

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B1	B139

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1:200
Plot Scale -

Plotted From - TRSF12140

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	87	Each
009E3225	Reestablish Public Land Survey System Corner	3	Each
009E3230	Grade Staking	5.160	Mile
009E3250	Miscellaneous Staking	2.529	Mile
009E3280	Slope Staking	0.990	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	82	Each
110E0300	Remove Concrete Curb and/or Gutter	6,731	Ft
110E0400	Remove Drop Inlet	26	Each
110E0460	Remove Manhole	7	Each
110E0600	Remove Fence	31	Ft
110E1010	Remove Asphalt Concrete Pavement	4,278.4	SqYd
110E1100	Remove Concrete Pavement	23,511.4	SqYd
* 110E1100	Remove Concrete Pavement	310.0	SqYd
110E1130	Remove Concrete Driveway Pavement	5,040.7	SqYd
110E1140	Remove Concrete Sidewalk	5,345.7	SqYd
110E5720	Salvage Drop Inlet Frame and Grate Assembly	26	Each
110E7500	Remove Pipe for Reset	16	Ft
110E7510	Remove Pipe End Section for Reset	1	Each
120E0010	Unclassified Excavation	38,399	CuYd
120E0900	Contaminated Material Excavation	100	CuYd
120E2000	Undercutting	15,251	CuYd
120E6100	Water for Embankment	180.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0020	Salvage and Stockpile Asphalt Mix Material	7,902.0	Ton
270E0110	Salvage and Stockpile Granular Material	13,056.0	Ton
380E3520	6" PCC Approach Pavement	598.9	SqYd
380E3540	8" PCC Approach Pavement	2,349.1	SqYd
380E4070	9" PCC Fillet Section	1,423.2	SqYd
450E0122	18" RCP Class 2, Furnish	2,518	Ft
450E0130	18" RCP, Install	2,518	Ft
450E0142	24" RCP Class 2, Furnish	1,316	Ft
450E0150	24" RCP, Install	1,316	Ft
450E0162	30" RCP Class 2, Furnish	604	Ft
450E0170	30" RCP, Install	604	Ft
450E0182	36" RCP Class 2, Furnish	900	Ft
450E0190	36" RCP, Install	900	Ft
450E0192	42" RCP Class 2, Furnish	426	Ft
450E0200	42" RCP, Install	426	Ft
450E0202	48" RCP Class 2, Furnish	7,884	Ft
450E0210	48" RCP, Install	7,884	Ft

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E0408	18" RCP Bend, Furnish	1	Each
450E0409	18" RCP Bend, Install	1	Each
450E2036	48" RCP Flared End, Furnish	1	Each
450E2037	48" RCP Flared End, Install	1	Each
450E2304	18" RCP Safety End, Furnish	4	Each
450E2307	18" RCP Safety End, Install	4	Each
450E3002	18" RCP Arch Class 2, Furnish	1,082	Ft
450E3004	18" RCP Arch Class 4, Furnish	68	Ft
450E3010	18" RCP Arch, Install	1,150	Ft
450E3012	24" RCP Arch Class 2, Furnish	154	Ft
450E3020	24" RCP Arch, Install	154	Ft
450E3023	30" RCP Arch Class 3, Furnish	128	Ft
450E3030	30" RCP Arch, Install	128	Ft
450E4769	24" CMP 16 Gauge, Furnish	220	Ft
450E4770	24" CMP, Install	220	Ft
450E5410	24" CMP Safety End, Furnish	8	Each
450E5411	24" CMP Safety End, Install	8	Each
450E9000	Reset Pipe	16	Ft
450E9001	Reset Pipe End Section	1	Each
462E0100	Class M6 Concrete	263.5	CuYd
464E0100	Controlled Density Fill	6.4	CuYd
470E0020	Pipe Handrail	334.6	Ft
480E0100	Reinforcing Steel	43,240	Lb
480E0200	Epoxy Coated Reinforcing Steel	3,321	Lb
600E0300	Type III Field Laboratory	1	Each
650E0089	Modified Type B69 Concrete Curb and Gutter	7,252	Ft
650E0090	Type B69 Concrete Curb and Gutter	602	Ft
650E1560	Type R48 Concrete Curb and Gutter	92	Ft
650E4689	Modified Type P9 Concrete Gutter	1,562	Ft
650E4690	Type P9 Concrete Gutter	82	Ft
651E0040	4" Concrete Sidewalk	26,906	SqFt
651E0060	6" Concrete Sidewalk	36,800	SqFt
651E0080	8" Concrete Sidewalk	370	SqFt
651E0160	6" Reinforced Concrete Sidewalk	108	SqFt
651E0540	4" Colored Concrete Sidewalk	12,461	SqFt
651E0580	8" Colored Concrete Sidewalk	313	SqFt
651E0740	4" Reinforced Colored Concrete Sidewalk	331	SqFt
651E0780	8" Reinforced Colored Concrete Sidewalk	112	SqFt
651E7000	Type 1 Detectable Warnings	1,130	SqFt
670E1200	Type B Frame and Grate	62	Each
670E2030	4' x 5' Type C Drop Inlet	1	Each
670E2200	Type C Frame and Grate	4	Each
670E3300	Type E Frame and Grate	4	Each

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
670E5200	Special Frame and Grate Assembly	1	Each
670E5342	4' x 6' Precast Concrete Type S Drop Inlet Lid	9	Each
670E5400	Precast Drop Inlet Collar	62	Each
671E0046	4' x 11' Junction Box	2	Each
671E4548	48" Manhole Cone Section	68.0	Ft
671E6009	Type A9 Manhole Frame and Lid	19	Each
671E7010	Adjust Manhole	3	Each
700E0210	Class B Riprap	61.0	Ton
831E0110	Type B Drainage Fabric	68	SqYd
831E0300	Reinforcement Fabric (MSE)	5,111	SqYd

* - Denotes Non-Participating

BID ITEMS FROM ENVIRONMENTAL COMMITMENTS

The following bid item(s) provided in this section of plans come from the Environmental Commitments in Section A: Contaminated Material Excavation (Commitment L).

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste.

Sections of the roadway different than the typical section(s) will be constructed to the limits shown on the cross sections. If significant changes to the cross sections are necessary during construction, the Engineer will contact the Designer for the proposed change.

A copy of the subsurface investigation for this project is available for review at the Aberdeen Region and Huron Area offices.

GENERAL GEOLOGY

The project alignment traverses glacial terrain typical of eastern South Dakota. Included within this terrain may be areas of loess, shale, sand, gravel, glacial till and boulder till. As is the case with most glacial terrain, the materials throughout the project can vary greatly in a short distance.

CLASSIFICATION OF EXCAVATION

Most of the material encountered should be able to be excavated using conventional methods associated with normal Unclassified Excavation.

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TRSE12141
Plot Scale -
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B3	B139

Plotting Date: 06/03/2026

MACHINE CONTROL GRADING & MODEL INFORMATION

Electronic design files are made available by the SDDOT Bid Letting Office through the SDDOT’s SharePoint Directory for Contractors. The roadway subgrade model(s) xml file(s) provided for this project includes the following highway features: None.

Highway features not included in the roadway subgrade model(s) xml file(s) are the following: intersecting streets and entrances and undercutting.

These files are provided for informational purposes only. The information shown in the plans will govern over the provided electronic information. The Contractor assumes the risk of error if the information is used for any purposes for which the information was not intended. The Contractor assumes all risk of any assumptions or manipulations made of the electronic information.

SHRINKAGE FACTOR: Embankment +20%

TABLE OF EXCAVATION QUANTITIES BY BALANCES

Station to	Station	Excavation (CuYd)	* Undercut (CuYd)	Total Excavation (CuYd)	** Waste (CuYd)
14+00	40+00	6426	7406	13832	4415
40+00	66+33	1968	6899	8867	286
Totals:		8394	14305	22699	4701

* Intersecting street and sidewalk undercut is not included in the earthwork balances.

* The quantities for these items are in the Estimate of Quantities under their respective contract items.

** The quantities for these items are for information only. Waste is excess excavation material to be disposed of by the Contractor at a site approved by the Engineer.

TABLE OF UNCLASSIFIED EXCAVATION

	(CuYd)
Excavation	8394
Undercut	15251
Salvaged Asphalt Mix Material (from cut sections)	4181
Salvaged Granular Base Material (from cut sections)	6908
Topsoil	3665
Total	38399

HAUL

There is no haul anticipated on the project.

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

Plan quantity will be the basis of payment for Unclassified Excavation and the plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

The total quantity of Topsoil will be added to the Unclassified Excavation quantity. The quantity of Topsoil from the cuts will be paid for twice as Unclassified Excavation, as it will be in both the Excavation and Topsoil quantities. This will be full compensation for Excavation, which includes necessary undercutting to provide space for placement of topsoil.

The Excavation quantities from individual balances and the Table of Unclassified Excavation have been reduced by the volume of in place surfacing that will be removed and/or salvaged.

Salvaged Asphalt Mix and Granular Base Material will be paid for at the contract unit price per ton and is also included in and paid for once as Unclassified Excavation.

The estimated quantity of Salvaged Asphalt Mix and Granular Base Material from fill sections and off-alignment roadways or obliterated old roads is 0 cubic yards.

The volume of in place Concrete Surfacing removed will NOT be paid for as Unclassified Excavation.

The Excavation quantities from individual balances and the table above have been reduced by the volume of in place concrete pavement that will be removed.

SALVAGE AND STOCKPILE ASPHALT MIX MATERIAL

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 20. This value was obtained from testing during construction of the in-place asphalt concrete.

An estimated 7,902 tons (4,181 Cubic Yards) of asphalt mix material will be salvaged from the existing highway according to the in-place surfacing typical sections and stockpiled at a site furnished by the Contractor and satisfactory to the Engineer.

The Contractor will ensure that no vegetation, topsoil, subgrade, or other foreign material is incorporated into the salvaged asphalt mix material.

The quantity of salvaged asphalt mix material may vary from the plans.

The quantity of salvageable material is estimated from the in-place surfacing typical sections. This estimated quantity was included in the unclassified excavation quantities.

SOIL BORING INFORMATION

Station	Offset (ft)	Depth (ft)	Description	Initial Water Level (ft)	Final Water Level (ft)	Time Between Reading (hrs)
15+75	0.4 Rt	1.8-15.0	Brown clay sand	14.4	7.8	142
21+00	CL	1.6-7.0	Brown silty sand	8.2	8.4	138
		7.0-15.0	Brown clay sand			
25+50	1.0 Lt	1.7-10.0	Brown clay sand	12.0	8.0	122
		10.0-15.0	Brown silty sand			
31+00	1.0 Lt	1.5-9.0	Brown clay sand	7.0	7.6	119
		9.0-15.0	Brown silty sand			
37+00	CL	1.7-3.9	Brown silty sand	11.6	8.8	116
		3.9-15.0	Brown clay sand			
43+50	0.4 Lt	1.4-9.0	Brown silty sand	14.7	7.8	115
		9.0-15.0	Brown clay sand			
49+50	25.0 Lt	1.7-3.9	Brown silty sand	14.7	5.8	112
		3.9-15.0	Brown clay sand			
54+75	25.4 Rt	1.4-5.0	Brown silty sand	Dry	12.8	99
		5.0-15.0	Brown clay sand			
61+00	24.4 Rt	1.6-3.0	Brown silty sand	10.8	7.6	98
		3.0-3.7	Brown clay sand			
		3.7-7.0	Brown silty sand			
		7.0-15.0	Brown clay sand			
65+00	26.4 Rt	1.4-3.9	Brown silty sand	13.8	7.3	96
		3.9-15.0	Brown clay sand			

Free water was encountered in borings throughout the project at levels that will be higher than or near the bottom of the new storm sewer trenches. Proper protective measures will be required for the storm sewer construction. Seasonal changes may affect the groundwater elevations. Sumps and/or other dewatering methods will be required.

EXCESS MATERIAL FROM PIPE AND DROP INLET INSTALLATION

The excess material which will result from installing drop inlets, junction boxes and pipe culverts which are larger than previously existed or where no such features existed before is not included in the Waste quantity listed in the Table of Excavation Quantities. Disposal of this excess material will be incidental to the corresponding contract pay items which generated the excess material.

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Plotted From -
TRSE12141

UNDERCUTTING

In all cut sections, the earthen subgrade will be undercut 1 foot below the finished subgrade. The undercut will extend from behind the curb to behind the opposite curb. The distance behind the curb will be determined based on the paving operation. Shallow embankment sections, fills less than 1 foot in height measured at the finished subgrade shoulders, will be undercut to assure a minimum 1-foot height of earth embankment for the entire width of the roadbed. The undercut material or other suitable material, as directed by the engineer, will then be replaced and recompactd to the density specified for the section being constructed.

Intersecting streets will be undercut to the same depth as the Mainline roadway out to the limits of asphalt concrete / PCC pavement and curb & gutter placement on the intersecting street. Quantities are included in the "Table of Undercutting".

Sidewalk and the access ramps at the location listed in the "Table of Undercutting" will be undercut 1.0 foot below the bottom of the granular cushion material for the sidewalk. Limits of this undercut are from the edge of the roadway undercut to the edge of the building. The undercut material or other suitable material will then be replaced and compacted to the density specified for the adjacent roadway undercut as directed by the Engineer. Undercutting for sidewalk will meet the requirements for Undercutting and quantities are included in the "Table of Undercutting".

The Contractor will be responsible to determine the condition of the adjacent building foundations and determine construction methods that will not damage the buildings. The Contractor will be responsible for any damage to the buildings resulting from highway construction activities.

TABLE OF UNDERCUTTING QUANTITIES

Station	to	Station	Description	Quantity (CuYd)
14+00		40+00	SD37	7406
40+00		66+33	SD37	6899
17+55	R		Int. Street	42
22+02	L		Int. Street	48
26+18	R		Int. Street	34
26+55	L		Int. Street	49
30+99	L		Int. Street	53
32+83	R		Int. Street	35
35+78	L		Int. Street	53
39+48	R		Int. Street	36
40+09	L		Int. Street	42
44+20	R		Int. Street	65
44+38	L		Int. Street	37
47+98	R		Int. Street	36
48+70	L		Int. Street	36
52+74	R		Int. Street	35
53+00	L		Int. Street	54
57+30	R		Int. Street	32
57+31	L		Int. Street	33
61+61	R		Int. Street	35
61+62	L		Int. Street	32
65+92	R		Int. Street	33
65+92	L		Int. Street	41
18+50	L	20+07	Sidewalk & Access Ramps	85
Total:				15251

IN-PLACE SURFACING AND GRANULAR MATERIAL

Test holes were drilled to check the depth of in-place surfacing. A log of these test holes is shown below.

Station	Centerline Offset (ft)	Thickness (in)		
		AC	Concrete	Gravel Cushion
15+75	0.4 RT	7.0	9.0	2.0
21+00	CL	6.0	9.0	3.0
25+50	1.0 LT	8.0	9.0	2.0
31+00	1.0 LT	6.0	9.0	2.0
37+00	CL	6.0	9.0	2.0
43+50	0.4 LT	5.0	9.0	2.0
49+50	25.0 LT	0.0	7.0	10.0
54+75	25.4 RT	0.0	6.0	10.0
61+00	24.4 RT	0.0	7.0	9.0
65+00	24.6 RT	0.0	5.0	11.0

A copy of the subsurface investigation for this project is available for review at the Aberdeen Region and Huron Area offices.

STORM SEWER INSTALLATION

48" RCP storm sewer will be installed near existing traffic signal poles at 27th St. South and 21st St. South. The Contractor will remove the poles prior to work in these areas and then reset the poles after the storm sewer has been installed (See Section L and Section C for additional information). To avoid impacts to the existing pole footings, the Contractor will utilize retaining structures, shoring, trench boxes, etc. as approved by the Engineer to minimize the amount of excavation required. The excavation will be backfilled with a cohesive soil according to the Specified Density Method. All costs incurred to incorporate construction methods to avoid impacts to the existing pole footings will be incidental to the contract unit price per foot for "48" RCP, Install".

REMOVAL OF EXISTING CONCRETE PAVEMENT

STA. 12+00 to STA. 14+00

The existing concrete is 8.5" Nonreinforced PCC Pavement. The aggregate in the existing PCC Pavement is quartzite.

STA. 14+00 to STA. 47+59

The existing concrete in Section 1 is 9"-6"-9", (7" Avg.) Reinforced PCC Pavement with welded wire fabric. The welded wire fabric weighs not less than 42 pounds per 100 square feet. The existing transverse contraction joints are spaced at 40 feet with ¾" x 2'6" smooth bars inside dowel sockets spaced 2'10" center to center. There are ½" deformed bars spaced 5' center to center placed transversely at the centerline. There are 3/8" round iron pins placed vertically not less than 15" long at the centerline spaced at 4' center to center. There are eight ½" longitudinal deformed bars spaced evenly throughout the width of the existing PCC Pavement. The aggregate in the existing PCC Pavement is unknown.

STA. 47+59 to STA. 66+33

The existing concrete in Section 2 is 6" Avg. Plain Jointed PCC Pavement. The existing transverse joints are perpendicular and are spaced at 15 feet. The aggregate in the existing Plain Jointed PCC Pavement is Crushed Quartzite Ledge Rock.

TABLE OF CONCRETE PAVEMENT REMOVAL

Station	to	Station	Description	Quantity (SqYd)
12+00		14+00	Pavement Removal / Replacement at 21 st St. Intersection	*697.6
14+00		47+59	Asphalt over 7"(Avg.) Concrete Plain Jointed PCCP	8,068.1
47+59		66+33	6" Avg. Plain Jointed PCCP	15,055.7
Total:				23,821.4

* 310 SqYd is Non-Participating from 13+13 to 14+00 for Sanitary Sewer replacement.

SALVAGE AND STOCKPILE GRANULAR MATERIAL

An estimated 13,056 tons (6,908 Cubic Yards) of granular material will be salvaged from the existing highway according to the in-place surfacing typical sections and stockpiled at a site furnished by the Contractor and satisfactory to the Engineer.

The Contractor will ensure that no vegetation, topsoil, subgrade, or other foreign material is incorporated into the salvaged granular material.

The quantity of salvaged granular material may vary from the plans.

The quantity of salvageable material is estimated from the in-place surfacing typical sections. This estimated quantity was included in the unclassified excavation quantities.

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TYPE III FIELD LABORATORY

The lab will be equipped with an internet connection such as DSL, cable modem, or other approved service. The internet connection will be provided with a multi-port wireless router. The internet connection will be a minimum speed of 5 Mbps unless limited by job location and approved by the DOT. Prior to installing the wireless router, the Contractor will submit the wireless router's technical data to the Area Office to check for compatibility with the state's computer equipment. The internet connection is intended for state personnel usage only. The Contractor's personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer. These items will be incidental to the contract unit price per each for "Type III Field Laboratory".

UTILITIES

The Contractor will be aware that the existing utilities shown in the plans were surveyed prior to the design of this project and might have been relocated or replaced by a new utility facility prior to construction of this project, might be relocated or replaced by a new utility facility during the construction of this project, or might not require adjustment and may remain in its current location. The Contractor will contact each utility owner and confirm the status of all existing and new utility facilities. The utility contact information is provided elsewhere in the plans or bidding documents.

Subsurface utility explorations were done for this project. The findings can be found in the SUBSURFACE UTILITY LOCATIONS table elsewhere in the plans. The table is provided to aid the Contractor during construction. All information in the table is approximate and will be verified by the Contractor prior to construction in those areas.

CORRUGATED METAL PIPE

Corrugated metal pipes will have 2 3⁄8-inch x 1⁄2-inch corrugations for 42-inch and smaller round pipe and 48-inch and smaller arch pipe unless otherwise stated in the plans. Corrugated metal pipes will have 3-inch x 1-inch or 5-inch x 1-inch corrugations for 48-inch and larger round pipe and 54-inch and larger arch pipe unless otherwise stated in the plans.

The gauge of the corrugated metal ends will match the thickest gauge of corrugated metal pipe it is connected to.

PIPE FOR APPROACHES

Class 2 reinforced concrete pipe, high density polyethylene pipe, polypropylene pipe (will be in conformance with AASHTO M330), or steel reinforced polyethylene pipe may be substituted for corrugated metal pipe at approaches at no additional cost to the State.

If corrugated metal pipes are provided, the pipes will be as specified in the CORRUGATED METAL PIPE note.

If high density polyethylene pipe, polypropylene pipe (will be in conformance with AASHTO M330), or steel reinforced polyethylene pipe are provided, then the end sections will be metal, be compatible, and conform to the type of end section as shown in the plans.

INCIDENTAL WORK, GRADING

Station	Remarks
100+21-37'R to 100+88-3'L	Take Out 18"-80' CMP
108+62-4'L	Take Out 24"-67' RCP
127+37-4'L	Take Out 24"-81' RCP
131+24-3'L	Take Out 24"-67' RCP
143+23-3'R	Take Out 18"-61' RCP
164+58-7'R	Take Out 18"-88' CMP
174+73-3'R	Take Out 18"-104' CMP
10+90-81'R to 12+61-81'R	Take Out 24"-162' RCP / CMP & 1 End Section
12+52.5-63.0'R to 12+60.7-81.3'R	Take Out 18"-18' RCP
12+60.7-81.3'R to 94.6'R	Take Out 24"-12' RCP
14+00-48'L to 20+77-38'L	Take Out 18"x11" Concrete Utility Duct
20+91-38'L to 26+61-36'L	Take Out 20"x11" Concrete Utility Duct
22+97 to 24+92-50' to 56'L	Salvage & Replace Landscape Rock
25+74-33' R to 26+41-38'R	Take Out 15"-72' RCP
26+44-38' R to 26+43-57'R	Take Out 12"-20' CMP
40+26-18'L to 40+26-57'L	Take Out 12"-40' PVC
40+26-18'L to 40+78-19'L	Take Out 12"-48' RCP
40+78-19'L to 44+18-19'L	Take Out 12"-338' RCP
44+18-19'L to 44+20-23'R	Take Out 12"-48' RCP
44+20-23'R to 44+21-80'R	Take Out 15"-57' RCP
44+07-35' L to 44+18-19' L	Take Out 12"-20' PVC Pipe
44+18-19' L to 44+86-34' L	Take Out 12"-70' RCP
48+29-34' L to 48+56-59' L	Take Out 18"-37' RCP
48+56-59' L to 48+84-59' L	Take Out 18"-29' RCP
48+84-59' L to 49+10-32' L	Take Out 18"-38' RCP
49+10-32' L to 52+29-32' L	Take Out 18"-320' RCP
52+29-31' R to 52+29-32' L	Take Out 18"-64' RCP
52+29-32' L to 52+63-7' L	Take Out 24"-43' RCP
52+63-7' L to 53+39-32' L	Take Out 18"-81' RCP
52+86-57' L to 53+15-57' L	Take Out 15"-29' RCP
53+15-57' L to 53+39-32' L	Take Out 15"-36' RCP
53+14-32' R to 53+39-32' L	Take Out 18"-68' RCP
57+17-57' L to 57+45-57' L	Take Out 18"-29' RCP
57+45-57' L to 57+70-32' L	Take Out 18"-36' RCP
57+70-32' L to 61+20-32' L	Take Out 18"-351' RCP
61+18-31' R to 61+20-32' L	Take Out 18"-64' RCP
61+20-32' L to 61+47-57' L	Take Out 18"-37' RCP
61+20-32' L to 65+47-30' L	Take Out 24"-482' RCP
61+47-57' L to 61+76-57' L	Take Out 15"-29' RCP
61+87 to 62+35-50'R	Take Out Hedges
65+03 to 65+53-50' to 55'R	Salvage & Replace Landscape Rock
65+03 to 65+53-35' to 45'R	Remove & Dispose Landscape Rock
65+47-34' R to 65+47-30' L	Take Out 18"-64' RCP
65+47-30' L to 65+74-55' L	Take Out 15-37' RCP
65+47-30' L to 65+84-12' L	Take Out 24"-41' RCP
65+84-12' L to 66+36-29' L	Take Out 24"-55' RCP
66+10-54' L to 66+36-29' L	Take Out 12"-36' RCP

PLUG EXISTING PIPE

The existing pipe listed in the table below shall have the end plugged by a method approved by the Engineer. A quantity of 0.5 cubic yards of Class M6 concrete has been included in the contract quantities for each location. All costs for plugging the pipe ends, including labor, materials, equipment, and incidentals shall be incidental to the contract unit price per cubic yard for "Class M6 Concrete".

Station	Type	Class M6 Concrete (CuYd)
26+43.1-56.9'R	12" CMP Opening @ Jct. Box	0.5
40+25.5-57.0'L	12" PVC Pipe	0.5
44+20.7-80.0'R	15" RC Pipe	0.5
52+62.9-7.1'L	18" RCP Opening @ Jct. Box	0.5
52+62.9-7.1'L	24" RCP Opening @ Jct. Box	0.5
Total:		2.5

TABLE OF DROP INLET REMOVAL

Station	L/R	Quantity (Each)
12+61	81'R	1
25+74	33'R	1
26+44	38'R	1
44+07	35'L	1
44+86	34'L	1
48+29	34'L	1
48+56	59'L	1
48+84	59'L	1
49+10	32'L	1
52+29	31'R	1
52+29	32'L	1
52+86	57'L	1
53+14	62'R	1
53+15	57'L	1
53+39	32'L	1
57+17	57'L	1
57+45	57'L	1
57+70	32'L	1
61+18	31'R	1
61+20	32'L	1
61+47	57'L	1
61+76	57'L	1
65+47	34'R	1
65+47	31'L	1
65+74	55'L	1
66+10	54'L	1
Total:		26

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CONCRETE PIPE CONNECTIONS

Pipe connections to existing pipes, manholes, junction boxes, and drop inlets will be done by breaking a hole into the existing structure and inserting the pipe. A concrete collar will then be poured around the pipe in the area of the connection.

When it is not possible to use a normal pipe joint (male-female ends), connections to existing pipe will be made by placing a 2’ wide by 6" thick M6 concrete collar around the outside of the connection. The concrete collar will be reinforced with 6x6 W2.9 x W2.9 wire mesh.

All costs for constructing the concrete collars including materials and labor will be incidental to the contract unit price per foot for the corresponding pipe contract item.

CONCRETE SIDEWALK JOINT SEALING

The Contractor will install expansion joint material approximately 1/2” lower than the finished concrete sidewalk elevation adjacent to buildings. The Contractor will seal all of these expansion joints between the concrete sidewalk and existing buildings using silicone joint sealer that meets the requirements of Section 870 of the Standard Specifications.

All costs to seal these joints will be incidental to the contract unit price per square foot for the type of sidewalk being installed adjacent to the building – “4” Concrete Sidewalk” or “6” Concrete Sidewalk”.

PIPE COVER

The earthen subgrade cover for some pipe installations is less than one foot. The Contractor will take the necessary precautions to ensure the structural properties of the pipes are not damaged after installation and prior to the placement of final surfacing. Any additional costs for preventing damage to these pipes will be incidental to the contract unit price per foot for the corresponding pipe installation contract item.

CONTROLLED DENSITY FILL FOR PIPE

Controlled density fill will be in conformance with Section 464 of the Specifications.

The controlled density fill will be placed between the pipes from the base of pipe elevation to the haunch of the pipes and extend to the junction boxes.

TABLE OF CONTROLLED DENSITY FILL FOR PIPE

Station	Quantity (CuYd)
179+82.48-2'L to 180+50.23-CL (Storm Sewer)	6.4
Total:	6.4

STORM SEWER

Reinforced concrete pipe may be bell and spigot. The pipe sections will be adjoined such that the ends are fully entered and the inner surfaces are reasonably flush and even.

Lift holes in the reinforced concrete pipe will be plugged with grout.

Watertight joints are required for reinforced concrete pipe, drop inlets, manholes, and junction boxes where storm sewers run parallel to and within 10 feet horizontally from existing or proposed water mains.

Watertight joints are required where reinforced concrete pipes, drop inlets, manholes, or junction boxes cross water mains and are separated a distance of 18 inches or less, above or below, the water main.

If watertight joints are required then the watertight joints will extend for a distance of 10 feet beyond the water main. This measurement will be from the sealed concrete joint to the outer most surface of the water main.

Watertight joint seals will conform to the following requirements:

1. Reinforced Concrete Pipe (Circular): Gasketed pipe will conform to the requirements of ASTM C443 and the gasket will be in conformance with Section 990 of the Specifications. Non-gasketed concrete pipe will be sealed with a mastic joint seal conforming to the requirements of ASTM C990 and encased with a minimum 2-foot wide by 6-inch thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.
2. Reinforced Concrete Pipe (Arch): Gasketed pipe will conform to the requirements of ASTM C443 and the gasket will be in conformance with Section 990 of the Specifications. Non-gasketed concrete pipe joints will be sealed with a hydrophilic flexible water stop seal and wrapped with a 1-foot wide strip of fabric above the cradle. The fabric will conform to the requirements of Section 831 of the Specifications for Type A Drainage Fabric. The hydrophilic flexible water stop will be from the list below.
3. Drop Inlets, Manholes, and Junction Boxes: Joints will be sealed with one of the following methods:

A. A flexible strip seal placed in the joints conforming to the requirements of ASTM C990 and the perimeter encased with a minimum 2-foot wide by 6-inch thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.

B. A hydrophilic flexible water stop seal placed in the joints and a 1-foot wide strip of fabric wrapped around the perimeter of the pipe. The fabric will conform to the requirements of Section 831 of the Specifications for Type A Drainage Fabric. The hydrophilic flexible water stop will be from the list below.

C. A self-adhesive external joint seal wrap. The seal wrap will be from the list below.

Approved List of Self-adhesive Joint Wrap	
Product	Manufacturer
Mar Mac Seal Wrap	Mar Mac Construction Products McBee, SC 843-335-5909 www.marmac.com
ConWrap CS-212	Concrete Sealants, Inc. Tipp City, OH 800-332-7325 http://www.conseal.com

Approved List of Hydrophilic Flexible Water Stop Seal:	
Product	Manufacturer
Waterstop RX	Cetco Hoffman Estates, IL 800-527-9948 www.cetco.com
Conseal CS-231	Concrete Sealants, Inc. Tipp City, OH 800-332-7325 http://www.conseal.com

Gaskets and seals (mastic, waterstop, and seal wraps) will be installed in accordance with the Manufacturer's recommendations.

The cost for furnishing and installing all gaskets, mastic joint seal, water stop seal, seal wrap, concrete collars, and for plugging the lift holes will be incidental to the contract unit price per foot for the corresponding pipe contract item.

TABLE OF MANHOLE REMOVAL

Station	L/R	Quantity (Each)
20+84*	38'L	1
26+66**	36'L	1
40+26	18'L	1
40+78	19'L	1
44+19	18'L	1
44+20	23'R	1
65+84	12'L	1
Total:		7

* 6.0’ wide x 14.0’ long x 7.0’ high Concrete Vault & Manhole
** 5.0’ wide x 8.5’ long x 5.8’ high Concrete Vault & Manhole

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Plot Scale -

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Reinforcement Fabric (MSE)

Soft and unstable subgrade conditions will likely be countered at various locations throughout the project. Any unstable areas should be reworked and recompacted. If, in the opinion of the Engineer, the subgrade will not stabilize by this method, Reinforcement Fabric (MSE) and granular material may be used. Contact the Geotechnical Engineering Activity (605-773-3725) for assistance should the use of Reinforcement Fabric (MSE) and additional granular material become necessary.

5,111 square yards (80' x 500') of Reinforcement Fabric (MSE) is included in this plans section and an additional 1,481 tons. (80' x 500' x 1') of Base Course, Salvaged, State Furnished is included in the materials quantities for bidding purposes. The Reinforcement Fabric (MSE) quantity has been increased by 15% to account for overlaps. These quantities can be adjusted or eliminated by CCO, depending on field conditions.

Section B	Section F
Reinforcement Fabric (MSE)	Base Course, Salvaged, State Furnished
5,111 sq.yds. (80'x500')	1,481 tons (80'x500'x1.0')

ADJUSTMENT OF MANHOLES

The Contractor will adjust manholes to the extent necessary on this project. Adjusting the manholes may consist of removing the upper course of brick or removing the concrete walls, replacing the removed materials with brick or Class M6 concrete, placing adjusting rings if necessary, and resetting the manhole frame and lid. The elevation of the lid will be set at the same elevation of the adjacent new pavement or surrounding ground. All manhole frames, lids, and rings that are cracked or broken due to carelessness of the Contractor will be replaced with new manhole frames, lids, and rings that conform with the Specifications at the Contractor's expense. Manholes will be adjusted to the satisfaction of the Engineer. All costs involved in adjusting the manholes will be incidental to the contract unit price per each for "Adjust Manhole".

The Engineer may direct adjustment of manholes that were not included in these plans. Payment for adjusting manholes that were not included in the plans will be at the contract unit price per each for "Adjust Manhole".

TABLE OF ADJUST MANHOLES

Station	Offset	Type of Adjustment
48+09.2	39.2'R	Raise 0.13
52+62.9	7.1'L	Lower 0.86
52+98.3	65.7'L	Lower 0.83

9" PCC FILLET SECTIONS

Payment for "9" PCC Fillet Section" will be based on plans quantity. If additions or reductions to the area of PCC fillet sections are ordered by the Engineer, payment will be made in accordance with the contract unit price per square yard for "9" PCC Fillet Section".

49+00-48' LEFT - 12" PVC

The Contractor will connect an existing 12" PVC pipe to the new 18" RC pipe to be installed from Sta. 48+84.69-59.53' Lt to 49+14.00-32.17' Lt. as outlined in the "Concrete Pipe Connections" note elsewhere in Section B. All costs to complete this work will be incidental to the contract unit price per foot for "18" RCP, Install".

EXISTING LANDSCAPE ROCK

The Contractor will salvage and then replace the landscape rock located at Sta. 22+97 to 24+92-50' to 56' Lt and Station 65+03 to 65+53-50' Rt to 55' Rt (outside the limits of the existing sidewalk). The Contractor will remove and dispose of the landscape rock within the existing boulevard at Station 65+03 to 65+53-35' Rt to 45' Rt. All costs to complete this work will be incidental to the contract lump sum price for "Incidental Work, Grading".

TABLE OF CLEAR AND GRUB TREE (>6" DIAMETER)

Trees with a diameter of 6" or greater that are to be removed are indicated by a red "X" on the plan sheets.

The Contractor will remove trees (primarily within the grass boulevards between the existing sidewalk and the back of curb) at the following general locations. There are four removals located outside the existing sidewalk at 52+33-51'R, 52+99-53'R, 54+26-55'R and 54+93-61'L. No additional trees outside of the existing sidewalk will be removed without the approval of the Engineer and care should be taken to not disturb them. All costs to complete this work will be included in the contract unit price per each for "Clear and Grub Tree".

Station	Quantity (Each)
29+19-38'R	1
31+64-39'R to 31+93-39'R	2
44+72-38'R to 46+39-37'R	7
48+70-38'R to 52+33-51'R	10
52+99-53'R to 56+83-38'R	10
57+86-37'R to 59+29-39'R	5
62+12-37'R to 64+47-38'R	6
48+23-40'L	1
49+11 to 52+53-41'L	12
53+46-38'L to 56+80-38'L	11
57+85-39'L to 60+72-38'L	10
62+15-39'L to 64+29-40'L	7
	82

SALVAGED FRAMES AND GRATES

All drop inlet frames and grates will be salvaged by the Contractor and stockpiled at the City of Huron Public Works Department located at 252 U Avenue Southwest and at the South Dakota Department of Transportation East Maintenance Yard located at SE1/4 of Section 5, T110N, R61W (one-half to each location) as directed by the Engineer. Care will be taken not to damage the structural properties of the items during dismantling and transporting. All materials not salvaged will be disposed of in accordance with the Specifications. All costs to salvage the frame and grate assemblies will be incidental to the contract unit price per each for "Salvage Drop Inlet Frame & Grate Assembly". Before preparing his/her bid, the Contractor will make a visual inspection of the project to verify the extent of the work and material involved.

TABLE OF RIPRAP AND DRAINAGE FABRIC

Station	L/R	Class B Riprap (Ton)	Type B Drainage Fabric (SqYd)
100+21	R	61	68
Totals:		61	68

DROP INLETS

Where drop inlets are constructed within areas of curb and gutter, the Contractor will construct weep holes of at least 3 inches in diameter in the drop inlet walls. The weep holes will be constructed at the same elevation as the adjacent top of the earthen subgrade and will be maintained clean and open at all times until the permanent surfacing is placed. The drop inlets will be covered throughout construction operations as necessary with an Engineer approved cover to provide safe travel for motorists and to prevent materials from entering the storm sewer system. After the permanent surfacing has been placed, the Contractor will seal the weep holes with grout and remove all debris from the drop inlet. All costs involved with the coverings, weep holes, and removing debris from the drop inlets will be incidental to the contract unit prices for the components of the drop inlets.

The plan shown quantities of the drop inlet components such as Class M6 Concrete, Reinforcing Steel, Type B Frame and Grate, Type C Frame and Grate, Precast Drop Inlet Collar, and Precast Concrete Type S Drop Inlet Lid will be the basis of payment for these items.

If additions or reductions to the number of drop inlets are ordered by the Engineer, payment for the components required to construct the drop inlets will be made at the contract unit prices for the components of the drop inlets.

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B8	B139

Plotting Date: 06/03/2026

Table of 2'x3' Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Frame & Grate/Lid Type (Each)	6" Concrete Collar (Each)
**14+90.00-42.52' R	82.55	80.35	2.20	0.69	115	B	1
**16+84.00-33.57' R	82.02	79.89	2.13	0.68	113	B	1
**19+20.00-32.17' R	81.19	78.98	2.21	0.70	115	B	1
**22+30.00-32.17' R	80.91	78.55	2.36	0.73	120	B	1
**25+70.00-32.17' R	81.10	78.69	2.41	0.74	121	B	1
27+08.00-48.00' L	81.19	78.48	2.71	0.81	130	Spec	
**28+66.00-32.17' R	80.48	78.26	2.22	0.70	116	B	1
31+17.56-56.48' L	80.47	77.67	2.80	0.83	132	B	1
**31+61.00-32.17' R	80.32	78.00	2.32	0.72	118	B	1
**33+30.00-32.17' R	80.66	78.45	2.21	0.70	115	B	1
34+77.41-47.34' R	81.02	78.23	2.79	0.82	132	E	
35+01.32-47.34' R	81.05	78.09	2.96	0.81	137	E	
**35+45.50-32.17' R	80.14	77.69	2.45	0.70	122	B	1
35+46.50-47.34' R	80.95	77.80	3.15	0.80	142	E	
36+03.62-47.34' R	80.86	78.07	2.79	0.82	132	E	
**36+90.00-32.17' R	79.87	77.75	2.12	0.68	113	B	1
**40+45.00-32.17' R	80.00	77.92	2.08	0.67	111	B	1
**43+78.00-32.17' R	79.70	77.49	2.71	0.81	130	B	1
44+55.45-57.83' L	79.49	76.81	2.68	0.80	129	B	1
**46+00.00-32.17' R	79.03	76.82	2.21	0.70	115	B	1
**47+50.00-32.17' R	78.58	76.37	2.21	0.70	115	B	1
48+55.38-59.07' L	78.34	75.63	2.71	0.81	130	B	1
50+70.00-32.17' L	77.40	74.69	2.71	0.81	130	B	1
52+30.00-32.67' L	76.92	74.21	2.71	0.81	130	B	1
**52+86.04-57.25' L	77.42	75.22	2.20	0.70	115	B	1
*55+10.00-32.67' R	77.46	74.37	3.09	0.79	141	B	1
55+20.00-32.67' L	77.28	74.69	2.59	0.78	126	B	1
*56+85.00-32.17' R	78.17	75.23	2.94	0.81	136	B	1
57+45.21-57.71' L	78.39	76.18	2.21	0.70	115	B	1
61+20.00-32.17' R	77.46	75.25	2.21	0.70	115	B	1
61+76.10-57.66' L	77.51	75.05	2.46	0.75	122	B	1
63+40.00-32.17' L	76.33	73.66	2.67	0.70	129	B	1
63+40.00-32.17' R	76.51	73.98	2.53	0.77	124	B	1
65+45.00-32.17' R	75.75	73.37	2.38	0.73	120	B	1
65+73.61-57.37' L	76.02	73.33	2.69	0.80	129	B	1
Totals:				26.27	4335		30

Total Type B Frame and Grate	30
Total Special Type B Frame and Grate	1
Total Type E Frame and Grate	4

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.
** In addition to the above, drop inlet also requires 4" Styrofoam insulation underneath to protect waterline from freezing. The cost for furnishing and installing the Styrofoam insulation will be incidental to the contract unit price for the corresponding drop inlet contract items.

Special Frame and Grate Assembly will be Neenah Foundry R-3455-C, Deeter Foundry 2245, or equivalent.

Table of 3'x4' Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type B Fr&Gr Assembly (Each)	6" Concrete Collar (Each)
30+79.55-55.28' L	80.27	77.56	2.71	1.43	230	1	1
31+50.00-32.17' L	79.99	76.91	3.08	1.41	243	1	1
33+30.00-32.17' L	80.44	77.09	3.35	1.50	253	1	1
40+55.00-32.17' L	79.82	77.80	2.02	1.23	205	1	1
*44+22.16-56.94' L	79.65	76.66	2.99	1.52	240	1	1
46+00.00-32.17' L	78.81	75.33	3.48	1.53	258	1	1
47+50.00-32.17' L	78.36	74.60	3.76	1.62	268	1	1
48+25.00-32.17' L	78.13	74.24	3.89	1.71	273	1	1
48+84.69-59.53' L	78.45	75.23	3.22	1.59	249	1	1
49+14.00-32.17' L	77.87	73.81	4.06	1.71	279	1	1
53+14.79-57.76' L	77.39	75.09	2.30	1.31	215	1	1
56+85.00-32.17' L	77.95	75.54	2.41	1.34	219	1	1
57+16.29-57.31' L	78.48	76.04	2.44	1.35	220	1	1
61+19.90-32.17' L	77.24	74.74	2.50	1.32	222	1	1
61+47.24-57.32' L	77.66	74.92	2.74	1.44	231	1	1
*66+10.11-54.61' L	75.83	73.11	2.72	1.44	230	1	1
Totals:				23.45	3835	16	16

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.

Table of 4'x4' Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type B Fr&Gr Assembly (Each)	6" Concrete Collar (Each)
22+45.00-32.17' L	80.72	76.04	4.68	2.07	385	1	1
23+81.83-32.17' L	81.02	76.17	4.85	2.13	392	1	1
25+99.00-32.17' L	80.87	76.38	4.49	2.07	377	1	1
27+10.00-32.17' L	80.59	76.48	4.11	2.06	360	1	1
28+66.00-32.17' L	80.21	76.65	3.56	1.87	336	1	1
Totals:				10.20	1850	5	5

Table of 5.5x3 Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type B Fr&Gr Assembly (Each)	6" Concrete Collar (Each)
14+90.00-40.17' L	82.41	75.31	7.10	2.95	501	1	1
16+84.00-40.17' L	82.05	75.50	6.55	2.81	475	1	1
19+20.00-40.17' L	82.41	75.73	6.68	2.92	481	1	1
Totals:				8.68	1457	3	3

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Plot Scale -
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B10	B139

Plotting Date: 06/03/2026

Special 4'x5' Type C Drop Inlet

The drop inlet listed in table below is to be designed by the manufacturer. The manufacturer will submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval. All costs (excluding Type C Frame & Grate) to furnish and install the special 4'x5' Type C Drop Inlet will be incidental to the contract unit price per each for "4'x5' Type C Drop Inlet".

Table of Special 4'x5' Type C Drop Inlets

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Type C Frame & Grate (Each)
178+55.82-CL	84.67	72.68	11.99	1
Totals:				1

Table of 6'x6' Junction Box Quantities

Station / Offset	Rim Elev	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Conc (cu yds)	Reinf Steel (lbs)	Type A9 MH Assembly (Each)	z Eccent Cone (ft)
*52+64.34-36.00'R	78.30	75.55	68.70	6.23	5.58	1378	1	2
*65+84.27-31.94'L	76.81	72.06	63.89	7.55	6.53	1482	1	4
101+14.94-6.66'R	71.85	67.10	58.76	7.72	6.85	1506	1***	4
103+94.50-CL	72.73	67.98	59.53	7.83	6.91	1521	1***	4
109+94.56-CL	74.05	69.30	61.20	7.48	6.71	1474	1***	4
115+94.62-CL	76.15	71.40	62.86	7.92	6.96	1534	1***	4
121+94.67-CL	77.77	73.02	64.53	7.87	6.93	1527	1***	4
127+94.75-CL	78.00	73.25	65.61	7.02	6.45	1446	1***	4
133+55.10-CL	78.41	73.66	66.62	6.42	6.11	1405	1***	4
139+55.48-CL	78.81	74.06	67.70	5.74	5.72	1330	1***	4
145+56.24-CL	79.47	74.72	68.78	5.32	5.49	1305	1***	4
149+61.76-CL	80.22	75.47	69.50	5.35	5.50	1307	1	4
153+63.03-9.00'R	81.00	76.25	70.21	5.42	5.54	1311	1	4
157+57.26-CL	81.68	76.93	70.60	5.71	5.71	1328	1	4
163+57.26-CL	80.57	77.82	71.20	6.00	5.87	1345	1***	2
169+57.26-CL	81.54	78.79	71.80	6.37	6.08	1398	1***	2
173+72.38-0.00'	81.32	78.57	72.21	5.74	5.72	1330	1***	2
Totals:					104.66	23927	17	60

Type A9 Manhole Frame & Lid 5
Type A9 Manhole Frame with Special Grate 12

* Junction box requires watertight joints in accordance with the STORM SEWER notes.
***Special Type A9 Frame & Grate (Neenah R2533-C or Equivalent). All costs to furnish and install Type A9 Manhole Frame and Lid and Type A9 Manhole Frame with Special Grate will be incidental to the contract unit price per each for "Type A9 Manhole Frame and Lid".
z Bid Item is "48" Manhole Cone Section".

SLIP RESISTANT COATING FOR CONCRETE STAIRWAY

Curing compounds will not be utilized on concrete stairway treads during the concrete curing process. Curing will be accomplished with a double layer of burlap mats and polyethylene sheeting.

The Contractor will apply a 2" wide slip resistant coating at the front of each stairway tread for the full width of the tread.

The slip resistant coating will be a red, tile red, or brick red color. The coating will be a single component epoxy and have a minimum coefficient of friction value of 0.9 for dry and 0.9 for wet as determined by ASTM F 609.

The slip resistant coating will be applied in accordance with the manufacturer's recommendations.

All cost for furnishing and applying the slip resistant epoxy coating including equipment, labor, and materials will be incidental to various contract items.

TABLE OF CONCRETE STAIRWAYS

Station	Inside Width (Ft)	Stairway Slope	Top Land. Elev.	Bott. Land. Elev.	No. of Steps (w)	Class M6 Conc (CY)	Epoxy Coated Reinf. Steel (Lb)	* Struct Exc. (CuYd)	Pipe Handrail (Ft)
53+52 L	3.5	**	80.29	79.14	2	1.00	75	2.23	10.70
54+41 L	4.0	**	80.04	78.90	2	1.11	83	2.48	10.70
54+86 L	3.5	**	80.22	79.09	2	1.00	75	2.23	10.70
55+18 L	3.5	**	79.99	79.06	1	0.83	64	1.79	8.46
Totals:						3.94	297	8.73	40.56

* The quantities for structure excavation are for informational purposes only. Payment for all work necessary for structure excavation will be incidental to the various contract unit prices for the items listed in the above table.
** Step height is between 4" and 6". Therefore, stairway slope is between 3:1 and 2:1.

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B9	B139

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Table of 3x5.5 Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type B Fr&Gr Assembly (Each)	6" Concrete Collar (Each)
43+78.00-32.17' L	79.48	76.42	3.06	1.90	226	1	1
Totals:				1.90	226	1	1

Table of 5.5x5.5 Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type B Fr&Gr Assembly (Each)	6" Concrete Collar (Each)
14+05.00-40.17' L	82.67	75.23	7.44	5.21	814	1	1
**14+05.00-43.67' R	82.74	75.15	7.59	5.28	823	1	1
Totals:				10.49	1637	2	2

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.
** In addition to the above, drop inlet also requires 4" Styrofoam insulation underneath to protect waterline from freezing. The cost for furnishing and installing the Styrofoam insulation will be incidental to the contract unit price for the corresponding drop inlet contract items.

Table of 4x3 Type B Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type B Fr&Gr Assembly (Each)	6" Concrete Collar (Each)
35+33.00-32.17' L	80.21	77.29	2.92	1.31	231	1	1
36+90.00-32.17' L	79.74	77.44	2.30	1.15	206	1	1
*49+14.00-32.17' R	78.09	73.51	4.58	1.86	296	1	1
50+70.00-32.17' R	77.62	72.74	4.88	1.86	308	1	1
*52+30.00-32.17' R	77.14	71.95	5.19	1.96	320	1	1
Totals:				8.14	1361	5	5

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.

Table of 3'x4' Type C Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type C Frame & Grate (Each)
**12+60.72-92.08' R	83.44	79.61	3.83	1.48	251	1
101+14.94-5.30' L	70.67	64.41	6.26	2.26	345	1
Totals:				3.74	596	2

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.
** In addition to the above, drop inlet also requires 4" Styrofoam insulation underneath to protect waterline from freezing. The cost for furnishing and installing the Styrofoam insulation will be incidental to the contract unit price for the corresponding drop inlet contract items. This drop inlet will have 3' dimension oriented North / South and 4' dimension oriented East / West.

Table of 4'x5' Type C Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type C Frame & Grate (Each)
177+87.30-4.00' R	79.82	72.61	7.21	3.05	508	1
Totals:				3.05	508	1

Table of 4'x6' Type S Drop Inlet Quantities

Station / Offset	Top of Wall Elev	Floor Elev	H (ft)	Class M6 Concrete (cu yd)	Reinforcing Steel (lb)	Type S Manhole Fr & Lid (Each)
**21+29.43-34.63' R	1280.70	1278.47	2.23	1.83	358	1
21+36.43-42.63' L	1280.32	1275.94	4.38	2.32	459	1
30+52.75-34.63' L	1279.75	1276.82	2.93	1.89	391	1
**30+55.00-34.63' R	1280.10	1277.67	2.43	1.92	367	1
38+56.00-34.63' R*	1279.47	1277.73	1.74	1.63	335	1
38+65.00-34.63' L***	1279.25	1277.61	1.64	1.49	330	1
53+45.00-34.63' L	1276.61	1273.90	2.71	1.98	380	1
*53+45.00-34.63' R	1276.83	1273.57	3.26	2.16	406	1
65+45.00-34.63' L	1275.49	1270.61	4.88	2.78	482	1
Totals:				18.00	3508	9

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.
** In addition to the above, drop inlet also requires 4" Styrofoam insulation underneath to protect waterline from freezing. The cost for furnishing and installing the Styrofoam insulation will be incidental to the contract unit price for the corresponding drop inlet contract items.
*** Top of pipe elevation encroaches into the drop inlet lid by approximately 0.2' (38+65-34.63' Lt) and 0.1' (38+56-34.63' Rt). All costs to notch into the lid at these locations will be incidental to the contract unit price per each for "Type S Manhole Frame and Lid".

4'x11' Junction Boxes

The junction boxes listed in table below are to be designed by the manufacturer. The manufacturer will submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval. All costs (excluding Type A9 Manhole Frame & Lid Assembly and 4' Eccentric Cone) to furnish and install 4'x11' RC Junction Boxes will be incidental to the contract unit price per each for "4x11 Junction Box".

Table of 4'x11' Junction Boxes

Station / Offset	Rim Elev	Top of Wall Elev	Floor Elev	Type A9 MH Assembly (Each)	z Eccent Cone (Ft)
**179+82.48-2.00'L	84.24	79.49	72.81	1	4
180+50.23-CL	84.40	79.65	72.91	1	4
Totals:				2	8

* Drop inlet requires watertight joints in accordance with the STORM SEWER notes.
** In addition to the above, drop inlet also requires 4" Styrofoam insulation underneath to protect waterline from freezing. The cost for furnishing and installing the Styrofoam insulation will be incidental to the contract unit price for the corresponding drop inlet contract items.
z Bid Item is "48" Manhole Cone Section".

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COLORED CONCRETE FOR BOULEVARD SIDEWALK

The colored concrete will have the integral color Solomon Brick Red #417 or an equal approved by the Engineer. The intent is to match the existing colored concrete boulevard sidewalk along SD37 in downtown Huron.

ColorFlo Liquid Color
Color #417 Brick Red
Solomon Colors, Inc.
www.solomoncolors.com

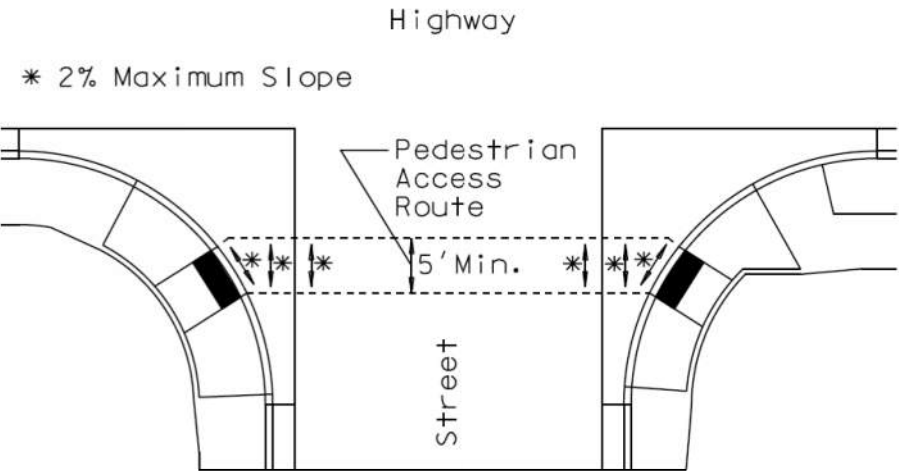
Brick Red requires a rate of 12.50 pounds of Solomon ColorFlo #417 Red per cubic yard of concrete. The colored concrete must be cured according to the manufacturer's recommendations with two coats of a non-yellowing acrylic curing and sealing compound. The curing and sealing compound will meet ASTM C309. The curing and sealing product will be a glossy or high gloss finish like DECRA-SEAL or CS-309-30 or an equal approved by the Engineer.

DECRA-SEAL or CS-309-30
W.R. Meadows, Inc.
1-800-342-5976
<http://www.wrmeadows.com>

White pigmented cure will not be used. The Contractor will protect the colored concrete to ensure white pigmented curing compound will not come in contact with the colored concrete. All costs for furnishing, handling, applying the curing and sealing compound, and liquid integral color, including the materials, equipment, labor, and incidentals necessary will be incidental to the contract unit price per square foot for the respective Colored Concrete Sidewalk bid items.

INTERSECTING STREET AND FILLET SLOPES

The pedestrian access route across intersecting streets between the curb ramps should have a 2% maximum cross slope perpendicular to the direction of travel by pedestrians. This includes the fillets of the intersecting street. The fillets require a 2% maximum slope along the curb ramp opening (along the turning space or bottom of curb ramp). See the following detail. The proposed intersecting street top of curb elevations are set to meet these requirements including additional top of curb elevations (grade breaks) of the fillets. Changes may need to be made during construction to meet these requirements. The intent of the plans is for the intersecting street to have only one break in grade along either the outside or inside edge of the pedestrian access route for streets where grade breaks are needed.



TYPE 1 DETECTABLE WARNINGS

Detectable warnings will be in compliance with the Americans with Disabilities Act regulations.

The detectable warnings will be installed according to the manufacturer's installation instructions.

A concrete thickness equal to the adjacent concrete sidewalk thickness and 2 inches of granular cushion material will be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness will be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

The detectable warnings will be a brick red color for application in concrete curb ramps. Cast iron plates may be a natural patina (weathered steel).

Type 1 Detectable Warning Panels will be one of the following products:

Type 1 Detectable Warnings	
Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 http://www.deeter.com/
Detectable Warning Plate Cast Iron Plate(No Coating)	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com
Iron Dome Cast Iron Detectable Warning Tile	ADA Solutions, Inc. 323 Andover Street Suite 3 Wilmington, MA 01887 800-372-0519 https://adatile.com
TufTile (wet-set) Cast Iron Replaceable Tile	TufTile 1200 Flex Court Lake Zurich, IL 60047 888-960-8897 http://www.tuftile.com/
Advantage Tactile Detectable Warning Cast Iron Plate	Advantage Tactile Systems, Inc. 241 Main Street, Suite 100 Buffalo, NY 14203 800-679-4022 https://advantagetactile.com/

Type 1 Detectable Warnings will be installed along a radius at the locations as shown in the plans. The radius necessary will be as shown in the plans. Payment for the radius detectable warnings will be at the contract unit price per square foot for "Type 1 Detectable Warnings".

Type 1 Detectable Warning Panels with a radius will be one of the following products:

Type 1 Detectable Warnings (Radius)	
Product	Manufacturer
Detectable Warning Plate Cast Iron Plate 20' Radius	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate (No Coating) 20' Radius	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com
Iron Dome Cast Iron Detectable Warning Tile 20' Radius	ADA Solutions, Inc. 323 Andover Street Suite 3 Wilmington, MA 01887 800-372-0519 https://adatile.com
Advantage Tactile Detectable Warning Cast Iron Plate 20' Radius	Advantage Tactile Systems, Inc. 241 Main Street, Suite 100 Buffalo, NY 14203 800-679-4022 https://advantagetactile.com/

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STEEPENED BOULEVARD SIDEWALK

Steepened boulevard sidewalk has a cross slope greater than 2%. Steepened sidewalk is provided between the back of curb and the minimum 5 ft wide pedestrian access route sidewalk raised to meet existing building doorways, sidewalks or other features. The design elevations have been set to provide a maximum boulevard slope of 10%. The locations and limits may need to be adjusted during construction. All costs associated with steepened sidewalk will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk bid item.

SIDEWALK ADJACENT TO BUILDINGS

When placing sidewalk adjacent to buildings, the elevation of the new sidewalk may be either higher or lower than the existing sidewalk. This may require that modification be made to building exteriors such as: removal of siding, installation of flashing, installation of siding, or other necessary modifications. Building modifications will be approved by the Engineer. All costs associated with modifying the buildings for sidewalk placement will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

Sidewalk placed adjacent to building doorways should nearly match the doorway threshold and will have a maximum 1/4-inch vertical rise at the doorway threshold. A sidewalk turning space will be provided at building doorways in accordance with the plans. Sidewalk should ramp or slope down from the turning space to the typical sidewalk as specified in the plans. Additional sidewalk ramp or slope locations may be required. In the plans, the locations without ramps were assumed by the design Engineer as sites that slopes of less than 5 percent could be used from the turning space to the typical sidewalk. The limits of the ramp and steepened sidewalk shown in the plans may need to be adjusted to the actual doorway location and to meet sidewalk slope requirements as specified in the plans.

Minimum width of the 2% maximum slope sidewalk is 5’.

Maximum ramp slope to / from doorways is 8.3%. For this project it is anticipated that most or all locations will be able to achieve a slope of 5% or less to meet requirements for a standard longitudinal sidewalk grade.

SIDEWALK CURB

Sidewalk curb will be constructed according to Detail D and general notes of standard plate 651.03. Provide sidewalk curb along the outside edge of proposed sidewalk at locations specified in the plans in addition to the Type 3 curb ramps. The locations and limits may need to be adjusted during construction to best fit the existing ground surface. The use of sidewalk curb at additional locations will be approved by the Engineer. The height will vary to match the existing ground surface and the maximum height will be 12”. Estimated areas of sidewalk curb are included in the Table of Pavement, Curb & Gutter and Sidewalk Quantities. All costs to construct sidewalk curb will be included in the contract unit price per square foot for the corresponding sidewalk bid item.

SIDEWALK TO ADJACENT PROPERTY

Sidewalk will be installed to connect new sidewalk along the highway to existing sidewalk on adjacent properties as shown in the plans. The limits of new sidewalk on adjacent properties may need to be adjusted to have 5% maximum longitudinal slope. Sidewalk cross slope should be 1.5%. The widths are typically set to match the existing sidewalk width.

Sidewalk along the highway may need to be raised and boulevard steepened to match the adjacent sidewalk elevation. Stairways and steps are also proposed for this where specified in the plans and also where requested or agreed to by the property owner.

The maximum step height is 6”. The step location can be placed where needed to best fit the proposed ground surface but should be at least 2 feet from the highway sidewalk and located on the adjacent property. A single step can be provided without handrails. Multiple steps require stairway and handrail according to plates 460.31 and 470.01 and should only be provided where specified.

PUBLIC LANDS SURVEY SYSTEM, RIGHT OF WAY, AND PROPERTY CORNERS

The Contractor will have a Land Surveyor, licensed in the State of South Dakota, to set, reestablish or verify public land survey system (PLSS) corners, right of way (ROW) corners, and property corners as directed by the appropriate SDDOT Region Land Surveyor. It is estimated that 3 PLSS corners and 87 ROW and property corners will be set, reestablished, or verified for this project. The Contractor’s Land Surveyor, under the direction of the Region Land Surveyor, will set, reestablish, or verify all corner monuments after surfacing and fencing operations are completed in accordance with the PUBLIC LANDS SURVEY SYSTEM CORNERS section and the RIGHT OF WAY AND PROPERTY CORNERS section in Chapter 8 of the SDDOT Survey Manual.

< <https://dot.sd.gov/doing-business/engineering/design-services/surveyors>
>
All costs associated with furnishing and installing PLSS caps, rebar, and all other materials associated with setting, reestablishing, or verifying PLSS, ROW corners, and property corners in accordance with the SDDOT Survey Manual will be incidental to the contract unit price per each for “Reestablish Public Land Survey System Corner” and/or “Reestablish Right-of-Way and Property Corner”.

TABLE OF ACCESS RAMPS

Station to Station	Ramp	Class M6 Concrete (CuYd)	Epoxy Coated Reinf. Steel (Lb)	Pipe Handrail (Ft)
18+26.95 to 18+88.00 L	A	16.6	1331	121
19+04.00 to 20+06.87 L	B	21.9	1693	173
Totals:		38.5	3024	294

TABLE OF CLASS M6 CONCRETE, REINFORCING STEEL & HANDRAIL

Item	Class M6 Concrete (CuYd)	Reinforcing Steel (Lb)	Epoxy Coated Reinf. Steel (Lb)	Pipe Handrail (Ft)
Drop Inlets	113.9	19313		
Junction Boxes	104.7	23927		
Access Ramps	38.5		3024	294.0
Concrete Stairway	3.9		297	40.6
Plug Pipe	2.5			
Totals:	263.5	43240	3321	334.6

SPRINKLER SYSTEMS

The majority of existing lawn sprinklers have not been located and are not shown on the construction plan sheets. The approximate locations are shown in the table below. It is likely that not all sprinkler locations are known and additional sprinkler systems may be encountered.

Prior to removal of sprinkler systems located within the highway ROW that are encountered during construction, the Contractor will provide adjacent landowners 7 days of notice. The Contractor will take care to not damage lines outside the highway ROW that are to remain in place and will be responsible to repair any damage that occurs.

All costs to remove sprinkler systems that are left in place within the highway ROW will be incidental to the various contract items.

