

Planning & Engineering

Office of Project Development 700 E. Broadway Avenue Pierre, SD 57501 O: 605.773.3275 dot.sd.gov

November 8, 2024

Re: Project's NH-CR 0014(185)229, 436() – PCN's 026Z & X05W– Urban Grading, Curb & Gutter, Sidewalk, Signals, Storm Sewer, Lighting, Asphalt Concrete Surfacing, PCC Surfacing, Water Main Improvement & Sewer Manhole Adjustments

To Whom It May Concern,

A pre-bid meeting for the US 14 (Euclid Ave) Reconstruction project is being held on November 26th at 1:30 PM CST via Microsoft TEAMS. Interested contracting parties are invited to attend the meeting virtually via the Microsoft Teams Meeting Link provided below.

This meeting will include a presentation of the project covering topics such as the overall scope of work, design aspects, traffic control, and contract time. There will be an opportunity for Contractors to present questions to Department staff, consultants, and project stakeholders.

Attendance is not a requirement, but all interested contracting parties are strongly encouraged to attend.

If attending the meeting you must join the meeting via the link provided. In order to reduce sound feedback please mute the microphone on your computer. Due to the meeting being virtual we are requesting that you please enter the name of your company followed by the individuals from your company attending the meeting into the chat feature of Microsoft Teams.

Join Pre-bid Meeting

Date: November 26, 2024

Time: 1:30-3:30 PM (CST)

Meeting ID: 211 221 837 478

Additional instructions regarding the meeting format will be provided at the beginning of the meeting.

We look forward to seeing you there!

Sincerely, SD DOT

A.1

EUCLID AVENUE UTILITY IMPROVEMENTS

CITY OF PIERRE PROJECT NO. 2024-01

PLANS FOR PROPOSED WATER AND SANITARY SEWER IMPROVEMENTS PCN X05W



INDEX OF SHEETS

TITLE SHEET A.2 LEGEND A.3 ALIGNMENT DATA D.1 TO D.4 **GENERAL NOTES** D.5 TO D.6 SWPPP NOTES G.1 **EROSION CONTROL** SURFACING REMOVALS & REPLACEMENTS I.1 TO I.20 WATER MAIN PLAN & PROFILE I.21 TO I.26 **SANITARY SEWER PLAN & PROFILES**

N.1 TO N.4 STANDARD DETAILS

my direct supervision and that I am a duly registered engineer under the laws of

S D No

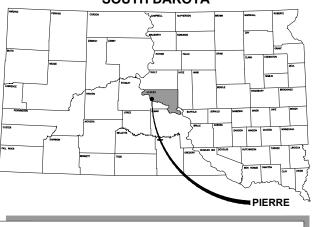
03/15/24

I, Dustin Hamilton, hereby certify that these plans were prepared by me, or under

SOUTH DAKOTA

PROJECT

LOCATION



Drawing Indicates general utility locations only. Neither the correctness or completeness of locations are guaranteed.

Prior to excavation contact: SOUTH DAKOTA ONE CALL(1-800-781-7474)





703 Main St. Suite 200 Rapid City, SD 57701



				FOR BID	DING PURPOSES ONLY STATE OF SOUTH DAKOTA
,	EXISTING FIRE HYDRANT	— — — 1400 — — —	EXISTING CONTOURS		PROPOSED LIFT STATION
	EXISTING VALVE & BOX	12"W	EXISTING WATER MAIN & SIZE	<u> </u>	PROPOSED SANITARY MANHOLE
I ⊢	EXISTING TEE	12"ST	EXISTING STORM SEWER & SIZE	©	PROPOSED CLEAN OUT
	EXISTING REDUCER	12"S	EXISTING SANITARY SEWER & SIZE	igorplus	PROPOSED VALVE & BOX
	EXISTING SLEEVE	IRR	EXISTING IRRIGATION DITCH	\odot	PROPOSED TEE
— +<u>∓</u>+ —	EXISTING CROSS	12"FM	EXISTING FORCE MAIN & SIZE	\otimes	PROPOSED CROSS
	EXISTING WATER MANHOLE	G	EXISTING GAS LINE	®	PROPOSED REDUCER OR INCREASER
ĺ	EXISTING DRINKING FOUNTAIN	— т —	EXISTING UNDERGROUND TELEPHONE	©	PROPOSED WATER CONNECTION
# <u>\$</u>	EXISTING WATER SHUTOFF	—— FO ———	EXISTING FIBER OPTIC	©	PROPOSED PLUG
\$	EXISTING SPRINKLER HEAD	CTV	EXISTING CABLE TELEVISION	©	PROPOSED CURB STOP
	EXISTING SANITARY MANHOLE	——— UE ———	EXISTING UNDERGROUND ELECTRIC	Θ	PROPOSED FIRE HYDRANT
6	EXISTING STORM MANHOLE/ JUNCTION BOX		EXISTING OVERHEAD ELECTRIC	9	PROPOSED 90' BEND
	EXISTING TELEPHONE MANHOLE/ JUNCTION BOX	———— TR ————	EXISTING TRAFFIC	4 5	PROPOSED 45° BEND
$\langle \mathbb{T} \rangle$	EXISTING TELEPHONE PEDESTAL	4"DT	EXISTING DRAIN TILE LINE AND SIZE	22	PROPOSED 22 1/2 BEND
®	EXISTING TRAFFIC MANHOLE/ JUNCTION BOX		EXISTING SPLIT RAIL FENCE	11)	PROPOSED 11 1/4' BEND
®	EXISTING ELECTRIC MANHOLE/ JUNCTION BOX	oo	EXISTING CHAIN LINK FENCE	©	PROPOSED PIPE CAP
(P)	EXISTING ELECTRIC PEDESTAL/ TRANSFORMER	xx	EXISTING BARBED WIRE FENCE		PROPOSED CATCH BASIN
ф ф	EXISTING TRAFFIC SIGNAL LIGHT		EXISTING CENTERLINE .	0	PROPOSED STORM SEWER JUNCTION BOX
•	EXISTING STREET LIGHT LEGEND		EXISTING PROPERTY LINE	0	PROPOSED STORM SEWER DROP INLET
			EXISTING EASEMENT		PROPOSED STORM SEWER INTAKE
Ø	EXISTING TRAIL LIGHT	0	EXISTING STORM SEWER JUNCTION BOX		PROPOSED STORM SEWER FLARED END
\rightarrow	EXISTING GUY WIRE ANCHOR	<u>\</u>	EXISTING PROPERTY CORNER MONUMENT		
<u>A</u>	EXISTING POWER POLE	\bigwedge_{\wedge}	EXISTING HORIZONTAL CONTROL		PROPOSED TRENCHED SANITARY SEWER LINE
	EXISTING DECIDUOUS TREE & SIZE	<u> </u>	EXISTING VERTICAL CONTROL		PROPOSED TRENCHLESS SANITARY SEWER LINE
/,,,\	EXISTING TREE STUMP	+	BOTTOM SOIL BORING ELEVATION	<u> </u>	PROPOSED STEEL CASING PIPE
MB	EXISTING MAILBOX	<u> </u>	REFUSAL SOIL BORING ELEVATION		PROPOSED WATER MAIN
	EXISTING SIGN	<u>▼</u>	WATER LINE SOIL BORING ELEVATION		PROPOSED STORM SEWER
• • • • • • • • • • • • • • • • • • •	EXISTING GAS METER	1400 SB-1	SOIL BORING, EXISTING GROUND ELEVATION, AND NUMBER		PROPOSED RIP RAP
========	EXISTING APPROACH	1400 SUE	SUB-UTILITY EXPLORATION AND UTILITY ELEVATION		PROPOSED PCC
	EXISTING SIDEWALK EXISTING DROP INLET		DIRECTION OF FLOW		PROPOSED ACC
	EXISTING DROP INLET		MATERIAL FOR LINES:	1400	PROPOSED CONTOURS
		VCP	VITRIFIED CLAY PIPE		
	EXISTING STRUCTURE	HDPE	HIGH DENSITY POLYETHYLENE PIPE		
		PVC	SOLID WALL POLYVINYL CHLORIDE PIPE		
NOTE:		DIP	DUCTILE IRON PIPE		
THE FOLLOWING DRAWIN	NGS, INCLUDED IN THIS SET OF PLANS, L UTILITY LOCATIONS ONLY. NEITHER	RCP	REINFORCED CONCRETE PIPE		
THE CORRECTNESS OR (COMPLETENESS OF UTILITY LOCATIONS CONTRACTOR SHALL CONTACT SOUTH	CIP	CAST IRON PIPE		
DAKOTA ONE CALL AT 1-8	800-781-7474 PRIOR TO EXCAVATION.	CIPP	CURED IN PLACE PIPE		

TOTAL SHEETS

A.3

SHEET

A.2

PROJECT

X05W



HORIZONTAL ALIGNMENT: PROPOSED WATER MAIN CL						
DESCRIPTION	STATION	LENGTH	COURSE	RADIUS	NORTHING	EASTING
L1	BEG:210+00.00 END:211+27.12	127.12'	N38°30'30.43"E'	-	BEG:741114.46 END:741213.94	BEG:1963089.30 END:1963168.45
L2	BEG:211+27.12 END:211+39.43	12.31'	N03°51'53.19"E'	-	BEG:741213.94 END:741226.22	BEG:1963168.45 END:1963169.28
L3	BEG:211+39.43 END:216+48.91	509.48'	N38°30'58.19"E'	-	BEG:741226.22 END:741624.85	BEG:1963169.28 END:1963486.55
L4	BEG:216+48.91 END:216+79.82	30.90'	S51°29'52.10"E'	-	BEG:741624.85 END:741605.61	BEG:1963486.55 END:1963510.74
L5	BEG:216+79.82 END:217+19.84	40.02'	N83°37'53.76"E'	-	BEG:741605.61 END:741610.05	BEG:1963510.74 END:1963550.51
L6	BEG:217+19.84 END:219+34.98	215.15'	S51°29'52.10"E'	-	BEG:741610.05 END:741476.11	BEG:1963550.51 END:1963718.88
L7	BEG:219+34.98 END:219+70.87	35.88'	N35°31'46.21"E'	-	BEG:741476.11 END:741505.31	BEG:1963718.88 END:1963739.73
L8	BEG:219+70.87 END:223+52.47	381.60'	N38°43'54.55"E'	-	BEG:741505.31 END:741803.00	BEG:1963739.73 END:1963978.49
L9	BEG:223+52.47 END:227+62.33	409.86'	N38°16'24.57"E'	-	BEG:741803.00 END:742124.77	BEG:1963978.49 END:1964232.37
L10	BEG:227+62.33 END:232+03.63	441.30'	N37°49'48.93"E'	-	BEG:742124.77 END:742473.32	BEG:1964232.37 END:1964503.03
L11	BEG:232+03.63 END:232+20.41	16.78'	N15°11'58.63"E'	-	BEG:742473.32 END:742489.51	BEG:1964503.03 END:1964507.43
L12	BEG:232+20.41 END:232+64.21	43.79'	N03°07'37.01"E'	-	BEG:742489.51 END:742533.24	BEG:1964507.43 END:1964509.82
L13	BEG:232+64.21 END:235+57.91	293.70'	N02°06'55.09"E'	-	BEG:742533.24 END:742826.74	BEG:1964509.82 END:1964520.66
L14	BEG:235+57.91 END:241+17.21	559.30'	N00°01'03.86"E'	-	BEG:742826.74 END:743386.04	BEG:1964520.66 END:1964520.83
L15	BEG:241+17.21 END:251+98.91	1081.70'	N00°13'04.13"W'	-	BEG:743386.04 END:744467.73	BEG:1964520.83 END:1964516.72
L16	BEG:253+52.04 END:255+54.85	202.81'	N00°37'12.87"E'	-	BEG:744620.85 END:744823.65	BEG:1964518.47 END:1964520.67
L17	BEG:255+54.85 END:258+81.31	326.46'	N00°15'19.80"W'	-	BEG:744823.65 END:745150.11	BEG:1964520.67 END:1964519.21
L18	BEG:258+81.31 END:262+08.65	327.34'	N00°27'06.66"W'	-	BEG:745150.11 END:745477.44	BEG:1964519.21 END:1964516.63
L19	BEG:262+08.65 END:263+87.56	178.91'	N00°27'41.49"W'	-	BEG:745477.44 END:745656.35	BEG:1964516.63 END:1964515.19
L20	BEG:263+87.56 END:264+23.03	35.47'	N00°05'55.68"W'	-	BEG:745656.35 END:745691.82	BEG:1964515.19 END:1964515.13
L21	BEG:264+23.03 END:264+68.03	45.00'	N00°14'43.37"E'	-	BEG:745691.82 END:745736.81	BEG:1964515.13 END:1964515.32
L22	BEG:264+68.03 END:265+00.22	32.19'	N00°37'40.43"E'	-	BEG:745736.81 END:745769.01	BEG:1964515.32 END:1964515.68

HORIZONTAL ALIGNMENT: PROPOSED WATER MAIN CL						
DESCRIPTION	STATION	LENGTH	COURSE	RADIUS	NORTHING	EASTING
L23	BEG:265+00.22 END:265+11.48	11.25'	N46°17'55.26"W'	-	BEG:745769.01 END:745776.78	BEG:1964515.68 END:1964507.54
L24	BEG:265+11.48 END:265+64.35	52.87'	N01°02'27.28"W'	-	BEG:745776.78 END:745829.65	BEG:1964507.54 END:1964506.58
C1	BEG:265+86.07 END:271+60.87	CL=562.51'	CL=N19°59'28.09"E'	800.0	BEG:745851.36 END:746379.98	BEG:1964506.3 END:1964698.6
L25	BEG:271+60.87 END:272+02.95	42.09'	N44°59'59.47"E'	-	BEG:746379.98 END:746409.74	BEG:1964698.66 END:1964728.42
L26	BEG:272+02.95 END:272+30.32	27.36'	N00°00'00.84"W'	-	BEG:746409.74 END:746437.10	BEG:1964728.42 END:1964728.42
L27	BEG:272+30.32 END:273+39.48	109.16'	N90°00'00.00"E'	-	BEG:746437.10 END:746437.10	BEG:1964728.42 END:1964837.56
L28	BEG:273+39.48 END:273+50.67	11.20'	N44°24'31.67"E'	-	BEG:746437.10 END:746445.10	BEG:1964837.58 END:1964845.42
L29	BEG:273+50.67 END:273+98.25	47.57	N90°00'00.00"E'	-	BEG:746445.10 END:746445.10	BEG:1964845.42 END:1964892.99



A.3

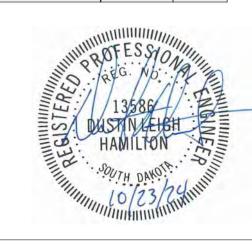
ESTIMATE OF QUANTITIES

Non-Section Method

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Construction Staking	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	35	Ft
110E0460	Remove Manhole	5	Each
110E1010	Remove Asphalt Concrete Pavement	83.0	SqYd
110E1140	Remove Concrete Sidewalk	12.0	SqYd
250E0010	Incidental Work	Lump Sum	LS
260E1010	Base Course	104.0	Ton
320E1200	Asphalt Concrete Composite	28.0	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	0.1	Ton
451E0116	16" Steel Encasement Pipe	154	Ft
451E0202	1" Municipex Pipe	2,240	Ft
451E0206	1.5" Municipex Pipe	126	Ft
451E0208	2" Municipex Pipe	314	Ft
451E0512	3" PVC Pipe	26	Ft
451E0604	4" PVC Water Main	139	Ft
451E0606	6" PVC Water Main	919	Ft
451E0608	8" PVC Water Main	75	Ft
451E0610	10" PVC Water Main	276	Ft
451E0612	12" PVC Water Main	60	Ft
451E0614	14" PVC Water Main	6,694	Ft
451E1008	8" PVC Sewer Pipe	314	Ft
451E1010	10" PVC Sewer Pipe	8	Ft
451E1012	12" PVC Sewer Pipe	8	Ft
451E1015	15" PVC Sewer Pipe	5	Ft
451E1018	18" PVC Sewer Pipe	598	Ft
451E1204	4" Sewer Service	1,145	Ft
451E1206	6" Sewer Service	50	Ft
451E1550	Sanitary Sewer Video Inspection	3,300	Ft
451E2206	6"x4" Pipe Tee	1	Each
451E2207	6"x6" Pipe Tee	1	Each
451E2213	8"x6" Pipe Tee	1	Each
451E2239	14"x3" Pipe Tee	1	Each
451E2240	14"x4" Pipe Tee	2	Each
451E2241	14"x6" Pipe Tee	16	Each
451E2242	14"x8" Pipe Tee	1	Each
451E2243	14"x10" Pipe Tee	1	Each
451E2245	14"x14" Pipe Tee	4	Each
451E2341	14"x6" Pipe Cross	2	Each
451E2343	14"x10" Pipe Cross	2	Each
451E2344	14"x12" Pipe Cross	1	Each
451E2345	14"x14" Pipe Cross	1	Each
451E2406	6"x4" Pipe Reducer	1	Each

Non-Section Method

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
451E2431	12"x6" Pipe Reducer	3	Each
451E2441	14"x6" Pipe Reducer	2	Each
451E2443	14"x10" Pipe Reducer	1	Each
451E2444	14"x12" Pipe Reducer	1	Each
451E2902	1" Curb Stop with Box	68	Each
451E2906	1.5" Curb Stop with Box	4	Each
451E2908	2" Curb Stop with Box	8	Each
451E3006	6" Pipe Bend	12	Each
451E3014	14" Pipe Bend	35	Each
451E3106	6" Pipe Cap	4	Each
451E4203	3" Gate Valve with Box	1	Each
451E4204	4" Gate Valve with Box	3	Each
451E4206	6" Gate Valve with Box	14	Each
451E4208	8" Gate Valve with Box	1	Each
451E4210	10" Gate Valve with Box	5	Each
451E4212	12" Gate Valve with Box	1	Each
451E4214	14" Gate Valve with Box	25	Each
451E4380	Tracer Wire Access Box, Type 1	99	Each
451E4585	Fire Hydrant with Auxiliary Valve & Box	12	Each
451E4903	Type 2 Foundation Material	100.0	Ton
451E4904	Type 3 Foundation Material	100.0	Ton
451E4918	Imported Trench Backfill	2,000	CuYd
451E6050	Temporary Water Service	20	Each
451E6055	Temporary Water Main Connection	2	Each
451E6100	Reconnect Water Service	87	Each
451E6103	Abandon Water Main	6,780	Ft
451E6105	Connect To Existing Water Main	18	Each
451E7010	Reconnect Sewer Service	24	Each
451E7016	Connect to Existing Sewer Main	9	Each
451E7020	Sewer Bypass Pumping	Lump Sum	LS
650E0060	Type B66 Concrete Curb and Gutter	35	Ft
651E0040	4" Concrete Sidewalk	108	SqFt
671E1048	48" Manhole	4	Each
671E1348	48" Drop Manhole	1	Each
671E6040	Manhole Frame	11	Each
671E6050	Manhole Lid	11	Each
671E7010	Adjust Manhole	18	Each
734E0845	Sediment Control at Inlet with Frame and Grate	5	Each
831E0300	Reinforcement Fabric (MSE)	98	SqYd
			-



FOR BIDDING PURPOSES ONLY

PROJECT STATE OF SHEET SHEETS X05W DAKOTA D.1 D.6

STANDARD NOTES

PROJECT SEQUENCING

REV DATE: 04/23/2024 INITIAL: DLH

REV DATE: 08/28/2024 INITIAL: DLH

REV DATE: 10/23/2024 INITIAL: DLH

THE CONTRACTOR SHALL USE THE DRAWINGS FOR PROJECT SEQUENCING GUIDANCE.

- 1) IMPLEMENT TRAFFIC CONTROL PLAN AND INSTALL MOVEABLE BARRIERS FOR PROPOSED EXCAVATION AREAS. 2) NO TOPSOIL STRIPPING OR EXCAVATION MAY PROCEED UNTIL EROSION CONTROL DEVICES AND THE POLLUTION CONTROL PLAN ARE IMPLEMENTED. REFER TO THE EROSION
- CONTROL LAYOUT FOR MORE INFORMATION. 3) NO EXCAVATION, OR SEWER INSTALLATION OR WATER INSTALLATION MAY PROCEED UNTIL
- EROSION CONTROL DEVICES AND THE POLLUTION CONTROL PLAN ARE IMPLEMENTED. 4) PERFORM TOPSOIL STRIPPING, AND SALVAGE AND PLACE INTO STOCKPILES. IMPLEMENT
- POLLUTION CONTROL MEASURES AS NECESSARY.
- 5) THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING OF EROSION CONTROL, SEEDING AND MULCHING TO COMPLY WITH EROSION CONTROL PLAN AND STORM WATER PERMIT. THE CONTRACTOR SHALL PERFORM FINAL RESTORATION AND EROSION CONTROL INSTALLATION IMMEDIATELY FOLLOWING TRENCHING WORK.
- 6) COMPLETE SITE RESTORATION, DITCH GRADING, TOPSOIL PLACEMENT, COMPOST MIXING. SEEDING, FERTILIZING, MULCHING, EROSION CONTROL MATTING AND WATTLES.
- 7) REMOVE SILT FENCE UPON REQUEST OF ENGINEER.

THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION SCHEDULE AND SEQUENCE TO MEET THE GENERAL INTENT. CONTRACTOR SHALL REFER TO THE TRAFFIC CONTROL PLAN FOR GENERAL PHASING REQUIREMENTS.

SCHEDULING OF EROSION CONTROL, SEEDING, MULCHING AND GRAVEL PLACEMENT SHALL BE SCHEDULED IN CONJUNCTION WITH THE WORK TO AVOID EROSION OF THE WORK AREA.

THE CONTRACTOR SHALL SUBMIT THE PROPOSED SEQUENCE AND THE PROPOSED SCHEDULE NOT LESS THAN (7) WORKING DAYS PRIOR TO PRE-CONSTRUCTION MEETING.

SEQUENCE OF CONSTRUCTION

THE CONTRACTOR SHALL PREPARE AND SUBMIT A CONSTRUCTION SEQUENCE PLAN TO THE ENGINEER FOR APPROVAL. WORK UNDER THE CONTRACT SHALL BE SCHEDULED AND PERFORMED IN SUCH A MANNER AS TO ALLOW COMPLETION IN ACCORDANCE WITH THE CONTRACT. SCHEDULING OF FEOSION CONTROL, SEEDING, MULCHING AND GRAVEL PLACEMENT SHALL BE SCHEDULED IN CONJUNCTION WITH THE WORK TO AVOID EROSION OF THE WORK AREA.

THE TERM "SUBMITTALS" INCLUDES DRAWINGS, DIAGRAMS, DESCRIPTIVE LITERATURE, ILLUSTRATIONS, INSTRUCTIONS, SCHEDULES, PERFORMANCE AND TEST DATA, PRODUCT DATA SHEETS, MATERIAL SAFETY DATA SHEETS, AND SIMILAR MATERIALS BY A SUPPLIER OR CONTRACTOR TO ILLUSTRATE MATERIALS OR EQUIPMENT FOR SOME PORTION OF THE WORK.

AT LEAST FOURTEEN (14) WORKING DAYS BEFORE HIS NEED FOR APPROVAL, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER ELECTRONIC SUBMITTALS FOR ALL CONTRACTOR—FURNISHED PRODUCTS. SUBMITTALS SHALL CLEARLY IDENTIFY ANY DEVIATION FROM THE SPECIFICATIONS, AND SHALL BE CERTIFIED AND DATED BY THE CONTRACTOR. SUBMITTALS WILL BE ACCEPTED ONLY FROM THE CONTRACTOR. THE ENGINEER WILL INDICATE HIS APPROVAL OR DISAPPROVAL OF EACH SUBMITTAL AND, IF HE DOES NOT APPROVE THE SUBMITTAL HOW. IN THE DOES NOT APPROVE THE SUBMITTAL BY LILL INDICATE HIS REASONS FOR SO DOING. ANY WORK DONE PRIOR TO APPROVAL SHALL BE AT THE CONTRACTOR'S OWN AVERDER. CONTRACTOR'S OWN EXPENSE. RESUBMITTALS SHALL BE MADE THE SAME AS FOR ORIGINAL SUBMITTALS WITH CHANGES FROM THE PREVIOUS SUBMITTAL CLEARLY SHOWN.

THE LOG OF CONSTRUCTION SUBMITTALS SHALL INCLUDE BUT IS NOT LIMITED TO THE TABLE

CONSTRUCTION SCHEDULE SUBCONTRACTOR & SUPPLIER LIST KEY PERSONNEL CASTING SANITARY SEWER FIRE HYDRANTS STORM WATER PLAN PVC WATER MAIN WATER SERVICE SD DENR DEWATERING PERMIT INLET PROTECTION FITTINGS VALVES TYPE 1 BEDDING MATERIAL CORPORATION STOPS SADDLES CONCRETE ENCASEMENTS WATER MAIN DISINFECTION TABLETS FLOWABLE FILL OTHER SUBMITTALS

ALL TRAFFIC CONTROL SIGNS REMOVED OR DAMAGED BY THE CONTRACTOR SHALL BE RESET OR REPLACED, AND SHALL BE PAID FOR UNDER THE BID ITEM "INCIDENTAL WORK"

CONCRETE WASHOUT AREA

THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN A MINIMUM OF ONE (1) CONCRETE WASHOUT AREA ON THE SITE WHILE CONCRETE IS BEING PLACED. THE CONCRETE WASHOUT AREA SHALL BE FULLY CONTAINED AND NOT CONNECTED HYDRAULICALLY TO THE STORM SEWER NETWORK. THE CONTRACTOR SHALL DIRECT THE CONCRETE SUPPLIER IN THE LOCATION OF AND USE OF THE CONCRETE WASHOUT AREA. A DETAIL FOR THE CONSTRUCTION OF THE CONCRETE WASHOUT AREA IS INCLUDED IN THIS PLAN SET, SEE DETAIL SHEETS. NO SEPARATE PAYMENT SHALL BE MADE FOR CONSTRUCTION AND MAINTENANCE OF THE CONCRETE WASHOUT AREA IS INDICED THE REPORTED. AREA; IT SHALL BE PAID FOR UNDER THE BID ITEM "INCIDENTAL WORK".

COORDINATION AND SCHEDULING

A PRECONSTRUCTION MEETING WILL BE CONDUCTED AND THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE. THE CONTRACTOR WILL BE REQUIRED TO ATTEND THIS AND OTHER PERIODIC MEETINGS WITH CITY PERSONNEL AND AFFECTED UTILITIES OWNERS FOR THE PURPOSE OF SCHEDULING AND COORDINATION DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE REQUIRED TO COORDINATE WITH THE CITY OF PIERRE WATER DEPARTMENT FOR TYING INTO THE EXISTING MAINS AND FOR ANY TEMPORARY SHUT OFF SERVICES AND UTILITY MAINTENANCE DEPARTMENT FOR SANITARY SEWER SERVICE LINE TAPS. THE ENGINEER WILL ESTABLISH FREQUENCY, TIME, AND LOCATION OF THE PERIODIC MEETINGS.

CONSTRUCTION LIMITS

IN GENERAL. THE CONSTRUCTION LIMITS FOR THE PROJECT SHALL BE DEFINED AS FOLLOWS:

PROPERTY LINES, RIGHT-OF-WAY LINES, EXISTING UTILITY EASEMENT LINES, AND TEMPORARY CONSTRUCTION EASEMENT LINES SHALL BE THE CONSTRUCTION LIMITS UNLESS INDICATED OTHERWISE ON THE DRAWINGS OR FURTHER DEFINED HEREIN.

CONTRACTOR SHALL CONFINE CONSTRUCTION WORK WITHIN THE CONSTRUCTION LIMITS DEFINED.

CONSTRUCTION ACTIVITIES SHALL BE RESTRICTED TO THE CONSTRUCTION LIMITS UNLESS PRIOR APPROVAL IS RECEIVED FROM THE ENGINEER. USE OF CITY LANDS FOR STAGING AREAS, MATERIAL STORAGE, SEDIMENTATION PONDS, DEWATERING, AND/OR TOPSOIL STOCKPILING SHALL ONLY BE WITH PRIOR APPROVAL FROM THE ENGINEER. ANY DAMAGES AND RESTORATION OUTSIDE THE CONSTRUCTION LIMITS SHALL BE AT THE CONTRACTOR'S EXPENSE

THE CONTRACTOR SHALL NOT OPERATE OR PLACE EQUIPMENT, MATERIALS, OR STOCKPILES ON PRIVATE PROPERTY WITHOUT THE PROPERTY OWNER'S WRITTEN CONSENT. THE CONTRACTOR SHALL FURNISH A COPY OF OWNER'S WRITTEN CONSENT TO THE ENGINEER AND THE OWNER.

EROSION. SEDIMENT. AND WATER POLLUTION CONTROL

A STATE PERMIT IS REQUIRED FOR THIS PROJECT. THE OWNER IS RESPONSIBLE FOR FILING THE NOTICE OF INTENT (NOI) WITH THE SOUTH DAKOTA DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES (SDDANR) TO OBTAIN COVERAGE UNDER THE SURFACE WATER DISCHARGE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE CONTRACTOR AUTHORIZATION FORM IN ORDER TO BE RESPONSIBLE FOR THE DAY TO DAY EROSION AND SEDIMENT CONTROL AND IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

EXISTING UTILITIES

LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND WERE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND WERE TAKEN FROM AVAILABLE RECORDS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL SUPPORT OR TUNNEL UNDER EXISTING UTILITIES IN A MANNER THAT THE EXISTING UTILITIES ARE NOT DAMAGED OR DISTURBED. UNLESS OTHERWISE NOTED, ANY DISTURBANCE OR REPLACEMENT OF EXISTING UTILITIES SHALL BE INCIDENTAL TO THE PROJECT IF REQUIRED, THE CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH THE UTILITY OWNER. ALL UTILITIES ARE TO BE ADJUSTED AND/OR RELOCATED BY THE RESPECTIVE UTILITY COMPANIES UNLESS OTHERWISE INDICATED IN THESE DRAWINGS.

EXISTING UTILITY CROSSINGS

REFER TO SPECIFICATIONS FOR CROSSING OF EXISTING STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND WATER MAIN LOWERINGS. AT ALL LOCATIONS WHERE THE PROPOSED UTILITY IMPROVEMENT CROSSES OR IS ADJACENT TO EXISTING STORM SEWERS, SANITARY SEWERS OR WATER MAINS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING THE EXISTING UTILITIES TO ENSURE THAT THE ARE NOT DISTURBED DURING THE WORK. TEMPORARY STRUCTURAL SUPPORT FOR THE UTILITIES MAY BE REQUIRED. NO SEPARATE PAYMENT SHALL BE MADE FOR CROSSED UTILITY PROTECTION. ANY REPAIR WORK NECESSARY TO A CROSSED UTILITY RESULTING FROM THE CONTRACTOR'S ACTIVITY SHALL BE AT THE CONTRACTOR'S

UTILITY COMPANY NOTIFICATION

THE INFORMATION ON THESE DRAWINGS CONCERNING THE TYPE, SIZE AND LOCATION OF UTILITIES HAS BEEN BASED UPON THE INFORMATION AVAILABLE DURING TOPOGRAPHIC SURVEYS. SIZE AND TYPE OF UTILITIES WAS PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN PLACE UNLESS THEY ARE SCHEDULED FOR RELOCATION. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE UTILITY COMPANIES. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.

