELECT GRANULAR BACKFILL FOR MSE WALLS	175.0	CY	$	19.16	$ 3,353.00
140	4095.2	COPING	76.1	LF	$	102.89	$ 7,829.93
141	4095.12	CONCRETE LEVELING PAD	75.0	LF	$	19.81	$ 1,485.75
142	6602.35	SPECIAL SURFACE COATING	1.0	LS	$	1,266.00	$ 1,266.00
143	6133.12	ANTI GRAFFITI COATING	1.0	LS	$	881.00	$ 881.00
144	4350.24	24" CMP SLEEVE	27.0	LF	$	27.77	$ 749.79
CIP RETAINING WALL							$ -
145	1010.01	EXCAVATION (E.Q)	172.7	CY	$	7.21	$ 1,245.17
146	6010.26	CLASS 47B-4000 CONCRETE FOR BRIDGE	41.7	CY	$	745.60	$ 31,091.52
147	4152.20	EPOXY COATED REINFORCING STEEL	3,718.0	LB	$	1.07	$ 3,978.26
PEDESTRIAN BARRIER RAIL							
148		PEDESTRIAN BARRIER RAIL, TYPE A-1	226.0	LF	$	220.00	$ 49,720.00
149		PEDESTRIAN BARRIER RAIL, TYPE A-2	257.0	LF	$	200.00	$ 51,400.00
150		PEDESTRIAN BARRIER RAIL, TYPE B	1,015.0	LF	$	80.00	$ 81,200.00
		TOTAL					**$ 5,232,496.27**

1 Inch Conduit in Bridge

Description
This work will consist of furnishing and installing a complete electrical conduit system as shown in the plans. The electrical conduit system will include all conduit, junction boxes, expansion fittings, drains, liquid-tight flexible conduit, couplings, and all other miscellaneous hardware. This work will also include all equipment, tools, labor, materials, and incidentals necessary to complete the work.

Material Requirements & Construction Methods
The material requirements and construction methods for conduit shall be in accordance Section 405 of the "Standard Specifications for Highway Construction."

Method of Measurement
The electric conduit system will be measured for payment by the number of feet (meters) shown in the plans within the limits defined for the system.

Basis of Payment
The electrical conduit system, in place and accepted by the Engineer, will be paid for at the contract unit price per foot (meter) for the item, "1 inch CONDUIT in BRIDGE" ("38mm CONDUIT in BRIDGE").

Payment is full compensation for all work prescribed in this provision.

ADJUST CURB STOP TO GRADE

This work shall consist of adjusting curb stops to finish grade as shown on the plans or as directed by the engineer.

All work shall conform to the Specifications, Codes and Regulations of the Utility owner.

Existing curb stops shall be used for adjustment if not damaged. If damaged, a new box or any part of it shall be installed. Adjustment shall be made by turning the screw part in or out, or by adding or removing extension pieces. After the adjustment has been made the box shall have a straight vertical continuous barrel.

Adjusting curb stops to grade will be measured as a single unit and payment will be made at the contract unit price per each for the item "Adjust Curb Stop to Grade".

This price shall be full compensation for all labor, equipment, new parts (if needed), tools and incidentals necessary to complete the work.

ADJUST VALVE BOX TO GRADE

This work shall consist of adjusting valve boxes to finish grade as shown on the plans or as directed by the engineer.

All work shall conform to the Specifications, Codes and Regulations of the Utility owner.

Existing boxes shall be used for adjustment if not damaged. If damaged, a new box or any part of it shall be installed. Adjustment shall be made by turning the screw part in or out, or by adding or removing extension pieces. After the adjustment has been made the box shall have a straight vertical continuous barrel.

Adjusting valve boxes to grade will be measured as a single unit and payment will be made at the contract unit price per each for the item "Adjust Valve Box to Grade".

This price shall be full compensation for all labor, equipment, new parts (if needed), tools and incidentals necessary to complete the work.

RECONSTRUCT MANHOLE TO GRADE

Paragraph 1b of Subsection 917.03 in the Standard Specifications is amended to provide for the following.

b. Remove the castings and provide new castings in accordance with Special Plan 1c. Adjust the tops of the manholes by removing or adding concrete or brick, as the case may be. The existing castings shall become property of the Contractor and disposed of accordingly.

Pedestrian Rail

Description
This work will consist of furnishing and installing a fabricated steel pedestrian rail along at-grade sections of the pedestrian pathway as shown in the plans. The work includes three types of rail designated on the plans. The Type A-1 rail consists of steel I-section posts, an HSS 5½" x 5½" x ¼" top rail, welded wire mesh fence panels and a 1 ¼" diameter extra strong handrail; the type A-2 rail is similar to the Type A-1 rail except it does not include the handrail component. Finally the Type B handrail consists of HSS posts supporting a 1 ¼" diameter extra strong handrail; this Type B rail also includes gated sections as shown on the plans. The work shall include all equipment, tools, labor, materials, and incidentals necessary to complete the work.

Material Requirements
The material requirements the Pedestrian Rail are shown on the plans. The railings shall be galvanized and then powder coated in accordance with the special provisions for "Powder Coating."

Posts for the Pedestrian Rail shall be set in Class 47B-3000 concrete to a depth of 3'-0". Holes for posts located within the select granular fill of MSE walls shall be pre-formed within the fill using corrugated PVC plastic sleeves of the sizes shown in the plans.

Method of Measurement
The Pedestrian Rail will be measured for payment by the number of feet shown in the plans to the limits shown for the various types of Pedestrian Rail.

Basis of Payment
The Pedestrian Rail, in place and accepted by the Engineer, will be paid for at the contract unit price per foot for the following items:

"Pedestrian Rail, Type A-1"
"Pedestrian Rail, Type A-2"
"Pedestrian Rail, Type B"

Payment is full compensation for all work prescribed in this provision.

RELOCATE FIRE HYDRANT AND VALVE

This work shall consist of the removal of complete fire hydrant and gate valve, plugging of the remaining water pipe opening with standard cast iron water main plugs and resetting of the fire hydrant and gate valve, complete in place and ready for service as indicated on the plans and these Special Provisions or as directed by the Engineer.

All work shall conform to the Specifications, Codes and Regulations of the utility owner.

Prior to resetting of the fire hydrant or valve, it shall be inspected by the Utility owner and if found defective in any way, it shall be removed from the site of the work and replaced with a satisfactory hydrant or valve of similar manufacture at the expense of the Utility owner. The installation of existing or replacement hydrants and valves shall be as shown in the plans.

Payment shall be made at the contract unit price per each for the item "Relocate Fire Hydrant and Valve". This price shall be full compensation for all excavation, labor, materials, plugging, backfilling, tools, tapping fees if required, and incidentals necessary to complete the work, in place, and ready for service.

ANTI-GRAFFITI COATING

PART 1 - GENERAL

1.01 SCOPE

A. This section specifies the requirements for applying a non-sacrificial, matte gloss, anti-graffiti protective coating immediately over cured concrete as specified in the contract plans.

B. The Contractor shall protect surrounding areas, prepare concrete surfaces to be coated and apply the anti-graffiti coatings in accordance with these specifications and manufacturer's recommendations.

C. The Contractor or its subcontractor(s) shall furnish all labor, materials, equipment, services, and incidentals necessary to perform the work of this section.