TABLE OF SPRINKLER SYSTEMS

Station	to	Station	L/R
17+80		19+58	R
22+20		26+29	L
22+58		25+97	R
26+39		28+04	R
29+34		30+78	L
31+53		32+03	R
38+68		39+18	L
41+17		44+04	R
44+36		46+60	R
44+56		46+69	L
48+16		49+28	R
48+86		51+26	L
55+11		55+75	L
59+68		61+44	R

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TABLE OF CONSTRUCTION STAKING
(See Special Provision for Contractor Staking)

Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Grade Staking				Miscellaneous Staking Quantity (Mile)	Slope Staking Quantity (Mile)
					Length (Mile)	Lane Factor	*Sets of Stakes	**Grade Staking Quantity (Mile)		
Storm Sewer Outfall	100+00	181+26	NA	8126	1.539	NA	NA	NA	1.539	NA
SD37 6 Lanes with Parking	14+00	17+14	7	314	0.059	3.5	2	0.413	0.059	0.059
SD37 5 Lanes with Parking	17+14	22+02	6	488	0.092	3	2	0.552	0.092	0.092
SD37 5 Lanes	22+02	66+33	5	4431	0.839	2.5	2	4.195	0.839	0.839
Totals:								5.160	2.529	0.990

- * 1 = Blue Top Stakes Only (Asphalt Concrete Pavement)
2 = Blue Top and Paving Hub Stakes (PCC Pavement)
- ** Grade Staking Quantity = (Length) x (Lane Factor) x (Sets of Stakes)

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Station to Station		Concrete Pavement*			Concrete Driveway Pavement			Concrete Sidewalk			Concrete Curb and / or Gutter			Asphalt Concrete Pavement					
			SqYd			SqYd			SqYd			Ft			SqYd				
South of Grading Project																			
11+24 R	14+00 R		697.6			37.4			126.8										
21st St. to 19th St. SW																			
14+00 R	21+76 R		928.5			672.5			303.8			694.3		171.0					
14+00 L	21+86 L		857.4			368.1			127.6			842.8		1101.0					
19th St. SW to 18th St. South																			
21+76 R	26+35 R		660.2			185.3			276.2			421.9							
21+86 L	26+35 L		514.3			95.3			246.2			440.7		197.0					
18th St. South to 17th St. SW																			
26+35 R	30+61 R		478.2			376.7			165.1			422.2							
26+35 L	30+82 L		633.5			536.7			206.0			462.3		27.3					
17th St. SW to 16th St. SW																			
30+61 R	35+48 R		541.9			315.7			209.3			482.2		857.3					
30+82 L	35+60 L		533.4			328.5			235.0			510.0		510.5					
16th St. SW to 15th St. SW																			
35+48 R	39+64 R		478.1			554.0			47.5			393.4		209.7					
35+60 L	39+89 L		477.5			302.2			169.7			434.4		156.7					
15th St. SW to 14th St. South																			
39+64 R	44+04 R		472.0			131.9			320.5			454.9							
39+89 L	44+24 L		531.2			121.2			388.0			383.8		160.4					
14th St. South to 13th St. SW																			
44+04 R	47+84 R		680.8			20.4			229.0			322.6							
44+24 L	48+57 L		810.5			155.7			211.2			258.3		129.3					
13th St. SW to 12th St. South																			
47+84 R	52+60 R		1853.4			80.7			282.7					16.7					
48+57 L	52+88 L		1701.1			66.2			238.5			46.0		36.7					
12th St. South to 11th St. South																			
52+60 R	57+18 R		1789.0			159.6			271.7					15.7					
52+88 L	57+18 L		1682.1			107.4			222.0			42.0		105.1					
11th St. South to 10th St. South																			
57+18 R	61+47 R		1661.9			51.0			261.5					20.8					
57+18 L	61+49 L		1701.9			110.3			235.4			10.0		35.5					
10th St. South to End																			
61+47 R	66+35 R		2119.8			28.0			292.6					16.3					
61+49 L	66+50 L		2017.1			235.9			279.4			5.0		35.5					
Storm Sewer																			
108+00	175+00											104.2		475.9					
Total:			23821.4			5040.7			5345.7			6731.0		4278.4					

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Pipes denoted with double asterisk(**) indicate that a portion of the pipe will require 4" Styrofoam insulation underneath to protect a waterline from freezing. The entire length or a portion of the pipe is also required to meet the requirement denoted with an

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Pipes denoted with double asterisk(**) indicate that a portion of the pipe will require 4" Styrofoam insulation underneath to protect a waterline from freezing. The entire length or a portion of the pipe is also required to meet the requirement denoted with an

PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

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Station to Station		PCC Fillet Section	Concrete Curb and Gutter				Concrete Gutter			PCC Approach Pavement			Concrete Sidewalk			Colored Concrete Sidewalk		Reinforced Concrete Sidewalk			Reinforced Colored Concrete Sidewalk		Detectable Warning Type 1
			Type B	Modified Type B	Type R		Type P	Modified Type P	Type B	Type C		4"	6"	8"	4"	8"		6"		4"	8"		
			69	69	48		9"	9"	8"	6"	8"												
			9"																				
Station to Station		SqYd	Ft	Ft	Ft		Ft	Ft		SqYd	SqYd	SqYd	SqFt	SqFt	SqFt	SqFt	SqFt		SqFt		SqFt	SqFt	SqFt
Beginning to 20th St. S.																							
13+46.40 L	14+29.41 L			62.6										545.6									
14+29.41 L	15+25.00 L			55.6				40.0		53.3				284.7									
15+25.00 L	15+71.00 L			26.0				20.0		35.6				48.0									
15+71.00 L	17+23.95 L			128.9				24.0		39.1			182.8	909.0		212.9							
11+40.57 R	12+59.21 R		77.5										551.6										27.8
13+13.44 R	15+17.00 R	12.2	46.3	117.1									1094.3			219.2							10.0
15+17.00 R	17+39.35 R	34.3	3.0	167.2				30.0		36.6			998.5			392.6							20.0
20th St. S. to 19th St.																							
17+23.95 L	18+10.95 L			47.0				40.0		47.4				281.0									
18+10.95 L	18+88.00 L			61.1				16.0		26.1				355.1									
18+88.00 L	20+14.00 L			110.0				16.0		32.0				720.0									
20+14.00 L	21+85.34 L	35.3	4.4	116.5			3.0	30.0		44.4			49.6	970.3				108.4					29.0
17+70.89 R	19+59.00 R	34.3	2.6	163.1									1119.1										20.0
19+59.00 R	21+44.00 R			157.0				28.0				60.0	785.0			1279.3					143.0		
21+44.00 R	22+38.00 R			64.0				30.0				63.3	456.0			410.0							10.0
19th St. N. to 18th St.																							
22+17.16 L	22+60.00 L	34.1	11.7	17.8									35.3	523.9									37.3
22+60.00 L	25+37.00 L			241.0				36.0				72.9		1916.0									
25+37.00 L	26+37.59 L	34.3	22.3	54.1				20.0				43.7	103.1	773.4									26.6
22+38.00 R	23+81.22 R		16.3	123.2				20.0				46.7	614.2										
23+81.22 R	26+00.10 R	34.0	17.0	153.9				40.0				81.0	1411.5										20.0
18th St. to 17th St.																							
26+70.51 L	27+71.00 L	32.6	22.6	74.5			34.6			29.6				960.0		505.4							40.8
27+71.00 L	28+76.00 L			65.0				40.0				81.4		520.0		424.0							
28+76.00 L	30+82.09 L	29.8	23.3	140.1			24.0	40.0			30.2	81.8	86.2	1381.0									26.0
26+35.77 R	27+20.00 R	33.9	1.0	59.2									557.3										20.0
27+20.00 R	29+33.00 R			189.0				24.0				53.3	949.3										
29+33.00 R	29+79.00 R			16.0				30.0				58.0			80.0		88.2						
29+79.00 R	30+25.00 R			16.0				30.0				58.0			80.0		88.2						
30+25.00 R	30+71.00 R			26.0				20.0				41.4			130.0		48.1					112.3	
30+71.00 R	31+17.00 R			16.0				30.0				58.0			80.0		88.1						
Subtotal:		314.9	248.0	2467.9	0.0		61.6	604.0		344.1	30.2	799.5	8993.8	10188.0	370.0	3443.4	312.6		108.4		143.0	112.3	287.5

Plot Scale - 1:200

Plotted From - TRSF12140

File - Untrdtpjbead06JATableCG.dgn

PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

Plotting Date: 06/03/2026

Plot Scale - 1:200

Station to Station		PCC Fillet Section	Concrete Curb and Gutter				Concrete Gutter			PCC Approach Pavement			Concrete Sidewalk			Colored Concrete Sidewalk		Reinforced Concrete Sidewalk			Reinforced Colored Concrete Sidewalk		Detectable Warning	
			Type B	Modified Type B	Type R		Type P	Modified Type P		Type B	Type C												Type 1	
											9"	69	69	48	9"	9"	8"	6"	8"					
											SqYd	Ft	Ft	Ft	Ft	Ft	SqYd	SqYd	SqYd	SqFt	SqFt	SqFt		SqFt
17th St. to 16th St.																								
31+15.17 L	31+59.00 L	30.0	11.2	17.9								252.9	426.3		110.4								26.0	
31+59.00 L	33+47.00 L			158.0				30.0			64.0		1503.0		992.0								20.0	
33+47.00 L	34+44.00 L			73.0				24.0			53.3		584.0		488.0									
34+44.00 L	35+62.70 L	29.7		52.2				40.0			81.8	68.0	690.8		386.2								26.0	
31+17.00 R	32+04.00 R			51.0				36.0			68.0	255.0												
32+04.00 R	32+68.44 R	33.7		15.4				24.0			46.7	353.2											20.0	
32+98.13 R	33+70.00 R	34.4		46.9								490.6			392.8								20.0	
33+70.00 R	35+10.00 R			100.0	29.9			40.0			80.0	535.5			771.2									
35+10.00 R	36+12.12 R			74.1	62.1			28.0			49.1	540.6			300.9								20.0	
16th St. to 15th St.																								
35+94.25 L	37+72.00 L	33.3		151.4								65.6	1447.2										26.0	
37+72.00 L	38+30.00 L			42.0				16.0			40.3		336.0		234.7									
38+30.00 L	39+91.96 L	28.1		112.6				24.0			53.3	215.8	1281.3		669.6					80.3			36.0	
36+12.12 R	37+12.00 R			59.9				40.0			65.0	420.2			484.0									
37+12.00 R	38+05.00 R			53.0				40.0			74.7	265.0			458.0									
38+05.00 R	39+33.31 R	34.2		63.3				40.0			77.3	707.3			427.4					108.0			20.0	
15th St. to 14th St.																								
40+26.16 L	41+35.75 L	31.2	3.2	84.4								87.7	950.1		640.6								26.0	
41+35.75 L	42+39.00 L			63.2				40.0			81.8		506.0		410.0									
42+39.00 L	44+23.81 L	33.1	6.1	123.8				36.0			74.7	151.1	1217.2										26.0	
39+63.10 R	40+53.00 R	34.4		64.9								843.0											30.0	
40+53.00 R	41+44.00 R			67.0				24.0			53.3	334.9			549.9									
41+44.00 R	44+06.52 R	33.7	31.2	207.2				30.0			63.3	1385.7											20.0	
14th St. to 13th St.																								
44+53.71 L	45+50.00 L	35.0	5.2	71.2								119.4	823.1										26.0	
45+50.00 L	46+73.00 L			93.0				30.0			50.0		744.3											
46+73.00 L	48+57.02 L	33.3	7.7	119.0				40.0			64.4	58.9	1272.8										36.0	
44+32.85 R	47+83.44 R	67.2	11.1	300.3			20.4					2241.0											40.0	
Subtotal:		491.3	75.7	2264.8	92.0		20.4	582.0		0.0	0.0	1141.0	9391.4	11782.1	0.0	7315.7	0.0		0.0		188.3	0.0	418.0	

Plotted From - TRSF12141

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Plot Scale -
Plotted From -

PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B20	B139

Plotting Date: 09/11/2026
Revised Date: 09-10-2026 MDJ

Station to Station		PCC Fillet Section	Concrete Curb and Gutter				Concrete Gutter		PCC Approach Pavement			Concrete Sidewalk			Colored Concrete Sidewalk		Reinforced Concrete Sidewalk			Reinforced Colored Concrete Sidewalk		Detectable Warning
			Type B	Modified Type B	Type R		Type P	Modified Type P	Type B	Type C												Type 1
										9"	69	69	48	9"	9"	8"	6"	8"	4"	8"		
			SqYd	Ft	Ft		Ft		Ft	Ft	SqYd	SqYd	SqYd	SqFt	SqFt	SqFt	SqFt	SqFt		SqFt		SqFt
13th St. to 12th St.																						
48+83.02 L	51+24.00 L	34.3	10.2	216.0							65.2	2000.1		1194.9							26.0	
51+24.00 L	52+88.09 L	33.7	37.1	122.7			16.0		29.8		257.5	1207.3									26.0	
48+13.48 R	49+59.00 R	35.0		120.5							928.8										30.0	
49+59.00 R	50+10.00 R			27.0			24.0		36.1		152.4											
50+10.00 R	50+92.00 R			66.0			16.0		24.4		368.0											
50+92.00 R	51+61.00 R			53.0			16.0		24.4		280.2											
51+61.00 R	52+58.93 R	33.3		56.9			16.0		24.4		680.4										20.0	
12th St. to 11th St.																						
53+13.50 L	54+48.00 L	34.8	36.6	109.9							213.7	1118.5									26.0	
54+48.00 L	55+70.00 L			90.0			32.0		59.6		4.6	720.0										
55+70.00 L	57+17.86 L	34.0	5.0	106.9			16.0		29.8		56.7	1130.2									26.0	
52+88.45 R	54+09.00 R	34.3		95.5							936.5										20.0	
54+09.00 R	54+79.00 R			54.0			16.0		24.4		312.1											
54+79.00 R	55+78.00 R			79.0			20.0		28.9		475.2											
55+78.00' R	56+27.00 R			33.0			16.0		24.4		202.7											
56+27.00' R	57+17.22 R	34.1		49.2			16.0		24.4		583.2										20.0	
11th St. to 10th St.																						
57+43.45 L	58+05.00 L	34.7	5.0	36.5							75.1	562.4									26.0	
58+05.00 L	58+45.00 L			24.0			16.0		29.8			192.5										
58+45.00 L	59+60.00 L			99.0			16.0		29.8		44.0	791.5										
59+60.00 L	61+48.83 L	33.9	5.0	143.9			20.0		35.6		50.1	1426.1									26.0	
57+43.47 R	58+59.00 R	34.4		90.5							773.4										20.0	
58+59.00 R	59+51.00 R			76.0			16.0		24.4		416.3											
59+51.00 R	61+46.71 R	34.2		154.7			16.0		24.4		1076.3										20.0	
10th St. to 9th St.																						
61+74.32 L	63+07.00 L	34.6	5.0	107.6							91.0	1131.5									26.0	
63+07.00 L	63+75.00 L			52.0			16.0		29.8		14.5	416.0										
63+75.00 L	64+42.00 L			51.0			16.0		29.8		10.5	408.0										
64+42.00 L	65+75.36 L	35.3	16.5	68.2			40.0			64.5	67.8	803.6									26.0	
61+76.01 R	64+85.00 R	35.0		284.0								1946.5									20.0	
64+85.00 R	65+77.00 R	32.1	10.2	50.9			16.0		34.5			571.7		234.4							20.0	
9th St. to End																						
66+08.26 L	66+49.62 L	32.8	19.2								106.6	404.0		272.1							26.0	
66+07.97 R	66+35.23 R	36.5	23.8	0.9							277.9										20.0	
Storm Sewer																						
164+00	175+00		104.2																			
Subtotal:		617.0	277.8	2519.0	0.0		0.0	376.0		0.0	568.7	64.5	8520.7	14829.9	0.0	1701.4	0.0		0.0	0.0	424.0	
Grand Total:		1423.2	601.5	7251.6	92.0		82.0	1562.0		344.1	598.9	2005.0	26905.9	36800.0	370.0	12460.5	312.6		108.4	331.3	112.3	1129.5

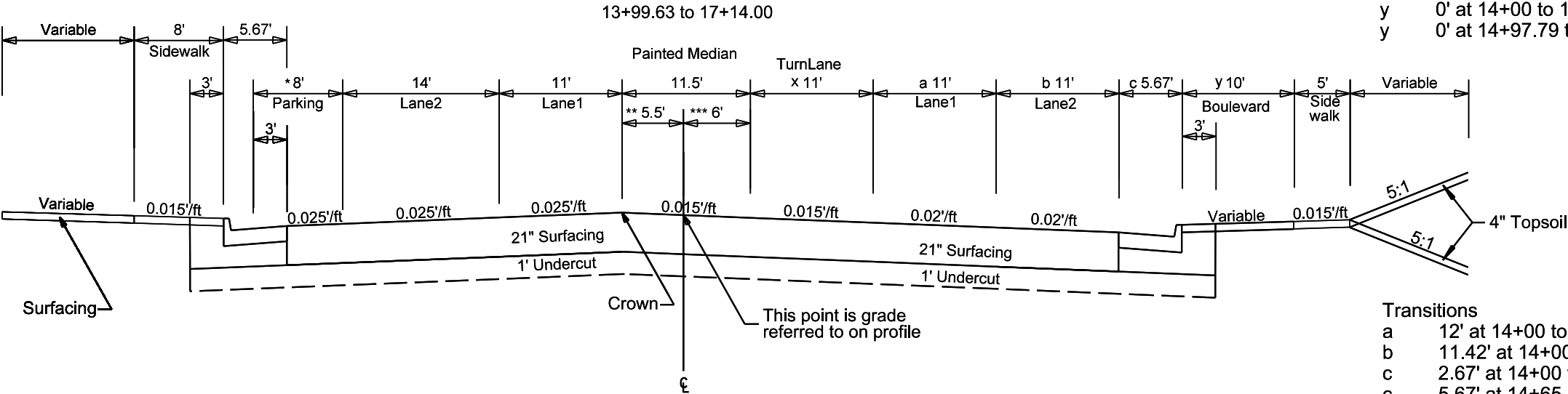
Plot Scale - 1:12.5
Plotted From - TRSF12141

SD37 Typical Grading Sections

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B21	B139

Plotting Date: 06/03/2026

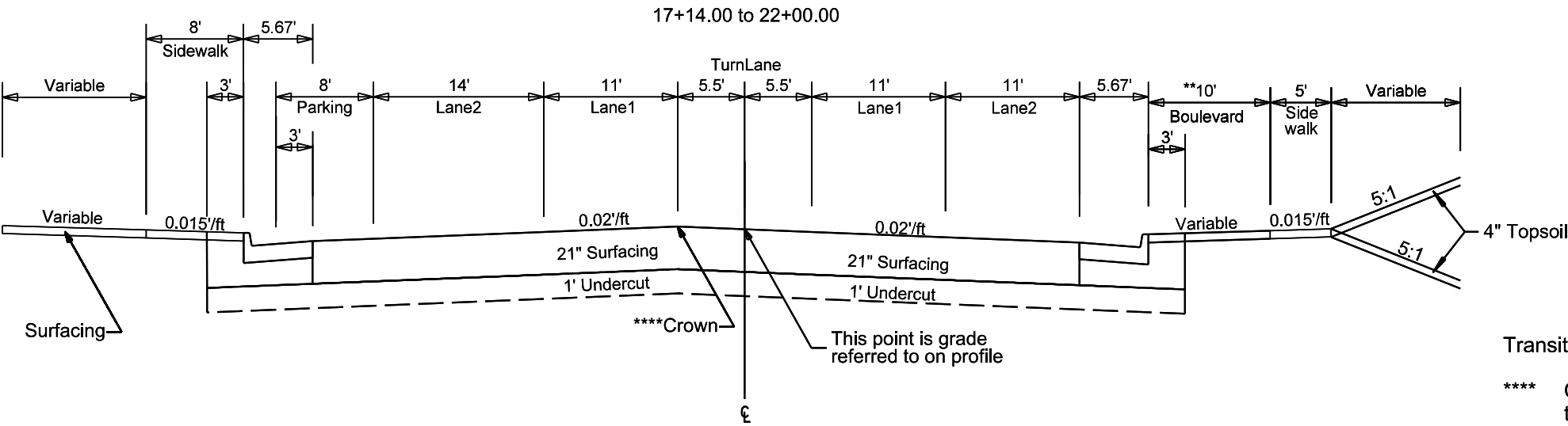
- Transitions
- * 13.5' at 14+00 to 8' at 17+14
 - ** 0' at 14+00 to 5.5' at 17+14
 - *** 7.58' at 14+00 to 5.5' at 17+14
 - x 11' at 14+00 to 0' at 17+14
 - y 0' at 14+00 to 14+97.79
 - y 0' at 14+97.79 to 10' at 17+14



- Transitions
- a 12' at 14+00 to 11' at 17+14
 - b 11.42' at 14+00 to 11' at 17+14
 - c 2.67' at 14+00 to 5.67' at 14+65.03
 - c 5.67' at 14+65.03 to 17+14

NOTE - See C&G Sheets for information on pavement cross slope.

NOTE - Boulevard Slopes are Variable.
10% Maximum Slope for Paved and
25% Maximum (4:1) for Grass.

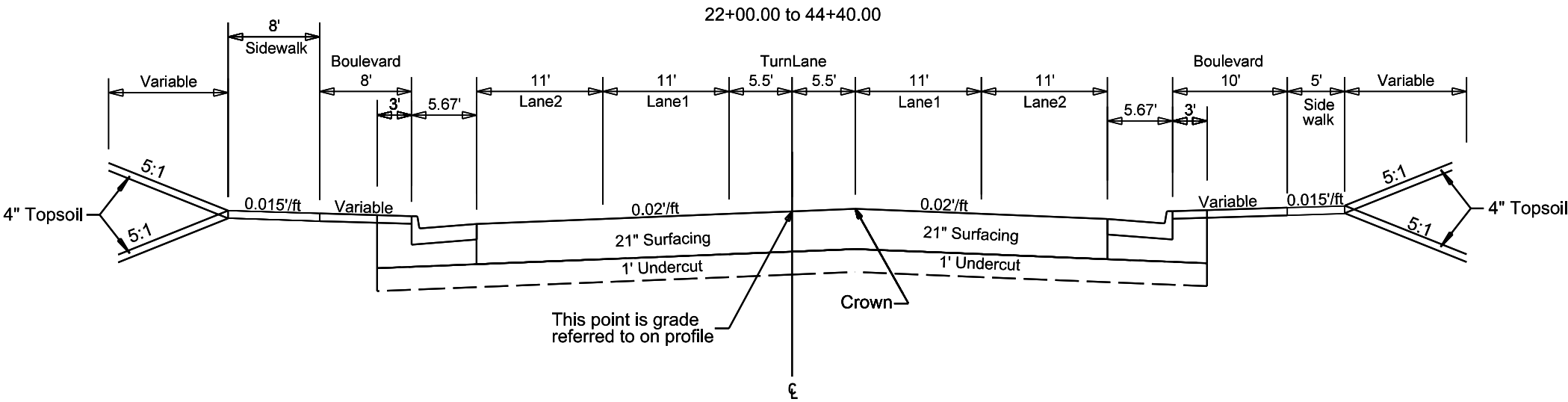


- Transition
- **** Crown shifts from 5.5' Lt at 20+05 to 5.5' Rt at 21+30.

SD37 Typical Grading Sections

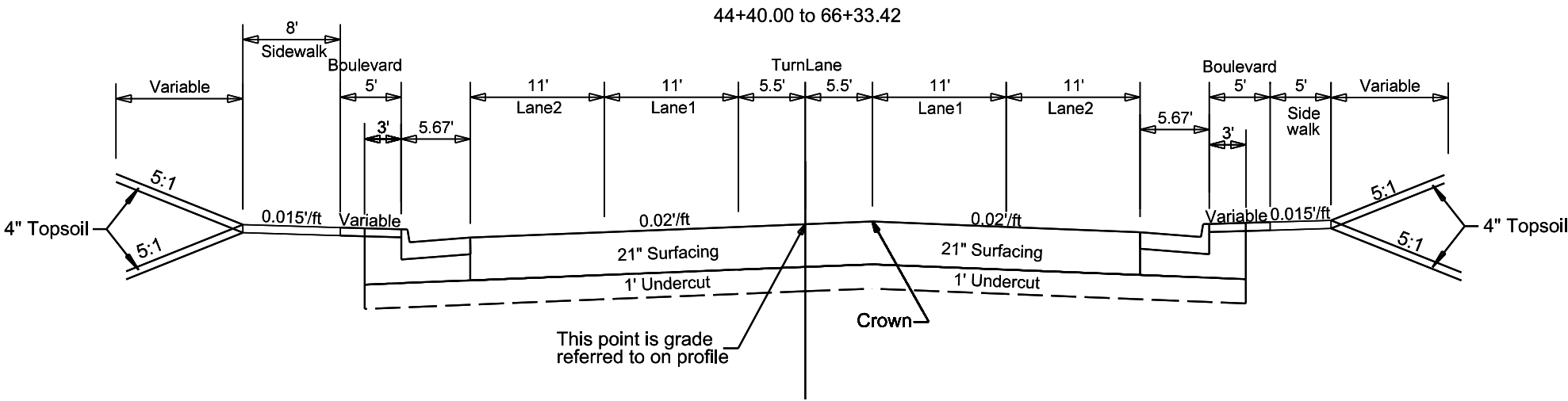
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B22	B139

Plotting Date: 06/03/2026 Revised ROW 03/10/21 PCN



NOTE - See C&G Sheets for information on pavement cross slope.

NOTE - Boulevard Slopes are Variable.
10% Maximum Slope for Paved and
25% Maximum (4:1) for Grass.



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Plot Scale -
Plotted From - TRSF12141
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HORIZONTAL ALIGNMENT DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B23	B139

Plotting Date: 06/03/2026

MAINLINE				
Type	Station		Northing	Easting
POB	10+00.00		190161.594	2435692.509
		TL= 285.47	N 0°48'41" W	
PI	12+85.47		190447.034	2435688.466
		TL= 570.41	N 1°11'24" W	
PI	18+55.88		191017.322	2435676.621
		TL= 798.49	N 1°11'24" W	
PI	26+54.37		191815.639	2435660.039
		TL= 443.89	N 1°11'24" W	
PI	30+98.25		192259.428	2435650.821
		TL= 479.44	N 1°11'24" W	
PI	35+77.69		192738.764	2435640.865
		TL= 429.35	N 1°11'15" W	
PI	40+07.04		193168.023	2435631.967
		TL= 431.55	N 1°10'24" W	
PI	44+38.59		193599.482	2435623.131
		TL= 430.54	N 1°10'24" W	
PI	48+69.13		194029.929	2435614.316
		TL= 430.73	N 1°10'24" W	
PI	52+99.87		194460.573	2435605.496
		TL= 430.93	N 1°10'24" W	
PI	57+30.80		194891.412	2435596.673
		TL= 430.58	N 1°10'24" W	
PI	61+61.37		195321.899	2435587.857
		TL= 430.19	N 1°10'24" W	
PI	65+91.56		195751.994	2435579.049
		TL= 406.35	N 0°32'11" W	
POE	69+97.91		196158.329	2435575.245

Storm Sewer				
Type	Station		Northing	Easting
POB	100+00.00		182469.860	2435982.378
		TL= 94.44	N 30°05'08" E	
PI	100+94.44		182551.578	2436029.720
		TL= 300.06	N 1°56'41" W	
PI	103+94.50		182851.464	2436019.538
		TL= 600.06	N 1°36'37" W	
PI	109+94.56		183451.285	2436002.676
		TL= 600.06	N 1°37'50" W	
PI	115+94.62		184051.103	2435985.602
		TL= 600.05	N 1°32'16" W	
PI	121+94.67		184650.936	2435969.501
		TL= 600.08	N 1°44'15" W	
PI	127+94.75		185250.738	2435951.305
		TL= 1160.73	N 2°50'38" W	
PI	139+55.48		186410.039	2435893.714
		TL= 600.76	N 3°41'31" W	
PI	145+56.24		187009.551	2435855.031
		TL= 806.79	N 3°41'31" W	
PI	153+63.03		187814.669	2435803.082
		TL= 394.23	N 0°38'15" W	
PI	157+57.26		188208.873	2435798.696
		TL= 600.00	N 0°49'09" W	
PI	163+57.26		188808.812	2435790.119
		TL= 600.00	N 0°53'07" W	
PI	169+57.26		189408.741	2435780.848
		TL= 600.00	N 0°54'04" W	
PI	175+57.26		190008.668	2435771.413
		TL= 230.10	N 0°48'41" W	
PI	177+87.36		190238.747	2435768.155
		TL= 180.44	N 1°41'30" W	
PI	179+67.80		190419.107	2435762.828
		TL= 82.43	N 0°07'19" E	
PI	180+50.23		190501.538	2435763.003
		TL= 73.87	N 26°50'46" W	
POE	181+24.10		190567.446	2435729.644

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/11) Geoid 18 CSF = 0.99995735; U.S. Survey Feet

Plotted From - TRSF12141
Plot Scale - 1:200

CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125		

Plotting Date: 06/03/2026

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP7	N/A	N/A	Cap & Rebar – 3’ behind curb on North Side of 8 th St. – East of SD37	196177.801	2435649.235	1279.08
CP8	65+72	151’ L	Cap & Rebar – 2’ behind curb on South Side of 9 th St. – West of SD37	195729.377	2435428.939	1278.01
CP9	61+81	91’ R	Cap & Rebar – 2’ behind curb on North Side of 10 th St. – East of SD37	195343.464	2435678.867	1279.16
CP10	57+49	68’ L	Cap & Rebar – 3’ behind curb on North Side of 11 th St. – West of SD37	194908.652	2435527.977	1280.21
CP11	52+55	71’ R	Cap & Rebar – 2’ behind curb on South Side of 12 th St. – East of SD37	194416.842	2435677.621	1278.98
CP12	48+51	87’ L	Cap & Rebar – 3’ behind curb on South Side of 13 th St. – West of SD37	194010.461	2435527.203	1279.92
CP13	44+60	102’ L	Cap & Rebar – 3’ behind curb on North Side of 14 th St. – West of SD37	193618.749	2435520.668	1281.30
CP14	39+91	91’ L	Cap & Rebar – 3’ behind curb on South Side of 15 th St. – West of SD37	193149.947	2435541.018	1281.06
CP15	36+00	67’ L	Cap & Rebar – 3’ behind curb on North Side of 16 th St. – West of SD37	192759.545	2435573.432	1281.34
CP16	33+03	77’ R	Cap & Rebar – 2’ behind curb on North Side of Prospect Drive – East of SD37	192465.980	2435723.625	1281.51
CP17	30+80	85’ L	Cap & Rebar – 2’ behind curb on South Side of 17 th St. – West of SD37	192238.953	2435566.136	1282.28
CP18	26+77	116’ L	Cap & Rebar – 4’ behind curb on North Side of 18 th St. – West of SD37	191835.402	2435543.466	1281.92
CP19	17+93	54’ R	Cap & Rebar – 19’ behind curb – NE Quadrant of 20 th St. – East of SD37	190955.764	2435731.817	1284.32
CP20	11+38	44’ L	Cap & Rebar – 13’ behind curb – SW Quadrant of 21 st St. – West of SD37	190299.081	2435646.998	1284.90
CP22	*108+82	37’ R	Brass Disk in Concrete – North Side of Entrance – East of SD37	183339.367	2436042.601	1279.16
CP23	*128+21	20’ L	“X” in Median RCP – North Side of 33 rd St. – East of SD37	185275.923	2435929.717	1280.06
CP24	*154+33	122’ L	“X” in Sidewalk – North Side of 27 th St. – West of SD37	187883.484	2435679.962	1285.23

*Storm Sewer alignment

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/11) Geoid 18 CSF = 0.99995735; U.S. Survey Feet
The elevations shown on this sheet are based on NAVD 88.

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Plot Scale -
Plotted From -

SUBSURFACE UTILITY LOCATIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B25	B139

Plotting Date: 06/03/2026

Subsurface utility explorations were done at the following locations. The information below states what was located in the specified areas. This table is provided to aid the Contractor during construction and does not substitute or replace the requirements of SD One Call. All information is approximate and the Contractor shall verify all utility locations before construction in those areas as mandated in SDCL 49-7A.

Test Hole	Station	Offset (Ft.)	Finding	Existing Ground Elev.	Utility Depth (Ft.)	Utility Elevation	Northing	Easting
2-01	13+13.03	83.90 R	6-inch clay sanitary sewer pipe	1283.776	7.55	1276.226	190476.327	2435771.778
01A	13+17.71	83.38 R	No utilities exposed, empty/dry hole. Excavated to a depth of 10-feet.	1283.932	N/A	N/A	190481.003	2435771.154
2-02	13+91.76	51.99 R	(1) 2-inch HDPE conduit for a 24-ct traffic fiber	1284.343	2.5	1281.843	190554.386	2435738.233
3-03	13+91.63	51.69 R	(3) 1.25-inch HDPE conduits. Depth/Elevation is to the top conduit, lower conduits are at 4.4 and 4.42-feet deep.	1284.253	4.35	1279.903	190554.248	2435737.936
04			N/A - TH number not used	N/A	N/A	N/A	N/A	N/A
1-05	19+19.07	35.55 L	Top east corner of comm ducts encased in 18-inch wide x 11-inch tall concrete.	1283.099	2.45	1280.649	191079.761	2435639.771
1-06	19+20.54	37.18 L	Top west corner of comm ducts encased in 18-inch wide x 11-inch tall concrete.	1283.309	2.56	1280.749	191081.201	2435638.110
1-07	23+68.80	35.33 L	Top east corner of comm ducts encased in 20-inch wide x 11-inch tall concrete. 1-inch PVC pipe at 0.8' deep above concrete.	1282.472	3.00	1279.472	191529.394	2435630.645
1-08	23+68.99	37.01 L	Top west corner of comm ducts encased in 20-inch wide x 11-inch tall concrete. 1-inch PVC pipe at 0.8' deep above concrete.	1282.429	2.92	1279.509	191529.556	2435628.966
1-09	26+55.43	36.86 L	Top west corner of comm ducts encased in 18-inch wide x 11-inch tall concrete.	1282.239	4.13	1278.109	191815.936	2435623.161
8-09A	26+55.46	36.20 L	4" unknown pipe above Lumen ductbank in TH09	1282.297	3.40	1278.897	191815.983	2435623.828
1-10	26+55.47	35.49 L	Top east corner of comm ducts encased in 18-inch wide x 11-inch tall concrete.	1282.363	4.20	1278.163	191816.005	2435624.532
2-11	26+54.05	33.34 L	36-inch CMP storm pipe	1282.329	6.24	1276.089	191814.628	2435626.710
1-12	26+63.39	32.30 L	(4) 4-inch conduits (2x2). Depth/Elevation is to the top. Lower conduits are 2.65-feet deep.	1282.375	2.38	1279.995	191823.989	2435627.563
1-12A	26+63.23	33.31 L	Top east corner of communications manhole structure	1282.330	1.20	1281.126	191823.810	2435626.556
1-13	26+68.44	31.85 L	(1) 1.5-inch HDPE conduit	1282.409	2.30	1280.109	191829.049	2435627.907
1-13A	26+67.59	32.98 L	Top east corner of communications manhole structure	1282.250	1.15	1281.100	191828.175	2435626.793
3-14	26+80.36	33.39 L	(3) 1.5-inch conduits. Depth/Elevation is to the top conduit, lower conduits are 3.75-feet deep.	1282.117	3.62	1278.497	191840.927	2435626.117
3-15	30+68.89	46.78 L	(3) 1.5-inch conduits. Depth/Elevation is to the top conduit, lower conduits are 3.75-feet deep.	1281.776	3.67	1278.106	192229.098	2435604.663
1-16	39+76.92	30.78 L	2-inch conduit. A possible copper ground rod was noted above this conduit.	1281.211	5.52	1275.691	193137.269	2435601.819
2-17	40+00.08	33.96 L	24-inch clay sanitary sewer pipe	1281.248	12.26	1268.988	193160.354	2435598.154
18			N/A - TH number not used	N/A	N/A	N/A	N/A	N/A
19			N/A - TH number not used	N/A	N/A	N/A	N/A	N/A
20			N/A - TH number not used	N/A	N/A	N/A	N/A	N/A
4-21	44+03.22	52.38 L	4-inch steel gas pipe	1281.578	3.15	1278.428	193563.046	2435571.487
8-21A	44+02.11	51.06 L	1-inch plastic pipe, possibly for lawn sprinklers.	1281.352	1.0	1280.352	193561.965	2435572.827
3-22	44+02.59	48.83 L	(3) 1.5-inch HDPE conduits. Depth/Elevation is to the top conduit,	1281.050	3.84	1277.210	193562.489	2435575.045

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/11) Geoid 18 CSF = 0.99995735; U.S. Survey Feet
The elevations shown on this sheet are based on NAVD 88.

File - ...\\pjt\\head06\\Data\\Utilities.dgn

1:200
Plot Scale -
Plotted From - TRSF12141

SUBSURFACE UTILITY LOCATIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B26	B139

Plotting Date: 06/03/2026

Test Hole	Station	Offset (Ft.)	Finding	Existing Ground Elev.	Utility Depth (Ft.)	Utility Elevation	Northing	Easting
			lower conduits are 3.9-feet and 4.08-feet deep.					
2-22A	44+02.20	50.63 L	PVC traffic signals conduit.	1281.189	2.72	1278.469	193562.060	2435573.254
4-23	44+02.79	30.59 L	4-inch steel gas pipe	1280.542	2.62	1277.922	193563.057	2435593.281
2-24	44+14.46	32.36 L	10-inch clay sanitary sewer pipe	1280.577	6.83	1273.747	193574.692	2435591.268
8-24A	44+13.31	32.22 L	1-inch unknown pipe	1280.574	7.25	1273.324	193573.546	2435591.435
2-25	44+59.66	32.32 L	8-inch clay sanitary sewer pipe	1280.466	6.10	1274.366	193619.878	2435590.387
2-25A	44+60.64	32.40 L	2-inch HDPE conduit for traffic signals	1280.488	3.06	1277.428	193620.857	2435590.283
2-26	47+49.32	30.13 R	10-inch PVC water main	1279.562	4.85	1274.712	193910.762	2435646.892
2-27	52+94.71	55.13 L	54-inch RCP storm pipe	1279.429	6.05	1273.379	194454.294	2435550.479
5-27A	52+96.05	56.89 L	15-inch RCP storm pipe	1279.607	3.17	1276.437	194455.593	2435548.695
3-28	57+06.15	48.78 L	(3) 1.5-inch HPDE conduits. Depth/Elevation is to the top conduit, lower conduits are 3.05-feet and 3.07-feet.	1279.775	2.96	1276.815	194865.769	2435548.409
3-29	61+38.00	47.76 L	(3) 1.5-inch HPDE conduits. Depth/Elevation is to the top conduit, lower conduits is 3.7-feet.	1279.068	5.58	1273.488	195297.555	2435540.583
5-29A	61+37.77	48.57 L	18-inch RCP storm pipe	1279.038	3.10	1275.938	195297.311	2435539.778
1-30	65+70.23	53.79 L	4-inch PVC conduit	1277.642	4.93	1272.712	195729.573	2435525.710
1-31	65+68.43	21.88 L	Telephone	1276.921	5.90	1271.021	195728.420	2435557.647
5-31A	65+68.57	20.71 L	24-inch RCP storm pipe	1276.926	2.85	1274.076	195728.585	2435558.819
3-32	65+48.58	38.83 L	(3) 1.5-inch HPDE conduits. Depth/Elevation is to the top conduit, lower conduits are 5.05-feet and 5.125-feet.	1277.433	5.00	1272.433	195708.226	2435541.110
8-32A	65+51.19	38.67 L	Abandoned pipe or conduit	1277.377	2.03	1275.347	195710.842	2435541.217
3-33	66+19.29	41.08 L	(3) 1.5-inch HPDE conduits. Depth/Elevation is to the top conduit, lower conduits are 4.47-feet and 4.52-feet.	1277.142	4.45	1272.692	195779.340	2435537.714
1-34	154+16.93	3.93 R	(2) 1.5-inch HDPE conduits. Depth/Elevation is to the orange conduit, the black conduit was 3.91-feet deep.	1281.655	3.85	1277.805	187868.609	2435806.411
4-35	151+78.54	0.80 L	2-inch plastic gas pipe	1281.350	3.66	1277.690	187630.515	2435814.167
3-36	144+59.13	2.31 L	(3) 1.5-inch HDPE conduits. Depth to the bottom of the bundle is 4.2-feet.	1279.783	3.94	1275.843	186912.499	2435858.975
6-36A	132+37.71	27.71 R	(1) 1-inch direct buried telephone cable	1280.775	3.05	1277.725	185694.530	2435957.005
4-37	127+72.90	1.56 L	2-inch plastic gas pipe	1280.004	2.94	1277.064	185228.853	2435950.406
6-38	101+94.69	0.68 L	(1) 0.5-inch direct buried fiber optic cable.	1272.118	2.84	1269.278	182651.743	2436025.636
6-38A	102+94.74	9.24 R	(1) 0.5-inch direct buried fiber optic cable.	1272.977	2.44	1270.537	182752.070	2436032.161
4-39	151+39.90	2.59 L	(1) 4-inch electric conduit	1281.493	3.17	1278.323	187591.833	2435814.868
1-40	127+82.70	0.46 R	(1) 1.5-inch HDPE conduit	1279.072	3.68	1275.392	185238.708	2435952.133
1-40A	127+82.83	0.43 R	(1) 2-inch direct buried telephone cable	1279.062	3.74	1275.322	185238.841	2435952.100
1-41	127+89.77	1.91 L	(1) 1.5-inch HDPE conduit	1278.852	4.00	1274.852	185245.704	2435949.548
4-42	158+63.47	0.71 R	Apparent 2-inch plastic gas pipe. Test hole targeted an electric line but it was not exposed.	1283.064	5.19	1277.874	188315.085	2435797.890
7-43	164+92.93	4.68 R	(1) 1.5-inch HDPE conduit	1283.362	4.31	1279.052	188944.541	2435792.700
3-44	174+21.60	0.30 L	(3) 1.5-inch HDPE conduits. Depth/Elevation is to the top conduit,	1282.300	5.00	1277.300	189873.022	2435773.244

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/11) Geoid 18 CSF = 0.99995735; U.S. Survey Feet
The elevations shown on this sheet are based on NAVD 88.

Plotted From - TRSF12141
Plot Scale - 1:200
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SUBSURFACE UTILITY LOCATIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B27	B139

Plotting Date: 06/03/2026

Test Hole	Station	Offset (Ft.)	Finding	Existing Ground Elev.	Utility Depth (Ft.)	Utility Elevation	Northing	Easting
			lower conduits are at 5.2-feet deep.					
3-45	11+19.99	78.05 R	(2) 1.5-inch HPDE conduits. Depth/Elevation is to the top conduit, lower conduit is at 6.67-feet deep.	1284.554	6.62	1277.934	190282.678	2435768.850
1-46	12+11.49	81.04 R	(1) 1.5-inch HDPE conduit	1285.130	1.67	1283.460	190374.207	2435770.545

Test Hole Owner Identification Number Codes (First number denotes utility ownership)
1 = Lumen Technologies, 2 = City of Huron, 3 = SDN Communications, 4 = NorthWestern Energy, 5 = SDDOT, 6 = Santel Communications,
7 = Midco, 8 = Unknown

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/11) Geoid 18 CSF = 0.99995735; U.S. Survey Feet
The elevations shown on this sheet are based on NAVD 88.

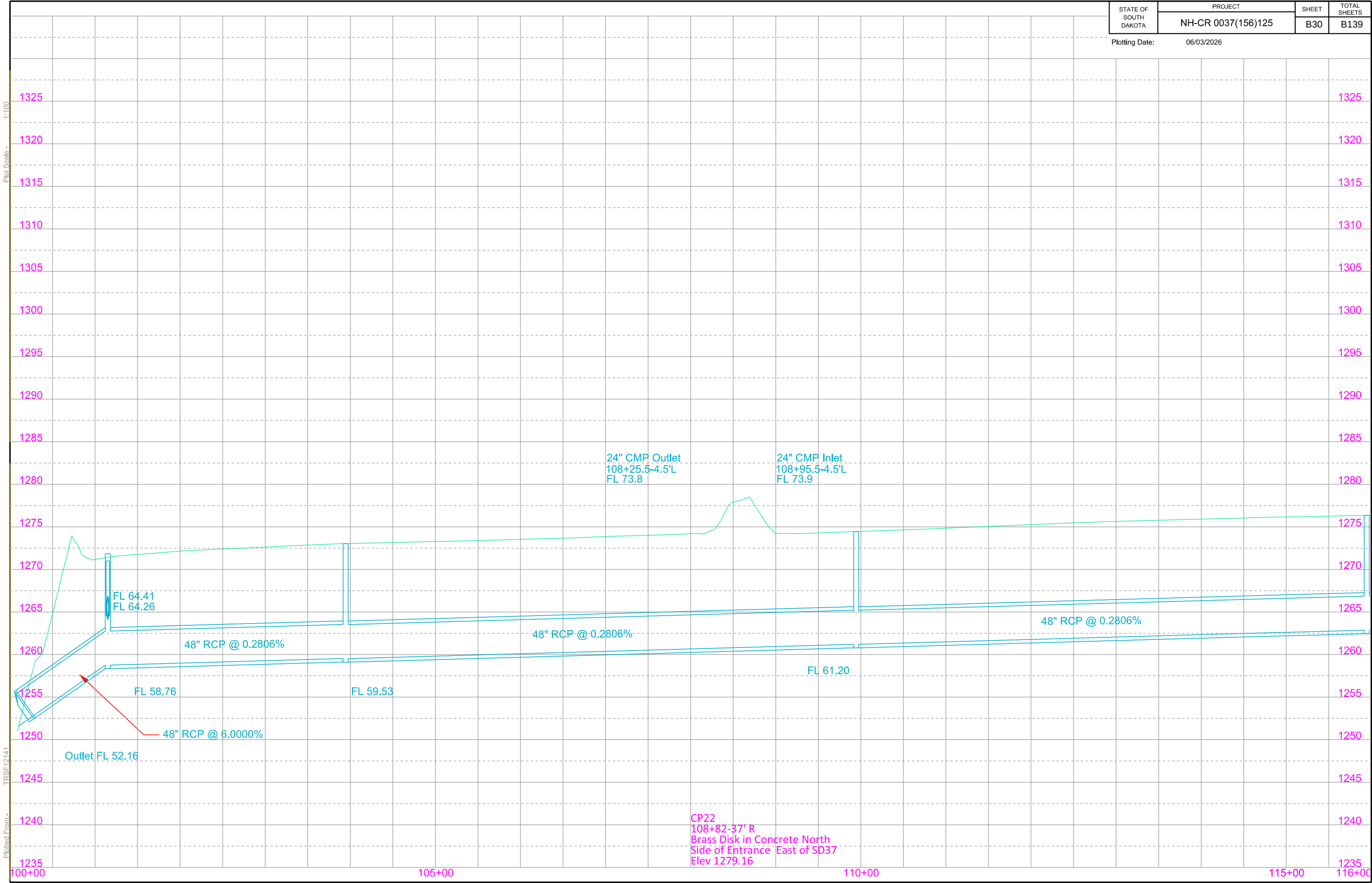
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Plot Scale -
Plotted From - TRSF12141

LEGEND

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B28	B139

Plotting Date: 06/03/2026

Anchor		Mailbox		Subsurface Utility Exploration Test Hole		State and National Line	
Antenna		Manhole Electric		Telephone Fiber Optics		County Line	
Approach		Manhole Gas		Telephone Junction Box		Section Line	
Assumed Corner		Manhole Miscellaneous		Telephone Pole		Quarter Line	
Azimuth Marker		Manhole Sanitary Sewer		Television Cable Jct Box		Sixteenth Line	
BBQ Grill/ Fireplace		Manhole Storm Sewer		Television Tower		Property Line	
Bearing Tree		Manhole Telephone		Test Wells/Bore Holes		Construction Line	
Bench Mark		Manhole Water		Traffic Sign Double Face		Existing R.O.W. Line	
Box Culvert		Merry-Go-Round		Traffic Sign One Post		New R.O.W. Line	
Bridge		Microwave Radio Tower		Traffic Sign Two Post		Cut and Fill Limits	
Brush/Hedge		Miscellaneous Line		Traffic Signal		Existing Control of Access Line	
Buildings		Miscellaneous Property Corner		Trash Barrel		New Control of Access Line	
Bulk Tank		Miscellaneous Post		Tree Belt		Proposed R.O.W. Line (After Property Disposal)	
Cattle Guard		Overhang Or Encroachment		Tree Coniferous			
Cemetery		Overhead Utility Line		Tree Deciduous			
Centerline		Parking Meter		Tree Stumps		Drainage Arrow	
Cistern		Pedestrian Push Button Pole		Triangulation Station			
Clothes Line		Pipe With End Section		Underground Electric Line		Remove Concrete Pavement	
Concrete Symbol		Pipe With Headwall		Underground Gas Line		Remove Concrete Driveway Pavement	
Control Point		Pipe Without End Section		Underground High Pressure Gas Line		Remove Asphalt Concrete Pavement	
Creek Edge		Playground Slide		Underground Sanitary Sewer		Salvage Asphalt Concrete Pavement	
Curb/Gutter		Playground Swing		Underground Storm Sewer		Remove Concrete Sidewalk	
Curb		Power And Light Pole		Underground Tank		Remove Concrete Median Pavement	
Dam Grade/Dike/Levee		Power And Telephone Pole		Underground Telephone Line		Remove Concrete Curb and/or Gutter	
Deck Edge		Power Meter		Underground Television Cable			
Ditch Block		Power Pole		Underground Water Line			
Doorway Threshold		Power Pole And Transformer		Water Fountain		Detectable Warning	
Drainage Profile		Power Tower Structure		Water Hydrant		Pedestrian Push Button Pole and 30" x 48" Clear Space with 1.5% slope	
Drop Inlet		Propane Tank		Water Meter			
Edge Of Asphalt		Property Pipe		Water Tower			
Edge Of Concrete		Property Pipe With Cap		Water Valve			
Edge Of Gravel		Property Stone		Water Well			
Edge Of Other		Public Telephone		Weir Rock			
Edge Of Shoulder		Railroad Crossing Signal		Windmill			
Electric Transformer/Power Junction Box		Railroad Milepost Marker		Wingwall			
Fence Barbwire		Railroad Profile		Witness Corner			
Fence Chainlink		Railroad ROW Marker					
Fence Electric		Railroad Signs					
Fence Miscellaneous		Railroad Switch					
Fence Rock		Railroad Track					
Fence Snow		Railroad Trestle					
Fence Wood		Rebar					
Fence Woven		Rebar With Cap					
Fire Hydrant		Reference Mark					
Flag Pole		Retaining Wall					
Flower Bed		Riprap					
Gas Valve Or Meter		River Edge					
Gas Pump Island		Rock And Wire Baskets					
Grain Bin		Rockpiles					
Guardrail		Satellite Dish					
Gutter		Septic Tank					
Guy Pole		Shrub Tree					
Haystack		Sidewalk					
Highway ROW Marker		Sign Face					
Interstate Close Gate		Sign Post					
Iron Pin		Slough Or Marsh					
Irrigation Ditch		Spring					
Lake Edge		Stream Gauge					
Lawn Sprinkler		Street Marker					



Plot Scale - 1:100

Plotted From - TRSF12141

Install 6'x6' RC Jct Box
Type A9 Manhole Frame
with Special Grate
and 4' Eccentric Cone
at the following locations:
115+94.62-CL
121+94.67-CL
127+94.75-CL

115+94.62-CL to
121+94.67-CL
Install 48"-594' RCP
(Between Jct. Boxes)

117+21-19' L to 105' L
Retain 18"-86' RCP

121+94.67-CL to
127+94.75-CL
Install 48"-594' RCP
(Between Jct. Boxes)

126+95.6-4.1'L to
127+77.6-5.5'L
Install 24"-68' CMP
& 2 Safety Ends

127+37-4' L
Take Out 24"-81' RCP
(Incidental Work, Grading)

127+94.75-CL to
133+55.10-CL
Install 48"-556' RCP
(Between Jct. Boxes)

130+90.8-3.0'L to
131+54.8-3.0'L
Install 24"-50' CMP
& 2 Safety Ends

128+21-18' L to 104' L
Retain 18"-86' RCP

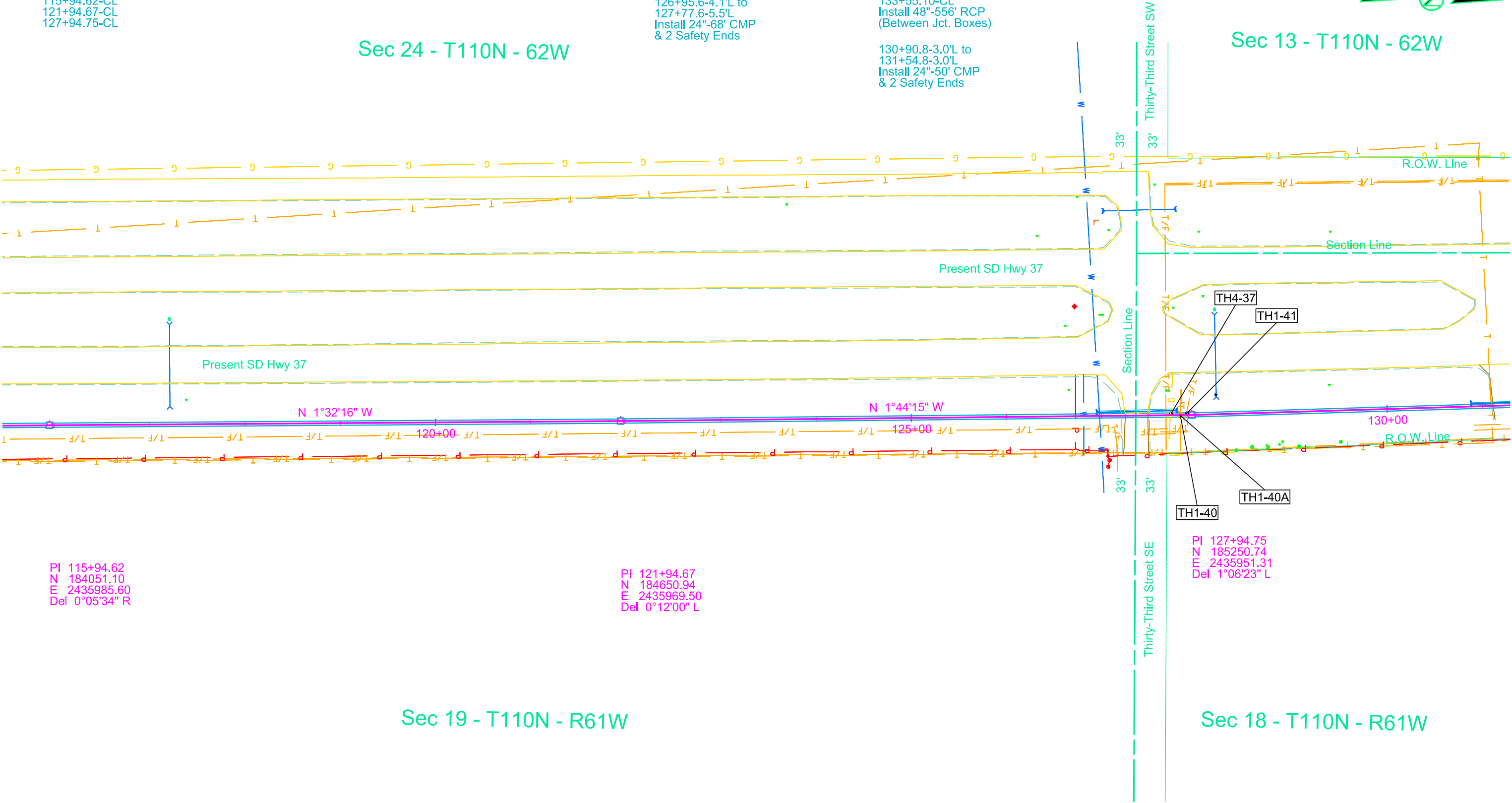
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B31	B139

Plotting Date: 06/03/2026



Sec 24 - T110N - 62W

Sec 13 - T110N - 62W



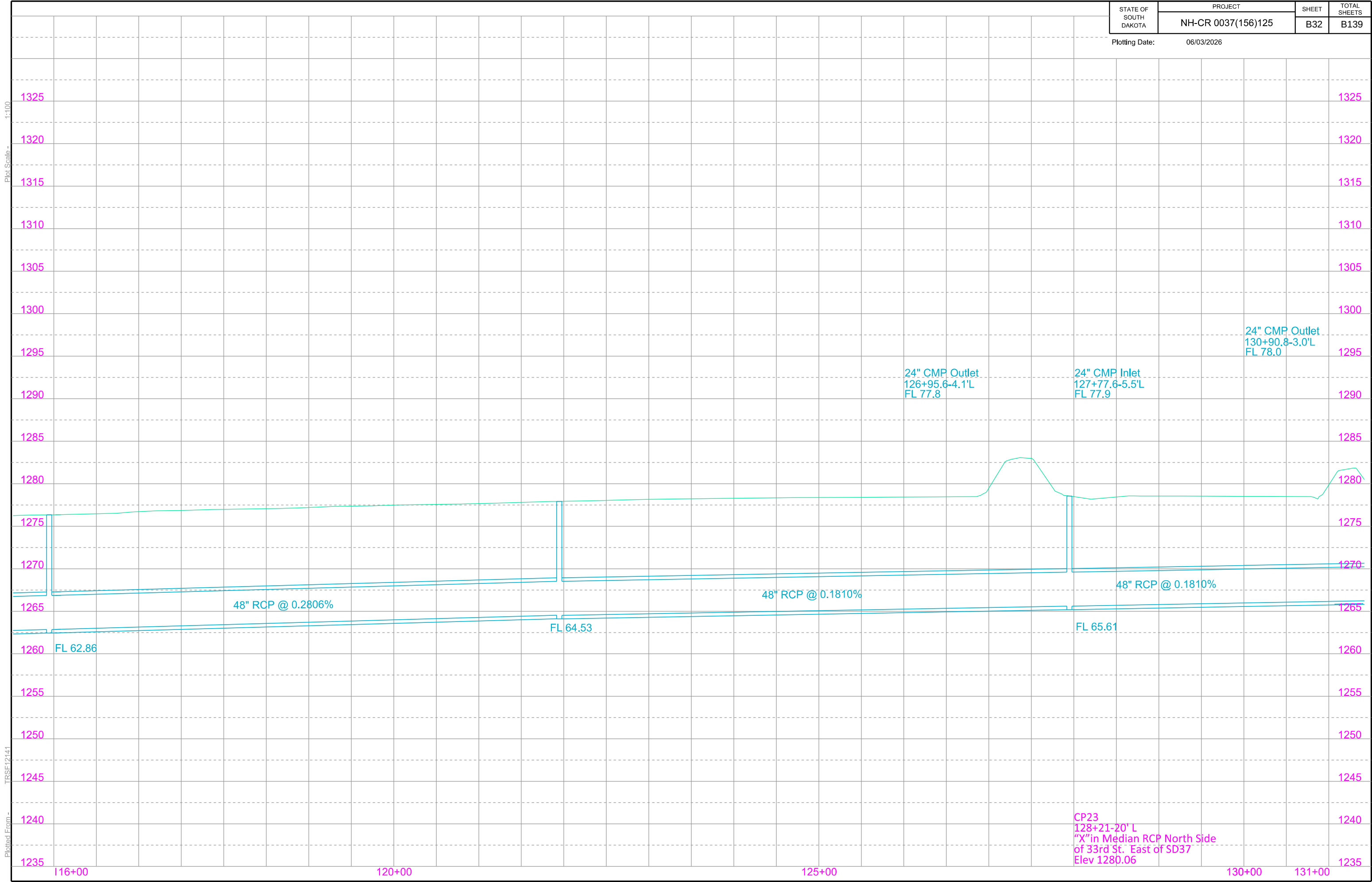
PI 115+94.62
N 184051.10
E 2435985.60
Del 0°05'34" R

PI 121+94.67
N 184650.94
E 2435969.50
Del 0°12'00" L

PI 127+94.75
N 185250.74
E 2435951.31
Del 1°06'23" L

Sec 19 - T110N - R61W

Sec 18 - T110N - R61W



131+24-3' L
Take Out 24"-67' RCP
(Incidental Work, Grading)

132+06-19' L to 103' L
Retain 18"-84' RCP

133+55.10-CL to
139+55.48-CL
Install 48"-596' RCP
(Between Jct. Boxes)

139+55.48-CL to
145+56.24-CL
Install 48"-596' RCP
(Between Jct. Boxes)

143+75-12' L to 88' L
Retain 24"-76' RCP Arch

143+23-3' R
Take Out 18"-61' RCP
(Incidental Work, Grading)

142+93.0-3.0'R to
143+53.0-3.0'R
Install 24"-46' CMP
& 2 Safety Ends

145+56.24-CL to
149+61.76-CL
Install 48"-400' RCP
(Between Jct. Boxes)

Install 6'x6' RC Jct Box
Type A9 Manhole Frame
with Special Grate
and 4' Eccentric Cone
at the following locations:
133+55.10-CL
139+55.48-CL
145+56.24-CL

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B33	B139

Plotting Date: 06/03/2026



Sec 13 - T110N - 62W

HURON

Farm Credit Services of America
(INFORMATION ONLY)

JR & R II LLC DBA Runnings Farm & Fleet
(INFORMATION ONLY)

Ma's Properties LLC
(INFORMATION ONLY)

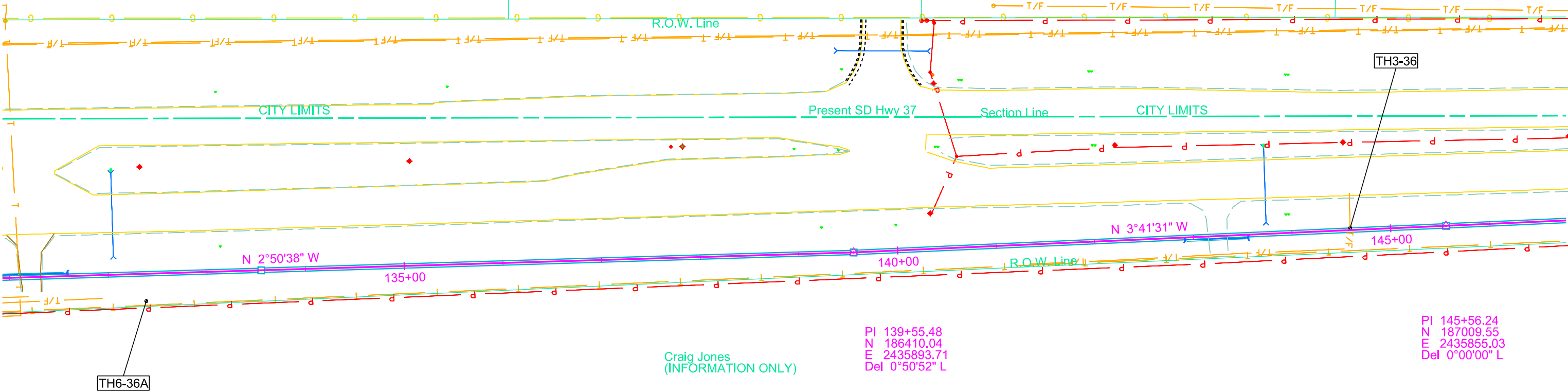
Wal mart Stores INC
(INFORMATION ONLY)

Lot 4

Lot 3

Lot 2

Lot 4



Craig Jones
(INFORMATION ONLY)

PI 139+55.48
N 186410.04
E 2435893.71
Del 0°50'52" L

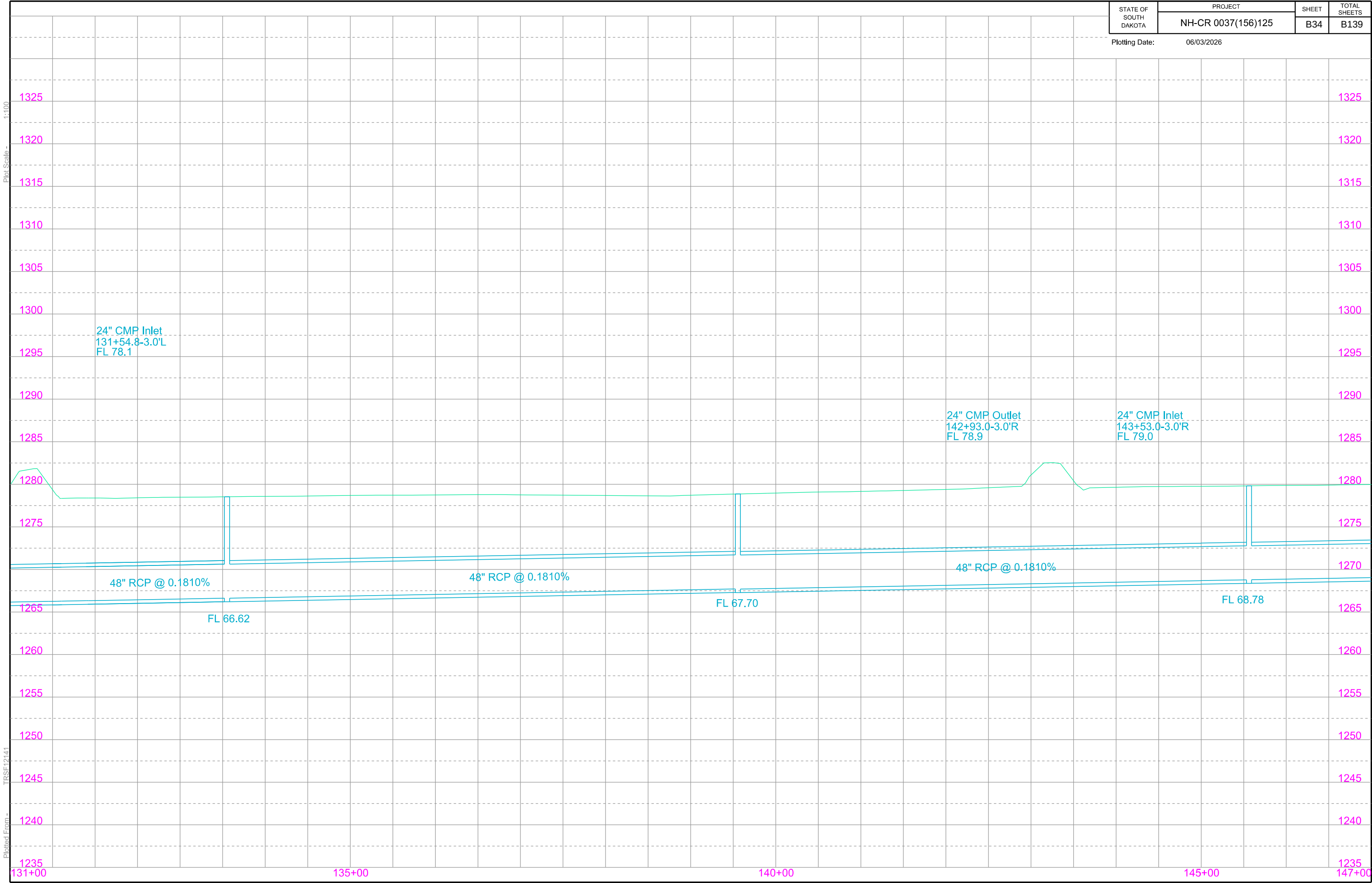
PI 145+56.24
N 187009.55
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Del 0°00'00" L

Sec 18 - T110N - R61W

Plot Scale - 1:100

Plotted From - TRSF12141

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Plot Scale - 1:100

Plotted From - TRSF12141

149+61.76-CL to
153+63.03-9.00'R
Install 48"-396' RCP
(Between Jct. Boxes)

152+72-19' R
Retain 18"-68' RCP

153+63.03-9.00'R to
157+57.26-CL
Install 48"-390' RCP
(Between Jct. Boxes)

157+57.26-CL to
163+57.26-CL
Install 48"-594' RCP
(Between Jct. Boxes)