THE CONTRACTOR SHALL UTILIZE THE SOUTH DAKOTA ONE CALL NOTIFICATION PROCESS TO PROVIDE ADVANCE NOTICE OF AT LEAST 48 HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, TO INFORM ALL SOUTH DAKOTA UNDERGROUND FACILITY OPERATORS OF INTENDED EXCAVATION. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES BEFORE WORK IS COMMENCED.

SOUTH DAKOTA ONE CALL 1-800-781-7474

MATERIAL STOCKPILE IDENTIFICATION

THE CONTRACTOR SHALL CLEARLY IDENTIFY MATERIAL STOCKPILES SO THAT MATERIAL TYPES AND USES ARE CLEARLY IDENTIFIED. FOR EXAMPLE BEDDING, GRAVEL CUSHION, BASE COURSE, AND CUSHION GRAVEL FOR SIDEWALK, ETC

MATERIAL TICKET SUBMITTALS AND STOCKPILES

THE CONTRACTOR SHALL SUBMIT ALL TICKETS FOR MEASUREMENT AND PAYMENT TO THE INSPECTOR WITHIN 48 HOURS. ANY TICKET RECEIVED LATER THAN 48 HOURS WILL NOT BE ACCEPTED AND PAYMENT FOR THAT ITEM WILL NOT BE MADE. ALL TICKETS SHALL ACCOMPANY THE MATERIAL TO THE SITE. NO HAND WRITTEN TICKETS SHALL BE ALLOWED.

THE CONTRACTOR SHALL CLEARLY IDENTIFY MATERIALS FOR VARIOUS PRODUCTS USED ON THE PROJECT, SUCH AS: BEDDING, GRAVEL SURFACING, ETC.

THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL WASTE DISPOSAL ON THE PROJECT. THE CONTRACTOR SHALL FURNISH THE DISPOSAL SITE FOR THIS WORK AND THE LOCATION MUST BE APPROVED BY THE ENGINEER. NO WASTE DISPOSAL IS ALLOWED WITHIN RIGHT OF WAY OR EASEMENTS. NO PAYMENT WILL BE MADE FOR WASTE DISPOSAL.

FOR BIDDING PURPOSES ONLY

TOTAL PROJECT STATE OF SHEET SHEETS X05W DAKOTA D.2 D.6

REV DATE: 04/23/2024 INITIAL: DLH

REV DATE: 08/28/2024 INITIAL: DLH

WASTE DISPOSAL SITE

ALL MATERIAL GENERATED BY THIS PROJECT MUST BE DISPOSED OF AT A PERMITTED SITE. DEPENDING ON WHAT MATERIAL IS GENERATED AND WHETHER IT IS CONTAMINATED OR UNCONTAMINATED WILL DETERMINE WHICH PERMITTED FACILITY CAN ACCEPT IT. PERMITTED FACILITY CAN ACCEPT IT. PERMITTED FACILITIES INCLUDE CONSTRUCTION AND DEMOLITION DEBRIS SITES, RESTRICTED USE SITES, AND REGIONAL LANDFILLS. CONTACT SD DANR WASTE MANAGEMENT PROGRAM AT 605-773-3153 TO IDENTIFY LOCALLY PERMITTED DISPOSAL SITES FOR VARIOUS CATEGORIES OF CONTAMINATED AND UNCONTAMINATED MATERIALS.

TRAFFIC CONTROL

THE UTILITY IMPROVEMENTS IN THESE PLANS SHALL BE INSTALLED IN CONJUNCTION WITH THE SDDOT PROJECT NH 0014(185)229 U.S. HIGHWAY 14. TRAFFIC CONTROL AND PROJECT PHASING SHALL BE PER SECTION C OF THE AFOREMENTIONED PLANS.

TOPSOIL

PRIOR TO EXCAVATING FOR THE WATER OR SEWER PIPE. THE CONTRACTOR SHALL STRIP AND STOCKPILE THE TOPSOIL. THE TOPSOIL SHALL BE STRIPPED TO DEPTHS NECESSARY TO PROVIDE A DEPTH OF FOUR INCHES OF TOPSOIL AT COMPLETION. THE TOPSOIL SHALL BE PLACED BACK OVER THE DISTURBED AREAS TO A DEPTH OF FOUR INCHES. CONTRACTOR SHALL UTILIZE THE CONSTRUCTION SURVEY TO MEASURE TOPSOIL STOCKPILE FOR QUANTITY

SAW CUTTING PAVEMENT

SAW CUTTING SHALL INCLUDE AN INITIAL SAW CUT AND FINAL SAW CUT FOR PCC PAVEMENT, CURB, GUTTER, AND SIMILAR STRUCTURES WHERE PORTIONS OF THE EXISTING STRUCTURES ARE TO BE LEFT IN THE FINISHED WORK.

AREAS TO BE REMOVED ARE SHOWN ON THE DRAWINGS. THESE AREAS REPRESENT THE FINAL SAW CUT AND REMOVAL LIMITS. THE FIRST SAW CUT SHALL BE MADE AT LEAST 1 FOOT INSIDE OF THE LINES SHOWN. ALL SAW CUTTING SHALL BE CONSIDERED AS INCIDENTAL AND WILL BE PAID FOR AT THE LUMP SUM CONTRACT PRICE FOR "INCIDENTAL WORK"

TRENCH EXCAVATION AND BACKFILL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SAFE EXCAVATION COMPLYING THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SAFE EXCAVATION COMPLYING WITH APPLICABLE STATE AND FEDERAL REQULATIONS. IT IS POSSIBLE THAT IN SOME AREAS SPECIAL FOUNDATIONS MAY BE REQUIRED TO PROVIDE ADEQUATE SUPPORT FOR THE PIPE. SUCH FOUNDATIONS WILL CONSIST OF SUB—EXCAVATION TO A DEPTH AS REQUIRED BY THE ENGINEER AND PLACEMENT OF TYPE 2 OR TYPE 3 FOUNDATION MATERIAL. A QUANTITY OF 100 CUBIC YARDS OF EACH HAS BEEN INCLUDED IN THE BID TO ESTABLISH A BID PRICE, THESE ITEMS SHALL ONLY BE USED IF DIRECTED BY THE OWNER.

IMPORTED TRENCH BACKFILL MAY BE AUTHORIZED FOR SOFT OR UNSUITABLE MATERIALS TO BE USED FOR REPLACEMENT OF FROZEN OR WET MATERIALS OR HARD SHALE MATERIAL OR OTHER MATERIAL THAT MAY REQUIRE PROCESSING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROCESSING OF BACKFILL MATERIAL.

"IMPORTED TRENCH BACKFILL" QUANTITIES WILL BE DETERMINED BY COUNTING TRUCK LOADS. THE QUANTITY OF MATERIAL EACH TRUCK HOLDS SHALL BE AGREED UPON BY THE ENGINEER AND CONTRACTOR PRIOR TO ANY HAULING OPERATIONS. THE CONTRACTOR SHALL NOT BE PAID FOR TRENCH WIDTHS GREATER THAN FOUR (4) FEET (OR THE MAXIMUM TRENCH WIDTH, WHICHEVER IS GREATER). PAYMENT FOR IMPORT BACKFILL WILL NOT BE MADE FOR VOLUMES OF THE TRENCH IN WHICH GRANULAR BEDDING, AND FOUNDATION MATERIAL IS PLACED.

IMPORT BACKFILL WILL NOT BE PAID FOR WHEN THE CONTRACTOR FAILS TO PERFORM PROPER DEWATERING TECHNIQUES PER THE ENVIRIENCES PEOTIEST. DEWATERING TECHNIQUES PER THE ENGINEER'S REQUEST

SELECT BEDDING MATERIAL IS REQUIRED FROM 3 INCHES ABOVE THE PIPE CROWN TO 12 INCHES ABOVE THE PIPE CROWN. SELECT BEDDING MATERIAL MAY INCLUDE LOAM, CLAY, SAND, AND GRAVEL, BUT SHALL BE FREE OF CINDER, ASHES, REFUSE, ORGANIC MATTER, ROCK OR MATERIAL DETERMINED UNSUITABLE BY THE ENGINEER. NO MATERIAL LARGER THAN ONE (1) INCH IN SIZE SHALL BE PERMITTED. FROZEN MATERIAL SHALL NOT BE USED.

STONES AND ROCKS UP TO 12 INCHES IN THEIR LONGEST DIMENSION MAY BE INCLUDED IN THE BACKFILL GREATER THAN 24 INCHES ABOVE THE PIPE.

TRENCH CHECK DAM

CONTRACTOR SHALL PLACE WITHIN THE TRENCH A COMPACTED COHESIVE CLAY CHECK DAM. DURING CONSTRUCTION, CHECK DAM LOCATIONS MAY BE MOVED DUE TO FIELD CONDITIONS. THE CHECK DAM SHALL EXTEND FROM THE BOTTOM OF THE EXCAVATION THROUGH THE BEDDING MATERIAL TO THE BACKFILL AND SHALL EXTEND COMPLETELY TO EACH TRENCH SIDEWALL. THE CHECK DAM IS USED AS A MEANS TO PREVENT THE CONVEYANCE OF WATER THROUGH THE TRENCH BEDDING. COMPACTED COHESIVE CLAY SHALL CONSIST OF MATERIAL THAT CONTAINS A MINIMUM OF 25% MINUS NO. 200 SIEVE MATERIAL WITH 70% PASSING A %" SIEVE AND A PI OF 10%. THE MATERIAL SHALL CONSIST OF CLAY, SILTY SAND OR SILTY CLAY. IF THE NORMAL EXCAVATED MATTER IS NOT SUITABLE FOR CONSTRUCTION OF THE CHECK DAM INSTALLATION AND MATERIAL SHALL BE CONSIDERED AS INCIDENTAL TO THE PIPE INSTALLATION.

WATER MAIN ABANDONMENT

THE CONTRACTOR SHALL REMOVE THE EXISTING MAIN OR ANY ASSOCIATED VALVES AND FITTINGS NECESSARY TO COMPLETE THE PROJECT. WATER MAIN REMOVAL SHALL BE INCIDENTAL TO THE PROJECT AND PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR BID ITEM

WHERE SHOWN IN THE PLANS EXISTING WATER MAIN SHALL BE ABANDONED. WATER MAIN MABANDONMENT SHALL BE COMPLETED BY PLACING FLOWABLE FILL IN THE ABANDONED WATER MAIN. WATER MAIN ABANDONMENT SHALL BE PAID FOR AT THE BID UNIT PRICE PER FOOT FOR THE BID ITEM "ABANDON WATER MAIN". ALL CAPS REQUIRED FOR ABANDONMENT SHALL BE INCIDENTAL TO THE BID ITEM "ABANDON WATER MAIN"

VALVES LOCATED ON ABANDONED WATER MAINS SHALL BE REMOVED AND ALL COSTS ASSOCIATED WITH THE REMOVAL SHALL BE INCIDENTAL TO THE BID ITEM "ABANDON WATER

WATER MAIN INSTALLATION

PRIOR TO INSTALLATION OF WATER MAIN THE CONTRACTOR SHALL VERIFY DEPTH, SIZE, AND LOCATION OF THE EXISTING WATER SERVICES. WATER MAIN PIPING MATERIALS, INSTALLATION, FLUSHING, AND TESTING SHALL CONFORM TO THE PROJECT SPECIFICATIONS.

REMOVE EXISTING CURB STOPS AND BOXES

CURB STOPS AND BOXES ARE SCHEDULED FOR REPLACEMENT ON THIS PROJECT. THE LOCATION AND QUANTITIES ARE IDENTIFIED ON THE CONSTRUCTION DRAWINGS.

AT THOSE LOCATIONS IDENTIFIED, NEW CURB STOPS AND BOXES SHALL BE INSTALLED TO REPLACE THE EXISTING CURB STOPS AND BOXES. THE EXISTING WATER SERVICE LINES TO THE RESIDENCE SIDE SHALL BE CONNECTED TO THE NEW CURB STOP. THE CONTRACTOR SHALL FURNISH AND INSTALL COUPLINGS AS NECESSARY. PAYMENT FOR FURNISHING AND INSTALLING COUPLINGS, FURNISHING AND INSTALLING TAPPING SADDLES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR THE BID ITEM "RECONNECT WATER SERVICE".

REMOVE EXISTING BENDS, TEES AND REDUCERS

THE CONTRACTOR SHALL REMOVE EXISTING BENDS, TEES AND REDUCERS AS IDENTIFIED IN THE CONSTRUCTION DRAWINGS. THE REMOVAL OF SUCH BENDS, TEES AND REDUCERS SHALL BE INCIDENTAL TO THE PROJECT.

WATER SERVICE RECONNECTIONS

THE CONTRACTOR SHALL INSTALL A TAPPING SADDLE AND A CORPORATION STOP FOR EACH SERVICE LINE RECONNECTION. THE CITY OF PIERRE AND/OR THEIR REPRESENTATIVE SHALL BE PRESENT WHEN WATER SERVICE LINES ARE TAPPED. THE CONTRACTOR SHALL INSTALL POLY/PEX SERVICE LINE FROM THE CORPORATION STOP TO THE EXISTING SERVICE LINE WITH AN APPROVED COUPLER. IN CASES WHERE THE CURB STOP IS BEING REPLACED, THE WATER SERVICES SHALL BE FITTED WITH A MUELLER SERIES 300 ELECTRICAL INSULATOR AT THE CURB STOP PRIOR TO CONNECTION TO THE EXISTING SERVICE LINE. TRACER WIRE WILL BE REQUIRED ON ALL NEWLY INSTALLED SERVICE LINES.

CORROSION PROTECTION

WHERE IRON WATER MAIN APPURIENANCES ARE INSTALLED THE CONTRACTOR SHALL ENCASE THE APPURTENANCE WITH 8-MIL THICKNESS SHEET POLYETHYLENE MEETING AWWA C-105. JOINT TAPE FOR ENCASEMENT SHALL BE 3M SCOTCHWRAP 50, OR EQUAL.

TRACER WIRE SYSTEM

A TRACER WIRE SYSTEM SHALL BE INSTALLED IN ACCORDANCE MINNESOTA RURAL WATER ASSOCIATION. PAYMENT FOR FURNISHING AND INSTALLING THE TRACER WIRE SYSTEM SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR THE ASSOCIATED WATER MAIN PIPE AND FITTINGS. NO SEPARATE PAYMENT SHALL BE MADE. TRACER WIRE BOXES SHALL BE AT THE CONTRACT UNIT PRICE PER EACH FOR "TRACER WIRE ACCESS BOX, TYPE 1".

PIPE ENCASEMENT

CONCRETE ENCASEMENT SHALL MEET THE FOLLOWING:

THE CONTROLLED LOW STRENGTH MATERIAL FOR THE CONCRETE ENCASEMENT SHALL COMPLY WITH THE PROJECT SPECIFICATIONS. PIPE ENCASEMENT SHALL BE PLACED AS INDICATED IN THE PLANS. PIPE ENCASEMENT SHALL BE INCIDENTAL TO THE BID UNIT PRICE FOR "X" PVC WATER

STEEL CASING PIPE

STEEL CASING PIPE SHALL BE STRUCTURAL GRADE STEEL WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR GREATER AND MINIMUM WALL THICKNESS OF 0.250 INCHES OR GREATER. ALL JOINTS SHALL BE FULLY WELDED.

NSTALLATION AND MATERIAL SHALL BE CONSIDERED AS INCIDENTAL TO THE PIPE INSTALLATION.

PVC WATER MAIN PIPE

PIPE FOR WATER MAINS SHALL BE PVC PRESSURE PIPE AND SHALL CONFORM TO AWWA SPECIFICATIONS C -900 FOR ALL WATER MAIN PIPING. THE PIPE SHALL MEET ALL OTHER REQUIREMENTS SPECIFIED IN THE SPECIFICATIONS. BEDDING MATERIAL SHALL BE INCIDENCE TO 18 MINUTURE FOR "X" PVC WATER MAIN."

PVC WATER MAIN FITTINGS

WATER MAIN FITTINGS

WATER MAIN FITTINGS SHALL BE PVC AND SHALL BE SPECIFIED FOR USE IN PRESSURE TO 13586

WATER MAIN FITTINGS SHALL BE PVC WATER MAIN."

13586

DUSTIN LEGS

DUSTIN LEGS

DUSTIN LEGS

WATER MAIN PIPE SHALL BE PVC PRESSURE BOARD INSULATION FORMED FROM POLYSTYRENE BOARD INSULATION FROM POLYSTYRENE BOARD INSULATION FORMED FROM POLYSTYRENE BOARD INSULATION FORMED FROM POLYSTYRENE BOARD INSULATION FROM POLYSTYRENE BOARD INSULATION FORMED FROM POLYSTYRENE BOARD INSULATION FROM POLYSTYRENE BOARD INSULATION FORMED FROM POLYSTYRENE BOARD INSULATION FOR POLYSTYRENE BOARD INSULATION

TYPE IV STYROFOAM BRAND "SQUARE EDGE" OR "SCORE EDGE" AS MANUFACTURED BY DOW CHEMICAL COMPANY OR APPROVED EQUAL SHALL BE USED FOR INSULATING WATER PIPE WHERE REQUIRED. THE WIDTH AND THICKNESS OF INSULATION SHALL BE AS NOTED IN THE PLANS. THE MINIMUM INSULATION THICKNESS SHALL NOT BE LESS THAN 2 INCHES, WATER MAIN/WATER SERVICE LINE INSULATION SHALL BE INCIDENTAL TO THE WATER MAIN/WATER SERVICE INSTALLATION BID ITEMS.

DISINFECTION OF WATER MAINS

WATER MAIN WITH DIAMETERS SMALLER THAN 18" SHALL BE DISINFECTED PER THE PROJECT SPECIFICATIONS

NEUTRALIZATION OF CHLORINATED WATER

FOLLOWING DISINFECTION, WATER WITH HIGH CHLORINE CONTENT SHALL BE NEUTRALIZED BY TREATING IT WITH A REDUCTION AGENT. THE CONTRACTOR WILL BE RESPONSIBLE FOR DISPOSAL OF HEAVILY CHLORINATE WATER SUCH THAT RESIDUAL LEVELS OF CHLORINE IN THE DISCHARGE WATER DO NO EXCEED 0.05 MG/L. ALL COSTS ASSOCIATED WITH NEUTRALIZATION OF CHLORINATED WATER SHALL BE INCIDENTAL TO THE INSTALLATION OF WATER MAIN.

WATER SERVICE AND TEMPORARY WATER SYSTEM

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER SERVICE TO ALL AFFECTED PROPERTIES THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING HOW WATER SERVICE SHALL BE MAINTAINED. THE CONTRACTOR SHALL SUBMIT PLANS FOR MAINTAINING WATER SERVICE TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO MAINTAIN WATER SERVICE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "TEMPORARY WATER SERVICE"

TEMPORARY WATER SYSTEMS SHALL BE PROTECTED FROM TRAFFIC WHEN INSTALLED IN AREAS WHERE THEY ARE EXPOSED TO VEHICULAR TRAFFIC. ALL COSTS ASSOCIATED WITH PROTECTION OF THE SYSTEM FROM TRAFFIC SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "TEMPORARY WATER SERVICE."

SECTIONS OF NEW WATER MAINS WILL BE CONSTRUCTED IN THE SAME LOCATION AS EXISTING WATER MAINS. THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER SERVICE TO ANY PROPERTY IMPACTED BY UTILITY REPLACEMENT WORK. WATER SERVICE SHALL BE PROVIDED TO ALL IMPACTED PROPERTIES WITH ONLY SHORT DURATION OUTAGES (TWO HOURS OR LESS) ALLOWED FOR INSTALLATION OF TEMPORARY PIPE AND FITTINGS.

ALL COMPONENTS, SUCH AS TEMPORARY PIPE, FITTINGS, AND VALVES REQUIRED TO MAKE THE TEMPORARY CONNECTION, SHALL BE EQUAL TO OR GREATER IN SIZE THAN EXISTING SERVICE LINE PIPING. ALL TEMPORARY WATER PIPING 4" DIA. OR LARGER SHALL BE RESTRAINED C-900 CERTA-LOK C900/RJ, DIAMOND LOC, OR APPROVED EQUAL. PRIOR TO DISCONNECTING ANY WATER SERVICES, THE CONTRACTOR SHALL VERIFY SERVICE LINE SIZE, MATERIAL, AND CONNECTION DETAILS. TIMING OF SHORT DURATION OUTAGES SHALL BE COORDINATED WITH THE MPACTED PROPERTY OWNER OR AUTHORIZED REPRESENTATIVE.

THE CONTRACTOR SHALL TAKE CARE TO PROTECT THE TEMPORARY WATER SYSTEM FROM FREEZING DURING COLD WEATHER. ALL COSTS ASSOCIATED WITH FREEZE PROTECTION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "TEMPORARY WATER SERVICE".

ALL COSTS ASSOCIATED WITH PROVIDING TEMPORARY WATER SERVICE TO PROPERTIES IMPACTED BY WATER MAIN REPLACEMENT SHALL BE PAID FOR BY THE CONTRACT UNIT PRICE FOR "TEMPORARY WATER SERVICE".

SANITARY SEWER MAIN

THE CITY OF PIERRE WILL COMPLETE VIDEO INSPECTION OF THE SEWER MAIN TWICE FOR THE PROJECT — ONCE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES AND ONCE AFTER THE EARTHWORK IS COMPLETE, PRIOR TO FINAL SURFACING. THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS BEFORE VIDEO INSPECTIONS ARE TO BE CONDUCTED. CONTRACTOR SHALL CONTACT JOSH BIBLE (605-773-7448 / JOSH.BIBLE@CI.PIERRE.SD.US) TO SCHEDULE THE VIDEO INSPECTIONS

PRIOR TO INSTALLATION OF SANITARY SEWER MAIN THE CONTRACTOR SHALL VERIFY DEPTH, SIZE, AND LOCATION OF THE EXISTING SANITARY SEWER SERVICES. SANITARY SEWER MAIN SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. BEDDING MATERIAL SHALL BE INCIDENTAL TO THE BID UNIT PRICE FOR "X" PVC SEWER PIPE."

A QUANTITY OF 200 LF OF "8" PVC SEWER PIPE" HAS BEEN INCLUDED IN THE ESTIMATE OF QUANTITIES. THIS QUANTITY IS TO BE USED FOR SEWER MAIN INADVERTENTLY DAMAGED DURING STANDARD GRADING ACTIVITIES CONDUCTED IN A WORKMANLIKE MANNER ASSOCIATED WITH SUBGRADE REMOVAL, SUBGRADE PREPARATION, AND BASE COURSE PLACEMENT FOR THE SDDOT US 14 HIGHWAY RECONSTRUCTION PROJECT. SERVICE LINES DAMAGED DUE TO CONTRACTOR'S CARELESSNESS OR NEGLIGENCE DURING ANY PORTION OF THE PROJECT (UTILITY INSTALLATION, GRADING, ETC.) SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

CONNECT TO EXISTING SEWER MAIN

THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SANITARY SEWER MAINS AT THE PROPOSED CONNECTION TO NEW SANITARY SEWER MAINS. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION AND ELEVATION PRIOR TO CONSTRUCTION OF NEW SANITARY SEWER MAIN OR MANHOLES. ALL LABOR, MATERIALS, FITTINGS AND INCIDENTALS REQUIRED TO LOCATE THE EXISTING SEWER MAIN AND CONNECT TO THE EXISTING SEWER MAIN SHALL BE INCIDENTAL TO THE CONTACT UNIT PRICE PER EACH FOR "CONNECT TO EXISTING SEWER MAIN"

SANITARY SEWER SERVICE

THE CONTRACTOR SHALL VERIFY EXISTING SANITARY SEWER SERVICE LINES ARE INTACT BY THE CONTRACTOR SHALL VERBLY EXISTING SANITARY SEWER SERVICE LINES ARE BYING OF THE VIDEO INSPECTION. VIDEO INSPECTION SHALL BE COMPLETED TWICE — ONCE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES AND ONCE AFTER THE EARTHWORK IS COMPLETE, PRIOR TO FINAL SURFACING. THE VIDEO INSPECTION SHALL ONLY BE COMPLETED ON THE SERVICE LINE FROM THE SANITARY SEWER MAIN TO THE PROPERTY LINE. ALL TIME AND MATERIALS NEEDED TO COMPLETE VIDEO INSPECTION SHALL BE PAID FOR AT THE CONTRACTOR UNIT PRICE PER

THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND ELEVATION OF EXISTING SANITARY THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND ELEVATION OF EXISTING SANTIARY SEWER SERVICE LINES PRIOR TO BEGINNING CONSTRUCTION OF THE SANTARY SEWER MAIN FROM SIOUX AVENUE TO PLEASANT STREET. SANTIARY SEWER SERVICES SHALL BE REPLACED TO THE PROPERTY LINE OR AS SHOWN IN THE UTILITY PLANS. SANTIARY SEWER SERVICES SHALL BE CONNECTED TO THE NEW SANITARY SEWER MAIN. CONTRACTOR SHALL INSTALL A CLEAN OUT THE SIZE OF THE SERVICE AT THE CONNECTION TO THE EXISTING SERVICE LINE. ALL MATERIALS, LABOR AND INCIDENTALS ASSOCIATED WITH RECONNECTING SINTARY SERVICES TO THE MAIN INCLUDING BUT NOT LIMITED TO ANY TIME AND MATERIALS NEEDED DUE TO

FOR BIDDING PURPOSES ONLY DAKOTA

CONSTRUCTION PHASING (CAPS, BACKFILLING, EXCAVATION, ETC.) AND INSTALLATION OF INLINE TEES AND CLEANOUTS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "RECONNECT SANITARY SEWER SERVICE".

INSTALLATION FOR THE SERVICE LINE PIPE SHALL BE PAID FOR AT THE CONTRACTOR UNIT PRICE PER FOOT FOR "4" SEWER SERVICE" AND "6" SEWER SERVICE". AN ADDITIONAL QUANTITY OF 1,000 FT 4" SEWER SERVICE PIPE AND 20 RECONNECT SEWER SERVICE HAVE BEEN INCLUDED IN THE ESTIMATE OF QUANTITIES. THESE QUANTITIES ARE TO BE USED FOR SEWER SERVICES INADVERTENTLY DAMAGED DURING STANDARD GRADING ACTIVITIES CONDUCTED IN A WORKMANLIKE MANNER ASSOCIATED WITH SUBGRADE REMOVAL, SUBGRADE PREPARATION, AND BASE COURSE PLACEMENT FOR THE SDDOT US 14 HIGHWAY RECONSTRUCTION PROJECT.

SERVICE LINES DAMAGED DUE TO CONTRACTOR'S CARELESSNESS OR NEGLIGENCE DURING ANY PORTION OF THE PROJECT (UTILITY INSTALLATION, GRADING, ETC.) SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

SANITARY SEWER REMOVAL

WHERE CALLED OUT IN THE PLANS, EXISTING SANITARY SEWER MANHOLES SHALL BE COMPLETELY REMOVED. MANHOLE REMOVAL WILL BE PAID ON A PER EACH BASIS AND INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS TO REMOVE AND DISPOSE OF EACH

REMOVAL OF SEWER MAINS AND SERVICES SHALL BE INCIDENTAL TO THE INSTALLATION OF THE NEW MAINS AND SERVICES.

SANITARY SEWER BYPASS GENERAL NOTES

WHERE EXISTING FLOW CANNOT BE MAINTAINED, INTERRUPTION OF SERVICE SHALL BE MINIMIZED SUCH THAT NO DISCHARGE OF SANITARY SEWAGE TO ANY NATURAL WATERWAY, STORM SEWER, OPEN TRENCH, GROUND SURFACE, STREETS OR GUTTERS OCCURS NOR SHALL SUCH INTERRUPTION CREATE A PUBLIC HEALTH HAZARD FROM SEWAGE BACKUPS OR OVERFLOWS. BYPASS OPERATIONS MUST BE APPROVED BY THE OWNER AND ENGINEER BEFORE STARTING, CONTRACTOR SHALL PROVIDE A DETAILED WRITTEN PLAN, INCLUDING A DRAWING, OF HOW THE BYPASS OPERATION WILL BE PERFORMED, FOR APPROVAL, BEFORE OR AT THE PRECONSTRUCTION MEETING AND AT LEAST TWO WEEKS PRIOR TO THE OPERATION.

THE BYPASS SYSTEM SHALL BE OF SUFFICIENT CAPACITY TO HANDLE PEAK FLOW OF THE PIPE. PEAK FLOWS FOR THE BLOCK OF SOUTH PIERRE STREET FROM SIOUX AVENUE TO PLEASANT DRIVE ARE 3.5 CFS. FLOWS WERE CALCULATED BASED ON DEPTHS MEASURED BY THE CITY OF PIERRE IN NOVEMBER OF 2023. CITY ALSO INDICATED THAT PEAK FLOWS OCCUR AT THE WASTEWATER TREATMENT PLANT BETWEEN 8;30 A.M.-10 A.M. AND 5 P.M.-7 P.M

CONTRACTOR SHALL PROVIDE THE NECESSARY LABOR AND SUPERVISION TO SET UP AND OPERATE THE BYPASSING SYSTEM. CONTRACTOR SHALL COMPLY WITH CITY SOUND ORDINANCE AND OBTAIN A NOISE PERMIT IF PUMPING IS REQUIRED BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. PUMPING EQUIPMENT SHALL BE MANNED CONTINUOUSLY. DURING BYPASS PUMPING OPERATIONS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY LABOR TO CONTINUALLY MONITOR THE OPERATION AND ENSURE UNINTERRUPTED AND SUFFICIENT PUMPING

BYPASS PUMPING EQUIPMENT SHALL INCLUDE PUMPS, CONDUITS, ENGINES, AND RELATED EQUIPMENT NECESSARY TO DIVERT THE FLOW OF SEWAGE AROUND THE SECTION IN WHICH THE WORK IS TO BE PERFORMED. IN ADDITION, THE CONTRACTOR SHALL MAINTAIN AT THE SAME LOCATION AND IN OPERABLE CONDITION, DUPLICATE EQUIPMENT TO BE USED IN CASE THERE IS EQUIPMENT FAILURE. IN THIS EVENT, THE CONTRACTOR SHALL PROMPTLY REPAIR OR REPLACE THE FAILED EQUIPMENT TO THE SATISFACTION OF THE ENGINEER.

MANHOLES AND/OR SUMPS OPENED FOR USE AS SUCTION OF DISCHARGE POINTS MUST BE KEPT SEALED TO PREVENT ODORS FROM ESCAPING. EACH PUMP SETUP SHALL MEET THE FOLLOWING NOISE REQUIREMENT AS MEASURED ON THE DBA SCALE AT THE MEASURED DISTANCE FROM THE SUCTION POINT: 85 DBA AT 23 FEET.