D. This work shall be done in accordance with this specification and as directed by the Engineer. The Contractor shall conduct all work in strict compliance with all applicable Federal, State, and Local laws, codes, rules and regulations.

1.02 REFERENCES - The publications listed below form a part of this specification to the extent referenced. Unless otherwise noted, the latest revision of the standards in effect at the time of bid applies.

A. Equipment and Coating Manufacturer's Published Instructions.

B. American Society for Testing Materials (ASTM)

1. ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape.

2. ASTM D 4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

3. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.

C. Code of Federal Regulations (CFR)

1. 29 CFR 1926 Occupational Safety and Health Regulations for the Construction Industry

2. 29 CFR 1926.20 General Safety and Health Provisions

3. 29 CFR 1926.21 Safety Training and Education

4. 29 CFR 1926.59 Hazard Communication

5. 29 CFR 1926.103 Respiratory Protection

6. 29 CFR 1926.104 Safety Belts, Lifelines, and Lanyards

7. 29 CFR 1926.105 Safety Nets

8. 29 CFR 1926.352 Fire Prevention

9. 29 CFR 1926.451 Scaffolding

1.03 QUALIFICATIONS AND EXPERIENCE

A. The manufacturer shall have at least five (5) experience producing anti-graffiti coating capable of being used on vertical surfaces.

1. The following manufacturers are acceptable:

a. Anti-Graffiti Coating
Sherwin-Williams Company
101 Prospect Avenue
Cleveland, OH 44115
(800) 524-5979

b. Permaclean 1496
TK Products
11400 West 47th Street
Minnetonka, MN 55343
800-441-2129

c. VandlGuard Non-Sacrificial Graffiti Coating
Rainguard International Products Company
1201 Dove Street
Newport Beach, CA 92660
949-515-8800

B. The Contractor performing the work of this section shall have at least three (3) years experience applying anti-graffiti coating over vertical surfaces.

1.04 SUBMITTALS

A. Submit a letter from the anti-graffiti coating manufacturer that acknowledges the suitability of the specified anti-graffiti coating for the proposed application, and the acceptability of the specified methods of surface preparation.

B. Provide written application instructions from the manufacturer, which shall include equipment, application methods and rates, and other manufacturer's recommendations.

C. Submit a Compliance Certification by the coating manufacturer for local regulations controlling VOC content.

D. Use a section of concrete out of direct public view as a base to demonstrate the application, appearance and compatibility of the anti-graffiti coating.

1. Arrange a review by the Engineer of the completed sample area. The Engineer's approval of the anti-graffiti coating must be obtained before starting production work of applying the anti-graffiti coating.

2. The accepted sample are shall be the standard by which remaining work will be evaluated for technical and aesthetic merit.

3. Variations in material used or techniques demonstrated on the sample area shall be submitted to the Engineer for approval prior to use.

1.05 PROJECT CONDITIONS

A. Apply anti-graffiti coating immediately after concrete has cured to the level required by the anti-graffiti coating manufacturer.

B. Schedule anti-graffiti coating application with earthwork, back filling of any wall areas, and flatwork construction, making sure that all that are not to receive the coating are protected to the limits shown on the plans. Delay adjacent plantings until anti-graffiti application is completed. Coordinate work to permit applications without interference from other trades.

1.06 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

A. The work of furnishing and applying anti-graffiti coating will not be measured but shall be paid for by lump sum for the item "Anti-graffiti Coating". This price shall be considered full compensation for all work prescribed.

B. Work of furnishing and applying anti-graffiti coating to the sample area shall not be paid for directly but shall be considered subsidiary to the pay item "Anti-graffiti Coating".

PART 2 - PRODUCTS

2.01 MATERIALS

A. Anti-graffiti coating:

1. Urethane based sealant, which provides an invisible, non-sacrificial penetrating barrier.

2. Coating shall dry as a matte or satin finish. High gloss finish is unacceptable.

3. Low volatile organic content (VOC) material, with a VOC less than 400 grams/liter.

4. Coating shall be resistant to weather, humidity, abrasion, acid, alkali, salt spray, ultra-violet rays, and petroleum products.

5. Allows vapor transmission when tested in accordance with ASTM-E96.

6. The application of the coating product shall not result in yellowing or color change to the surface.

7. Coating shall have the capability of having all types of paints and graffiti materials completely removed without damaging the surfaces to which the coating is applied

8. Removal of graffiti shall not result in "shadowing" of the base surface upon removal of graffiti.

9. Manufacturer recommended cleaning products for removal of graffiti shall be non-toxic and biodegradable

10. Provide all coating materials in sealed, original, containers that are properly marked and labeled to allow verification with applicable material safety data sheets, application precautions, and instructions. Labeling shall include the manufacturer's name, type of material, brand name, gloss designation, date of manufacture, shelf life, contract or order number under which the material has been ordered, lot and batch numbers, quantity, handling, thinning, and application instructions.

PART 3 – EXECUTION

3.01 PROTECTION OF SURFACES AND SURROUNDING PROPERTY

A. Use protective coverings, shields, or masking as necessary to protect surfaces that are not designated to receive anti-graffiti coating.

1. When tarps are used, secure them firmly to avoid being dislodged during heavy winds. If tarps become dislodged, stop work immediately and secure the loose tarps. When sustained winds are 40 mph or above, drop and secure the tarps.

2. Maintain all protective coverings during the entire period the work is being performed, and remove all coverings upon completion of the work.

3. All costs associated with furnishing tarps and other materials, installing and removing of tarps, shall not be paid for directly but shall be considered subsidiary to the items for which direct payment is provided.

B. Use diligence to assure vehicles, structures, buildings, vegetation, equipment, hardware, fixtures, and other materials are protected from over spray, spillage, and other damage.

C. The Contractor shall be responsible for the cleanup of any spills. All cleanups shall be done at no additional cost and to the satisfaction of the Engineer.

D. When applying coating adjacent to occupied buildings, cover air intakes and air conditioning vents, which could carry fumes into buildings. Coordinate shutdown of air handling equipment with building owners throughout application process. Vents shall remain covered and air handling equipment shall remain inactive until surfaces are visibly dry or until odor has dissipated. Maintain adequate ventilation when working in confined areas.

E. Over spray to non-porous surfaces shall be removed in accordance with the manufacturer's recommendations.

3.02 SURFACE PREPARATION

A. Prior to application of anti-graffiti coating, the concrete must be cured per manufacturer's recommendations to ensure effective protection.

B. Take precautions to protect new construction from graffiti "tagging" prior to application of anti-graffiti coating. Any graffiti that does occur prior to application of anti-graffiti coating shall be completely removed at the Contractor's expense and to the satisfaction of the Engineer prior to applying coating.

C. Surface Cleaning Requirements

1. Surfaces to be treated shall be clean, dry, and free of oil, dirt, grease, efflorescence or any other coating, which may inhibit penetration and adhesion of coating.

2. If surface requires cleaning prior to applying anti-graffiti coating, clean surface in accordance with manufacturer's recommendations.