158+97-13' R
Retain 24"-69' CMP

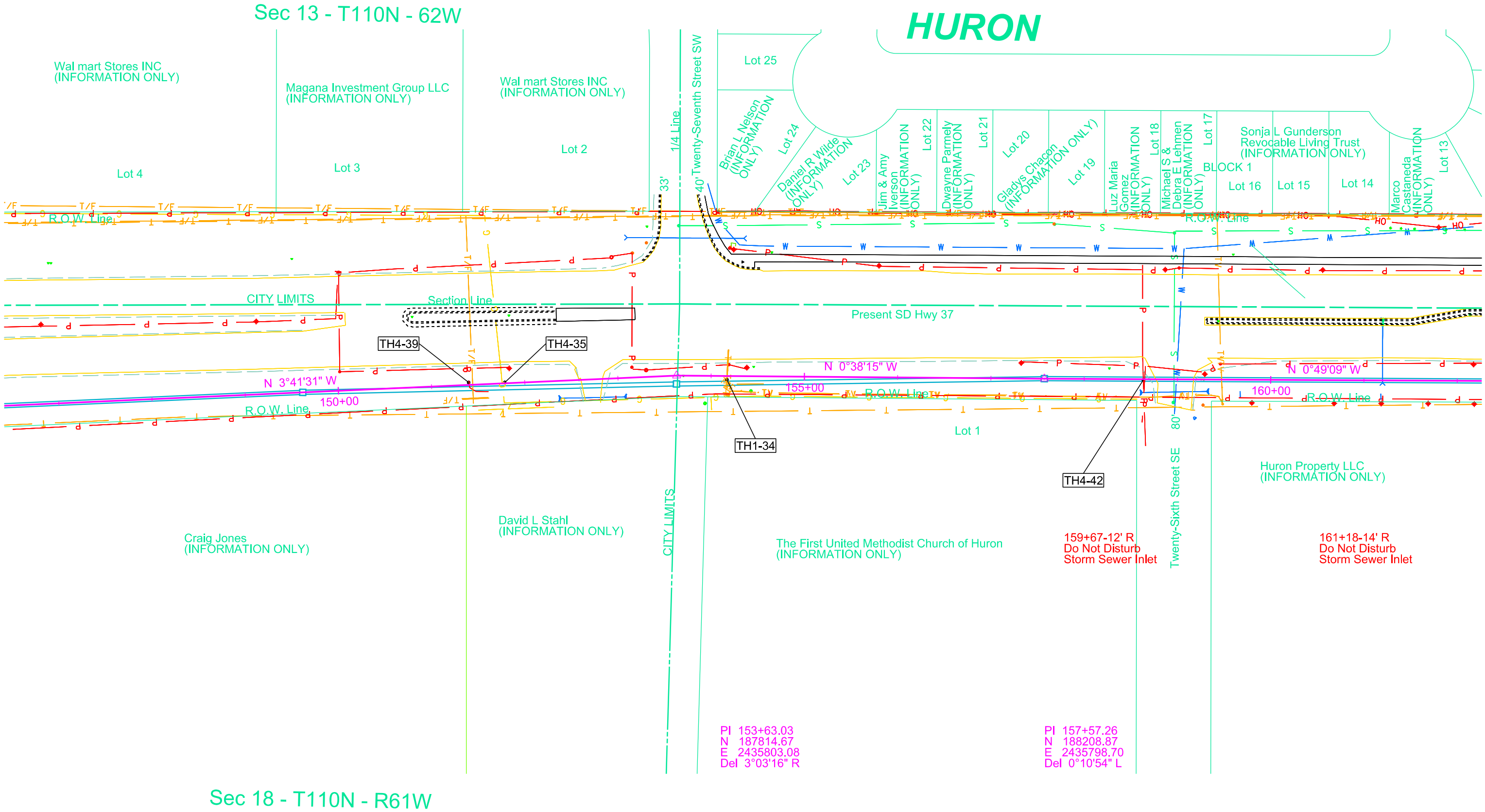
161+20-3' R to 20' L
Remove for Reset
18"-16' RCP
& 1 End Section

161+20-3' R to 20' L
Reset 18"-16' RCP
& 1 End Section

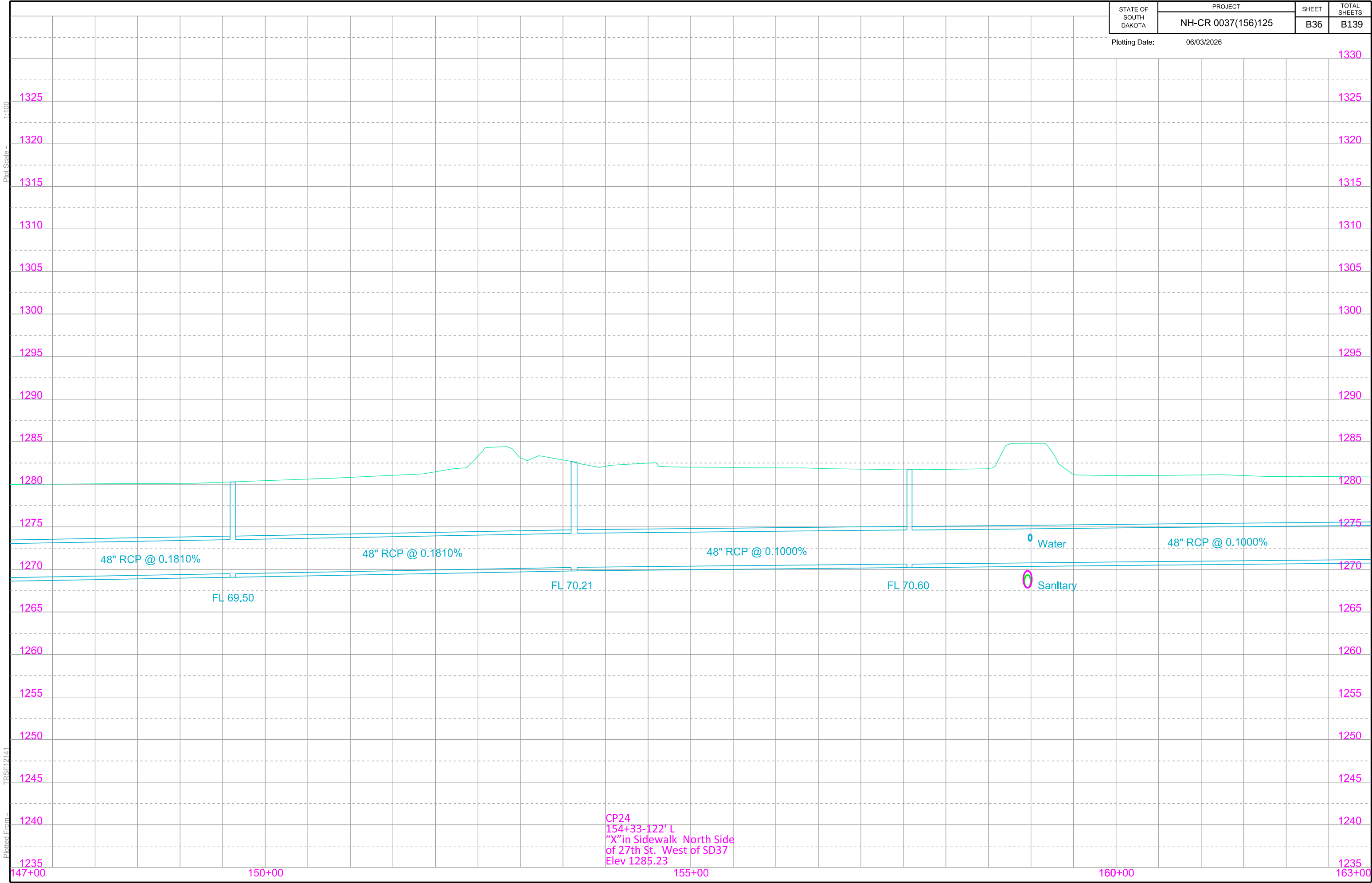
Install 6'x6' RC Jct Box
Type A9 Manhole Frame and Lid
and 4' Eccentric Cone
at the following locations:
149+61.76-CL
153+63.03-9.00'R
157+57.26-CL

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B35	B139

Plotting Date: 06/03/2026



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Plot Scale - 1:100
Plotted From - TRSF12141

163+57.26-CL to
169+57.26-CL
Install 48"-594' RCP
(Between Jct. Boxes)

164+15.6-8.0'R to
165+04.6-8.0'R
Install 18"-76' RCP
& 2 Safety Ends

164+58-7' R
Take Out 18"-88' CMP
(Incidental Work, Grading)

169+57.26-CL to
173+72.38-CL
Install 48"-410' RCP
(Between Jct. Boxes)

173+72.38-CL to
177+87.30-4.00'R
Install 48"-410' RCP
(Between Jct. Box & Drop Inlet)

174+73-3' R
Take Out 18"-104' CMP
(Incidental Work, Grading)

174+21.1-6.0'R to
175+26.1-6.0'R
Install 18"-92' RCP
& 2 Safety Ends

Install 6'x6' RC Jct Box
Type A9 Manhole Frame
with Special Grate
and 2' Eccentric Cone
at the following locations:
163+57.26-CL
169+57.26-CL
173+72.38-CL

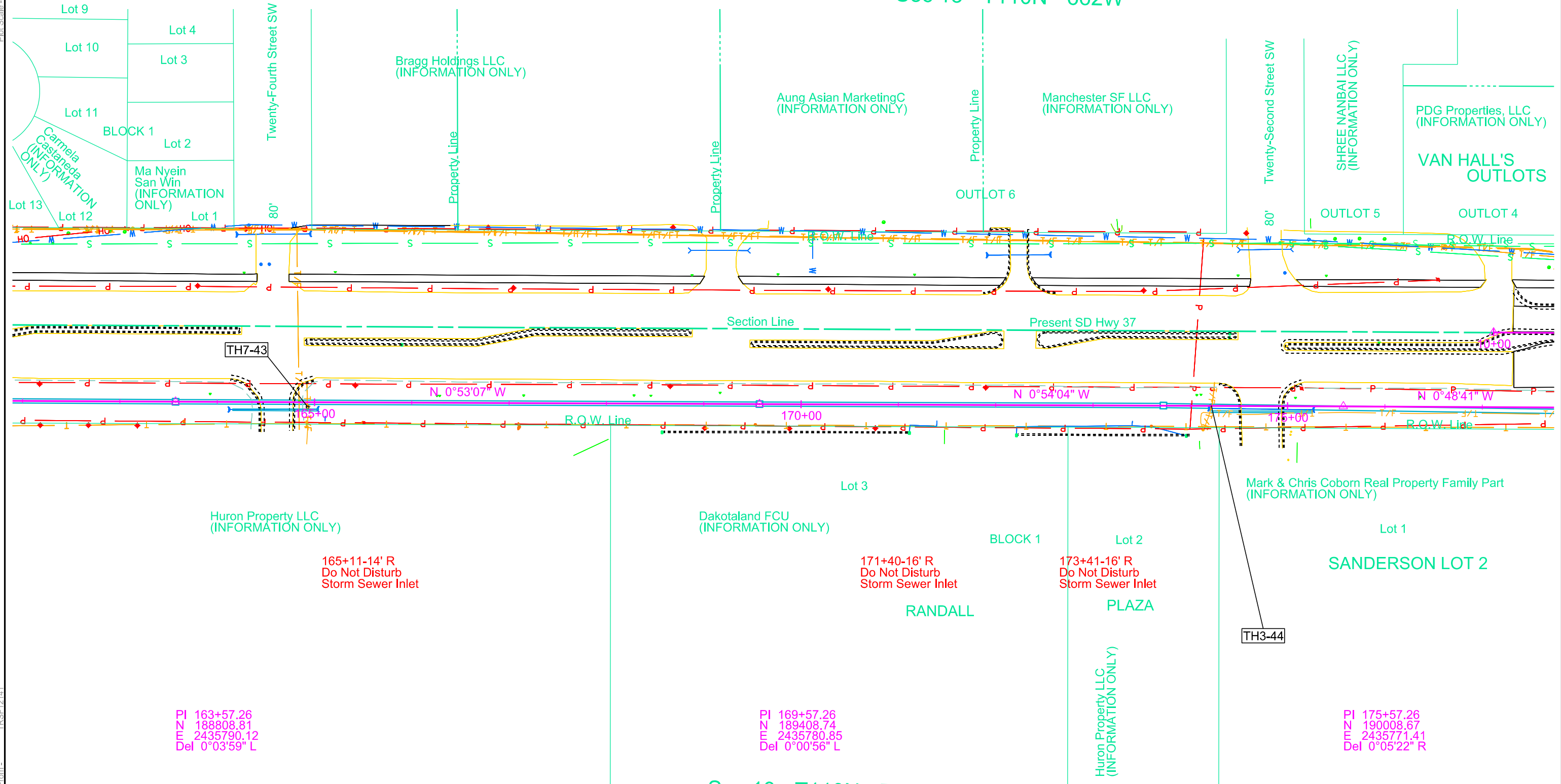
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B37	B139

Plotting Date: 06/03/2026



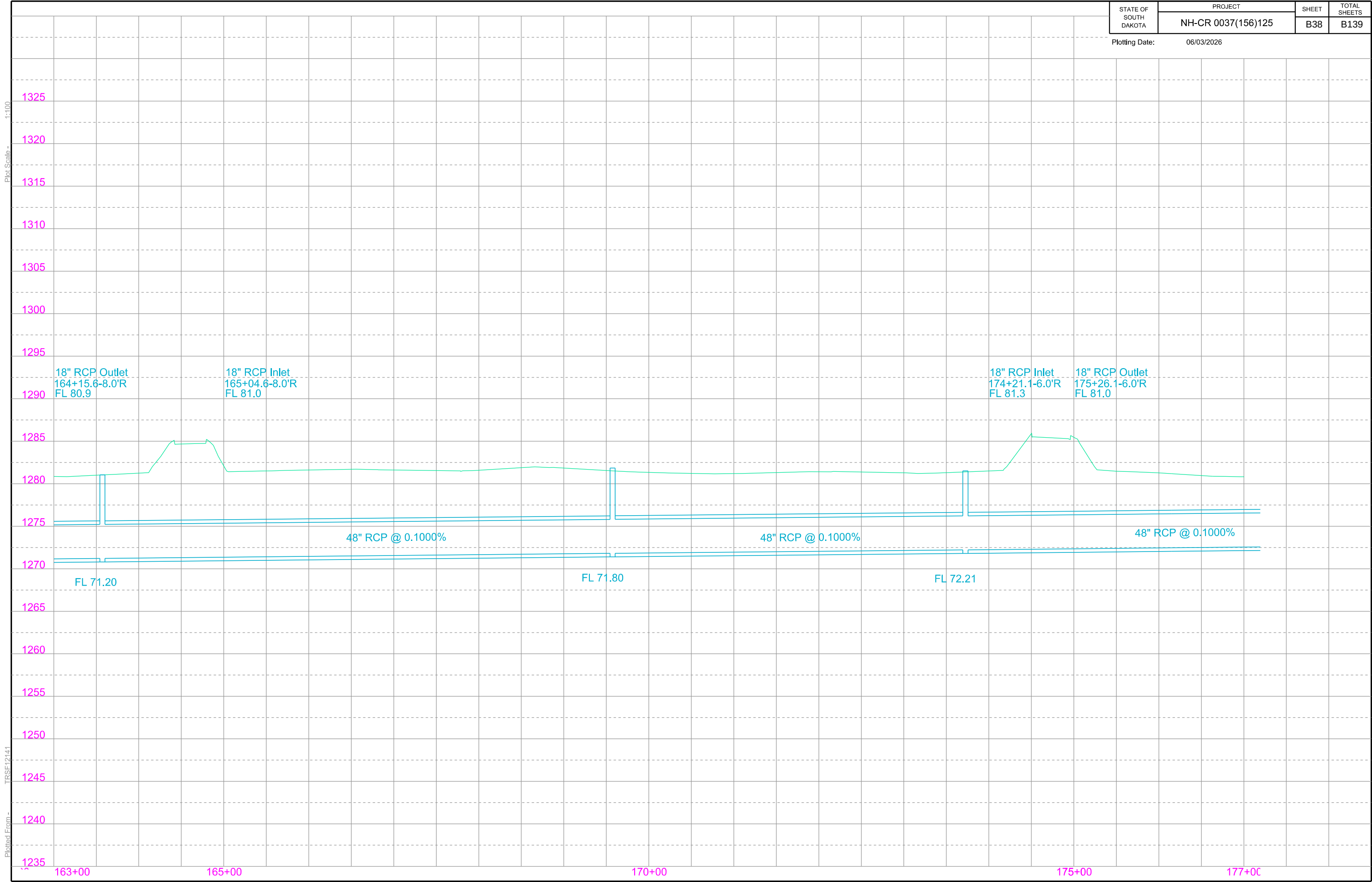
HURON

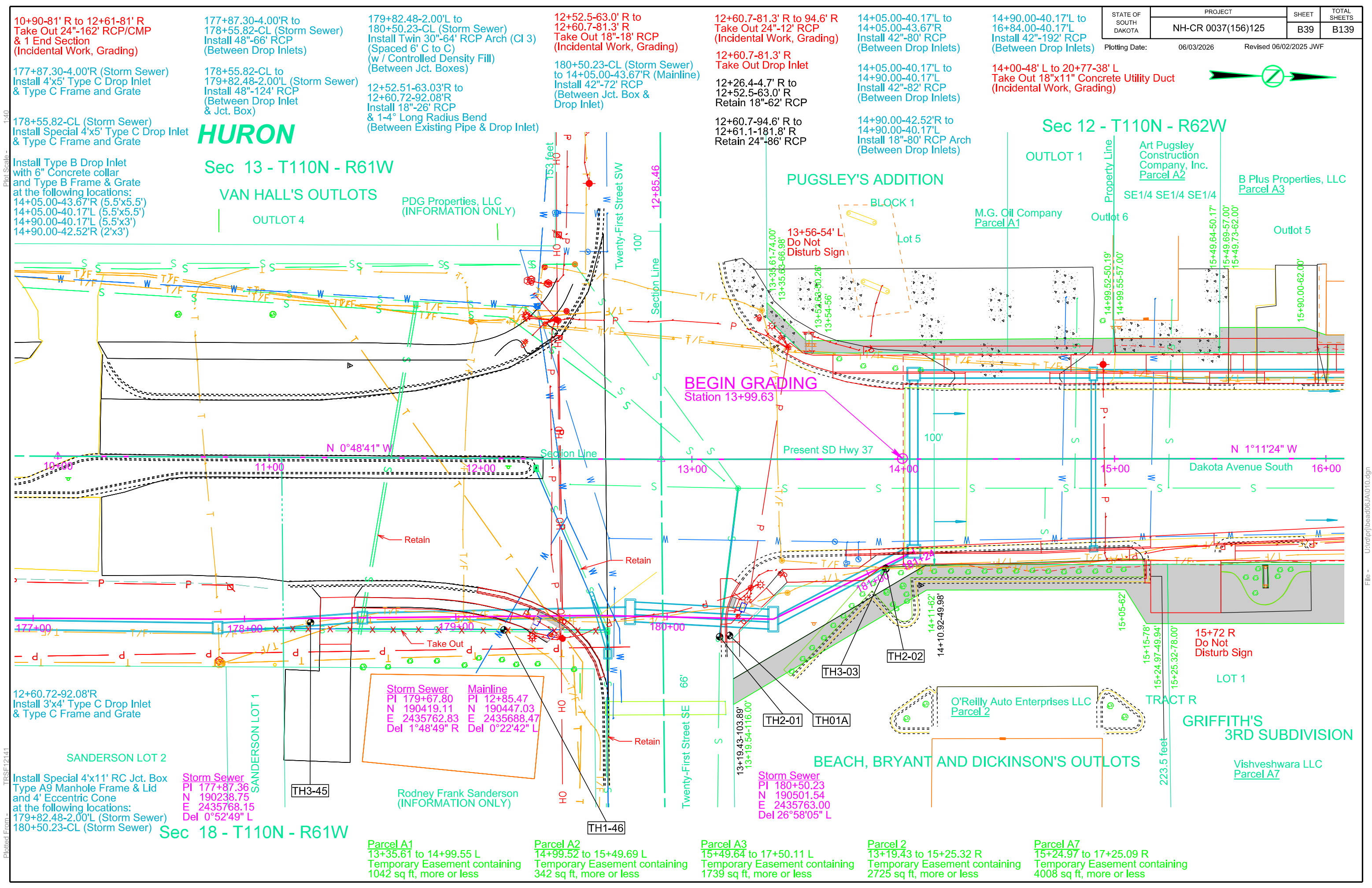
Sec 13 - T110N - 662W



Sec 18 - T110N - R61W

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10+90.81' R to 12+61.81' R
Take Out 24"-162' RCP/CMP
& 1 End Section
(Incidental Work, Grading)

177+87.30-4.00'R (Storm Sewer)
Install 4'x5' Type C Drop Inlet
& Type C Frame and Grate

178+55.82-CL (Storm Sewer)
Install Special 4'x5' Type C Drop Inlet
& Type C Frame and Grate

Install Type B Drop Inlet
with 6" Concrete collar
and Type B Frame & Grate
at the following locations:
14+05.00-43.67'R (5.5'x5.5')
14+05.00-40.17'L (5.5'x5.5')
14+90.00-40.17'L (5.5'x3')
14+90.00-42.52'R (2'x3')

12+60.72-92.08'R
Install 3'x4' Type C Drop Inlet
& Type C Frame and Grate

Install Special 4'x11' RC Jct. Box
Type A9 Manhole Frame & Lid
and 4' Eccentric Cone
at the following locations:
179+82.48-2.00'L (Storm Sewer)
180+50.23-CL (Storm Sewer)

Plot Scale - 1"=40'

Plotted From - TRSF12141

177+87.30-4.00'R to
178+55.82-CL (Storm Sewer)
Install 48"-66' RCP
(Between Drop Inlets)

178+55.82-CL to
179+82.48-2.00'L (Storm Sewer)
Install 48"-124' RCP
(Between Drop Inlet
& Jct. Box)

HURON

Sec 13 - T110N - R61W

VAN HALL'S OUTLOTS

OUTLOT 4

PDG Properties, LLC
(INFORMATION ONLY)

Storm Sewer
PI 179+67.80
N 190419.11
E 2435762.83
Del 1°48'49" R

Mainline
PI 12+85.47
N 190447.03
E 2435688.47
Del 0°22'42" L

Rodney Frank Sanderson
(INFORMATION ONLY)

Sec 18 - T110N - R61W

Parcel A1
13+35.61 to 14+99.55 L
Temporary Easement containing
1042 sq ft, more or less

179+82.48-2.00'L to
180+50.23-CL (Storm Sewer)
Install Twin 30"-64' RCP Arch (CI 3)
(Spaced 6' C to C)
(w / Controlled Density Fill)
(Between Jct. Boxes)

12+52.51-63.03'R to
12+60.72-92.08'R
Install 18"-26' RCP
& 1-4° Long Radius Bend
(Between Existing Pipe & Drop Inlet)

12+52.5-63.0' R to
12+60.7-81.3' R
Take Out 18"-18' RCP
(Incidental Work, Grading)

180+50.23-CL (Storm Sewer)
to 14+05.00-43.67'R (Mainline)
Install 42"-72' RCP
(Between Jct. Box &
Drop Inlet)

12+60.7-81.3' R to
12+61.1-181.8' R
Retain 24"-86' RCP

12+60.7-94.6' R to
12+61.1-181.8' R
Retain 24"-86' RCP

14+05.00-40.17'L to
14+05.00-43.67'R
Install 42"-80' RCP
(Between Drop Inlets)

14+05.00-40.17'L to
14+90.00-40.17'L
Install 42"-82' RCP
(Between Drop Inlets)

14+90.00-42.52'R to
14+90.00-40.17'L
Install 18"-80' RCP Arch
(Between Drop Inlets)

14+90.00-40.17'L to
16+84.00-40.17'L
Install 42"-192' RCP
(Between Drop Inlets)

14+00-48' L to 20+77-38' L
Take Out 18"x11" Concrete Utility Duct
(Incidental Work, Grading)

TH1-46

TH2-01

TH2-02

TH3-03

TH3-45

Sec 12 - T110N - R62W

PUGSLEY'S ADDITION

BLOCK 1

Lot 5

13+56-54' L
Do Not Disturb Sign

13+35.61-74.00'
13+35.63-66.98'
13+52.63-90.28'
13+54-56'

14+05.00-40.17'L to
14+05.00-43.67'R
Install 42"-80' RCP
(Between Drop Inlets)

14+05.00-40.17'L to
14+90.00-40.17'L
Install 42"-82' RCP
(Between Drop Inlets)

14+90.00-42.52'R to
14+90.00-40.17'L
Install 18"-80' RCP Arch
(Between Drop Inlets)

14+90.00-40.17'L to
16+84.00-40.17'L
Install 42"-192' RCP
(Between Drop Inlets)

14+00-48' L to 20+77-38' L
Take Out 18"x11" Concrete Utility Duct
(Incidental Work, Grading)

OUTLOT 1

Art Pugsley
Construction
Company, Inc.
Parcel A2

SE1/4 SE1/4 SE1/4

B Plus Properties, LLC
Parcel A3

Outlot 6

Outlot 5

15+49.64-50.17'
15+49.69-57.00'
15+49.73-62.00'

15+90.00-62.00'

14+99.52-50.19'
14+99.55-57.00'

15+72 R
Do Not Disturb Sign

LOT 1

TRACT R

BEACH, BRYANT AND DICKINSON'S OUTLOTS

Parcel A1
13+35.61 to 14+99.55 L
Temporary Easement containing
1042 sq ft, more or less

Parcel A2
14+99.52 to 15+49.69 L
Temporary Easement containing
342 sq ft, more or less

Parcel A3
15+49.64 to 17+50.11 L
Temporary Easement containing
1739 sq ft, more or less

Parcel 2
13+19.43 to 15+25.32 R
Temporary Easement containing
2725 sq ft, more or less

Parcel A7
15+24.97 to 17+25.09 R
Temporary Easement containing
4008 sq ft, more or less

TH1-46

TH2-01

TH2-02

TH3-03

TH3-45

Sec 12 - T110N - R62W

PUGSLEY'S ADDITION

BLOCK 1

Lot 5

13+56-54' L
Do Not Disturb Sign

13+35.61-74.00'
13+35.63-66.98'
13+52.63-90.28'
13+54-56'

14+05.00-40.17'L to
14+05.00-43.67'R
Install 42"-80' RCP
(Between Drop Inlets)

14+05.00-40.17'L to
14+90.00-40.17'L
Install 42"-82' RCP
(Between Drop Inlets)

14+90.00-42.52'R to
14+90.00-40.17'L
Install 18"-80' RCP Arch
(Between Drop Inlets)

14+90.00-40.17'L to
16+84.00-40.17'L
Install 42"-192' RCP
(Between Drop Inlets)

14+00-48' L to 20+77-38' L
Take Out 18"x11" Concrete Utility Duct
(Incidental Work, Grading)

OUTLOT 1

Art Pugsley
Construction
Company, Inc.
Parcel A2

SE1/4 SE1/4 SE1/4

B Plus Properties, LLC
Parcel A3

Outlot 6

Outlot 5

15+49.64-50.17'
15+49.69-57.00'
15+49.73-62.00'

15+90.00-62.00'

14+99.52-50.19'
14+99.55-57.00'

15+72 R
Do Not Disturb Sign

LOT 1

TRACT R

BEACH, BRYANT AND DICKINSON'S OUTLOTS

Parcel A1
13+35.61 to 14+99.55 L
Temporary Easement containing
1042 sq ft, more or less

Parcel A2
14+99.52 to 15+49.69 L
Temporary Easement containing
342 sq ft, more or less

Parcel A3
15+49.64 to 17+50.11 L
Temporary Easement containing
1739 sq ft, more or less

Parcel 2
13+19.43 to 15+25.32 R
Temporary Easement containing
2725 sq ft, more or less

Parcel A7
15+24.97 to 17+25.09 R
Temporary Easement containing
4008 sq ft, more or less

TH1-46

TH2-01

TH2-02

TH3-03

TH3-45

Sec 12 - T110N - R62W

PUGSLEY'S ADDITION

BLOCK 1

Lot 5

13+56-54' L
Do Not Disturb Sign

13+35.61-74.00'
13+35.63-66.98'
13+52.63-90.28'
13+54-56'

14+05.00-40.17'L to
14+05.00-43.67'R
Install 42"-80' RCP
(Between Drop Inlets)

14+05.00-40.17'L to
14+90.00-40.17'L
Install 42"-82' RCP
(Between Drop Inlets)

14+90.00-42.52'R to
14+90.00-40.17'L
Install 18"-80' RCP Arch
(Between Drop Inlets)

14+90.00-40.17'L to
16+84.00-40.17'L
Install 42"-192' RCP
(Between Drop Inlets)

14+00-48' L to 20+77-38' L
Take Out 18"x11" Concrete Utility Duct
(Incidental Work, Grading)

OUTLOT 1

Art Pugsley
Construction
Company, Inc.
Parcel A2

SE1/4 SE1/4 SE1/4

B Plus Properties, LLC
Parcel A3

Outlot 6

Outlot 5

15+49.64-50.17'
15+49.69-57.00'
15+49.73-62.00'

15+90.00-62.00'

14+99.52-50.19'
14+99.55-57.00'

15+72 R
Do Not Disturb Sign

LOT 1

TRACT R

BEACH, BRYANT AND DICKINSON'S OUTLOTS

Parcel A1
13+35.61 to 14+99.55 L
Temporary Easement containing
1042 sq ft, more or less

Parcel A2
14+99.52 to 15+49.69 L
Temporary Easement containing
342 sq ft, more or less

Parcel A3
15+49.64 to 17+50.11 L
Temporary Easement containing
1739 sq ft, more or less

Parcel 2
13+19.43 to 15+25.32 R
Temporary Easement containing
2725 sq ft, more or less

Parcel A7
15+24.97 to 17+25.09 R
Temporary Easement containing
4008 sq ft, more or less

TH1-46

TH2-01

TH2-02

TH3-03

TH3-45

Sec 12 - T110N - R62W

PUGSLEY'S ADDITION

BLOCK 1

Lot 5

13+56-54' L
Do Not Disturb Sign

13+35.61-74.00'
13+35.63-66.98'
13+52.63-90.28'
13+54-56'

14+05.00-40.17'L to
14+05.00-43.67'R
Install 42"-80' RCP
(Between Drop Inlets)

14+05.00-40.17'L to
14+90.00-40.17'L
Install 42"-82' RCP
(Between Drop Inlets)

14+90.00-42.52'R to
14+90.00-40.17'L
Install 18"-80' RCP Arch
(Between Drop Inlets)

14+90.00-40.17'L to
16+84.00-40.17'L
Install 42"-192' RCP
(Between Drop Inlets)

14+00-48' L to 20+77-38' L
Take Out 18"x11" Concrete Utility Duct
(Incidental Work, Grading)

OUTLOT 1

Art Pugsley
Construction
Company, Inc.
Parcel A2

SE1/4 SE1/4 SE1/4

B Plus Properties, LLC
Parcel A3

Outlot 6

Outlot 5

15+49.64-50.17'
15+49.69-57.00'
15+49.73-62.00'

15+90.00-62.00'

14+99.52-50.19'
14+99.55-57.00'

15+72 R
Do Not Disturb Sign

LOT 1

TRACT R

BEACH, BRYANT AND DICKINSON'S OUTLOTS

Parcel A1
13+35.61 to 14+99.55 L
Temporary Easement containing
1042 sq ft, more or less

Parcel A2
14+99.52 to 15+49.69 L
Temporary Easement containing
342 sq ft, more or less

Parcel A3
15+49.64 to 17+50.11 L
Temporary Easement containing
1739 sq ft, more or less

Parcel 2
13+19.43 to 15+25.32 R
Temporary Easement containing
2725 sq ft, more or less

Parcel A7
15+24.97 to 17+25.09 R
Temporary Easement containing
4008 sq ft, more or less

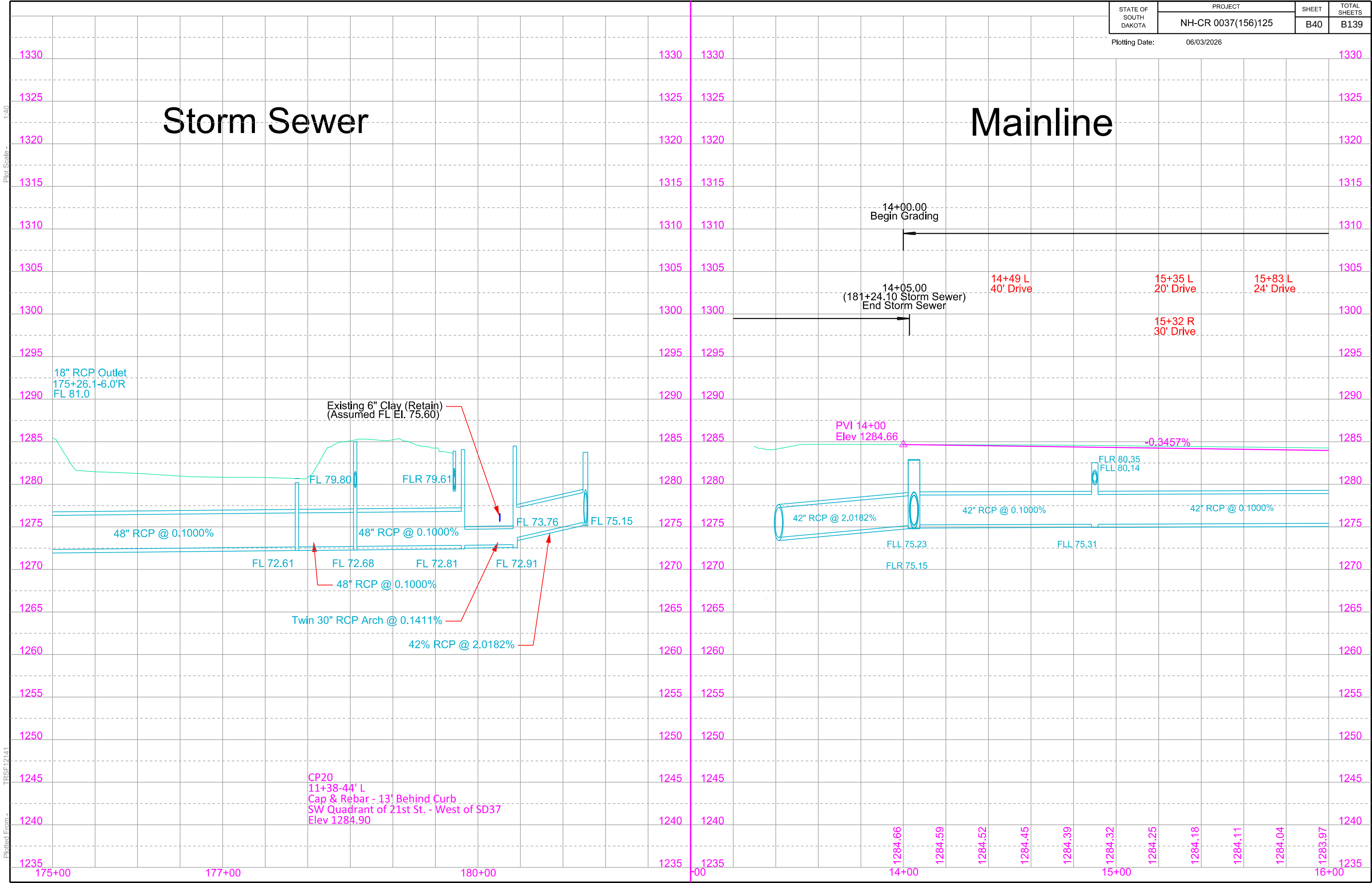
TH1-46

TH2-01

TH2-02

TH3-03

TH3-45



Plot Scale - 1"=40'

Plotted From - TRSF12141

Plot Date - 06/03/2026

Install Type B Drop Inlet with 6" Concrete collar and Type B Frame & Grate at the following locations:
16+84.00-40.17'L (5.5'x3')
16+84.00-33.57'R (2'x3')
19+20.00-40.17'L (5.5'x3')
19+20.00-32.17'R (2'x3')

20+91-38' L to 26+61-36' L
Take Out 20"x11" Concrete Utility Duct (Incidental Work, Grading)

16+84.00-40.17'L to 16+84.00-33.57'R
Install 18"-72" RCP Arch (Between Drop Inlets)

16+84.00-40.17'L to 19+20.00-40.17'L
Install 36"-234' RCP (Between Drop Inlets)

19+20.00-40.17'L to 19+20.00-32.17'R
Install 18"-70' RCP (Between Drop Inlets)

19+20.00-40.17'L to 21+36.43-42.63'L
Install 36"-212' RCP (Between Drop Inlets)

21+29.43-34.63'R to 21+36.43-42.63'L
Install 18"-74 RCP Arch (Between Drop Inlets)

21+36.43-42.63'L to 22+45.00-32.17'L
Install 36"-106' RCP (Between Drop Inlets)

20+84-38' L
Take Out 6.0'x14.0'x 7.0' Concrete Vault & Manhole

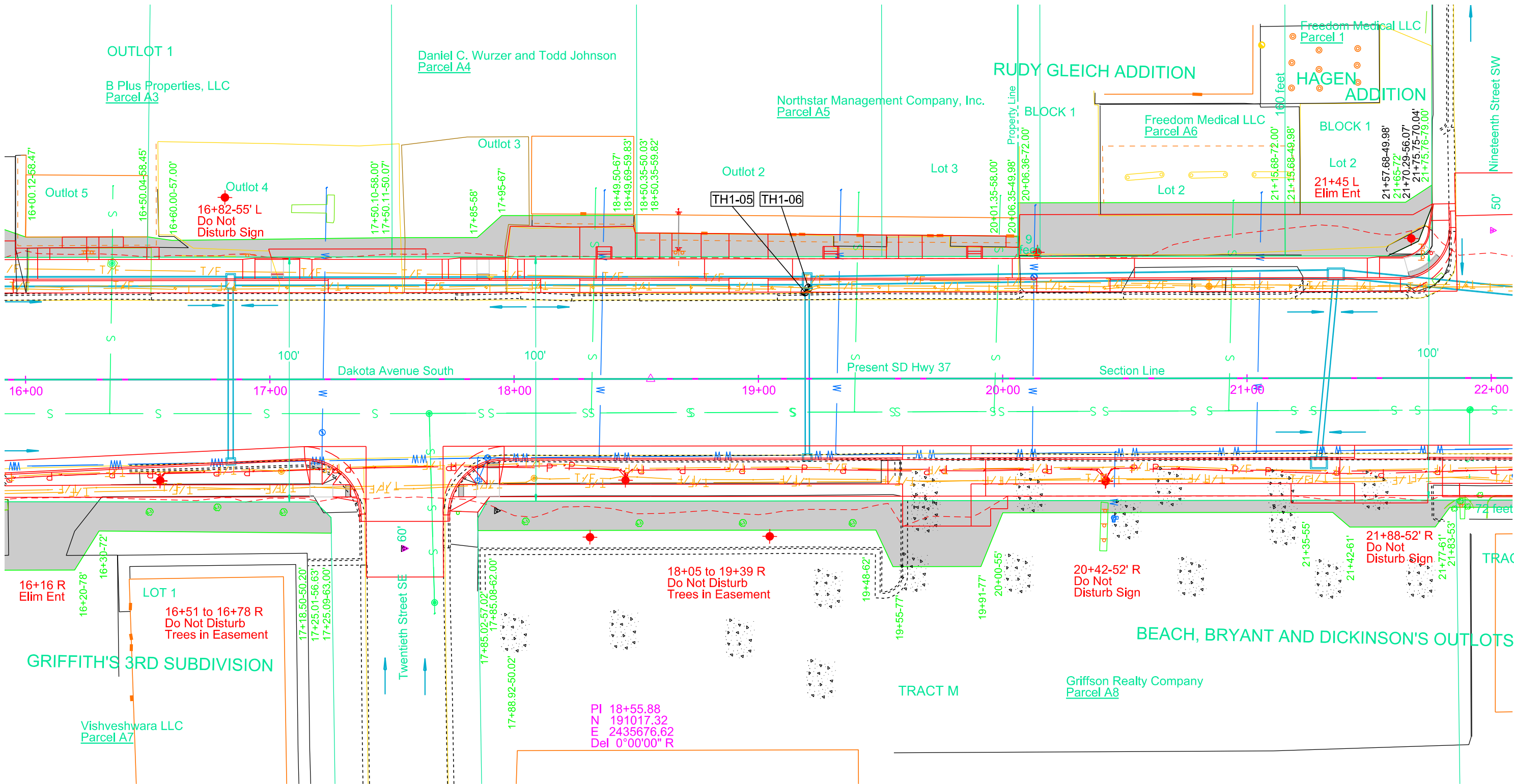
Install 4'x6' Type S Drop Inlet Base and Type S Precast lid at the following locations:
21+29.43-34.63'R
21+36.43-42.63'L

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B41	B139

Plotting Date: 06/03/2026 Revised 06/02/2025 JWF



HURON



Parcel A4
17+50.10 to 18+50.35 L
Temporary Easement containing
1335 sq ft, more or less

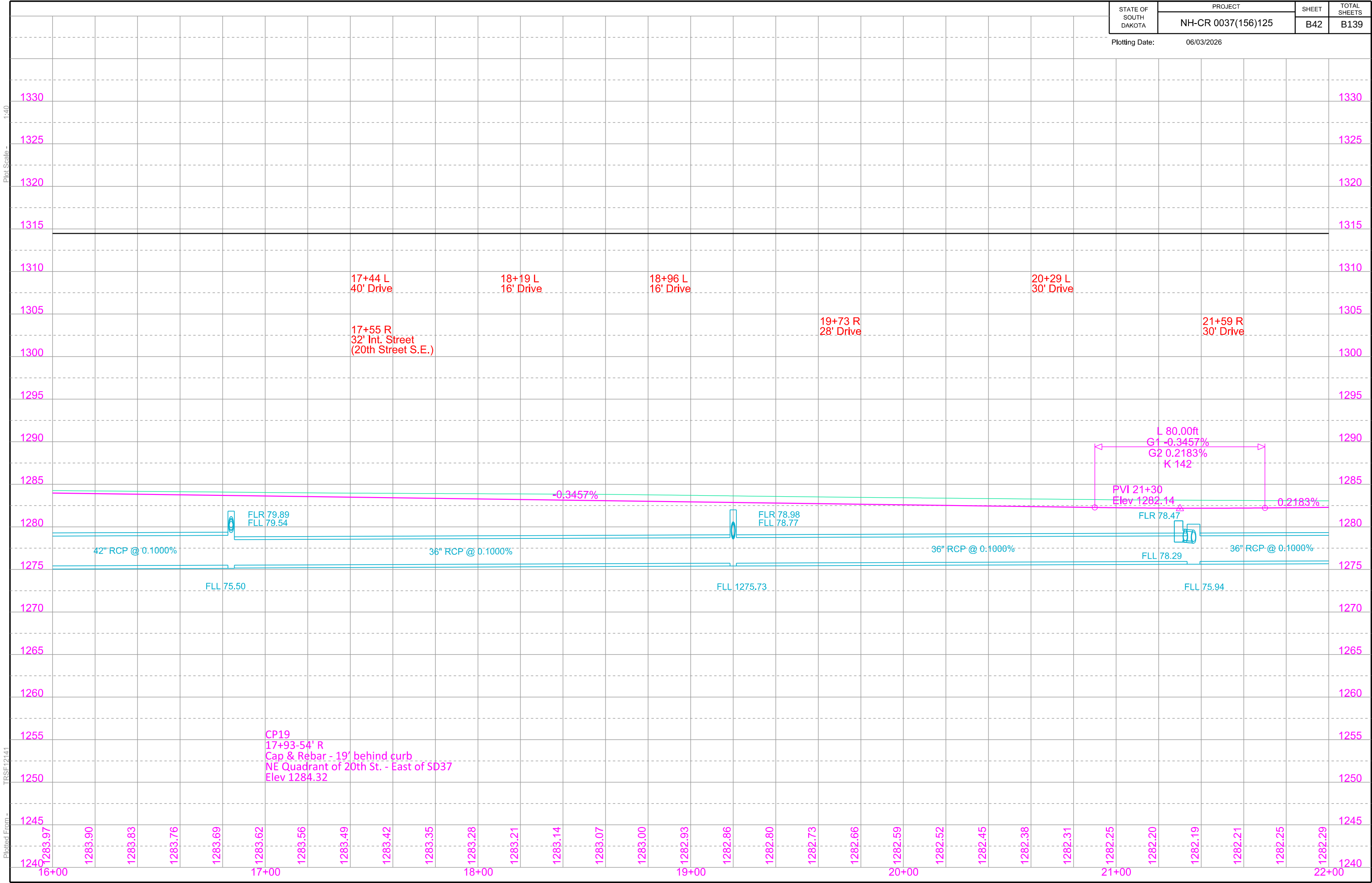
Parcel A5
18+50.35 to 20+06.35 L
Temporary Easement containing
1415 sq ft, more or less

Parcel A6
20+06.35 to 21+15.68 L
Temporary Easement containing
2407 sq ft, more or less

Parcel 1
21+15.68 to 21+75.76 L
Temporary Easement containing
1250 sq ft, more or less

Parcel A8
17+85.02 to 22+57.89 R
Temporary Easement containing
4808 sq ft, more or less

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Plot Scale - 1"=40'

TRSF12139

Plotted From -

Install Type B Drop Inlet with 6" Concrete collar and Type B Frame & Grate at the following locations:
22+30.00-32.17'R (2'x3')
22+45.00-32.17'L (4'x4')
23+81.83-32.17'L (4'x4')
25+70.00-32.17'R (2'x3')
25+99.00-32.17'L (4'x4')
27+10.00-32.17'L (4'x4')

22+30.00-32.17'R to 22+45.00-32.17'L
Install 18"-64' RCP (Between Drop Inlets)

22+45.00-32.17'L to 23+81.83-32.17'L
Install 36"-134' RCP (Between Drop Inlets)

23+81.83-32.17'L to 25+99.00-32.17'L
Install 36"-214' RCP (Between Drop Inlets)

25+99.00-32.17'L to 27+10.00-32.17'L
Install 30"-108' RCP (Between Drop Inlets)

25+74-33' R to 26+41-38' R
Take Out 15"-72' RCP (Incidental Work, Grading)

26+44-38' R to 26+43-57' R
Take Out 12"-20' CMP (Incidental Work, Grading)

Remove Drop Inlets with Frame and Grate at the following locations:
25+74-33' R
26+44-38' R

Retain Manhole with Frame and Lid at the following locations:
26+43.1-56.9' R

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B43	B139

Plotting Date: 09/09/2026 Revised 09/04/2026 JWW



Retain Pipe at the following location:
26+43.1-56.9' R to 26+79.8-211.3' L (36" CMP)

Install Type B Drop Inlet and Special Type B Frame & Grate at the following location:
27+08.00-48.00'L (2'x3')

McDonald's Corporation
Parcel 3
Omitted

McDonald's USA, LLC
Parcel A10
Omitted

Shack Rentals LLC
Parcel A11
Omitted

AMC Huron Co., Inc.
Parcel A12

OLSON'S ADDITION

HURON

BLOCK 1

Lot 7

Lot 6

CHAMBERS' FIRST RESTRICTED ADDITION

BEACH, BRYANT AND DICKINSON'S OUTLOTS

HEGG'S ADDITION

BEACH, BRYANT AND DICKINSON'S OUTLOTS

LEHMANN'S ADDITION

Do Not Disturb Sign at the following locations:
24+28-55' R
25+45-53' R

Do Not Disturb Tree at the following locations:
24+27-63' R
25+69-57' R

25+15-55' R
Do Not Disturb Flagpole

Do Not Disturb Landscaping & Bushes Outside ROW Line at the following location:
25+38-50' R to 25+52-50' R

Do Not Disturb Landscaping & Bushes at the following locations:
24+30-61' R to 24+56-62' R
24+72-62' R to 25+16-65' R
25+25-65' R to 25+71-56' R

Parcel 3
22+25.74 to 24+76.37 L
Temporary Easement containing 1863 sq ft, more or less

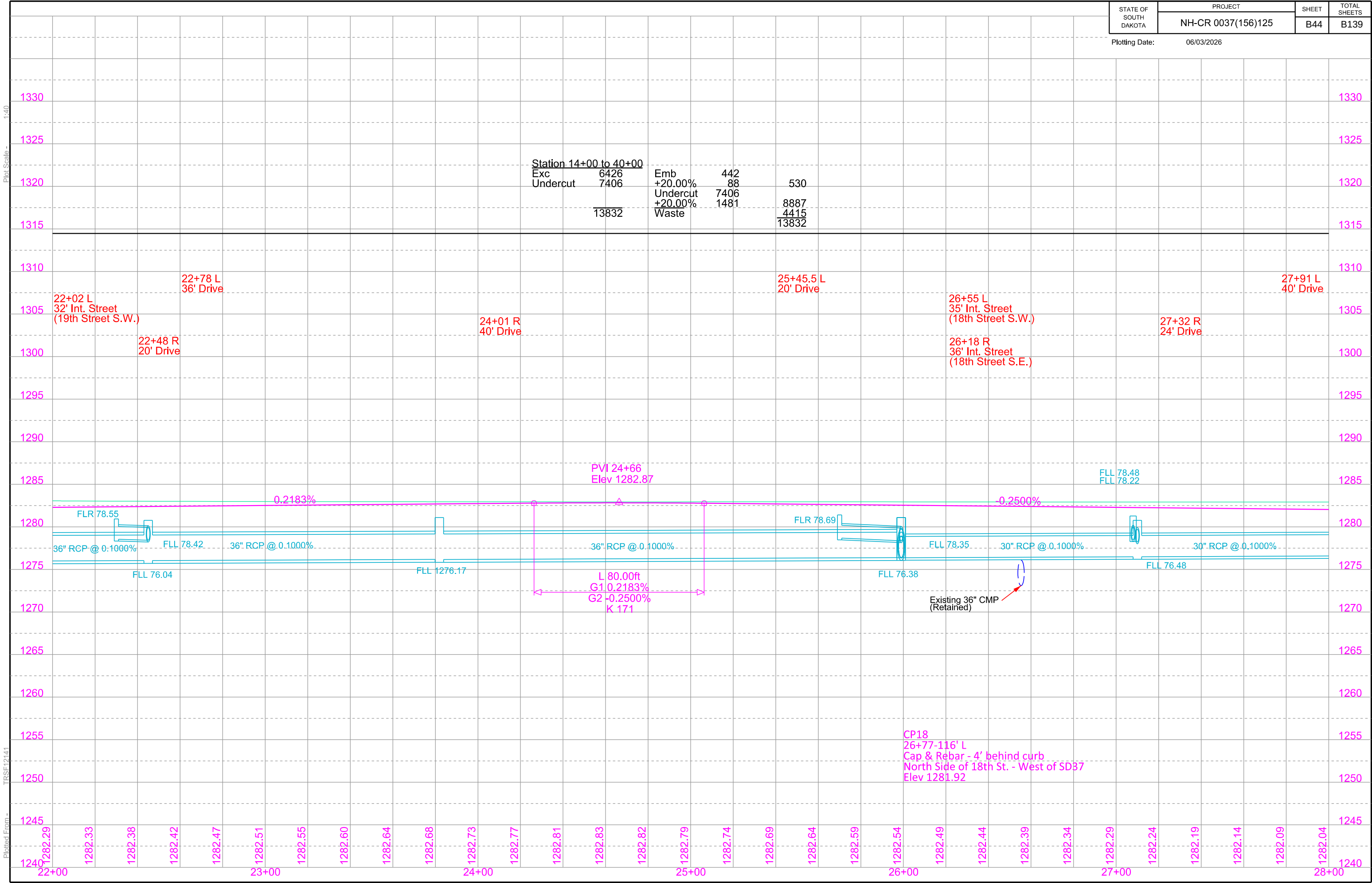
Parcel A10
24+76.36 to 25+26.47 L
Temporary Easement containing 380 sq ft, more or less

Parcel A12
26+91.88 to 28+22.38 L
Temporary Easement containing 1425 sq ft, more or less

Parcel A9
22+57.72 to 25+76.51 R
Temporary Easement containing 3697 sq ft, more or less

Parcel A15
26+56.27 to 28+03.96 R
Temporary Easement containing 1104 sq ft, more or less

File - Untitled06.dwg



Plot Scale - 1"=40'

Plotted From - TRSF12141

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Install Type B Drop Inlet with 6" Concrete collar and Type B Frame & Grate at the following locations:
28+66.00-32.17'L (4'x4')
28+66.00-32.17'R (2'x3')
30+79.55-55.28'L (3'x4')
31+17.56-56.48'L (2'x3')
31+50.00-32.17'L (3'x4')
31+61.00-32.17'R (2'x3')
33+30.00-32.17'L (3'x4')
33+30.00-32.17'R (2'x3')

28+66.00-32.17'L to 28+66.00-32.17'R
Install 18"-62' RCP Arch (Between Drop Inlets)

28+66.00-32.17'L to 30+52.75-34.63'L
Install 24"-182' RCP (Between Drop Inlets)

30+52.75-34.63'L to 30+55.00-34.63'R
Install 18"-66' RCP (Between Drop Inlets)

30+52.75-34.63'L to 31+50.00-32.17'L
Install 24"-92' RCP (Between Drop Inlets)

30+52.75-34.63'L to 30+79.55-55.28'L
Install 18"-34' RCP (Between Drop Inlets)

30+79.55-55.28'L to 31+17.56-56.48'L
Install 18"-36' RCP (Between Drop Inlets)

31+50.00-32.17'L to 31+61.00-32.17'R
Install 18"-64' RCP Arch (Between Drop Inlets)

33+30.00-32.17'L to 33+30.00-32.17'R
Install 18"-62' RCP Arch (Between Drop Inlets)

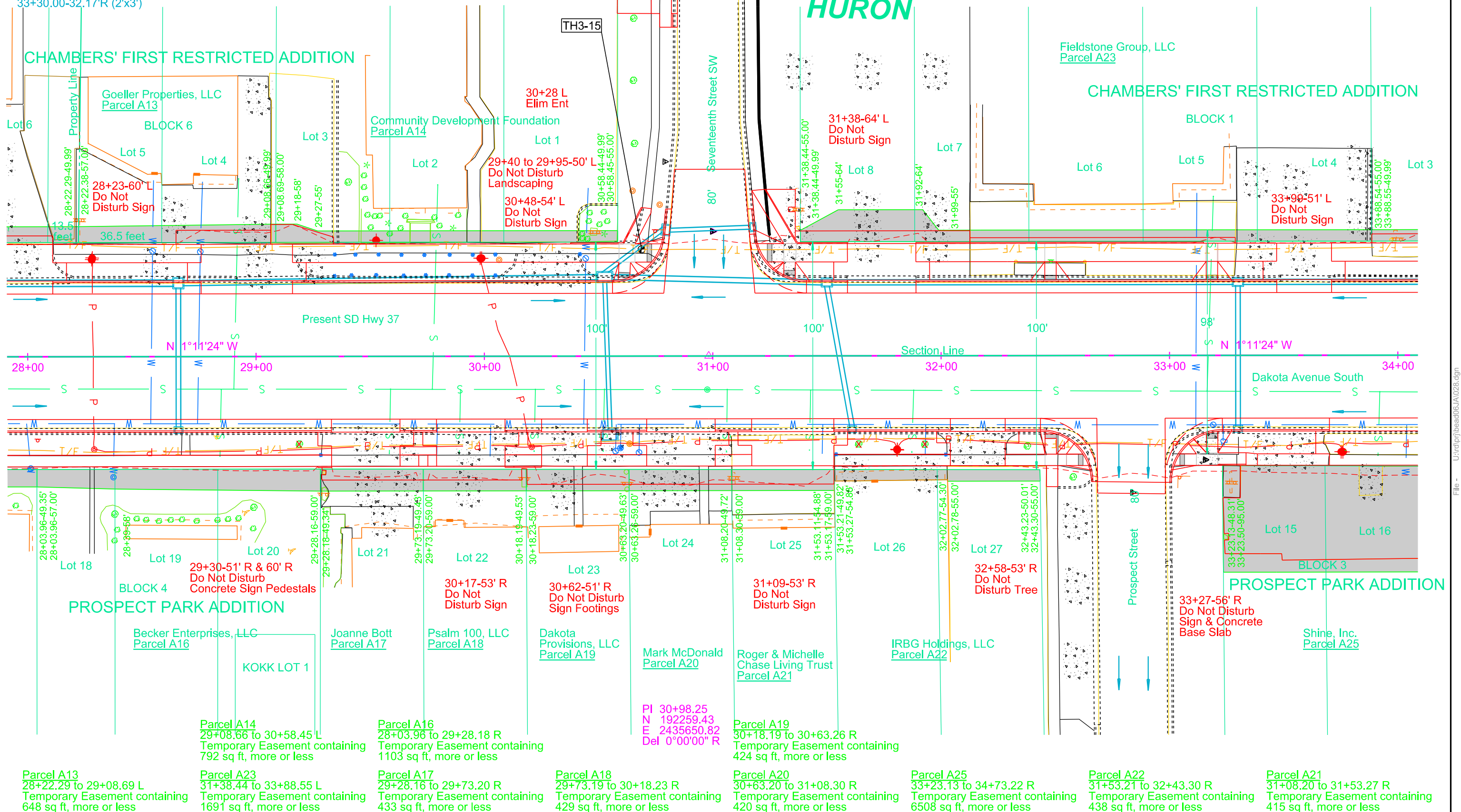
31+50.00-32.17'L to 33+30.00-32.17'L
Install 24"-176' RCP (Between Drop Inlets)

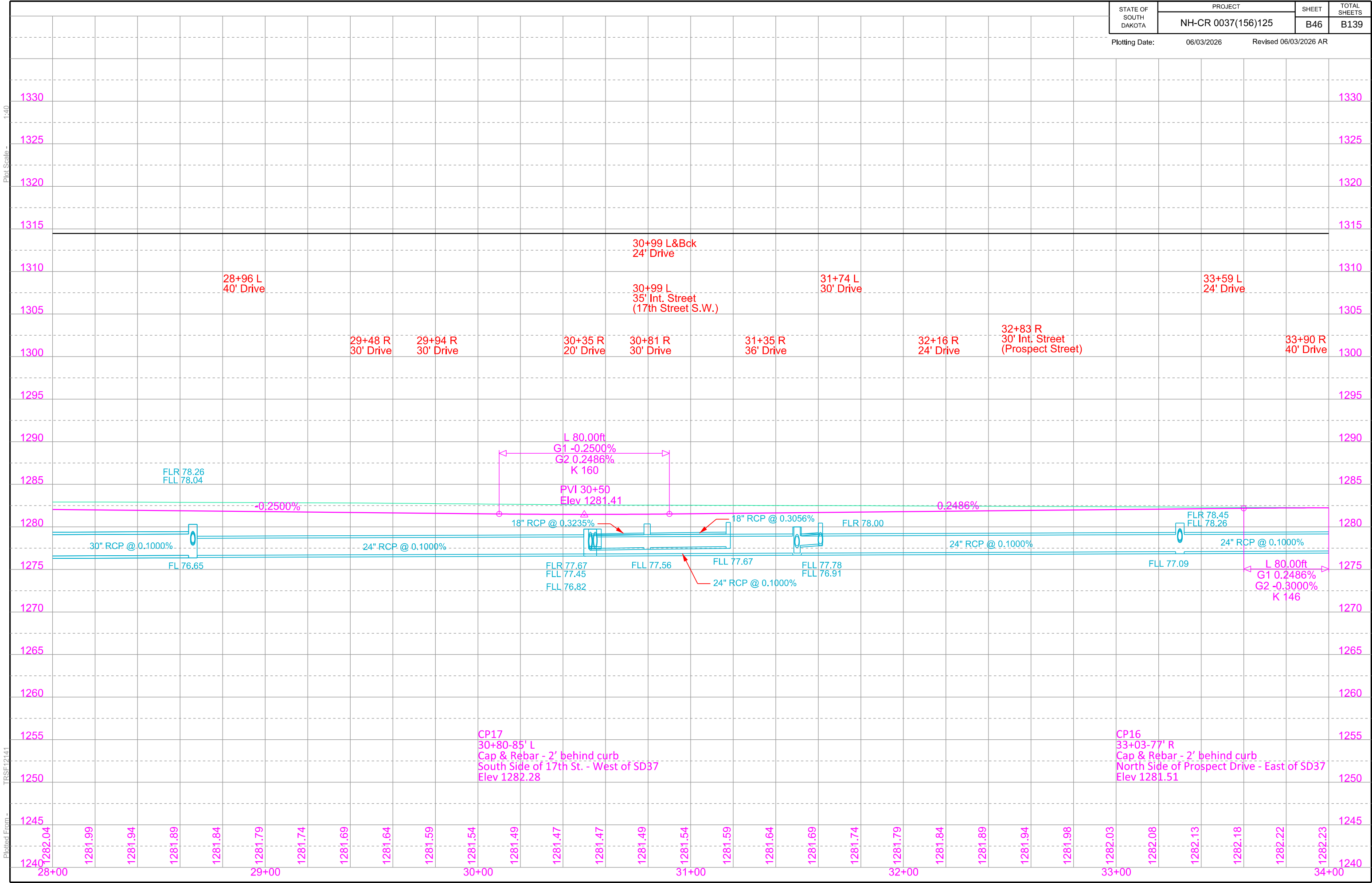
33+30.00-32.17'L to 35+33.00-32.17'L
Install 24"-200' RCP (Between Drop Inlets)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B45	B139

Plotting Date: 06/03/2026 Revised 06/02/2025 JWF

Install 4'x6' Type S Drop Inlet Base and Type S Precast lid at the following locations:
30+52.75-34.63'L
30+55.00-34.63'R





File - U:\tr01\proj\bead06\JA028v.dgn

Plot Scale - 1"=40'

Plotted From - TRSF12141

Install Type B Drop Inlet with 6" Concrete collar and Type B Frame & Grate at the following locations:
35+33.00-32.17'L (4'x3')
35+45.50-32.17'R (2'x3')
36+90.00-32.17'L (4'x3')
36+90.00-32.17'R (2'x3')

Install Type B Drop Inlet and Type E Frame & Grate at the following locations:
34+77.41-47.34'R (2'x3')
35+01.32-47.34'R (2'x3')
35+46.50-47.34'R (2'x3')
36+03.62-47.34'R (2'x3')

34+77.41-47.34'R to 35+01.32-47.34'R
Install 18"-22" RCP (Between Drop Inlets)

35+33.00-32.17'L to 35+45.50-32.17'R
Install 18"-64" RCP (Between Drop Inlets)

35+45.50-32.17'R to 35+46.50-47.34'R
Install 18"-14" RCP (Between Drop Inlets)

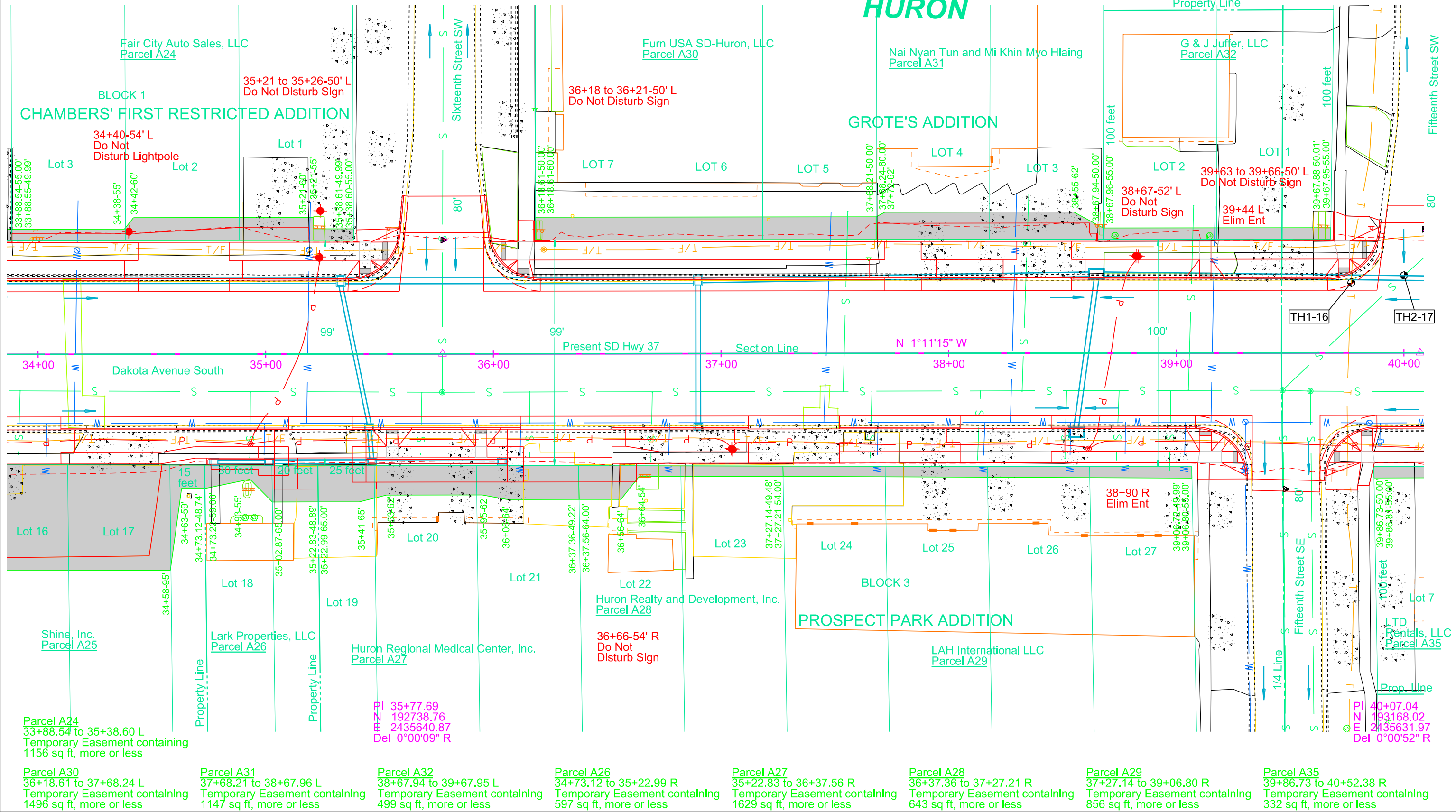
36+90.00-32.17'L to 36+90.00-32.17'R
Install 18"-62" RCP Arch (Between Drop Inlets)

38+56.00-34.63'R to 38+65.00-34.63'L
Install 18"-68" RCP Arch (CL 4) (Between Drop Inlets)

Install 4'x6' Type S Drop Inlet Base and Type S Precast lid at the following locations:
38+56.00-34.63'R
38+65.00-34.63'L

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B47	B139

Plotting Date: 06/03/2026 Revised 06/02/2025 JWF



Parcel A24
33+88.54 to 35+38.60 L
Temporary Easement containing
1156 sq ft, more or less

Parcel A30
36+18.61 to 37+68.24 L
Temporary Easement containing
1496 sq ft, more or less

Parcel A31
37+68.21 to 38+67.96 L
Temporary Easement containing
1147 sq ft, more or less

Parcel A32
38+67.94 to 39+67.95 L
Temporary Easement containing
499 sq ft, more or less

Parcel A26
34+73.12 to 35+22.99 R
Temporary Easement containing
597 sq ft, more or less

Parcel A27
35+22.83 to 36+37.56 R
Temporary Easement containing
1629 sq ft, more or less

Parcel A28
36+37.36 to 37+27.21 R
Temporary Easement containing
643 sq ft, more or less