IF ACCESS INTO EXISTING CONCRETE MANHOLES REQUIRES REMOVAL OF THE CONE, ALL COSTS FOR REMOVING AND REINSTALLING THE CONCRETE CONE SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR "SANITARY SEWER TEMPORARY BYPASS PUMPING", INCLUDING BUT NOT LIMITED TO REINSTALLING THE CONE TO PROPER ELEVATION, CONNECTION TO THE EXISTING MANHOLE TO SUPPORT H-20 LOADING, AND REPAIRING THE HDPE LINER JOINT TO ENSURE UNIFORM

THE CONTRACTOR SHALL INSTALL A BYPASS PIPE WITH A MINIMUM OF 3' OF COVER ACROSS SIOUX AVENUE AS THIS STREET CANNOT BE CLOSED. THE APPROXIMATE LOCATION IS SHOWN ON SHEET 1.21. AFTER BYPASS PUMPING IS COMPLETE AND PIPING HAS BEEN CLEANED, IT CAN BE CAPPED AND LEFT IN PLACE

SANITARY SEWER BYPASS FLOW MONITORING

FLOW METERING ON THE DISCHARGE LINES FROM THE BYPASS SYSTEMS(S) SHALL BE PROVIDED. THE FLOW METER IS TO HAVE A LOCAL READOUT (LCD OR APPROVED) AND LOG DATE TO ALLOW FOR VIEWING INSTANTANEOUS PEAK, DAILY AND MONTHLY FLOWS WITH AN ACCURACY OF

PUMP SUCTION AND DISCHARGES SHALL BE PROVIDED WITH PRESSURE/VACUUM GAUGES. THESE ARE TO BE OPERABLE AND ACCURATE THROUGHOUT THE BYPASS PERIOD. IF A GAUGE FAILS, REPLACE IMMEDIATELY. THE CONTRACTOR SHALL KEEP SPARE GAUGES ON SITE AT ALL TIMES.

SANITARY SEWER BYPASS DISCHARGE PIPING

DISCHARGE PIPING MUST BE ADEQUATE FOR THIS APPLICATION AND DESIGNED FOR THE SAFETY OF NEARBY STRUCTURES, EQUIPMENT, AND PEOPLE.

BYPASS PIPING SHALL BE BURIED OR COVERED BY RAMPS WHERE THE PIPE CROSSES THE SIDEWALK, DRIVEWAYS, ROADS OR PEDESTRIAN CROSSINGS, RAMPS SHALL BE CONSTRUCTED TO SUPPORT VEHICLE LOADING WITHOUT DAMAGE TO THE DISCHARGE PIPING. THE CONTRACTOR SHALL MONITOR DRAINAGE OF AREAS SERVED BY STORM SEWER AND PROVIDE ADDITIONAL DRAINAGE PROTECTION MEASURES, SUCH AS TEMPORARY PUMPING OF TRAPPED WATER. CONTROL OF DRAINAGE SHALL BE INCIDENTAL TO THE PROJECT. BURYING APPASS DISCHARGE PIPE, PLACING MILLINGS OVER THE TOP OF BUILDING A RAMP OVER DISCHARGE PIPING SHALL BE INCIDENTAL TO "PROPASS PINCHARDE" BE INCIDENTAL TO "BYPASS PUMPING".

SANITARY SEWER BYPASS HYDROTESTING

THE BYPASS SYSTEM SHALL BE HYDROTESTED AT 50 PSI PRIOR TO COMMENCING BYPASSING. ALL COSTS FOR HYDROTESTING SHALL BE CONSIDERED INCIDENTAL TO THE "BYPASS PUMPING" LUMP SUM BID ITEM. THE SYSTEM SHALL HOLD THE PRESSURE FOR A MINIMUM OF ONE (1) HOUR WITHOUT DROPPING MORE THAN 5 PSI. IF PRESSURE DROPS MORE THAN 5 PSI TEST WILL CONTINUE AT ENGINEER'S DISCRETION OR CONTRACTOR MUST DRAIN THE LINE AND RETEST AFTER REPAIRS HAVE BEEN MADE.

PROJECT STATE OF X05W

REV DATE: 04/23/2024 INITIAL: DLH

TOTAL

SHEETS

D.6

SHEET

D.3

REV DATE: 08/28/2024 INITIAL: DLH

SANITARY SEWER BYPASS DISCHARGE PIPE FLUSHING

FITTINGS SHALL BE PROVIDED ON DISCHARGE PIPING TO ACCOMMODATE FLUSHING AFTER USE. ALL COSTS FOR FLUSHING BYPASS DISCHARGE PIPE SHALL BE CONSIDERED INCIDENTAL TO THE "BYPASS PUMPING" LUMP SUM BID ITEM. DISCHARGE PIPES SHALL BE FLUSHED AFTER EACH USE BEFORE THEY CAN BE MOVED.

AT NO TIME SHALL THE CONTRACTOR ALLOW DISCHARGE OF GREASE OR GRIT FROM THE AT NO TIME SHALL THE CONTRACTOR ALLOW DISCHARGE OF GREASE OR GRIT FROM THE SYPASS DISCHARGE PIPING TO ANY NATURAL WATERWAY, STORM SEWER, OPEN TRENCH, GROUND SURFACE, STREETS OR GUTTERS. THE FLUSHING OPERATION SHALL BE MONITORED TO ENSURE ALL CONTENTS ARE REMOVED FROM THE PIPE AND DIRECTED INTO THE SANITARY SEWER SYSTEM. IF GREASE AND GRIT IS NOTICED DURING THE DISMANTLING OF THE DISCHARGE PIPING. THE CONTRACTOR SHALL REINSTALL A FLUSHING SYSTEM OR PROVIDE A WRITTEN PLAN TO THE OWNER ON HOW GREASE AND GRIT WILL BE PROPERLY HANDLED AND DISPOSED OF.

SANITARY MANHOLE FRAME AND COVER

FRAMES AND COVERS SHALL BE INSTALLED ON THE SANITARY SEWER MANHOLES PER THE PROJECT SPECIFICATIONS.

DEWATERING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, AND IN ACCORDANCE WITH THE FOLLOWING ADDITIONAL REQUIREMENTS.

DEWATERING ACTIVITIES SHALL BE CONDUCTED IN COMPLIANCE WITH THE "GENERAL PERMIT TO DISCHARGE UNDER THE SURFACE WATER DISCHARGE SYSTEM FOR TEMPORARY DEWATERING ACTIVITIES IN SOUTH DAKOTA", SDDANR PERMIT NO. SDG 070000. A COPY OF THE PERMIT IS AVAILABLE THROUGH SDDANR. THE CONTRACTOR IS REQUIRED TO FURNISH THE "REQUEST FOR AUTHORIZATION" TO DANR REQUIRED UNDER THE PERMIT AND FOR EACH SCHEDULE, OBTAIN DANR AUTHORIZATION, AND FURNISH A SEPARATE COPY OF AUTHORIZATION TO THE RESPECTIVE OWNER AT THE PRECONSTRUCTION CONFERENCE.

THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELE-MONITORING ACTIVITIES INCLUDING THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-MONITORING ACTIVITIES INCLUDING SAMPLING, TESTING AND REPORTING AS MAY BE DETERMINED TO BE REQUIRED UNDER THE AUTHORIZATION TO DISCHARGE. PAYMENT FOR OBTAINING THE NECESSARY AUTHORIZATION TO DISCHARGE, AND FOR ALL COMPILANCE ACTIVITIES AND OBLIGATIONS BY THE CONTRACTOR SHALL BE ABSORBED INTO THE ITEM TO WHICH IT RELATES. NO ADDITIONAL PAYMENT WILL BE MADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER FOR COMPACTION OF EARTHEN AND GRANULAR MATERIALS USED FOR, BUT NOT LIMITED TO, GRADING, SUBGRADE PREPARATION, AND TRENCH BACKFILL. WATER NEEDED FOR SOD AND SEED IRRIGATION, STREE CLEANING, AND OTHER MISCELLANEOUS ITEMS SHALL ALSO BE PROVIDED BY THE CONTRACTOR. THE CITY WILL PROVIDE WATER FOR WATER MAIN TESTING AND DECHLORINATION. THERE WILL BE NO SEPARATE PAYMENT FOR WATER. THE COSTS FOR PURCHASING, LOADING, TRANSPORTING AND APPLYING/INCORPORATING WATER SHALL BE INCIDENTAL TO THE VARIOUS ITEMS WHERE WATER IS REQUIRED.

THE CONTRACTOR WILL BE REQUIRED TO PAY FOR METER FEES AND INSTALLATION ONTO A FIRE HYDRANT IF THE WATER IS PURCHASED FROM THE CITY OF PIERRE. CONTACT THE WATER OFFICE AT (605) 773-7448 TO ARRANGE FOR METER HOOK-UPS TO BE ADDED TO FIRE HYDRANTS AND TO OBTAIN THE CURRENT RATE THAT WILL BE CHARGED.

CONCRETE CURB & GUTTER

CONCRETE CURB & GUTTER TO BE REMOVED AND REPLACED IS SHOWN ON THE DRAWINGS. HOWEVER, DURING CONSTRUCTION, THE ENGINEER MAY DIRECT A LESSER OR GREATER REMOVAL LIMIT DUE TO THE PROXIMITY OF CONCRETE JOINTS OR OTHER CONDITIONS. REMOVAL AND REPLACEMENT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

CONCRETE SIDEWALK

CONCRETE SIDEWALK TO BE REMOVED AND REPLACED IS SHOWN ON THE DRAWINGS. REMOVAL CONCRETE SIDEWALK TO BE REMOVED AND REPLACED IS SHOWN ON THE DRAWINGS. REMOVAL AND REPLACEMENT BEYOND THE LIMITS SHOWN SHALL BE AT THE CONTRACTOR'S EXPENSE. HOWEVER, DURING CONSTRUCTION, THE ENGINEER MAY DIRECT A LESSER OR GREATER REMOVAL LIMIT DUE TO THE PROXIMITY OF CONCRETE JOINTS OR OTHER CONDITIONS. REMOVAL AND REPLACEMENT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. NEW CONCRETE SIDEWALK SHALL BE PLACED ON 2" GRAVEL CUSHION OR BASE COURSE. THE CONTRACTOR SHALL DOCUMENT THE QUANTITY OF GRAVEL CUSHION USED BY SUBMITTING WEIGHT TICKETS TO THE INSPECTOR

INCIDENTAL WORK

INCIDENTAL WORK SHALL INCLUDE ALL MISCELLANEOUS ITEMS NOT INCLUDED IN THE REGULAR ITEMS COVERED BY UNIT PRICES LISTED IN THE PROPOSAL AND SHOWN ON THE DRAWINGS, BUT WHICH MUST BE PERFORMED IN ORDER TO PROPERLY COMPLETE THE WORK.

THE ITEMS AND WORK LISTED BELOW ARE TO BE INCLUDED IN THE INCIDENTAL WORK ITEM, BUT THE LIST DOES NOT LIMIT THE SCOPE TO ONLY THOSE ITEMS. THE CONTRACTOR SHALL INCLUDE THOSE ITEMS THAT MAY BE SPECIFIC TO HIS CONSTRUCTION PROCEDURES.

OBTAIN PERMITS AS NEEDED

REMOVE AND RESET TRAFFIC SIGNS

MAINTAIN TEMPORARY SURFACING



ABANDONMENT / REMOVAL OF EXISTING WATER SERVICE LINES

STABILIZED CONSTRUCTION ENTRANCES

SALVAGE & REINSTALL ROCK LANDSCAPE

PROTECT OTHER UTILITIES FROM MOVEMENT DURING EXCAVATION

SAW CUTTING SHALL BE INCIDENTAL TO THE ASSOCIATED ITEMS OF CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE RIGHT TO WORK PERMIT FOR THE PROJECT ALLOWING THE CONTRACTOR TO WORK IN THE RIGHT—OF—WAY.

THE CONTRACTOR SHALL TAKE CARE TO PROTECT EXISTING LANDSCAPING AND LAWN IRRIGATION SYSTEMS. ALL LANDSCAPING AND LAWN IRRIGATION SHALL BE REPLACED/RESET IN KIND AT NO ADDITIONAL COST TO THE CIDY. THE CONTRACTOR SHALL COORDINATE REMOVAL AND REPLACEMENT OF IRRIGATION SYSTEM WITH THE PROPERTY OWNER. AFTER ANY DAMAGE TO IRRIGATION SYSTEMS IS REPAIRED, THE CONTRACTOR SHALL OBTAIN THE PROPERTY OWNER'S ACCEPTANCE OF THE REPAIRED SYSTEM.

INCIDENTAL WORK SHALL BE PAID FOR UNDER THE LUMP SUM BID FOR "INCIDENTAL WORK".

CONTRACTOR FURNISHED STAKING

ALL STAKING ON THE PROJECT WILL BE BY THE CONTRACTOR IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. SURVEYOR SHALL LOCATE AND PLACE A STAKE BY PROPERTY CORNERS THAT ARE CLOSE TO SERVICE LINES SO CONTRACTOR IS AWARE THEY EXIST. PAYMENT FOR CONTRACTOR FUNISHED STAKING WILL BE AT THE CONTRACT LUMP SUM PRICE FOR "CONSTRUCTION STAKING".

SANITARY SEWER IMPROVEMENTS HAVE BEEN STATIONED OFF THE MAINLINE ALIGNMENT FOR THE SDDOT PROJECT NH 0014(185)229 U.S. HIGHWAY 14. ALIGNMENT STAKING AND SURVEY CONTROL INFORMATION CAN BE FOUND IN SECTION B OF AFOREMENTIONED PLANS.

AS-BUILT PLANS

THE CONTRACTOR SHALL MEASURE AND RECORD ANY HORIZONTAL OR VERTICAL DEVIATIONS FROM THE CONTRACT DRAWINGS. THE CHANGES SHALL BE RECORDED IN AN ACCURATE, NEAT FASHION ON THE DRAWINGS AND FURNISHED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. SPECIFICALLY, ALL SERVICE TAPS, CONNECTIONS, ANODES AND BURIED FITTINGS SHALL BE RECORDED FOR THE WORK. THE AS-BUILT DRAWINGS SHALL BE ON-SITE AND AVAILABLE FOR REVIEW BY THE ENGINEER UPON REQUEST.

STREET MAINTENANCE

THE CONTRACTOR SHALL MAINTAIN THE STREETS WITHIN THE CONSTRUCTION LIMITS US HIGHWAY 14 (EUCLID AVENUE) UNTIL FINAL PAVEMENT PATCHING / PAVING IS COMPLETE. THE CONTRACTOR SHALL CONTINUE SNOW REMOVAL AND MAINTENANCE OF THE ENTIRE STREET WIDTH UNTIL THE PROJECT IS PAVED, EVEN IF ROADS THAT WERE CLOSED TO THROUGH TRAFFIC HAVE BEEN OPENED. SNOW REMOVAL OPERATIONS SHALL BE DONE TIMELY TO INSURE THE PUBLIC'S SAFE COMMUTE.

ASPHALT MILLINGS / GRAVEL MAINTENANCE AND THE ADDITION OF TEMPORARY GRAVEL AS NEEDED BEYOND THE ORIGINAL GRAVEL / MILLINGS INSTALLATION, SNOW REMOVAL, SWEEPING, AND GENERAL CLEAN-UP OF THE STREETS SHALL BE INCIDENTAL TO THE PROJECT.

RESIDENT NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE RESIDENTS AFFECTED BY THIS PROJECT OF THE CONSTRUCTION SCHEDULE AND THE EXTENT OF WORK A MINIMUM OF 7 DAYS IN ADVANCE OF BEGINNING CONSTRUCTION. VERIFICATION OF THE RESIDENT'S NOTIFICATION SHALL BE PROVIDED TO THE ENGINEER.

MAINTENANCE OF SOLID WASTE DISPOSAL SERVICE

THE STREETS AND ALLEYS IN THE PROJECT AREAS ARE USED FOR PICKUP AND REMOVAL OF SOLID WASTE FROM THE PROPERTIES ADJACENT TO AND NEAR THE PROJECT AREAS. THE CONTRACTOR SHALL PROVIDE NOTIFICATION OF THE WORK TO ALL AFFECTED PROPERTIES AND COORDINATE WITH VAL KELLER, CITY SOLID WASTE DIVISION PHONE 605-773-7434 OR SOLID WASTE COLLECTION CONTRACTORS TO ASSURE ALTERNATIVE LOCATIONS FOR WEEKLY SOLID WASTE PICKUP ARE PROVIDED AS NEEDED. IF NECESSARY THE CONTRACTOR SHALL TRANSPORT OR CONVEY DISPOSAL CONTAINERS (INCLUDING CONTAINERS FOR RECYCLABLE MATERIALS) TO THE ALTERNATIVE LOCATIONS AND RETURN THEM TO THE USUAL COLLECTION LOCATION ON THE PROPERTY FOLLOWING COLLECTION ON DESIGNATED SOLID WASTE PICKUP DAYS.

MAILBOXES

EXISTING MAILBOXES SHALL BE RESET IN A TEMPORARY LOCATION AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE POSTMASTER FOR A TEMPORARY LOCATION. UPON COMPLETION OF THE SANITARY SEWER AND SURFACING, THE MAILBOXES SHALL BE RESET IN THEIR PERMANENT LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT OF MAILBOXES DAMAGED DURING CONSTRUCTION.

WARRANTY PERIOD

THE WARRANTY PERIOD FOR THIS PROJECT SHALL START WHEN THE ENTIRE PROJECT IS COMPLETE AND SHALL NOT BE BASED ON COMPLETION OF DIFFERENT PHASES.

FOR BIDDING PURPOSES ONLY

REV DATE: 04/23/2024 INITIAL: DLH
REV DATE: 08/28/2024 INITIAL: DLH



STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

CITY OF PIERRE

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT PULLIFIED PERSONNEL PROPERTY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

DATE

AUTHORIZED	DESIGNEE
CITY OF PIE	RRE
SITE OWNER	

PRIME CONTRACTOR
THIS SECTION IS TO BE EXECUTED BY THE PRIME CONTRACTOR AFTER THE AWARD OF THE CONTRACT. THIS
SECTION SHALL BE EXECUTED ANY TIME THERE IS A CHANGE IN THE PRIME CONTRACTOR OF THE PROJECT.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WILL BE REVISED OR I CERTIFIT UNIVER PENALITY OF LAW IHAI HIS DOCUMENT AND ALL ATTACHMENTS WILL BE REVISED OR MAINTAINED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIDED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WITHOUT AND ANY OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

AUTHORIZED SIGNATURE CONTRACTOR	DAIL
PROJECT OWNER /ENGINEER CITY OF PIERRE 2301 PATRON PARKWAY PIERRE, SD 57501 OWNER REPRESENTATIVE: NICK WATERS P.E. EMAIL ADDRESS: NICK, WATERS®CL, PIERRE, SD.US PHONE NUMBER: (605) 773-3066	
PRIME CONTRACTOR	

PRIME CONTRACTOR
COMPANY NAME:
ADDRESS:
CITY:, STATE:, ZIP:
PROJECT MANAGER:
EMAIL ADDRESS:
PHONE NUMBER:
EROSION CONTROL SUPERVISOR
NAME:
ADDRESS:
CITY: STATE: ZIP:

SD DANR CONTACT SPILL REPORTING

• BUSINESS HOURS MONDAY-FRIDAY (605) 773-3296 NIGHTS AND WEEKENDS (605) 773-3231

SD DANR CONTACT FOR HAZARDOUS MATERIALS.

(605) 773-3153

EMAIL ADDRESS:

SITE DESCRIPTION

1) THIS PROJECT IS A RECONSTRUCTION OF THE SEWER MAIN IN SOUTH PIERRE STREET FROM SIGUX AVENUE

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1) THIS PROJECT IS A RECONSTRUCTION OF THE SEWER MAIN IN SOUTH PIERRE STREET FROM SIOUX AVENUE TO EAST PLEASANT DRIVE AND THE WATER MAIN FROM SIOUX AVENUE TO 8TH STREET COMPLETED IN CONJUNCTION WITH THE SDDOT U.S. HIGHWAY 14 RECONSTRUCTION.

2) THE EXISTING PROJECT AREA IS HARD SURFACING WITH SMALL AREAS OF VEGETATION IN THE BOULEVARD AREAS. THE AREA FROM SOUTH OF WYNOKA STREET TO SIOUX AVENUE DRAINS TO THE MISSOURI RIVER. THE AREA FROM 8TH STREET TO WYNOKA STREET DRAINS TO A DETENTION AREA CALLED HILGERS GULCH.

3) A DESCRIPTION OF THE SOIL WITHIN THE DISTURBED AREA(S) INCLUDE SILT CLAY, CLAY SINCE AVENUE OF THE SITE AND ADJACENT AREA THAT IS EXPECTED TO BE DISTURBED BY EXCAVATION, GRADING, GRUBBING, OR OTHER ACTIVITIES DURING THE LIFE OF THE PROJECT IS 40 ACRES. 5) SFOLIENG OF OR PERTONOS

5)SEQUENCE OF OPERATIONS
5)1) IMPLEMENT TRAFFIC CONTROL PLAN AND INSTALL MOVEABLE BARRIERS FOR PROPOSED EXCAVATION

AREAS.
5)2) NO TOPSOIL STRIPPING OR EXCAVATION MAY PROCEED UNTIL EROSION CONTROL DEVICES AND THE POLLUTION CONTROL PLAN ARE IMPLEMENTED. REFER TO THE EROSION CONTROL LAYOUT FOR MORE

INFORMATION.
5)3) NO EXCAVATION. OR SEWER INSTALLATION OR WATER INSTALLATION MAY PROCEED UNTIL EROSION

5)3) NO EXCAVATION, OR SEWER INSTALLATION OR WATER INSTALLATION MAY PROCEED UNTIL EROSION CONTROL DEVICES AND THE POLLUTION CONTROL PLAN ARE IMPLEMENTED.
5)4) PERFORM TOPSOIL STRIPPING, AND SALVAGE AND PLACE INTO STOCKPILES. IMPLEMENT POLLUTION CONTROL MEASURES AS RECESSARY.
5)5) THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING OF EROSION CONTROL, SEEDING AND MULCHING TO COMPLY WITH EROSION CONTROL PLAN AND STORM WATER PERMIT. THE CONTRACTOR SHALL PERFORM FINAL RESTORATION AND EROSION CONTROL INSTALLATION IMMEDIATELY FOLLOWING TEROLCHING WORK.
5)6) COMPLETE SITE RESTORATION, DITCH GRADING, TOPSOIL PLACEMENT, COMPOST MIXING, SEEDING, FERTILIZING, MULCHING, EROSION CONTROL MATTING AND WATTLES.
5)7) REMOVE SILT FENCE UPON REQUEST OF ENGINEER.

EROSION AND SEDIMENT CONTROL CONSTRUCTION SITE PLAN
THE EROSION AND SEDIMENT CONTROL CONSTRUCTION SITE PLAN PROVIDED IN THESE PLANS IS TO ESTABLISH A
NUMBER OF EROSION CONTROL DEVICES FOR BIDDING PURPOSES AND TO PROVIDE INFORMATION TO THE
CONTRACTOR TO AID IN THE PROCESS OF OBTAINING ALL ASSOCIATED CONSTRUCTION PERMITS. THE CONTRACTOR
IS RESPONSIBLE FOR THE METHODS AND MEANS REQUIRED FOR IMPLEMENTING ANY AND ALL CONSTRUCTION
ACTIVITIES TO BE IN COMPLIANCE WITH ALL PERMITS.

SOUTH DAKOTA DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES GENERAL PERMIT
THE SITE OWNER (CITY) IS RESPONSIBLE FOR PREPARING A NOTICE OF INTENT (NOI) REQUESTING COVERAGE
UNDER THE SOUTH DAKOTA DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES (DANR) GENERAL PERMIT
FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. WHEN COVERAGE IS GRANTED, A
COPY WILL BE PROVIDED TO THE CONTRACTOR. THE CONTRACTOR IS ADVISED THAT PERMIT COVERAGE MAY ALSO
BE REQUIRED BY OFF-SITE ACTIVITIES, SUCH AS BORROW AND STAGING AREAS, WHICH ARE THE RESPONSIBILITY
OF THE CONTRACTOR.

THE CONTRACTOR AUTHORIZATION FORM SHALL BE SUBMITTED TO DANR PRIOR TO THE PRE-CONSTRUCTION MEETING. A COPY SHALL BE PROVIDED TO THE OWNER AT THE PRE-CONSTRUCTION MEETING.

THE CONTRACTOR SHALL AT ALL TIMES HAVE A COPY OF THE DANR NOI COVERAGE LETTER, A COPY OF THE GENERAL PERMIT, STORMWATER POLLUTION PREVENTION PLAN WITH ASSOCIATED EROSION AND SEDIMENT CONTROL PLAN DRAWINGS, AND INSPECTION REPORTS LOCATED WITHIN OR ADJACENT TO THE PROJECT LIMITS AVAILABLE FOR REVIEW, THE CONTRACTOR SHALL ENSURE THAT THIS INFORMATION IS LOCATED WITHIN A WEATHER TIGHT, SECURE ENCLOSURE AND CLEARLY LABELED.

<u>EROSION AND SEDIMENT CONTROL PERMIT</u>
IN ADDITION TO COVERAGE UNDER THE DANR GENERAL PERMIT, THE PRIME CONTRACTOR IS THE RESPONSIBLE PARTY FOR OBTAINING A CITY OF PIERRE FROSION AND SEDIMENT CONTROL PERMIT FROM THE CITY OF

CONDITIONS REQUIRING MODIFICATIONS TO THE SWPPP
FOR A FULL LIST OF CONDITIONS THAT REQUIRE SWPPP MODIFICATIONS AND THE REQUIRED TIMING TO PERFORM
THE MODIFICATIONS, SEE THE GENERAL PERMIT SECTION 5.5. IN GENERAL, MODIFICATIONS MUST BE MADE TO
THIS SWPPP WHEN YOU MAKE CHANGES TO YOUR CONSTRUCTION PLANS, SEDMENT AND EROSION CONTROL
MEASURES, OR ANY BEST MANAGEMENT PRACTICES AT YOUR SITE THAT ARE NO LONGER ACCURATELY REFLECTED
IN YOUR SWPPP, THIS INCLUDES CHANGES MADE IN RESPONSE TO CORRECTIVE ACTIONS TRIGGERED BY

<u>DEWATERING PERMIT</u>
IF CONSTRUCTION DEWATERING IS REQUIRED AND WAS NOT INDICATED IN THE NOI, THE CONTRACTOR SHALL
OBTAIN A TEMPORARY DISCHARGE PERMIT FROM DANR AND PROVIDE A COPY TO THE OWNER. CONTACT THE DANR
SURFACE WATER PROGRAM AT 605-773-3351 TO APPLY FOR A PERMIT.

THE CONTRACTOR SHALL ENSURE THAT QUALIFIED PERSONNEL PERFORM INSPECTIONS ON THE PROJECT AT THE FOLLOWING MINIMUM FREQUENCY UNTIL THE SITE HAS REACHED FINAL STABILIZATION AND A NOTICE OF TERMINATION (NOT) IS SUBMITTED TO THE DANR:

1. ONCE EVERY SEVEN CALENDAR DAYS (MINIMUM), \underline{AND} 2. WITHIN 24 HOURS AFTER A STORM EVENT 1/2 INCH OR GREATER OF PRECIPITATION.

THE ABOVE FREQUENCY OF INSPECTIONS IS MORE RESTRICTIVE THAN THE MINIMUM REQUIREMENTS IN SECTION THE ABOVE PRODUCTION OF MAINTENANCE ACTIONS FOUND THEM THE MINISTER INSPECTIONS. THE SITE OWNER RESERVES THE RIGHT TO PERFORM INSPECTIONS MORE PROJUMENTLY THAN IDENTIFIED AND ADDITIONS. THE SITE OWNER RESERVES THE RIGHT TO PERFORM INSPECTIONS MORE PROJUMENTLY THAN IDENTIFIED AND ADDITIONS. THE SITE OWNER INSPECTIONS WILL BE MADE OF OBVIOUS ITEMS IF NON-COMPLIANCE EXISTS. IF THE CONTRACTOR FAILS TO ATTEND ANY INSPECTIONS, IT DOES NOT RELIEVE THEM OF THEIR RESPONSIBILITY TO COMPLY WITH ANY CORRECTION OF MAINTENANCE ACTIONS REQUIRED.

ALL CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER. NECESSARY REPAIRS SHALL BE INITIATED WITHIN 24 HOURS OF THE SITE INSPECTION REPORT. NO SEPARATE PAYMENT WILL BE MADE TO THE CONTRACTOR FOR MAINTAINING OR REPAIRING CONTROLS.

FOR ADDITIONAL DETAILS REGARDING MAINTENANCE AND INSPECTION REQUIREMENTS REFER TO SECTION 4 OF THE

NOTICE OF TERMINATION (NOT)

NOTICE OF TERMINATION (NOT)
THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SWPPP UNTIL A NOTICE OF TERMINATION (NOT) OF
COVERAGE UNDER THE GENERAL PERMIT HAS BEEN ISSUED. THE NOTICE WILL BE PREPARED BY THE
CONTRACTOR FOR SUBMITTAL TO THE CITY AND THEN TO THE DANR WHEN ALL STORM WATER DISCHARGES
COVERED BY THE PERMIT ARE ELIMINATED AND FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF
THE SITE FOR WHICH THE PERMITEE IS RESPONSIBLE.

THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL TEMPORARY EROSION CONTROL AND SEDIMENT CONTROL DEVICES WHEN THE SITE REACHES FINAL STABILIZATION. NO SEPARATE PAYMENT WILL BE MADE TO THE CONTRACTOR FOR REMOVING SUCH ITEMS UNLESS A REMOVAL BIO ITEM HAS BEEN PROVIDED.

THE ENGINEER MAY ORDER SPECIFIC TEMPORARY EROSION CONTROL AND SEDIMENT CONTROL DEVICES TO REMAIN IN-PLACE PAST FINAL STABILIZATION. THE CONTRACTOR WILL NOT BE RESPONSIBLE TO REMOVE THESE ITEMS.

YOU MUST BEGIN SOIL STABILIZATION MEASURES BY THE FOLLOWING WORK DAY WHENEVER EARTH-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE.

TEMPORARY STABILIZATION SHALL BE COMPLETED AS SOON AS PRACTICABLE, BUT NO LATER THAN 14 CALENDAR DAYS AFTER INITIATING SOIL STABILIZATION MEASURES.

FINAL VEGETATIVE STABILIZATION SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS:

PROVIDE 70 PERCENT OR MORE OF THE DENSITY OF COVERAGE THAT WAS PROVIDED BY VEGETATION PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
 PROVIDE PERENNIAL VEGETATIVE COVER.
 MINIMIZE THE PRESENCE OF INVASIVE SPECIES.

MATERIALS INVENTORY
THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

☑ CONCRETE AND PORTLAND CEMENT

DETERGENTS
PAINTS
METALS
BITUMINOUS MATERIALS

PETROLEUM BASED PRODUCTS CLEANING SOLVENTS

CURE

CHEMICAL FERTILIZERS

SPILL PREVENTION

MATERIAL MANAGEMENT

1. HOUSEKEEPING

HOUSEKEEPING

ONLY NEGDED PRODUCTS WILL BE STORED ON—SITE BY THE CONTRACTOR.

THE CONTRACTOR WILL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS, EXCEPT FOR BILK MATERIALS.

PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED.

MATERIAL MIXING WILL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

WHEN POSSIBLE, ALL PRODUCTS WILL BE COMPLETELY USED BEFORE PROPERLY DISPOSING OF THE CONTAINER OFF—SITE.

THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED.

THE CONTRACTOR'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED. THE CONTRACTOR'S SITE SUPERINTENDENT WILL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL. DUST GENERATED WILL BE CONTROLLED IN AN ENVIRONMENTALLY SAFE MANNER. VEGETATION AREAS NOT ESSENTIAL TO THE CONSTRUCTION PROJECT WILL BE PRESERVED AND MAINTAINED AS NOTED ON THE PLANS.