3. Abrasive blasting and chemical cleaning shall not be allowed.

4. Pressure washed surfaces shall be allowed to dry 48 hours prior to coating.

5. All caulking should be completed prior to application of coating.

3.03 APPLICATION

A. Application shall be by means of brush, roller or sprayer in accordance with the manufacturer's recommendations.

1. The number of coats applied shall be determined by the manufacturer's recommendations.

2. Coating material shall not be diluted in any way. If surface is still glistening five to ten minutes after application and complete absorption has not occurred, excess amount shall be wiped off and the amount of product being applied shall be decreased.

B. Spray Application

1. A low-pressure setting (approximately 40 psi) shall be used to avoid atomization of coating material.

2. Spray equipment shall be fitted with fan tip, stainless steel or brass fittings and gaskets suitable for solvent solutions.

3. First coat shall be applied in a saturating spray application from the top down. Apply sufficient coating to create 4 -6 inches of rundown below the contact point.

4. If required, additional coats shall be applied as soon as the previous coat is dry to the touch.

5. Follow each spray application with the clean bristle broom brushing to avoid excessive build-up.

C. Brush and Roller Application

1. Utilize nylon or other synthetic material resistant to solvent solutions.

2. Apply sufficient product to thoroughly saturate the surface. Avoid excessive overlapping and take care to brush out runs and drips to avoid build-up.

3.04 INSPECTION

A. The Engineer will inspect all phases of the work to verify that it is in accordance with the requirements of this section. The Contractor shall facilitate this inspection as required, including providing the Engineer with advance notice of scheduled work, allowing ample time for the inspections and access to the work. Inspections may include, but are not limited to, surface preparation, pre-coating cleanliness, coating application, and final appearance. The Contractor shall not proceed with subsequent phases of the work until the Engineer has approved the preceding phase.

B. The inspection by the Engineer in no way relieves the Contractor of the responsibility to comply with all requirements of this section, and to provide comprehensive inspections of its own to assure compliance with the approved Quality Control Inspection Plan.

C. The Contractor shall furnish, until final acceptance of the anti-graffiti coating, all equipment and instrumentation needed for self-inspection of all phases of the work.

FORM LINER (ASHLAR STONE FINISH)

PART 1 - GENERAL

1.01 SCOPE

A. This section specifies the requirements for using form liners to create the specified Ashlar Stone form liner finish where required for the concrete panels for Mechanically Stabilized Earth (MSE) walls or for cast-in-place concrete abutment portal walls for the pedestrian bridge over Highway 26.

B. The Contractor shall prepare concrete surfaces and apply form liners in accordance with these specifications and manufacturer's recommendations.

C. The Contractor or its subcontractor(s) shall furnish all labor, materials, equipment, services, and incidentals necessary to perform the work of this section.

D. This work shall be done in accordance with this specification and as directed by the Engineer. The Contractor shall conduct all work in strict compliance with all applicable Federal, State, and Local laws, codes, rules and regulations.

1.02 REFERENCES - The publications listed below form a part of this specification to the extent referenced. Unless otherwise noted, the latest revision of the standards in effect at the time of bid applies.

A. American Concrete Institute (ACI):

1. ACI 117 - Standard Tolerances for Concrete Construction and Materials.

2. ACI 301 CH. 13 - Specifications for Structural Concrete.

3. ACI 303R-91 - Guide to Cast-in-Place Architectural Concrete.

4. ACI 309 - 1972[78] CH. 7 - Recommended Practice for Consolidation of Concrete.

5. ACI 347 - 1978 CH. 5.2 - Recommended Practice for Concrete Formwork

1.03 QUALIFICATIONS AND EXPERIENCE

A. The manufacturer shall have at least five (5) years experience making stone masonry molds to create formed concrete surfaces to match natural stone shapes and surface textures.

B. The following form liner manufacturers are acceptable:

1. Custom Rock International
   1156 Homer Street
   St Paul, Minnesota 55116
   800-637-2447

2. Architectural Polymers
   2040 West Penn Pike
   New Ringgold, PA 17960
   570-386-3111

3. Scott Systems, Inc.
   1788 Helena Street
   Aurora, CO 80011
   303-341-1400

A. The Contractor performing the work of this section shall specialize in performing the work of this section, including pouring vertically formed architectural concrete.

   1. The Contractor shall have at least five (5) years experience and within three (3) years preceding the acceptance of the Contractor's Proposal, successfully completed at least two contracts similar in scale to this project.

   2. The Contractor shall be trained in the form liner manufacturer's special techniques to achieve realistic stone surfaces.

1.04 SUBMITTALS

A. Submit a letter from the form liner manufacturer that acknowledges the acceptability of the specified methods of surface preparation.

B. Submit examples of Ashlar stone, represented through pictures, actual rock pieces or other means to show the intended textures to be simulated by the form liner. The desired appearance is represented by Pattern 1501, Large Sandstone Ashlar, by Custom Rock International.

C. Submit a Compliance Certification by release agent manufacturer for local regulations controlling VOC content.

D. Submit shop drawings showing the plan and elevations of a typical portal wall element. The shop drawings shall also include details to show the overall pattern, joint locations, form tie locations, end, corner and edge treatments, piece marks for cast –in-place concrete members, and other special conditions.

E. As part of the shop drawing submittal for MSE retaining walls, submit drawings showing the stone patterns for concrete MSE wall panels. The shop drawings shall include details to show the overall pattern, joint

locations, form tie locations, end, corner and edge treatments, piece marks for cast –in-place concrete members, and other special conditions.

F. Submit samples and descriptions of form ties and show the method of separation when forms are removed.

G. Construct a sample panel of the architectural finish, at least thirty (30) days prior to the beginning of actual MSE wall construction that meets the following specifications:

1. Construct sample at a location specified by the Engineer.

2. Size: nominal 10-feet in length and 5-feet in height.

3. The area used for demonstrating precast MSE wall panels may be constructed by cast-in-place methods but should demonstrate the configuration of the stone elements in the panel sizes and shapes that represent the precast MSE panels to be used in production.

4. The sample panel shall demonstrate form liner butt joints and the continuation of the pattern through wall expansion joints, control joints or joints between simulated precast MSE wall panels.

5. Sample panel shall be created using actual job specific materials, methods and workmanship, including concrete mix (cement type, aggregate gradation, slump, water/cement ratios, plasticizers and additives), forming system (ties, liner, and formwork), form release agents, placement rate, form pressures, joint sealing, vibrating and stripping practices.

6. Provide an area on the panel to demonstrate patching and repair procedures for spalled concrete, and voids caused by honeycombing or bugholes.

7. Finish the panel in a manner that it meets the specifications for surface preparation for special surface coatings.

8. Arrange a review by the Engineer of the completed sample panel. The Engineer's approval of the panel must be obtained before starting form liner work on actual contract.

9. The accepted sample panel shall be the standard by which remaining work will be evaluated for technical and aesthetic merit. The accepted sample panel is a prerequisite to beginning job formwork.

10. Variations in material used or techniques demonstrated on the sample panel shall be submitted to the Engineer for approval prior to use.

1.05 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

A. The work of furnishing and installing form liners will not be paid directly, but shall be considered subsidiary to other work items on the plans.

B. Construction of the sample panel and ultimate demolition/removal of the panel after completion of production walls shall not be paid for directly but shall be considered subsidiary to the various bid items.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Form liners:

1. Reusable high-strength urethane, easily attachable to forms.

2. Molds shall be removable without causing deterioration of surface or underlying concrete.

3. Molds shall not compress more than ¼" when concrete is poured at rate of 10 vertical feet per hour.

B. Ashlar Stone Pattern

1. Formed concrete surface using simulated stone masonry molds designed to closely duplicate the appearance of natural stone.