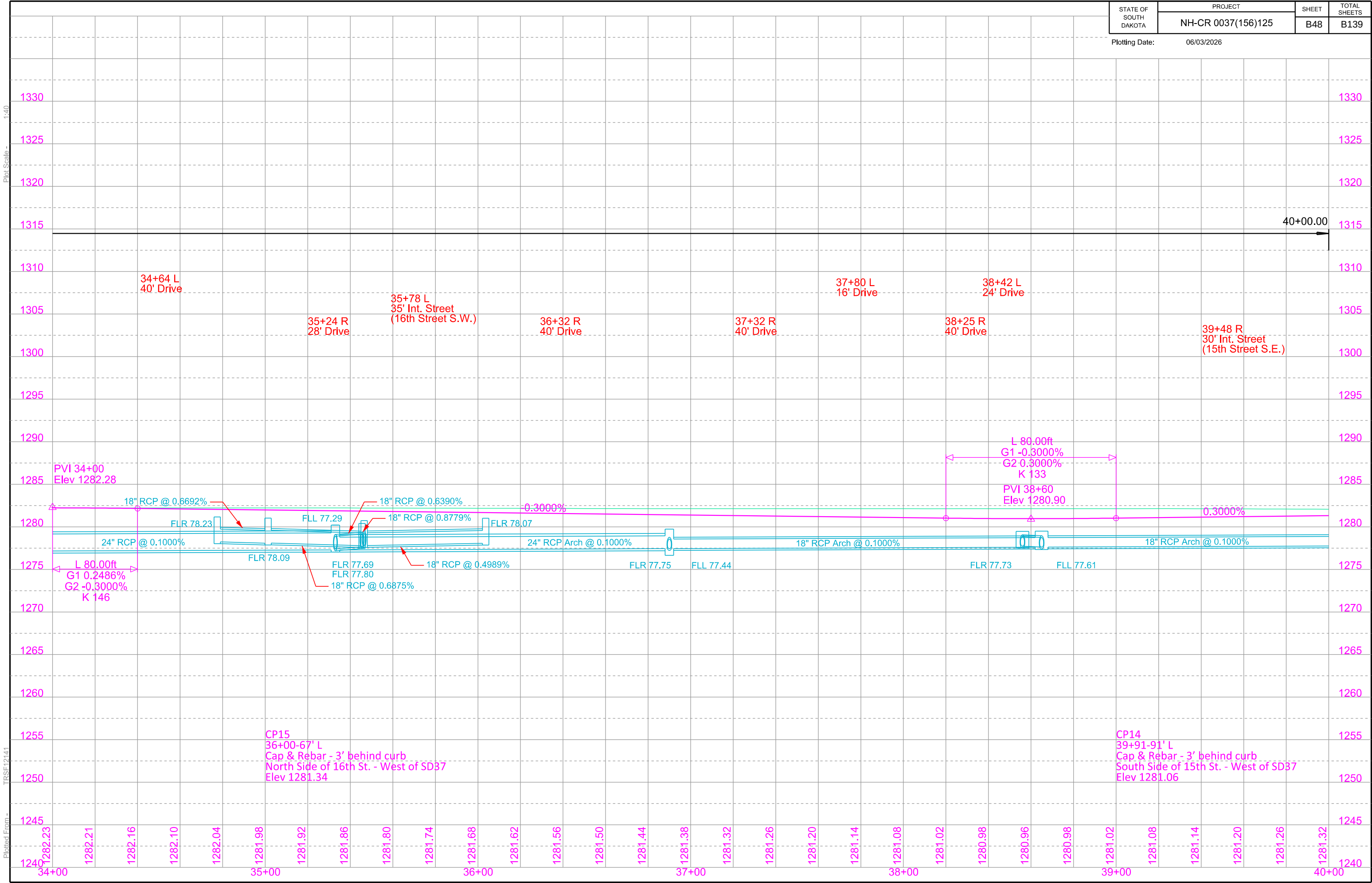
Parcel A29
37+27.14 to 39+06.80 R
Temporary Easement containing
856 sq ft, more or less

Parcel A35
39+86.73 to 40+52.38 R
Temporary Easement containing
332 sq ft, more or less

PI 35+77.69
N 192738.76
E 2435640.87
Del 0°00'09" R

PI 40+07.04
N 193168.02
E 2435631.97
Del 0°00'52" R

File - Untrd\proj\bead06JA034.dgn



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Remove Drop Inlets
with Frame and Grate
at the following locations:
44+07-35' L
44+86-34' L

Remove Manholes
with Frame and Lid
at the following locations:
40+26-18' L
40+78-19' L
44+19-18' L
44+20-23' R

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B49	B139

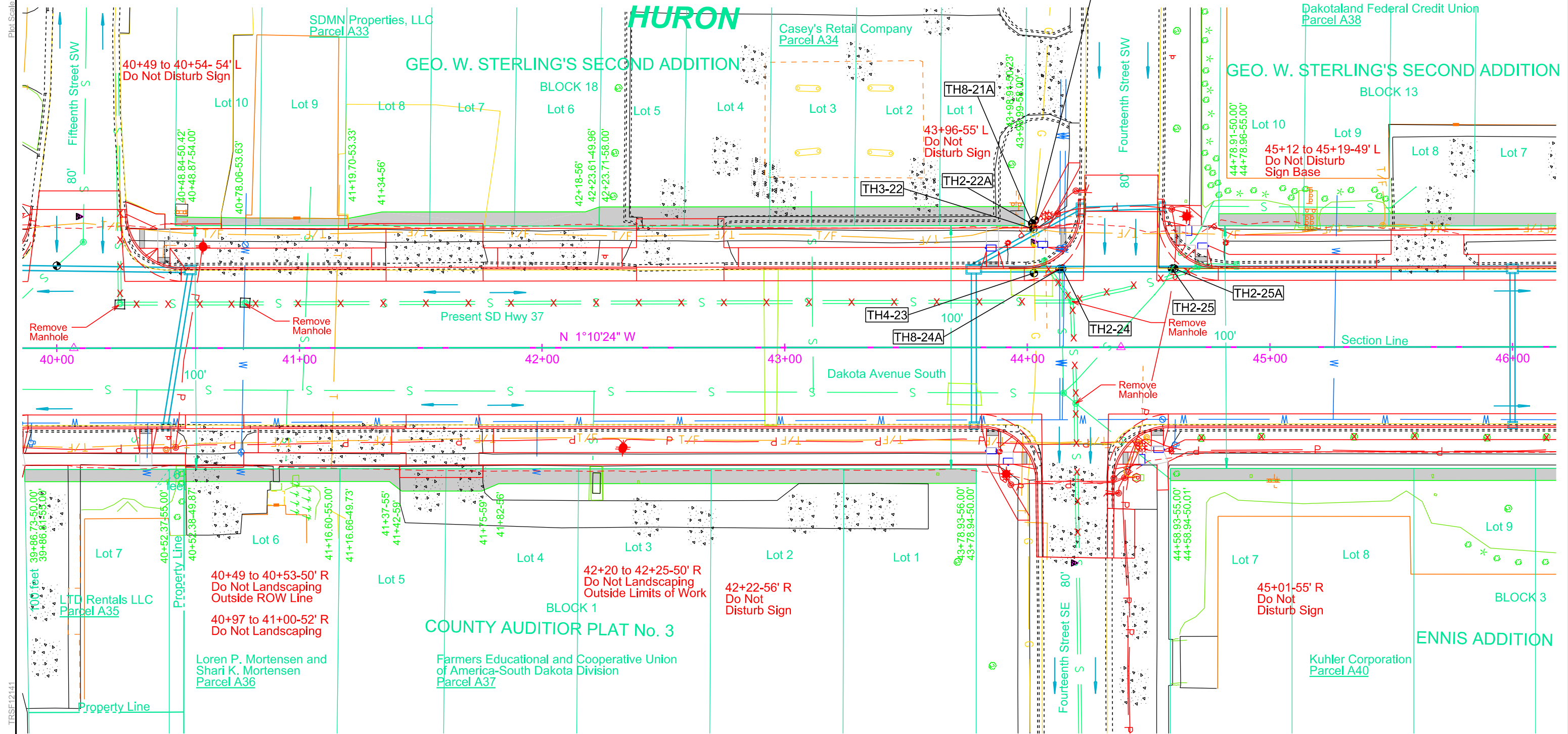
Plotting Date: 06/03/2026 Revised 06/02/2025 JWF



1.10

TDC E104 141

Dotted Lines



PI 40+07.04
N 193168.02
E 2435631.97
Del 0°00'52" R

PI 44+38.59
N 193599.48
E 2435623.13
Del 0°00'00" L

Parcel A33
40+48.84 to 42+23.71 L
Temporary Easement containing
822 sq ft, more or less

Parcel A34
42+23.61 to 43+98.99 L
Temporary Easement containing
1385 sq ft, more or less

Parcel A38
44+78.91 to 47+24.61 L
Temporary Easement containing
1544 sq ft, more or less

Parcel A36
40+52.37 to 41+16.66 R
Temporary Easement containing
334 sq ft, more or less

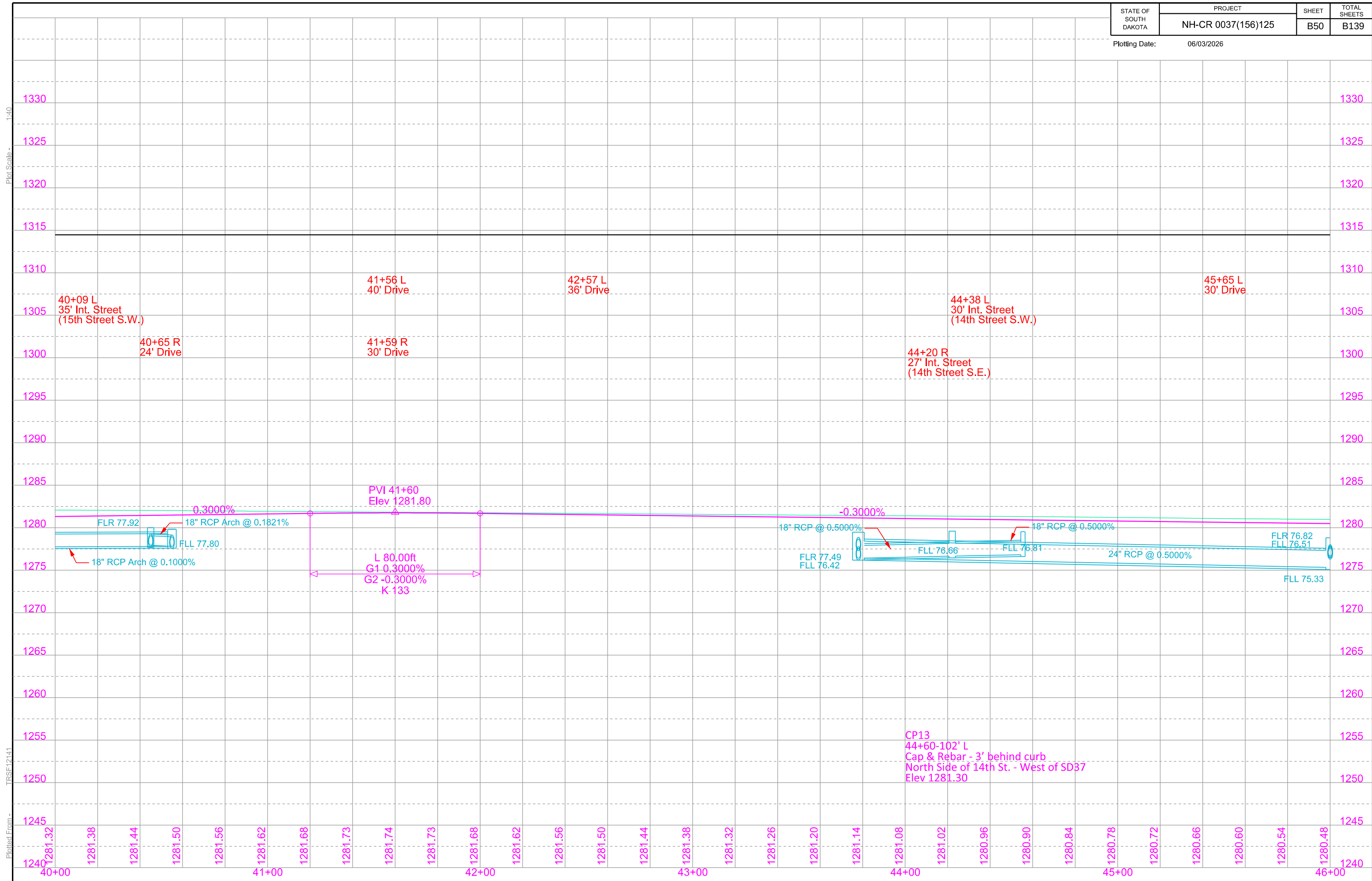
Parcel A37
41+16.60 to 43+78.94 R
Temporary Easement containing
1703 sq ft, more or less

Parcel A40
44+58.93 to 46+59.54 R
Temporary Easement containing
1002 sq ft, more or less

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B50	B139

Plotting Date: 06/03/2026



Plot Scale - 1"=40'

Plotted From - TRSF12141

48+29-34' L to 48+56-59' L
Take Out 18"-37' RCP
(Incidental Work, Grading)

46+00.00-32.17'L to
46+00.00-32.17'R
Install 18"-62' RCP Arch
(Between Drop Inlets)

46+00.00-32.17'L to
47+50.00-32.17'L
Install 24"-146' RCP
(Between Drop Inlets)

48+56-59' L to 48+84-59' L
Take Out 18"-29' RCP
(Incidental Work, Grading)

47+50.00-32.17'L to
47+50.00-32.17'R
Install 18"-62' RCP Arch
(Between Drop Inlets)

47+50.00-32.17'L to
48+25.00-32.17'L
Install 24"-72' RCP
(Between Drop Inlets)

48+84-59' L to 49+10-32' L
Take Out 18"-38' RCP
(Incidental Work, Grading)

48+25.00-32.17'L to
49+14.00-32.17'L
Install 24"-86' RCP
(Between Drop Inlets)

48+55.38-59.07'L to
48+84.69-59.53'L
Install 18"-28' RCP
(Between Drop Inlets)

49+10-32' L to 52+29-32' L
Take Out 18"-320' RCP
(Incidental Work, Grading)

49+00-48'L
Connect Existing
12" PVC to 18" RCP

HURON

48+84.69-59.53'L to
49+14.00-32.17'L
Install 18"-40' RCP
(Between Drop Inlets)

49+14.00-32.17'L to
49+14.00-32.17'R
Install 24"-62' RCP
(Between Drop Inlets)

49+14.00-32.17'R to
50+70.00-32.17'R
Install 30"-154' RCP
(Between Drop Inlets)

50+70.00-32.17'L to
50+70.00-32.17'R
Install 18"-62' RCP
(Between Drop Inlets)

Retain Pipe at the
following location:
48+09.2-39.2' R to
48+10.5-432.0' R (12" RCP)

Remove Drop Inlets
with Frame and Grate
at the following locations:
48+29-34' L
48+56-59' L
48+84-59' L
49+10-32' L

50+70.00-32.17'R to
52+30.00-32.17'R
Install 30"-158' RCP
(Between Drop Inlets)

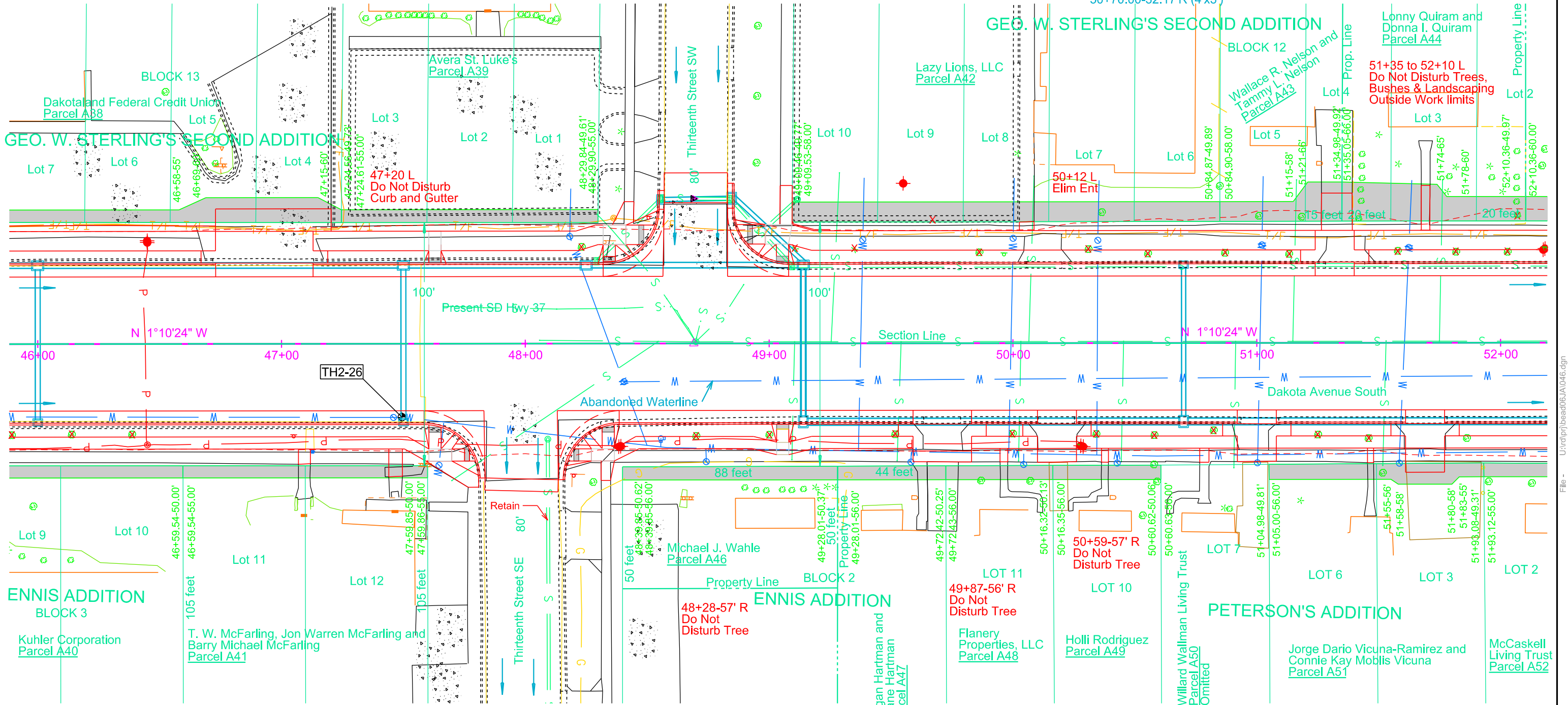
Install Type B Drop Inlet
with 6" Concrete collar
and Type B Frame & Grate
at the following locations:
46+00.00-32.17'L (3'x4')
46+00.00-32.17'R (2'x3')
47+50.00-32.17'L (3'x4')
47+50.00-32.17'R (2'x3')
48+25.00-32.17'L (3'x4')
48+55.38-59.07'L (2'x3')
48+84.69-59.53'L (3'x4')
49+14.00-32.17'L (3'x4')
49+14.00-32.17'R (4'x3')
50+70.00-32.17'L (2'x3')
50+70.00-32.17'R (4'x3')

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B51	B139

Plotting Date: 06/03/2026 Revised 06/02/2025 JWF



Retain & Adjust Manhole
with Frame and Lid
at the following location:
48+09.2-39.2' R (Raise 0.13')



Parcel A39
47+24.56 to 48+29.90 L
Temporary Easement containing
561 sq ft, more or less

Parcel A42
49+09.46 to 50+84.90 L
Temporary Easement containing
1433 sq ft, more or less

Parcel A43
50+84.87 to 51+35.05 L
Temporary Easement containing
542 sq ft, more or less

Parcel A44
51+34.98 to 52+10.36 L
Temporary Easement containing
982 sq ft, more or less

Parcel A41
46+59.54 to 47+59.86 R
Temporary Easement containing
501 sq ft, more or less

Parcel A46
48+39.85 to 49+28.01 R
Temporary Easement containing
485 sq ft, more or less

Parcel A47
49+28.01 to 49+72.43 R
Temporary Easement containing
253 sq ft, more or less

Parcel A48
49+72.42 to 50+16.35 R
Temporary Easement containing
255 sq ft, more or less

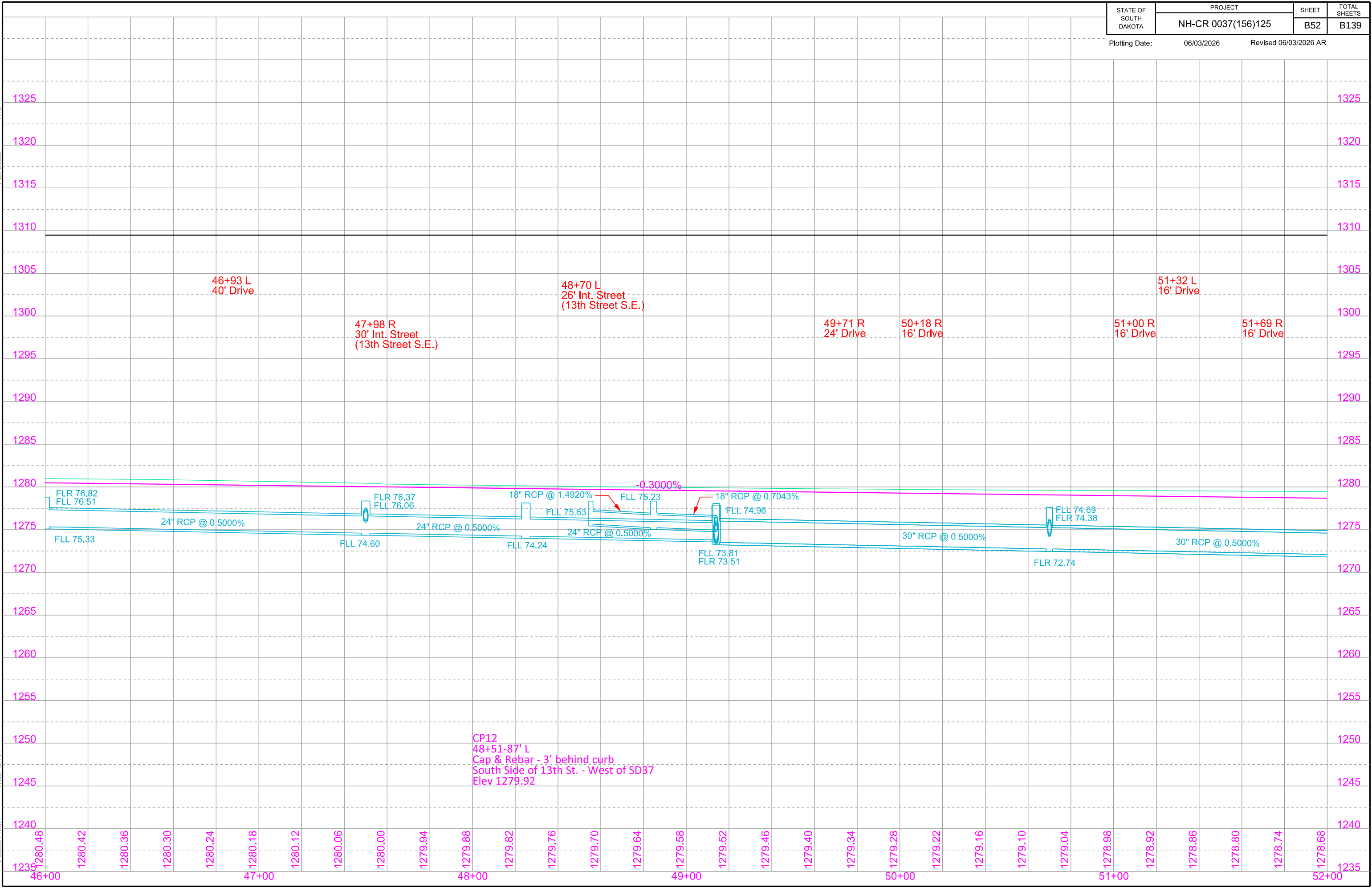
Parcel A49
50+16.32 to 50+60.63 R
Temporary Easement containing
262 sq ft, more or less

Parcel A51
51+04.98 to 51+93.12 R
Temporary Easement containing
606 sq ft, more or less

Parcel A52
51+93.08 to 52+37.59 R
Temporary Easement containing
246 sq ft, more or less

PI 48+69.13
N 194029.93
E 2435614.32
Del 0°00'00" R

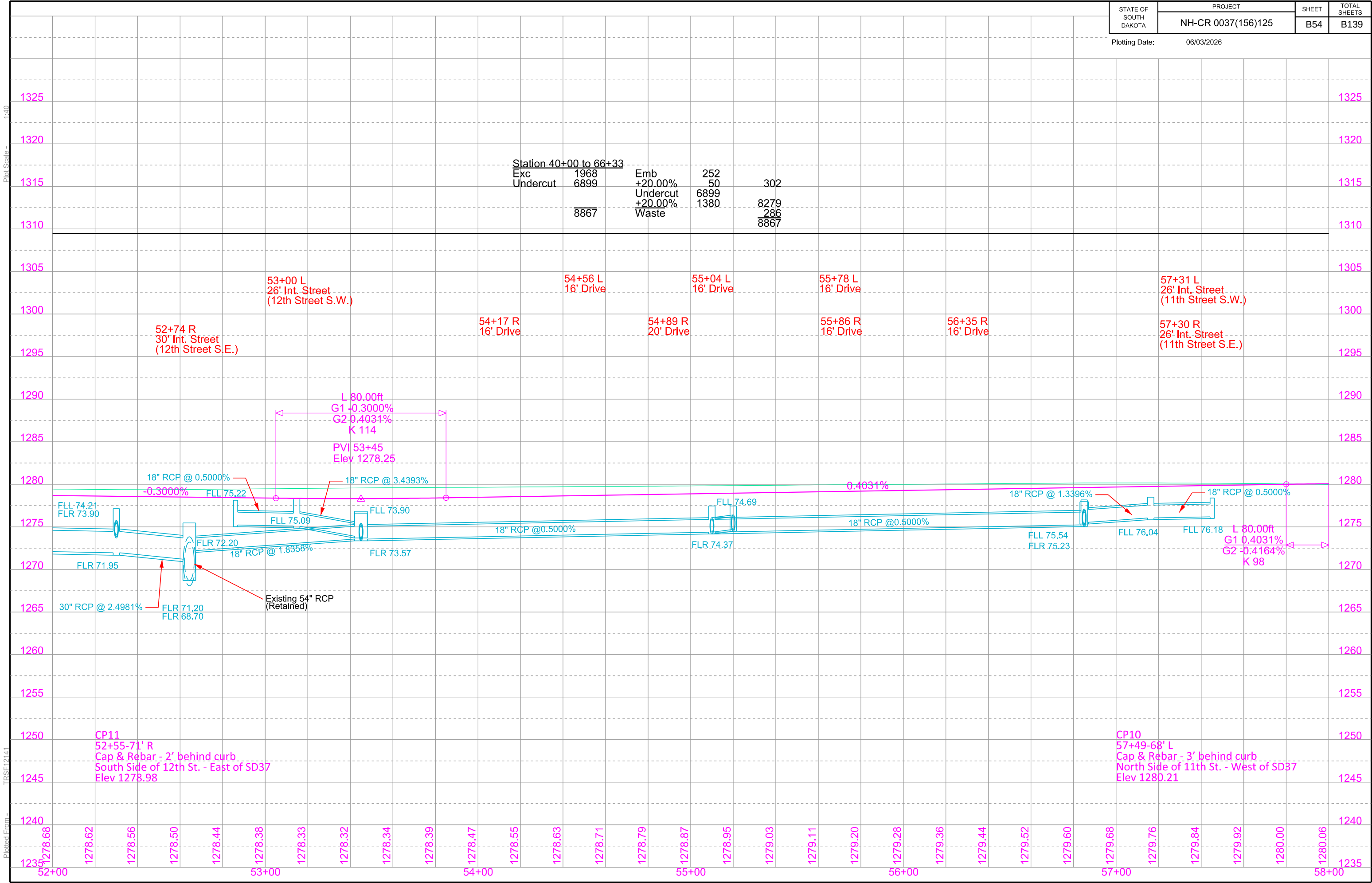
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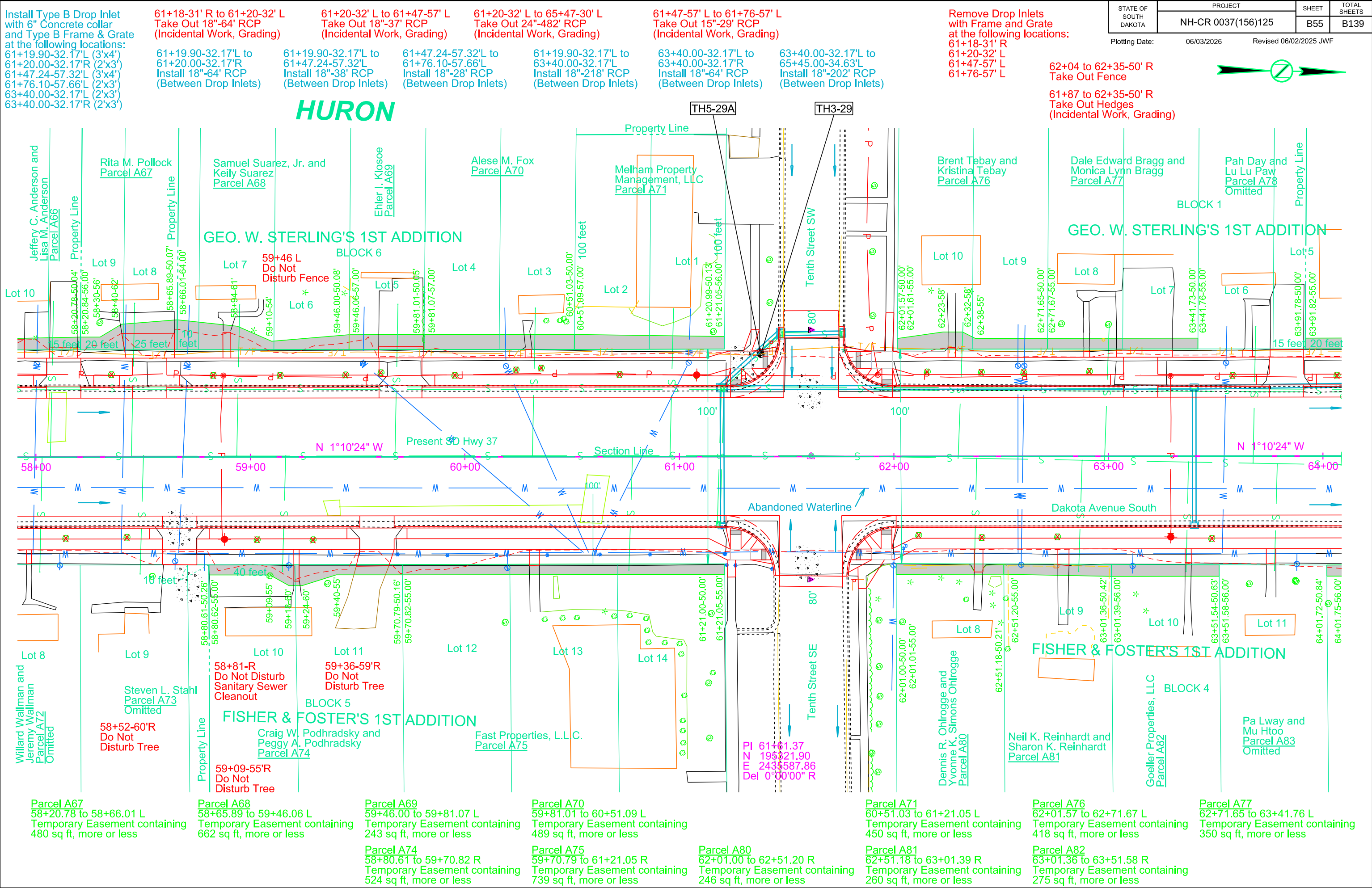
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B52	B139
Plotting Date:		06/03/2026 Revised 06/03/2026 AR	

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Plot Scale -
Plotted From -



Install Type B Drop Inlet
with 6" Concrete collar
and Type B Frame & Grate
at the following locations:
61+19.90-32.17'L (3'x4')
61+20.00-32.17'R (2'x3')
61+47.24-57.32'L (3'x4')
61+76.10-57.66'L (2'x3')
63+40.00-32.17'L (2'x3')
63+40.00-32.17'R (2'x3')

61+18-31' R to 61+20-32' L
Take Out 18"-64' RCP
(Incidental Work, Grading)
61+19.90-32.17'L to
61+20.00-32.17'R
Install 18"-64' RCP
(Between Drop Inlets)

61+20-32' L to 61+47-57' L
Take Out 18"-37' RCP
(Incidental Work, Grading)
61+19.90-32.17'L to
61+47.24-57.32'L
Install 18"-38' RCP
(Between Drop Inlets)

61+20-32' L to 65+47-30' L
Take Out 24"-482' RCP
(Incidental Work, Grading)
61+47.24-57.32'L to
61+76.10-57.66'L
Install 18"-28' RCP
(Between Drop Inlets)

61+47-57' L to 61+76-57' L
Take Out 15"-29' RCP
(Incidental Work, Grading)
61+19.90-32.17'L to
63+40.00-32.17'L
Install 18"-218' RCP
(Between Drop Inlets)

63+40.00-32.17'L to
63+40.00-32.17'R
Install 18"-64' RCP
(Between Drop Inlets)
63+40.00-32.17'L to
65+45.00-34.63'L
Install 18"-202' RCP
(Between Drop Inlets)

Remove Drop Inlets
with Frame and Grate
at the following locations:
61+18-31' R
61+20-32' L
61+47-57' L
61+76-57' L

62+04 to 62+35-50' R
Take Out Fence
61+87 to 62+35-50' R
Take Out Hedges
(Incidental Work, Grading)

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0037(156)125	SHEET B55	TOTAL SHEETS B139
Plotting Date: 06/03/2026		Revised 06/02/2025 JWF	



Parcel A67
58+20.78 to 58+66.01 L
Temporary Easement containing
480 sq ft, more or less

Parcel A68
58+65.89 to 59+46.06 L
Temporary Easement containing
662 sq ft, more or less

Parcel A69
59+46.00 to 59+81.07 L
Temporary Easement containing
243 sq ft, more or less

Parcel A70
59+81.01 to 60+51.09 L
Temporary Easement containing
489 sq ft, more or less

Parcel A71
60+51.03 to 61+21.05 L
Temporary Easement containing
450 sq ft, more or less

Parcel A76
62+01.57 to 62+71.67 L
Temporary Easement containing
418 sq ft, more or less

Parcel A77
62+71.65 to 63+41.76 L
Temporary Easement containing
350 sq ft, more or less

Parcel A72
58+20.78 to 58+66.01 L
Temporary Easement containing
480 sq ft, more or less

Parcel A73
58+65.89 to 59+46.06 L
Temporary Easement containing
662 sq ft, more or less

Parcel A74
59+46.00 to 59+81.07 L
Temporary Easement containing
243 sq ft, more or less

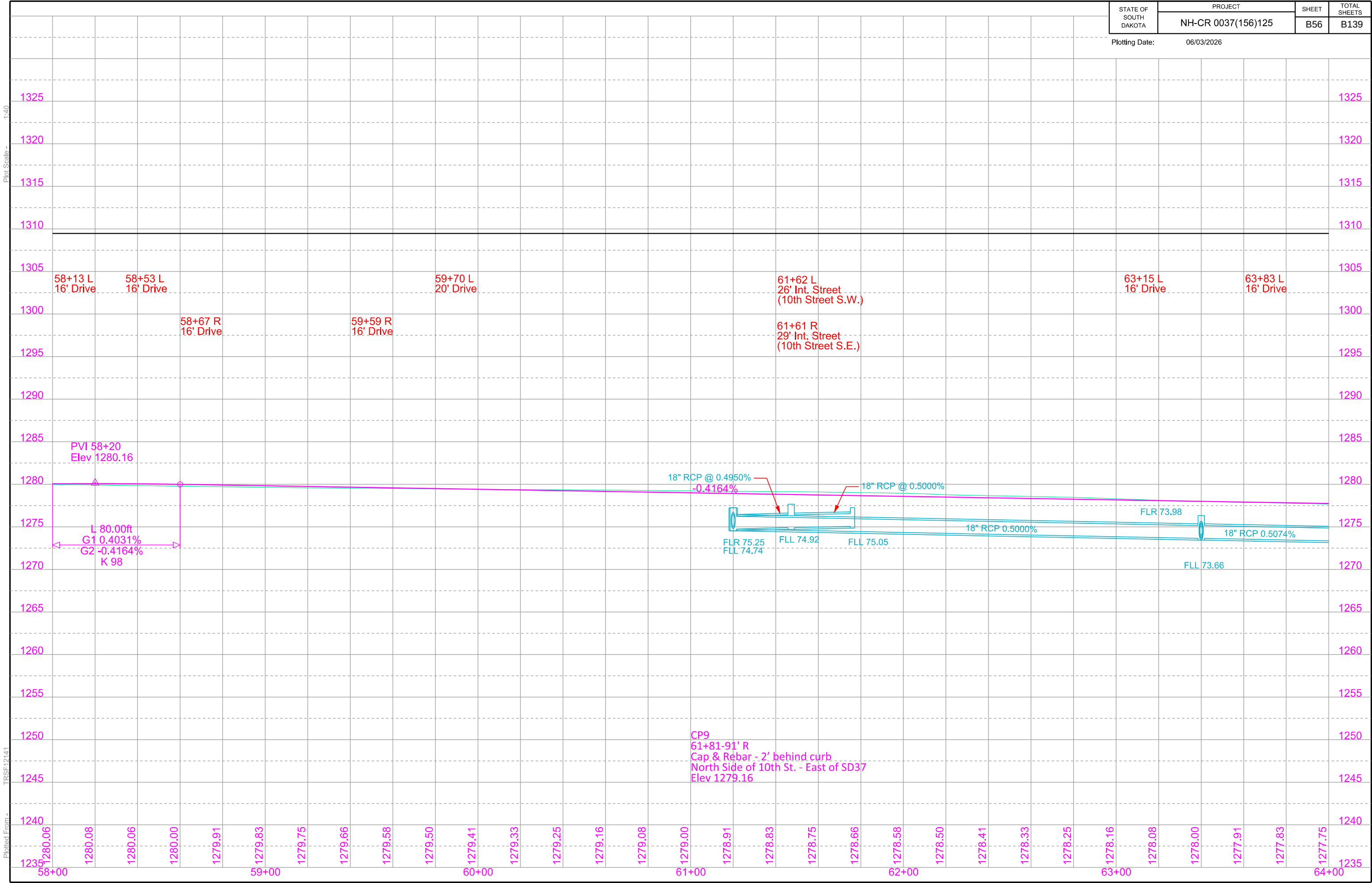
Parcel A75
59+81.01 to 60+51.09 L
Temporary Easement containing
489 sq ft, more or less

Parcel A80
62+01.00 to 62+51.20 R
Temporary Easement containing
246 sq ft, more or less

Parcel A81
62+51.18 to 63+01.39 R
Temporary Easement containing
260 sq ft, more or less

Parcel A82
63+01.36 to 63+51.58 R
Temporary Easement containing
275 sq ft, more or less

Parcel A83
63+51.54 to 64+01.75 R
Temporary Easement containing
275 sq ft, more or less

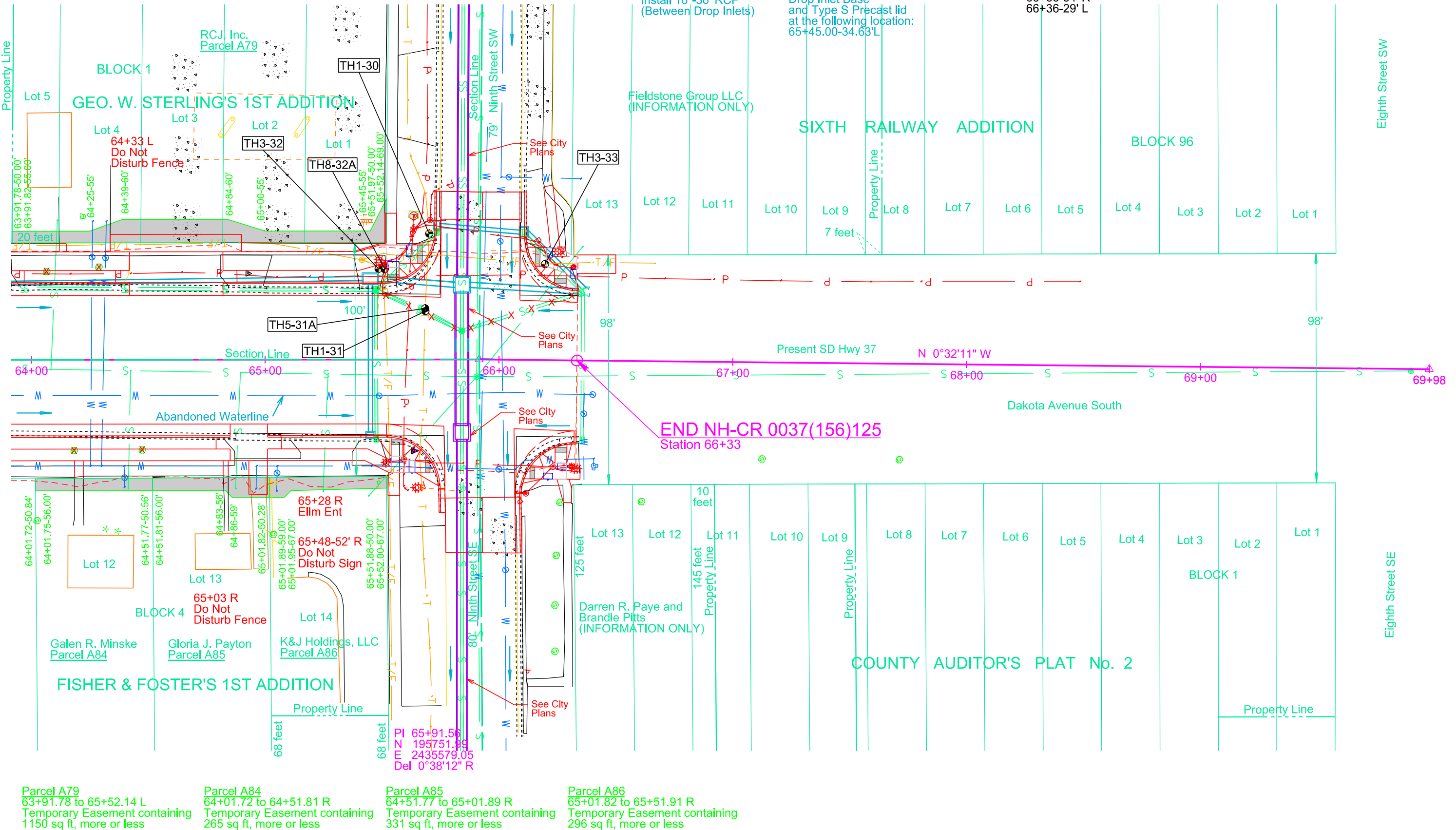


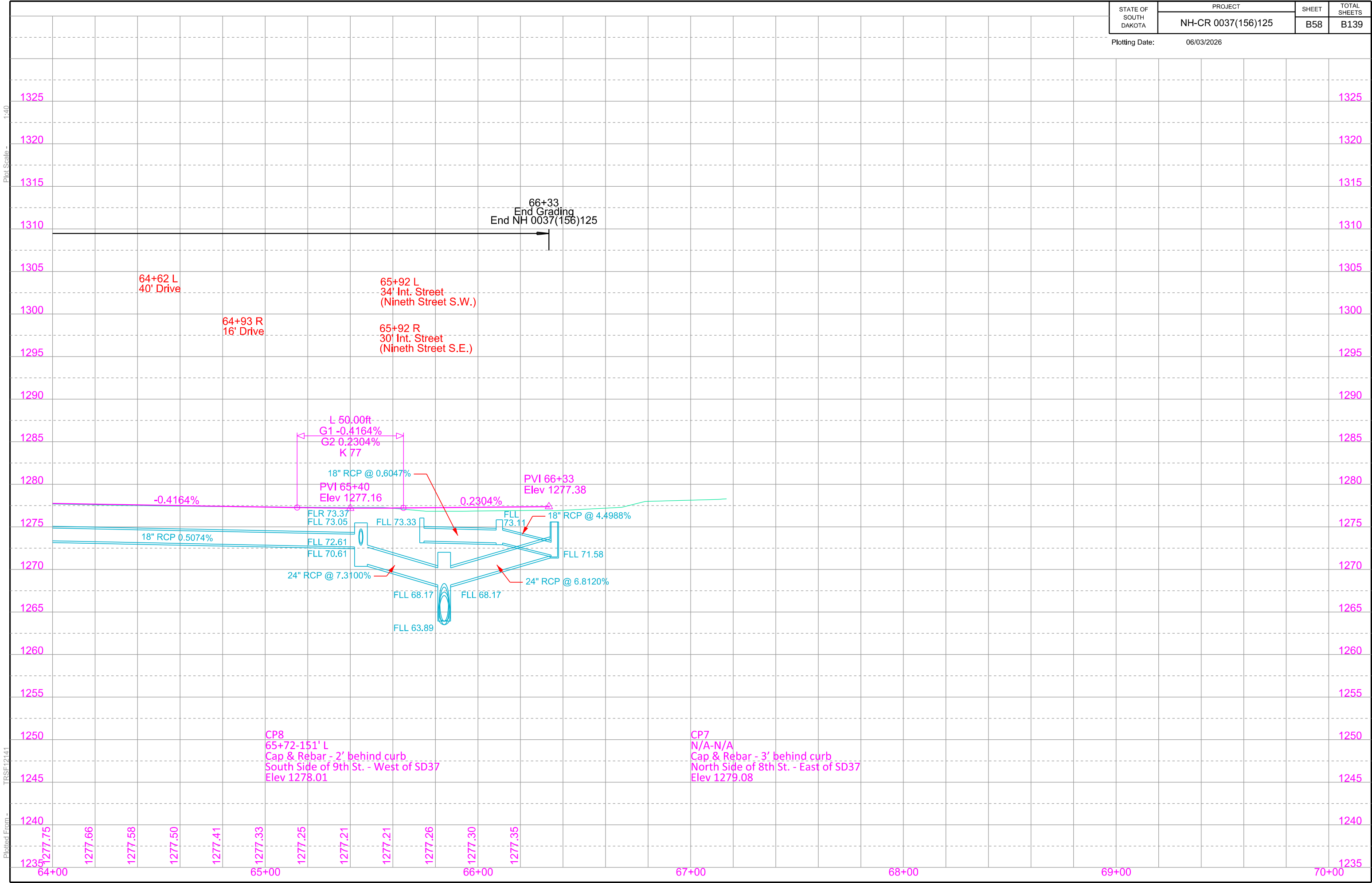
Remove Drop Inlets
with Frame and Grate
at the following locations:
65+47-34' R
65+47-31' L
65+74-55' L
66+10-54' L

Install 4'x6' Type S
Drop Inlet Base
and Type S Precast lid
at the following location:
65+45.00-34.63'L

Retain Drop Inlet
with Frame and Grate
at the following locations:
66+36-34' R
66+36-29' L

Remove Manhole
with Frame and Lid
at the following locations:
65+84-12' L

Plotting Date: 06/03/2026 Revised 06/02/2025 JWF



PAVEMENT REMOVAL LAYOUT

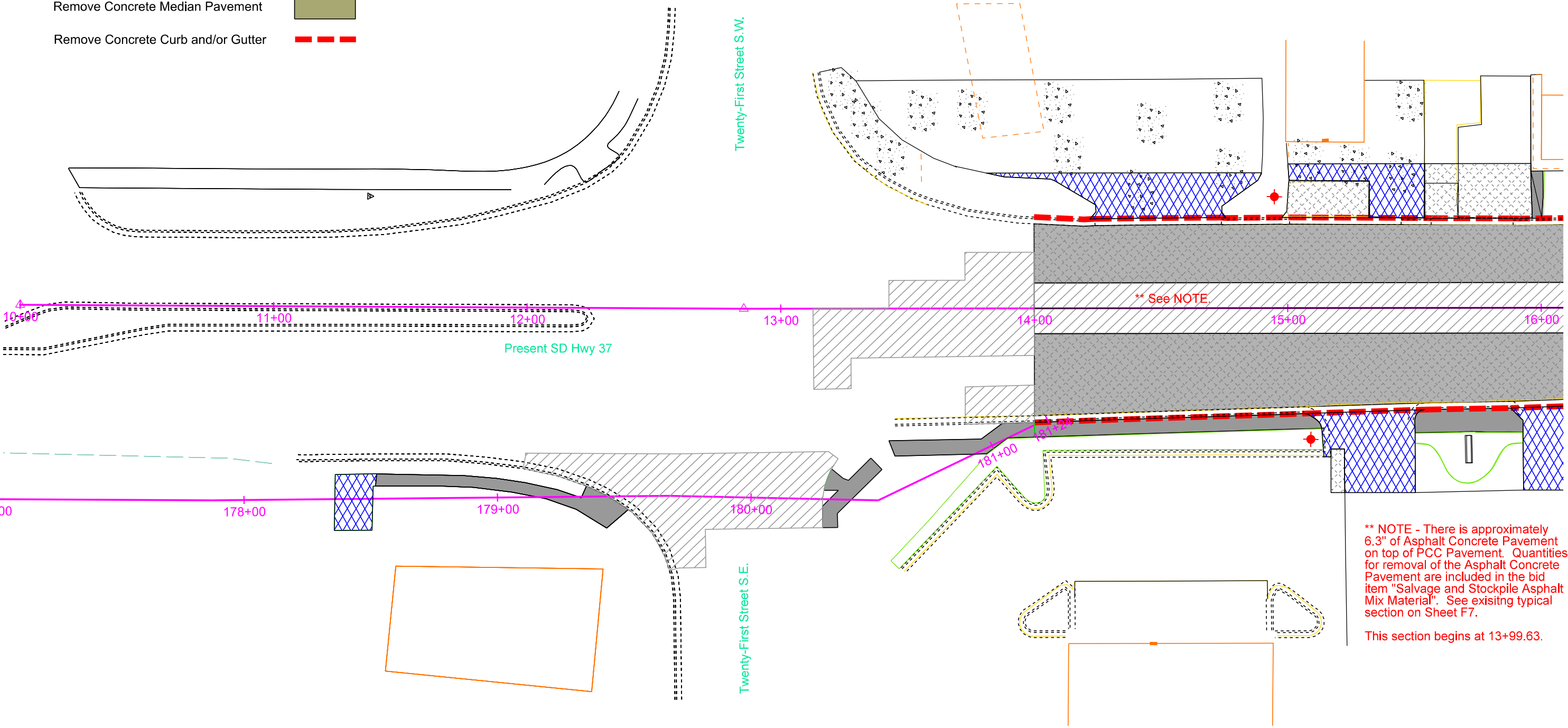
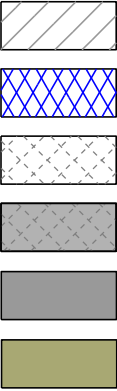
HURON

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B59	B139

Plotting Date: 06/03/2026



- Remove Concrete Pavement
- Remove Concrete Driveway Pavement
- Remove Asphalt Concrete Pavement
- Salvage Asphalt Concrete Pavement
- Remove Concrete Sidewalk
- Remove Concrete Median Pavement
- Remove Concrete Curb and/or Gutter



**** NOTE -** There is approximately 6.3" of Asphalt Concrete Pavement on top of PCC Pavement. Quantities for removal of the Asphalt Concrete Pavement are included in the bid item "Salvage and Stockpile Asphalt Mix Material". See existing typical section on Sheet F7.

This section begins at 13+99.63.

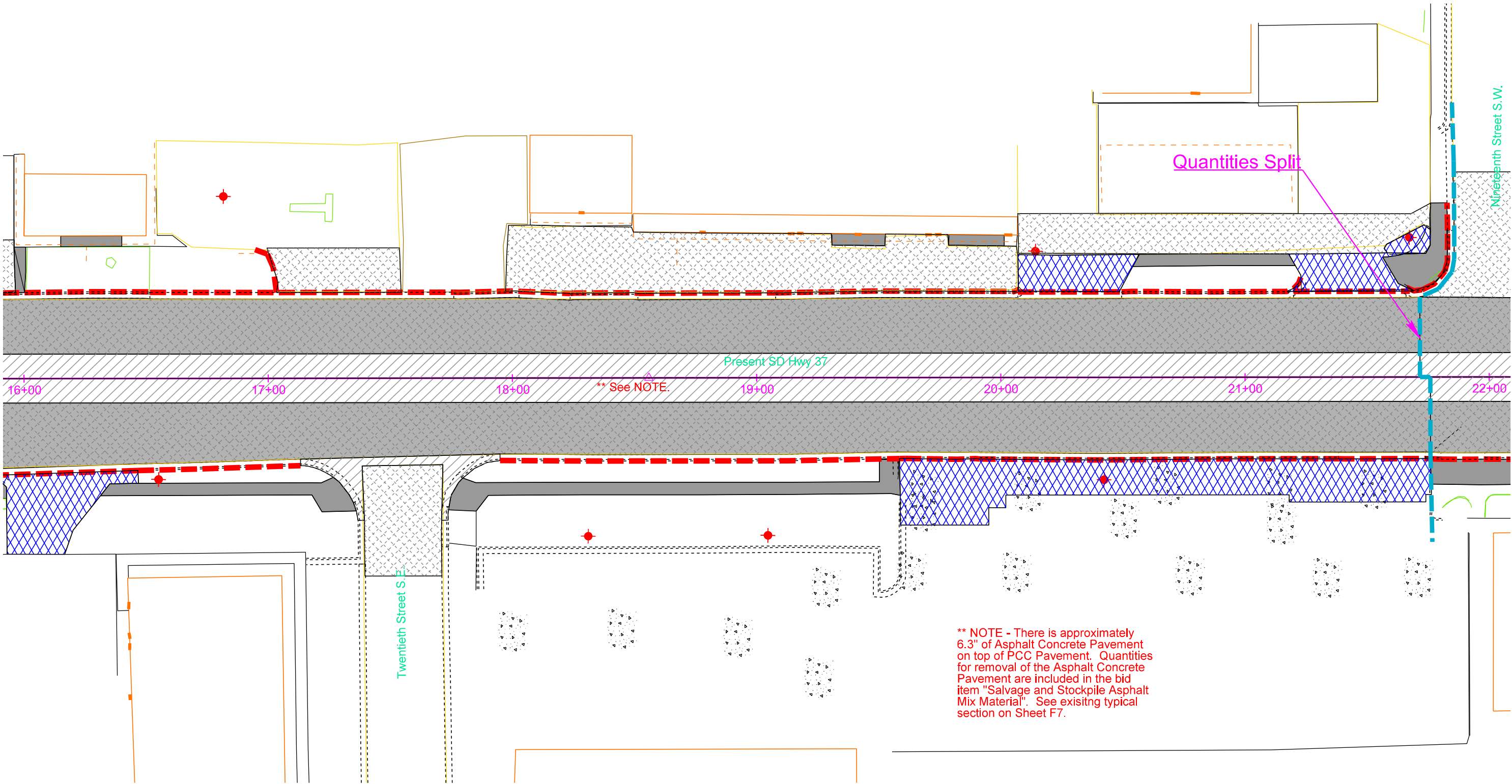
PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B60	B139

Plotting Date: 06/03/2026



HURON



Plot Scale - 1:40

Plotted From - TRSF12141

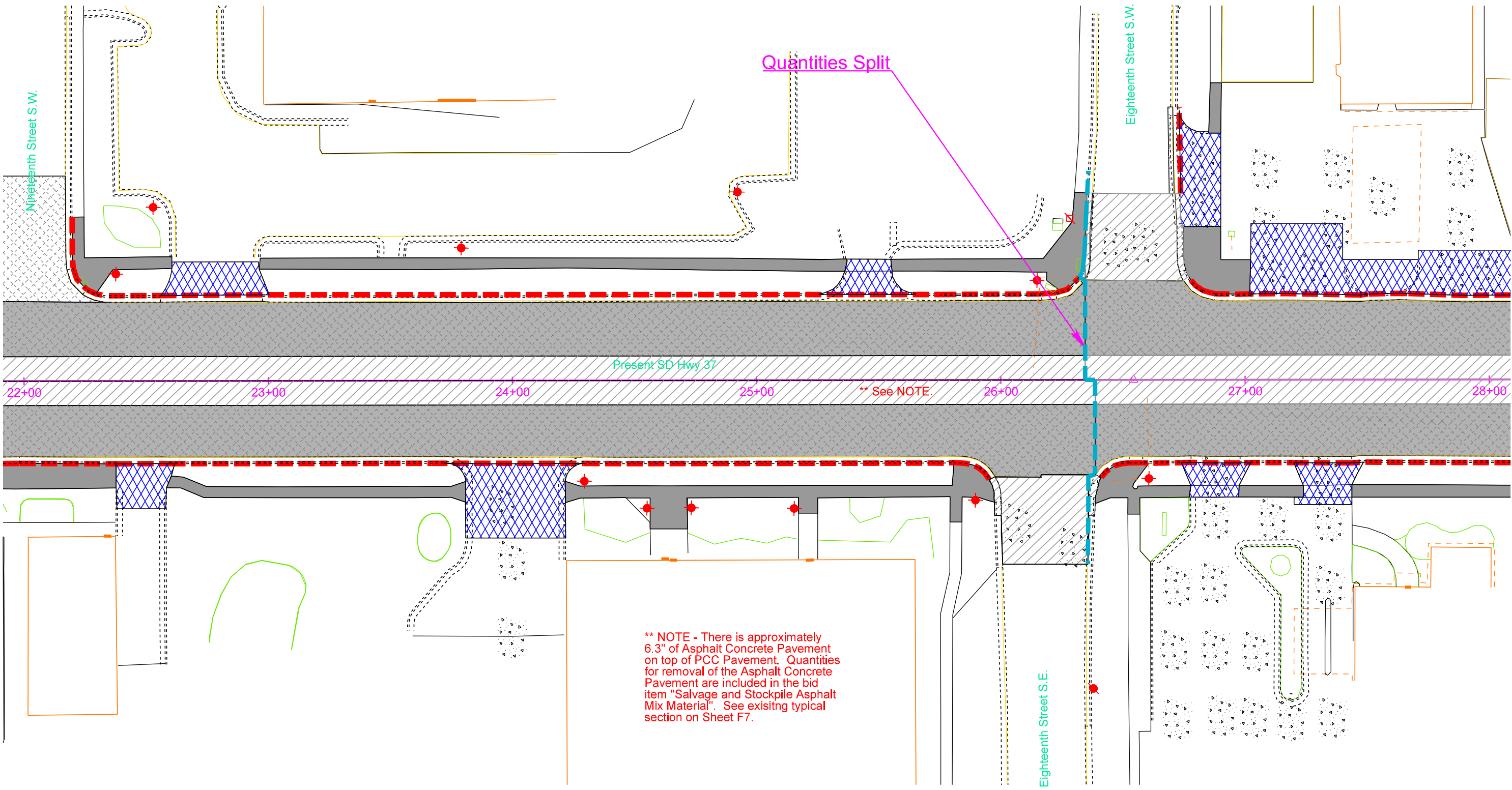
PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B61	B139

Plotting Date: 09/11/2026
Revised Date: 09/10/2026 MDJ



HURON



Plot Scale - 1"=40'

Plotted From - TRSF12140

PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B62	B139

Plotting Date: 06/03/2026



HURON

Quantities Split

Seventeenth Street S.W.

Present SD Hwy 37

** See NOTE.

Prospect Street

** NOTE - There is approximately 6.3" of Asphalt Concrete Pavement on top of PCC Pavement. Quantities for removal of the Asphalt Concrete Pavement are included in the bid item "Salvage and Stockpile Asphalt Mix Material". See existing typical section on Sheet F7.

Plot Scale - 1:40

Plotted From - TRSF12141

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PAVEMENT REMOVAL LAYOUT

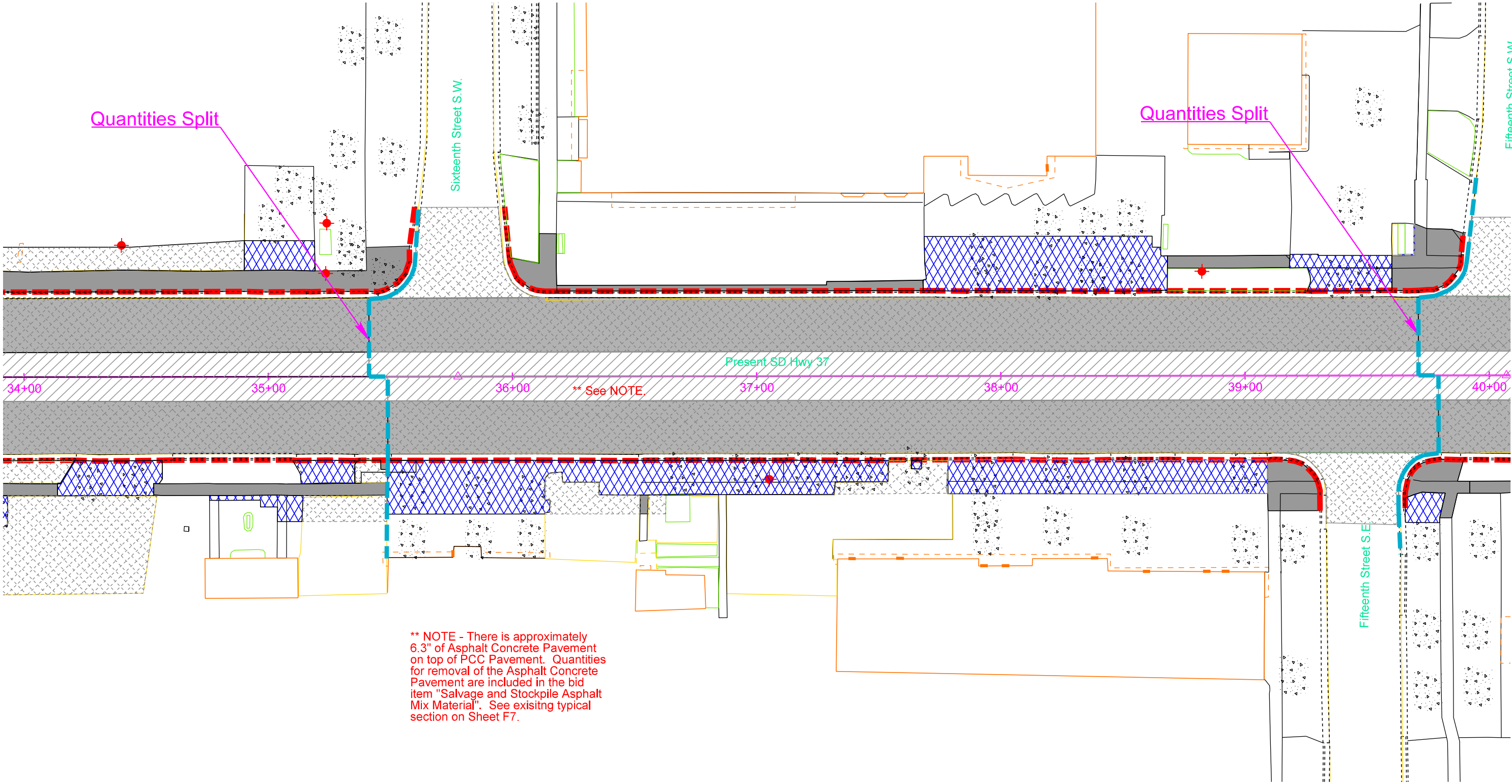
HURON

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B63	B139

Plotting Date: 06/03/2026



Plot Scale - 1:40



Plotted From - TRSF12141

PAVEMENT REMOVAL LAYOUT

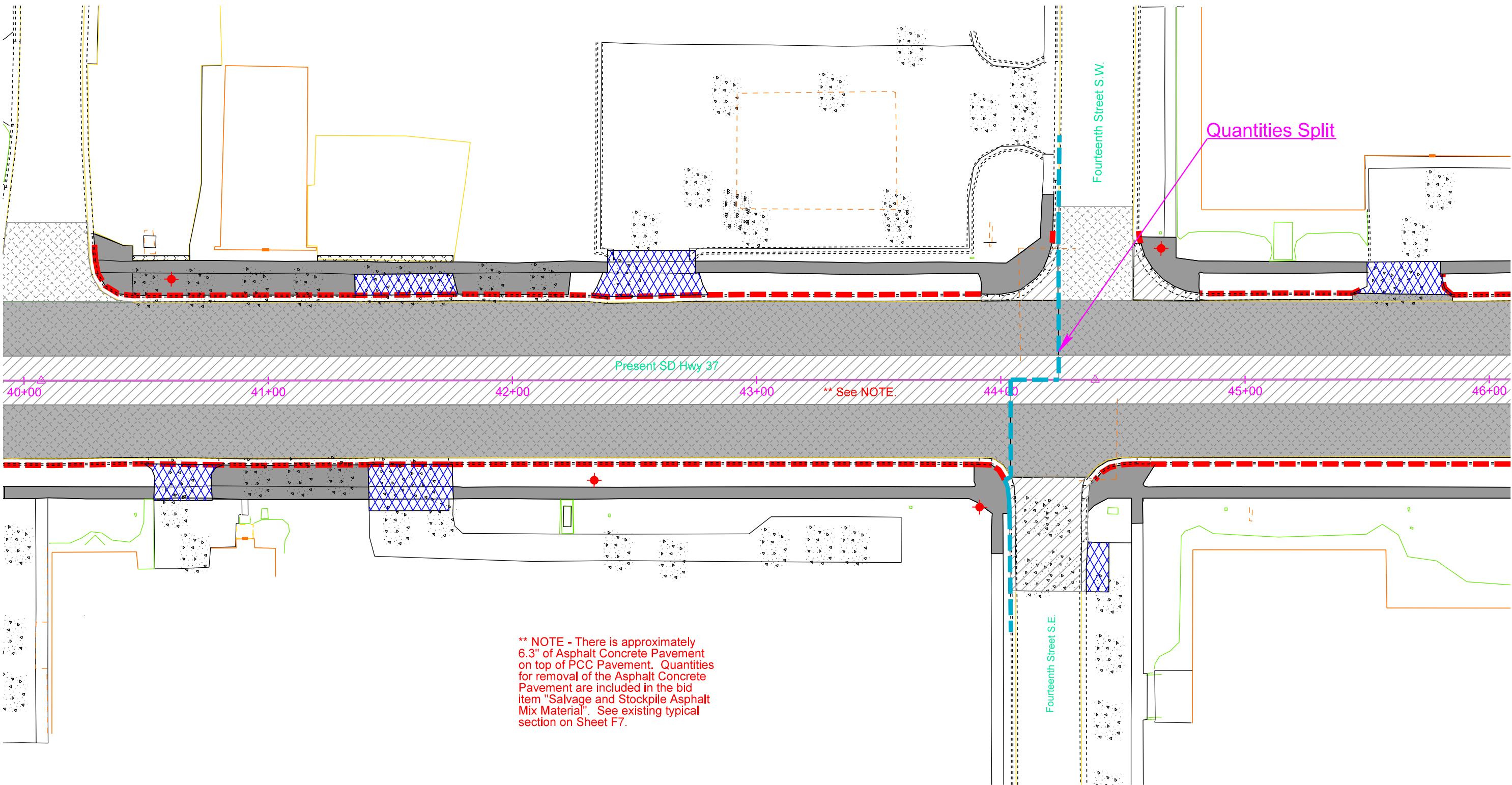
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B64	B139

Plotting Date: 06/03/2026



HURON

Plot Scale - 1"=40'



**** NOTE -** There is approximately 6.3" of Asphalt Concrete Pavement on top of PCC Pavement. Quantities for removal of the Asphalt Concrete Pavement are included in the bid item "Salvage and Stockpile Asphalt Mix Material". See existing typical section on Sheet F7.