2 HAZARDOUS MATERIALS

HAZARDOUS MALENIALS
 PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THE CONTAINER IS NOT RE—SEALABLE.
 ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS WILL BE RETAINED IN A SAFE PLACE TO RELAY IMPORTANT PRODUCT INFORMATION.

IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LABEL DIRECTIONS FOR DISPOSAL WILL

IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACIUNER'S LABEL DIRECTIONS FOR DISPOSAL THE BE FOLLOWED.

MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS WILL BE CONDUCTED ON AN IMPERVIOUS SUBFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF

IMPERVIOUS SURFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF CONTAMINANTS ONTO THE GROUND.
WHEEL WASH WATER WILL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER WILL NOT BE DISCHARGED DIRECTLY INTO ANY STORM WATER SYSTEM OR STORM WATER TREATMENT SYSTEM.
OPIGINIAL PH-MODIFYING MATERIALS SUCH AS: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHINGS, CONCRETE PUMPING, RESIDUALS FROM CONCRETE SAW CUTTING (EITHER WET OR DRY), AND MIXER WASHOUT WATERS WILL BE COLLECTED ON SITE AND MANAGED TO PREVENT CONTAMINATION OF STORM WATER RUNOFF.

PRODUCT SPECIFIC PRACTICES
PETROLEUM PRODUCTS
ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE
TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED
CONTAINERS WHICH ARE CLEARLY LABELED.

FERTILIZERS
FERTILIZERS WILL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED BY THE CITY. ONCE APPLIED,
FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORM WATER. FERTILIZERS
WILL BE STORED IN AN ENCLOSED AREA. THE CONTENTS OF PARTIALLY USED FERTILIZER BAGS WILL BE

TOTAL SHEETS PROJECT SHEET STATE OF FOR BIDDING PURPOSES ONLY DAKOTA X05W D.6 D.5

TRANSFERRED TO SEALABLE CONTAINERS TO AVOID SPILLS.

FAINLS
ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS
WILL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND ANY APPLICABLE STATE
AND LOCAL REGULATIONS.

CONCRETE TRUCKS
CONTRACTORS WILL PROVIDE DESIGNATED TRUCK WASHOUT FACILITIES ON THE SITE. THESE AREAS MUST BE SELF-CONTAINED AND NOT CONNECTED TO ANY STORM WATER OUTLET OF THE SITE. UPON COMPLETION OF CONSTRUCTION, THE AREA AT THE WASHOUT FACILITY WILL BE PROPERLY STABILIZED.

SPILL CONTROL PRACTICES
IN ADDITION TO THE PREVIOUS HOUSEKEEPING AND MANAGEMENT PRACTICES, THE FOLLOWING PRACTICES
WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP IF NEEDED.
FOR ALL HAZARDOUS MATERIALS STORED ON SITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR
SPILL CLEANUP WILL BE CLEARLY POSTED. SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES
AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT WILL BE MAINTAINED BY THE CONTRACTOR IN THE
MATERIALS STORAGE AREA ON-SITE. AS APPROPRIATE, EQUIPMENT AND MATERIALS MAY INCLUDE ITEMS
SUCH AS BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND
PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR CLEANUP PURPOSSS.

ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF
PROPERTY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE

CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

AFTER A SPILL A REPORT WILL BE PREPARED DESCRIBING THE SPILL, WHAT CAUSED IT, AND THE
CLEANUP MEASURES TAKEN. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO
PREVENT THIS TYPE OF SPILL FROM REOCCURRING, AS WELL AS CLEAN UP INSTRUCTIONS IN THE EVENT OF REOCCURRENCES.

THE CONTRACTOR'S SITE SUPERINTENDENT, RESPONSIBLE FOR DAY-TO-DAY OPERATIONS, WILL BE THE

SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENDRING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.

SPILL RESPONSE
THE PRIMARY OBJECTIVE IN RESPONDING TO A SPILL IS TO QUICKLY CONTAIN THE MATERIAL(S) AND
PREVENT OR MINIMIZE MIGRATION INTO STORM WATER RUNOFF AND CONVEYANCE SYSTEMS. IF THE RELEASE
HAS IMPACTED ON—SITE STORM WATER, IT IS CRITICAL TO CONTAIN THE RELEASED MATERIALS ON—SITE AND
PREVENT THEIR RELEASE INTO RECEIVING WATERS. IF A SPILL OF POLLUTANTS THREATENS STORM WATER OR
SURFACE WATER AT THE SITE, THE SPILL RESPONSE PROCEDURES OUTLINED BELOW MUST BE IMPLEMENTED
IN A TIMELY MANNER TO PREVENT THE RELEASE OF POLLUTANTS.

THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE NOTIFIED IMMEDIATELY WHEN A SPILL OR THE THREAT OF A SPILL IS OBSERVED. THE SUPERINTENDENT WILL ASSESS THE SITUATION AND DETERMINE THE APPROPRIATE RESPONSE.

IF SPILLS REPRESENT AN IMMINENT THREAT OF ESCAPING EROSION AND SEDIMENT CONTROLS AND ENTERING RECEIVING WATERS, PERSONNEL WILL BE DIRECTED TO RESPOND IMMEDIATELY TO CONTAIN THE RELEASE AND NOTIFY THE SUPERINTENDENT AFTER THE SITUATION HAS BEEN STABILIZED.

SPILL KITS CONTAINING APPROPRIATE MATERIALS AND EQUIPMENT FOR SPILL RESPONSE AND CLEANUP WILL BE MAINTAINED BY THE CONTRACTOR AT THE SITE.

IF OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION WILL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR WILL USE APPROPRIATE MATERIALS TO CONTAIN AND ASSORE THE SPILL THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.

IF A SPILL OCCURS THE SUPERINTENDENT OR THE SUPERINTENDENT'S DESIGNEE WILL BE RESPONSIBLE FOR COMPLETING THE SPILL TO DANR.

PERSONNEL WITH PRIMARY RESPONSIBILITY FOR SPILL RESPONSE AND CLEAN UP WILL RECEIVE TRAINING BY THE CONTRACTOR'S SITE SUPERINTENDENT OR SPILL RESPONSE AND CLEAN UP WILL RECEIVE TRAINING BY THE CONTRACTOR'S SITE SUPERINTENDENT OR DESIGNEE. THE TRAINING MUST INCLUDE IDENTIFYING THE LOCATION OF THE SIPIL KITS AND OTHER SPILL RESPONSE EQUIPMENT AND THE USE OF SPILL RESPONSE MATERIALS. RESPONSE MATERIALS.

RESPONSE MAIEKIALS.

SPILL RESPONSE EQUIPMENT WILL BE INSPECTED AND MAINTAINED AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

SPILL NOTIFICATION
IN THE EVENT OF A SPILL, THE CONTRACTOR'S SITE SUPERINTENDENT WILL MAKE THE APPROPRIATE NOTIFICATION(S). CONSISTENT WITH THE FOLLOWING PROCEDURES:

A RELEASE OR SPILL OF A REGULATED SUBSTANCE (INCLUDES PETROLEUM AND PETROLEUM PRODUCTS) MUST BE A RELEASE OR SPILL OF A REGULATED SUBSTANCE (INCLUDES PETROLEUM AND PETROLEUM PRODUCTS) MUST E REPORTED TO DANN IMMEDIATELY IF ANY ONE OF THE FOLLOWING CONDITIONS EXISTS:

• THE DISCHARGE THREATENS OR IS IN A POSITION TO THREATEN THE WATERS OF THE STATE (SURFACE WATER OR GROUND WATER).

• THE DISCHARGE CAUSES AN IMMEDIATE DANGER TO HUMAN HEALTH OR SAFETY.

• THE DISCHARGE CAUSES AS HEERO NO SURFACE WATER.

• THE DISCHARGE CAUSES AS SHEEN ON SURFACE WATER.

• THE DISCHARGE OF ANY SUBSTANCE THAT EXCEEDS THE GROUND WATER QUALITY STANDARDS OF ARSD (ADMINISTRATIVE RULES OF SOUTH DAKOTA) CHAPTER 74-51:01.

• THE DISCHARGE OF ANY SUBSTANCE THAT EXCEEDS THE SURFACE WATER QUALITY STANDARDS OF ARSD CHAPTER 74-51:01.

CHAPTER 74:51:01.

THE DISCHARGE OF ANY SUBSTANCE THAT HARMS OR THREATENS TO HARM WILDLIFE OR AQUATIC LIFE.

THE DISCHARGE OF CRUDE OIL IN FIELD ACTIVITIES UNDER SDCL (SOUTH DAKOTA CODIFIED LAWS)
CHAPTER 45-9 IS GREATER THAN 1 BARREL (42 GALLONS).

TO REPORT A RELEASE OR SPILL, CALL DANR AT 605-773-3296 DURING REGULAR OFFICE HOURS (8 A.M. TO 5 TO REPORT A RELEASE OR SPILL, CALL DANR AT 605-773-3296 DURING REGULAR OFFICE HOURS (8 A.M. TO P.M. CENTRAL STANDARD TIME). TO REPORT THE RELEASE AFTER HOURS, ON WEEKENDS OR HOLIDAYS, CALL SOUTH DAKOTA EMERGENCY MANAGEMENT AT 605-773-3231.

REPORTING THE RELEASE TO DANR DDES NOT MEET ANY OBLIGATION FOR REPORTING TO OTHER STATE, LOCAL, OF FEDERAL AGENCIES. THEREFORE, YOU MUST ALSO CONTACT LOCAL AUTHORITIES TO DETERMINE THE LOCAL REPORTING REQUIREMENTS FOR RELEASES. A WRITTEN REPORT OF THE UNAUTHORIZED RELEASE OF ANY REQUILATED SUBSTANCE, INCLUDING QUANTITY DISCHARGED AND THE LOCATION OF THE DISCHARGE SHALL BE SENT TO DANR WITHIN 14 DAYS OF THE DISCHARGE.

EROSION AND SEDIMENT CONTROL SEQUENCE AND TIME SCHEDULE THE FOLLOWING SEQUENCE AND TIME SCHEDULE ARE INTENDED TO PROVIDE A GUIDELINE TO THE CONTRACTOR FOR THE INSTALLATION AND IMPLEMENTATION OF THE EROSION CONTROL PLAN DURING CONSTRUCTION. THE SEQUENCE AND TIME SCHEDULE ARE FOR REFERENCE ONLY AND MAY CHANGE DEPENDING ON THE CONTRACTOR'S SEQUENCE OF OPERATIONS AND MUST BE APPROVED BY THE ENGINEER PRIOR TO MAKING

TIME SCHEDULES

STREET CONSTRUCTION
INITIAL EROSION CONTROL MEASURES INCLUDE THE INSTALLATION OF THE TEMPORARY SILT FENCE ALONG
THE SOUTH SIDE OF THE PROJECT LENGTH AND CONSTRUCTION OF THE SILT DITCH AND SEDIMENT TRAP ON
THE NORTH SIDE OF THE PROJECT. TEMPORARY VEHICLE TRACKING CONTROL SHALL BE INSTALLED
IMMEDIATELY FOLLOWING PAVEMENT REMOVALS. INLET PROTECTION SHALL BE INSTALLED FOLLOWING THE
EXCAVATION OF EACH INLET OR JUNCTION BOX. MULTIPLE INSTALLATIONS OF INLET PROTECTION MAY BE
REQUIRED AT EACH LOCATION DUE TO CONSTRUCTION ACTIVITIES.

EROSION CONTROL REMOVALS - ALL PHASES

EROSION CONTROL REMOVALS — ALL PHASES VEHICLE TRACKING STATIONS SHALL BE REMOVED WHEN ALL ROADWAY GRAVEL BASE HAS BEEN PLACED IN PARTICULAR PHASE. SILT TRAPS, SILT DITCH, AND TEMPORARY SILT FENCE SHALL BE REMOVED AFTER ALL HARD SURFACING IS COMPLETE AND FINAL STABILIZATION HAS BEEN ACHIEVED WITHIN EACH DRAINAGE BASI

EROSION AND SEDIMENT CONTROL MEASURES

INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES

THE CONTRACTOR SHALL NOT BEGIN THE REMOVAL OF SURFACING OR TOPSOIL WITHIN THE APPLICABLE WORK AREA UNTIL ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALL ON THE STATE OF THE STATE O

APPROVED PRODUCTS

THE CONTRACTOR MAY ELECT TO USE PRODUCTS LISTED IN THIS SWPPP OR EQUIVALENT PRODUCTS FROM THE SD DOT APPROVED PRODUCTS LIST ARE ALSO ACCEPTABLE.

USE OF MATERIALS NOT INCLUDED IN BIDDERS PROPOSAL

OSC OF MATERIAIS NOT INCLUDED IN BIDDERS PROPOSAL.

THE CONTRACTOR MAY PROPOSE TO UTILIZE MATERIALS NOT INCLUDED IN THE BIDDERS PROPOSAL. THE
CONTRACTOR SHALL SUBMIT A PROPOSAL WITH UNIT PRICE TO THE OWNERS REPRESENTATIVE. USE AN ALTERNATE
MATERIAL IS CONTINGENT UPON APPROVAL OF A CONTRACT CHANGE ORDER.

SURFACE ROUGHENING (SR)
SURFACE ROUGHENING SHALL BE DONE AFTER TOPSOIL PLACEMENT AND BEFORE PERMANENT SEEDING,
FERTILIZING, AND MULCHING APPLICATIONS. REFER TO CITY OF PIERRE DETAIL 150-1 FOR DETAILS. THE
EQUIPMENT USED FOR SURFACE ROUGHENING SHALL BE EQUIPPED WITH TRACKS THAT ARE CAPABLE OF
CREATING RIDGES IN THE SOIL THAT ARE PERPENDICULAR TO THE SLOPE. THE FINAL CONDITION OF THE
SURFACE ROUGHENING SHALL BE APPROVED BY THE ENGINEER.

MEASUREMENT FOR SURFACE ROUGHENING SHALL BE TO THE NEAREST TENTH OF AN ACRE. ALL COSTS ASSOCIATED WITH SURFACE ROUGHENING INCUDING LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER ACRE FOR "SURFACE ROUGHENING".

IGMPURARY SEDIMENT BARRIERS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROINTER, TO RETAIN SEDIMENT FROM BEING TRANSPORTED OFF THE PROJECT SITE. TEMPORARY SEDIMENT BARRIERS WAY BE CONSTRUCTED WITH SILT FENCE OR SEDIMENT CONTROL WATLES. TEMPORARY SEDIMENT BARRIERS SHALL BE INSPECTED IN ACCORDANCE WITH THE SWPPP AND/OR EROSION SEDIMENT CONTROL PERMIT.

PAYMENT FOR TEMPORARY SEDIMENT BARRIERS WILL BE PER LINEAR FOOT FOR THE VARIOUS ITEMS USED FOR PERIMETER PROTECTION SUCH AS "SILT FENCE" AND "SEDIMENT CONTROL WATTLE".

SILT FERCE (3F).

SILT FERCE (HIGH FLOW: 71–145 G/MIN/SQ FT) SHALL BE PLACED AT THE LOCATIONS NOTED IN THE DRAWINGS AND AT LOCATIONS THAT WILL MINIMIZE SILTATION OF ADJACENT STREAMS, LAKES, DAMS, OR DRAINAGE AREAS AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION. REFER TO CITY OF PIERRE DETAIL 150–2 FOR DETAILS.

THE CONTRACTOR SHALL REMOVE SEDIMENT ACCUMULATION WHEN THE SEDIMENT IS AT APPROXIMATELY 1/3 THE HEIGHT OF THE SILT FENCE. NO SEPARATE PAYMENT WILL BE MADE FOR MUCKING SILT FENCE.

SILT FENCE SHALL BE SELECTED FROM THE MANUFACTURERS LISTED BELOW; OR APPROVED EQUAL:

MANUFACTURER
WILLACOOCHEE INDUSTRIAL FABRICS
WILLACOOCHEE, GA PRODUCT NAME
LOW FLOW: 77SF OR 1216 SILT FENCE HIGH FLOW: 1215 OR 2014 SILT

PHONE: 912-534-5533

PROPEX GEOTEXTILE SYSTEMS LOW FLOW: GEOTEX 106F

CHATTANOOGA, TN PHONE: 800-62-1273 HIGH FLOW: GEOTEX 111F OR 2134

WWW.PROPEXBRANDS.COM

PAYMENT FOR SILT FENCE INCLUDING LABOR, EQUIPMENT, MATERIALS, AND MAINTENANCE WILL BE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT "SILT FENCE".

SILT FENCE MAY BE REMOVED AND RESET AS NECESSARY AS WORK PROGRESSES. THE SILT FENCE REMOVED AND RESET SHALL BE IN USEABLE CONDITION AS DETERMINED BY THE OWNER REPRESENTATIVE. ALL COSTS FOR REMOVING AND RESETTING THE SILT FENCE SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER FOOT FOR "REMOVE AND RESET SILT FENCE".

SILT FENCE SHALL BE REMOVED WHEN VEGETATION IS ESTABLISHED. OWNERS REPRESENTATIVE MAY DIRECT SOME OR ALL OF THE SILT FENCE TO BE LEFT ON THE PROJECT UNTIL VEGETATION IS ESTABLISHED. OLDANITIES FOR ALL SILT FENCE REMOVED SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR "REMOVE SILT FENCE".

SEDIMENT CONTROL WATTLES AS TEMPORARY SEDIMENT BARRIERS FOR RESTRAINING THE FLOW OF RUNOFF AND SEDIMENT SHALL BE INSTALLED AT LOCATIONS NOTED IN THE FLANS AND AT LOCATIONS DETERMINED BY THE ENGINEER DURING CONSTRUCTION. REFER TO CITY OF PIERRE DETAIL 150—3 FOR DETAIL.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION THAT THE SEDIMENT CONTROL WATTLES OR COMPOST SOCKS ARE FREE FROM NOXIOUS WEED SEEDS.

THE CONTRACTOR SHALL REMOVE SEDIMENT TRAPPED BY THE WATTLE WHEN THE SURFACE OF THE SEDIMENT REACHES ONE—HALF THE HEIGHT OF THE EXPOSED WATTLE. DAMAGED AREAS SHOULD BE REPAIRED IMMEDIATELY UNTIL THE VEGETATION IS ESTABLISHED.

THE SEDIMENT CONTROL WATTLE SHALL BE THE DIAMETER SHOWN ON THE DRAWINGS AND SELECTED FROM THE MANUFACTURERS LISTED BELOW; OR APPROVED EQUAL:

MANUFACTURER
THREE SONS LANDSCAPING PRODUCT NAME PIERRE, SD PHONE 605-787-9477

COMPOST WATTLE

DIOTEN ENGINEERING, INC. PIERRE, SD PHONE 605-430-7213 WWW.DIOTEN.COM

ASPEN RIDGE SILT SOCK

PIERRE SD

WWW.ASPENRIDGELANDSCAPING.COM

THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL WATTLES ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

PAYMENT FOR SEDIMENT CONTROL WATTLES INCLUDING LABOR, EQUIPMENT, MATERIALS, AND MAINTENANCE WILL BE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT "SEDIMENT CONTROL WATTLES".

SEDIMENT CONTROL WATTLES MAY BE REMOVED AND RESET AS NECESSARY AS WORK PROGRESSES. THE SEDIMENT CONTROL WATTLES REMOVED AND RESET SHALL BE IN USEABLE CONDITION, ALL COSTS FOR REMOVING AND RESETTING THE SEDIMENT CONTROL WATTLES SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER FOOT FOR "REMOVE AND RESET SEDIMENT CONTROL WATTLE".

SEDIMENT CONTROL WATTLES SHALL BE REMOVED WHEN VEGETATION IS ESTABLISHED. THE OWNERS REPRESENTATIVE MAY DIRECT SOME OR ALL OF THE SEDIMENT CONTROL WATTLES TO BE LEFT ON THE PROJECT UNTIL VEGETATION IS ESTABLISHED.

QUANTITIES FOR ALL SEDIMENT CONTROL WATTLES REMOVED SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR "REMOVE SEDIMENT CONTROL WATTLES".

SEDIMENT CONTROL WATTLES MAY BE REMOVED AND RESET AS NECESSARY AS WORK PROGRESSES. THE SEDIMENT CONTROL WATTLES REMOVED AND RESET SHALL BE IN USEABLE CONDITION. ALL COSTS FOR REMOVING AND RESETING THE SEDIMENT CONTROL WATTLES SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER FOOT FOR "REMOVE AND RESET SEDIMENT CONTROL WATTLE".

EROSION CONTROL BLANKET (ECB)

EROSION CONTROL BLANKET SHALL BE INSTALLED AT LOCATIONS AS SHOWN ON THE DRAWINGS AND AT LOCATIONS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

AREAS WITH SLOPES EXCEEDING 3:1 SHALL BE PROTECTED WITH EROSION CONTROL BLANKET. REFER TO CITY OF PIERRE DETAIL 150-4 FOR DETAIL.

- EROSION CONTROL BLANKETS ARE PLACED INTO THE FOLLOWING CATEGORIES:

 TYPE 1 USED FOR TEMPORARY STABILIZATION OF SLOPES OF LESS THAN 10H:1V, NOT ALLOWED IN CHANNEL APPLICATIONS;
- TYPE 2 USED FOR TEMPORARY STABILIZATION OF SLOPES OF 3H:1V OR LESS, CAN BE USED IN LOW GRADIENT DITCHES AND CHANNELS:

TYPE 3 — USED FOR TEMPORARY STABILIZATION OF SLOPES OF 2H:1V OR LESS, USED IN DITCHES AND CHANNELS; AND

CHANNELS, AND USED FOR TEMPORARY STABILIZATION OF SLOPES OF 1H:1V OR LESS, USED IN DITCHES AND CHANNELS.

THE EROSION CONTROL BLANKET SHALL BE SELECTED FROM THE MANUFACTURERS LISTED BELOW; OR APPROVED

MANUFACTURER PRODUCT NAME AMERICAN EXCELSIOR CO TYPE 1: CURLEX NETFREE, CURLEX I:

AEC PREMIER STRAW STRAW
TYPE 2: CURLEX II; AEC PREMIER STRAW 2

ARLINGTON, TX PHONE: 1-800-777-7645 TYPE 3: CURLEX III: AEC PREMIER STRAW/COCONUT 2 TYPE 4: AEC PREMIER COCONUT 2/NET WWW.AMEREXCEL.COM

TYPE 1 -SS2 RG MANCOS, CO PHONE: 1-800-833-8573 TYPE 2 - SS2 TYPE 3 - S2 TYPE 4 - CC4 WWW.WESTERNEXCELSIOR.COM

THE CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKET ACCORDING TO THE MANUFACTURER'S INSTALLATION

EROSION CONTROL BLANKET WILL BE MEASURED TO THE NEAREST SQUARE YARD. MEASUREMENT OF THE OVERLAP AND TOP AND BOTTOM FOLDS WILL NOT BE MADE. EROSION CONTROL BLANKET DAMAGED FROM CAUSES BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED AND THE REPLACEMENT QUANTITY ADDED TO THE ORIGINAL QUANTITIES USED.

PAYMENT WILL BE FULL COMPENSATION FOR SHAPING AND FINISHING, INSTALLING MATERIAL AND FURNISHING OF LABOR, EQUIPMENT, STAPLES, MATERIAL, AND INCIDENTALS NECESSARY. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR "TYPE # EROSION CONTROL BLANKET".

TURE REINFORCEMENT MAT (TRM)
TURE REINFORCEMENT MAT SHALL BE INSTALLED AT LOCATIONS AND AT THE WIDTHS SPECIFIED AS SHOWN ON THE DRAWINGS, AND AT LOCATIONS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

TURE REINFORCEMENT MATS ARE PLACED INTO THE FOLLOWING CATEGORIES

- TYPE 1 USED FOR PERMANENT STABILIZATION OF CHANNELS WITH SHEAR STRESS OF 4-6 POUNDS PER SQUARE FOOT (LBS/SF);
- TYPE 2 USED FOR PERMANENT STABILIZATION OF CHANNELS WITH SHEAR STRESS OF 6-8 LBS/SE:
- TYPE 3 USED FOR PERMANENT STABILIZATION OF CHANNELS WITH SHEAR STRESS OF 8-10 LBS/SF. SHEAR STRESS OF GREATER THAN 10 LBS/SF REQUIRES THE USE OF OTHER EROSION CONTROL.

THE TURF REINFORCEMENT MAT SHALL BE SELECTED FROM THE MANUFACUTURES LISTED BELOW; OR APPROVED EQUAL:

PRODUCT NAME

TYPE 1: RECYCLEX TRM-V

TYPE 2: RECYCLEX TRM MANUFACTURER AMERICAN EXCELSIOR CO ARLINGTON, TX PHONE: 1-800-777-7645 TYPE 3: CURLEX ENFORCER WWW.AMEREXCEL.COM

WESTERN EXCELSIOR MANCOS, CO PHONE: 1-800-833-8573 TYPE 2 - PP5-10 TYPE 3 - PP5-12 WWW.WESTERNEXCELSIOR.COM

PROPEX GEOTEXTILE SYSTEMS TYPE 1 - LANDLOK 435 TYPE 2 - LANDLOK 450
TYPE 3 - PYRAMAT TAN/GREEN CHATTANOOGA, TN PHONE: 800-62-1273

THE CONTRACTOR SHALL INSTALL THE TURF REINFORCEMENT MAT ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

THE AREAS RECEIVING EROSION CONTROL BLANKET AND TURE REINFORCEMENT MAT SHALL BE SHAPED AS THE AREAS RECEIVING ENGINE CONTINUE BUNKET AND TOPE THE FOR SHAPING THE FOR ENGINE OF SHAPING THE FOR ENGINE CONTINUE BLANKET AND TURE REINFORCEMENT MAT INCLUDING LABOR AND EQUIPMENT SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR THE VARIOUS ITEMS.

TURF REINFORCEMENT MAT WILL BE MEASURED TO THE NEAREST SQUARE YARD, MEASUREMENT OF THE OVERLAP AND TOP AND BOTTOM FOLDS WILL NOT BE MADE. TURF REINFORCEMENT MAT DAMAGED FROM CAUSES BEYOND THE CONTRACTOR SHALL BE REPLACED AND THE REPLACEMENT QUANTITY ADDED TO THE

PAYMENT WILL BE FULL COMPENSATION FOR SHAPING AND FINISHING, INSTALLING MATERIAL AND FURNISHING OF LABOR, EQUIPMENT, STAPLES, MATERIAL, AND INCIDENTALS NECESSARY. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR "TYPE # TURF REINFORCEMENT MAT".

INLET PROTECTION DEVICE (IPD)

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INLET PROTECTION DEVICE (IPD)

INLET PROTECTION DEVICES SHALL BE INSTALLED TO TEMPORARILY PREVENT SEDIMENT-LADEN RUNOFF FROM ENTERING STORM SEWERS AND/OR INLET PROTECTION DEVICES SHALL BE INSTALLED PROMPTLY AFTER CONSTRUCTION OF INLETS OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). THE TYPE OF INLET PROTECTION DEVICE TO BE USED (SEDIMENT CONTROL WATTLES, SILT FENCE, PROPRIETY INLET PROTECTION DEVICES, ETC.) IS DIFFERENTIATED ON THE DRAWINGS AND SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE DRAWINGS. REFER TO CITY OF PIERRE DETAIL 150-5, 150-6, 150-7 AND 150-8 FOR DETAILS. PROPRIETY INLET PROTECTION DEVICES SHOULD BE INSTALLED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

DURING THE COURSE OF CONSTRUCTION HEAVY RAINFALL EVENTS MAY OCCUR. THE CONTRACTOR SHALL HAVE PERSONNEL AVAILABLE DURING RAIN EVENTS TO REMOVE INLET PROTECTION IF THE INLET PROTECTION IS CAUSING FLOODING.

INLET PROTECTION DEVICES SHALL BE REMOVED FROM STORM SEWER INLETS WITHIN PAVED STREET SECTIONS OR PARKING LOTS DURING THE WINTER MONTHS BETWEEN DECEMBER 1 AND FEBRUARY 15. DURING THE PERIOD WHEN INLET PROTECTION HAS BEEN REMOVED, ALTERNATE SEDIMENT CONTROL METHODS FOR INLET PROTECTION MUST BE EMPLOYED IF GROUND IS NOT STABILIZED AND FROZEN BY WINTER CONDITIONS.

THE CONTRACTOR SHALL REMOVE SEDIMENT TRAPPED BY THE INLET PROTECTION DEVICE WHEN THE SURFACE OF THE SEDIMENT REACHES ONE—HALF THE HEIGHT OF THE DEVICE. PROPRIETARY INLET PROTECTION DEVICES SHOULD BE MAINTAINED PER THE MANUFACTURERS RECOMMENDATIONS.

INLET PROTECTION DEVICES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN THE DRAINAGE AREA FOR THE INLET HAS REACHED FINAL STABILIZATION.

INLET PROTECTION DEVICES WILL BE MEASURED PER EACH TYPE INSTALLED. INLET PROTECTION DEVICES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO INSTALL, MAINTAIN, AND REMOVE THE INLET PROTECTION DEVICE.

VEHICLE TRACKING CONTROL (VTC)
THE CONTRACTOR SHALL INSTALL VEHICLE TRACKING CONTROL MEASURES AT LOCATIONS AS SHOWN ON THE DRAWNINGS. REFER TO CITY OF PIERRE DETAIL 150-9, 150-10 FOR DETAILS.

THE CONTRACTOR SHALL MAINTAIN THE VEHICLE TRACKING CONTROL SUCH THAT MUD TRACKING AND SEDIMENT FLOW WILL NOT ENTER THE ROADWAY OR ADJACENT DRAINAGE AREAS. THE VEHICLE TRACKING CONTROL SHALL BE ROUTINELY INSPECTED AND THE CONTRACTOR SHALL REPAIR OR REPLACE MATERIAL AS DEEMED NECESSARY BY THE ENGINEER.

GRANULAR MATERIAL SHALL BE PLACED IN 6 INCH MAXIMUM LIFTS.

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AGGREGATE FOR GRANULAR MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

PERCENT PASSING SIEVE SIZE 100% 2 1/3" 90-100% 25-60% 0-5%

PAYMENT TO CONSTRUCT, MAINTAIN, AND REMOVE THE CONSTRUCTION ENTRANCE WILL BE PAID PER THE CONTRACT UNIT PRICE PER EACH FOR "VEHICLE TRACKING CONTROL".

CONCRETE WASHOUT AREA (CWA)

CONCRETE WASHOUT AREA SHALL BE PROVIDED FOR CONCRETE TRUCKS AS NECESSARY.

PAYMENT FOR CONSTRUCTION AND MAINTENANCE OF CONCRETE WASHOUT AREAS SHALL BE INCIDENTAL TO THE

VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE SHALL BE MINIMIZED. STREET SWEEPING, AS DEEMED NECESSARY BY THE ENGINEER, SHALL BE USED IF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

THE CONTRACTOR SHALL USE A PICKUP BROOM HAVING INTEGRAL SELF-CONTAINED STORAGE TO CLEAN THE

ALL COSTS FOR CLEANING THE ROADWAY WITH A PICKUP BROOM SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER HOUR FOR "SWEEPING". SWEEPING WILL BE MEASURED AND PAID FOR TO THE NEAREST 0.1 HOURS.