2. The form liner stone sizes are classified as specified below:

   a. Large Stone sizes:

      (1). Height: 3'-0" maximum and 1'-0" minimum.

      (2). Length: 5'-0" maximum and 3'-0" minimum.

   b. Small Stone sizes:

      (1). Height: 2'-0" maximum and 1'-0" minimum.

      (2). Length: 3'-0" maximum and 2'-0" minimum.

3. Relief in stone pattern:

   a. Maximum 3"

   b. Minimum ¾".

4. Joint width: maximum 1 1/4"' and minimum ½".

5. Patterning of simulated stone masonry shall appear natural and non-repeating. All rectangular stones in the pattern shall be oriented with the long dimension in the horizontal direction. Provide a minimum of at least six (6) unique mold patterns for the MSE wall panels.

    a. Three (3) patterns shall contain a mixture of stones that meet classifications for large stone and small stone sizes.

    B. Three (3) patterns shall contain a mixture of stones that meet only the small stone size classification.

C. Release Agent:

1. Compatible with simulated stone masonry molds and with color stain system to be applied to surface.

2. No paraffin or other material that suppresses the absorption of the coating material shall be used.

3. Consult the manufacturer of the selected special surface coating system to verify acceptable release agents.

D. Form ties:

1. Shall be made of either metal or fiberglass.

2. Metal ties, which result in a portion of the tie permanently embedded in the concrete, shall be designed to separate at least one inch back from finished surface, leaving only a neat hole that can be plugged with patching material.

PART 3 – EXECUTION

3.01 FORM LINER PREPARATION

A. Before placing concrete, verify that the lines and leveling of formwork are within allowable tolerances.

B. On multiple use liners, clean liner before each use. Replace damaged liners whose continued use or repair would negatively impact the aesthetics of the concrete finish.

C. Apply form liner compatible release agent at rate recommended by manufacturer. Attempt to schedule concrete pour soon after application of release agent to avoid precipitation, dust, and debris. Protect reinforcing steel from exposure to release agents

3.02 INSTALLATION

A. Form liners:

1. Seal form liner joints, form liner accessories' joints, and tie holes to prevent cement paste from bleeding.

2. Provide solid backing at form liner butt joints to prevent deflection.

3. Construct form liner and accessories to sizes, shapes, lines and dimension shown.

4. Provide openings, offsets, keyways, recesses, chamfers, blocking, and screeds as required to achieve the specified finish.

5. Drill or pierce liner to accommodate form ties.

6. Anchor liner to form on centers not to exceed 1'-6". Decrease centers as necessary to accommodate form-stripping pressures without damaging liner intended for multiple use.

7. Install backup strips as required to prevent deflection of the liner due to form pressures.

B. Form ties:

1. Place form ties at thinnest points of molds (high points of finished wall).

2. Neatly patch the hole remaining after disengaging the protruding portion of the tie so that it will not be visible after coloring the concrete surface.

C. Seams:

1. Match the texture and shape of the surrounding stone, avoiding visible seams or mold marks.

2. If the pattern selected has molds connecting through the middle of the stones, carefully remove the seam line created by abutting molds.

3. Form stripping and related construction shall avoid creating defects in the finished surface.

D. Stone size relationship to wall height:

1. The maximum size of any individual stone within the form liner pattern shall not exceed 3'-0" in height or 5'-0" in length. No more than twenty (20) percent of the total visible wall area shall contain stones with the maximum height or length.

2. The minimum size of any individual stone within the form liner pattern shall not be less than 1'-0" in height or 2'-0" in length. No more than

twenty (20) percent of the total visible wall area shall contain stones with the minimum height and length.

3. Where the height of the visible wall face is less than 4'-0" in height, only the patterns using the small stone size classification shall be used in the form liner arrangements.

3.03 REPAIR OF DAMAGE AND UNACCEPTABLE INSTALLATIONS

A. Repair localized damage and unacceptable finishes in the manner demonstrated on the approved sample panel.

3.04 INSPECTION

A. The Engineer will inspect all phases of the work to verify that it is in accordance with the requirements of this section. The Contractor shall facilitate this inspection as required, including providing the Engineer with advance notice of scheduled work, allowing ample time for the inspections and access to the work. Inspections may include, but are not limited to, surface preparation, surface finish, pattern repetition, and appearance. The Contractor shall not proceed with subsequent phases of the work until the Engineer has approved the preceding phase.

B. The inspection by the Engineer in no way relieves the Contractor of the responsibility to comply with all requirements of this section, and to provide comprehensive inspections of its own to assure compliance with the approved Quality Control Inspection Plan.

C. The Contractor shall furnish, until final acceptance of the form liner installation, all equipment and instrumentation needed for self-inspection of all phases of the work.

Pedestrian Bridge at STA. _____

Description

This work will consist of furnishing and erecting a pre-manufactured, welded, weathering steel, thru-truss pedestrian bridge spans as shown in the plans. The trusses shall be fabricated of tubular shaped main members and diagonals. The truss for the U.S. highway 26 pedestrian bridge shall be supplied with bearings, light brackets, handrails and industrial grade galvanized and powder coated steel mesh fencing panels on the top and both sides as detailed in the plans. The pedestrian bridge over Scottsbluff Drain shall be provided with bearings, handrails and 3" x ½" intermediate rails on the sides as shown on the plans. The truss spans shall be supplied with galvanized steel metal forms for a concrete deck to be cast in place on site; furnishing and installing the concrete deck and associated reinforcing steel shall be included in the lump sum price of the pedestrian bridge span. The trusses shall be designed and manufactured with as few field splices as possible.

Acceptable Manufacturers

Acceptable manufacturers are listed in the plans. Suppliers other than those listed in the plans may be used provided the Engineer evaluates and approves the proposed supplier at least 5 days prior to the bid. Prospective suppliers shall be AISC certified for simple and major steel bridges with a fracture critical endorsement.

Submittals

Complete schematic shop drawings shall be submitted to the Engineer for review of compliance with the specifications and the project plans. Structural calculations for the bridge superstructure shall be submitted to the Engineer for review per AASHTO Specifications. The calculations shall include all design information necessary to determine the structural adequacy of the bridge. All calculations shall be signed and sealed by a Professional Engineer registered in the State of Nebraska.

Method of Measurement and Basis of Payment

The pedestrian bridge span shall be measured and paid for as a Lump Sum for the item PEDESTRIAN BRIDGE AT STA. ____. Payment is full compensation for design and manufacture of the above described pedestrian bridge span, including all shipping and erection costs. No additional payment will be made for any temporary bracing or formwork used to construct the bridge or for the concrete deck slab.

Powder Coating for Steel Components

Description
This work will consist of providing protective coatings for fencing and steel portal features of the U.S highway 26 pedestrian bridge as well as Pedestrian Railing components as shown in the plans. This work will include all equipment, tools, labor, materials, and incidentals necessary to complete the work.