Plotted From - TRSF12141

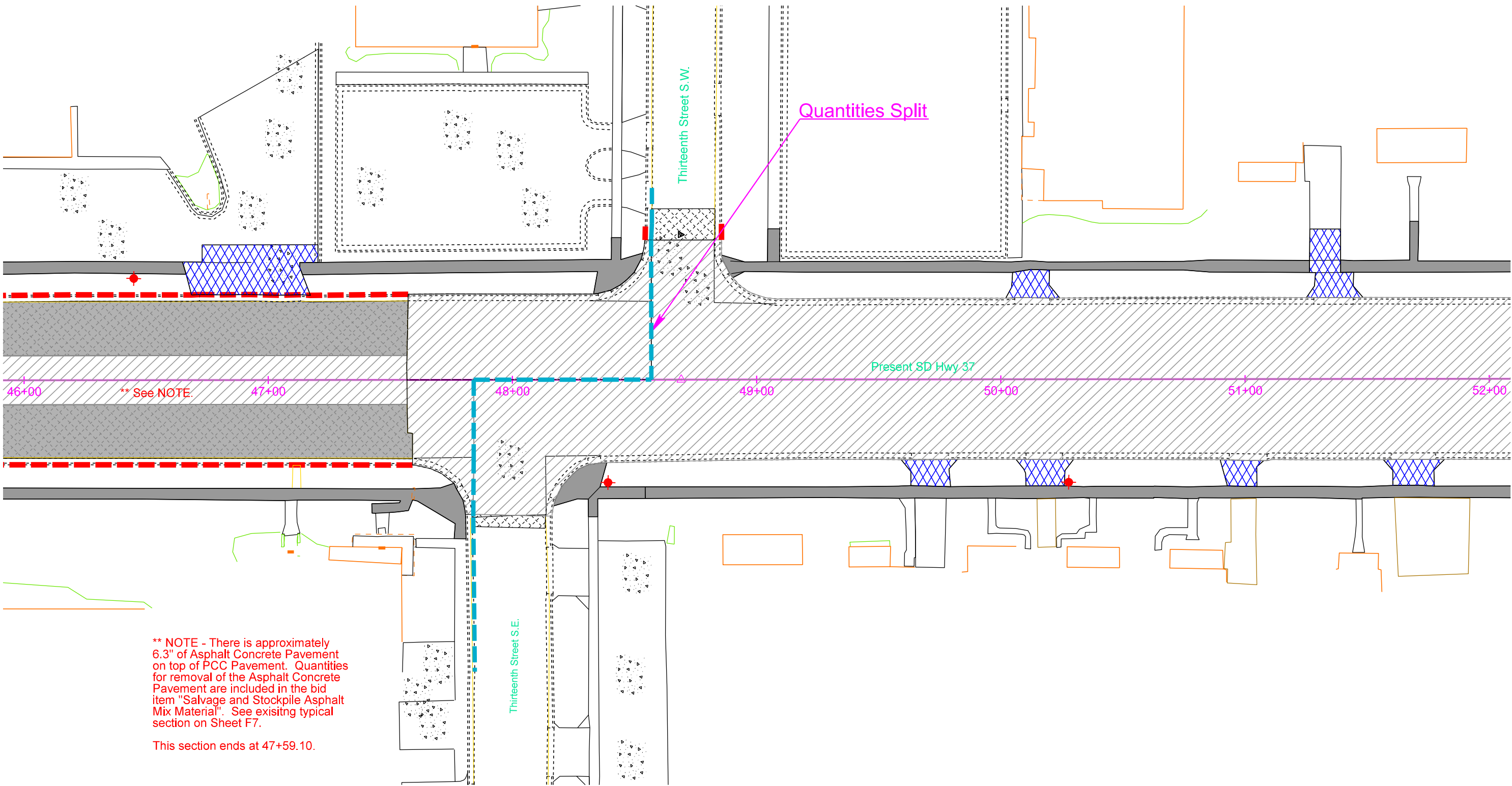
PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B65	B139

Plotting Date: 06/03/2026



HURON



**** NOTE -** There is approximately 6.3" of Asphalt Concrete Pavement on top of PCC Pavement. Quantities for removal of the Asphalt Concrete Pavement are included in the bid item "Salvage and Stockpile Asphalt Mix Material". See existing typical section on Sheet F7.

This section ends at 47+59.10.

Plot Scale - 1:40

Plotted From - TRSF12141

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PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B66	B139

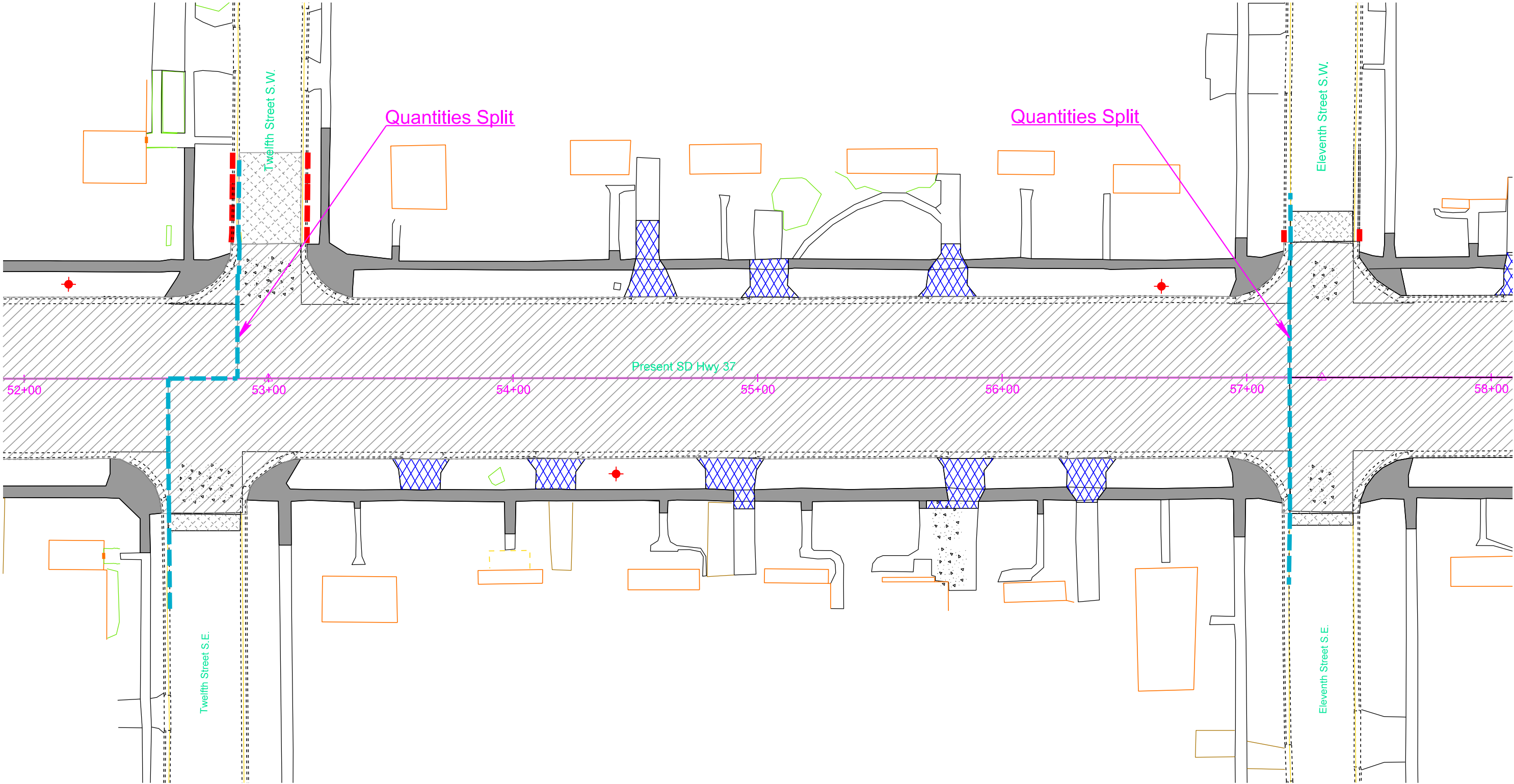
Plotting Date: 06/03/2026



HURON

Plot Scale - 1:40

Plotted From - TRSF12141



PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B67	B139

Plotting Date: 06/03/2026



HURON

Quantities Split

Tenth Street S.W.

Tenth Street S.E.

Present SD Hwy 37

58+00 59+00 60+00 61+00 62+00 63+00 64+00

Plot Scale - 1"=40'

Plotted From - TRSF12141

File - U:\tr01\jbead06\JA056pr.dgn

PAVEMENT REMOVAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B68	B139

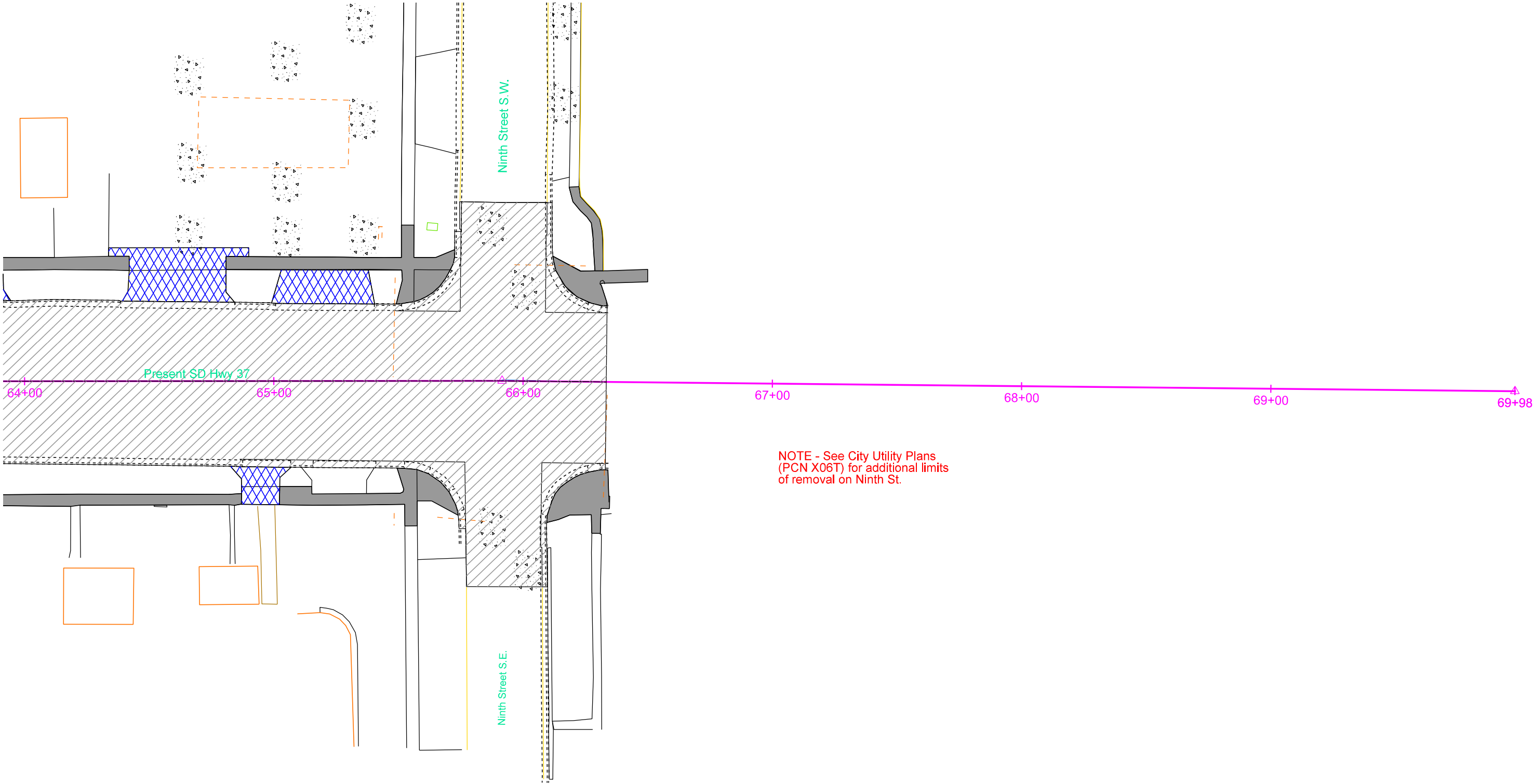
Plotting Date: 06/03/2026



HURON

Plot Scale - 1:40

Plotted From - TRSF12141



From 21st St. S. to 13th St. S.
All Approach pavement is 8" except as noted.

CURB AND GUTTER LAYOUT

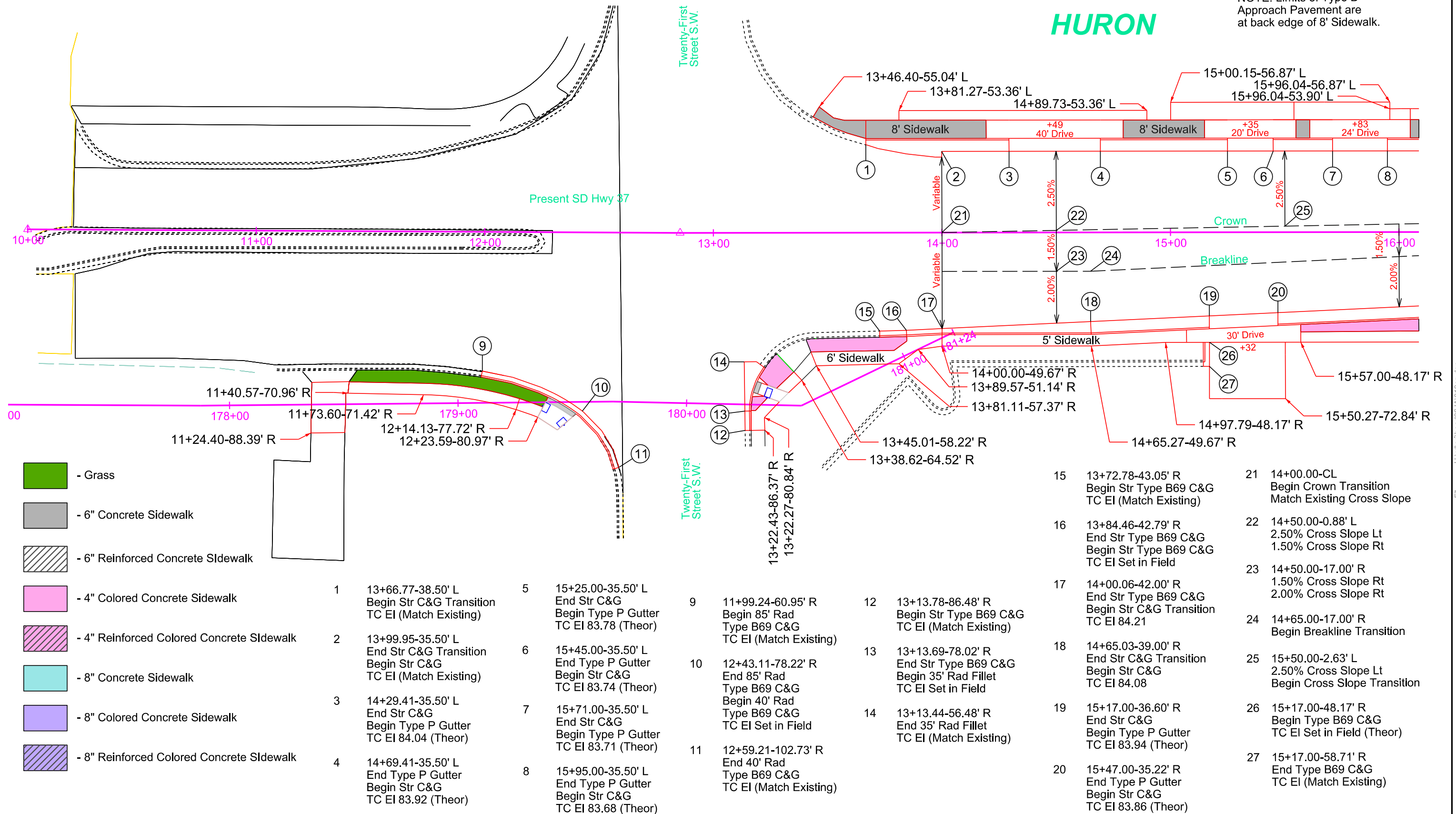
Note: All curb and gutter shown on this sheet is Modified Type B69 except as noted.
All Gutter is Modified Type P9 except as noted.
All Approach pavement is 8" except as noted.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B69	B139

Plotting Date: 06/03/2026



NOTE: Limits of Type B
Approach Pavement are
at back edge of 8' Sidewalk.



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B70	B139

NOTE:
Limits of Type B
Approach Pavement are
at back edge of 8' Sidewalk.

Plot Scale - 1:40



- File - U:\rd\prj\bead06JA\016cg.dgn

Plot Scale - 1:40

Plotted From - TRSF12140

CURB AND GUTTER LAYOUT

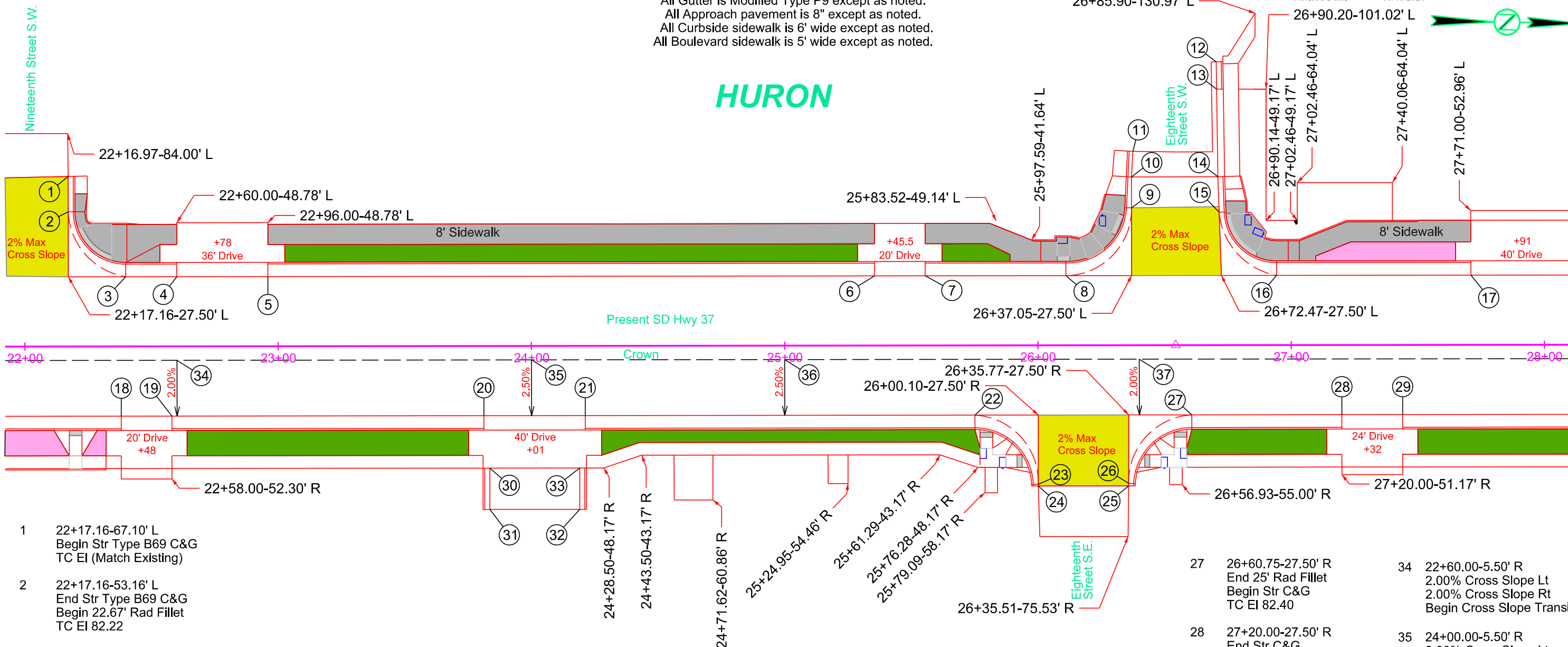
Note: All curb and gutter shown on this sheet is Modified Type B69 except as noted.
All Gutter is Modified Type P9 except as noted.
All Approach pavement is 8" except as noted.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B71	B139

Plotting Date: 09/11/2026
Revised Date: 09/10/2026
MDJ



HURON



1	22+17.16-67.10' L Begin Str Type B69 C&G TC EI (Match Existing)	2	22+17.16-53.16' L End Str Type B69 C&G Begin 22.67' Rad Fillet TC EI 82.22	3	22+39.83-27.50' L End 22.67' Rad Fillet Begin Str C&G TC EI 82.17	4	22+60.00-27.50' L End Str C&G Begin Type P Gutter TC EI 82.21 (Theor)	5	22+96.00-27.50' L End Type P Gutter Begin Str C&G TC EI 82.29 (Theor)	6	25+35.50-27.50' L End Str C&G Begin Type P Gutter TC EI 82.49 (Theor)	7	25+55.50-27.50' L End Type P Gutter Begin Str C&G TC EI 82.44 (Theor)	8	26+11.08-27.50' L End Str C&G Begin 25' Rad Fillet TC EI 82.30	9	26+37.05-54.18' L End 25' Rad Fillet Begin Str Type B69 C&G TPave EI 81.77	10	26+37.05-66.40' L End Str Type B69 C&G Begin Str Type B69 C&G TC EI 82.13	11	26+37.59-76.50' L End Str Type B69 C&G TC EI (Match Existing)	12	26+70.51-111.78' L Begin Str Type B69 C&G TC EI (Match Existing)	13	26+70.66-101.00' L End Str Type B69 C&G Begin Type P9 Gutter TC EI 82.02 (Theor)	14	26+71.17-66.43' L End Type P9 Gutter Begin Str Type B69 C&G TC EI 82.23 (Theor)	15	26+71.63-52.41' L End Str Type B69 C&G Begin 22.67' Rad Fillet TPave EI 81.94	16	26+94.29-27.50' L End 22.67' Rad Fillet Begin Str C&G TC EI 82.09	17	27+71.00-27.50' L End Str C&G Begin Type P Gutter TC EI 81.90 (Theor)	18	22+38.00-27.50' R End Str C&G Begin Type P Gutter TC EI 82.38 (Theor)	19	22+58.00-27.50' R End Type P Gutter Begin Str C&G TC EI 82.43 (Theor)	20	23+81.22-27.50' R End Str C&G Begin Type P Gutter TC EI 82.59 (Theor)	21	24+21.22-27.50' R End Type P Gutter Begin Str C&G TC EI 82.66 (Theor)	22	25+75.11-27.50' R End Str C&G Begin 25' Rad Fillet TC EI 82.69	23	26+00.10-54.82' R End 25' Rad Fillet Begin Str Type B69 C&G TC EI 82.27	24	26+00.10-55.50' R End Str Type B69 C&G TC EI (Match Existing)	25	26+35.77-55.50' R Begin Str Type B69 C&G TC EI (Match Existing)	26	26+35.77-54.52' R End Str Type B69 C&G Begin 25' Rad Fillet TC EI 82.28	27	26+60.75-27.50' R End 25' Rad Fillet Begin Str C&G TC EI 82.40	28	27+20.00-27.50' R End Str C&G Begin Type P Gutter TC EI 82.25 (Theor)	29	27+44.00-27.50' R End Type P Gutter Begin Str C&G TC EI 82.19 (Theor)	30	23+83.50-48.17' R Begin Str Type B69 C&G TC EI Set in Field	31	23+83.50-64.50' R End Str Type B69 C&G TC EI (Match Existing)	32	24+19.02-64.50' R Begin Str Type B69 C&G TC EI (Match Existing)	33	24+19.02-48.17' R End Str Type B69 C&G TC EI Set in Field	34	22+60.00-5.50' R 2.00% Cross Slope Lt 2.00% Cross Slope Rt Begin Cross Slope Transition	35	24+00.00-5.50' R 2.00% Cross Slope Lt 2.50% Cross Slope Rt End Cross Slope Transition	36	25+00.00-5.50' R 2.00% Cross Slope Lt 2.50% Cross Slope Rt Begin Cross Slope Transition	37	26+40.00-5.50' R 2.00% Cross Slope Lt 2.00% Cross Slope Rt End Cross Slope Transition
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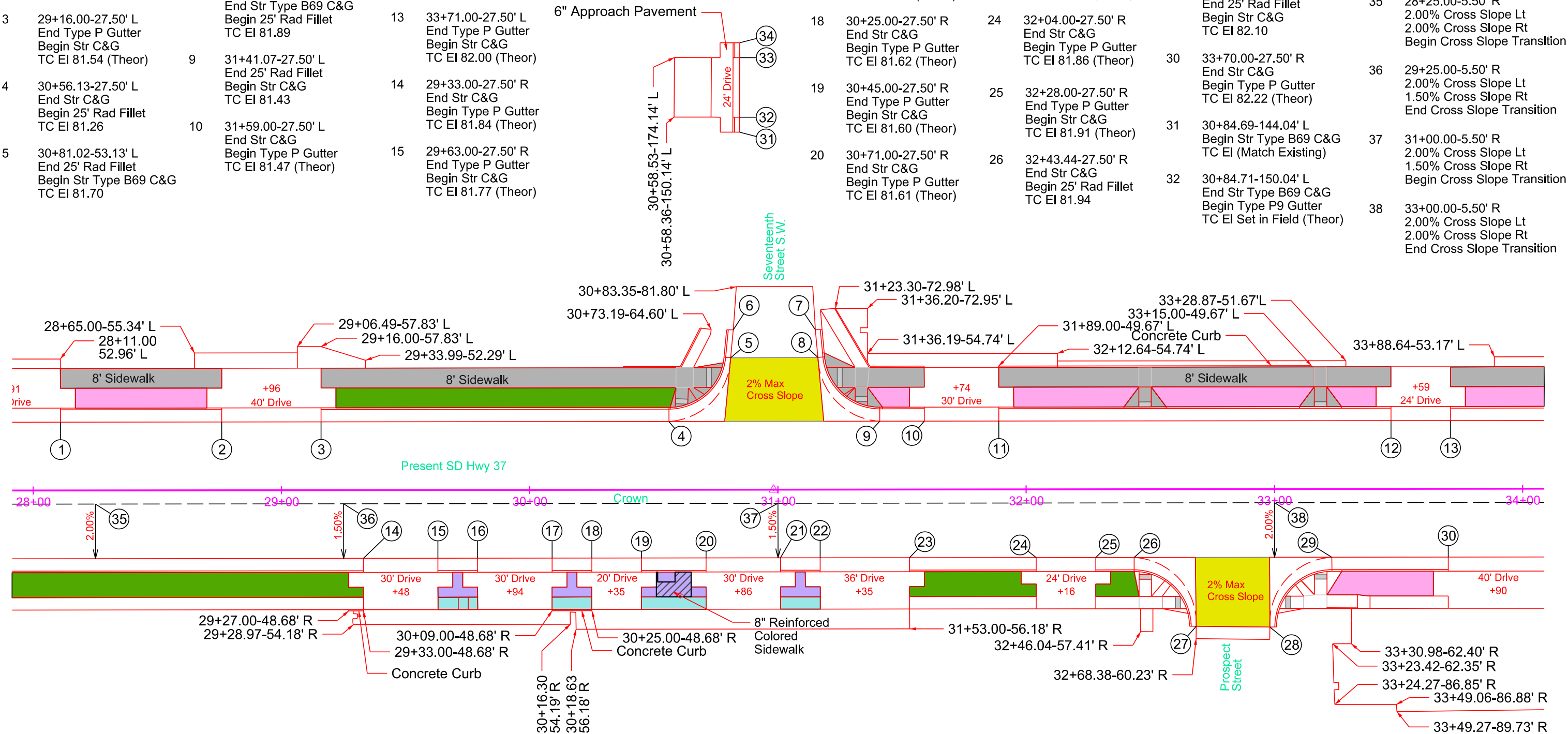
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Plot Scale - 1:40

Plotted From - TRSF12141

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B72	B139

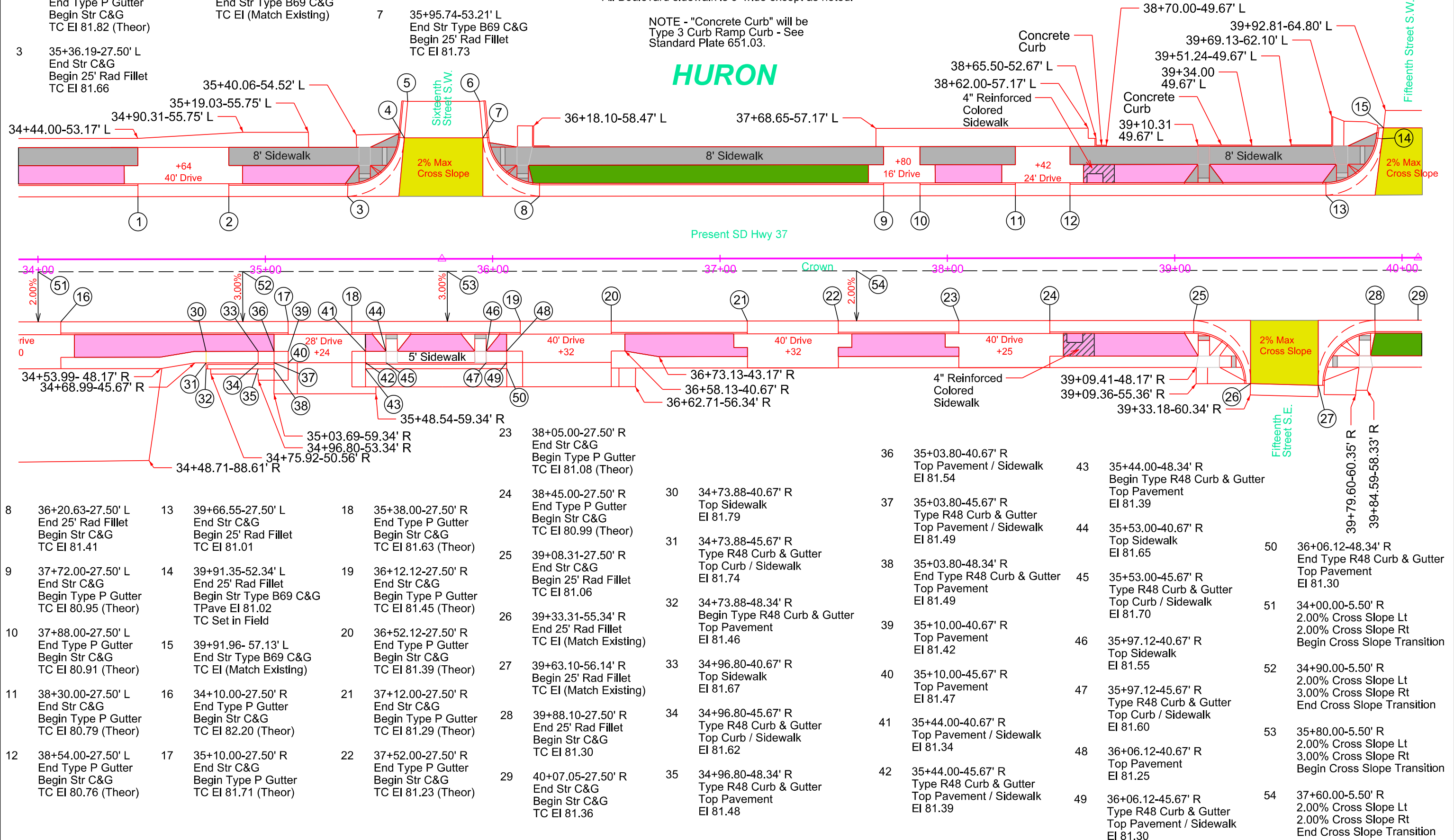
33	30+84.80-174.04' L End Type P9 Gutter Begin Str Type B69 C&G TC EI Set in Field (Theor)
34	30+84.82-180.04' L End Str Type B69 C&G TC EI (Match Existing)
35	28+25.00-5.50' R 2.00% Cross Slope Lt 2.00% Cross Slope Rt Begin Cross Slope Transition
36	29+25.00-5.50' R 2.00% Cross Slope Lt 1.50% Cross Slope Rt End Cross Slope Transition
37	31+00.00-5.50' R 2.00% Cross Slope Lt 1.50% Cross Slope Rt Begin Cross Slope Transition
38	33+00.00-5.50' R 2.00% Cross Slope Lt 2.00% Cross Slope Rt End Cross Slope Transition



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B73	B139

Plotting Date: 06/03/2026

NOTE - "Concrete Curb" will be
Type 3 Curb Ramp Curb - See
Standard Plate 651.03.



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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B74	B139

Plotting Date: 06/03/2026



TRSF12141

Plotted From -

File - U:\rd\prj\bead06JA\040cg.dgn

Plot Scale - 1"=40'

Plotted From - TRSF12141

CURB AND GUTTER LAYOUT

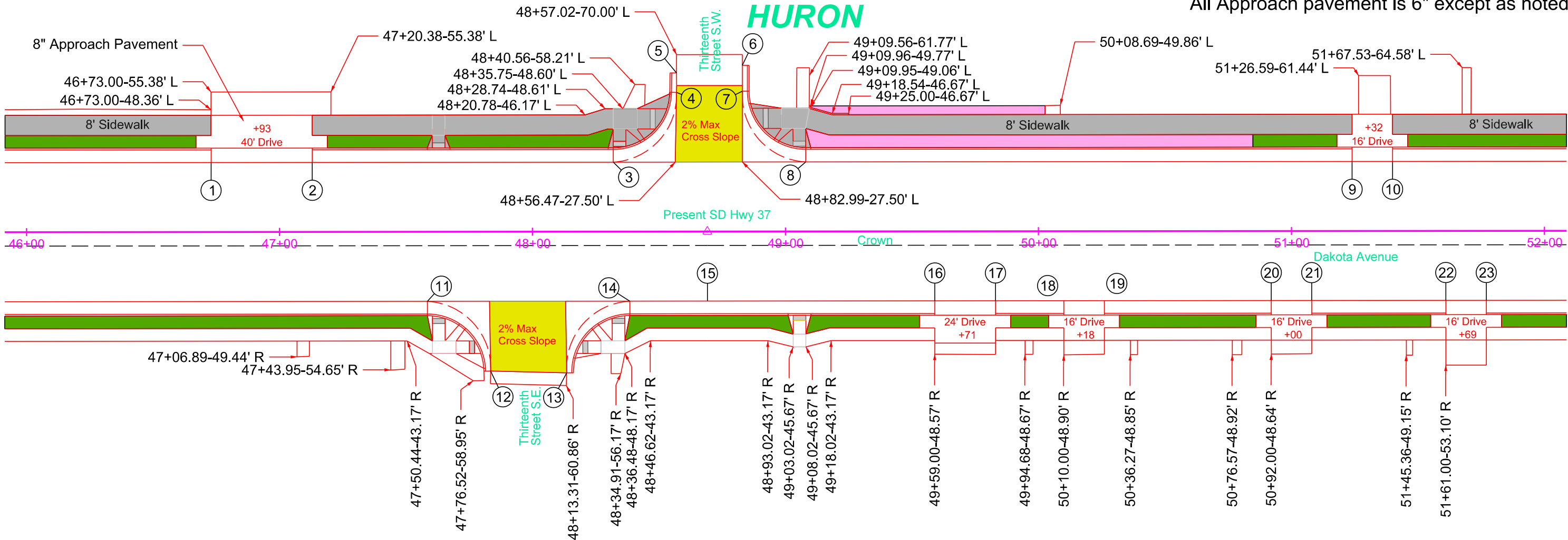
Note: All curb and gutter shown on this sheet is Modified Type B69 except as noted.
All Gutter is Modified Type P9 except as noted.
All Approach pavement is 6" except as noted.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B75	B139

Plotting Date: 06/03/2026



From 13th St. S. to 9th St. S.
All Approach pavement is 6" except as noted.



1	46+73.00-27.50' L End Str C&G Begin Type P Gutter TC EI 80.05 (Theor)	6	48+83.02-65.75' L Begin Str Type B69 C&G TC EI (Match Existing)	11	47+58.45-27.50' R End Str C&G Begin 25' Rad Fillet TC EI 80.01	16	49+59.00-27.50' R End Str C&G Begin Type P Gutter TC EI 79.42 (Theor)	21	51+08.00-27.50' R End Type P Gutter Begin Str C&G TC EI 78.97 (Theor)
2	47+13.00-27.50' L End Type P Gutter Begin Str C&G TC EI 79.93 (Theor)	7	48+83.02-55.53' L End Str Type B69 C&G Begin 25' Rad Fillet TC EI 79.89	12	47+83.44-55.10' R End 25' Rad Fillet TC EI (Match Existing)	17	49+83.00-27.50' R End Type P Gutter Begin Str C&G TC EI 79.34 (Theor)	22	51+61.00-27.50' R End Str C&G Begin Type P Gutter TC EI 78.81 (Theor)
3	48+31.98-27.50' L End Str C&G Begin 25' Rad Fillet TC EI 79.57	8	49+08.02-27.50' L End 25' Rad Fillet Begin Str C&G TC EI 79.34	13	48+13.48-55.87' R Begin 25' Rad Fillet TC EI (Match Existing)	18	50+10.00-27.50' R End Str C&G Begin Type P Gutter TC EI 79.26 (Theor)	23	51+77.00-27.50' R End Type P Gutter Begin Str C&G TC EI 78.76 (Theor)
4	48+56.98-55.04' L End 25' Rad Fillet Begin Str Type B69 C&G TC EI 79.79	9	51+24.00-27.50' L End Str C&G Begin Type P Gutter TC EI 78.70 (Theor)	14	48+38.48-27.50' R End 25' Rad Fillet Begin Str C&G TC EI 79.77	19	50+26.00-27.50' R End Type P Gutter Begin Str C&G TC EI 79.22 (Theor)		
5	48+57.03-62.74' L End Str Type B69 C&G TC EI (Match Existing)	10	51+40.00-27.50' L End Type P Gutter Begin Str C&G TC EI 78.65 (Theor)	15	48+69.13-27.50' R End Str C&G Begin Str C&G TC EI 79.69	20	50+92.00-27.50' R End Str C&G Begin Type P Gutter TC EI 79.02 (Theor)		

Plot Scale - 1"=40'

Plotted From - TRSF12141

Plot Date - 06/03/2026

CURB AND GUTTER LAYOUT

Note: All curb and gutter shown on this sheet is Modified Type B69 except as noted.

All Gutter is Modified Type P9 except as noted.

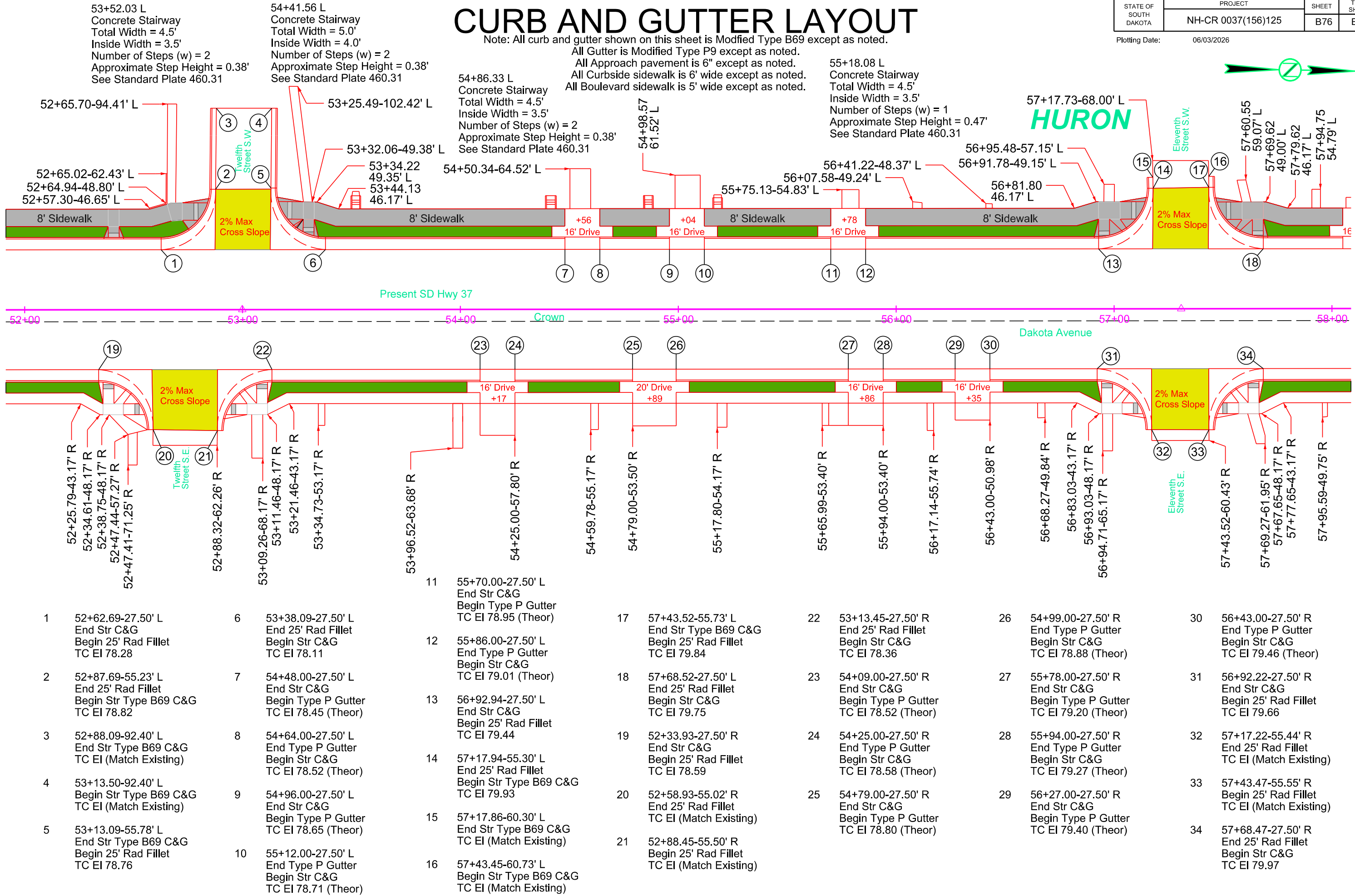
All Approach pavement is 6" except as noted.

All Curbside sidewalk is 6' wide except as noted.

All Boulevard sidewalk is 5' wide except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B76	B139

Plotting Date: 06/03/2026



Plot Scale - 1"=40'

Plotted From - TRSF12141

CURB AND GUTTER LAYOUT

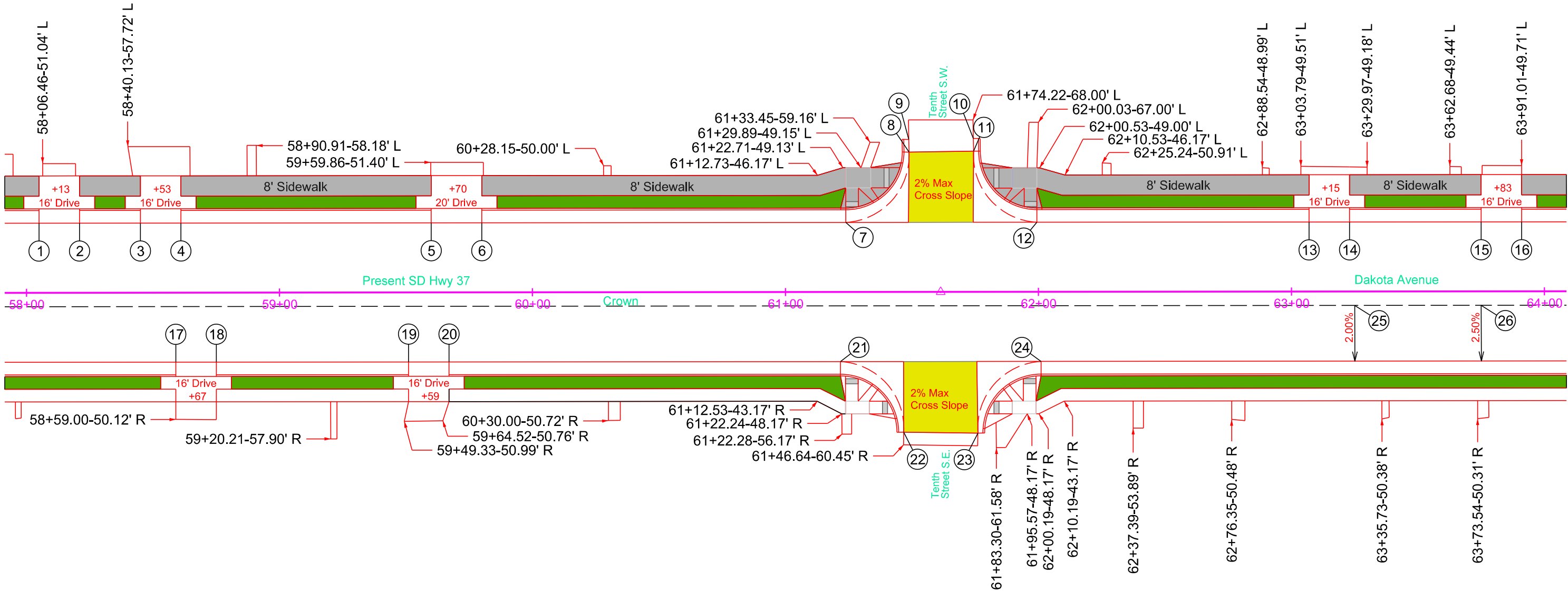
Note: All curb and gutter shown on this sheet is Modified Type B69 except as noted.
All Gutter is Modified Type P9 except as noted.
All Approach pavement is 6" except as noted.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B77	B139

Plotting Date: 06/03/2026



HURON



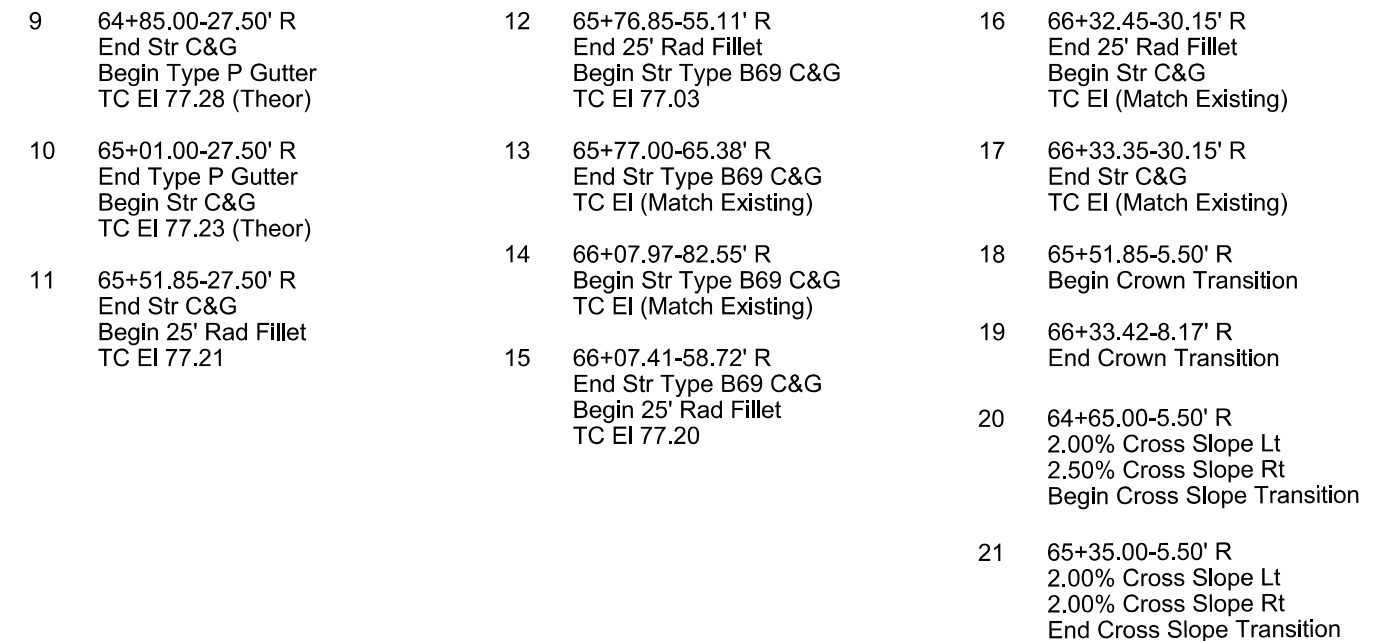
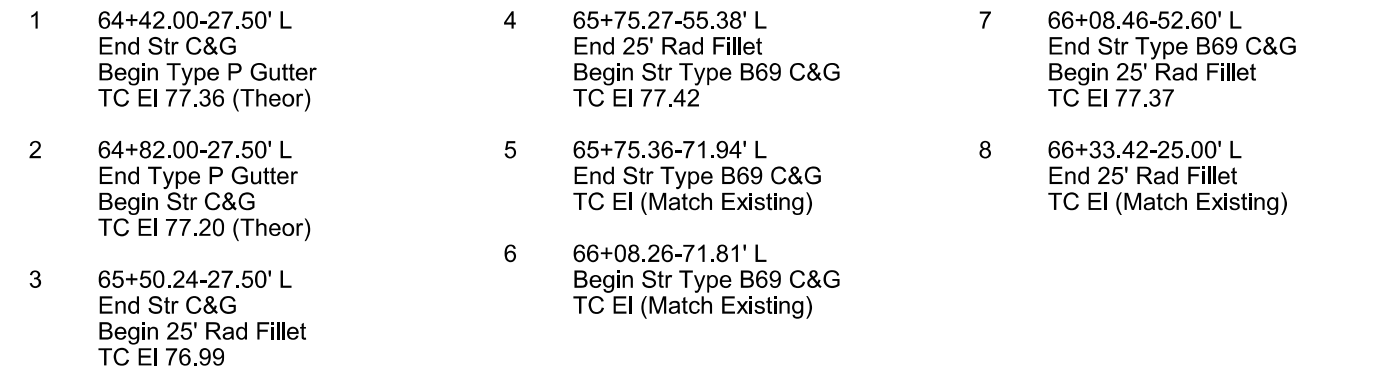
1	58+05.00-27.50' L End Str C&G Begin Type P Gutter TC EI 79.86 (Theor)	5	59+60.00-27.50' L End Str C&G Begin Type P Gutter TC EI 79.37 (Theor)	9	61+48.83-60.31' L End Str Type B69 C&G TC EI (Match Existing)	13	63+07.00-27.50' L End Str C&G Begin Type P Gutter TC EI 77.92 (Theor)	17	58+59.00-27.50' R End Str C&G Begin Type P Gutter TC EI 80.01 (Theor)	21	61+21.71-27.50' R End Str C&G Begin 25' Rad Fillet TC EI 78.91	25	63+25.00-5.50' R 2.00% Cross Slope Lt 2.00% Cross Slope Rt Begin Cross Slope Transition
2	58+21.00-27.50' L End Type P Gutter Begin Str C&G TC EI 79.87 (Theor)	6	59+80.00-27.50' L End Type P Gutter Begin Str C&G TC EI 79.29 (Theor)	10	61+74.32-60.67' L Begin Str Type B69 C&G TC EI (Match Existing)	14	63+23.00-27.50' L End Type P Gutter Begin Str C&G TC EI 77.86 (Theor)	18	58+75.00-27.50' R End Type P Gutter Begin Str C&G TC EI 79.94 (Theor)	22	61+46.71-55.45' R End 25' Rad Fillet TC EI (Match Existing)	26	63+75.00-5.50' R 2.00% Cross Slope Lt 2.50% Cross Slope Rt End Cross Slope Transition
3	58+45.00-27.50' L End Str C&G Begin Type P Gutter TC EI 79.83 (Theor)	7	61+23.90-27.50' L End Str C&G Begin 25' Rad Fillet TC EI 78.68	11	61+74.42-55.67' L End Str Type B69 C&G Begin 25' Rad Fillet TC EI 78.97	15	63+75.00-27.50' L End Str C&G Begin Type P Gutter TC EI 77.64 (Theor)	19	59+51.00-27.50' R End Str C&G Begin Type P Gutter TC EI 79.63 (Theor)	23	61+76.01-55.85' R Begin 25' Rad Fillet TC EI (Match Existing)		
4	58+61.00-27.50' L End Type P Gutter Begin Str C&G TC EI 79.79 (Theor)	8	61+48.90-55.31' L End 25' Rad Fillet Begin Str Type B69 C&G TC EI 79.12	12	61+99.42-27.50' L End 25' Rad Fillet Begin Str C&G TC EI 78.37	16	63+91.00-27.50' L End Type P Gutter Begin Str C&G TC EI 77.58 (Theor)	20	59+67.00-27.50' R End Type P Gutter Begin Str C&G TC EI 79.56 (Theor)	24	62+01.01-27.50' R End 25' Rad Fillet Begin Str C&G TC EI 78.59		

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B78	B139

Plotting Date: 06/03/2026



Plot Scale - 1:40



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1:20
Plot Scale -
Plotted From - TRSF12141

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B79	B139

Plotting Date: 06/03/2026



HURON

Twenty-first
Street SW

8' Sidewalk

Present SD Hwy 37

- 1 12+28.05-72.24' R
Corner of Detectable
Warning & Turning Space
2% Maximum Slope
- 2 12+40.33-79.48' R
Corner of Detectable
Warning & Turning Space
2% Maximum Slope

- 3 12+23.59-80.97' R
Corner of Turning Space
2% Maximum Slope
- 4 12+32.25-86.48' R
Corner of Turning Space
2% Maximum Slope

- 5 13+18.29-67.44' R
Center of Detectable
Warning &
Type 1 Curb Ramp
- 6 13+23.03-69.15' R
End Ramp Slope

- 7 13+32.84-69.99' R
Corner of Turning Space
- 8 13+28.82-73.92' R
Corner of Turning Space

Twenty-first
Street SE

6' Sidewalk

5' Sidewalk

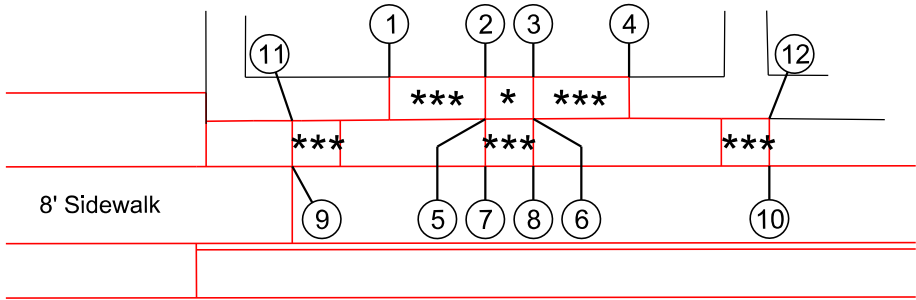
NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

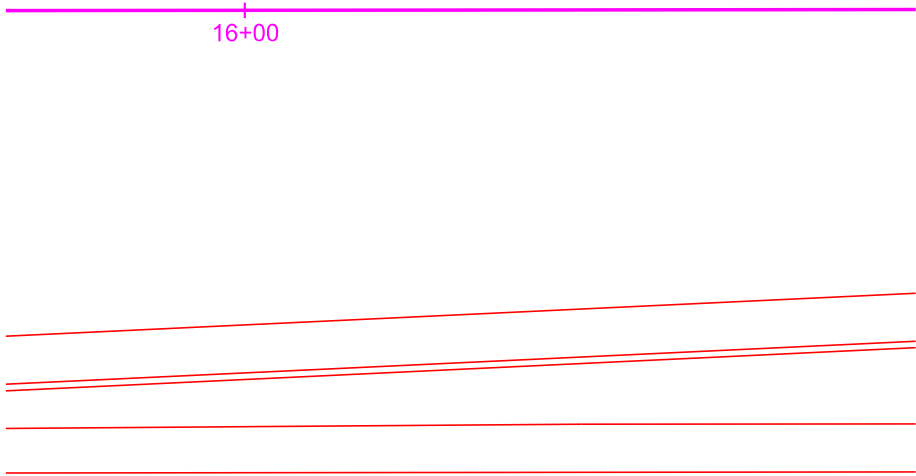
CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

HURON



Present SD Hwy 37



- 1 16+15.12-58.47' L
Top Sidewalk
EI 84.44
- 2 16+25.12-58.46' L
Top Sidewalk
EI 84.05
- 3 16+30.12-58.46' L
Top Sidewalk
EI 84.05
- 4 16+40.12-58.46' L
Top Sidewalk
EI 84.44
- 5 16+25.12-54.07' L
Top Sidewalk
EI 83.98
- 6 16+30.12-54.09' L
Top Sidewalk
EI 83.98
- 7 16+25.12-49.17' L
Top Sidewalk
EI 83.78
- 8 16+30.12-49.17' L
Top Sidewalk
EI 83.78
- 9 16+05.00-49.17' L
Corner of 6" Step
- 10 16+54.72-49.17' L
Corner of 6" Step
- 11 16+05.00-53.93' L
Top Sidewalk
EI (Match Existing)
- 12 16+54.72-54.11' L
Top Sidewalk
EI (Match Existing)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B80	B139

Plotting Date: 06/03/2026



1:20
Plot Scale -
Plotted From - TRSF12141

CURB RAMP LAYOUT

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

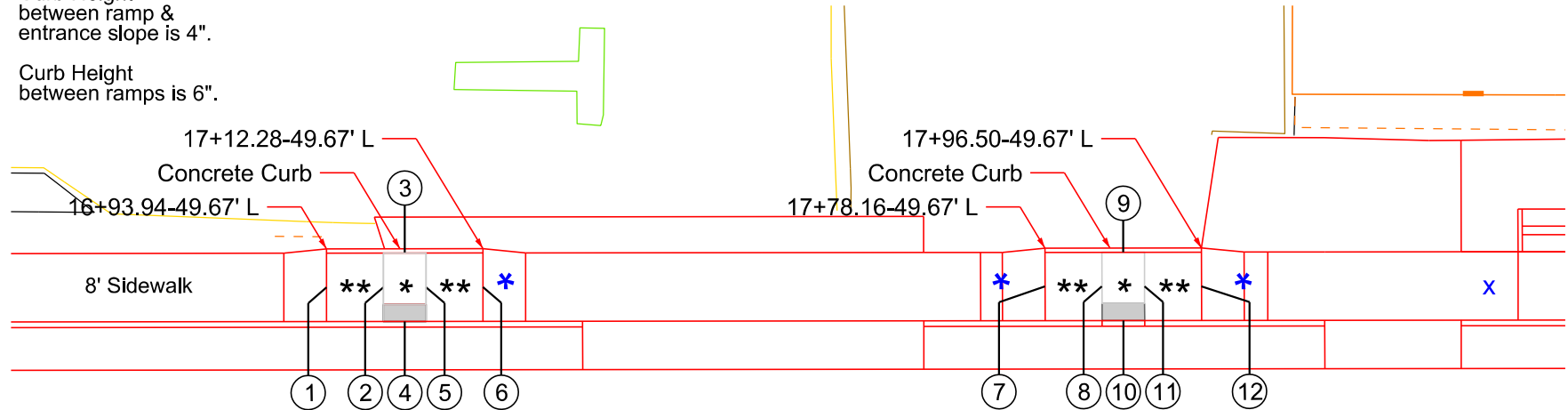
NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

- * Curb Height between ramp & entrance slope is 4".
- ** Curb Height between ramps is 6".

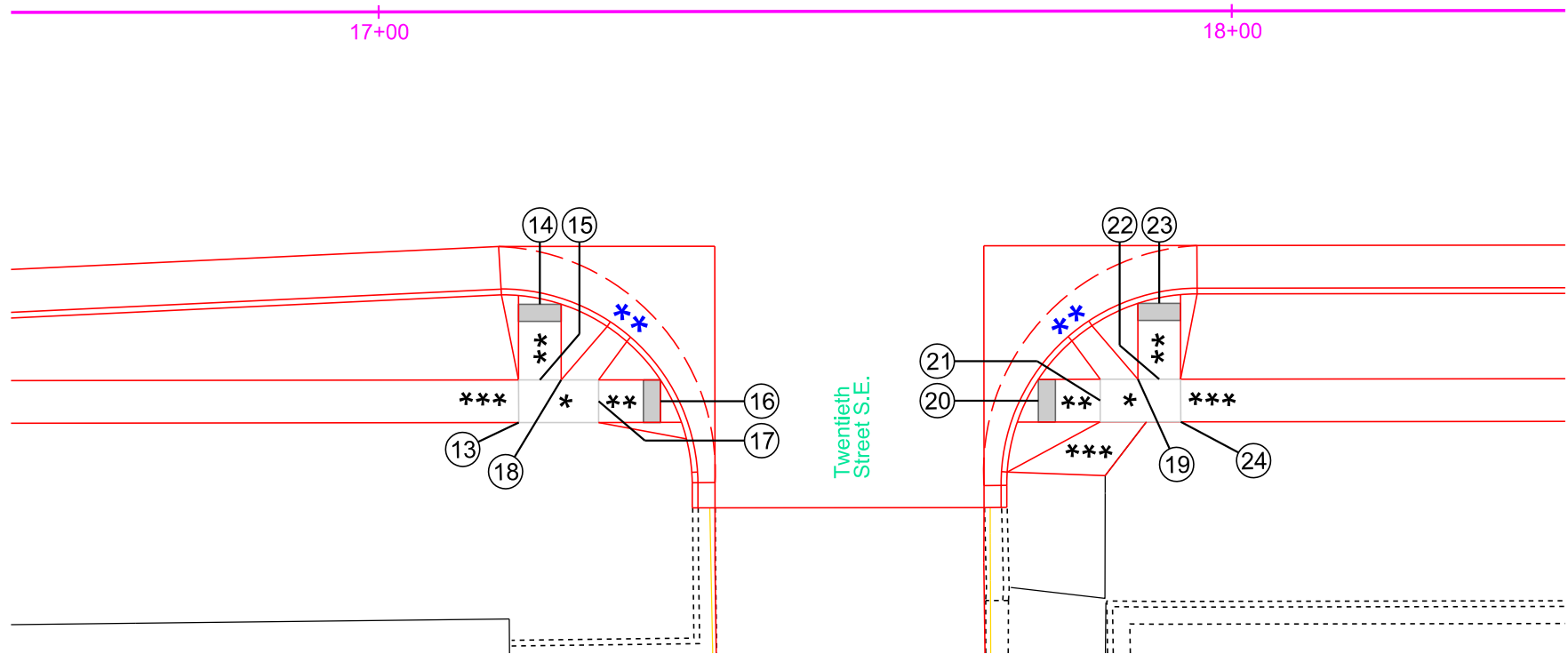
X NOTE - 7.5% Maximum Slope for Entrance tapers due to limited space.