TRIANGULAR SILT BARRIER (TSB)

TRIANGULAR SILT BARRIES HALL BE INSTALLED AT LOCATIONS AS SHOWN ON THE DRAWINGS AND AT LOCATIONS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

THE TRIANGULAR SILT BARRIER SHALL BE SELECTED FROM THE MANUFACUTURES LISTED BELOW; OR APPROVED

MANUFACTURER PRODUCT NAME TRIANGULAR SILT DIKE

TRIANGULAR SILT DIKE CO. INC LUTHER, OK PHONE: 1-800-290-8473

WWW.TRI-SILTDIKE.COM

NILEX CIVIL ENVIRONMENTAL GROUP GEORIDGE

CENTENNIAL, CO

WWW.NILEX.COM

THE TRIANGULAR SILT BARRIERS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

GRAVEL FILTER SOCKS (GFS)

GRAVEL FILTER SOCKS CAN BE USED FOR PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, ETC. AND SHALL BE INSTALLED AT LOCATIONS AS SHOWN ON THE DRAWINGS AND AT LOCATIONS DETERMINED BY THE

THE GRAVEL FILTER SOCK SHALL BE THE DIAMETER AND LENGTH SHOWN ON THE DRAWINGS. THE "SOCK" SHALL BE THE SNAKE BAG FROM THE MANUFACTURER LISTED BELOW; OR APPROVED EQUAL:

SACRAMENTO BAG MANUFACTURING CO. SACRAMENTO, CA

PHONE: 1-800-287-2247 WWW.SACBAG.COM

THE FILL MATERIAL SHALL BE CLEAN 3/4 INCH ROCK, CLEAN 3/8 INCH LIME STONE CHIPS, CLEAN 1/4 INCH PEA GRAVEL, CLEAN SAND OR MATERIAL APPROVED BY ENGINEER.

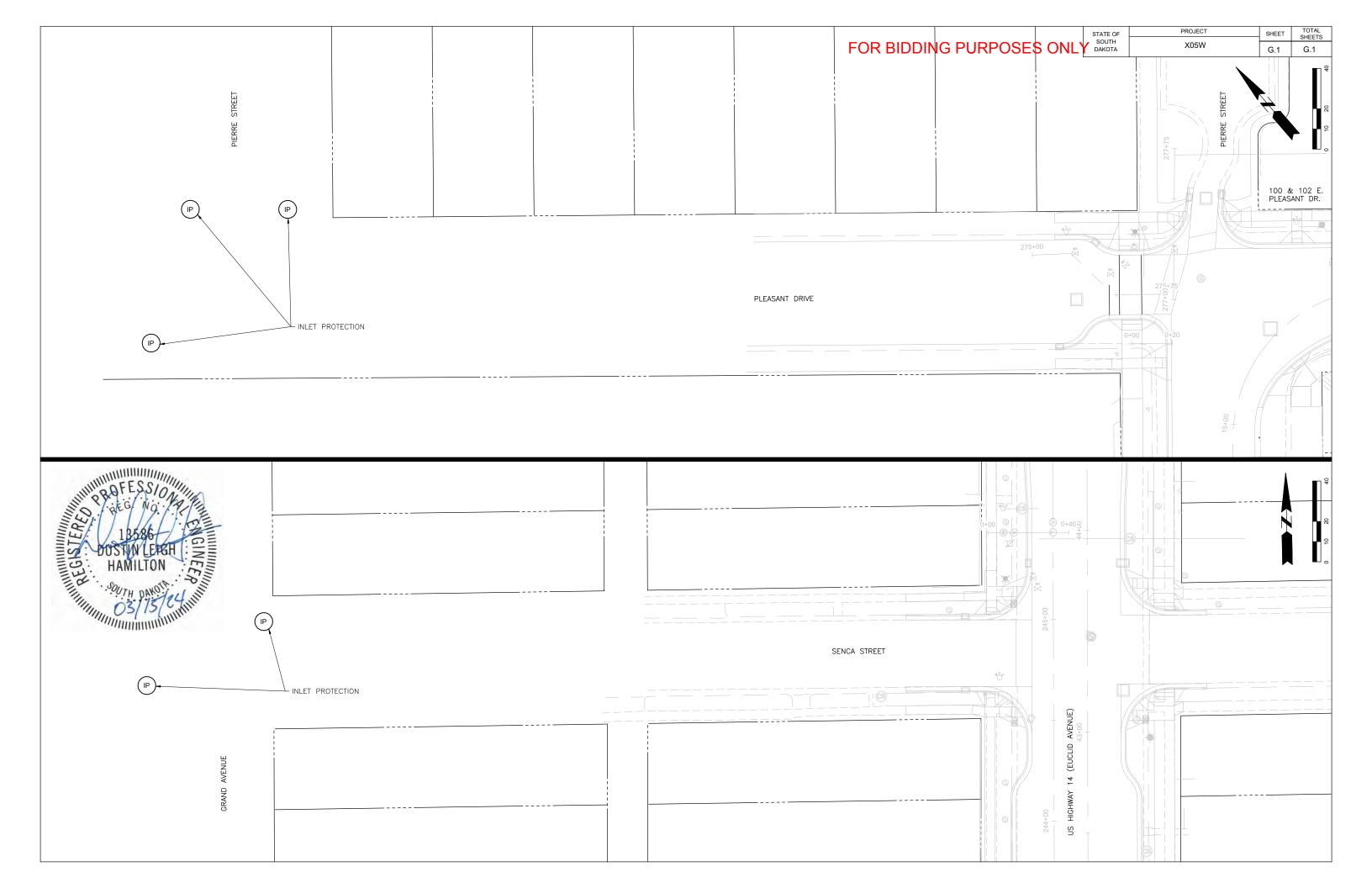
SNAKE BAG

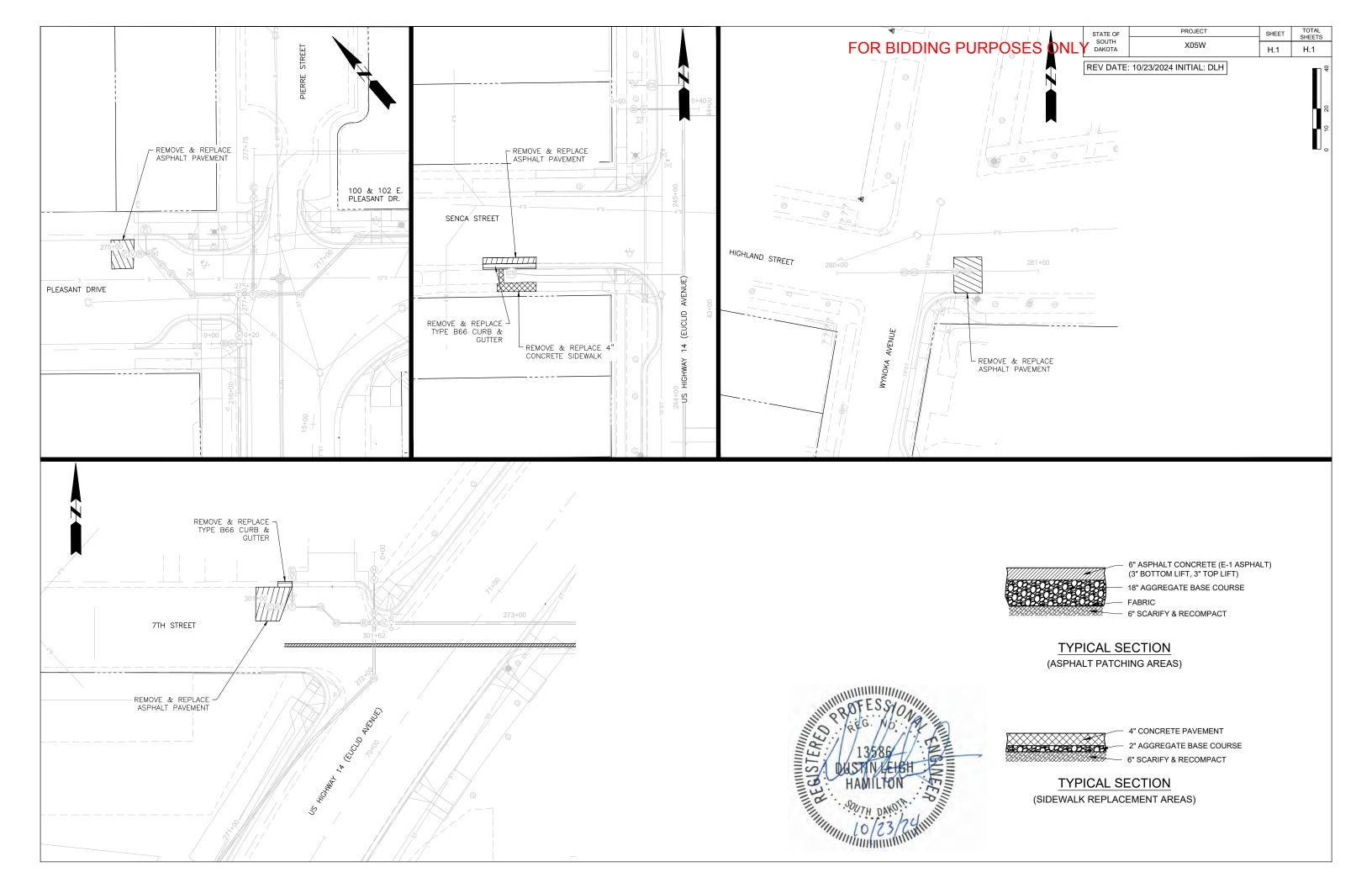
THE CONTRACTOR SHALL REMOVE SEDIMENT TRAPPED BY THE GRAVEL FILTER SOCK WHEN THE SURFACE OF THE SEDIMENT REACHES ONE—HALF THE HEIGHT OF THE EXPOSED GRAVEL FILTER SOCK.

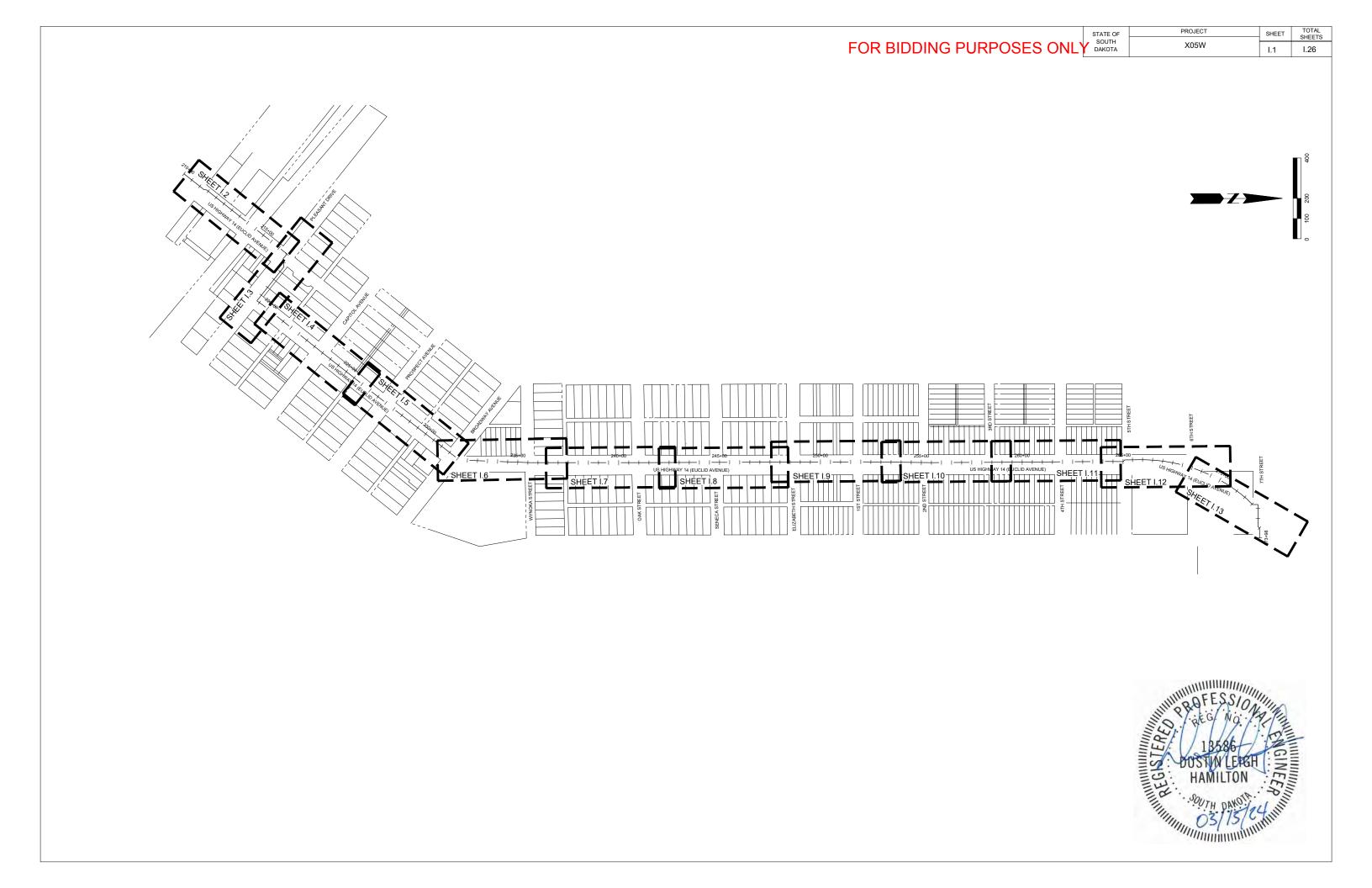
GRAVEL FILTER SOCKS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR "GRAVEL FILTER SOCK". PAYMENT FOR FUNNISHING SOCKS, GRAVEL, FILLING OF GRAVEL FILTER SOCKS, BLACEMENT OF GRAVEL FILTER SOCKS, MANIFENANCE OF THE INSTALLATION, REMOVAL AND DISPOSAL OF THE SEDIMENT DEPOSITS AND REMOVAL AFTER CONSTRUCTION HAS BEEN COMPLETED, AND FOR ALL MANIPULATION, LABOR, TOOLS, EQUIPMENT AND INCIDENTIALS NECESSARY TO COMPLETE THE WORK.

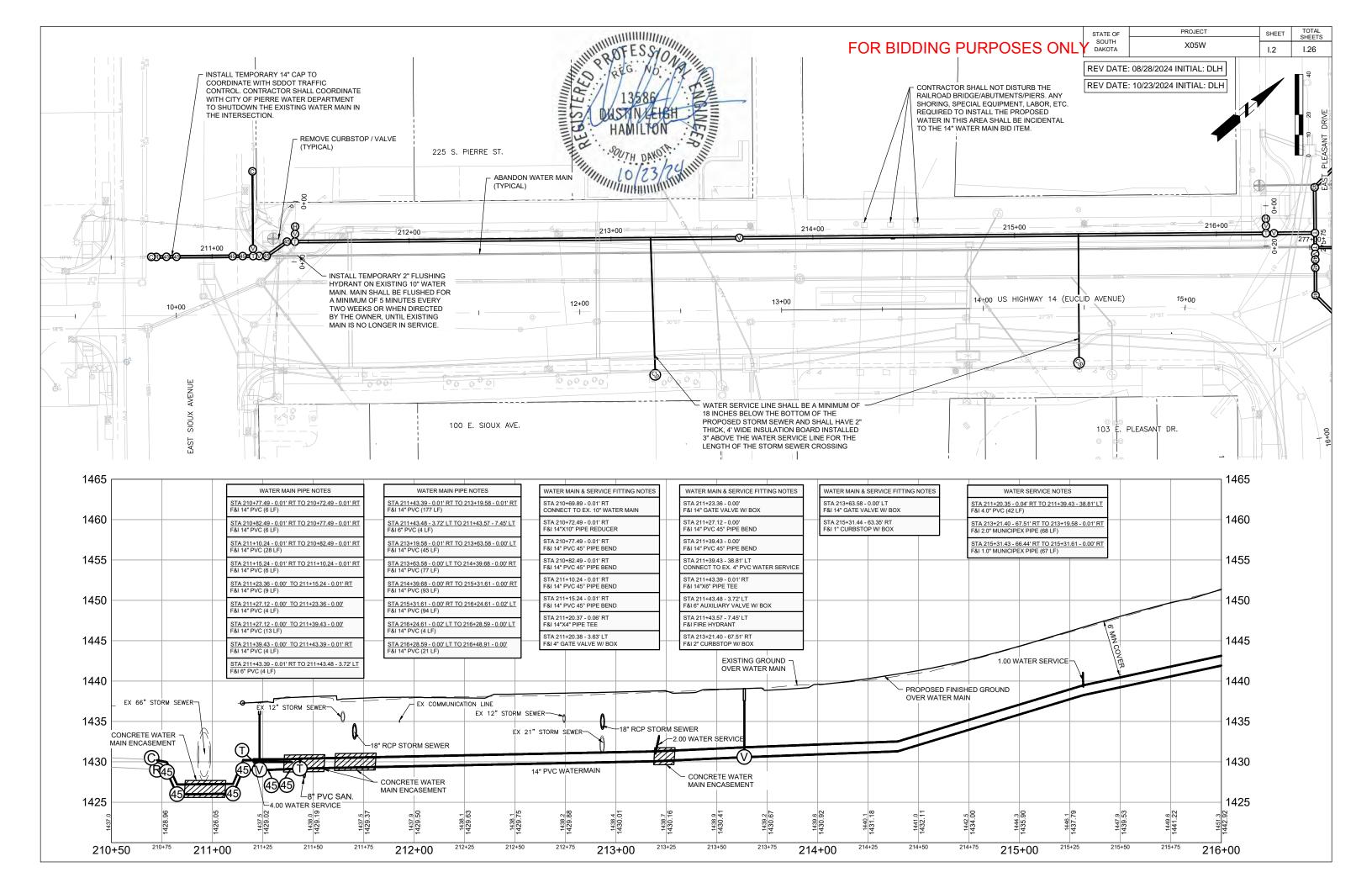
GRAVEL FILTER SOCKS MAY BE REMOVED AND RESET AS NECESSARY AS WORK PROGRESSES. THE GRAVEL FILTER SOCKS REMOVED AND RESET SHALL BE IN USEABLE CONDITION AS DETERMINED BY OWNER REPRESENTATIVE. ALL COSTS FOR REMOVING AND RESETTING THE GRAVEL FILTER SOCKS SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER FOOT FOR "REMOVE AND RESET GRAVEL FILTER SOCKS".