Submittals
Prior to beginning the powder coating operations, provide the following information for review and approval:

1. Quality control procedures that the company has established to ensure a quality and durable coating
2. Qualifications of certified personnel assigned to manage the QC Program and to conduct Quality Control tests
3. Source and type of powder
4. Surface preparation procedures including proposed anchor profile and type of pre-treatment on the substrate (number of pretreatments and types of chemicals used in the pre-treatments)
5. A summary of plant facilities including powder application bay (size in sq. ft. and heated or unheated) or configuration of conveyer line powder application booth, powder storage facilities, sandblasting facilities, application equipment (electrostatic spray, thermal spray, hot flocking, or hot spray, etc.) and curing bays (conventional or infrared)
6. Coater qualifications / certifications
7. Manufacturer certifications for powder
8. Proposed powder coating curing methods (temperature and duration of heated cure)
9. Procedures for storage and protection of coated items during shipping & handling (packing, protecting, and wrapping)

In addition, provide a steel test panel (hot rolled or equivalent) measuring 6-inches by 8-inches demonstrating the specified powder coating color and proper application of powder coating to the test panel (powder coat applied over galvanized surface).

Material Requirements
Use degassing grade polyester powder only and include an anti-blistering agent, such as polyethylene oxide, to the powder to prevent pin holing and promote good adhesion. Powder coating materials shall be compatible with the galvanized coating. Approved powder manufacturers are:

Spraylat
Dupont
Diamond Vogel
Akzo Nobel
TNEMEC
Sherwin – Williams

The color for the completed powder coating shall match color number SW6475 (Country Squire) of the Sherwin Williams company.

Construction Methods
Galvanizing:

Prior to powder coating, fabricated steel components shall be hot-dipped galvanized after fabrication in accordance with ASTM A 123.

Surface Preparation:
After galvanizing, fabricated steel components shall be prepared for powder coating in accordance with ASTM D 6386. Items to be coated shall receive an abrasive sweep blast and shall comply with the requirements of SSPC SP7 to achieve a recommended surface profile of (1.5 – 2.5 mils) necessary for satisfactory bonding of the powder to the substrate. The sweep blast shall be provided for a stripping action without removing excess zinc layers. Care must be exercised to leave zinc layers intact. The purpose of sweep blasting is to deform and not to remove the galvanized surfaces. Following the sweep blasting, surfaces shall be blown down with clean, oil-free compressed air. Keep surface clean and dry. If surface contamination occurs or is suspected, clean surface with proprietary solvent / detergent designed for pre-cleaning prior to powder coating

Preparation for powder coating shall include zinc phosphate pretreatment and preheating of components. Water quenching or treatment with chromate conversion coatings are not allowed for galvanized surfaces that are to be powder coated.

Powder Storage Requirements:
Powder shall be stored under dry, cool, clean conditions at a temperature not higher than 77°F (25°C), for not more than one year and / or as recommended by the powder's manufacturer.

Required Film Thickness:
Unless otherwise specified the film thickness shall have a minimum of 3.0 mils and maximum of 4.0 mils with an average target value of 3.5 mils. Minimum coating coverage at railing component corners shall be 3 mils when measured in accordance with ASTM D 2967.

Powder Coating Curing:
The powder coating shall be cured by heating the coated specimens to a temperature and duration specified by the powder coat material manufacturer to insure sufficient and adequate curing of the powder coating material. The resulting coating shall be uniform in color and free of pinholes, blisters, sags, runs, cracks, mud-cracking, holidays, and / or any other surface defects. Check for complete cure by a solvent rub test.

Protection of Powder Coating and Repair of Powder Coated Materials:
Protect all powder coated surfaces from damage during shipping, handling and installation.

Damage to powder coating shall be defined as exposed galvanized coating, mud cracking or deep scratches. In addition the powder coating could experience pin holing of the coating due to small gas bubbles in the polyester coating during the cure cycle, poor adhesion to the galvanized surface or incomplete curing of the polyester resin.

Damaged coatings that comprise less than 1/3 of 1.0% of the surface area shall be acceptable for repair. Damage greater than that amount shall be recoated.

Coating to be repaired shall be touched up in accordance with the coating manufacturer's recommendations. Submit the recommendations for repair in writing prior to touch-up operations. Touch up and / or field repair may be accomplished using either powder coating material or an acrylic based paint applied either by spray or brush as recommended by the

powder coating material manufacturer. Following completion of the coating touch-up, the finished surface shall be uniform in color, sheen, texture across each continuous surface area when viewed in natural daylight at normal viewing angles and from distances of not less than 39 inches from the surface. Fabricated components deemed unacceptable by the Engineer shall be removed and returned to the powder coating shop and shall be completely stripped of powder coating and recoated in accordance with the contract documents at no additional cost to the project.

Method of Measurement and Basis of Payment
The work as prescribed in this provision shall not be paid for directly but shall be subsidiary to the other items for which direct payment is made.

SPECIAL SURFACE COATING FOR PRE-CAST MSE WALL PANELS AND ABUTMENT PORTAL WALLS

PART 1 - GENERAL

1.01 SCOPE

A. This section specifies the requirements for preparation and coating of the Ashlar stone formed finish on MSE wall panels and Abutment Portal Walls.

B. The Contractor shall prepare concrete surfaces and apply coatings in accordance with these specifications and manufacturer's recommendations.

C. The Contractor or its subcontractor(s) shall furnish all labor, materials, equipment, services, and incidentals necessary to perform the work of this section.

D. This work shall be done in accordance with this specification and as directed by the Engineer. The Contractor shall conduct all work in strict compliance with all applicable Federal, State and Local laws, codes, rules and regulations

1.02 REFERENCES - The publications listed below form a part of this specification to the extent referenced. Unless otherwise noted, the latest revision of the standards in effect at the time of bid applies.

A. **Equipment and Coating Manufacturer's Published Instructions.**

B. **American Society for Testing Materials (ASTM)**

1. ASTM D 3359 Standard Test Methods for Measuring Adhesion by Tape.
2. ASTM D 4138 Standard Test Methods for Measurement of Dry Paint Thickness of Protective Coating Systems by Destructive Means
3. ASTM D 4262 Standard Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces
4. ASTM D 4263 Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
5. ASTM D 4285 Standard Test Method for Indicating Oil or Water in Compressed Air
6. ASTM D 4414 Standard Practice for Measurement of Wet Film Thickness by Notch Gages
7. ASTM D 4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

C. **Code of Federal Regulations (CFR)**

1. 29 CFR 1926 Occupational Safety and Health Regulations for the Construction Industry
2. 29 CFR 1926.20General Safety and Health Provisions
3. 29 CFR 1926.21Safety Training and Education
4. 29 CFR 1926.59Hazard Communication
5. 29 CFR 1926.103 Respiratory Protection
6. 29 CFR 1926.104 Safety Belts, Lifelines, and Lanyards
7. 29 CFR 1926.105 Safety Nets
8. 29 CFR 1926.352 Fire Prevention
9. 29 CFR 1926.451 Scaffolding

D. **Society for Protective Coatings (SSPC)**

1. SSPC-SP 13 Surface Preparation of Concrete

1.03 QUALIFICATIONS AND EXPERIENCE

A. The Contractor performing the work of this section shall specialize in performing the work of this section.

1. The Contractor shall have at least five (5) years experience and within three (3) years preceding the acceptance of the Contractor's Proposal, successfully completed at least two contracts similar in scale to this project.
2. The Contractor coating specified wall surfaces shall be trained in the coating manufacturer's special techniques to achieve realistic stone surfaces.