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

HURON



Present SD Hwy 37



- 16+93.94-45.17' L
End of Ramp Slope
- 17+00.61-45.17' L
Begin Ramp Slope
- 17+03.11-49.17' L
Back of Turning Space
- 17+03.11-41.17' L
Center of Detectable
Warning
& Type 3 Curb Ramp
- 17+05.61-45.17' L
Begin Ramp Slope
- 17+12.28-45.17' L
End Ramp Slope

- 17+78.16-45.17' L
End of Ramp Slope
- 17+84.83-45.17' L
Begin Ramp Slope
- 17+87.33-49.17' L
Back of Turning Space
- 17+87.33-41.17' L
Center of Detectable
Warning
& Type 3 Curb Ramp
- 17+89.83-45.17' L
Begin Ramp Slope
- 17+96.50-45.17' L
End Ramp Slope

- 17+16.35-48.17' R
Corner of Turning Space
- 17+18.85-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp
- 17+18.85-43.17' R
End of Ramp Slope
- 17+32.97-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp
- 17+25.72-45.67' R
End of Ramp Slope
- 17+21.35-43.17' R
Corner of Turning Space

- 17+88.95-43.17' R
Corner of Turning Space
- 17+77.27-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp
- 17+84.52-45.67' R
End of Ramp Slope
- 17+91.45-43.17' R
End of Ramp Slope
- 17+91.45-34.28' R
Center of Detectable
Warning
& Type 2 Curb Ramp
- 17+93.95-48.17' R
Corner of Turning Space

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0037(156)125	SHEET B81	TOTAL SHEETS B139
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Plotting Date: 06/03/2026



1:20
Plot Scale -
Plotted From -

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

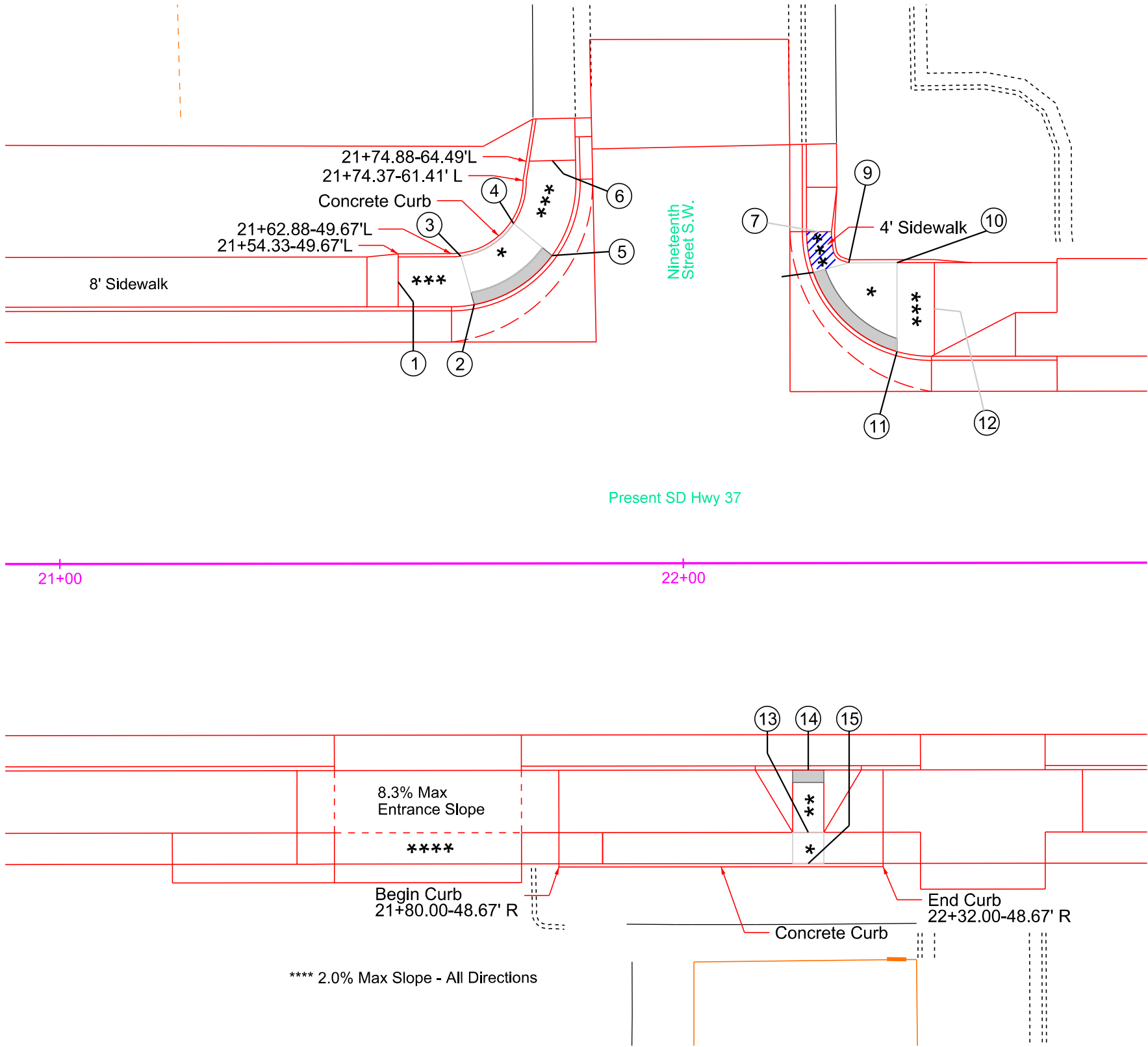
CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

HURON

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B82	B139

Plotting Date: 09/11/2026
Revised Date: 09/10/2026 MDJ



- | | | | |
|---|---|----|---|
| 1 | 21+54.33-45.17' L
Begin Blended Transition
5% Max Slope | 7 | 22+21.83-53.14' L
Begin Blended Transition
5% Max Slope |
| 2 | 21+66.52-41.51' L
Corner of 20' Radius
Detectable Warning /
Turning Space & End
of 5% Max Slope | 8 | 22+20.92-46.62' L
Corner of 20' Radius
Detectable Warning /
Turning Space & End
of 5% Max Slope |
| 3 | 21+64.40-49.27' L
Corner of Turning
Space & End of
5% Max Slope | 9 | 22+26.59-48.14' L
Corner of Turning
Space & End of
5% Max Slope |
| 4 | 21+72.85-54.50' L
Corner of Turning
Space & End of
5% Max Slope | 10 | 22+34.33-48.14' L
Corner of Turning
Space & End of
5% Max Slope |
| 5 | 21+79.02-49.36' L
Corner of 20' Radius
Detectable Warning /
Turning Space & End
of 5% Max Slope | 11 | 22+34.33-33.91' L
Corner of 20' Radius
Detectable Warning /
Turning Space & End
of 5% Max Slope |
| 6 | 21+79.09-64.58' L
Begin Blended Transition
5% Max Slope | 12 | 22+40.33-40.77' L
Begin Blended Transition
5% Max Slope |

- | | |
|----|--|
| 13 | 22+20.00-43.17' R
End Ramp Slope |
| 14 | 22+20.00-33.17' R
Center of Detectable
Warning
& Type 1 Curb Ramp |
| 15 | 22+20.00-48.17' L
Back of Turning Space |

Plotted From - TRSF12141 Plot Scale - 1:20 File - U:\tr01\proj\bead06\JA026cr.dgn

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

- *** Curb Height between ramps is 4".

****** Curb Height between ramps is 6".
- ***** Curb Height between 5% sidewalk slopes is 3".

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

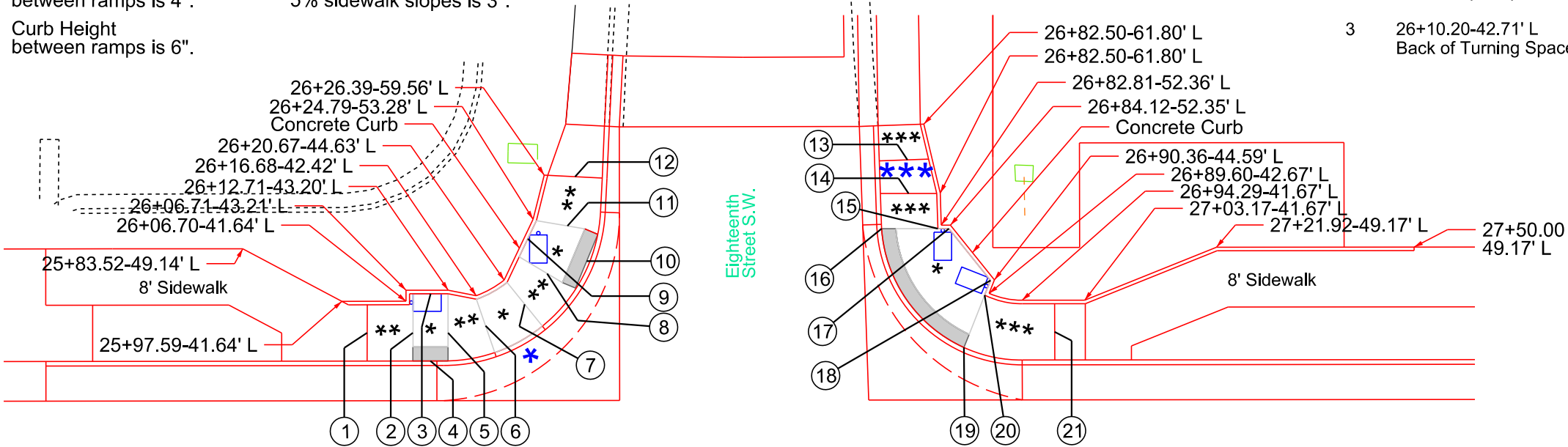
CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B83	B139

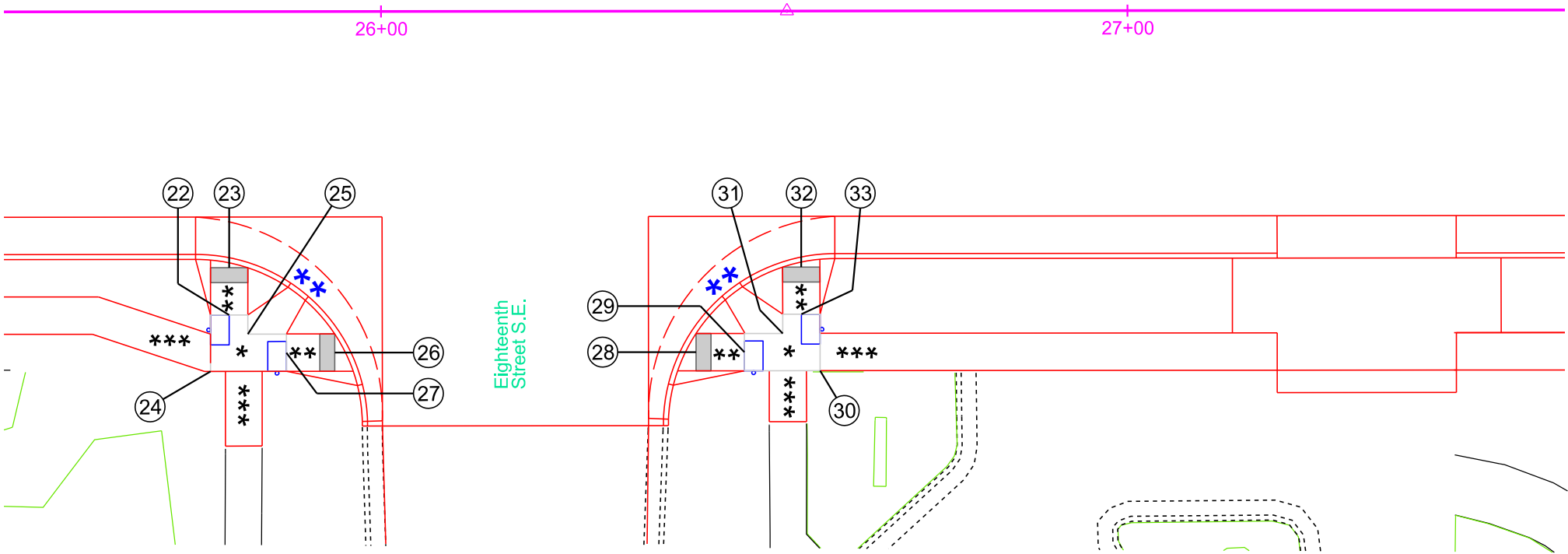
Plotting Date: 06/03/2026



HURON



Present SD Hwy 37



1:20
Plot Scale -
Plotted From - TRSF12141

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

* Curb Height between ramps is 4".

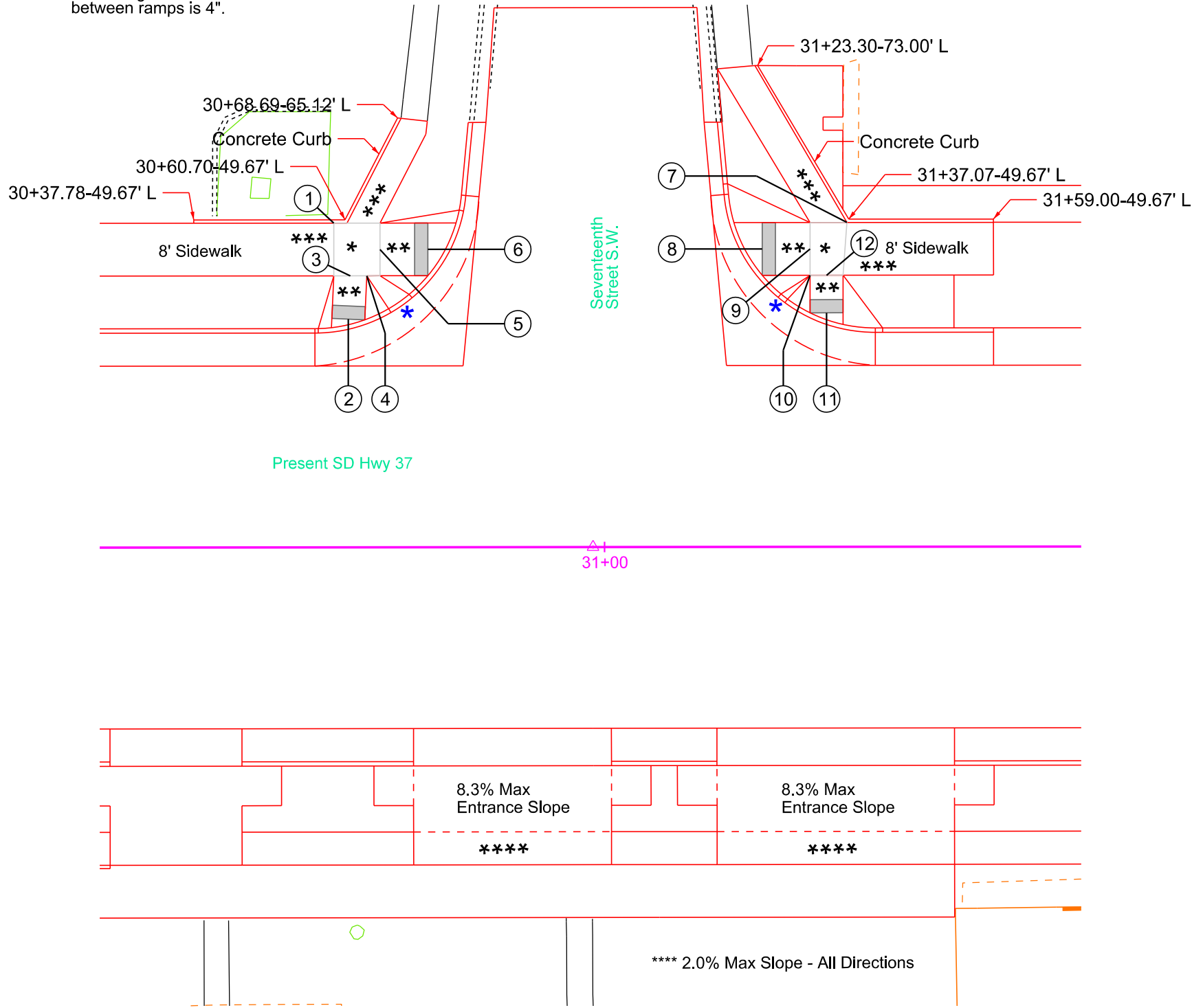
CURB RAMP LAYOUT

* Turning Space with 1.5% slope
** Curb Ramp with 7.5% slope and 1.5% cross slope.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.
*** 5% Maximum longitudinal slope and 1.5% cross slope

HURON

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B84	B139

Plotting Date: 06/03/2026



- 30+59.01-49.17' L
Corner of Turning Space
- 30+61.20-34.61' L
Center of Detectable
Warning
& Type 2 Curb Ramp
- 30+61.51-41.17' L
End Ramp Slope
- 30+64.01-41.17' L
Corner of Turning Space
- 30+66.01-45.17' L
End Ramp Slope
- 30+73.26-45.17' L
Center of Detectable
Warning
& Type 2 Curb Ramp
- 31+36.79-49.17' L
Corner of Turning Space
- 31+23.95-45.17
Center of Detectable
Warning
& Type 2 Curb Ramp
- 31+31.20-45.17' L
End Ramp Slope
- 31+31.20-41.17' L
Corner of Turning Space
- 31+33.70-35.47' L
Center of Detectable
Warning
& Type 2 Curb Ramp
- 31+33.70-41.17' L
End Ramp Slope

1:20
Plot Scale -
Plotted From - TRSF12141
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NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

** Curb Height between ramps is 6".

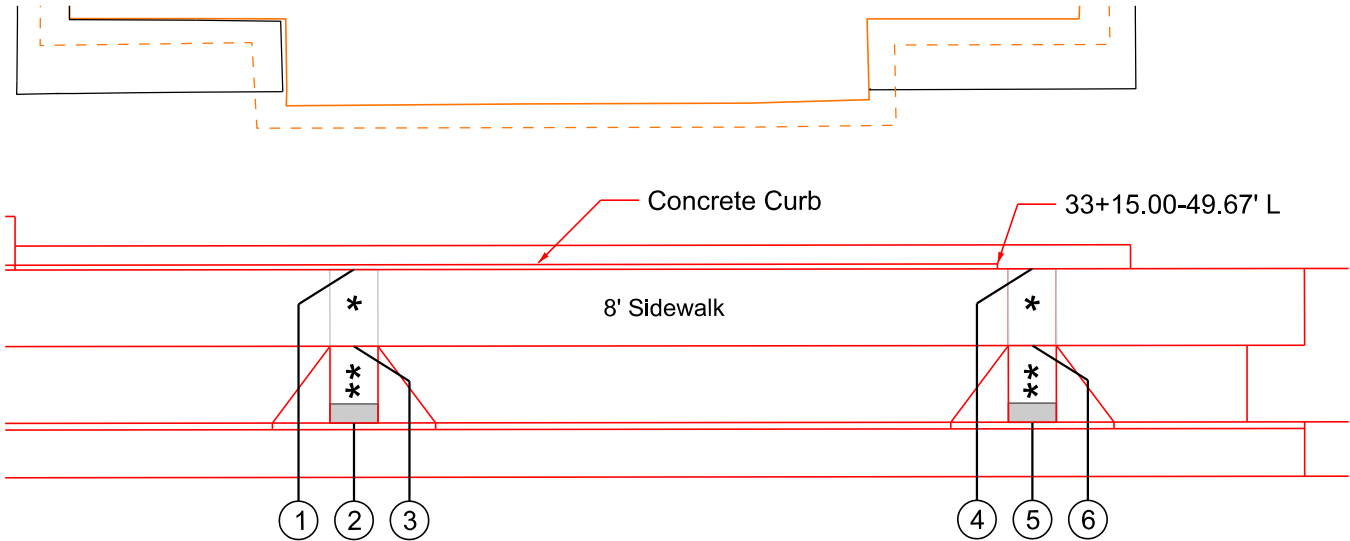
CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

HURON

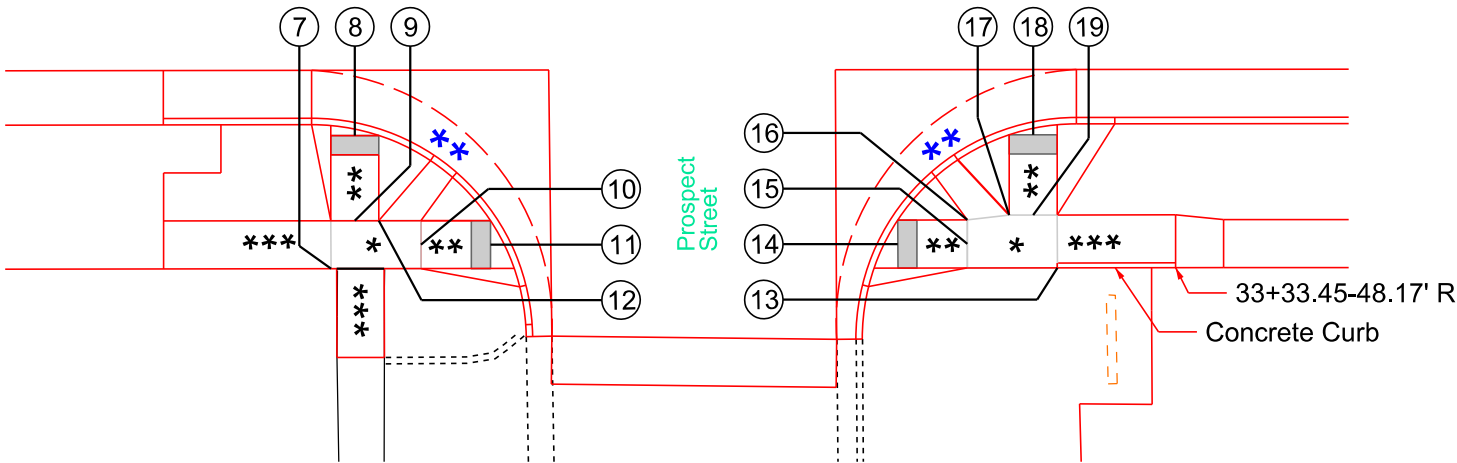
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B85	B139

Plotting Date: 06/03/2026



Present SD Hwy 37

33+00



- 32+47.94-49.17' L
Back of Turning Space
- 32+47.94-33.17' L
Center of Detectable Warning
& Type 1 Curb Ramp
- 32+47.94-41.17' L
End Ramp Slope
- 33+18.63-49.17' L
Back of Turning Space
- 33+18.63-33.17' L
Center of Detectable Warning
& Type 1 Curb Ramp
- 33+18.63-41.17' L
End Ramp Slope

- 32+45.44-48.17' R
Corner of Turning Space
- 32+47.94-34.29' R
Center of Detectable Warning
& Type 2 Curb Ramp
- 32+47.94-43.17' R
End Ramp Slope
- 32+54.81-45.67' R
End Ramp Slope
- 32+62.06-45.67' R
Center of Detectable Warning
& Type 2 Curb Ramp
- 32+50.44-43.17' R
Corner of Turning Space
- 33+21.13-48.17' R
Corner of Turning Space
Begin Concrete Curb

- 33+04.51-45.67' R
Center of Detectable Warning
& Type 2 Curb Ramp
- 33+11.76-45.67' R
End Ramp Slope
- 33+11.76-43.17' R
Corner of Turning Space
- 33+16.13-42.67' R
Corner of Turning Space
- 33+18.63-34.29' R
Center of Detectable Warning
& Type 2 Curb Ramp
- 33+18.63-42.67' R
End Ramp Slope

1:20
Plot Scale -
Plotted From -

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

* Curb Height between ramps is 4".

CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

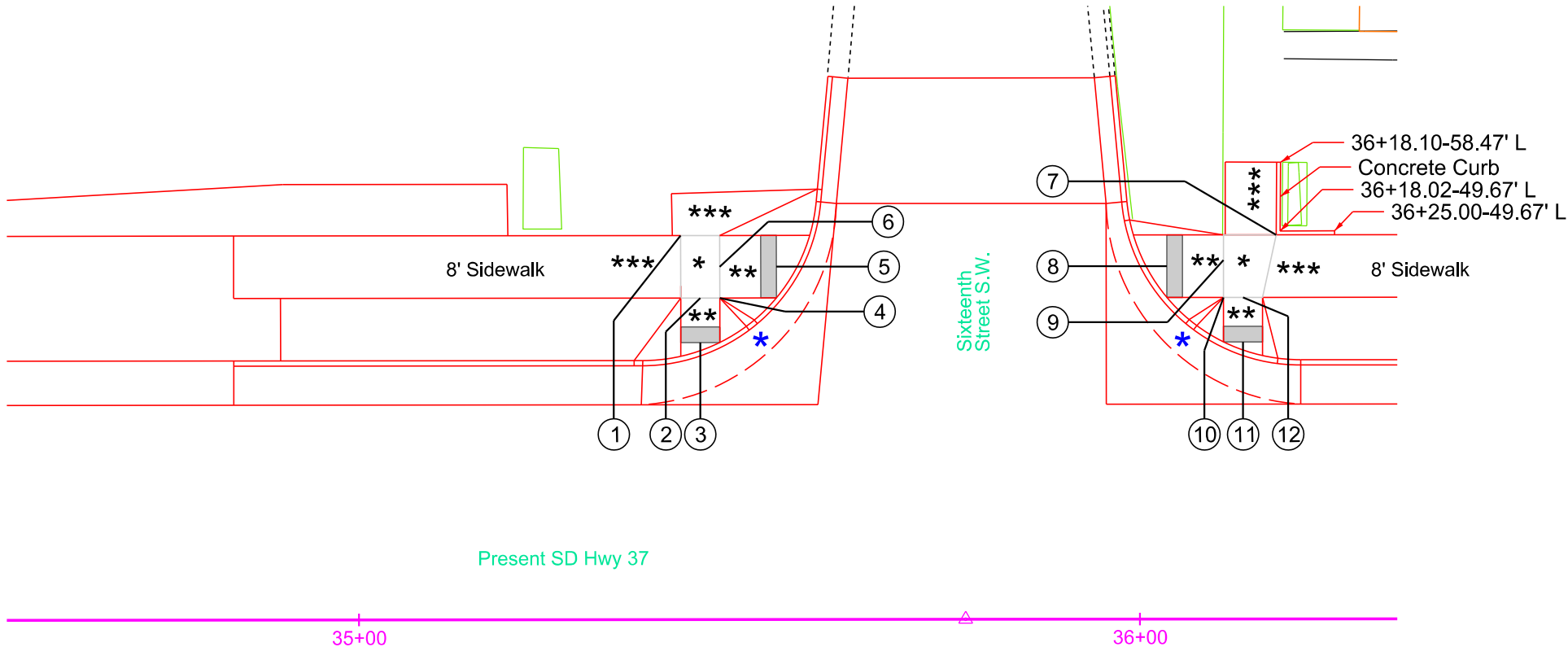
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B86	B139

Plotting Date: 06/03/2026



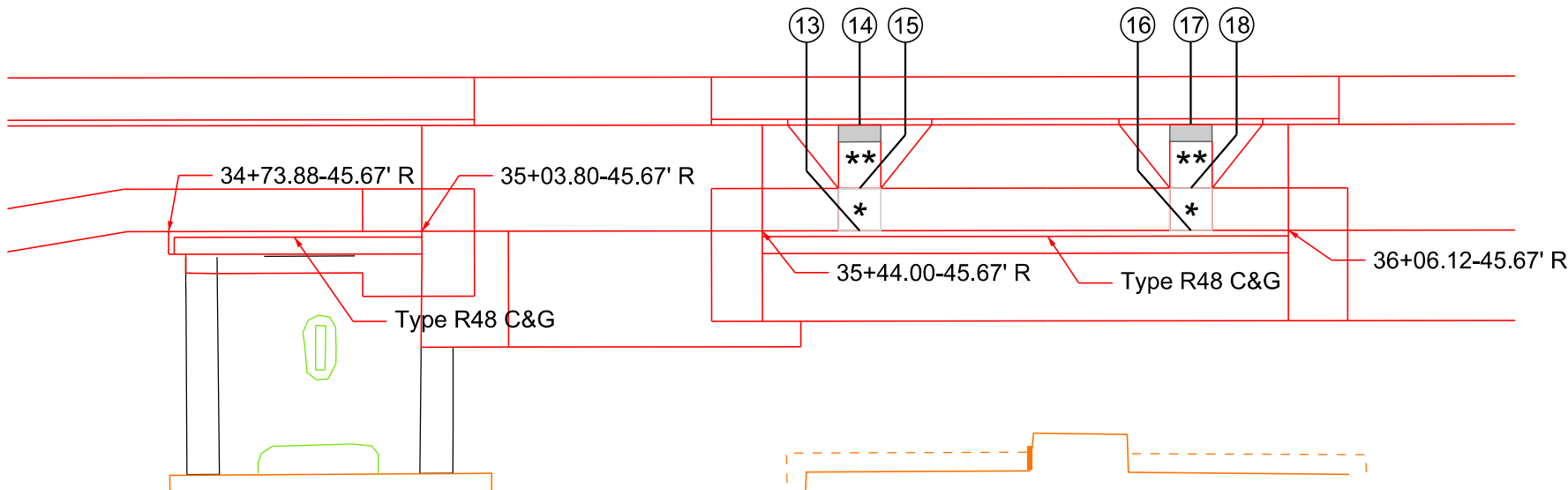
HURON

- 35+41.25-49.17' L
Corner of Turning Space
- 35+43.75-41.17' L
End Ramp Slope
- 35+43.75-35.47' L
Center of Detectable Warning
& Type 2 Curb Ramp
- 35+46.25-41.17' L
Corner of Turning Space
- 35+53.50-45.17' L
Center of Detectable Warning
& Type 2 Curb Ramp
- 35+46.25-45.17' L
End Ramp Slope



- 36+17.52-49.17' L
Corner of Turning Space
- 36+03.51-45.17' L
Center of Detectable Warning
& Type 2 Curb Ramp
- 36+10.76-45.95' L
End Ramp Slope
- 36+10.76-41.17' L
Corner of Turning Space
- 36+13.26-35.47' L
Center of Detectable Warning
& Type 2 Curb Ramp
- 36+13.26-41.17' L
End Ramp Slope

- 35+55.50-45.67' R
Back of Turning Space
- 35+55.50-33.17' R
Center of Detectable Warning
& Type 1 Curb Ramp
- 35+55.50-40.67' R
End Ramp Slope



- 35+94.62-45.67' R
Back of Turning Space
- 35+94.62-33.17' R
Center of Detectable Warning
& Type 1 Curb Ramp
- 35+94.62-40.67' R
End Ramp Slope

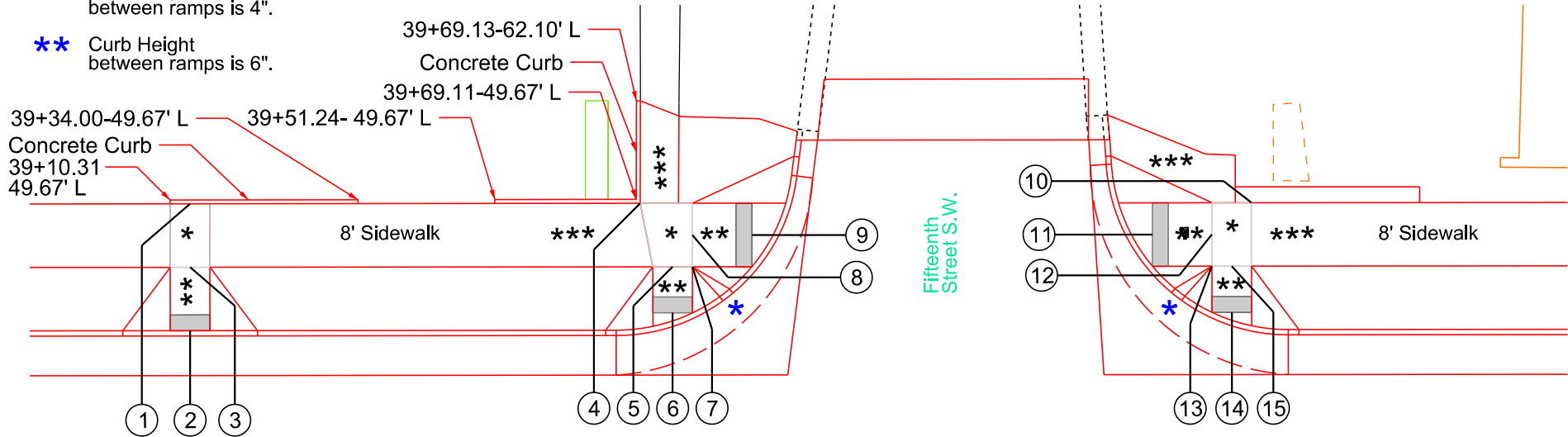
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Plot Scale -
Plotted From - TRSF12141

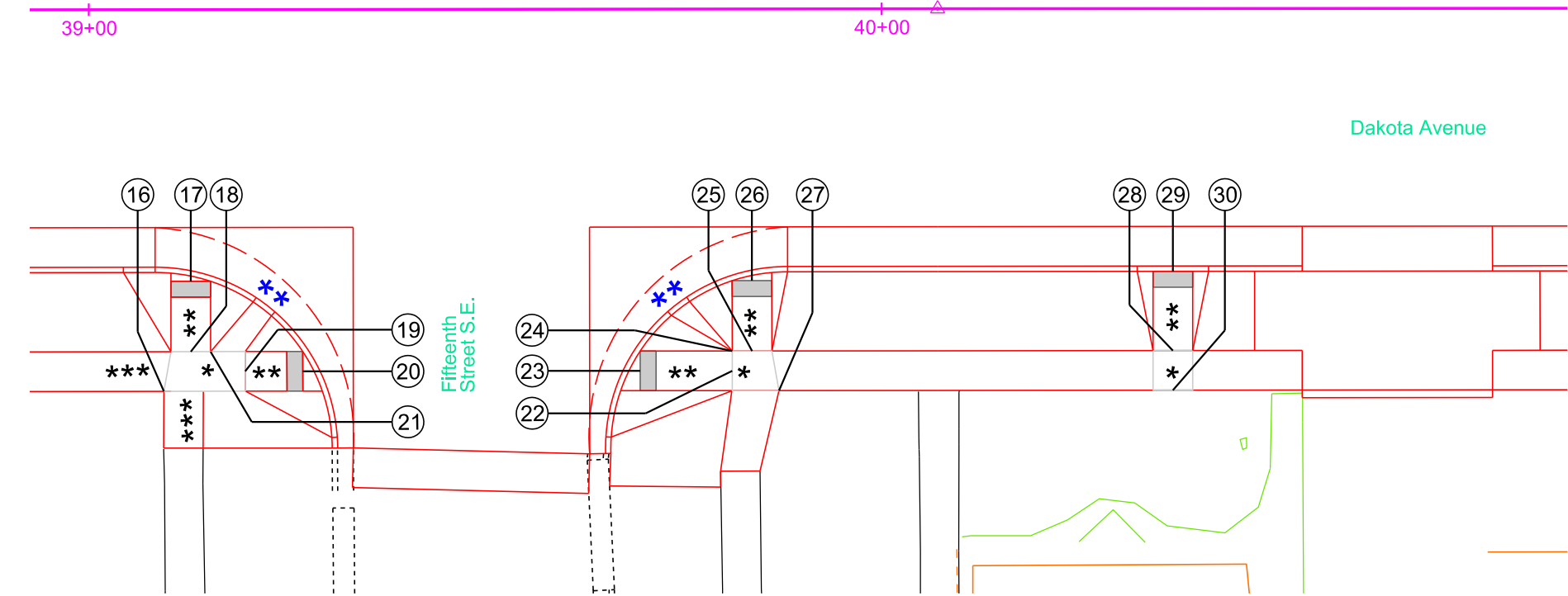
NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

- * Curb Height between ramps is 4".
- ** Curb Height between ramps is 6".



Present SD Hwy 37



CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B87	B139

Plotting Date: 06/03/2026



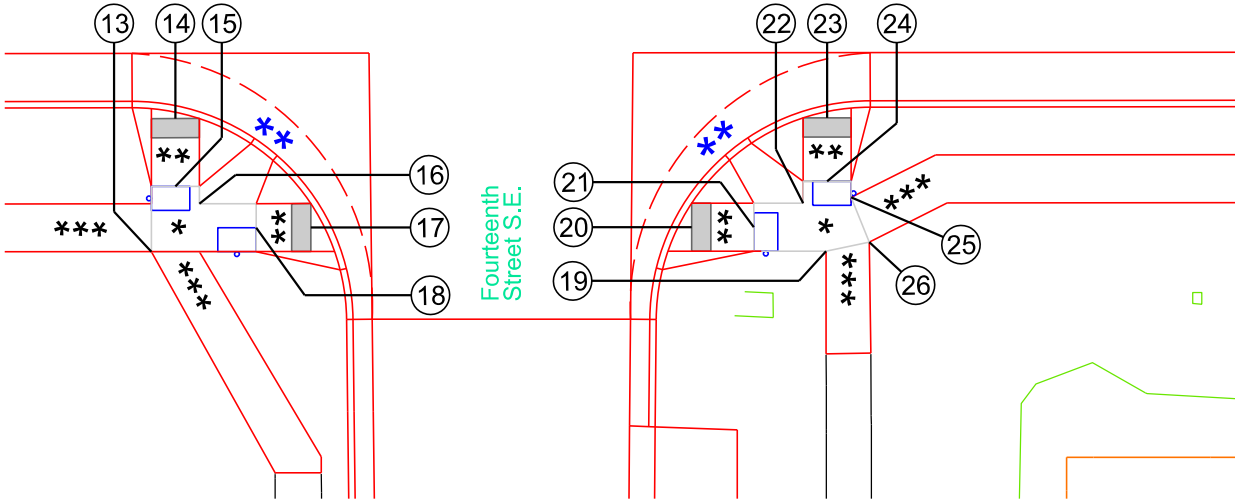
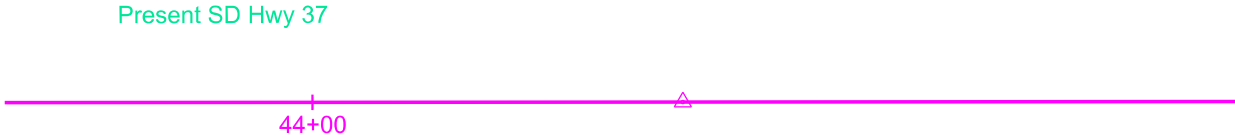
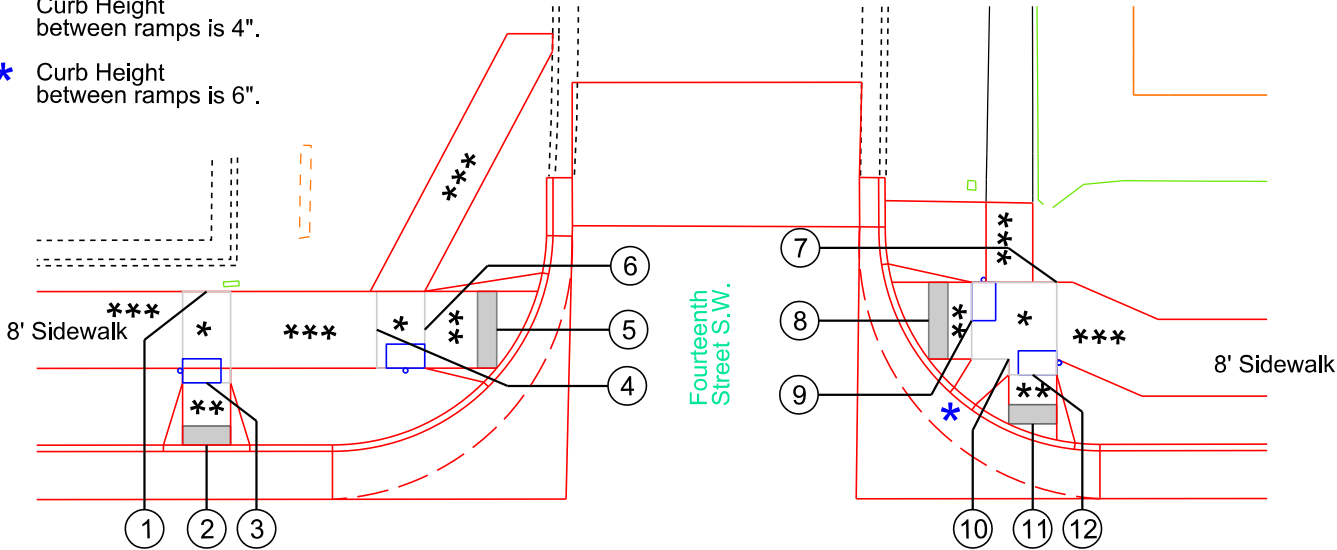
- | | | | |
|----|--|----|--|
| 1 | 39+12.81-49.17' L
Back of Turning Space | 9 | 39+83.68-45.17' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 2 | 39+12.81-33.17' L
Center of Detectable
Warning
& Type 1 Curb Ramp | 10 | 40+46.69-49.17' L
Corner of Turning Space |
| 3 | 39+12.81-41.17' L
End Ramp Slope | 11 | 40+34.19-45.17' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 4 | 39+69.61-49.17' L
Corner of Turning Space | 12 | 40+41.69-45.17' L
End Ramp Slope |
| 5 | 39+73.68-41.17' L
End Ramp Slope | 13 | 40+41.69-41.17' L
Corner of Turning Space |
| 6 | 39+73.68-35.35' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 14 | 40+44.19-35.35' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 7 | 39+76.18-41.17' L
Corner of Turning Space | 15 | 40+44.19-41.17' L
Back of Turning Space |
| 8 | 39+76.18-45.17' L
End Ramp Slope | | |
| 16 | 39+09.41-48.17' R
Corner of Turning Space | 23 | 39+69.48-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 17 | 39+12.81-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 24 | 39+81.10-43.17' R
Corner of Turning Space |
| 18 | 39+12.81-43.17' R
End Ramp Slope | 25 | 39+83.60-43.17' R
End Ramp Slope |
| 19 | 39+19.68-45.67' R
End Ramp Slope | 26 | 39+83.60-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 20 | 39+26.93-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 27 | 39+86.97-48.17' R
Corner of Turning Space |
| 21 | 39+15.31-43.17' R
Corner of Turning Space | 28 | 40+36.69-43.17' R
End Ramp Slope |
| 22 | 39+81.10-45.67' R
End of Ramp Slope | 29 | 40+36.69-33.17' R
Center of Detectable
Warning
& Type 1 Curb Ramp |
| | | 30 | 40+36.69-48.17' R
Back of Turning Space |

1:20
Plot Scale -
Plotted From -

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

- * Curb Height between ramps is 4".
- ** Curb Height between ramps is 6".



CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

HURON

- | | | | |
|----|--|----|--|
| 1 | 43+85.68-49.17' L
Back of Turning Space | 7 | 44+74.27-50.05' L
Corner of Turning Space |
| 2 | 43+85.68-33.17' L
Center of Detectable
Warning
& Type 1 Curb Ramp | 8 | 44+60.92-46.07' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 3 | 43+85.68-39.66' L
End Ramp Slope | 9 | 44+65.40-46.06' L
End Ramp Slope |
| 4 | 44+03.42-45.17' L
Back of Turning Space | 10 | 44+69.26-42.06' L
Corner of Turning Space |
| 5 | 44+15.92-45.17' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 11 | 44+71.75-35.29' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 6 | 44+08.42-45.17' L
End Ramp Slope | 12 | 44+71.75-40.41' L
End of Ramp Slope |
| 13 | 43+83.18-48.17' R
Corner of Turning Space | 20 | 44+39.48-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 14 | 43+85.68-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 21 | 44+45.96-45.67' R
End Ramp Slope |
| 15 | 43+85.68-41.37' R
End Ramp Slope | 22 | 44+51.10-43.17' R
Corner of Turning Space |
| 16 | 43+88.18-43.17' R
Corner of Turning Space | 23 | 44+53.60-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 17 | 43+99.80-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 24 | 44+53.60-40.89' R
End of Ramp Slope |
| 18 | 43+94.09-45.67' R
End of Ramp Slope | 25 | 44+56.10-42.58' R
Corner of Turning Space |
| 19 | 44+53.48-48.17' R
Corner of Turning Space | 26 | 44+57.98-47.23' R
Corner of Turning Space |

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0037(156)125	SHEET B88	TOTAL SHEETS B139
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Plotting Date: 06/03/2026

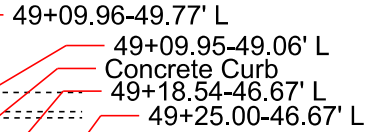


* Turning Space with 1.5% slope
 ** Curb Ramp with 7.5% slope and 1.5% cross slope.
 All Curbside sidewalk is 6' wide except as noted.
 All Boulevard sidewalk is 5' wide except as noted.
 *** 5% Maximum longitudinal slope and 1.5% cross slope

NOTE - "Concrete Curb" will be
Type 3 Curb Ramp Curb - See
Standard Plate 651.03.

*** Curb Height
between ramps is 6".

Thirteenth
Street S.W.



Present SD Hwy 37



- | | | | |
|----|--|----|--|
| 1 | 47+62.94-46.17' L
Back of Turning Space | 8 | 48+48.60-44.59' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 2 | 47+62.94-33.17' L
Center of Detectable
Warning
& Type 1 Curb Ramp | 9 | 48+41.35-44.59' L
End of Ramp Slope |
| 3 | 47+62.94-38.17' L
End Ramp Slope | 10 | 49+09.45-48.68' L
Corner of Turning Space |
| 4 | 48+31.98-48.61' L
Corner of Turning Space | 11 | 48+91.24-44.76' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 5 | 48+34.48-33.74' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 12 | 48+98.49-44.77' L
End Ramp Slope |
| 6 | 48+34.48-40.61' L
End Ramp Slope | 13 | 49+03.01-40.77' L
Corner of Turning Space |
| 7 | 48+36.98-40.60' L
Corner of Turning Space | 14 | 49+05.52-33.74' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| | | 15 | 49+05.51-40.77' L
End Ramp Slope |
| 16 | 47+62.94-43.17' R
End Ramp Slope | 24 | 48+19.86-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 17 | 47+62.94-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 25 | 48+27.11-45.67' R
End Ramp Slope |
| 18 | 47+65.44-43.17' R
Corner of Turning Space | 26 | 48+31.48-43.17' R
Corner of Turning Space |
| 19 | 47+69.81-45.67' R
End Ramp Slope | 27 | 48+33.98-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 20 | 47+77.06-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 28 | 48+33.98-43.17' R
End Ramp Slope |
| 21 | 47+69.81-48.17' R
Corner of Turning Space | 29 | 49+05.52-40.67' R
End Ramp Slope |
| 22 | 47+60.44-48.17' R
Corner of Turning Space | 30 | 49+05.52-33.17' R
Center of Detectable
Warning
& Type 1 Curb Ramp |
| 23 | 48+36.48-48.17' R
Corner of Turning Space | 31 | 49+05.52-45.67' R
Back of Turning Space |



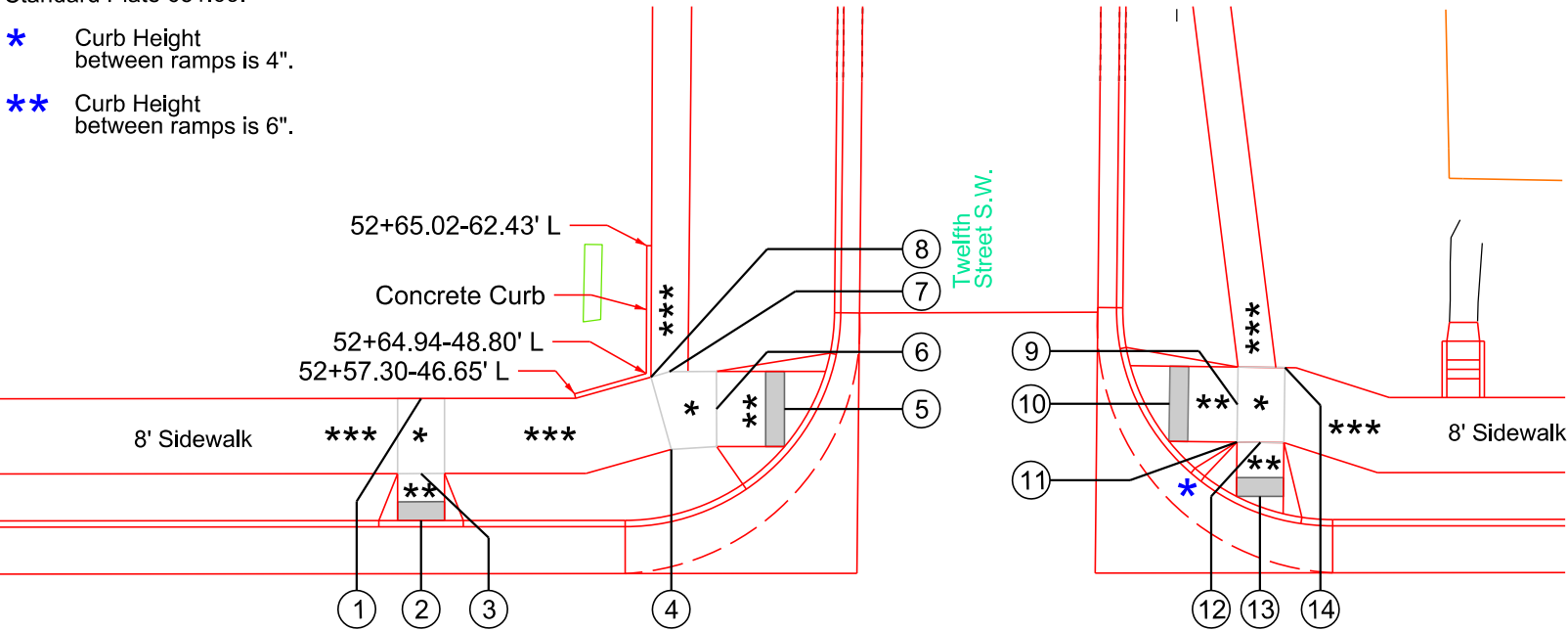
1:20
Plot Scale -

Plotted From -
TRSE12141

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

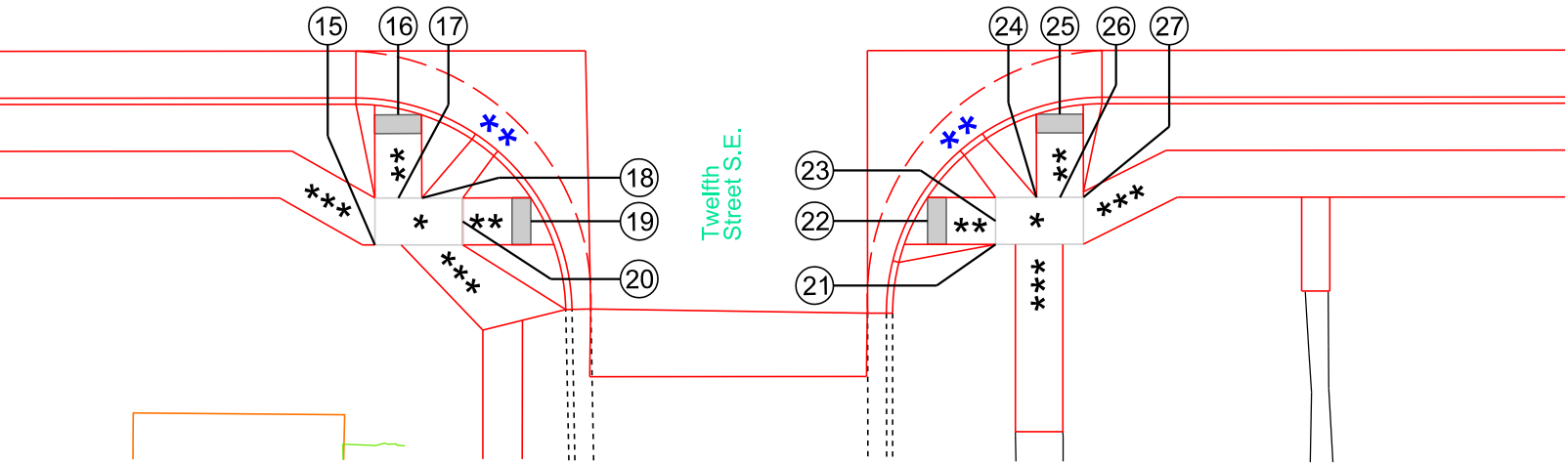
- * Curb Height between ramps is 4".
- ** Curb Height between ramps is 6".



Present SD Hwy 37



Dakota Avenue



CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B90	B139

Plotting Date: 06/03/2026



- | | | | |
|---|--|----|--|
| 1 | 52+40.93-46.17' L
Back of Turning Space | 8 | 52+65.44-48.42' L
Corner of Turning Space |
| 2 | 52+40.93-33.17' L
Center of Detectable
Warning
& Type 1 Curb Ramp | 9 | 53+27.97-45.44' L
End Ramp Slope |
| 3 | 52+40.93-38.17' L
End Ramp Slope | 10 | 53+20.72-45.53' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 4 | 52+67.60-40.72' L
Corner of Turning Space | 11 | 53+27.92-41.44' L
Corner of Turning Space |
| 5 | 52+79.68-45.01' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 12 | 53+30.42-41.40' L
End Ramp Slope |
| 6 | 52+72.43-45.01' L
End Ramp Slope | 13 | 53+30.34-35.66' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 7 | 52+67.43-49.00' L
Corner of Turning Space | 14 | 53+33.02-49.37' L
Corner of Turning Space |

- | | | | |
|----|--|----|--|
| 15 | 52+35.93-48.17' R
Corner of Turning Space | 22 | 52+94.84-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 16 | 52+38.43-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 23 | 53+02.09-45.67' R
End Ramp Slope |
| 17 | 52+38.43-43.17' R
End Ramp Slope | 24 | 53+06.46-43.17' R
Corner of Turning Space |
| 18 | 52+40.93-43.17' R
Corner of Turning Space | 25 | 53+08.96-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 19 | 52+52.55-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 26 | 53+08.96-43.17' R
End Ramp Slope |
| 20 | 52+45.30-45.67' R
End Ramp Slope | 27 | 53+11.46-43.17' R
Corner of Turning Space |
| 21 | 53+02.09-48.17' R
Corner of Turning Space | | |

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1:20
Plot Scale -
Plotted From -
TRSF12141

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

** Curb Height between ramps is 6".

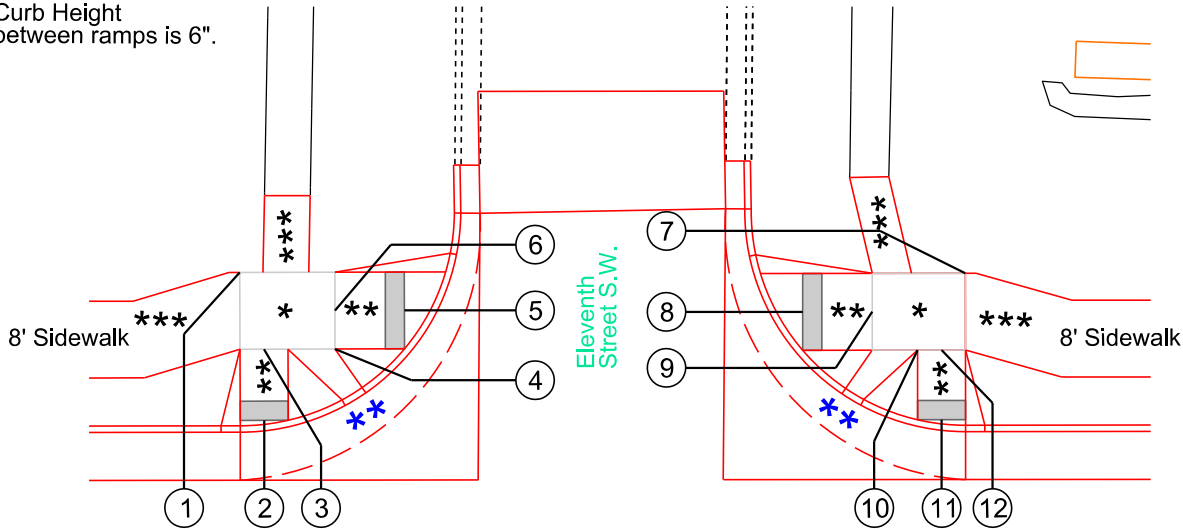
HURON

CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B91	B139

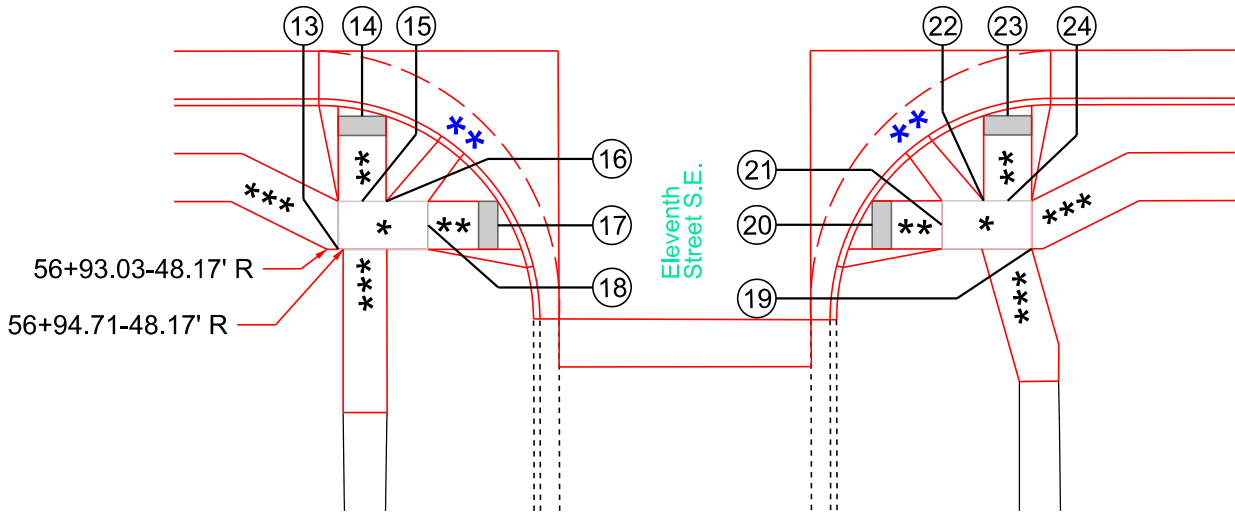
Plotting Date: 06/03/2026



Present SD Hwy 37

57+00

Dakota Avenue



- | | | | |
|---|--|----|--|
| 1 | 56+92.91-49.14' L
Corner of Turning Space | 7 | 57+68.51-49.00' L
Corner of Turning Space |
| 2 | 56+95.44-33.73' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 8 | 57+51.55-44.99' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 3 | 56+95.42-41.15' L
End Ramp Slope | 9 | 57+58.80-44.99' L
End Ramp Slope |
| 4 | 57+02.82-41.16' L
Corner of Turning Space | 10 | 57+63.51-40.99' L
Corner of Turning Space |
| 5 | 57+10.06-45.18' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 11 | 57+66.02-33.74' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 6 | 57+02.81-45.16' L
End Ramp Slope | 12 | 57+66.01-41.00' L
End Ramp Slope |

- | | | | |
|----|--|----|--|
| 13 | 56+94.21-48.17' R
Corner of Turning Space | 19 | 57+66.47-48.17' R
Corner of Turning Space |
| 14 | 56+96.71-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 20 | 57+49.85-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 15 | 56+96.71-43.17' R
End Ramp Slope | 21 | 57+57.10-45.67' R
End Ramp Slope |
| 16 | 56+99.21-43.17' R
Corner of Turning Space | 22 | 57+61.47-43.17' R
Corner of Turning Space |
| 17 | 57+10.83-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 23 | 57+63.97-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 18 | 57+03.58-45.67' R
End Ramp Slope | 24 | 57+63.97-43.17' R
End Ramp Slope |

1:20
Plot Scale -
Plotted From - TRSF12141

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

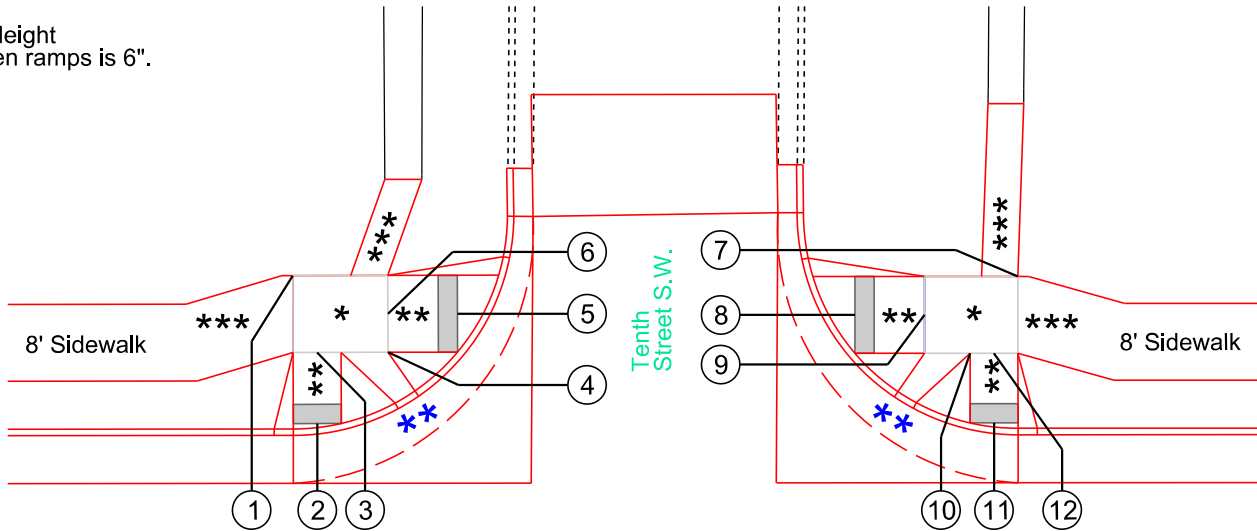
*** Curb Height between ramps is 6".

CURB RAMP LAYOUT

* Turning Space with 1.5% slope
** Curb Ramp with 7.5% slope and 1.5% cross slope.
All Curbside sidewalk is 6' wide except as noted.
All Boulevard sidewalk is 5' wide except as noted.
*** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B92	B139

Plotting Date: 06/03/2026

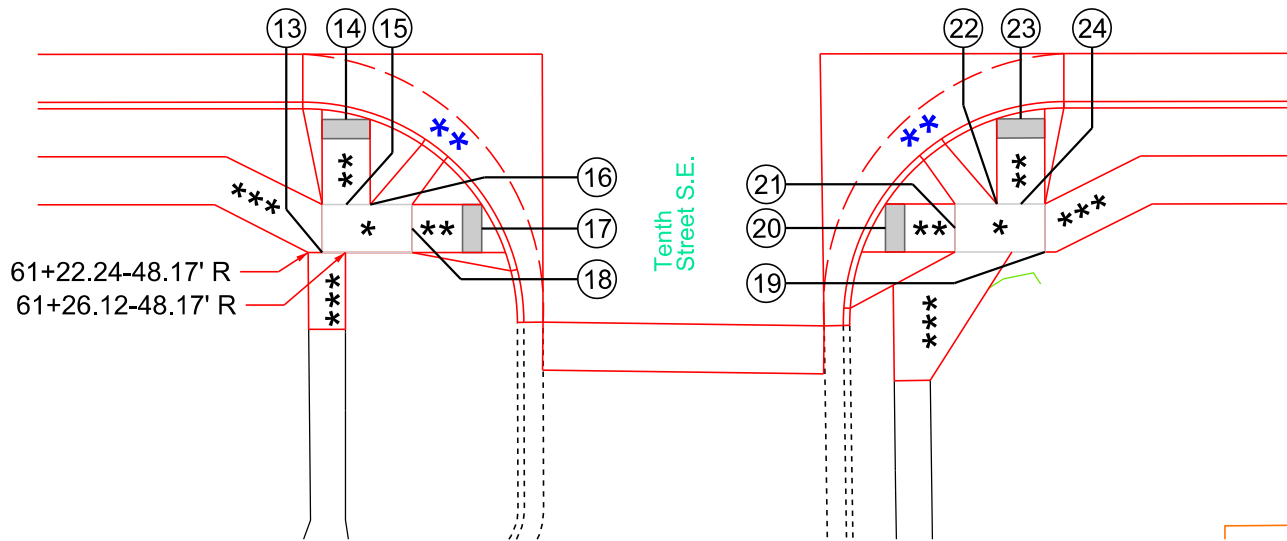


Present SD Hwy 37

61+00

62+00

Dakota Avenue



61+22.24-48.17' R
61+26.12-48.17' R

- | | | | |
|---|--|----|--|
| 1 | 61+23.87-49.14' L
Corner of Turning Space | 7 | 61+99.42-49.00' L
Corner of Turning Space |
| 2 | 61+26.40-33.73' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 8 | 61+82.43-45.00' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 3 | 61+26.38-41.14' L
End Ramp Slope | 9 | 61+89.68-45.00' L
End Ramp Slope |
| 4 | 61+33.77-41.16' L
Corner of Turning Space | 10 | 61+94.42-41.00' L
Corner of Turning Space |
| 5 | 61+41.02-45.17' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 11 | 61+96.92-33.74' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 6 | 61+33.77-45.16' L
End Ramp Slope | 12 | 61+96.92-41.00' L
End Ramp Slope |

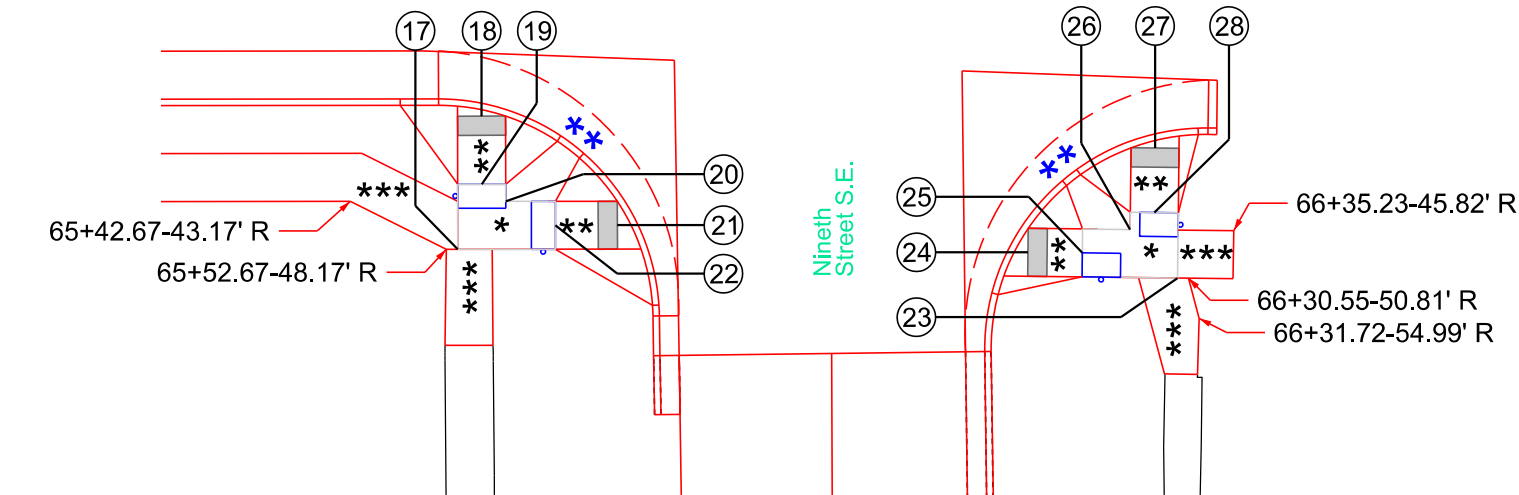
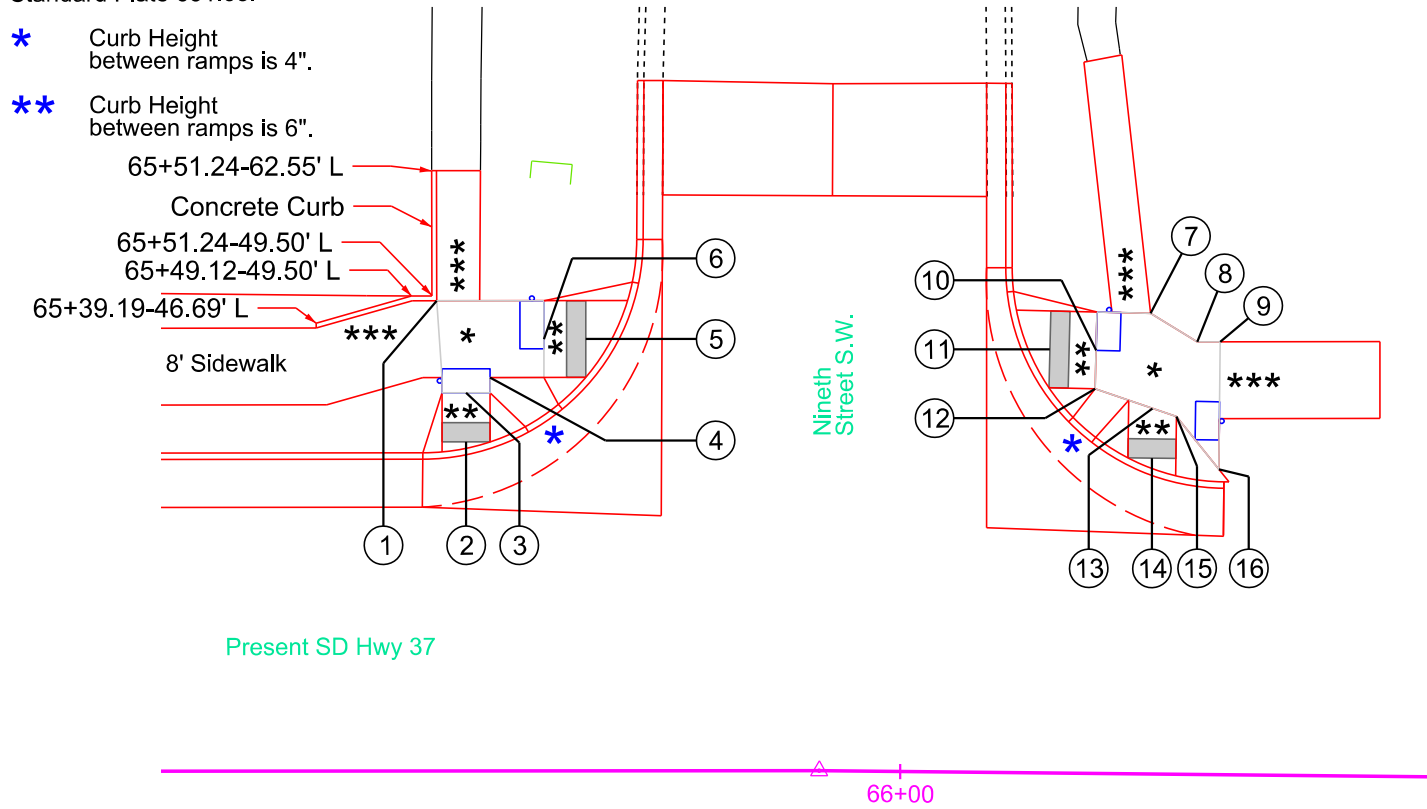
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|----|--|----|--|
| 13 | 61+23.71-48.17' R
Corner of Turning Space | 19 | 61+99.01-48.17' R
Corner of Turning Space |
| 14 | 61+26.21-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 20 | 61+82.39-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 15 | 61+26.21-43.17' R
End Ramp Slope | 21 | 61+89.64-45.67' R
End Ramp Slope |
| 16 | 61+28.71-43.17' R
Corner of Turning Space | 22 | 61+94.01-43.17' R
Corner of Turning Space |
| 17 | 61+40.33-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 23 | 61+96.51-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 18 | 61+33.08-45.67' R
End Ramp Slope | 24 | 61+96.51-43.17' R
End Ramp Slope |

1:20
Plot Scale -
Plotted From -

NOTE - The turning space at some locations will not be able to achieve full height within the available length for the ramp slope(s). To offset this, the longitudinal running slope (5.0% maximum) of the connecting sidewalk(s) will be adjusted to meet the lower elevation of the turning space.