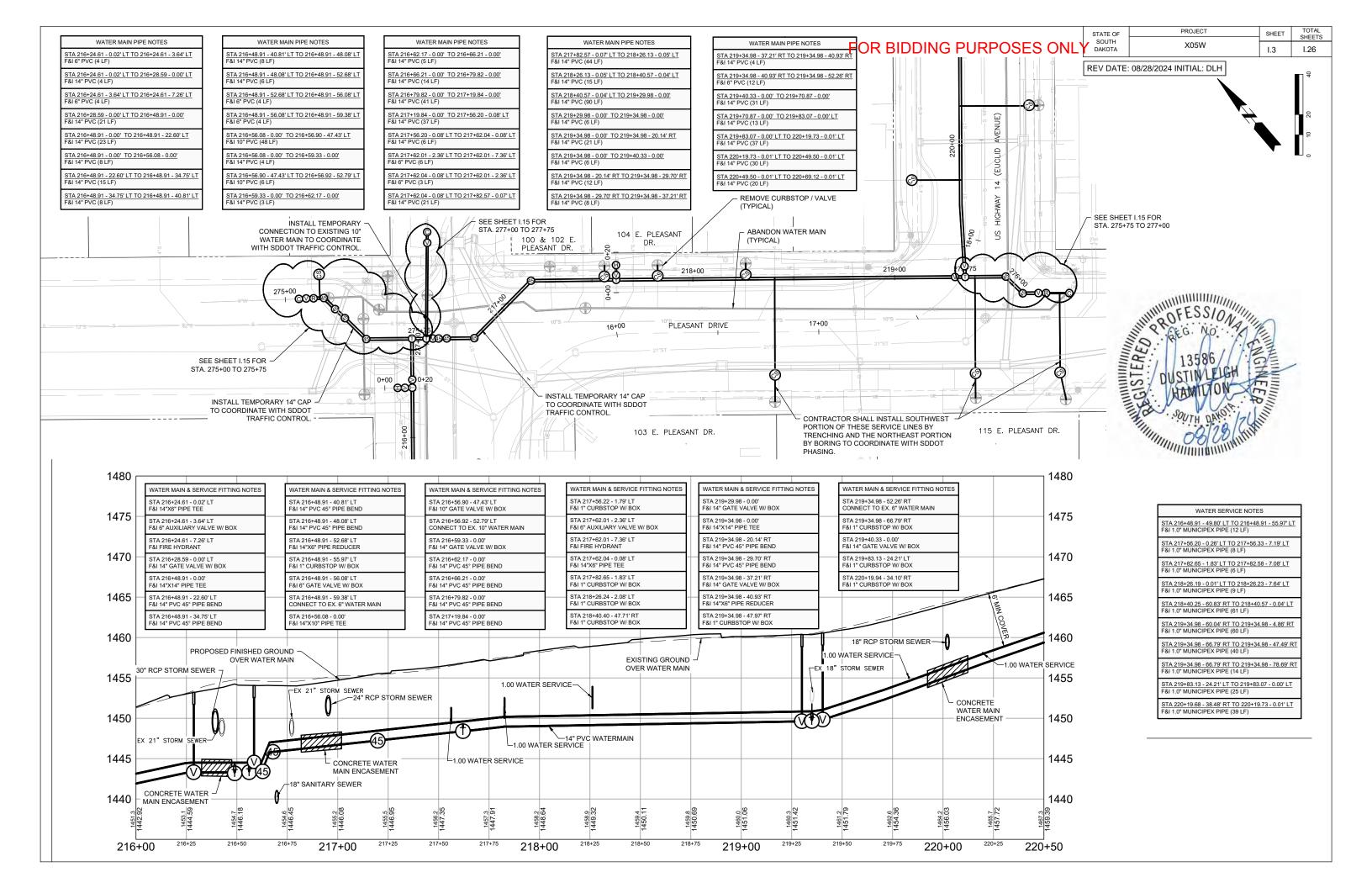


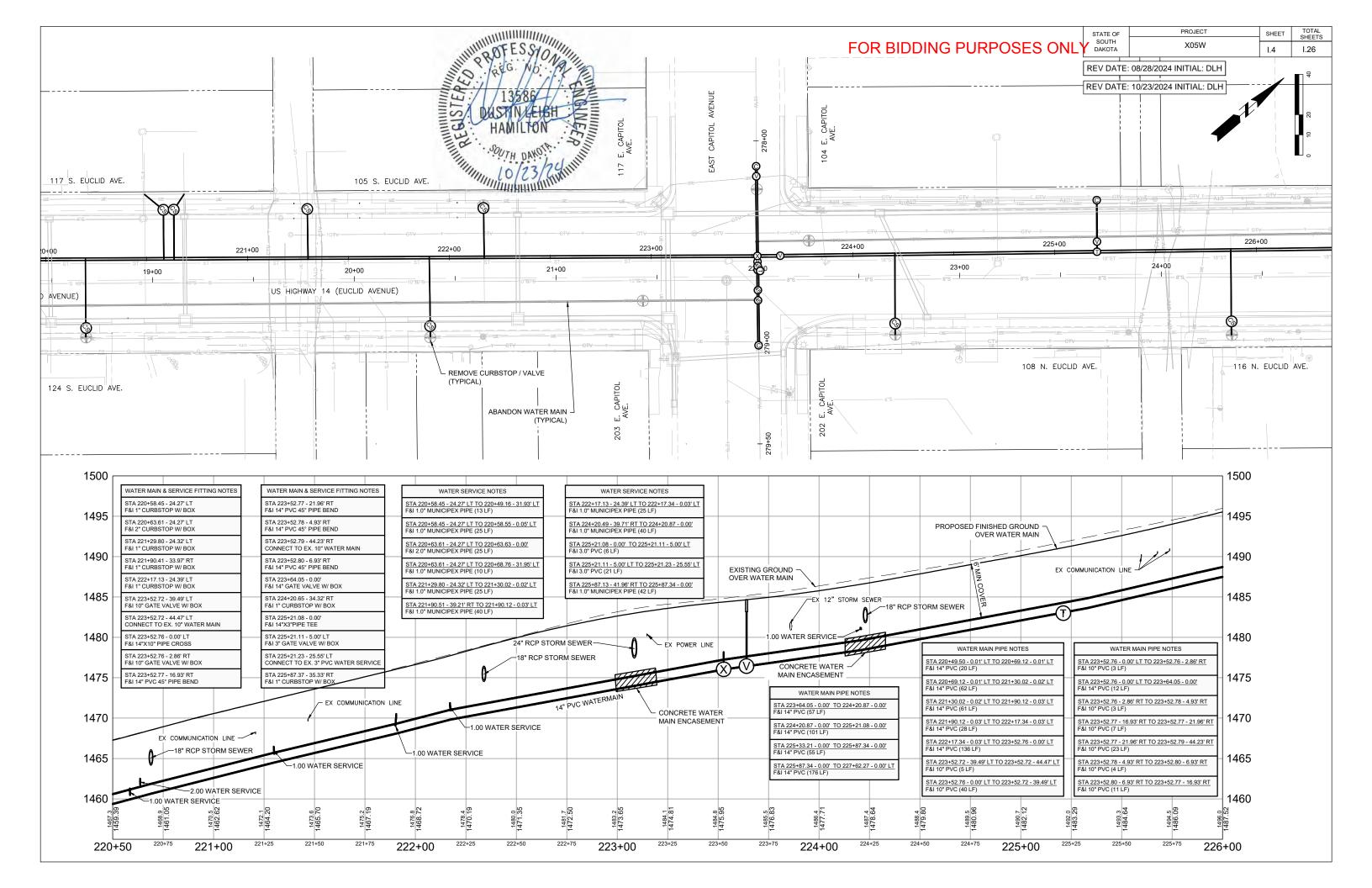


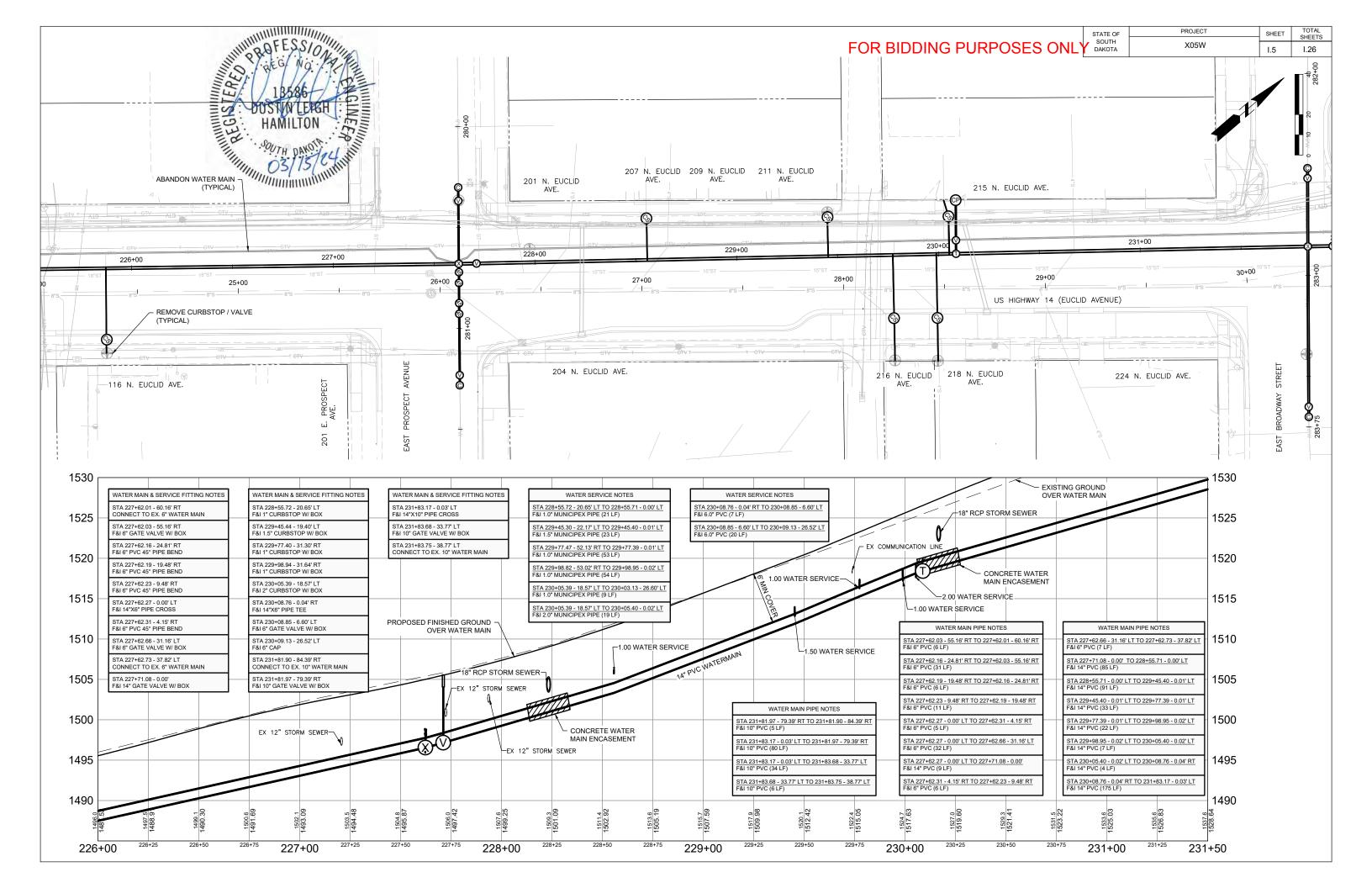


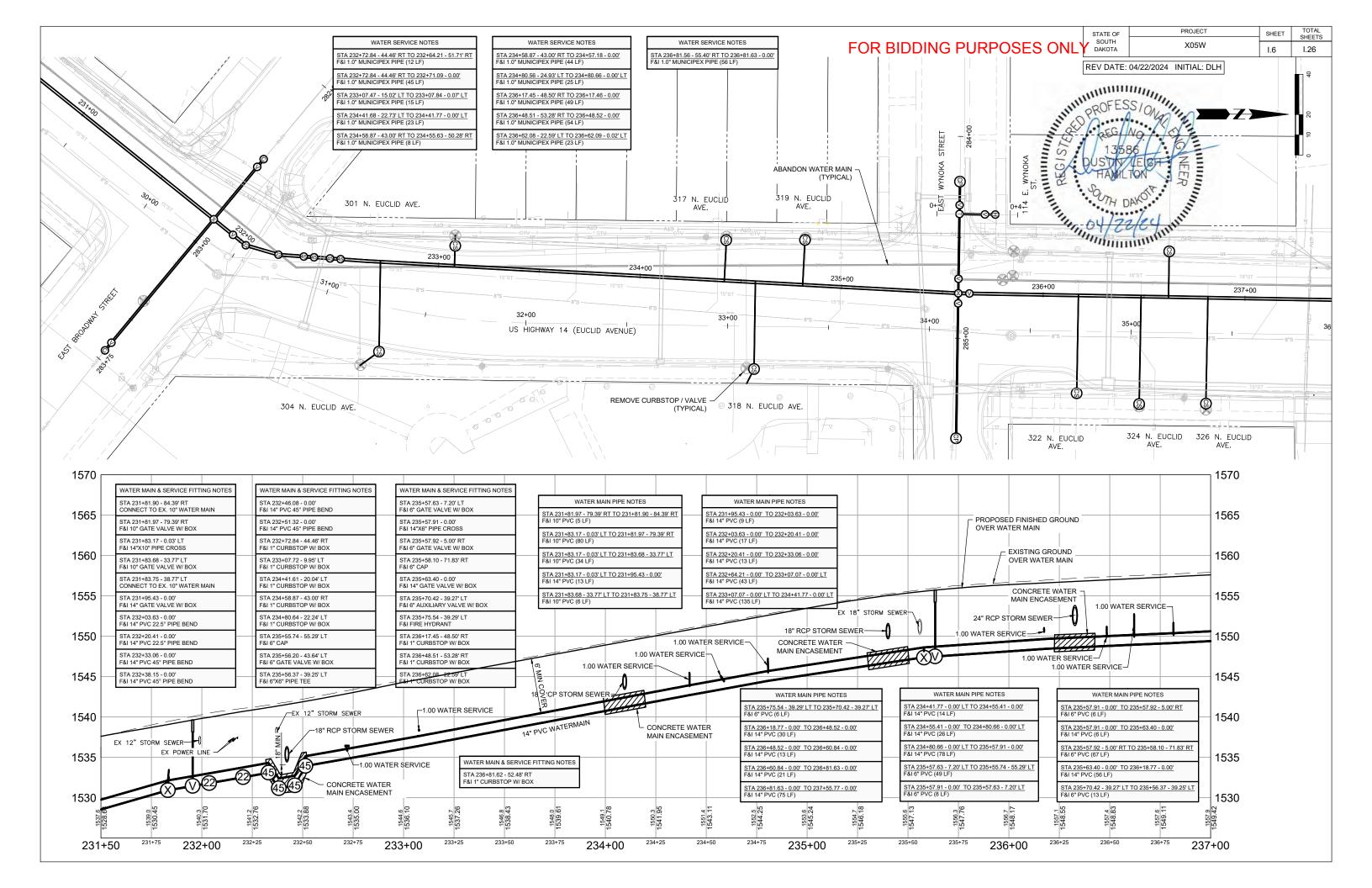


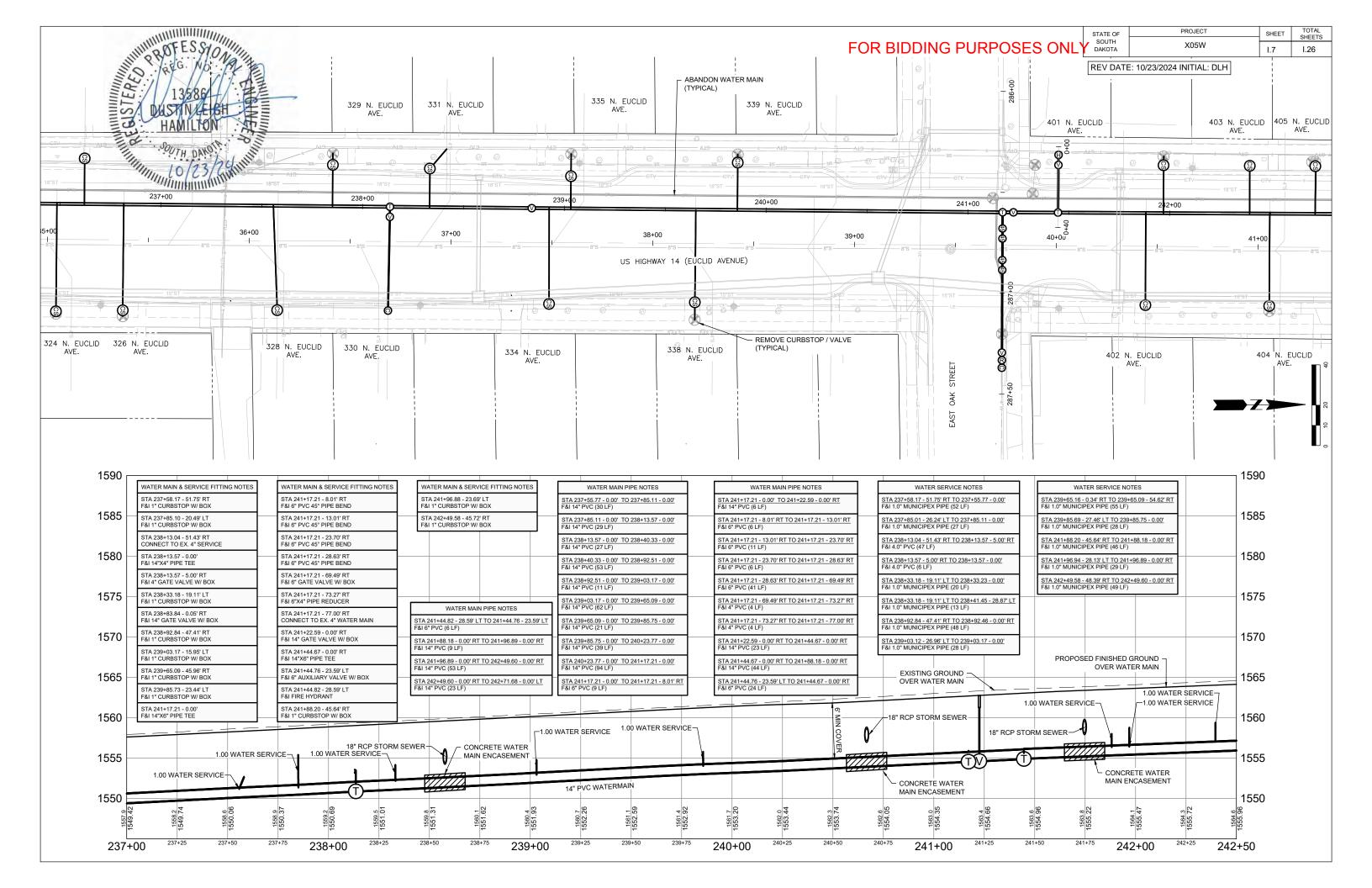


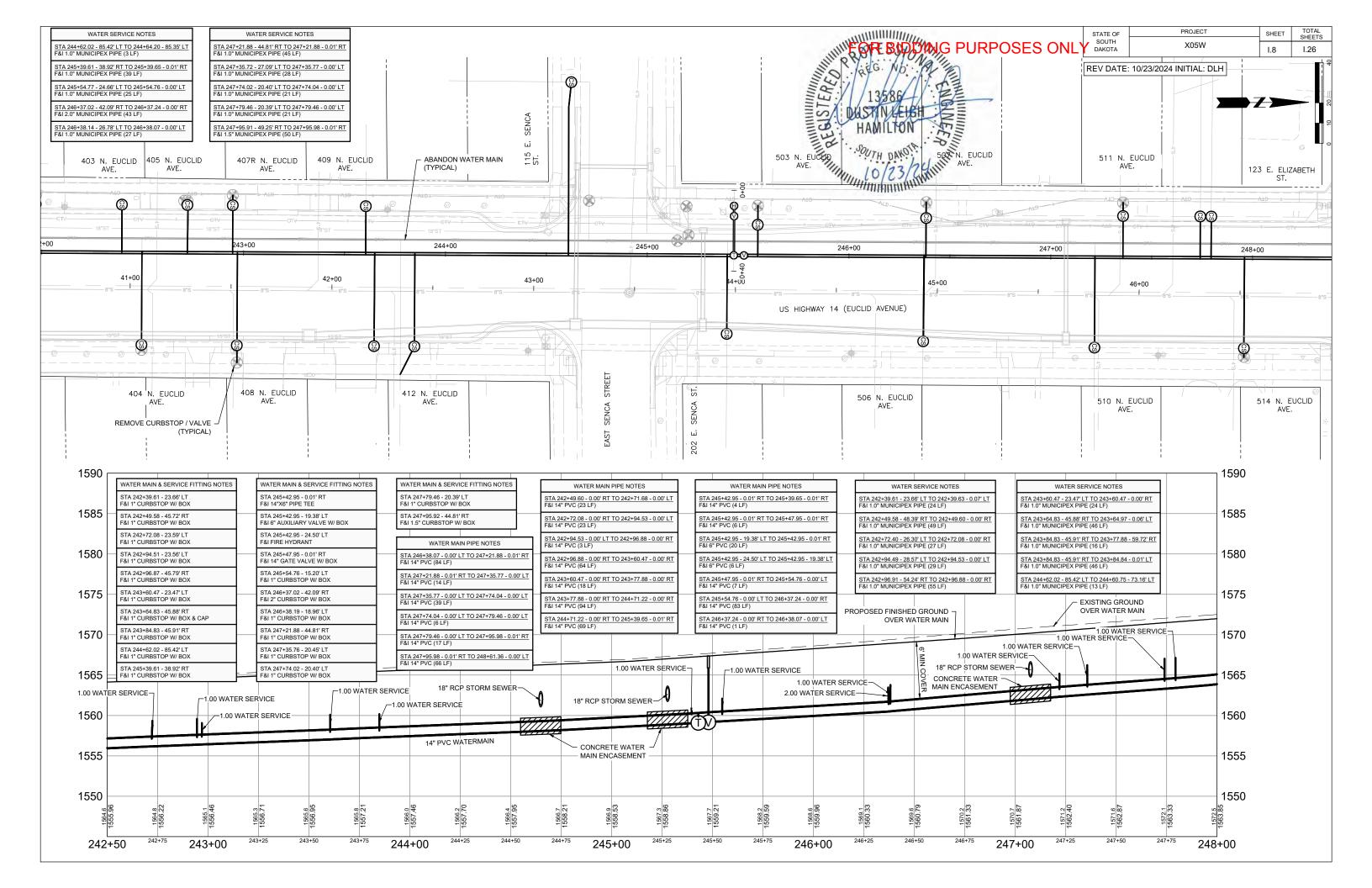


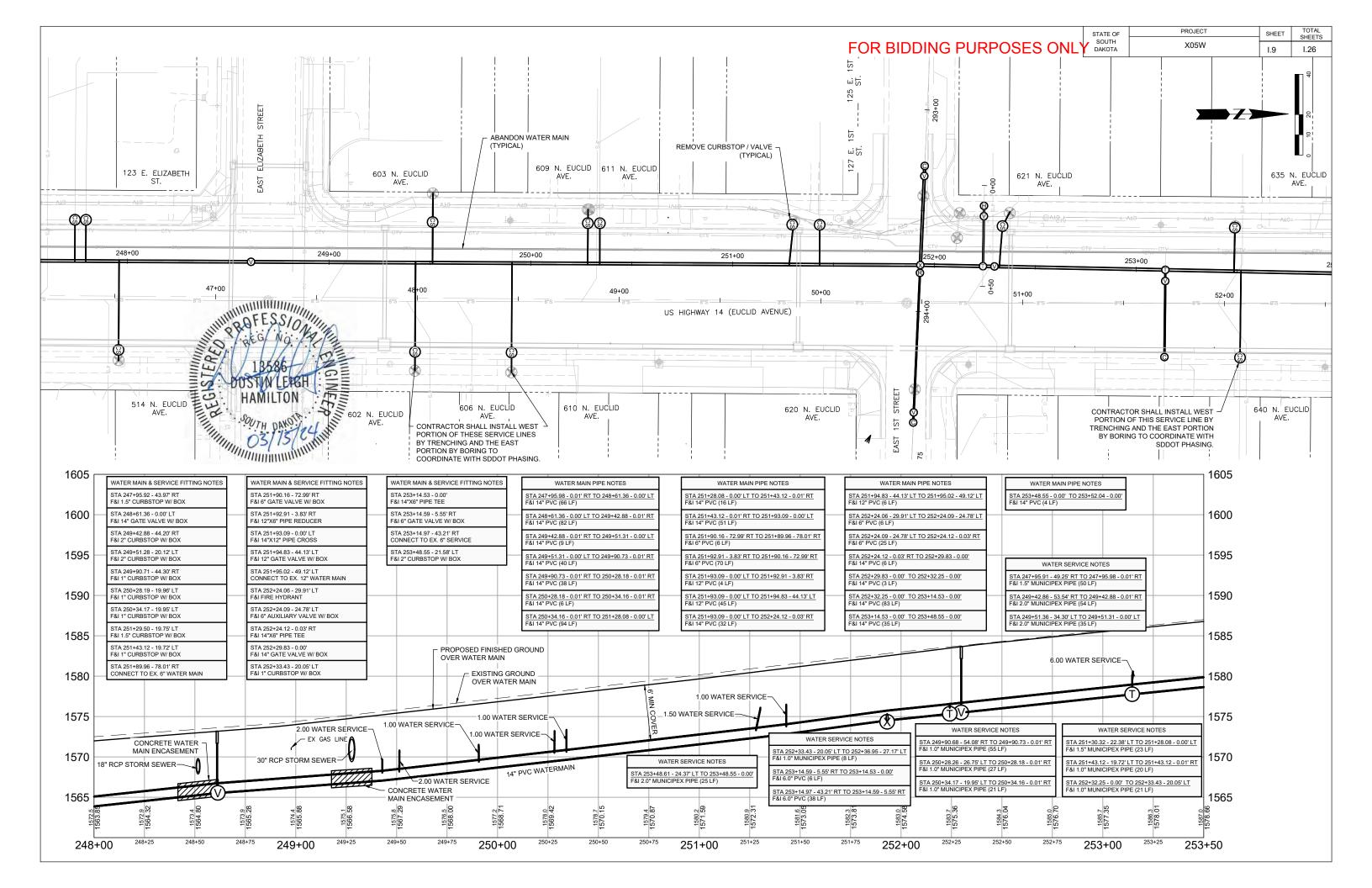


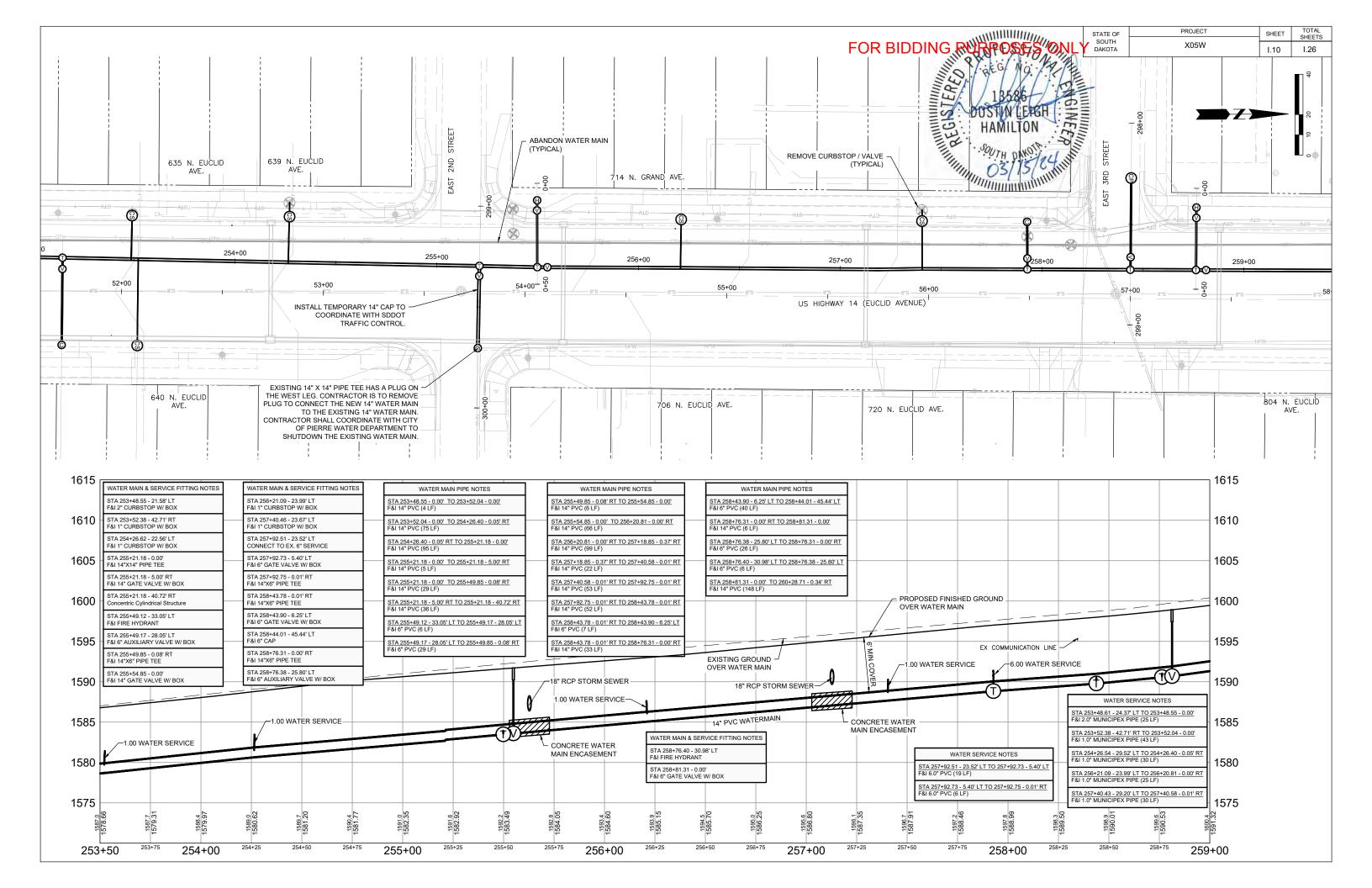


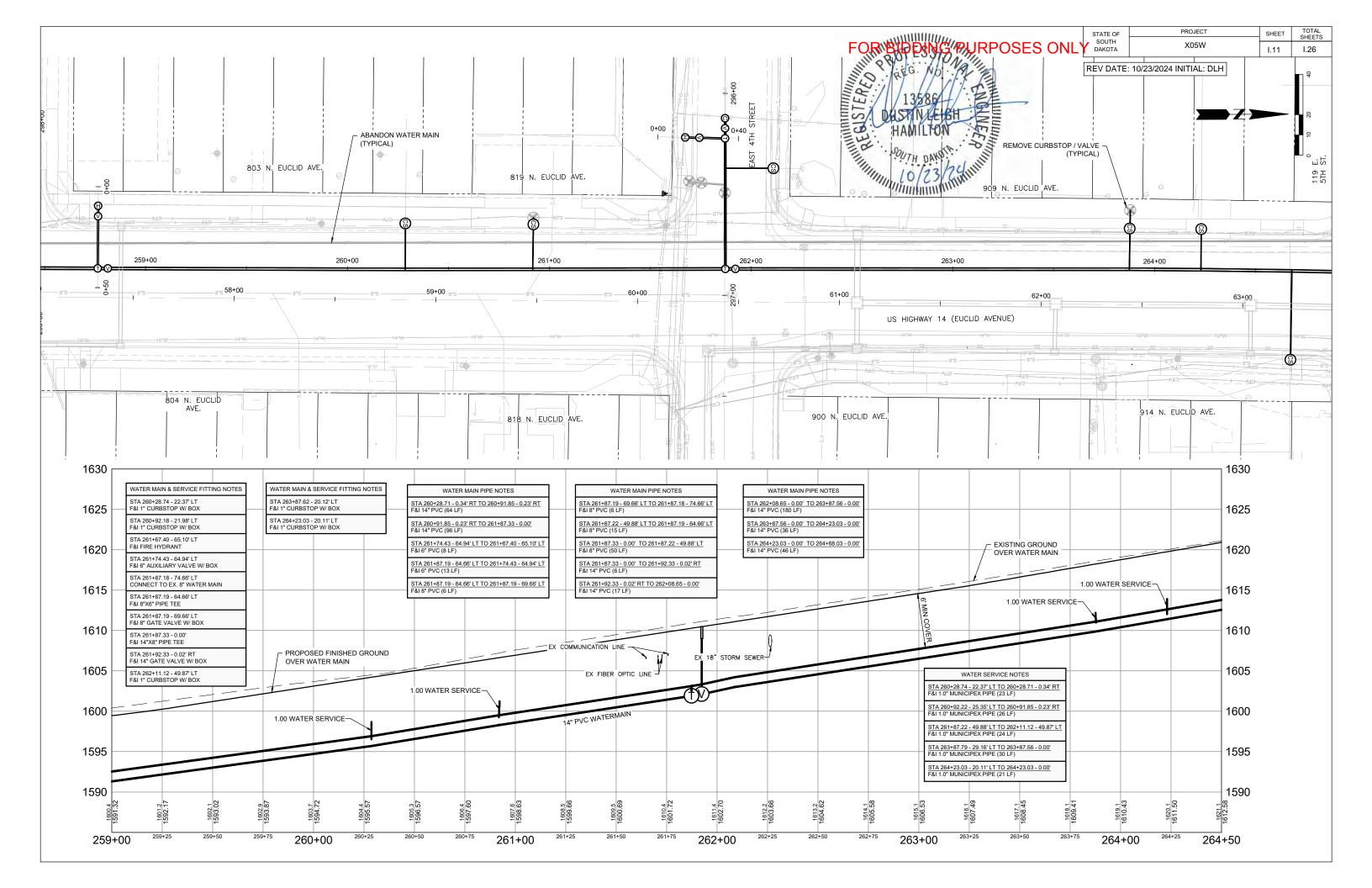


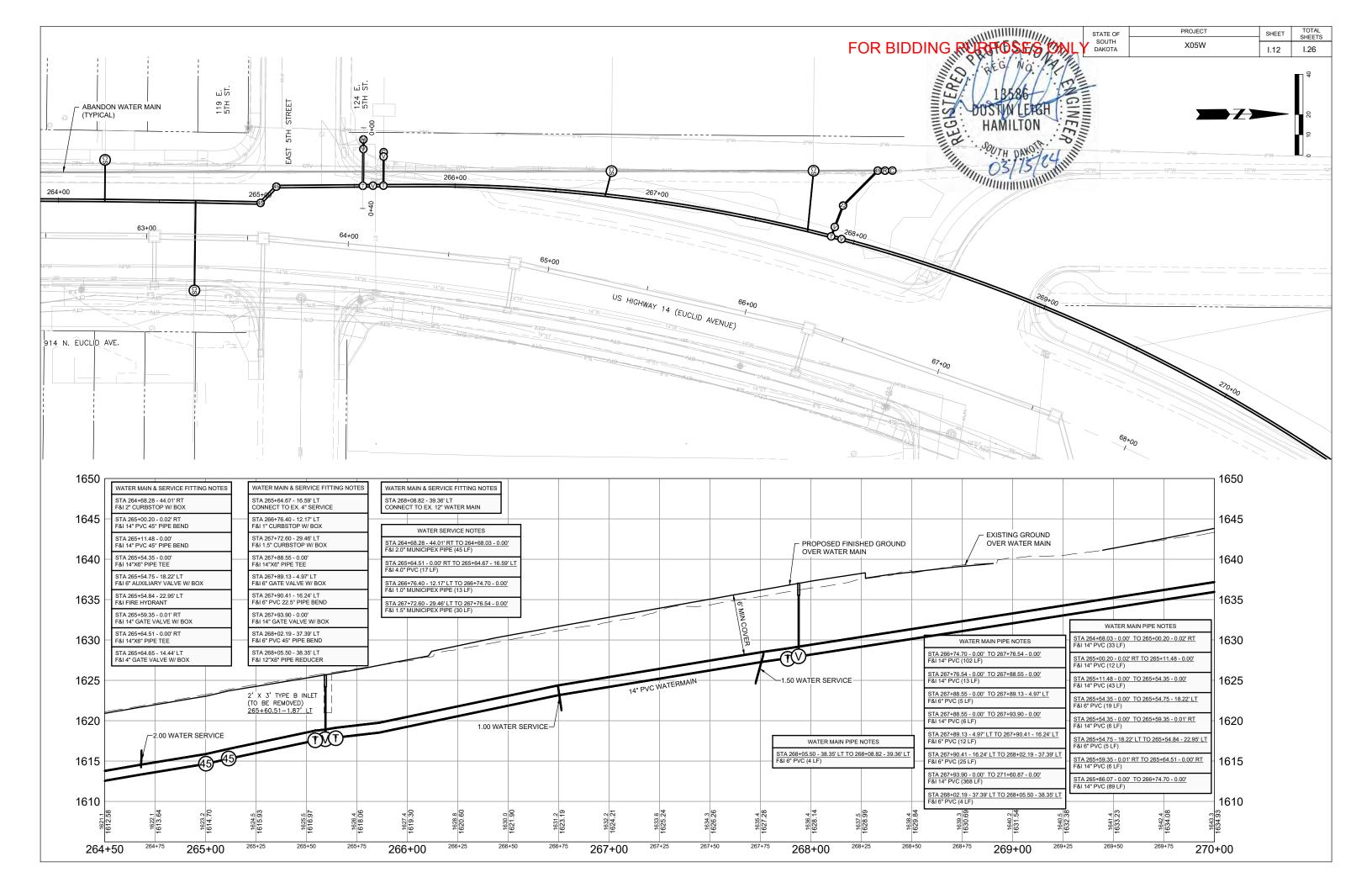


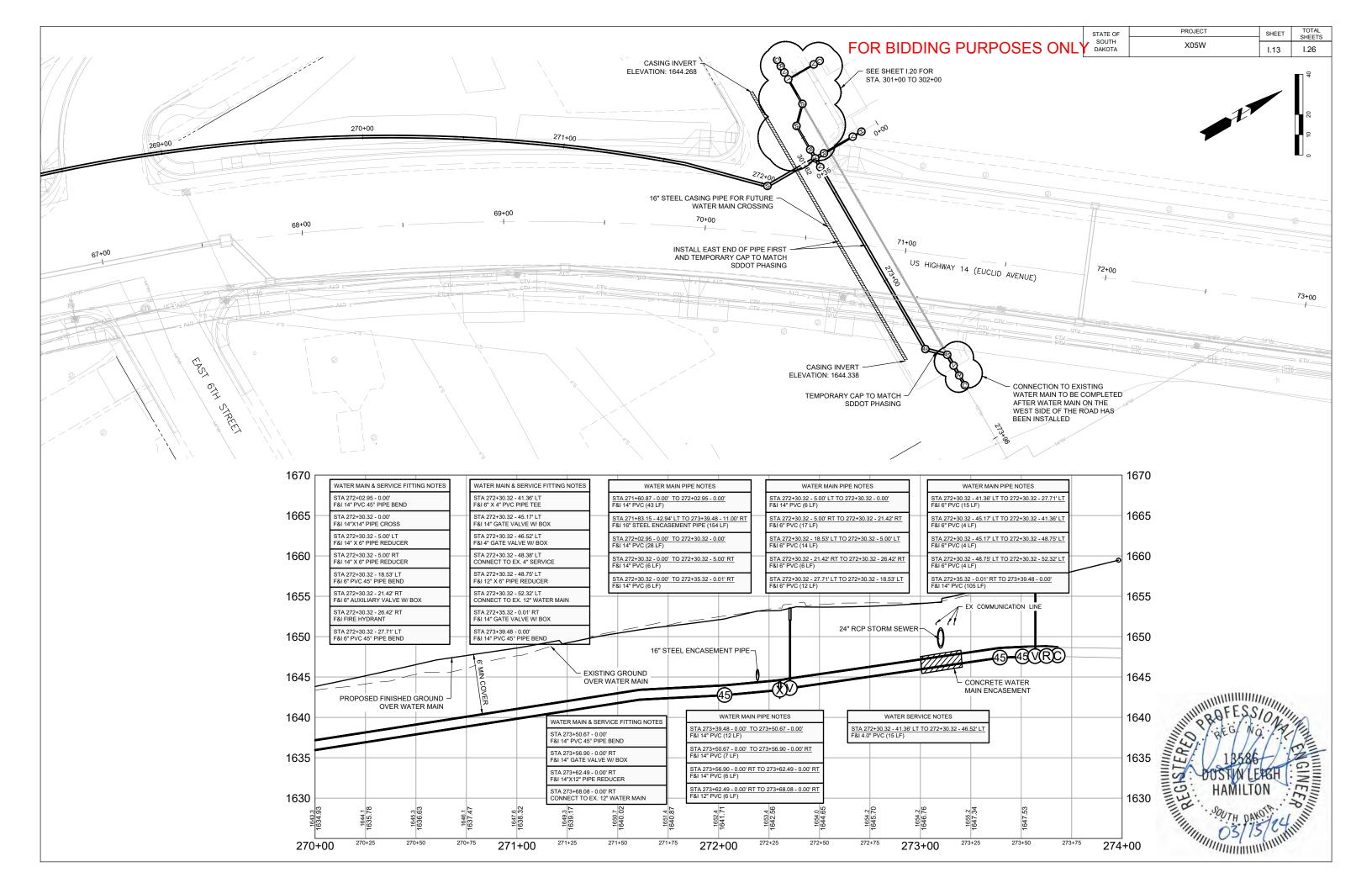


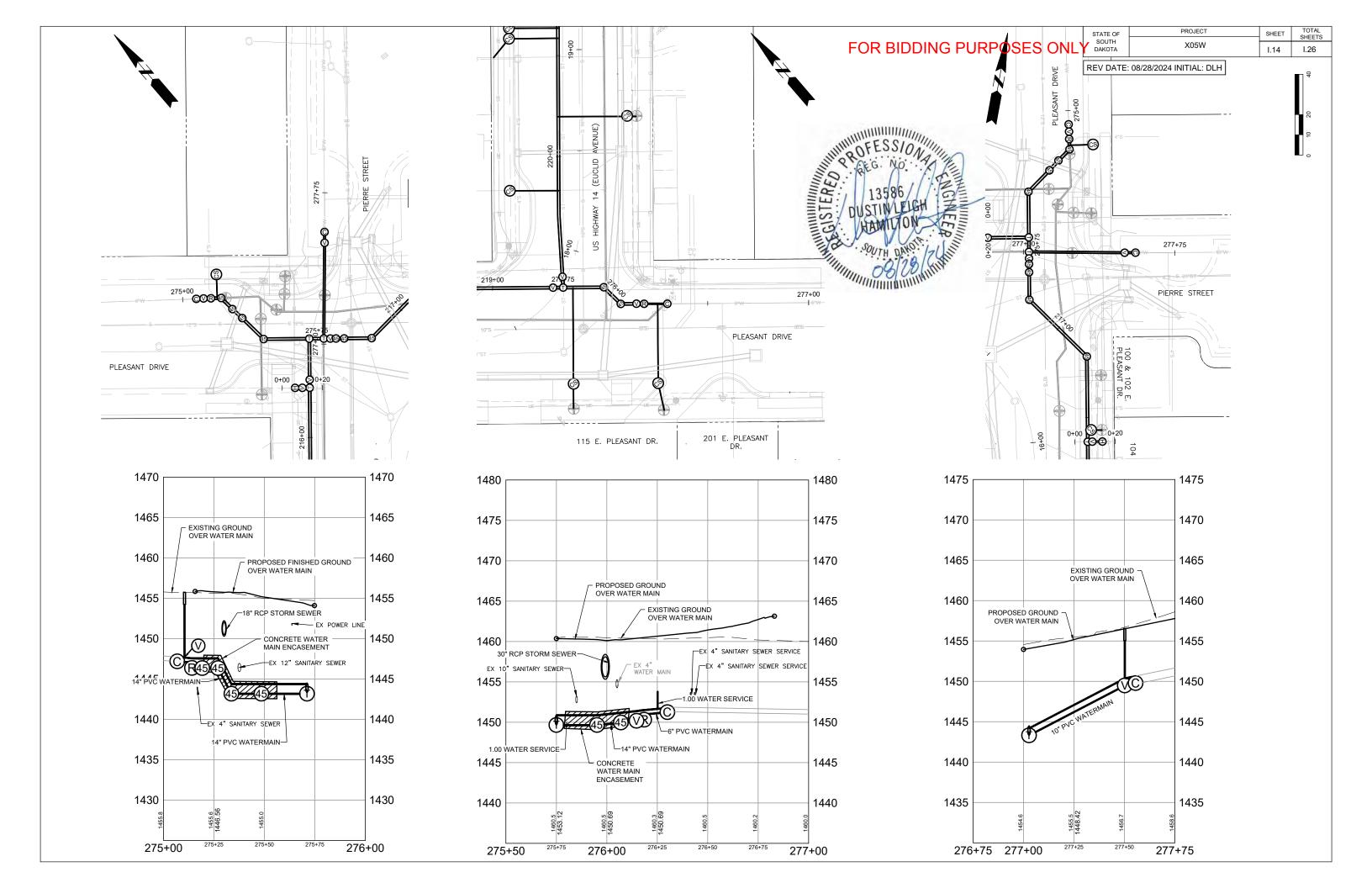


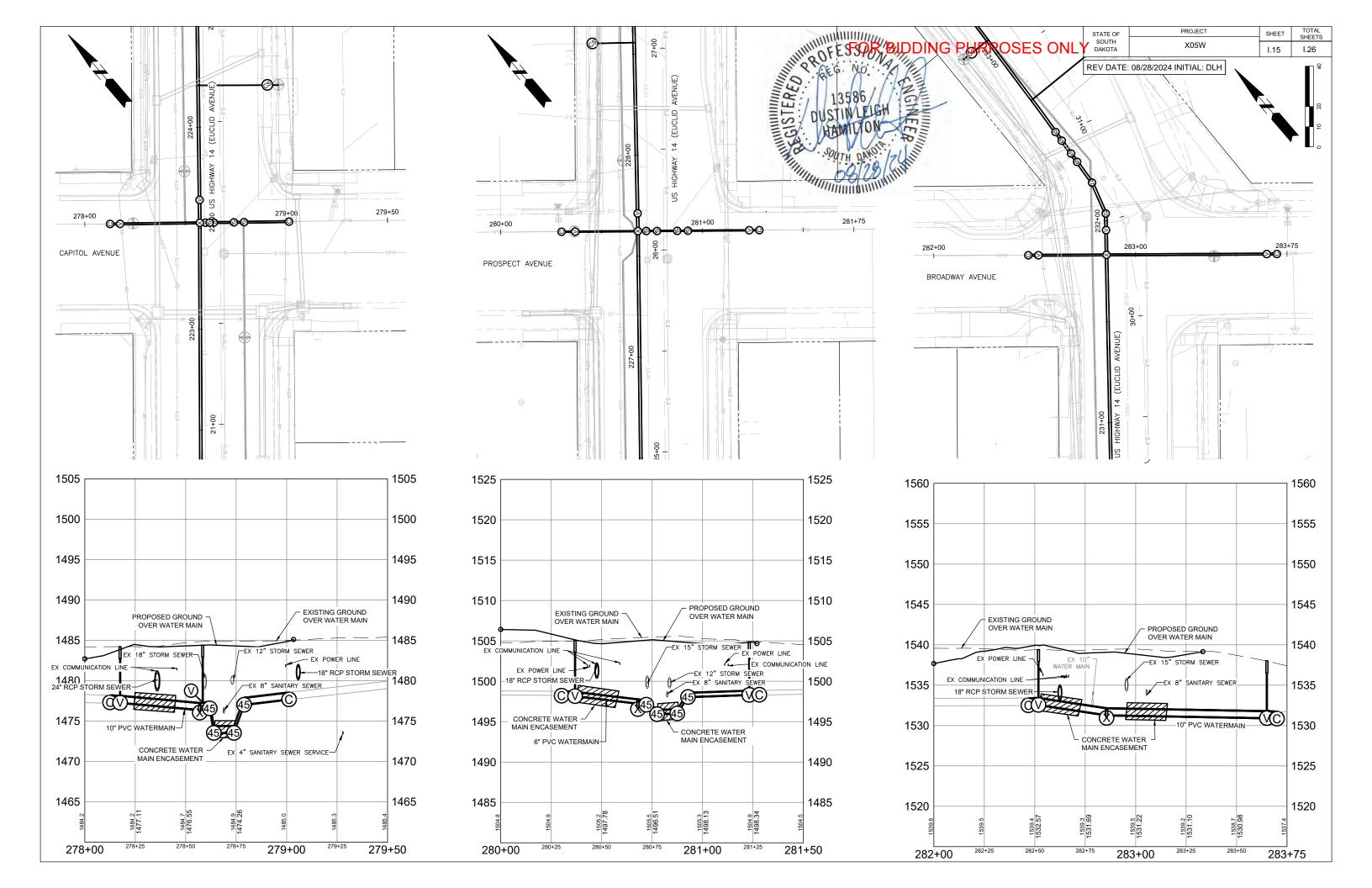


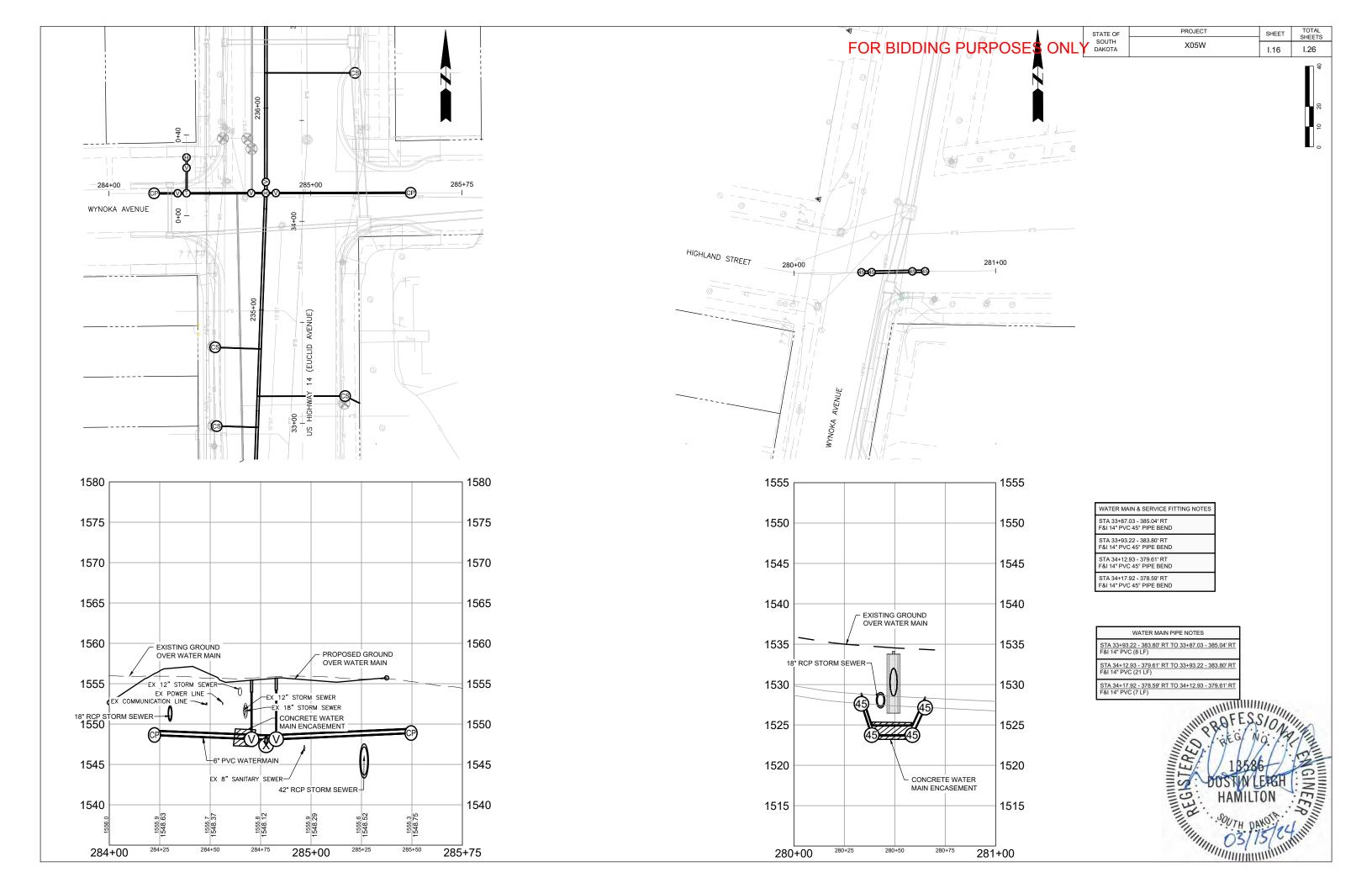


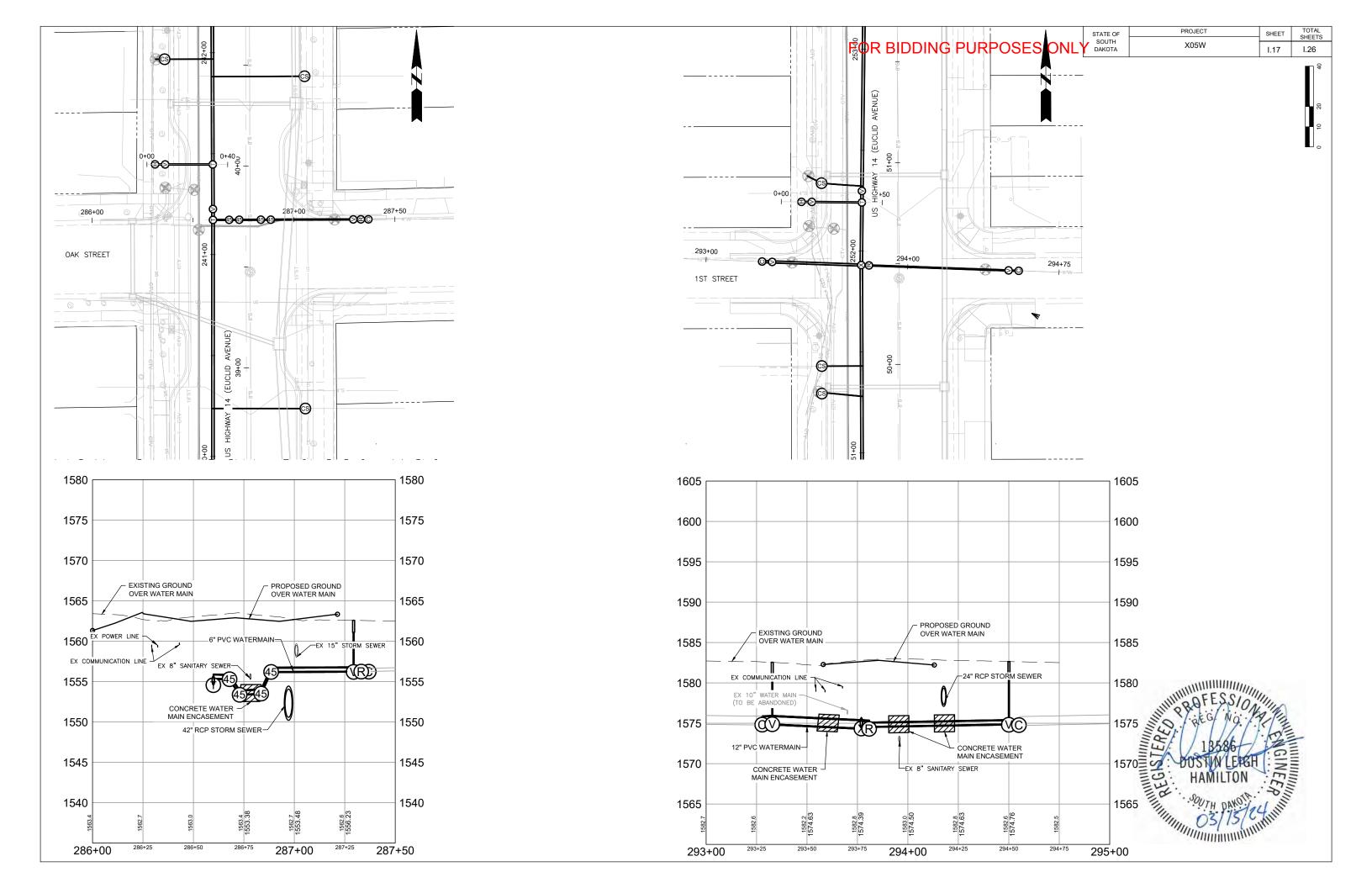