1.04 SUBMITTALS

A. A minimum of three weeks prior to commencing production coating of the wall surfaces, the Contractor shall submit a letter from the coating manufacturer that acknowledges the acceptability of the specified systems for the various substrates to be painted and, where applicable, the acceptability of the specified methods of surface preparation and compatibility of the specified system to the proposed anti-graffiti coating.

B. Prior to beginning the coating application, the Contractor shall provide written application instructions from the manufacturer, which shall include mixing, potlife requirements, recommended application equipment, etc.

C. The Contractor shall submit a Compliance Certification from the coating manufacturer for local regulations controlling volatile organic content (VOC).

D. Prior to beginning coating application, the Contractor shall provide Product Data Sheets, along with Material Safety Data Sheets (MSDS) for all coating products including thinners and cleaning agents.

E. A minimum of one month before commencing production coating of walls, the Contractor shall submit examples of the proposed stone, represented through pictures, actual rock pieces or other means to show the intended colors to be simulated by the color staining system. The Engineer shall determine final approval of the selected colors.

F. Prior to performing the work of this section, the Contractor shall demonstrate surface preparation and coating application procedures on a representative test area in accordance with Subsection 3.02 of this special provision. The Contractor shall thoroughly document the testing process photographically and in writing. Documentation shall be submitted by the Contractor to the Engineer within 7 working days of the demonstration.

G. Material Manufacturer's site reports

1. The Contractor shall submit to the Engineer a copy of the field summary report prepared by the coating manufacturer's representative upon completion of the site visit.

2. The Contractor shall provide the report within one week after the site visit.

H. Inspection Log or Report

1. The Contractor shall maintain a daily log or daily report of all quality control inspections and test results in compliance with the approved Quality Control Inspection Plan.

2. Whenever the color coating operation is in progress, the Contractor shall submit a copy of the log to the Engineer every seven calendar days.

1.05 PROJECT CONDITIONS

A. Color staining work may not proceed until Contractor has provided written verification of the compatibility of the anti-graffiti coating with the color staining system, and the Engineer has approved the application of the anti-graffiti coating on the sample panel.

B. Schedule color stain application with earthwork and back filling of any wall areas, making sure that all simulated stone texture is colored to the limits shown on the plans. Delay adjacent plantings until the color application and subsequent anti-graffiti coating is completed. Coordinate the work to permit coloring applications without interference from other trades.

1.06 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

A. The work of furnishing and applying color coatings to the ashlar stone surfaces of walls will not be measured but shall be paid for by the lump sum for the item "Special Surface Coating". This price shall be considered full compensation for all work prescribed.

B. The sample panel shall not be paid for directly but shall be considered subsidiary to the bid item "Special Surface Coating".

PART 2 - PRODUCTS

2.01 MATERIALS

A. Color stain for simulated stone finish:

1. Special penetrating stain mix as provided by manufacturer, shall achieve color variations present in the natural stone being simulated for this project.

2. Stain shall create a surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, acid, alkali, fungi, sunlight or weathering.

3. The following products are acceptable:

a. Prime coat
TK-290 Tri-Siloxane
TK Products, a division of Sierra Corporation
11499 West 47th Street
Minnetonka, MN 55343
(952) 938-7223

Top Coat(s)
CRI Pigmented Stain
Custom Rock International
1156 Homer Street
St Paul, Minnesota 55116
800-637-2447

b. H&C HB-100 and HB-150 Water Repellents
B-97 SWD D.O.T. Bridge and Highway Concrete Sealer
Sherwin-Williams Company
9317 J Street
Omaha, NE 68127
(402) 592-0770
Joe Wishard – representative

c. Carbocrete Sealer WB Stain System
(Mixture of Carbocrete 3359 & Carbocrete Sealer WB)
Carboline Company
350 Hanley Industrial Court
St. Louis, MO 63144-1599
(417) 860-7467
Brian Cates - representative

4. The Contractor shall provide all paint materials in sealed, original, containers that are properly marked and labeled to allow verification with applicable material safety data sheets, application precautions, and instructions. Labeling shall include the manufacturer's name, type of material, brand name, color designation, date of manufacture, shelf life, contract or order number under which the material has been ordered, lot and batch numbers, quantity, handling, thinning, and application instructions.

B. Mortar Joints: Joints shall be colored and textured to simulate real mortar.

C. Cleaning Agents, Detergents and Etches:

1. The Contractor shall provide an ample supply of potable water for the cleaning operations. Cleaning agents, detergents or surface etches shall be used as necessary to achieve a clean surface in accordance with the manufacturer's recommendations.

2.02 EQUIPMENT

A. Surface Preparation Equipment

1. The Contractor shall provide all necessary equipment, such as pressure washing equipment, abrasive blast equipment, brushes and other tools as necessary to conduct the work as specified in this section.

B. Coating Materials Application Equipment

1. The Contractor shall provide all spray equipment, rollers, brushes and daubers to conduct the work as specified in this section.

2.03 CONTAINMENT MATERIALS

A. The Contractor shall supply all equipment and materials needed to contain all over spray, paint drips and spills. This may include, but is not limited to: ground covers, rigging, scaffolding, planking and containment screens or tarpaulin materials.

B. The Contractor shall use materials that are free of loose dust and debris when brought onto the construction site.

PART 3 – EXECUTION

3.01 TECHNICAL REPRESENTATION BY MATERIAL MANUFACTURERS

A. The Contractor shall arrange for a qualified technical representative of the paint manufacturer to visit the site to verify that the quality of surface preparation and product application are satisfactory for the coating system. Visits are required during the pre-production surface preparation demonstration and at the start of the project. The Engineer may request additional visits if corrective action needs to be taken and verified by the technical representative.

B. The Contractor shall have the manufacturer summarize the results of the inspections in writing, together with recommendations. The Contractor shall provide copies of the manufacturer's reports to the Engineer within one week after the visits.

3.02 RE-PRODUCTION SURFACE PREPARATION AND COATING APPLICATION DEMONSTRATION

A. Prior to proceeding with production surface preparation and coating applications, the Contractor shall conduct surface preparation, coating application and coating repair procedures on a sample panel. The purpose is to establish the degree of cleaning and observe the paint application procedures that will be performed throughout the project as defined in these specifications. The accepted sample panel shall be the standard by which remaining work will be evaluated for technical and aesthetic merit. In addition, the completed sample panel shall demonstrate the following:

1. Final coloration of cast stone concrete surface to accurately simulate the appearance of real stone including the multiple colors, shades, flecking, and veining that is apparent in real stone.

2. The colors that may be apparent from aging, such as staining from oxidation, rusting and/or organic staining from soil and /or vegetation.

3. The type of material used to simulate mortared joints.

4. The method of repair, recoating and other procedures necessary to make unacceptable finishes meet the requirements of this specification.

B. The sample panel used for the demonstration shall be the panel constructed by the Contractor and accepted by the Engineer to demonstrate the ashlar stone form liner finish.

C. The Contractor shall arrange for a representative of the coating manufacturer to be present during this demonstration.

D. The Contractor shall not proceed with production surface preparation activities until the Engineer agrees that the sample panel conforms with the requirements of this section.