NOTE - "Concrete Curb" will be Type 3 Curb Ramp Curb - See Standard Plate 651.03.

- * Curb Height between ramps is 4".
- ** Curb Height between ramps is 6".



CURB RAMP LAYOUT

- * Turning Space with 1.5% slope
- ** Curb Ramp with 7.5% slope and 1.5% cross slope.
- All Curbside sidewalk is 6' wide except as noted.
- All Boulevard sidewalk is 5' wide except as noted.
- *** 5% Maximum longitudinal slope and 1.5% cross slope

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B93	B139

Plotting Date: 06/03/2026



- | | | | |
|----|--|----|--|
| 1 | 65+51.74-49.00' L
Corner of Turning Space | 9 | 66+32.89-45.11' L
Corner of Turning Space |
| 2 | 65+54.80-34.30' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 10 | 66+19.96-44.09' L
End Ramp Slope |
| 3 | 65+54.80-39.40' L
End Ramp Slope | 11 | 66+15.14-44.16' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 4 | 65+57.30-41.00' L
Corner of Turning Space | 12 | 66+19.90-40.09' L
Corner of Turning Space |
| 5 | 65+67.27-45.00' L
Center of Detectable
Warning
& Type 2 Curb Ramp | 13 | 66+25.90-38.10' L
End Ramp Slope |
| 6 | 65+62.91-45.00' L
End Ramp Slope | 14 | 66+25.89-32.91' L
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 7 | 66+25.59-48.01' L
Corner of Turning Space | 15 | 66+28.40-37.28' L
Corner of Turning Space |
| 8 | 66+30.49-45.08' L
Corner of Turning Space | 16 | 66+32.87-31.83' L
Corner of Turning Space |
| 17 | 65+53.85-48.17' R
Corner of Turning Space | 23 | 66+29.42-50.81' R
Corner of Turning Space |
| 18 | 65+56.35-34.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 24 | 66+13.80-48.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 19 | 65+56.35-41.38' R
End Ramp Slope | 25 | 66+19.47-48.30' R
End Ramp Slope |
| 20 | 65+58.85-43.17' R
Corner of Turning Space | 26 | 66+24.43-45.80' R
Corner of Turning Space |
| 21 | 65+70.49-45.67' R
Center of Detectable
Warning
& Type 2 Curb Ramp | 27 | 66+26.94-37.29' R
Center of Detectable
Warning
& Type 2 Curb Ramp |
| 22 | 65+64.02-45.67' R
End Ramp Slope | 28 | 66+26.93-44.00' R
End Ramp Slope |

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH-CR 0037(156)125	B94	B139

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 10-7-26 Version, Required Provisions, and Special Provisions as included in the Proposal. The Standard Specifications for Roads and Bridges is available for download and viewing at <https://dot.sd.gov/doing-business/contractors/standard-specifications>.

GENERAL NOTES

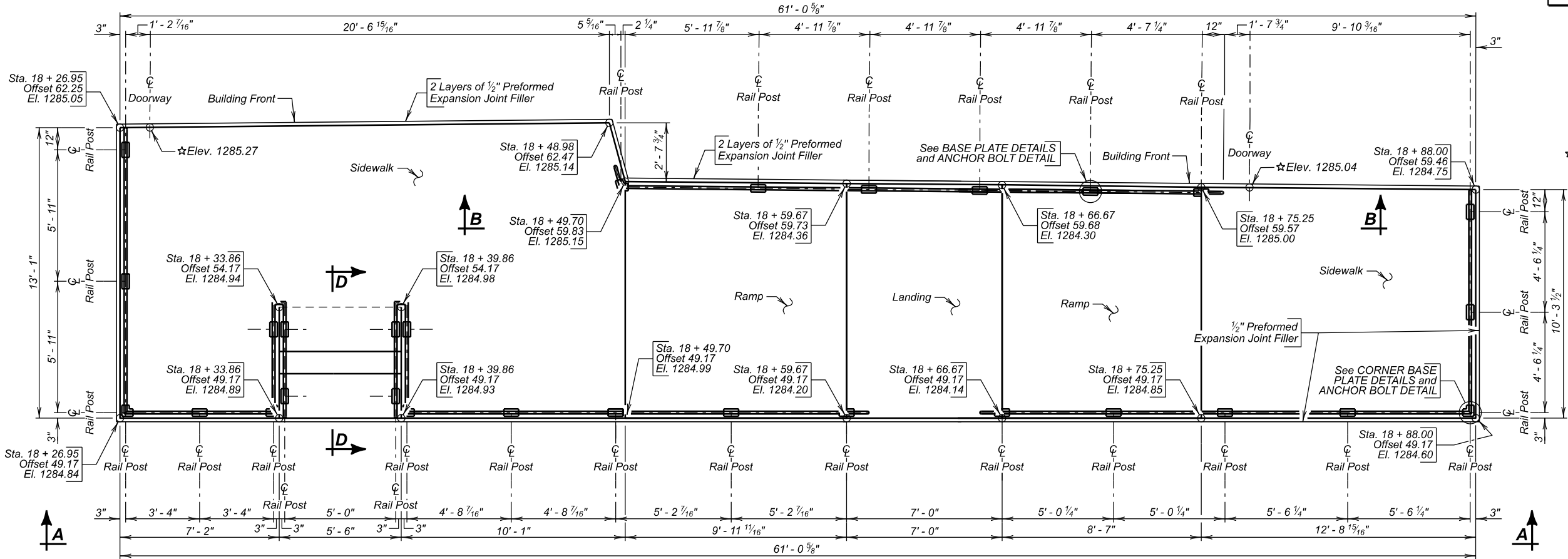
- ☆ 1. The plans elevations and slopes shown to construct the ramp and landing are based on the existing doorway threshold elevation. The doorway threshold elevation will be field verified and if the field verified elevation is different than that shown in the plans adjust ramp and stairway elevations accordingly. If field elevations defer from plans elevations by more than one inch, contact the Bridge Construction Engineer before proceeding with construction.
2. All concrete will be Class M6 in accordance with Section 462.
3. All reinforcing steel will be epoxy coated and will conform to ASTM A615, Grade 60.
4. Use 2" clear cover on all reinforcing steel except as shown.
5. All concrete will be thoroughly tamped and spaded against forms to leave a smooth surface without honeycomb. All exposed edges will be chamfered $\frac{3}{4}$ " except as shown.
6. Place concrete on undisturbed soil. If backfilling is necessary, compact with mechanical tampers to the satisfaction of the Engineer.
7. The concrete sidewalk will be constructed in accordance with Section 651.
8. Cost of the $\frac{1}{2}$ " Preformed Expansion Joint Filler will be incidental to the contract unit price per cubic yard for "Class M6 Concrete".
9. All costs for constructing ramps, stairways and pipe hand railing including labor, material equipment and incidentals necessary to complete the work will be included in the Class M6 concrete, Epoxy Coated Reinforcing Steel and Pipe Handrail bid items. Payment will be for plans quantities regardless of the quantity actually used.

SHOP PLANS

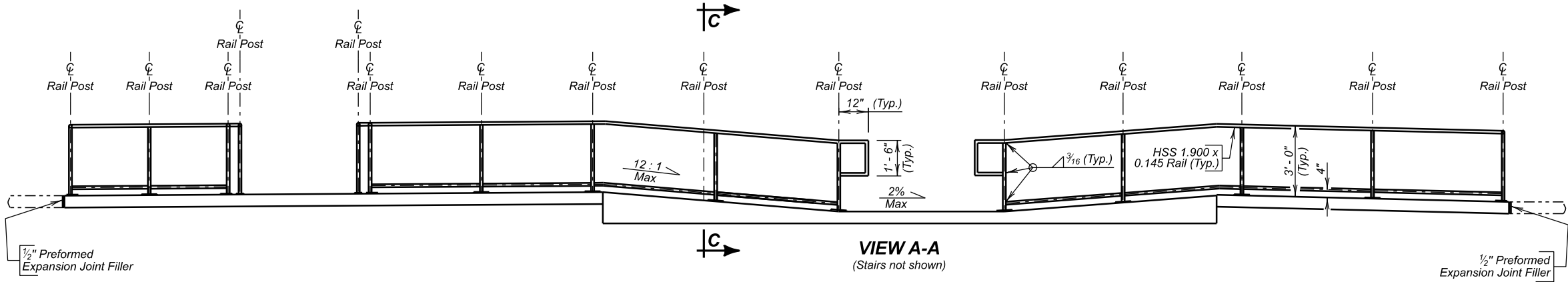
The fabricator will submit shop plans in accordance with the Specifications or in Adobe PDF format. Shop plan submittals will be sent to the Office of Bridge Design.

INDEX OF SHEETS-

- Sheet No. 1 - General Drawing and Quantities
Sheet No. 2 - Railing Details and Notes
Sheet No. 3 - Ramp Details (A)
Sheet No. 4 - Ramp Details (B)

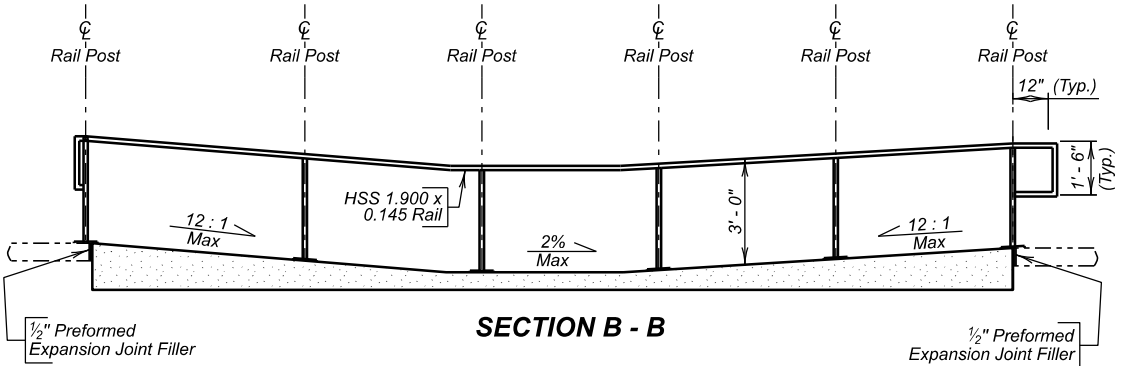


PLAN



VIEW A-A
(Stairs not shown)

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Class M6 Concrete	Cu. Yd.	16.6
Epoxy Coated Reinforcing Steel	Lb.	1331
Pipe Handrail	Ft.	121



SECTION B - B

GENERAL DRAWING & QUANTITIES

FOR
ACCESS RAMP A

IN HURON
STA. 18 + 26.95 TO
STA. 18 + 88.00 - LT
PCN 06JA

SEC. 12-T110N-R62W
NH-CR 0037(156)125

BEADLE COUNTY
S. D. DEPT. OF TRANSPORTATION
SEPTEMBER 2025

DESIGNED BY AH BEAD06JA	DRAWN BY CK 06JAKA01	CHECKED BY CK	Steve A. Johnson BRIDGE ENGINEER
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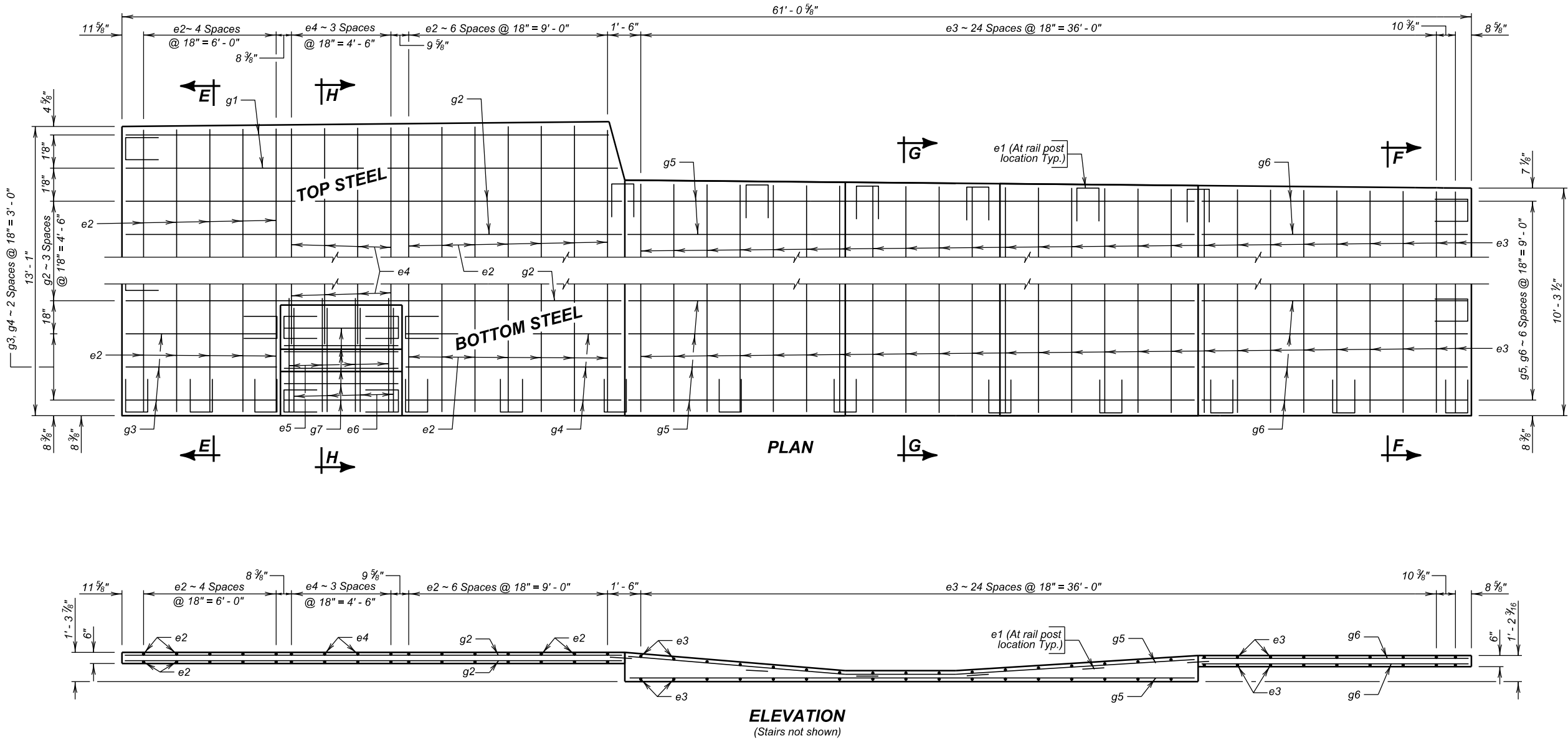
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Plotted From - TRSF12141

Plot Scale - 1:0.169082

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B96	B139

Plotting Date: 06/03/2026



RAMP DETAILS (A)

FOR
ACCESS RAMP A

IN HURON
STA. 18 + 26.95 TO
STA. 18 + 88.00 - LT

SEC. 12-T110N-R62W
NH-CR 0037(156)125

BEADLE COUNTY
S. D. DEPT. OF TRANSPORTATION

SEPTEMBER 2025

3 OF 4

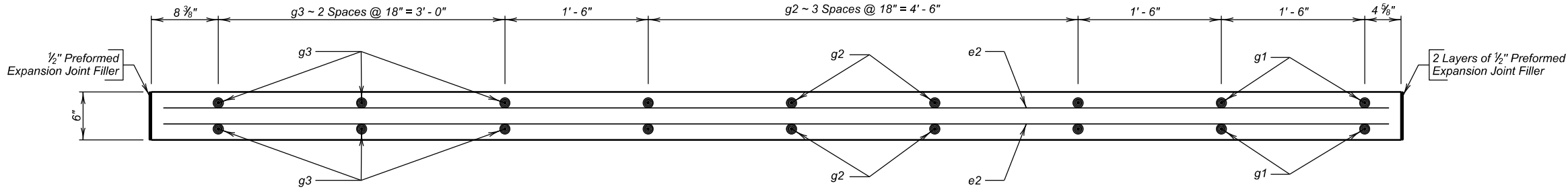
DESIGNED BY AH BEAD06JA	DRAWN BY CK 06JAKA03	CHECKED BY CK	<i>Steve A. Johnson</i> BRIDGE ENGINEER
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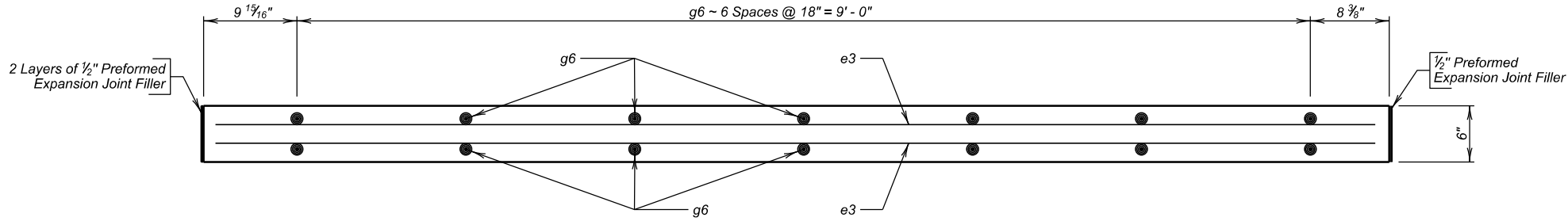
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B97	B139

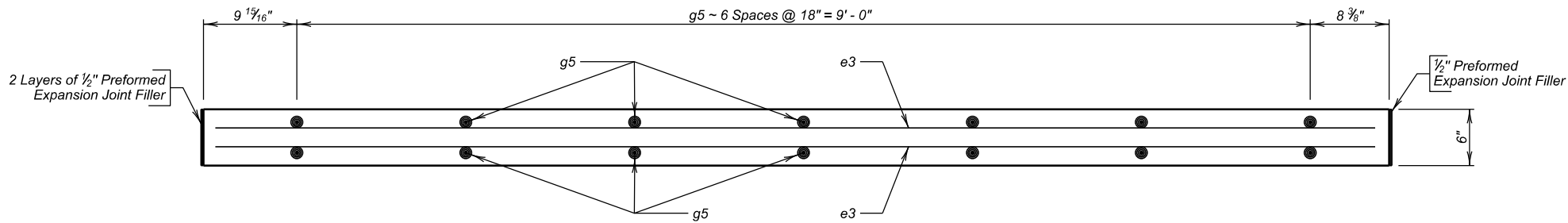
Plotting Date: 06/03/2026



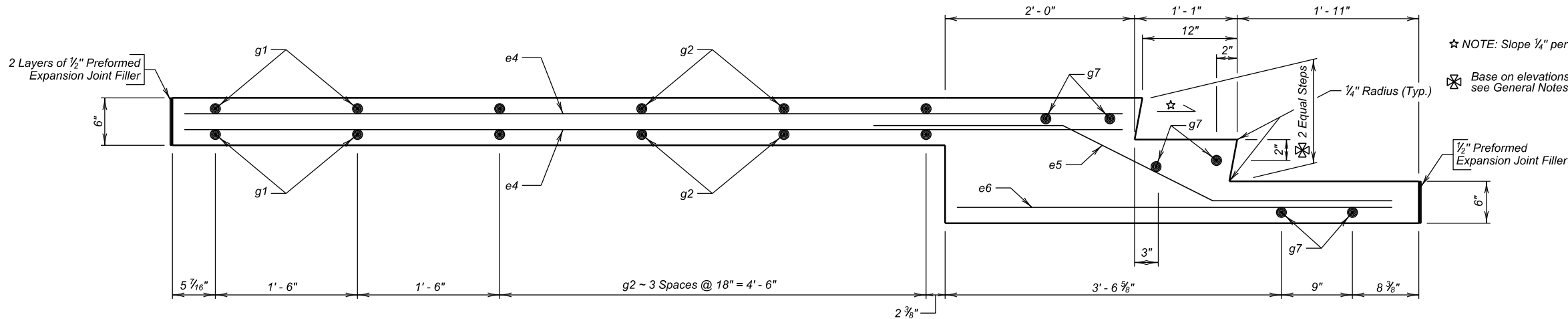
SECTION E - E



SECTION F - F



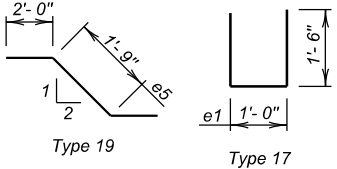
SECTION G - G



SECTION H - H

REINFORCING SCHEDULE

Mk.	No.	Size	Length	Type
e1	29	4	4' - 0"	17
e2	24	4	12' - 10"	Str.
e3	52	4	10' - 0"	Str.
e4	8	4	9' - 10"	Str.
e5	4	4	5' - 9"	19
e6	4	4	4' - 9"	Str.
g1	4	4	21' - 11"	Str.
g2	8	4	22' - 6"	Str.
g3	6	4	6' - 11"	Str.
g4	6	4	9' - 10"	Str.
g5	14	4	25' - 7"	Str.
g6	14	4	12' - 1"	Str.
g7	6	4	5' - 3"	Str.



NOTES:
All dimensions are out to out of bars.
* Bend in field as necessary to fit.

RAMP DETAILS (B)

FOR
ACCESS RAMP A

IN HURON
STA. 18 + 26.95 TO
STA. 18 + 88.00 - LT

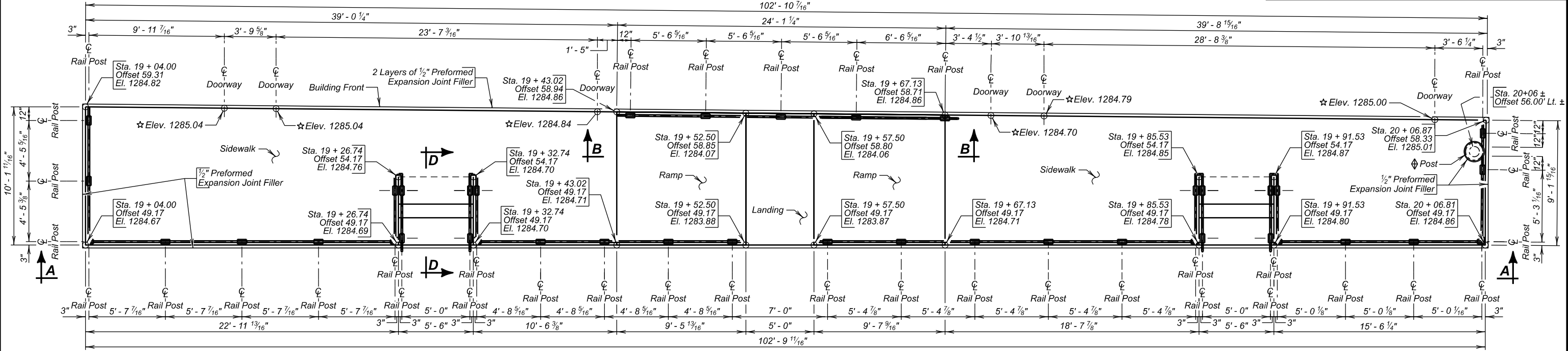
SEC. 12-T110N-R62W
NH-CR 0037(156)125

BEADLE COUNTY
S. D. DEPT. OF TRANSPORTATION
SEPTEMBER 2025

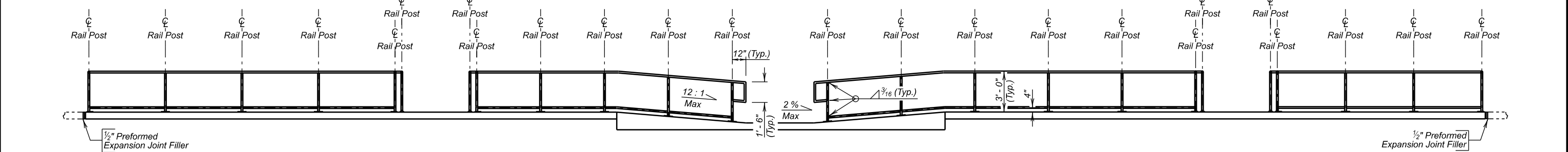
4 OF 4

DESIGNED BY AH BEAD06JA	DRAWN BY CK 06JATG04	CHECKED BY CK	Steve A. Johnson BRIDGE ENGINEER
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File - ...06JA_Ramps North and South.dgn



PLAN



VIEW A - A
(stairs not shown)

SPECIFICATIONS

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 10-7-26 Version, Required Provisions, and Special Provisions as included in the Proposal. The Standard Specifications for Roads and Bridges is available for download and viewing at: <https://dot.sd.gov/doing-business/contractors/standard-specifications>.

GENERAL NOTES

1. The plans elevations and slopes shown to construct the ramp and landing are based on the existing doorway threshold elevation. The doorway threshold elevation will be field verified and if the field verified elevation is different than that shown in the plans adjust ramp and stairway elevations accordingly. If field elevations defer from plans elevations by more than one inch, contact the Bridge Construction Engineer before proceeding with construction.
2. All concrete will be Class M6 in accordance with Section 462.
3. All reinforcing steel will be epoxy coated and will conform to ASTM A615, Grade 60.
4. Use 2" clear cover on all reinforcing steel except as shown.
5. All concrete will be thoroughly tamped and spaded against forms to leave a smooth surface without honeycomb. All exposed edges will be chamfered 3/4" except as shown.
6. Place concrete on undisturbed soil. If backfilling is necessary, compact with mechanical tampers to the satisfaction of the Engineer.
7. The concrete sidewalk will be constructed in accordance with Section 651.
8. Cost of the 1/2" Preformed Expansion Joint Filler will be incidental to the contract unit price per cubic yard for "Class M6 Concrete".
9. All costs for constructing ramps, stairways and pipe hand railing including labor, material equipment and incidentals necessary to complete the work will be included in the Class M6 concrete, Epoxy Coated Reinforcing Steel and Pipe Handrail bid items. Payment will be for plans quantities regardless of the quantity actually used.

SHOP PLANS

Shop plans will be required as specified by the construction specifications.

INDEX OF SHEETS-

- Sheet No. 1 - General Drawing and Quantities
- Sheet No. 2 - Railing Details and Notes
- Sheet No. 3 - Ramp Details (A)
- Sheet No. 4 - Ramp Details (B)

GENERAL DRAWING & QUANTITIES

FOR
ACCESS RAMP B

IN HURON
STA. 19 + 04.00 TO
STA. 20 + 06.87 - LT
PCN 06JA

SEC. 12-T110N-R62W
NH - CR 0037(156)125

BEADLE COUNTY
S. D. DEPT. OF TRANSPORTATION

OCTOBER 2025

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Class M6 Concrete	Cu. Yd.	21.9
Epoxy Coated Reinforcing Steel	Lb.	1693
Pipe Handrail	Ft.	173

PLANS BY :
OFFICE OF BRIDGE DESIGN, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

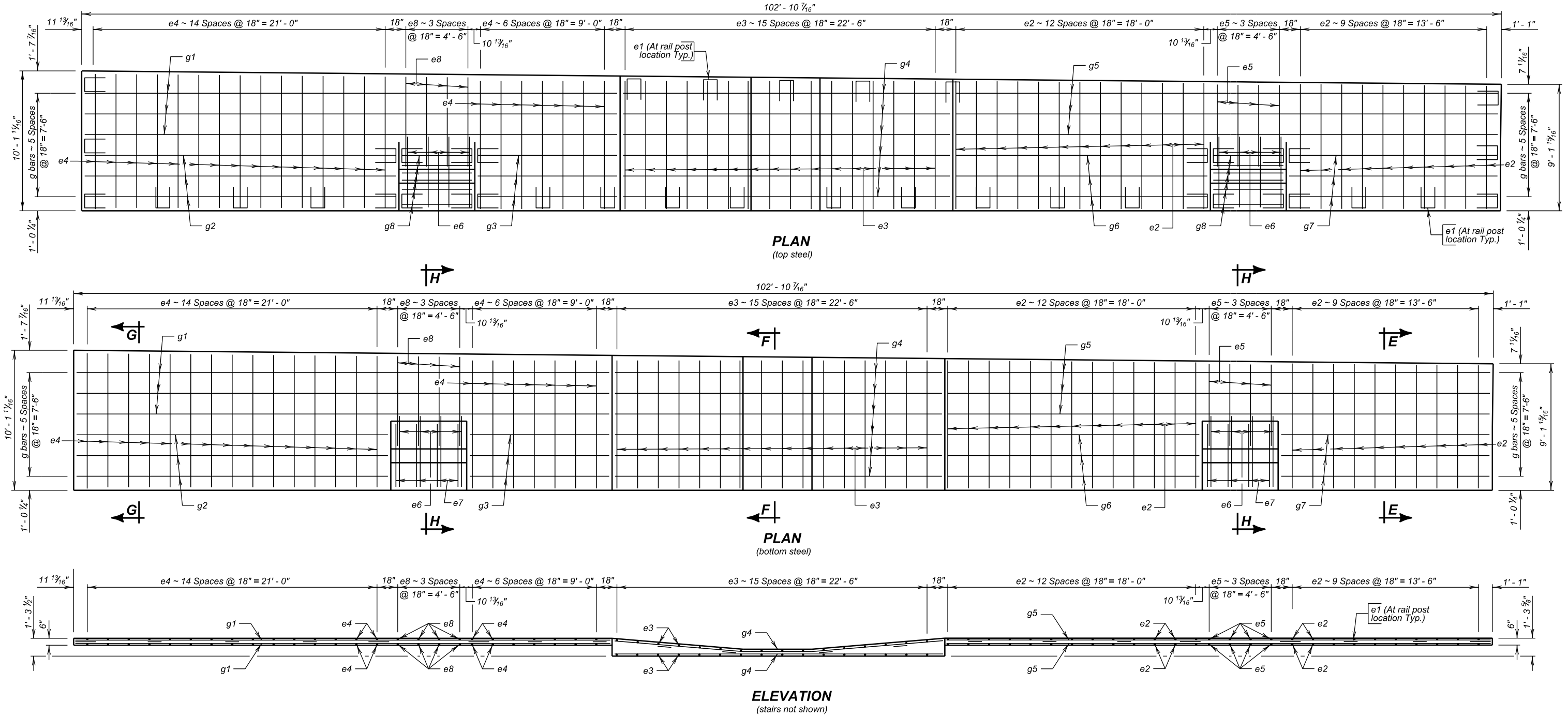
DESIGNED BY AH BEAD06JA	DRAWN BY CK 06JATG01	CHECKED BY CK	Steve A. Johnson BRIDGE ENGINEER
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Plot Scale - 1"=10'-0"

Plotted From - TRSF12141

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B100	B139

Plotting Date: 06/03/2026



RAMP DETAILS (A)

FOR
ACCESS RAMP B

IN HURON
STA. 19 + 04.00 TO
STA. 20 + 06.87 - LT

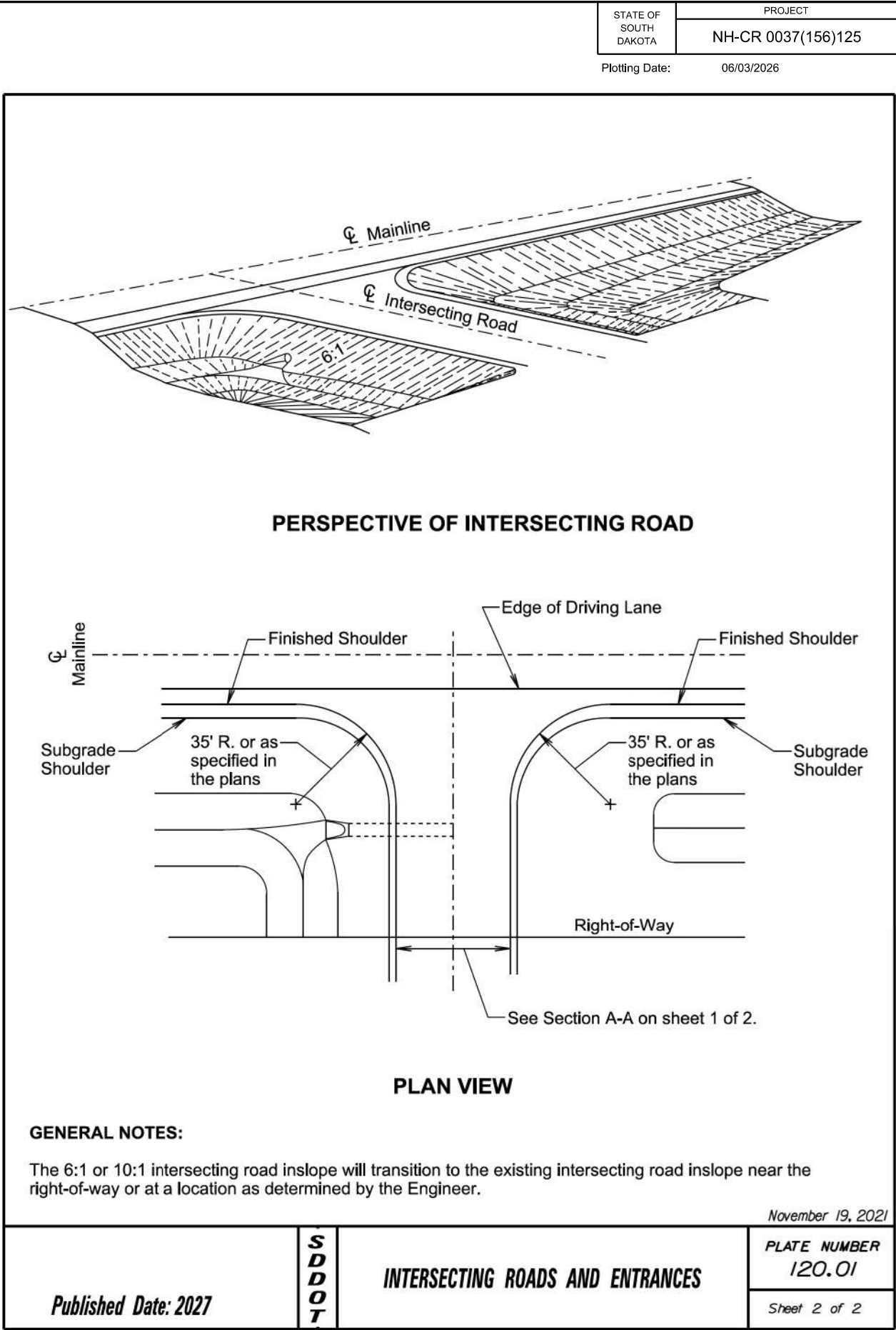
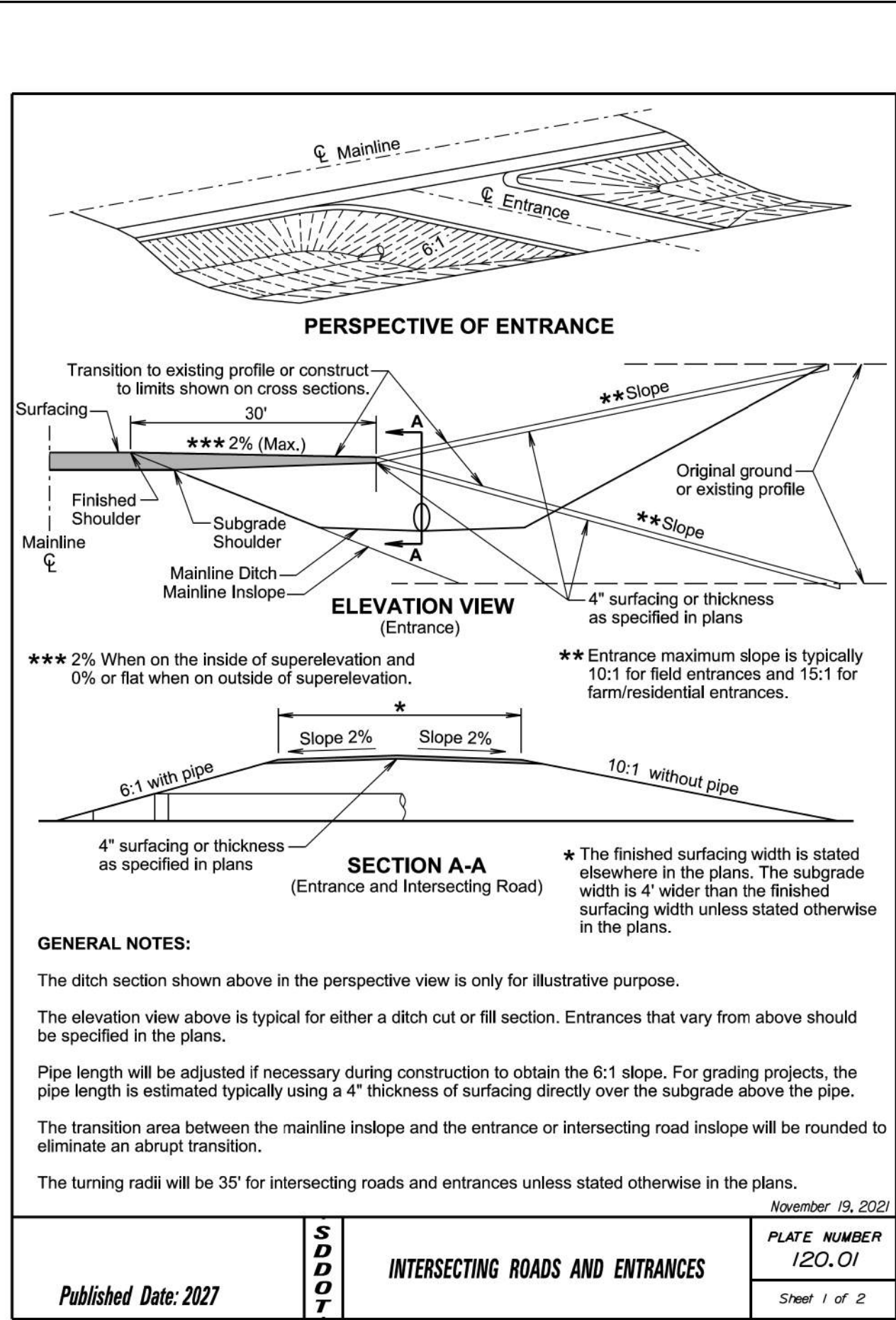
SEC. 12-T110N-R62W
NH - CR 0037(156)125

BEADLE COUNTY
S. D. DEPT. OF TRANSPORTATION
OCTOBER 2025

3 OF 4

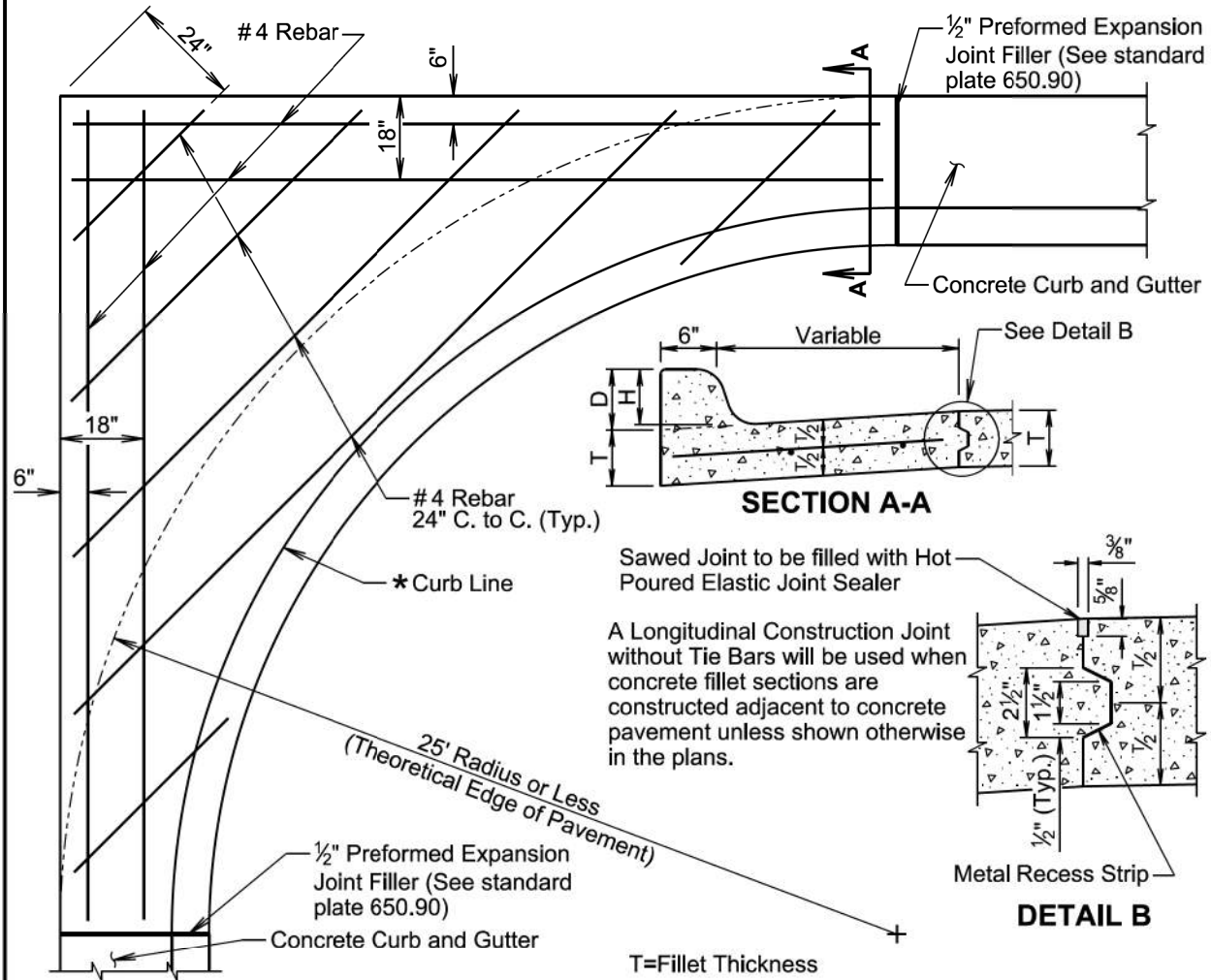
DESIGNED BY AH BEAD06JA	DRAWN BY CK 06JATG03	CHECKED BY CK	Steve A. Johnson BRIDGE ENGINEER
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File - ...06JA_Ramps North and South.dgn



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B103	B139

Plotting Date: 06/03/2026



* If a curb ramp is constructed adjacent to a PCC fillet section, the curb will need to be modified. Refer to the corresponding curb ramp standard plate or other special details in the plans for modification of the PCC fillet section.

March 31, 2024

Published Date: 2027	S D D O T	PCC FILLET SECTION WITH TYPE B CURB AND GUTTER	PLATE NUMBER 380.30
			Sheet 1 of 2

GENERAL NOTES:

For fillets with irregular shapes or bump outs:

- 1) The 6" and 18" offset #4 rebar will be included on any side next to pavement or driveways (not along the Curb and Gutter).
- 2) All remaining area will have #4 rebar spaced 24" center to center in a square pattern.

Dimensions D, H, and T will conform to those shown on the appropriate curb and gutter standard plate.

All rebar will be in conformance with Sections 480 and 1010 of the Specifications. All rebar will have a minimum of 3 inches of clear cover.

Class M6 Concrete will be used in construction of the fillets.

The concrete curb will be monolithic with the concrete fillet. No separate payment for this curb will be made as the curb is considered a part of the fillet.

Joints will be constructed at 10-foot intervals except when fillets are constructed adjacent to PCC Pavement. If there is adjacent PCC Pavement the joints will be extended from edge of pavement through the fillet section as directed by the Engineer.

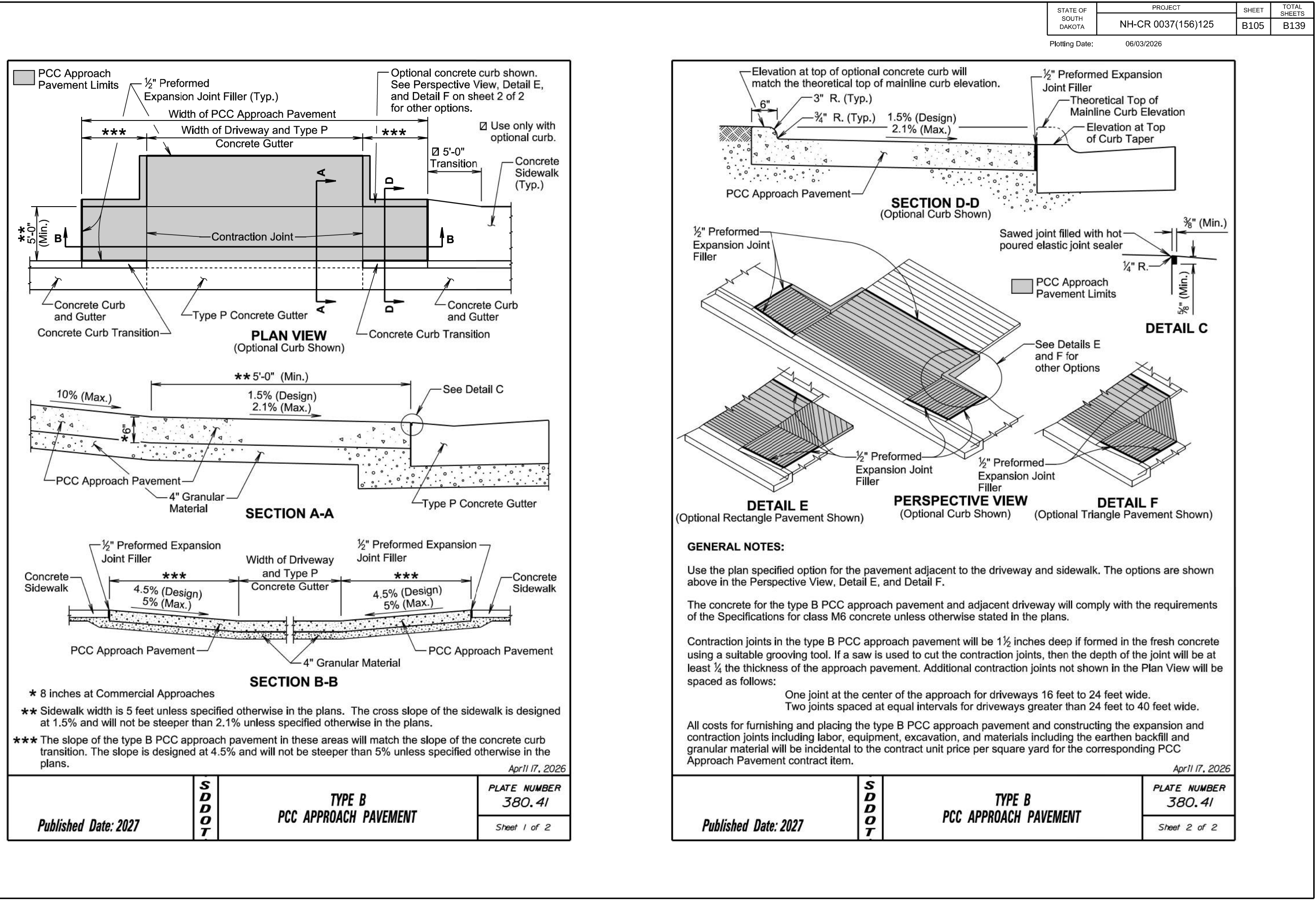
The cost for all materials, labor, and incidentals necessary to construct the PCC fillet section with curb and gutter will be incidental to the contract unit price per square yard for the corresponding PCC fillet section contract item.

March 31, 2024

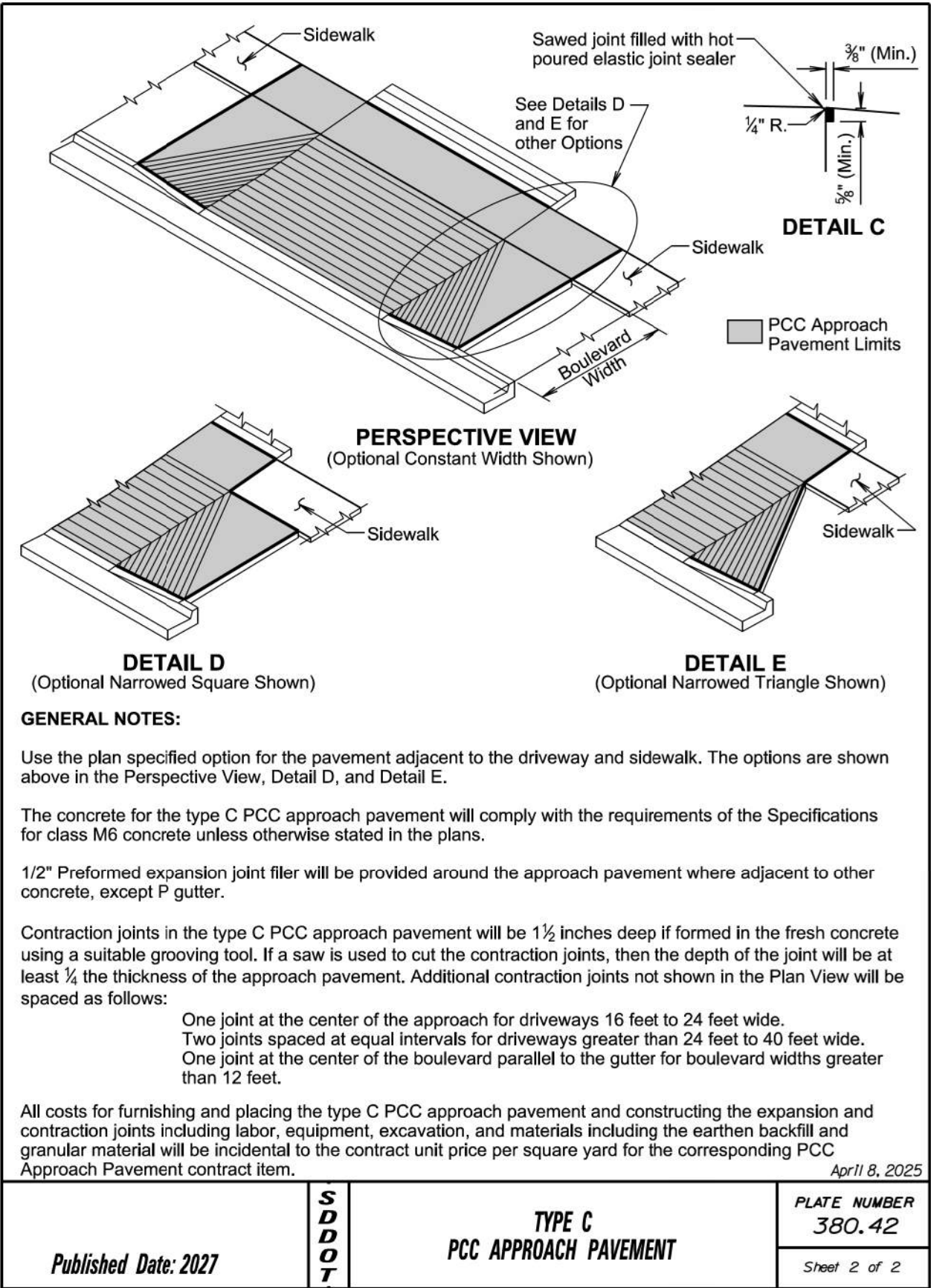
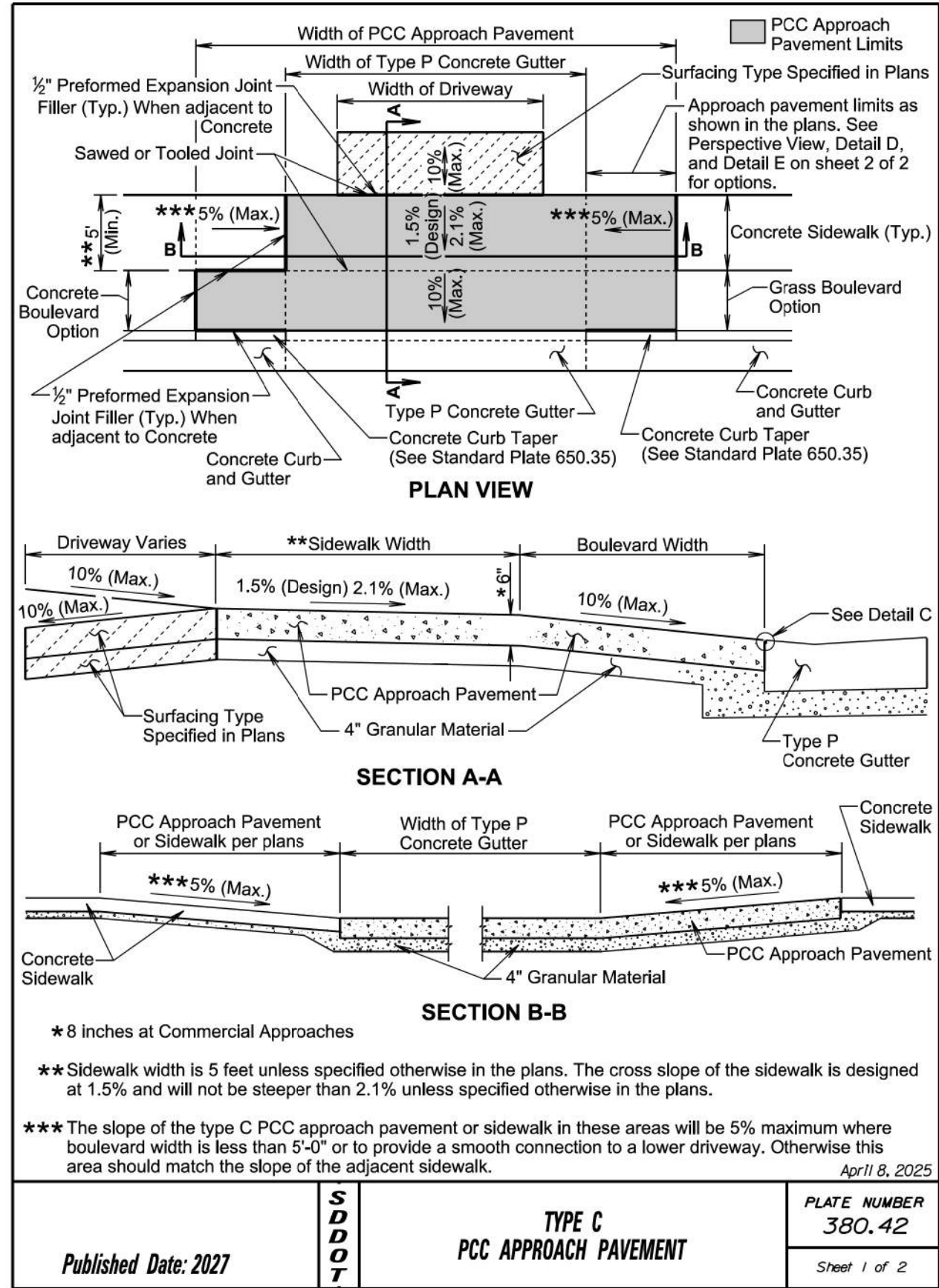
Published Date: 2027	S D D O T	PCC FILLET SECTION WITH TYPE B CURB AND GUTTER	PLATE NUMBER 380.30
			Sheet 2 of 2

Plot Scale - 1:200

Plotted From - TRSF12141

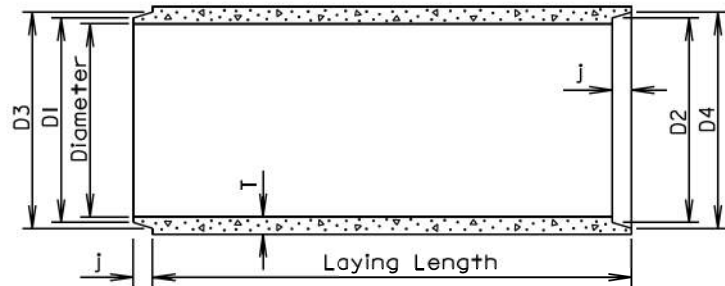


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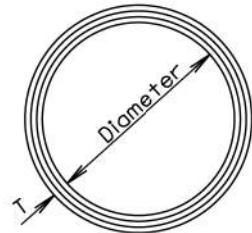


TOLERANCES IN DIMENSIONS

Diameter: $\pm 1.5\%$ for 24" Dia. or less and $\pm 1\%$ or $\frac{3}{8}"$ whichever is more for 27" Dia. or greater.
Diameters at joints: $\pm \frac{3}{16}"$ for 30" Dia. or less and $\pm \frac{1}{4}"$ for 36" or greater.
Length of joint (J): $\pm \frac{1}{4}"$.
Wall thickness (T): not less than design T by more than 5% or $\frac{3}{16}"$, whichever is greater.
Laying length: shall not underrun by more than $\frac{1}{2}"$.



LONGITUDINAL SECTION
(* Tongue and Groove Style Shown)



END VIEW

GENERAL NOTES:

Construction of R.C.P. shall conform to the requirements of Section 990 of the Specifications.

Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

* Unless otherwise specified in the plans, the RCP may be either tongue and groove or bell and spigot style.

Diam. (in.)	Approx. Wt. /Ft. (lb.)	T (in.)	J (in.)	D1 (in.)	D2 (in.)	D3 (in.)	D4 (in.)
12	92	2	1 3/4	13 1/4	13 5/8	13 3/8	14 1/4
15	127	2 1/4	2	16 1/2	16 7/8	17 1/4	17 5/8
18	168	2 1/2	2 1/4	19 5/8	20	20 3/8	20 3/4
21	214	2 3/4	2 1/2	22 7/8	23 1/4	23 3/4	24 1/8
24	265	3	2 3/4	26	26 3/8	27	27 3/8
27	322	3 1/4	3	29 1/4	29 5/8	30 1/4	30 5/8
30	384	3 1/2	3 1/4	32 3/8	32 3/4	33 1/2	33 7/8
36	524	4	3 3/4	38 3/4	39 1/4	40	40 1/2
42	685	4 1/2	4	45 1/8	45 5/8	46 1/2	47
48	867	5	4 1/2	51 1/2	52	53	53 1/2
54	1070	5 1/2	4 1/2	57 7/8	58 3/8	59 3/8	59 7/8
60	1296	6	5	64 1/4	64 3/4	66	66 1/2
66	1542	6 1/2	5 1/2	70 5/8	71 1/8	72 1/2	73
72	1810	7	6	77	77 1/2	79	79 1/2
78	2098	7 1/2	6 1/2	83 3/8	83 3/8	85 5/8	86 1/8
84	2410	8	7	89 3/4	90 1/4	92 1/8	92 5/8
90	2740	8 1/2	7	95 3/4	96 1/4	98 1/8	98 5/8
96	2950	9	7	102 1/8	102 5/8	104 1/2	105
102	3075	9 1/2	7 1/2	109	109 1/2	111 1/2	112
108	3870	10	7 1/2	115 1/2	116	118	118 3/2

April 17, 2026

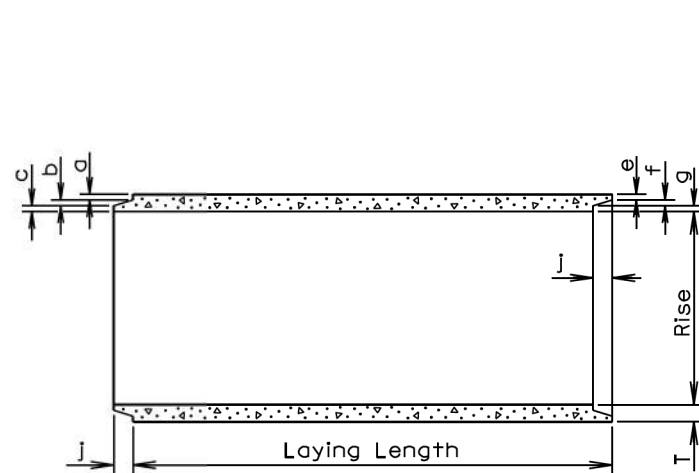
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REINFORCED CONCRETE PIPE

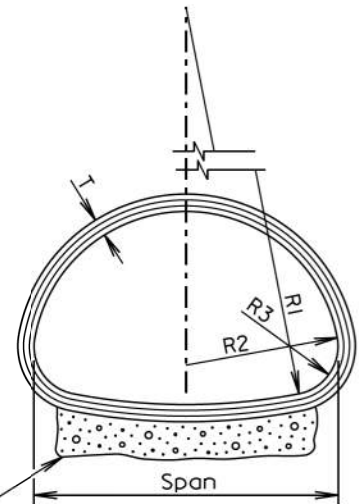
PLATE NUMBER
450.01

Sheet 1 of 1

Published Date: 2027



LONGITUDINAL SECTION



END VIEW

TOLERANCES IN DIMENSIONS

Radial dimensions at joints: $\pm \frac{1}{8}"$ for 65" span or less and $\pm \frac{1}{4}"$ for longer spans.
Rise and Span: $\pm 2\%$ of tabular values.
Length of Joint (J): $\pm \frac{1}{4}"$.
Wall thickness (T): not less than design T by more than 5% or $\frac{3}{16}"$, whichever is greater.
Laying length: shall not underrun by more than $\frac{1}{2}"$.

Gravel Bedding Material shall be supplied for 102" to 169" spans. It shall be placed to a thickness of 6" (Min.) x 85% of the Span x Length of culvert and shall conform to the gradation requirements for gravel surfacing except material may be screened or may be plan provided material.

* Size (in.)	Approx. Wt./Ft. (lb.)	Rise (in.)	Span (in.)	T (in.)	a (in.)	b (in.)	c (in.)	J (in.)	e (in.)	f (in.)	g (in.)	R1 (in.)	R2 (in.)	R3 (in.)
18	170	13 1/2	22	2 1/2	1 3/8	3/8	3/4	2	1 1/8	3/8	1	27 1/2	13 3/4	5 1/4
24	320	18	28 1/2	3 1/2	1 5/8	1/2	1 3/8	3	1 3/8	1/2	1 5/8	40 1/16	14 3/4	4 5/8
30	450	22 1/2	36 1/4	4	1 13/16	5/8	1 9/16	3 1/2	1 9/16	5/8	1 13/16	51	18 3/4	6 1/8
36	600	26 5/8	43 3/4	4 1/2	2	3/4	1 3/4	4	1 3/4	3/4	2	62	22 1/2	6 1/2
42	740	31 5/16	51 1/8	4 1/2	2	3/4	1 3/4	4	1 3/4	3/4	2	73	26 1/4	7 3/4
48	890	36	58 1/2	5	2 1/4	3/4	2	5	2	3/4	2 1/4	84	30	8 7/8
54	1100	40	65	5 1/2	2 1/2	3/4	2 1/4	5	2 1/4	3/4	2 1/2	92 1/2	33 3/8	10
60	1400	45	73 1/2	6	3 5/16	3/4	1 5/16	5	2 3/4	3/4	2 1/2	105	37 1/2	11
72	1900	54	88	7	3 13/16	1	2 3/16	6	3 1/4	1	2 3/4	126	45	13 5/16
84	2500	62	102	8	4 1/8	1	2 7/8	6	3 1/2	1	3 1/2	162 1/2	52	14 1/2
96	3300	78	122 3/8	9	4 1/2	1	3 1/2	7	4	1	4	218	62	20
108	4200	88	138 1/2	10	5	1	4	7	4 1/2	1	4 1/2	269	70	22
120	5100	96 7/8	154	11	5 1/2	1	4 1/2	7	5	1	5	301 3/8	78	24
132	5100	106 1/2	168 3/4	10		1	4	7	4 1/2	1	4 1/2	329	85 5/8	26 7/8

* Equivalent Diameter of Circular R.C.P.