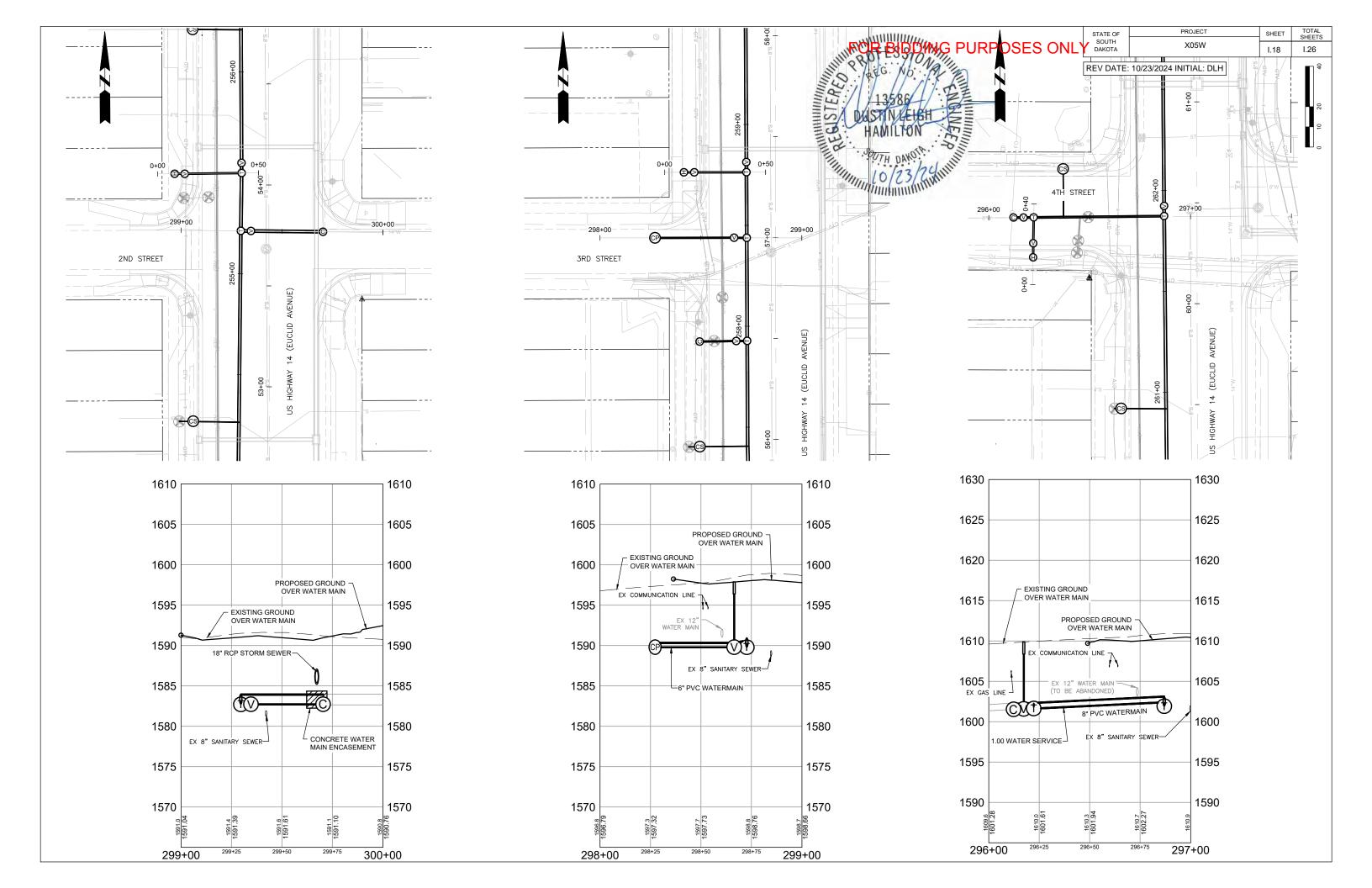


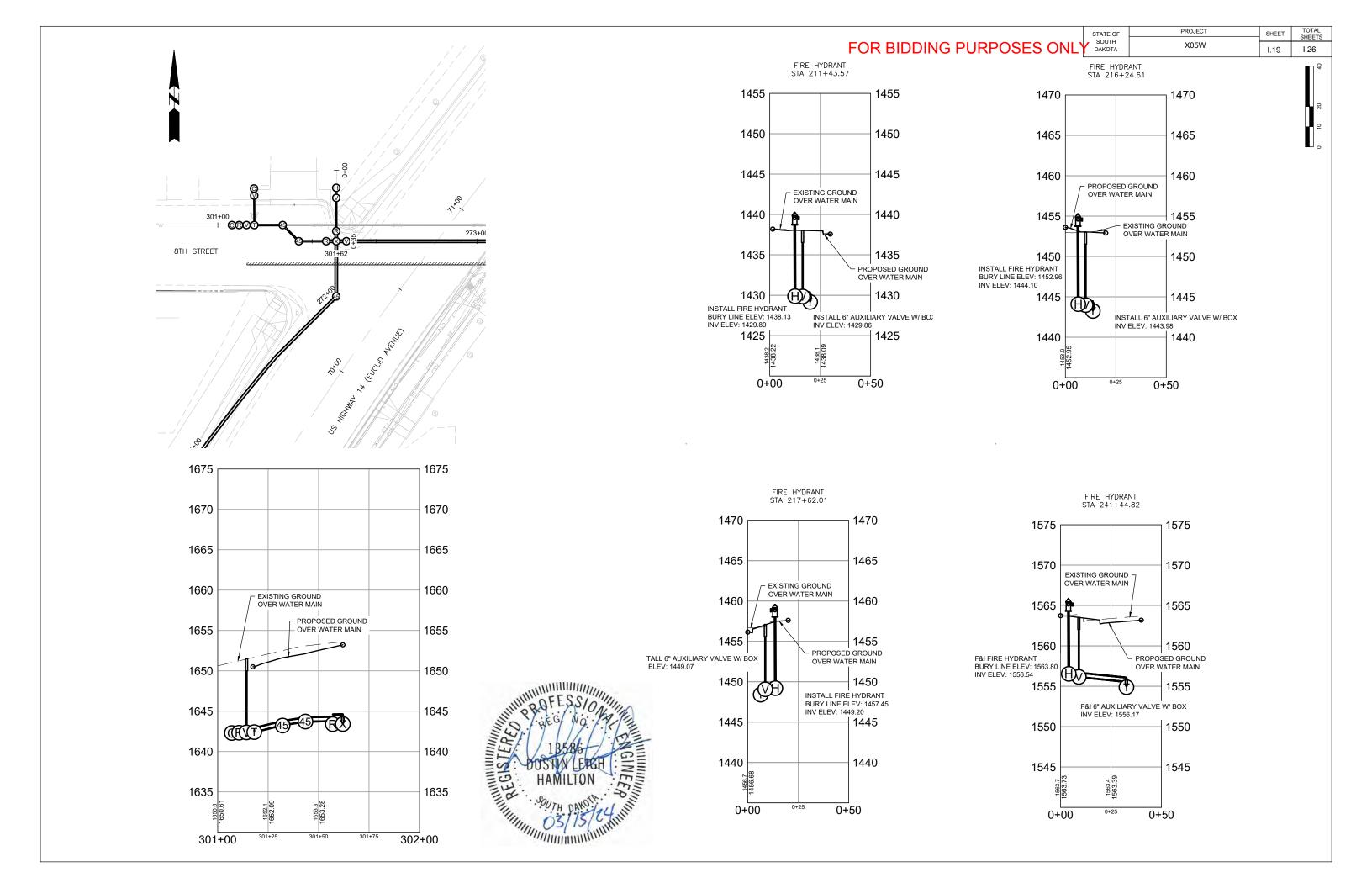


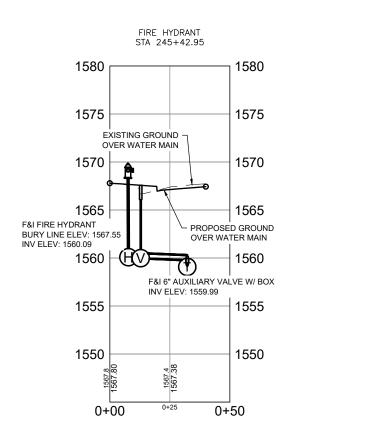


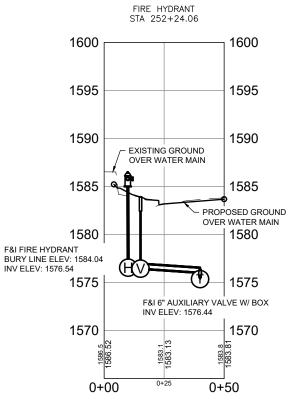


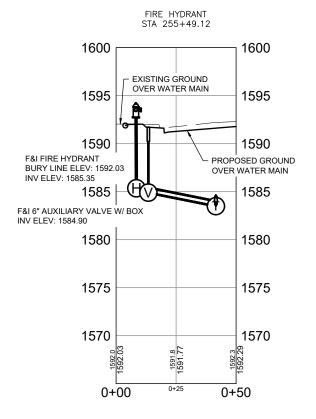


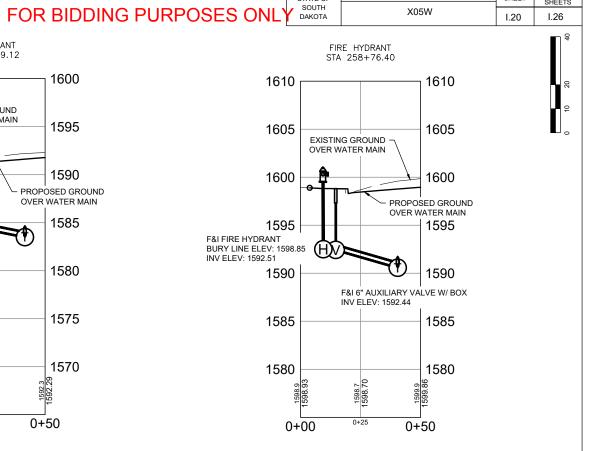












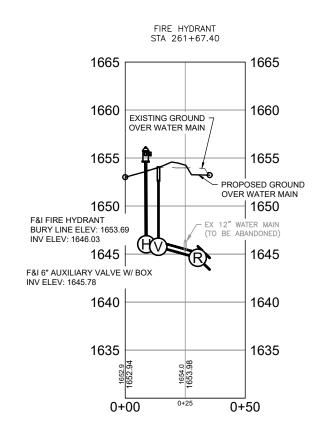
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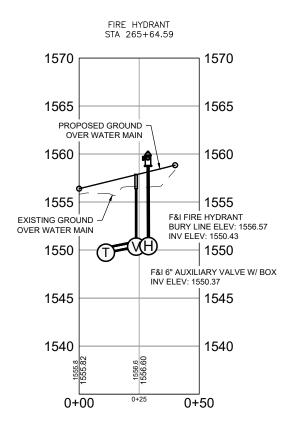
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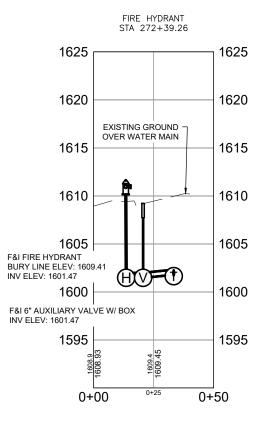
STATE OF

TOTAL SHEETS

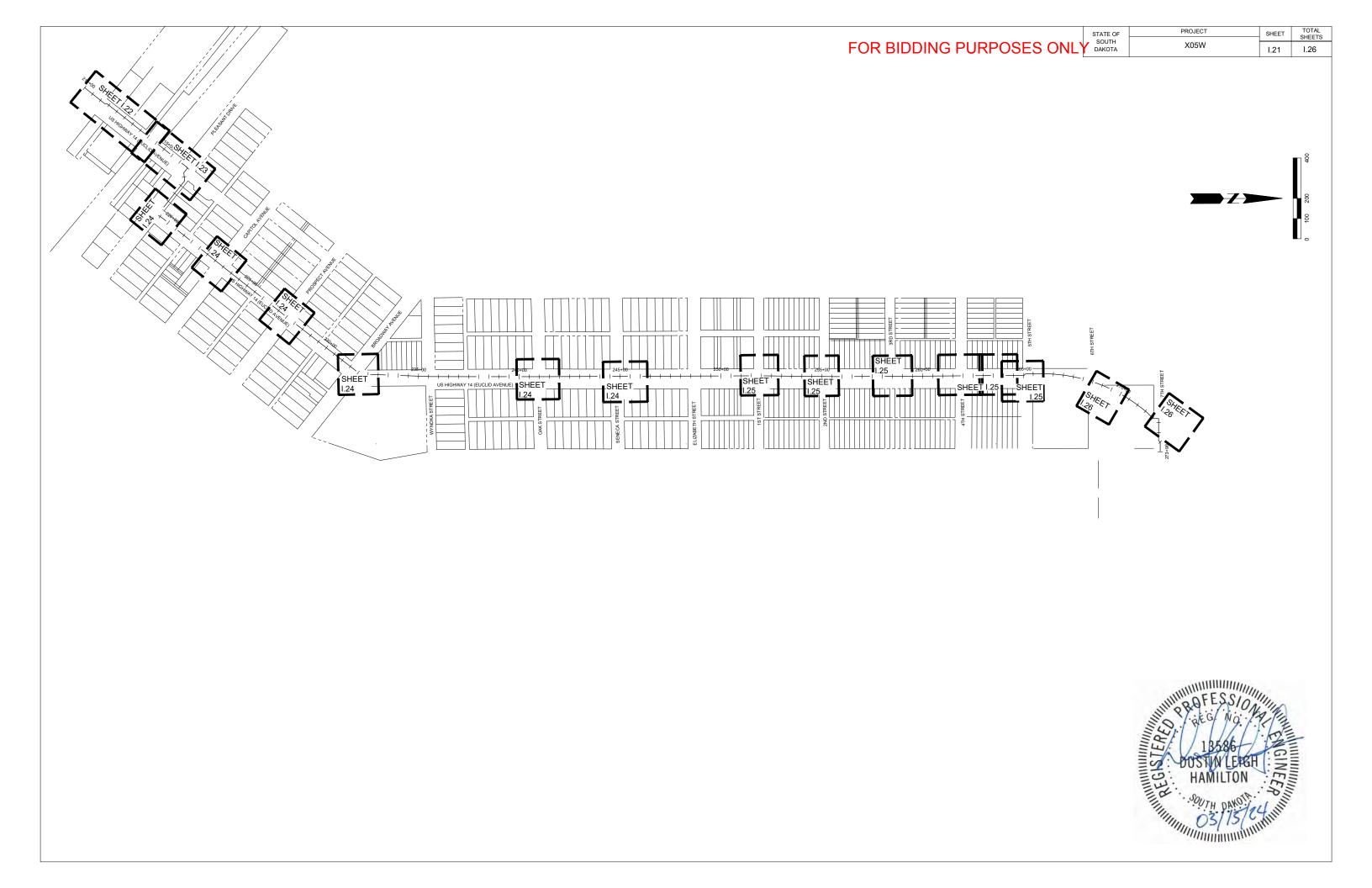
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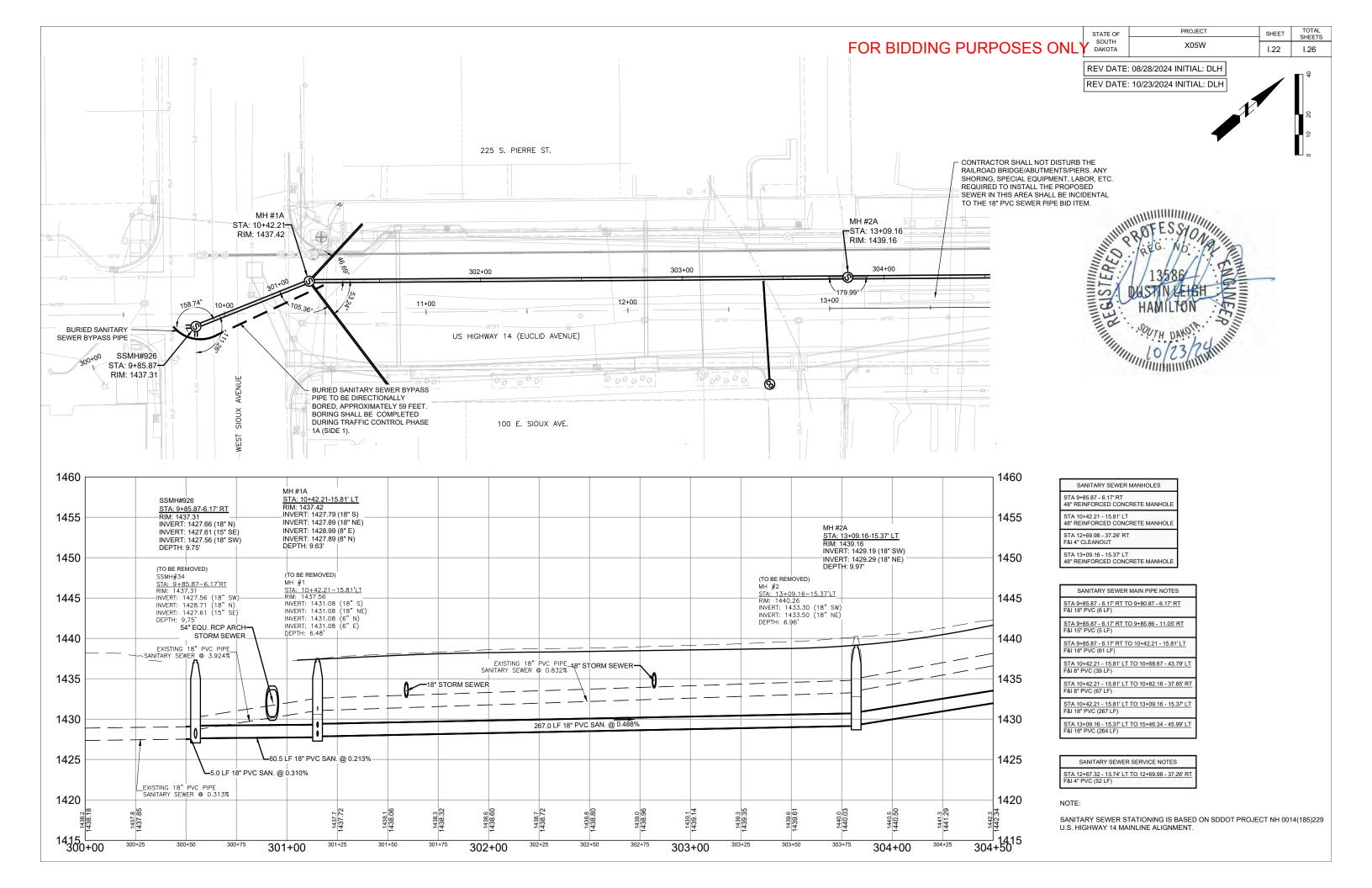