E. Throughout the duration of the project, the Contractor shall maintain the quality of surface preparation and coating application established on the sample panel and as defined in these specifications.

F. Requests for substitute materials or techniques that vary from those demonstrated on the sample panel shall be submitted to the Engineer for approval prior to use on production surfaces. The Engineer may require the use of substitute materials or techniques to be satisfactorily demonstrated on the sample panel.

3.03 PROTECTION OF SURFACES AND SURROUNDING PROPERTY

A. The Contractor shall use protective coverings, shields, or masking as necessary to protect surfaces that are not designated to receive coating

1. When tarps are used, the Contractor shall secure them firmly to avoid being dislodged during heavy winds. If tarps become dislodged, the Contractor shall stop work immediately and secure the loose tarps. When sustained winds are 40 mph or above, the Contractor shall drop and secure the tarps.

2. The Contractor shall maintain all protective coverings during the entire period the work is being performed, and remove all coverings upon completion of the work.

3. All costs associated with furnishing tarps and other containment materials, or installing and removing of tarps, shall not be paid for directly but shall be considered subsidiary to the items for which direct payment is provided.

B. The Contractor shall use diligence to assure vehicles, structures, buildings, equipment, hardware, fixtures, and other materials are protected from over spray, paint spillage, and other damage.

C. The Contractor shall be responsible for the cleanup of any spills. All cleanups shall be done at no additional cost and to the satisfaction of the Engineer.

3.04 SURFACE PREPARATION

A. Surface Cleaning Requirements

1. The Contractor shall clean surfaces in accordance with manufacturer's recommendations.

2. For simulated stone surfaces, the Contractor shall clean the surface prior to application of stain materials to assure that the surface is free of latency, dirt, dust, grease, efflorescence, paint, or other foreign material, following manufacturer's instructions for surface preparation. Do not sandblast. The preferred method to remove latency is pressure washing with water, minimum 3000 psi (a rate of 3 to 4 gallons/minute), using fan nozzle perpendicular to and at a distance of 1 to 2 feet from surface. The completed surface shall be free of blemishes, discoloration, surface voids and unnatural form marks.

3. If pressure washing is used, the Contractor shall allow the surface to dry in accordance with the coating manufacturers recommendations. Test locations that are likely to be slow in drying because of dampness shall be in accordance with ASTM D-4263.

B. Compressed Air Cleanliness

1. The Contractor shall provide compressed air that is free from moisture and oil contamination for use in any operation in which the air may impinge upon the surface.

2. The Contractor shall use the white blotter test in accordance with ASTM D4285 to verify the cleanliness of the compressed air. The Contractor shall conduct and document the test at least once per shift for each compressor system. Sufficient freedom from oil and moisture is confirmed if soiling or discoloration is not visible on the paper.

3. If air contamination is evident, the Contractor shall examine the work completed since the last satisfactory test for evidence of contamination, and conduct any necessary clean up or repair. The Contractor shall change filters, clean traps, add moisture separators or filters, or make other adjustments as necessary to achieve clean, dry air.

3.05 COATING MATERIALS STORAGE, MIXING, AND HANDLING

A. Testing of Coating Materials Samples

1. The Engineer reserves the right to conduct tests of the coating materials at any time during the period of field painting. The tests will be conducted to confirm that the material, as supplied, complies with the compositional information provided by the manufacturer in the original submittals.

2. When the Engineer decides to conduct tests, the Engineer will collect a representative pint or quart sample of each component of coating material at the construction site. The samples will be transferred to metal containers, identified, sealed and signed in the presence of the Contractor.

3. If the laboratory test results show that the material being used does not comply with the information provided in the Submittals, the Contractor shall be directed to stop work, and to remove and recoat all surfaces coated with the rejected material, all at no additional cost.

B. Coating Material Storage

1. The Contractor shall store all flammable materials in approved storage containers at locations approved by the Engineer.

2. The Contractor shall store all coatings, thinners, and solvents in accordance with OSHA regulations and the requirements of the coatings manufacturer. All coating materials and solvents shall be stored under cover and out of direct sunlight. A temperature between 40° F and 90° F shall be maintained in the storage area unless the requirements of the manufacturer are more restrictive. The containers used in storage of coatings shall be maintained in a clean condition, free of foreign materials and residue

3. The Contractor shall not permit smoking in coating material storage, mixing, and application areas. Accumulation of empty paint cans, combustibles, and other debris shall not be permitted. Waste chemical solutions, oily rags, and waste shall be removed daily. The Contractor shall keep the storage area neat and orderly.

4. All containers of coating material shall be unopened until required for use. The Contractor shall not open or mix coating materials in the storage area. Mixed coating materials shall not be returned to the storage area.

5. The Contractor shall take all necessary precautionary measures to ensure that workmen and work areas are adequately protected from fire hazards and health hazards resulting from handling, mixing and application of materials.

C. Mixing and Thinning of Coating Materials

1. The Contractor shall not use coating material that has exceeded its shelf life.

2. When required by the manufacturer, the Contractor shall warm coating materials stored at less than 50° F to above 50° F prior to mixing.

3. The Contractor shall use proper ventilation in the mixing area to prevent injury to workmen or the accumulation of volatile gases. The Contractor shall mix all coatings in accordance with the requirements of the coating manufacturer using mechanical equipment such as a Jiffy mixer.

4. When using two component materials, the Contractor shall mix only complete kits. Mixing of partial kits is not allowed. Do not use two component materials beyond the pot life established by the manufacturer's written instructions.

5. The Contractor shall not thin any paints unless approved in writing by the paint manufacturer and the Engineer. If thinning is required and authorized, use only those types, brands, and amounts of thinner stipulated by the coating manufacturer. The Contractor shall comply with VOC limits after thinning.

6. The Contractor shall deliver coating materials ready mixed to approved tints and colors. Construction site tinting is prohibited.

3.06 COATING APPLICATION

A. General

1. The Contractor shall apply the coatings in accordance with the requirements of this section, the coating manufacturer and SSPC-PA 1.

2. In the event of a conflict between the manufacturer's technical data and the requirements of this section, the Contractor shall comply with this section unless the requirements of the manufacturer are more restrictive. When the manufacturer's requirements are more restrictive, the Contractor shall advise the Engineer of the discrepancies in writing, and comply with the more restrictive requirement. The decision of the Engineer will be final.

B. Quality of Surface Preparation Prior to Coating

1. The surface shall exhibit the specified degree of cleaning immediately prior to coating. The Contractor shall re-clean deficient areas.

C. Surface Cleanliness Between Coats

1. The Contractor shall thoroughly clean the surface of each coat prior to the application of the next coat to remove dirt, dust, and other interference material. Pay particular attention to the removal of detrimental residue from surfaces such as corners and pockets.

2. The Contractor shall clean the surfaces according to the manufacturer's recommendation for the color staining system.

D. Ambient Conditions During Coating Application - The Contractor shall apply coatings under the following conditions unless the requirements of the coating manufacturer are more restrictive. The Contractor shall not apply coatings under less restrictive conditions without written approval of the coating manufacturer, and specific written authorization from the Engineer.

1. Surface and Air Temperatures - Between 50° F and 100° F.

2. Relative Humidity - Less than 90%.

3. Dew Point - Surface temperature at least 5 degrees (5°) F above the dew point temperature of the surrounding air.

4. Frost/Rain - The Contractor shall not apply coatings to surfaces containing frost or free standing water, or during rain, fog, or similar detrimental weather conditions.

5. The Contractor shall remove and replace any paint that is exposed to unacceptable conditions (e.g., rain or dew) prior to adequate curing.

E. Methods of Application - The Contractor shall apply all coats in accordance with the manufacturer's recommendations. In all cases, over spray, drips, splashes and spills must be controlled.

F. Recoat Times

1. The Contractor shall apply each coat only after the previous coat has been allowed to dry as required by the manufacturer's written instructions, but as soon as possible to minimize the length of time that the coating is exposed to dust and contamination.

2. The Contractor shall not allow any coat to remain exposed for longer than the manufacturer's written instructions for maximum recoat time prior to recoating.

3. If a coat exceeds the manufacturer's maximum recoat times for any reason, the Contractor shall remove and replace the coating. As an alternative, the Contractor shall provide written instructions from the coating manufacturer for the specialized preparation that can be undertaken (e.g., scarifying the surface) to properly prepare the

surface to receive the next coat. The specialized steps can be undertaken only if approved by the Engineer in writing. The Contractor shall perform the specialized cleaning or removal and replacement of the coatings at no additional cost.

3.07 REPAIR OF DAMAGE AND UNACCEPTABLE INSTALLATIONS

A. The Contractor shall repair localized damage and unacceptable finishes in the manner demonstrated on the approved sample panel.

3.08 HOUSEKEEPING AND WASTE DISPOSAL

A. The Contractor shall not store any coating materials or equipment on or against the noise barrier wall.

B. At the end of each day at a minimum, the Contractor shall haul empty paint cans and other debris to the waste storage area.

C. The Contractor shall remove all drips, splashes, and over spray from surfaces not intended to be coated. Remove by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

D. The Contractor shall handle, store, transport, and dispose of all wastes, hazardous and non-hazardous, in strict accordance with Federal, State and Local regulations.

3.09 INSPECTION

A. The Engineer will inspect all phases of the work to verify that it is in accordance with the requirements of this section. The Contractor shall facilitate this inspection as required, including providing the Engineer with advance notice of scheduled work, allowing ample time for the inspections and access to the work. Inspections may include, but are not limited to, surface preparation, pre-painting cleanliness, paint application, dry film thickness, film appearance and continuity, adhesion, and appearance. The Contractor shall not proceed with subsequent phases of the work until the Engineer has approved the preceding phase.

B. The inspection by the Engineer in no way relieves the Contractor of the responsibility to comply with all requirements of this section, and to provide comprehensive inspections of its own to assure compliance with the approved Quality Control Inspection Plan.

C. The Contractor shall furnish, until final acceptance of the special surface coating installation, all equipment and instrumentation needed for self-inspection of all phases of the work.

3.10 ONE-YEAR ANNIVERSARY INSPECTION

A. A One-Year Anniversary Inspection will be conducted approximately twelve (12) months after tentative acceptance of the coating under the entire Contract. The Contractor shall participate in this inspection with the Engineer.

B. The Contractor shall repair, at no additional cost, all locations where the coating exhibits debonding, cracking, or other such defects, and perform all repairs in accordance with the requirements of this specification, and the coating manufacturer's written instructions.

C. Final payment will be made following the completion of the work necessary to correct the deficiencies discovered during the One-Year Anniversary Inspection.

STATUS OF UTILITIES

Project No: ENH-79(42)
Control No: 51512
Location: Scottsbluff, NE

The following information is current as of 3/15/2019

Aerial and/or underground utilities may exist within the limits of this project. The Contractor shall determine to their satisfaction the extent of occupancy of any utility facilities located within the project construction areas and the extent of conflict with the proposed work under this contract.

Any utility adjustments or interruption of service for the convenience of the Contractor shall be the sole responsibility of the Contractor.

To arrange for utilities to locate and flag their underground facilities, contact Diggers Hotline of Nebraska at 1-800-331-5666, or dial 811.

The following utilities have known facilities within the project area:

Allo Communications: Allo has utilities throughout the entire project including facilities on overhead poles that will need to be relocated and telephone pedestals in multiple locations that will also have to be relocated. A list containing all the utility relocations is attached. The owner attended an initial utility coordination meeting on June 18, 2013. All Utility owners will be updated at a meeting to be held in late March or early April 2019. **Kim Brackett, 308-633-7821**

CenturyLink: Century Link has utilities throughout the entire project including facilities on overhead poles that will need to be relocated and telephone pedestals in multiple locations that will also have to be relocated. A list containing all the utility relocations is attached. The owner attended an initial utility coordination meeting on June 18, 2013. All Utility owners will be updated at a meeting to be held in late March or early April 2019.
Trevor Matuszewski, 308-520-6284

Charter Communications: Charter has utilities throughout the entire project including facilities on overhead poles that will need to be relocated and telephone pedestals in multiple locations that will also have to be relocated. A list containing all the utility relocations is attached. The owner attended an initial utility coordination meeting on June 18, 2013. All Utility owners will be updated at a meeting to be held in late March or early April 2019. **Ron Sims, 308-631-4063**

NPPD: NPPD has facilities throughout the entire project including power poles, guy wires, and street light poles that will need to be relocated. Additionally, many of the telecommunication companies utilize overhead poles owned by NPPD. A list containing all the utility relocations is attached. The owner attended an initial utility coordination meeting on June 18, 2013. All Utility owners will be updated at a meeting to be held in late March or early April 2019.
Chuck Vacha, 308-630-5475

City of Scottsbluff: The City of Scottsbluff has several utilities that will need relocation throughout the entire project. The following relocations are arranged by department.

Water- Work includes water sampling station relocation, valve box adjustments, and fire hydrant relocations. The hydrants and structure adjustments will be completed as part of the project but the sampling stations will be relocated prior to construction by the owner. Additionally, a portion of existing water main will have to be relocated around the pedestrian bridges. The water main relocation shall be completed prior to construction. **Jack Satur, 308-630-6257**

Waste Water/Storm- Waste water work includes structure adjustments which will be completed as part of the project. Additionally, a portion of sanitary sewer main will have to be relocated around the pedestrian bridges. The relocation shall be completed prior to construction. The storm drain work includes construction of storm drain inlets and pipe and culvert extensions. All of which will be completed as part of the project. **Lynn Garton, 308-630-6257**

Street Department - Work includes relocating street signs in multiple locations during construction of the project. **Brett Bewley, 308-630-6297**

Black Hills Energy: Black Hills has utilities throughout the entire project including gas markers that will need to be relocated. A list containing all the utility relocations is attached. The owner attended an initial utility coordination meeting on June 18, 2013. All Utility owners will be updated at a meeting to be held in late March or early April 2019. **Todd Deaver, 308-630-9780**

The preceding is for the contractor's information only. It is the contractor's responsibility to verify the accuracy of the information.

All utility rehabilitation will be accomplished prior to or concurrent with construction.

It is the responsibility of the contractor to cooperate and coordinate his/her work with any utility work to be done concurrent with construction in an effort to complete both promptly. The contractor shall determine to his/her satisfaction the extent of utility occupancy and utility conflict for facilities located within the construction areas, including determining impacts and timeframes for completion.