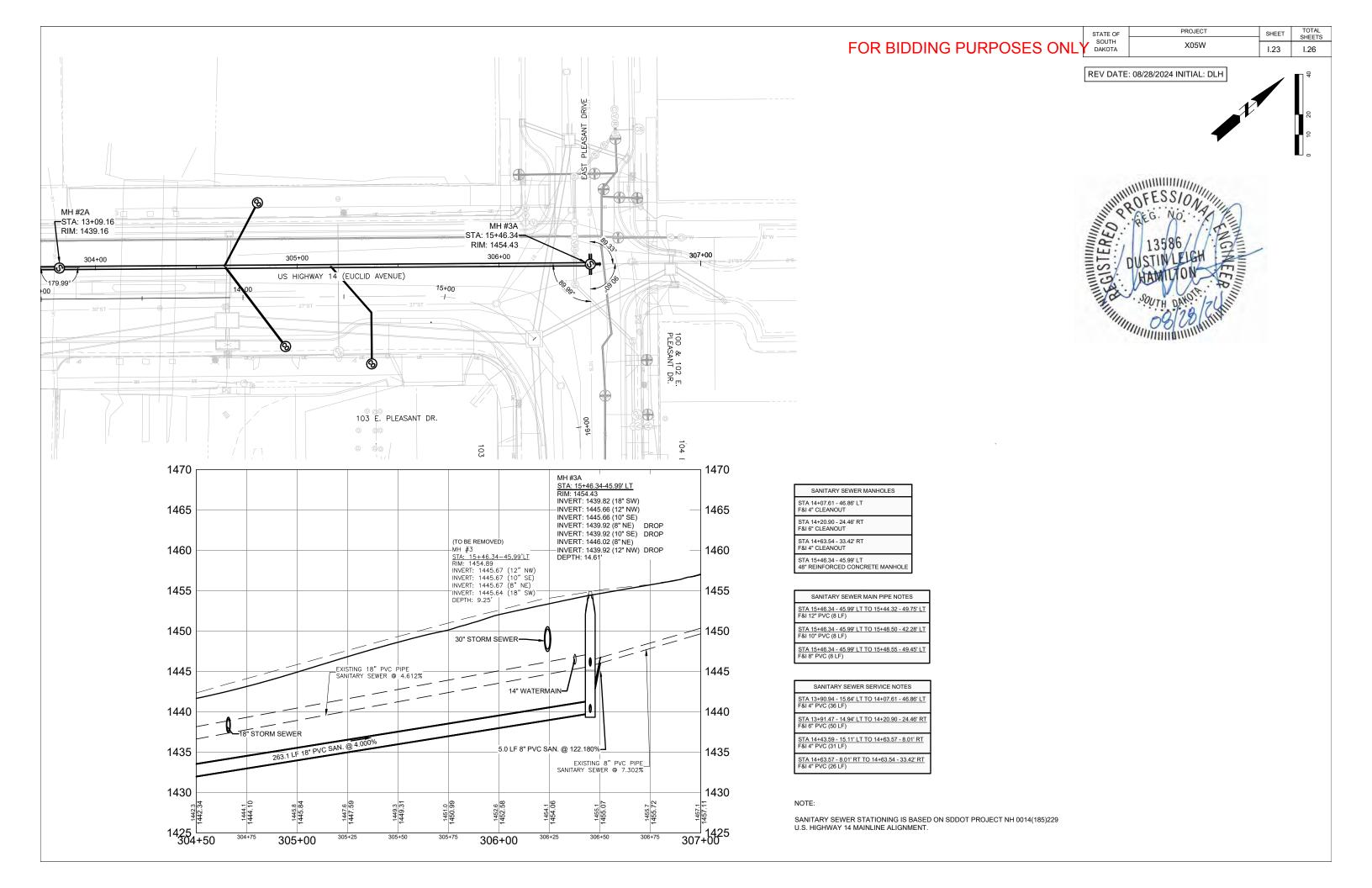


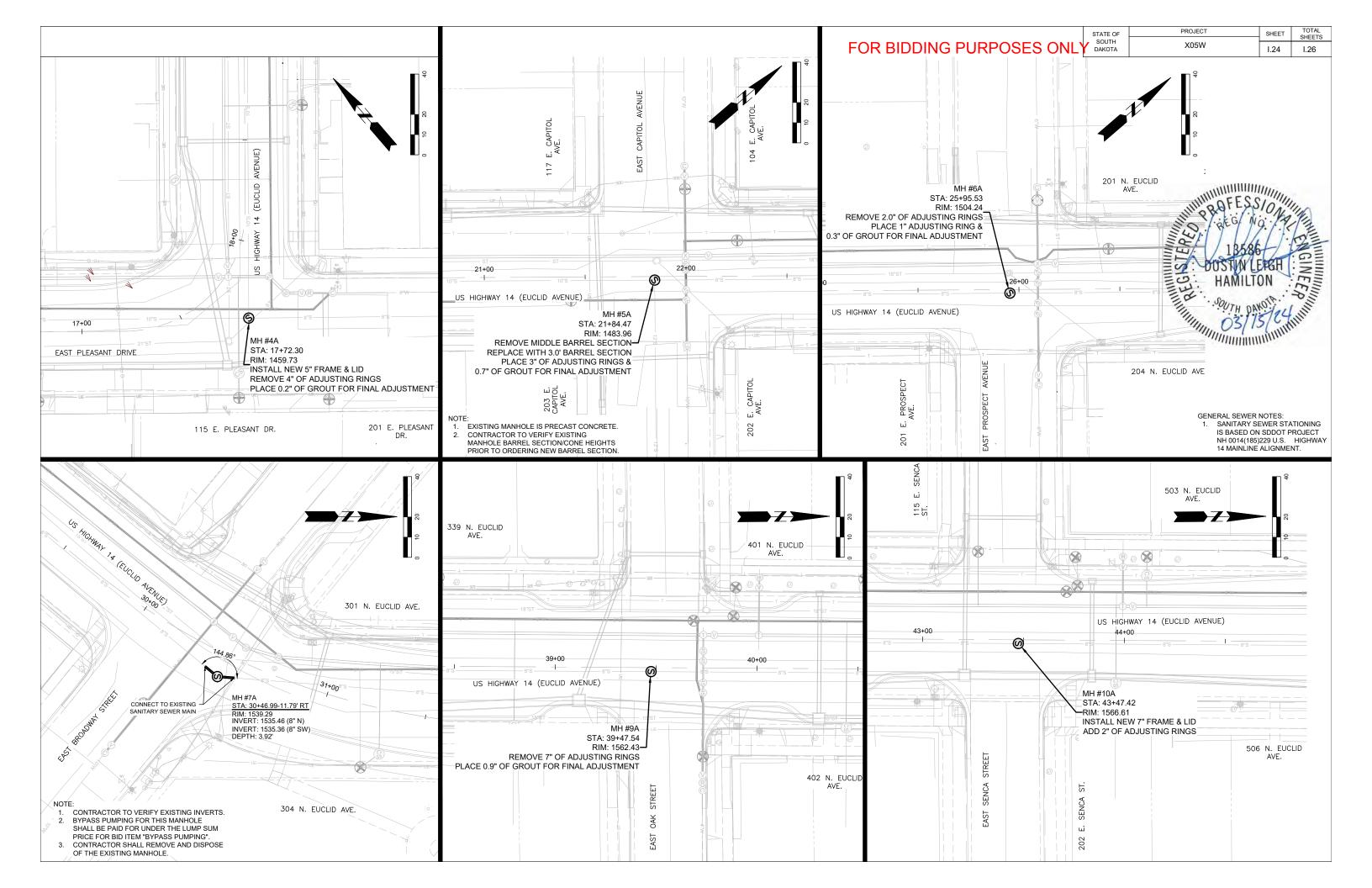


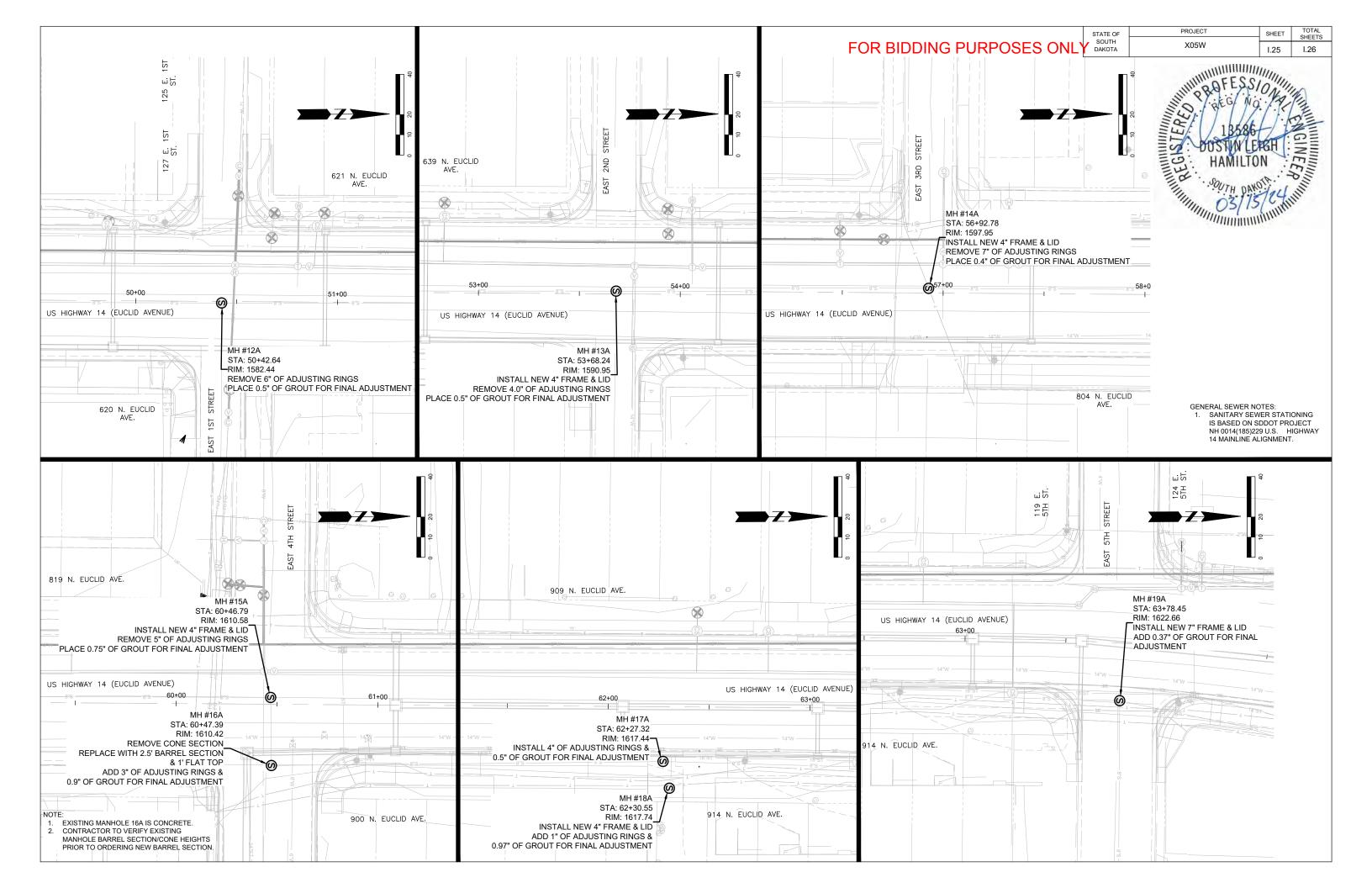


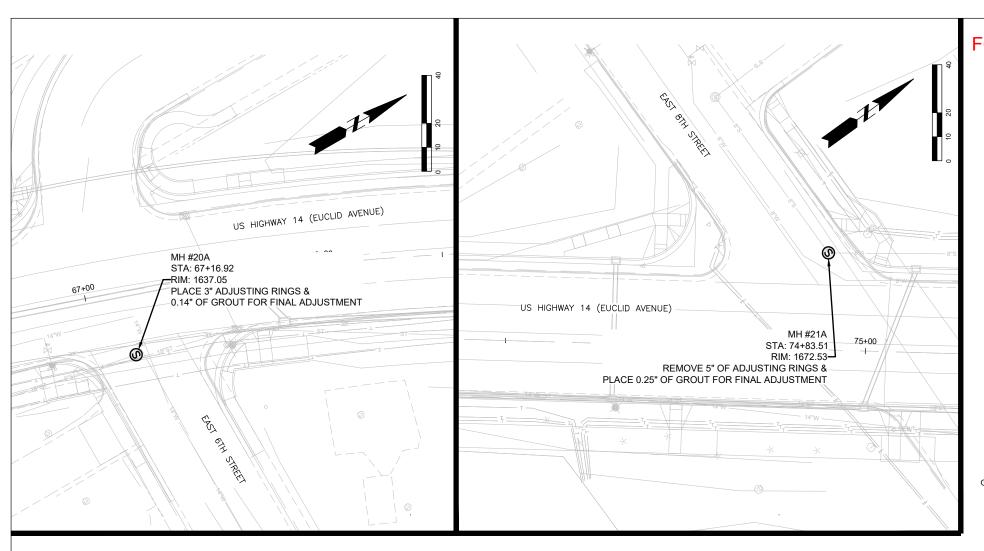










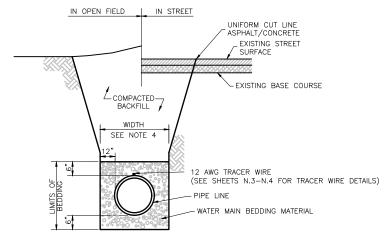


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1.26 I.26

GENERAL SEWER NOTES:
1. SANITARY SEWER STATIONING
IS BASED ON SDDOT PROJECT
NH 0014(185)229 U.S. HIGHWAY
14 MAINLINE ALIGNMENT.





TYPICAL TRENCH SECTION

- NOTES:

 1. MINIMUM COVER TO BE 6' BELOW OFFICIAL STREET GRADE.

 2. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.

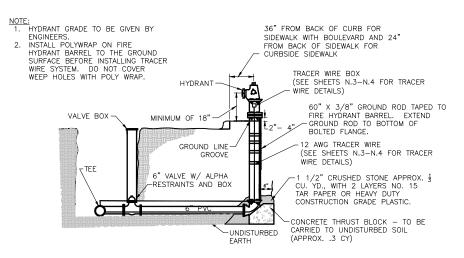
 3. PIPE SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO 6" ABOVE THE TOP OF THE PIPE.

- TOP OF THE PIPE.

 4. TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE.

 5. SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED A CONCRETE CRADLE SHALL BE PLACED WITH 2,500 P.S. CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.

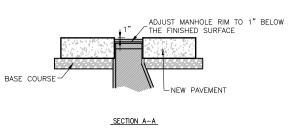
 6. INSTALLATION OF BEDDING AND PIPE: AFTER COMPLETION OF THE TRENCH EXCAVATION AND PROPER PREPARATION OF THE FOUNDATION, SIX INCHES (6") OF BEDDING MATERIAL SHALL BE PLACED ON THE TRENCH BOTTOM FOR SUPPORT UNDER THE PIPE. BELL HOLES SHALL BE DUG DEEP ENOUGH TO PROVIDE A MINIMUM OF TWO INCHES (2") OF CLEARANCE BETWEEN THE BELL AND BEDDING MATERIAL. ALL PIPE SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE FULL SUPPORT OF THE PIPE BARREL OVER ITS ENTIRE LENGTH. AFTER THE PIPE IS ADJUSTED FOR LINE AND GRADE, AND THE JOINT IS MADE, THE BEDDING MATERIAL SHALL BE CAREFULLY PLACED AND TAMPED UNDER THE HAUNCHES OF THE PIPE AND IN THE PREVIOUSLY DUG BELL HOLES.



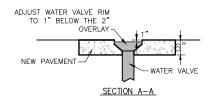
HYDRANT CONNECTION

FOR BIDDING PURPOSES ONLY

PROJECT TOTAL SHEETS SHEET STATE OF X05W N.1 N.4



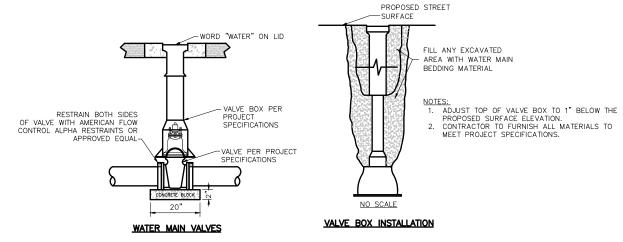
MANHOLE ADJUSTMENT DETAIL



WATER VALVE ADJUSTMENT DETAIL

NOTE:

1. EXISTING MANHOLES AND WATER VALVES SHALL BE ADJUSTED TO 1/4" BELOW THE NEW ASPHALT OVERLAY PRIOR TO THE OVERLAY. THE ENGINEER SHALL INSPECT & APPROVE ALL ADJUSTED MANHOLES AND WATER VALVES PRIOR TO THE BEGINNING OF OVERLAY OPERATIONS. HAND RAKING WILL BE REQUIRED AROUND ALL MANHOLES AND WATER VALVES TO ENSURE A UNIFORM FINISH.





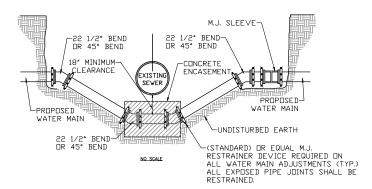
CASING PIPE MUST CONFORM TO ASTM A53 GRADE B MINIMUM YIELD STRENGTH OF 35.000 POUNDS PER SQUARE INCH.

WATER MAIN CASING PIPE DETAIL



APPURTENANCE	RESTRAINT LENGTH
6"X6" PIPE TEE	5 FT
8"X6" PIPE TEE	1 FT
14"X4" PIPE TEE	1 FT
14"X6" PIPE TEE	1 FT
14"X8" PIPE TEE	1 FT
14"X10" PIPE TEE	12 FT
14"X14" PIPE TEE	40 FT
12"X6" PIPE REDUCER	41 FT
14"X6" PIPE REDUCER	53 FT
14"X10" PIPE REDUCER	32 FT
14"X12" PIPE REDUCER	17 FT
4" 45° PIPE BEND (VERT. TOP)	9 FT
4" 45° PIPE BEND (VERT. BOTTOM)	3 FT
6" 45° PIPE BEND (VERT. TOP)	13 FT
6" 45" PIPE BEND (VERT. BOTTOM)	4 FT
14" 22.5" PIPE BEND (HORIZONTAL)	5 FT
14" 45° PIPE BEND (HORIZONTAL)	10 FT
14" 45° PIPE BEND (VERT. TOP)	28 FT
14" 45" PIPE BEND (VERT. BOTTOM)	8 FT
6" PIPE CAP	30 FT

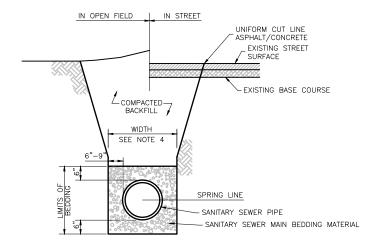
WATER MAIN RESTRAINT TABLE



CONTRACTOR SHALL PLACE CONCRETE ENCASEMENT 20' LONG CENTERED ON SEWER PIPE WHEN THERE LESS THAN 18" OF SEPARATION.

2. CONCRETE ENCASEMENT SHALL BE A MIN. OF 3" THICK.

SANITARY SEWER CROSSING DETAIL



- NOTES:

 1. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.

- FEDERAL SAFETY REGULATIONS.

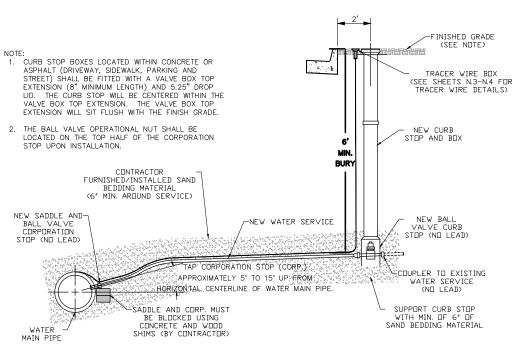
 2. PIPE SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO 6" ABOVE THE TOP OF THE PIPE.

 3. TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE.

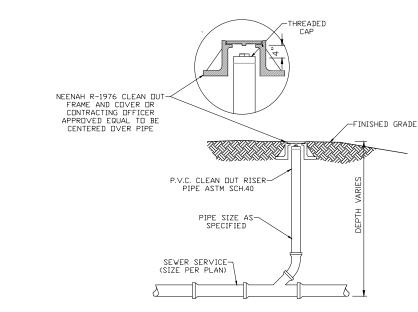
 4. SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED A CONCRETE CRADLE SHALL BE PLACED WITH 2,500 P.S.I CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.

 5. INSTALLATION OF BEDDING AND PIPE: AFTER COMPLETION OF THE TRENCH EXCAVATION AND PROPER PREPARATION OF THE FOUNDATION, SIX INCHES (6") OF BEDDING MATERIAL SHALL BE PLACED ON THE TRENCH BOTTOM FOR SUPPORT UNDER THE PIPE. BELL HOLES SHALL BE DUG DEEP ENOUGH TO PROVIDE A MINIMUM OF TWO INCHES (2") OF CLEARANCE BETWEEN THE BELL AND BEDDING MATERIAL. ALL PIPE SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE FULL SUPPORT OF THE PIPE BARREL OVER ITS ENTIRE LENGTH. AFTER THE PIPE IS ADJUSTED FOR LINE AND GRADE, AND THE JOINT IS MADE, THE BEDDING MATERIAL SHALL BE CAREFULLY PLACED AND TAMPED UNDER THE HAUNCHES OF THE PIPE AND IN THE PREVIOUSLY DUG BELL HOLES.

TYPICAL SANITARY SEWER TRENCH SECTION

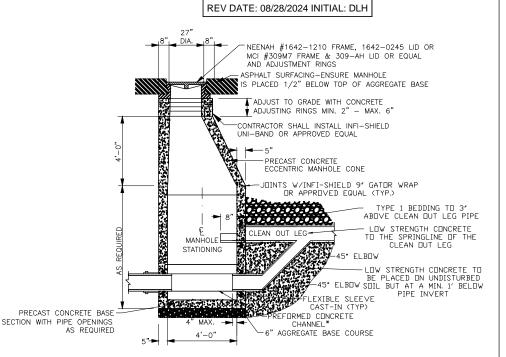


WATER SERVICE DETAIL



SANITARY SEWER CLEANOUT DETAIL





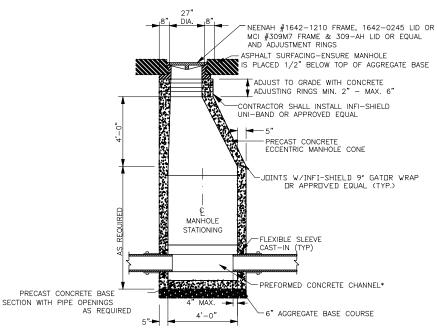
NOTES:

AS REQUIRED

- TOLERANCE +0" TO 1/4".

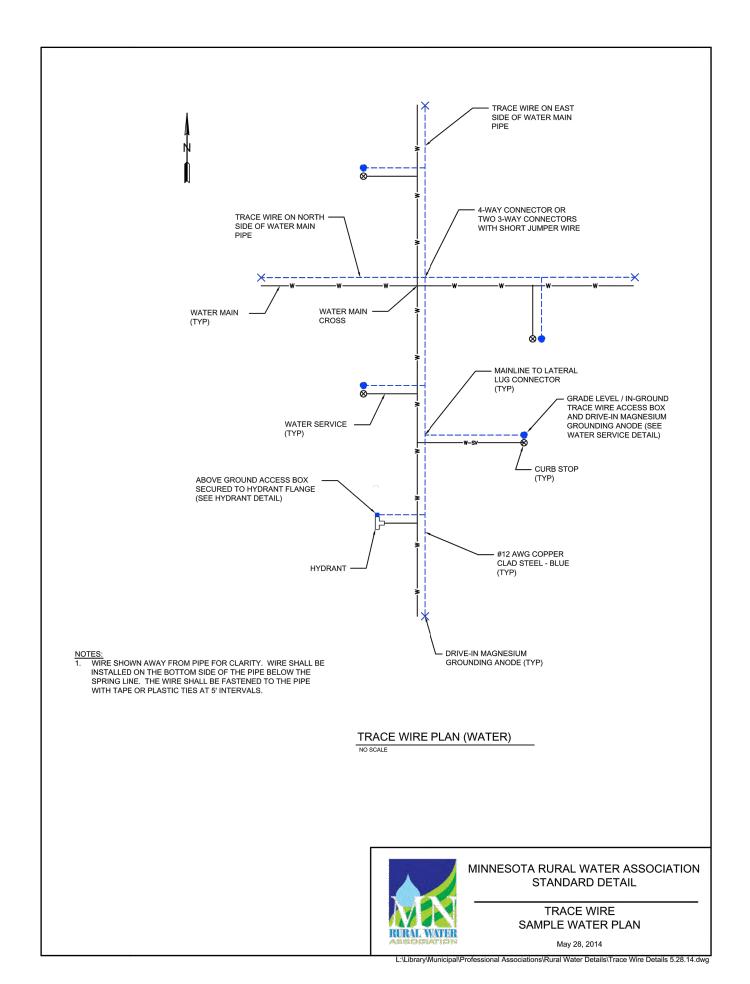
 2. USE TAPERED RINGS TO PLACE AT CORRECT FINISH GRADE SLOPE.
- 3. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MAKE ADJUSTMENT RINGS, CASTING AND ENTIRE MANHOLE WATERTIGHT. 4 CHANNELS FOR EXISTING PIPES BEING CONNECTED INTO NEW MANHOLES SHALL BE HAND FORMED AFTER INVERTS ARE FIELD VERIFIED.

48" CONCRETE DROP MANHOLE DETAIL



- NOTES: 1. BRING MANHOLE CASTING RIM TO FINISH GRADE WITH ADJUSTING RINGS.
- TOLERANCE +0" TO 1/4". 2. USE TAPERED RINGS TO PLACE AT CORRECT FINISH GRADE SLOPE.
- 3. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MAKE ADJUSTMENT RINGS, CASTING AND ENTIRE MANHOLE WATERTIGHT.
 4. CHANNELS FOR EXISTING PIPES BEING CONNECTED INTO NEW MANHOLES SHALL BE HAND FORMED AFTER INVERTS ARE FIELD VERIFIED.

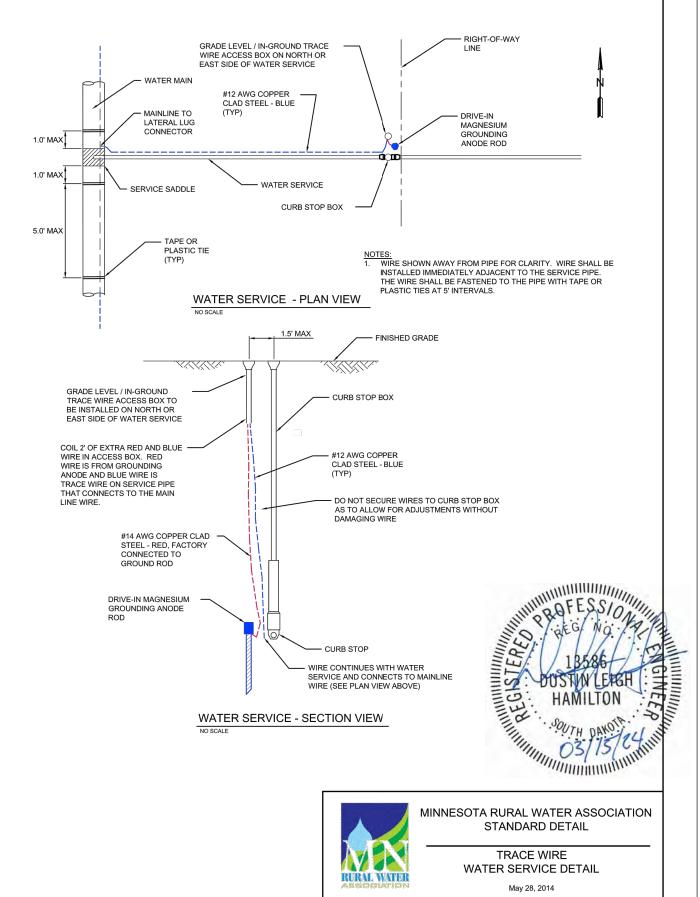
48" CONCRETE MANHOLE DETAIL



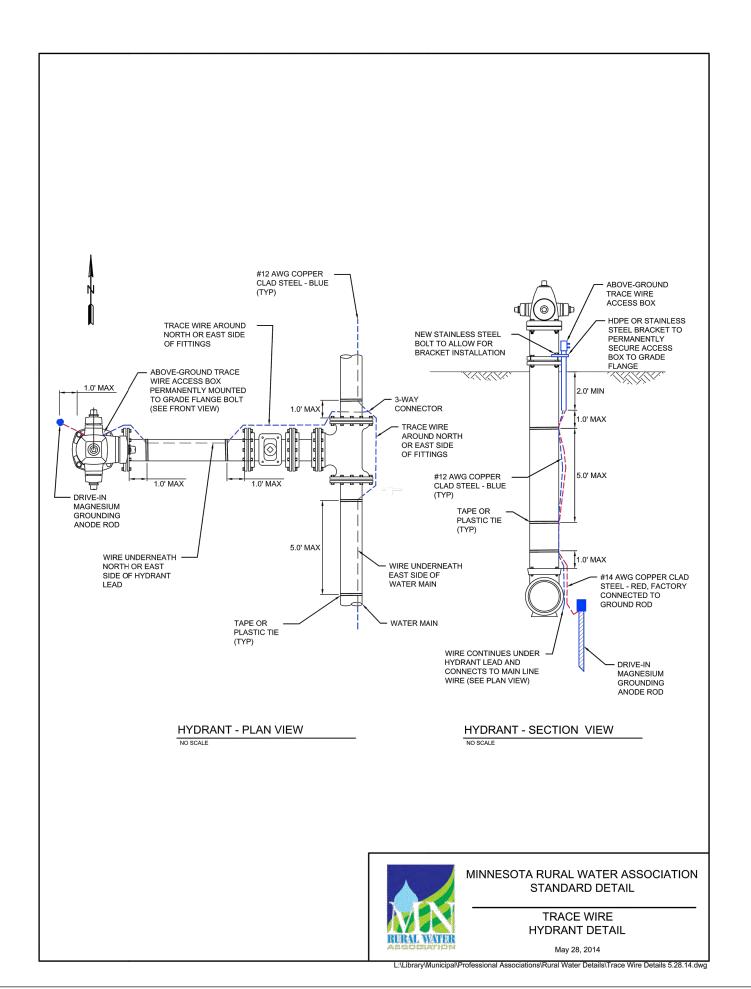
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STATE OF SOUTH DAKOTA X05W SHEET TOTAL SHEETS

N.3 N.4



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