GENERAL NOTES:

Construction of R.C.P. Arch shall conform to the requirements of Section 990 of the Specifications. Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

June 26, 2015

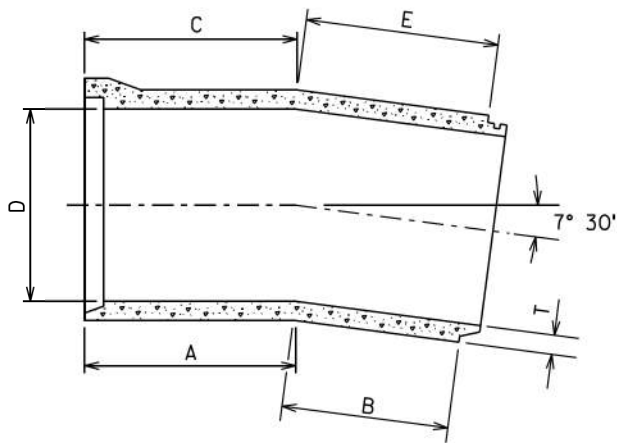
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REINFORCED CONCRETE PIPE ARCH

PLATE NUMBER
450.02

Sheet 1 of 1

Published Date: 2027

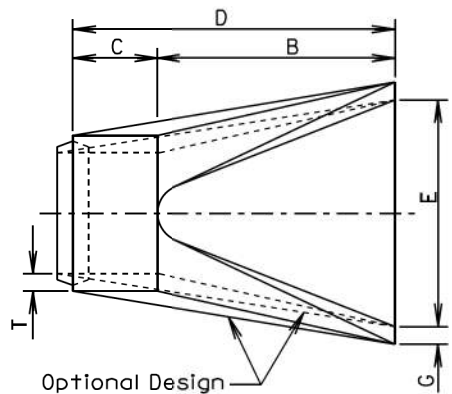


GENERAL NOTE:
Centerline laying length: 4'-0
Radius of Curve: 30.5'

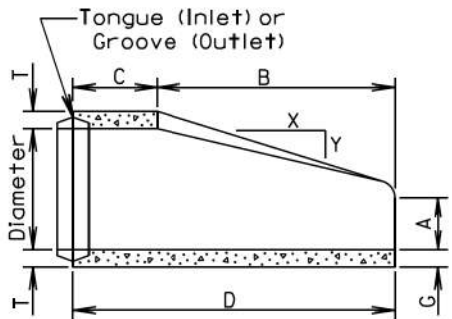
D (in.)	T (in.)	A (in.)	B (in.)	C (in.)	E (in.)	Weight of Section (lbs.)
12	2	36 ¹⁵ / ₃₂	10 ¹⁵ / ₃₂	37 ¹⁷ / ₃₂	11 ¹⁷ / ₃₂	368
15	2 ¹ / ₄	36 ¹ / ₂	10 ¹ / ₄	37 ³ / ₄	11 ¹ / ₂	508
18	2 ¹ / ₂	24 ¹ / ₂	22	26	23 ¹ / ₂	672
21	2 ³ / ₄	24 ¹ / ₂	21 ³ / ₄	26 ¹ / ₄	23 ¹ / ₂	856
24	3	25 ¹ / ₃₂	21 ¹ / ₃₂	26 ³ / ₃₂	22 ³ / ₃₂	1060
27	3 ¹ / ₄	25 ¹ / ₃₂	20 ²⁵ / ₃₂	27 ⁷ / ₃₂	22 ³ / ₃₂	1288
30	3 ¹ / ₂	25 ¹ / ₃₂	20 ¹⁷ / ₃₂	27 ¹⁵ / ₃₂	22 ³ / ₃₂	1536
33	3 ³ / ₄	24 ¹⁵ / ₁₆	20 ⁷ / ₁₆	27 ⁹ / ₁₆	23 ¹ / ₁₆	1808
36	4	24 ¹³ / ₁₆	20 ⁵ / ₁₆	27 ¹¹ / ₁₆	23 ³ / ₁₆	2096
42	4 ¹ / ₂	24 ²⁷ / ₃₂	19 ²⁷ / ₃₂	28 ⁵ / ₃₂	23 ⁵ / ₃₂	2740
48	5	24 ¹⁹ / ₃₂	19 ¹⁹ / ₃₂	28 ¹³ / ₃₂	23 ¹³ / ₃₂	3468
54	5 ¹ / ₂	24 ⁵ / ₈	19 ¹ / ₈	29 ¹¹ / ₃₂	23 ³ / ₈	4280
60	6	24 ²⁷ / ₃₂	18 ²⁷ / ₃₂	29 ¹¹ / ₃₂	23 ¹¹ / ₃₂	5184
66	6 ¹ / ₂	24 ¹¹ / ₁₆	18 ³ / ₁₆	29 ¹³ / ₁₆	23 ⁵ / ₁₆	6168
72	7	24 ¹ / ₈	18 ¹ / ₈	29 ⁷ / ₈	23 ⁷ / ₈	7240
84	8	24 ¹ / ₄	17 ¹ / ₄	30 ³ / ₄	23 ³ / ₄	9640
96	9	23 ⁵ / ₁₆	17 ⁵ / ₁₆	30 ¹¹ / ₁₆	24 ¹¹ / ₁₆	12400

March 31, 2000

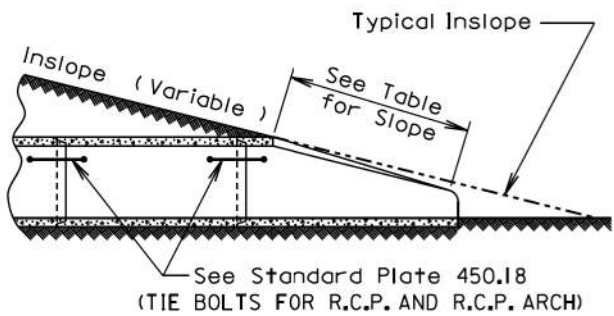
Published Date: 2027	S D D O T	REINFORCED CONCRETE PIPE LONG RADIUS BEND	PLATE NUMBER 450.04
			Sheet 1 of 1



TOP VIEW

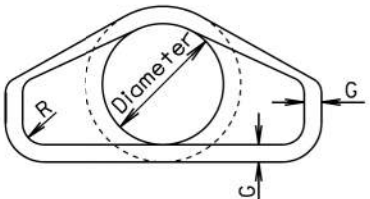


LONGITUDINAL SECTION



SLOPE DETAIL

GENERAL NOTES:
Lengths of concrete pipe shown on plan sheets are between flared ends only.
Construction of R.C.P. Flared End shall conform to the requirements of Section 990 of the Specifications.

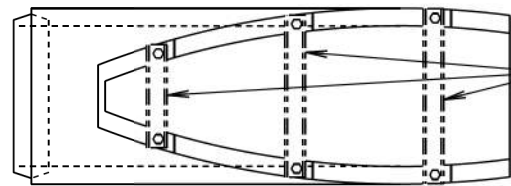


END VIEW

Dia. (in.)	Approx. Wt. of Section (lbs.)	Approx. Slope (X to Y)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	G (in.)	R (in.)
12	530	2.4: 1	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	1 ¹ / ₂
15	740	2.4: 1	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	1 ¹ / ₂
18	990	2.3: 1	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	1 ¹ / ₂
21	1280	2.4: 1	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	1 ¹ / ₂
24	1520	2.5: 1	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	1 ¹ / ₂
27	1930	2.5: 1	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	1 ¹ / ₂
30	2190	2.5: 1	3 ¹ / ₂	12	54	19 ³ / ₄	73 ³ / ₄	60	3 ¹ / ₂	1 ¹ / ₂
36	4100	2.5: 1	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	1 ¹ / ₂
42	5380	2.5: 1	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	1 ¹ / ₂
48	6550	2.5: 1	5	24	72	26	98	84	5	1 ¹ / ₂
54	8240	2: 1	5 ¹ / ₂	27	65	33 ¹ / ₄	98 ¹ / ₄	90	5 ¹ / ₂	1 ¹ / ₂
60	8730	1.9: 1	6	35	60	39	99	96	5	1 ¹ / ₂
66	10710	1.7: 1	6 ¹ / ₂	30	72	27	99	102	5 ¹ / ₂	1 ¹ / ₂
72	12520	1.8: 1	7	36	78	21	99	108	6	1 ¹ / ₂
78	14770	1.8: 1	7 ¹ / ₂	36	90	21	111	114	6 ¹ / ₂	1 ¹ / ₂
84	18160	1.6: 1	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂
90	20900	1.5: 1	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	6

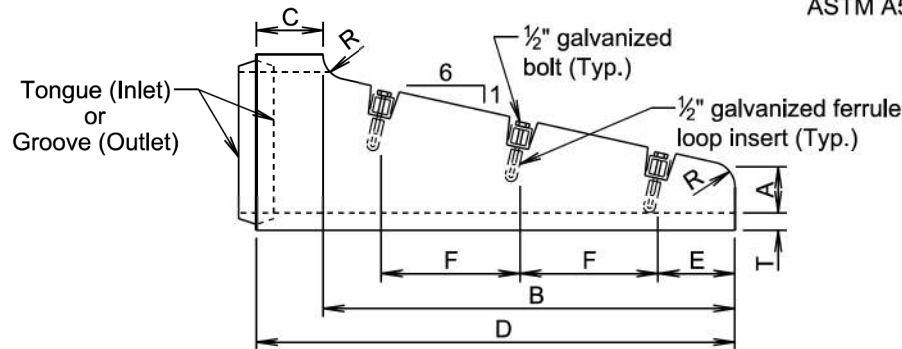
June 26, 2015

Published Date: 2027	S D D O T	R. C. P. FLARED ENDS	PLATE NUMBER 450.10
			Sheet 1 of 1

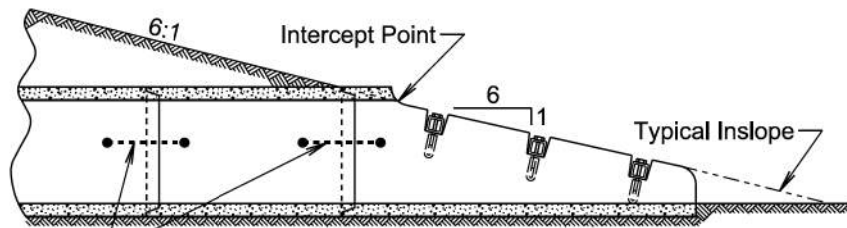


TOP VIEW

If bars are specified in the plans then provide HSS 2.5x2.5x.1875 Structural Steel Tubing in conformance with ASTM A500, Grade B or C or 3" Diameter Schedule 40 Pipe in conformance with ASTM A53, Grade B.



SIDE VIEW



ELEVATION VIEW

R. C. P. SAFETY ENDS											
Dia. (in.)	T (in.)	R (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	No. Sections	No. Bars	
FOR CIRCULAR PIPE											
15	2 1/4	3	6	48	9	57	6	18	1	3	
18	2 1/2	3	6	69	9	78	9	24	1	3	
*24	3	3	6	111	9	120	6	24	1 or 2	5	
FOR ARCH PIPE											
**18	2 1/2	1	6	39	33	72	6	24	1	2	

* The use of 2 sections must be an approved design.
** Equivalent Diameter of Circular R.C.P.

GENERAL NOTES:

The length of concrete pipe shown on the plans is between safety ends.
Safety ends without bars are acceptable with or without the bar notches.
Bars will be galvanized after fabrication in accordance with ASTM A123.

April 8, 2025

<i>Published Date: 2027</i>	S D D O T	R.C.P. SAFETY ENDS WITH OR WITHOUT BARS	PLATE NUMBER 450.12
			<i>Sheet 1 of 1</i>

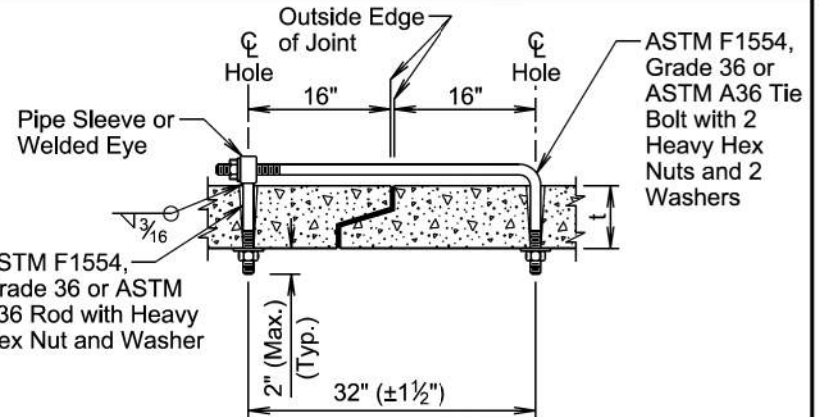
Wall "t" (in.)	Rod Dia. (in.)	Pipe Sleeve Dia. (nominal)
≤ 3 1/4	5/8	3/4
3 1/2-6 1/2	3/4	1
≥ 7	1	1 1/4

GENERAL NOTES:

Tie bolts will conform to ASTM F1554, Grade 36 or ASTM A36. Nuts will be heavy hex conforming to ASTM A563. Washers will conform to ASTM F436.

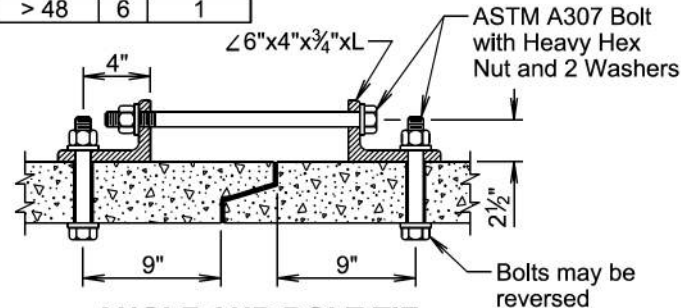
Pipe Sleeve will conform to ASTM A53, Grade B or ASTM A500, Grade B or C.

Galvanize adjustable eye bolt tie assembly in accordance with ASTM A153.



ADJUSTABLE EYE BOLT TIE

Pipe Dia. (in.)	"L" (in.)	Bolt Dia. (in.)
≤ 48	4	3/4
> 48	6	1



ANGLE AND BOLT TIE

GENERAL NOTES:

Angles will conform to ASTM A36.

Bolts will conform to ASTM A307. Nuts will be heavy hex conforming to ASTM A563. Washers will conform to ASTM F436.

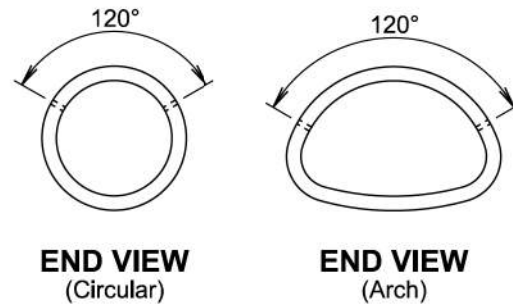
Galvanize angles, bolts, nuts, and washers in accordance with ASTM A153.

GENERAL NOTES:

In lieu of the tie bolts detailed above other types of tie bolt connections may be installed as approved by the Office of Bridge Design.

All pipe sections of R.C.P. and R.C.P. Arch will be tied with tie bolts except for pipe located between drop inlets, manholes, and junction boxes. All pipe sections of pipes that only enter or exit drop inlets, manholes, and junction boxes will be tied with tie bolts.

There will be no separate measurement or payment for the tie bolts. The cost for furnishing and installing the tie bolts will be incidental to the contract unit price per foot for the corresponding bid item for R.C.P. or R.C.P. Arch.

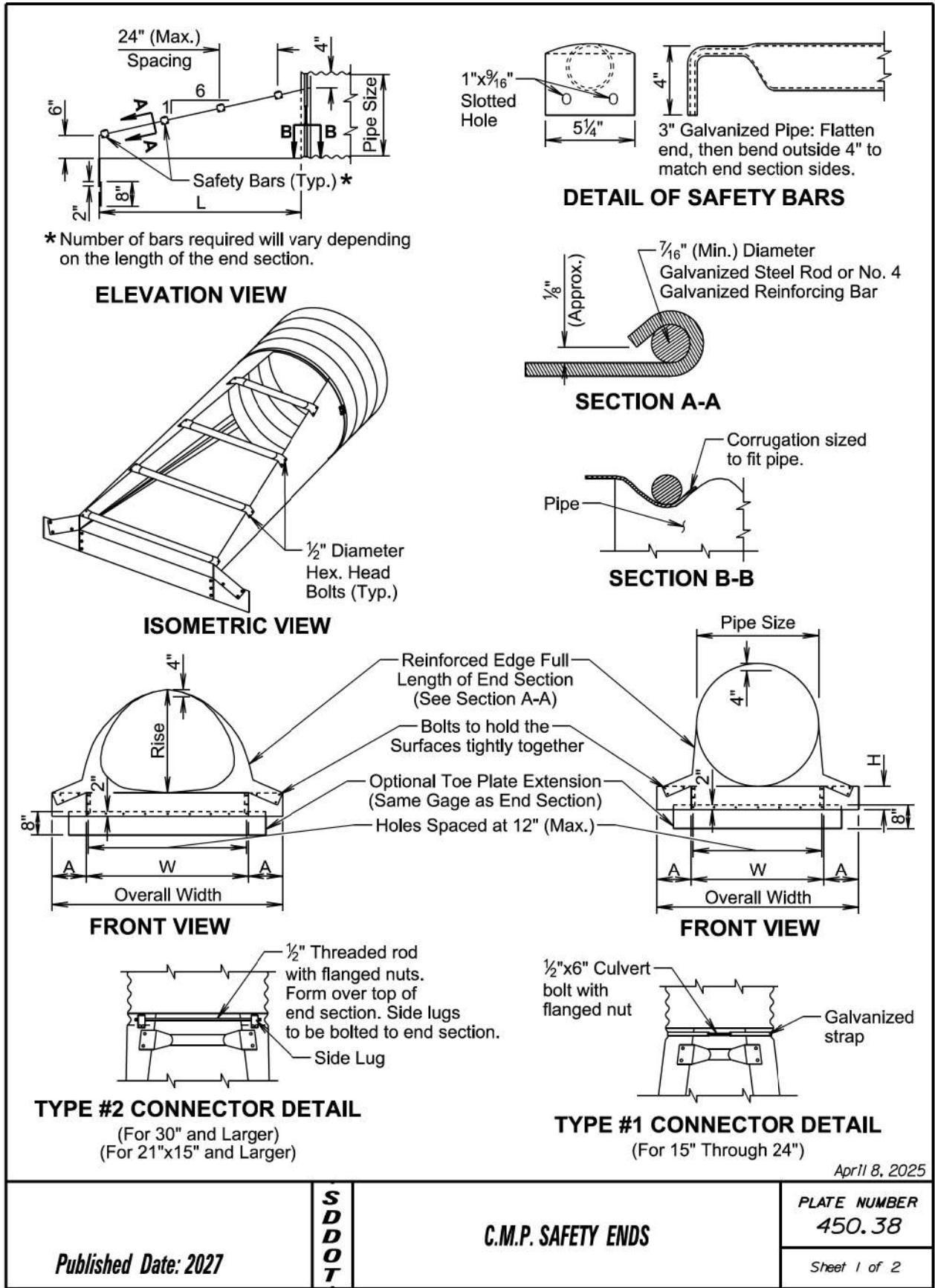


END VIEW
(Circular)

END VIEW
(Arch)

April 8, 2025

Published Date: 2027	S D D O T	TIE BOLTS FOR R.C.P. AND R.C.P. ARCH	PLATE NUMBER 450.18
			Sheet 1 of 1



ARCH C.M.P. SAFETY ENDS										
Equiv. Dia. (Inch)	(Inches)		(Min.) Thick.	Dimensions (Inches)			L Dimensions			
	Span	Rise	Inch	Gage	A	H	W	Overall Width	Slope	Length (Inch)
18	21	15	.064	16	8	6	27	43	6:1	30
21	24	18	.064	16	8	6	30	46	6:1	48
24	28	20	.064	16	8	6	34	50	6:1	60
30	35	24	.079	14	12	9	41	65	6:1	84
36	42	29	.109	12	12	9	48	72	6:1	114
42	49	33	.109	12	16	12	55	87	6:1	138
48	57	38	.109	12	16	12	63	95	6:1	168
54	64	43	.109	12	16	12	70	102	6:1	198
60	71	47	.109	12	16	12	77	109	6:1	222
72	83	57	.109	12	16	12	89	121	6:1	282

CIRCULAR C.M.P. SAFETY ENDS								
Pipe Dia. (Inch)	(Min.) Thick.	Dimensions (Inches)				L Dimensions		
	Inch	Gage	A	H	W	Overall Width	Slope	Length (Inch)
15	.064	16	8	6	21	37	6:1	30
18	.064	16	8	6	24	40	6:1	48
21	.064	16	8	6	27	43	6:1	66
24	.064	16	8	6	30	46	6:1	84
30	.109	12	12	9	36	60	6:1	120
36	.109	12	12	9	42	66	6:1	156
42	.109	12	16	12	48	80	6:1	192
48	.109	12	16	12	54	86	6:1	228
54	.109	12	16	12	60	92	6:1	264
60	.109	12	16	12	66	98	6:1	300

GENERAL NOTES:

Safety bars will be provided when specified in the plans.

Safety ends will be fabricated from galvanized steel conforming to the requirements of the Specifications.

Safety bars will be fabricated from steel schedule 40 pipe in conformance with ASTM A53, grade B or HSS 3.5x.216 in conformance with ASTM A500, grade B or C.

Slotted holes for safety bar attachment will be provided for all end sections.

Attachment to circular pipes 15" through 24" diameter will be made with Type #1 straps. All other sizes will be attached with Type #2 rods and lugs.

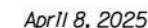
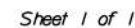
When stated in the plans, optional toe plate extension will be punched and bolted to end section apron lip with $\frac{3}{8}$ " diameter galvanized bolts. Steel for toe plate extension will be same gauge as end section. Dimensions will be overall width less 6" by 8" high.

Installation will be performed in accordance with the Specifications.

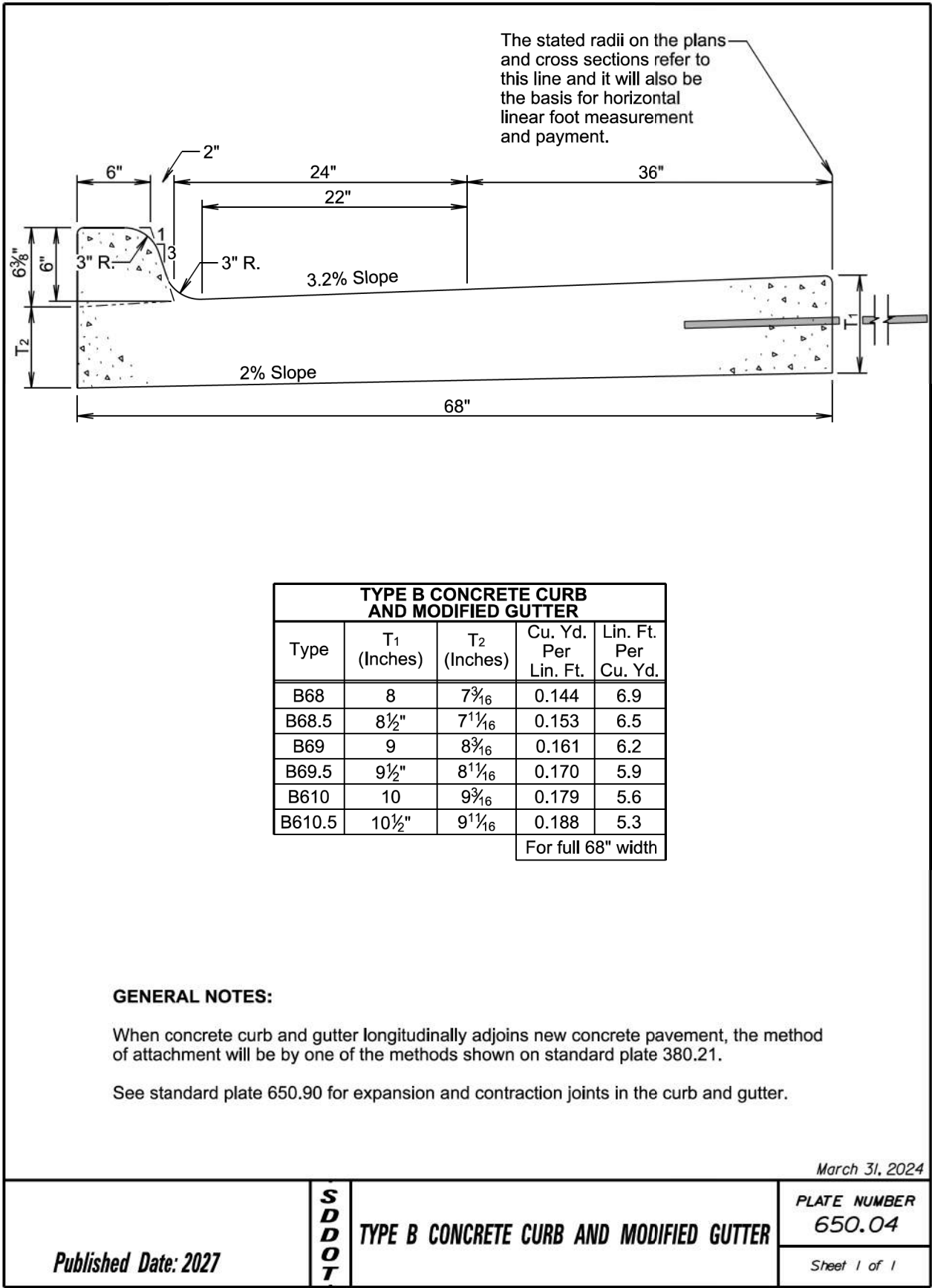
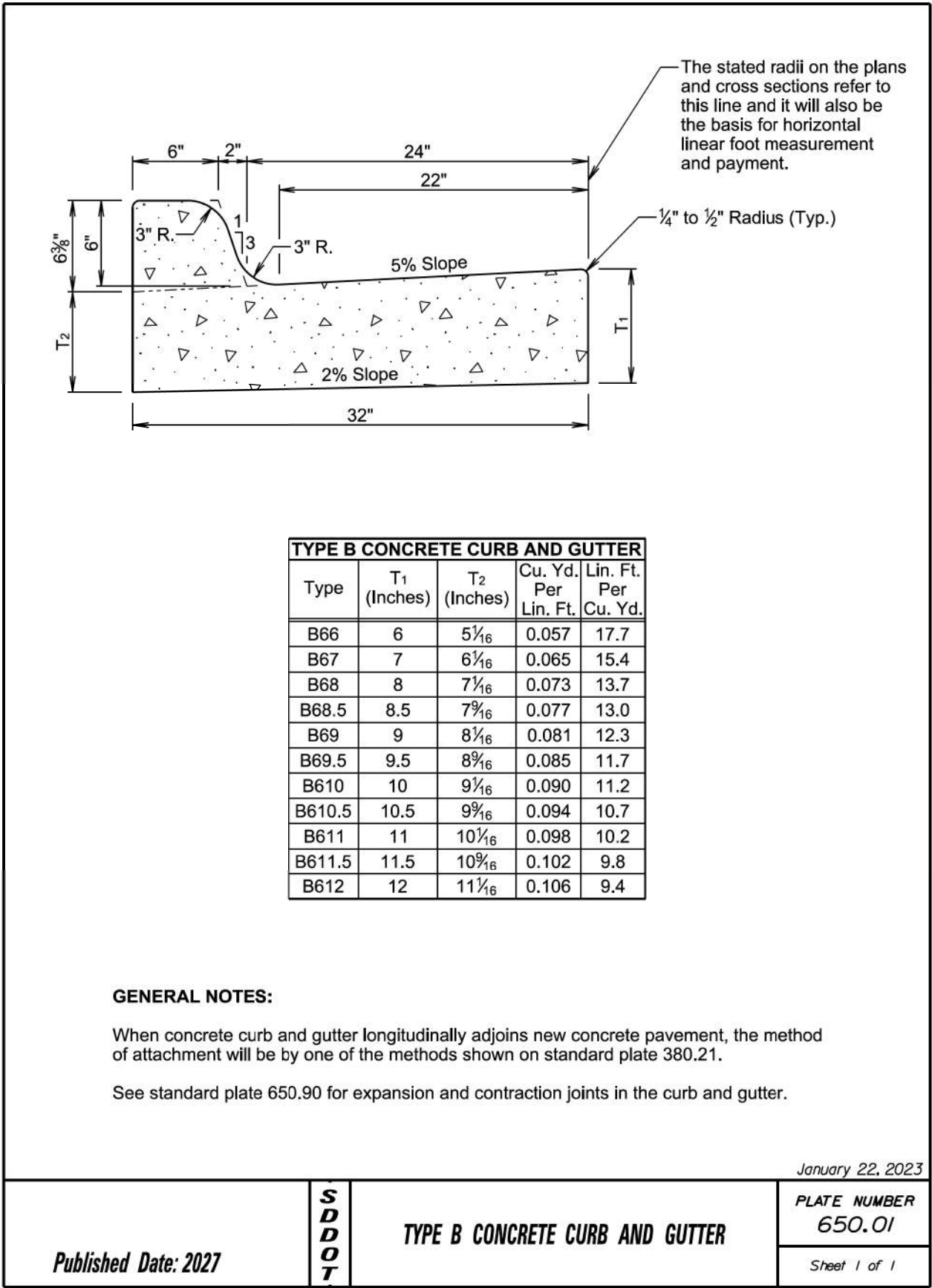
Cost of all work and materials required for fabrication and installation of safety ends will be incidental to the bid items for the various sizes of safety ends.

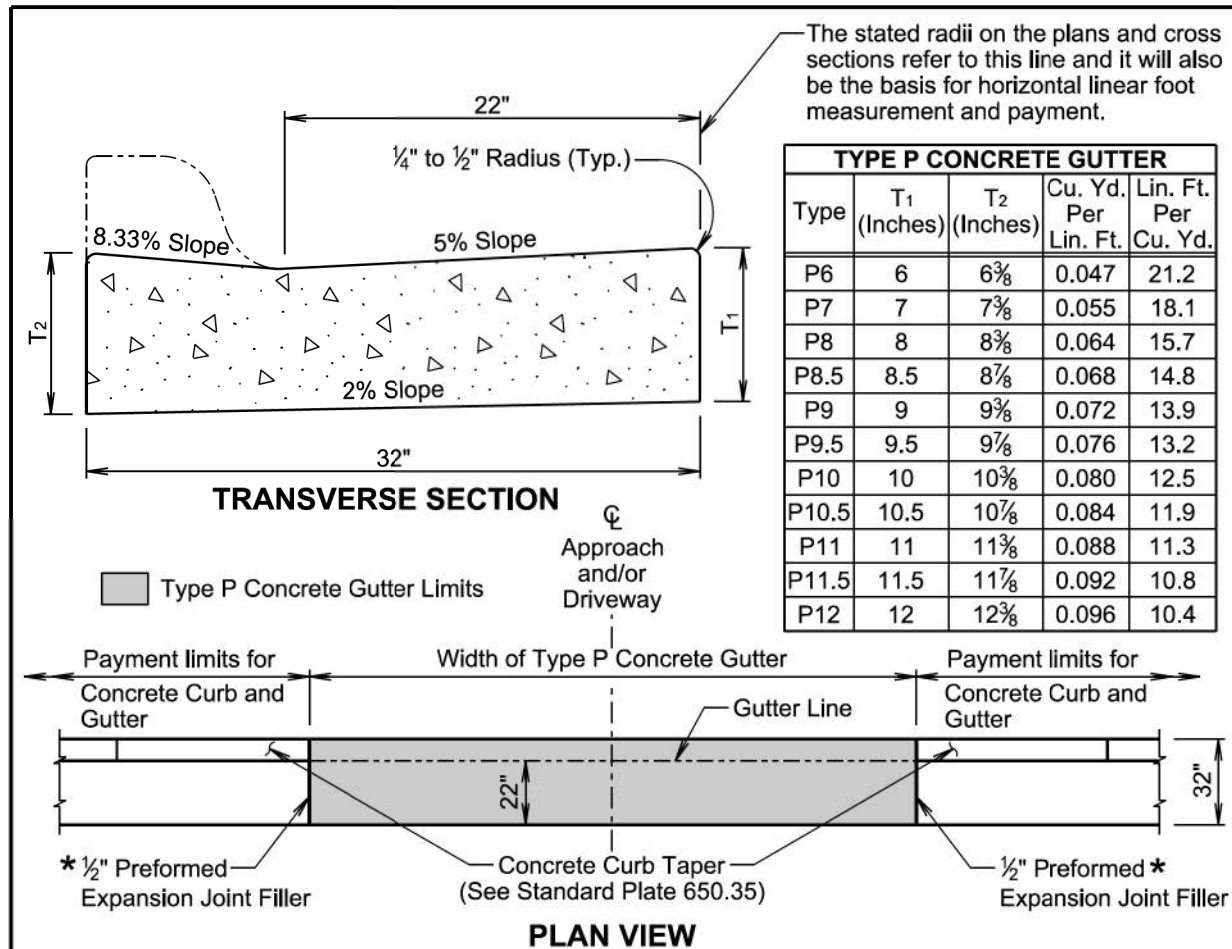
April 8, 2025

Published Date: 2027	S D D O T	C.M.P. SAFETY ENDS	PLATE NUMBER 450.38
			Sheet 2 of 2

Sheet 1 of 1

Plotted From: TRSF12141
Plot Scale: 1/200



**GENERAL NOTES:**

The concrete for the type P concrete gutter will comply with the requirements of the specifications for class M6 concrete.

When concrete gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.21.

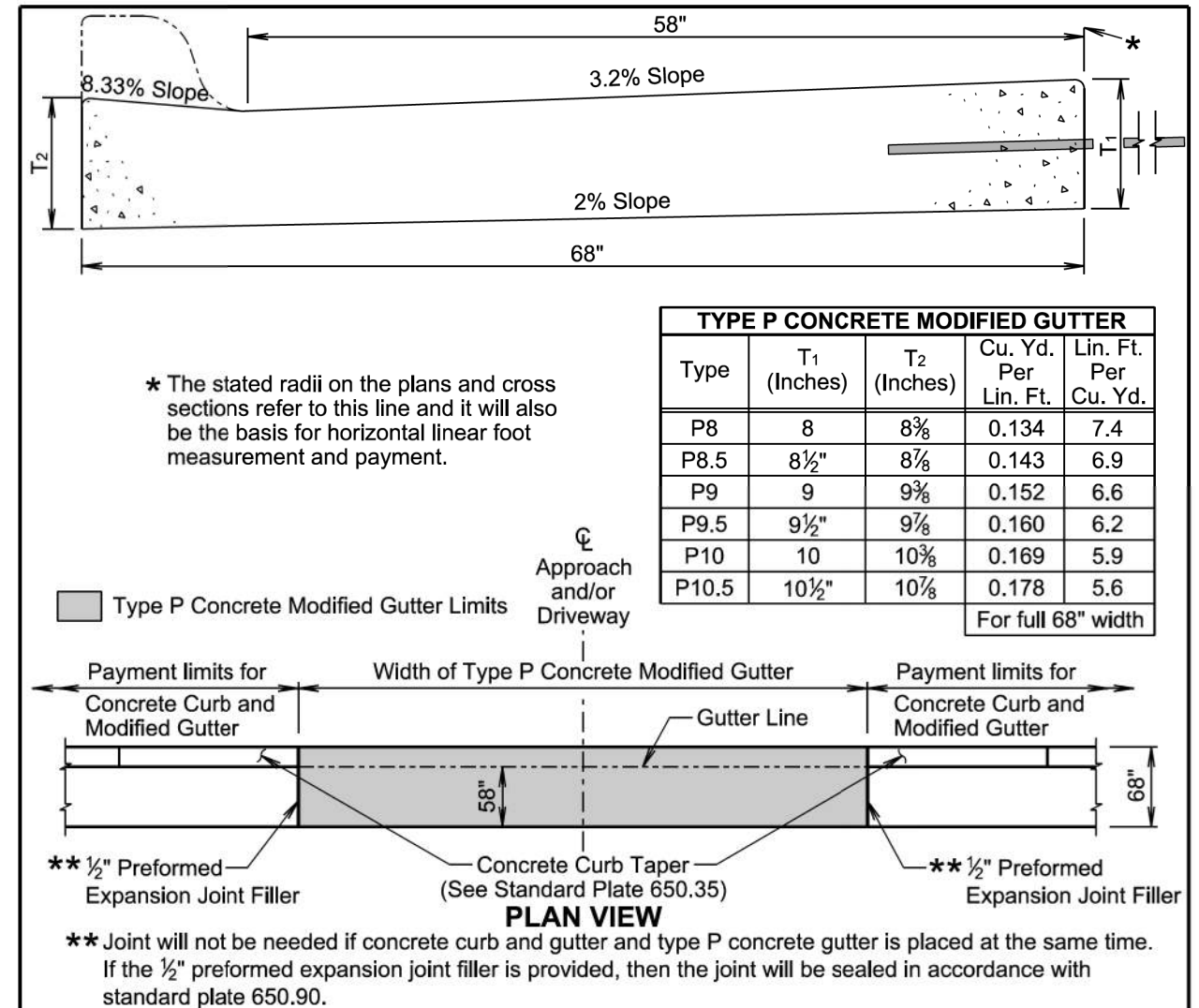
Transverse contraction joints will be constructed at 10-foot intervals in the concrete gutter except when concrete gutter is constructed adjacent to mainline PCC pavement. When concrete gutter is constructed adjacent to mainline PCC pavement, a transverse contraction joint will be constructed in the concrete gutter at each mainline PCC pavement transverse contraction joint location.

When concrete gutter is placed monolithically with mainline PCC pavement, the transverse contraction joints in the concrete gutter will be sawed and sealed the same as the transverse contraction joints in the mainline PCC pavement.

When concrete gutter is not placed monolithically with the mainline PCC pavement and when the adjacent mainline surfacing is not PCC concrete, the transverse contraction joints in the concrete gutter will be $1\frac{1}{2}$ inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least $\frac{1}{4}$ the thickness of the concrete.

January 22, 2023

Published Date: 2027	S D D O T	TYPE P CONCRETE GUTTER	PLATE NUMBER 650.30
			Sheet 1 of 1

**GENERAL NOTES:**

The concrete for the type P concrete modified gutter will comply with the requirements of the specifications for class M6 concrete.

When concrete gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.21.

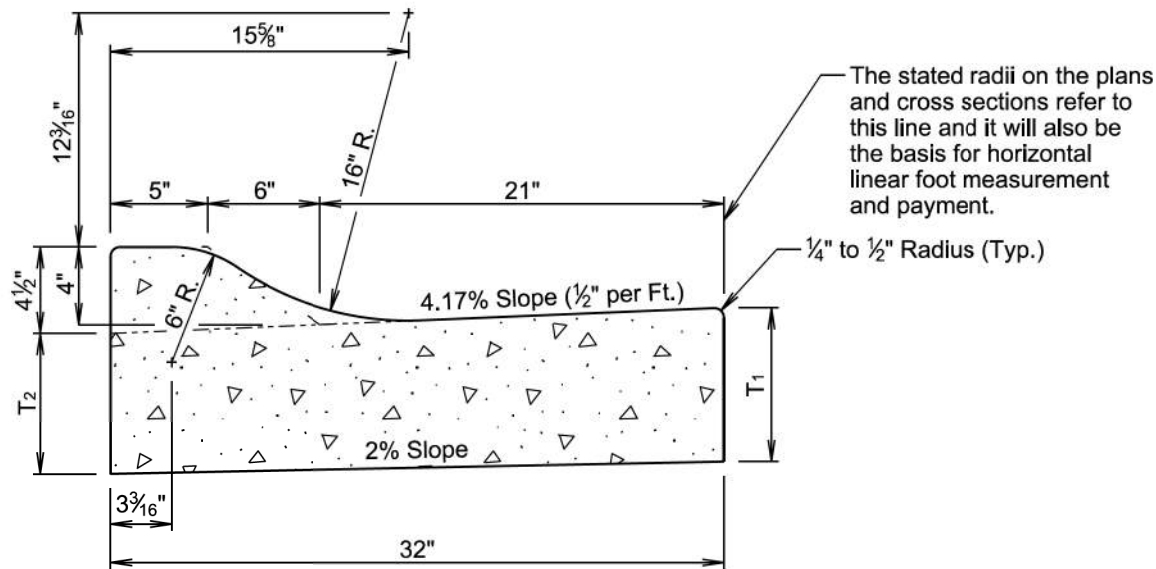
Transverse contraction joints will be constructed at 10-foot intervals in the concrete gutter except when concrete gutter is constructed adjacent to mainline PCC pavement. When concrete gutter is constructed adjacent to mainline PCC pavement, a transverse contraction joint will be constructed in the concrete gutter at each mainline PCC pavement transverse contraction joint location.

When concrete gutter is placed monolithically with mainline PCC pavement, the transverse contraction joints in the concrete gutter will be sawed and sealed the same as the transverse contraction joints in the mainline PCC pavement.

When concrete gutter is not placed monolithically with the mainline PCC pavement and when the adjacent mainline surfacing is not PCC concrete, the transverse contraction joints in the concrete gutter will be $1\frac{1}{2}$ inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least $\frac{1}{4}$ the thickness of the concrete.

March 31, 2024

Published Date: 2027	S D D O T	TYPE P CONCRETE MODIFIED GUTTER	PLATE NUMBER 650.32
			Sheet 1 of 1



TYPE R CONCRETE CURB AND GUTTER				
Type	T ₁ (Inches)	T ₂ (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
R48	8	7 5/16	0.073	13.7
R48.5	8.5	7 13/16	0.077	13.0
R49	9	8 5/16	0.081	12.4
R49.5	9.5	8 13/16	0.085	11.8
R410	10	9 5/16	0.089	11.2
R410.5	10.5	9 13/16	0.093	10.7
R411	11	10 5/16	0.097	10.3
R411.5	11.5	10 13/16	0.101	9.9
R412	12	11 5/16	0.106	9.5

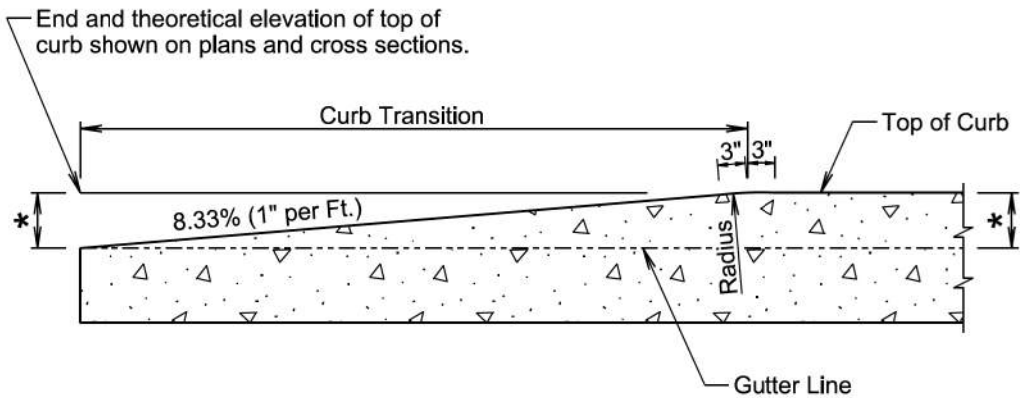
GENERAL NOTES:

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.21.

See standard plate 650.90 for expansion and contraction joints in the curb and gutter.

January 22, 2023

Published Date: 2027	S D D O T	TYPE R CONCRETE CURB AND GUTTER	PLATE NUMBER 650.33
			Sheet 1 of 1

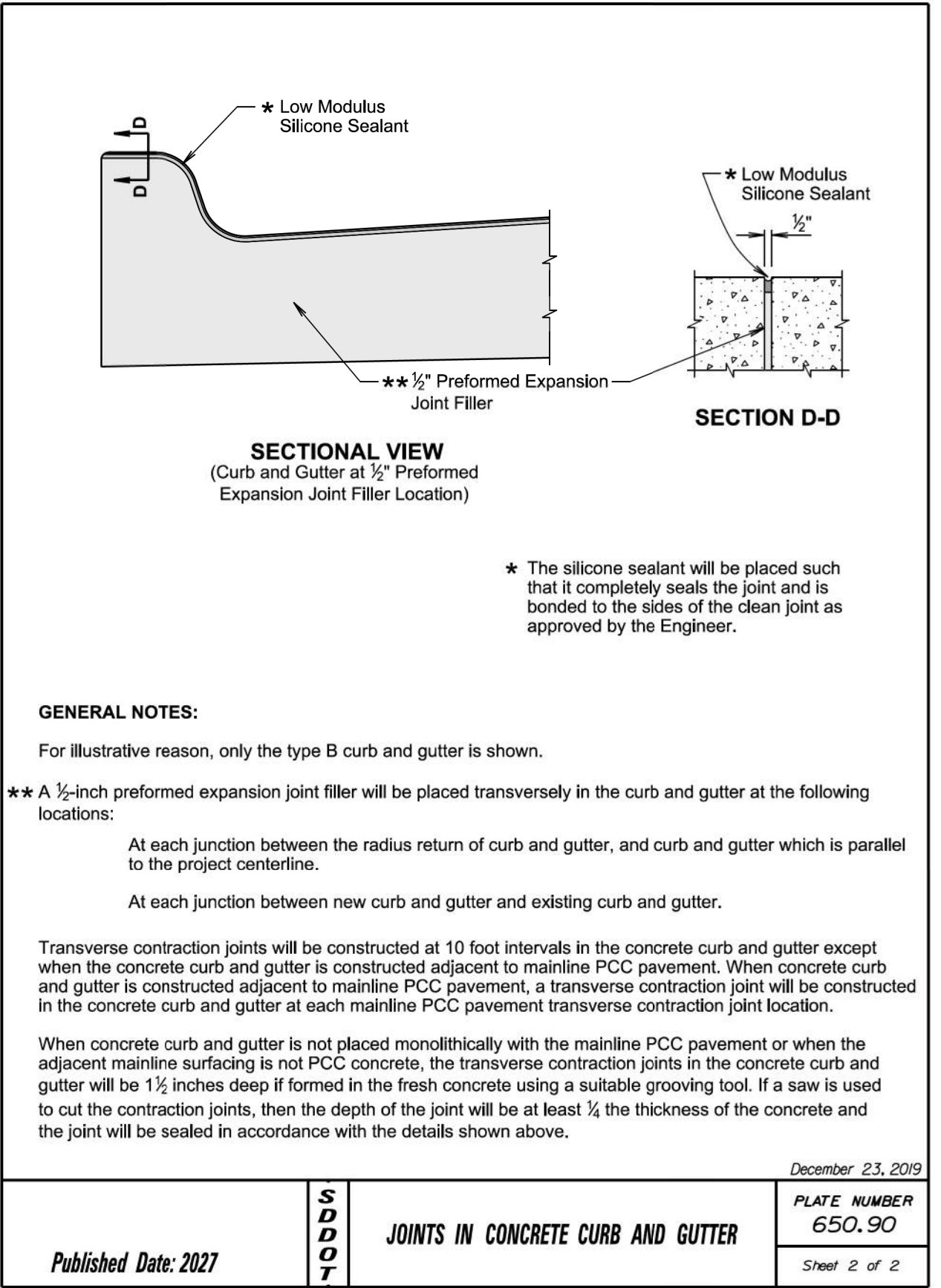
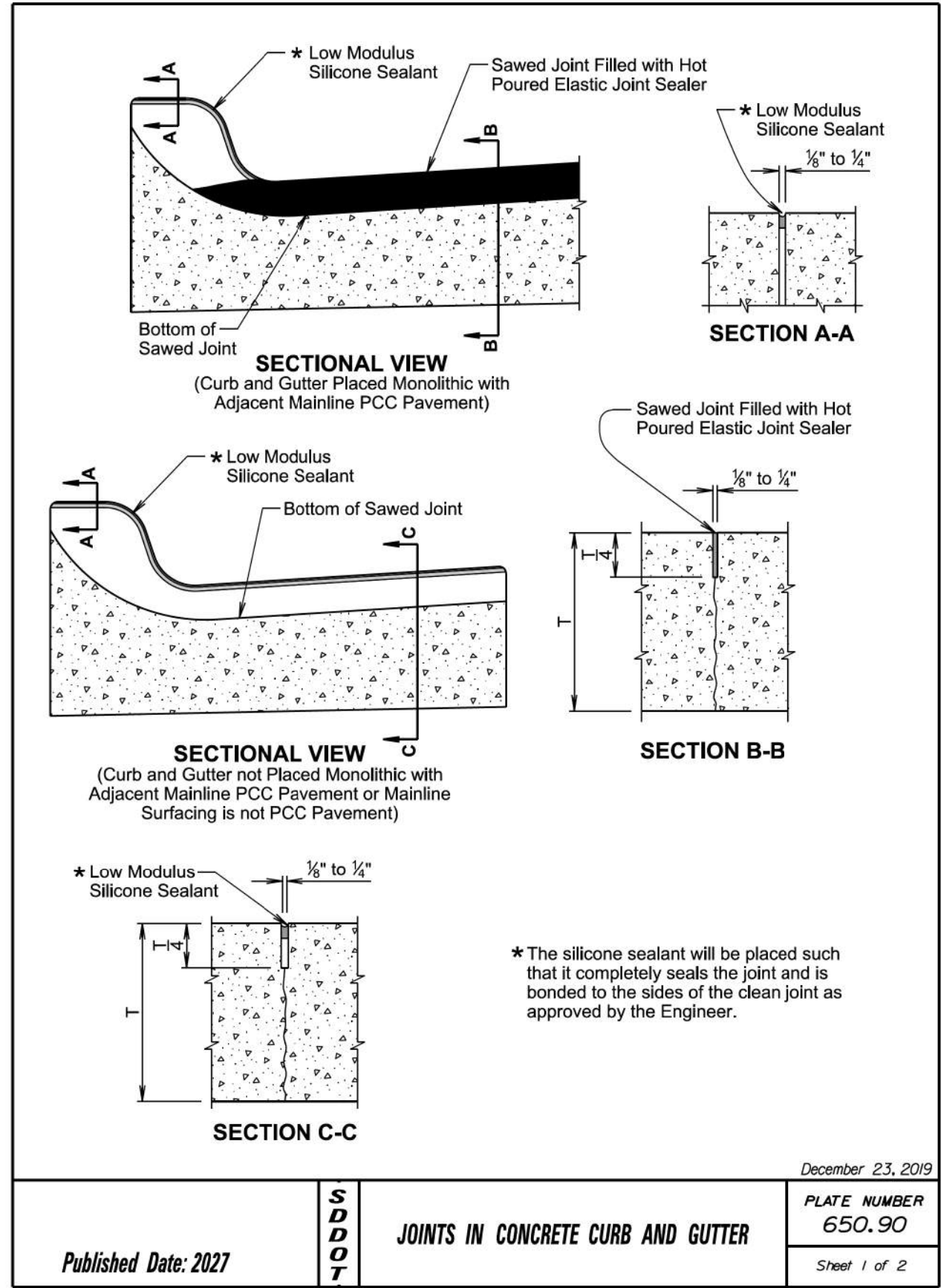


* Height of Curb

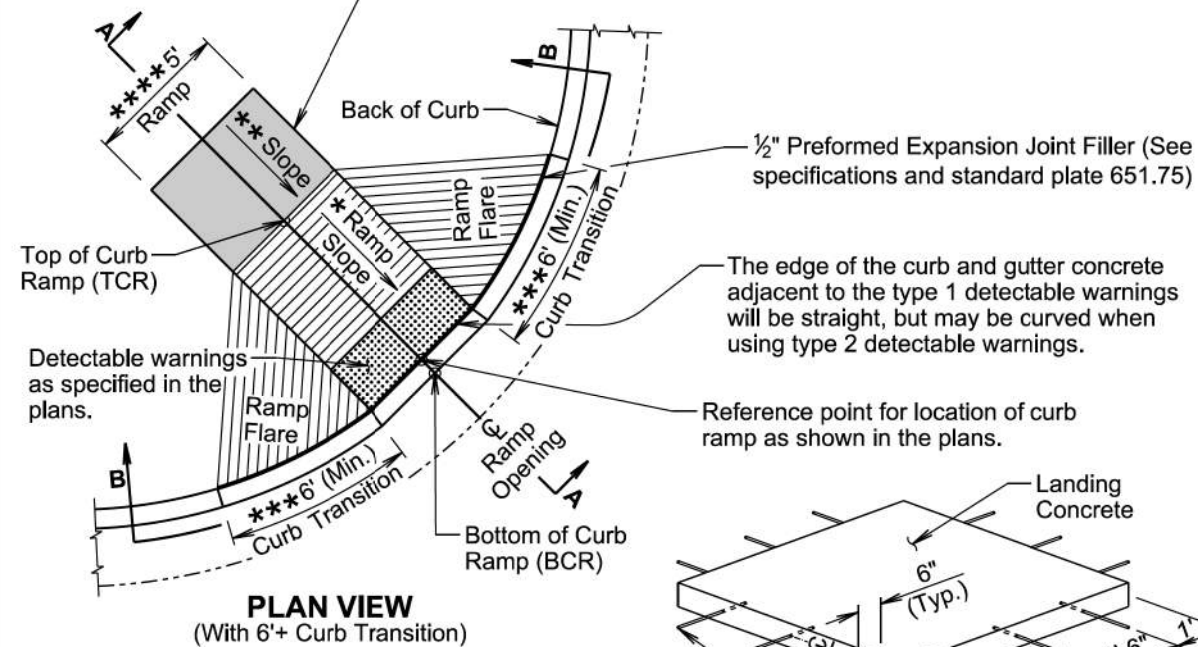
LONGITUDINAL SECTION
(Concrete Curb Taper)

December 23, 2019

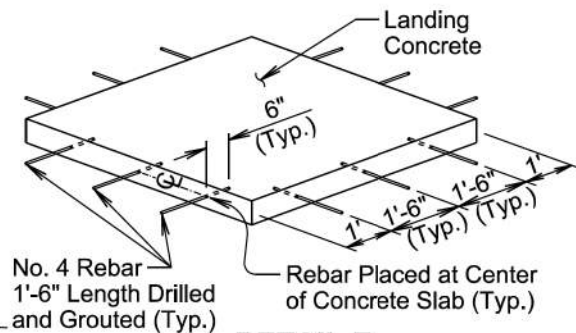
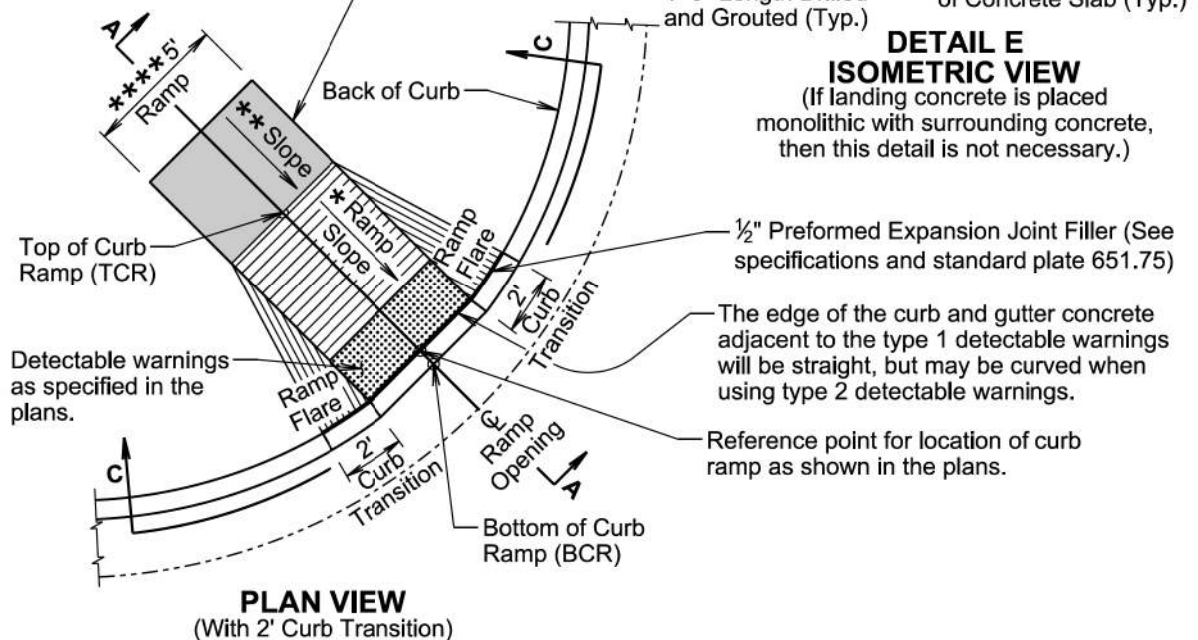
Published Date: 2027	S D D O T	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1



The landing is 5'x5' unless stated otherwise in the plans.
(See Detail E)



The landing is 5'x5' unless stated otherwise in the plans.
(See Detail E)



DETAIL E ISOMETRIC VIEW
(If landing concrete is placed monolithic with surrounding concrete, then this detail is not necessary.)

April 8, 2025

Published Date: 2027

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TYPE 1 CURB RAMP
(PERPENDICULAR CURB RAMP)

PLATE NUMBER
651.01

Sheet 1 of 3

Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% and will not exceed 15' in length unless stated otherwise in the plans.

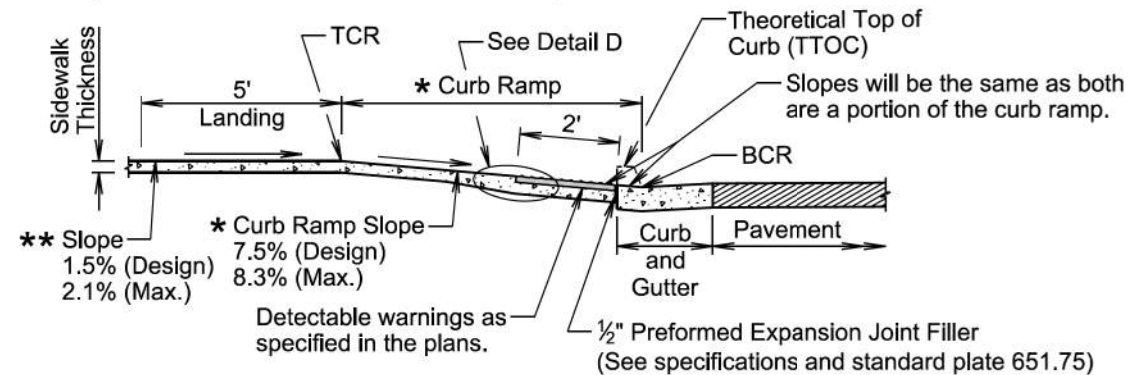
* The curb ramp length may be computed based on the intersection of a continuous 1.5% theoretical slope from theoretical top of curb (TTOC) with the curb ramp using a continuous 7.5% curb ramp slope. The elevation of point TCR will always be higher than the elevation of point TTOC unless specified otherwise in the plans. The curb ramp length dimension as shown in the plans will be adjusted as necessary to meet all slope and length requirements based on field geometrics.

The cross slope of the ramp will not be steeper than 2.1%. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

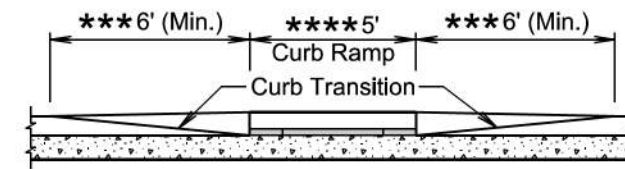
** The slope in the landing will not be steeper than 2.1% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

*** The curb transition will be a minimum of 6' long, a maximum of 10' long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on field geometrics.

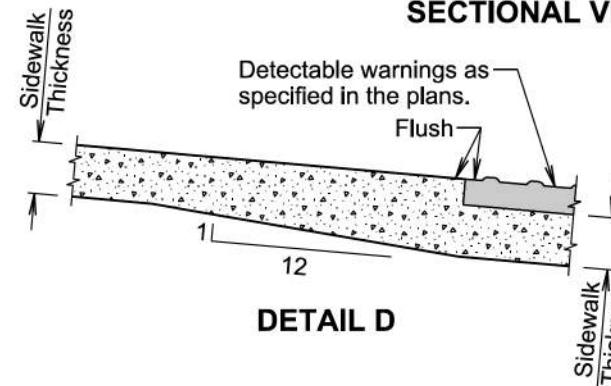
**** The ramp width is 5' unless stated otherwise in the plans.



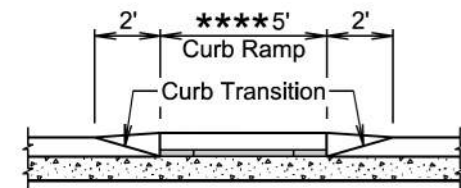
SECTION A-A



SECTIONAL VIEW B-B



DETAIL D



SECTIONAL VIEW C-C

April 8, 2025

Published Date: 2027

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TYPE 1 CURB RAMP
(PERPENDICULAR CURB RAMP)

PLATE NUMBER
651.01

Sheet 2 of 3

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0037(156)125	SHEET B117	TOTAL SHEETS B139
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Plotting Date: 06/03/2026

GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or curb and gutter.

The curb ramp will be placed at the location stated in the plans.

Sidewalk will not be placed adjacent to the curb ramp flares when a 2-foot curb transition is used unless shown otherwise in the plans.

* Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings will be included in the measured and paid for quantity of sidewalk.

If rebar is placed in the landing as depicted in detail E, the cost of the materials, labor, and equipment to furnish and install the rebar will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

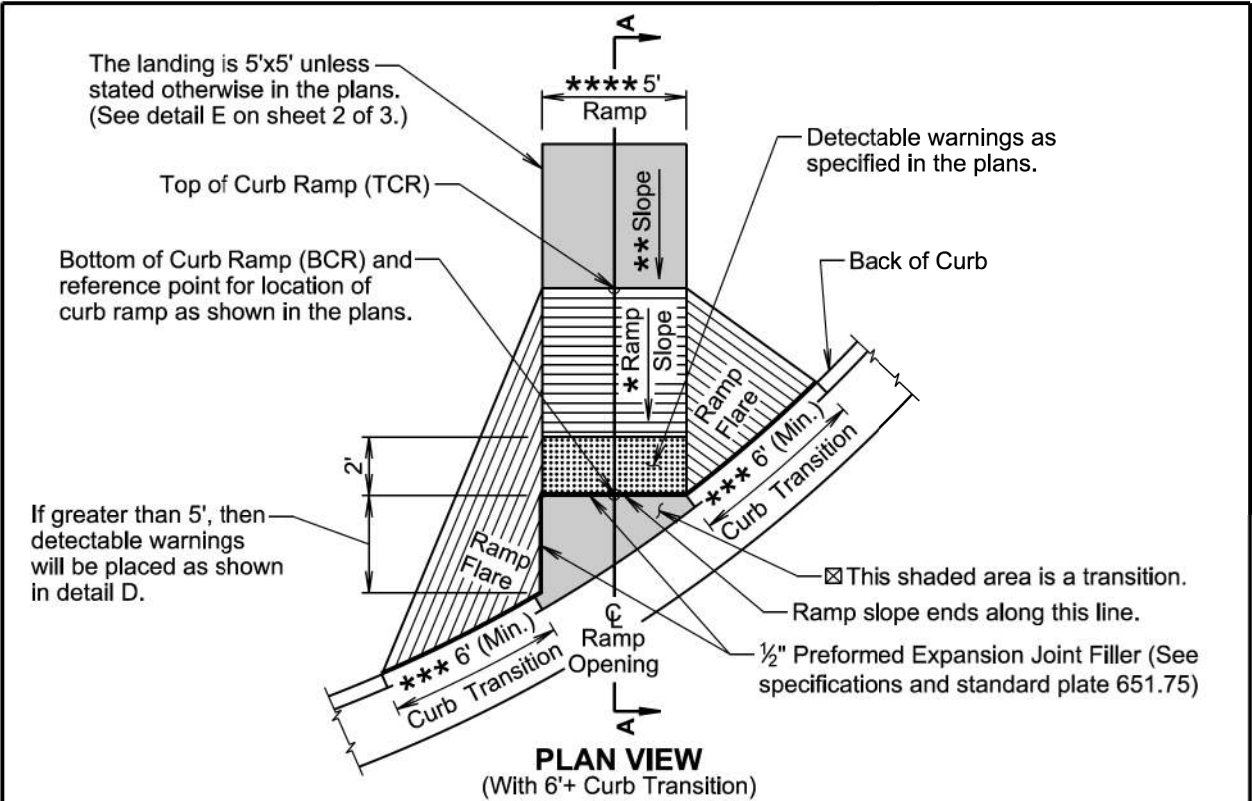
The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

Type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

Type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

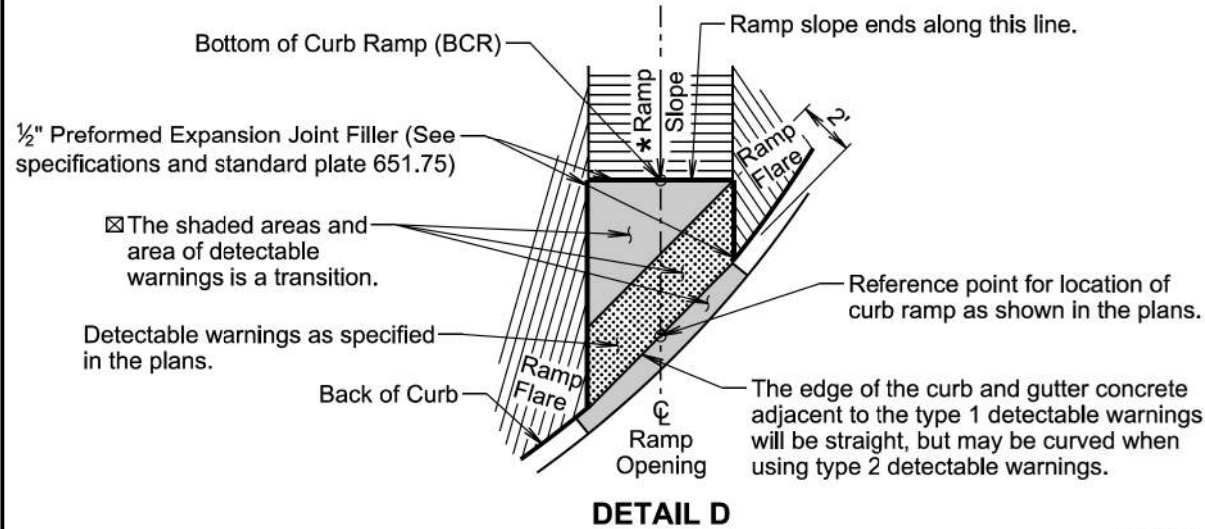
April 8, 2025

Published Date: 2027	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 3 of 3



☒ The slope within the transition area will not be steeper than 5%. The concrete within the transition will be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition will be the same as the curb and gutter or fillet section concrete thickness.

*** The curb transition will be a minimum of 6' long, a maximum of 10' long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on field geometrics.

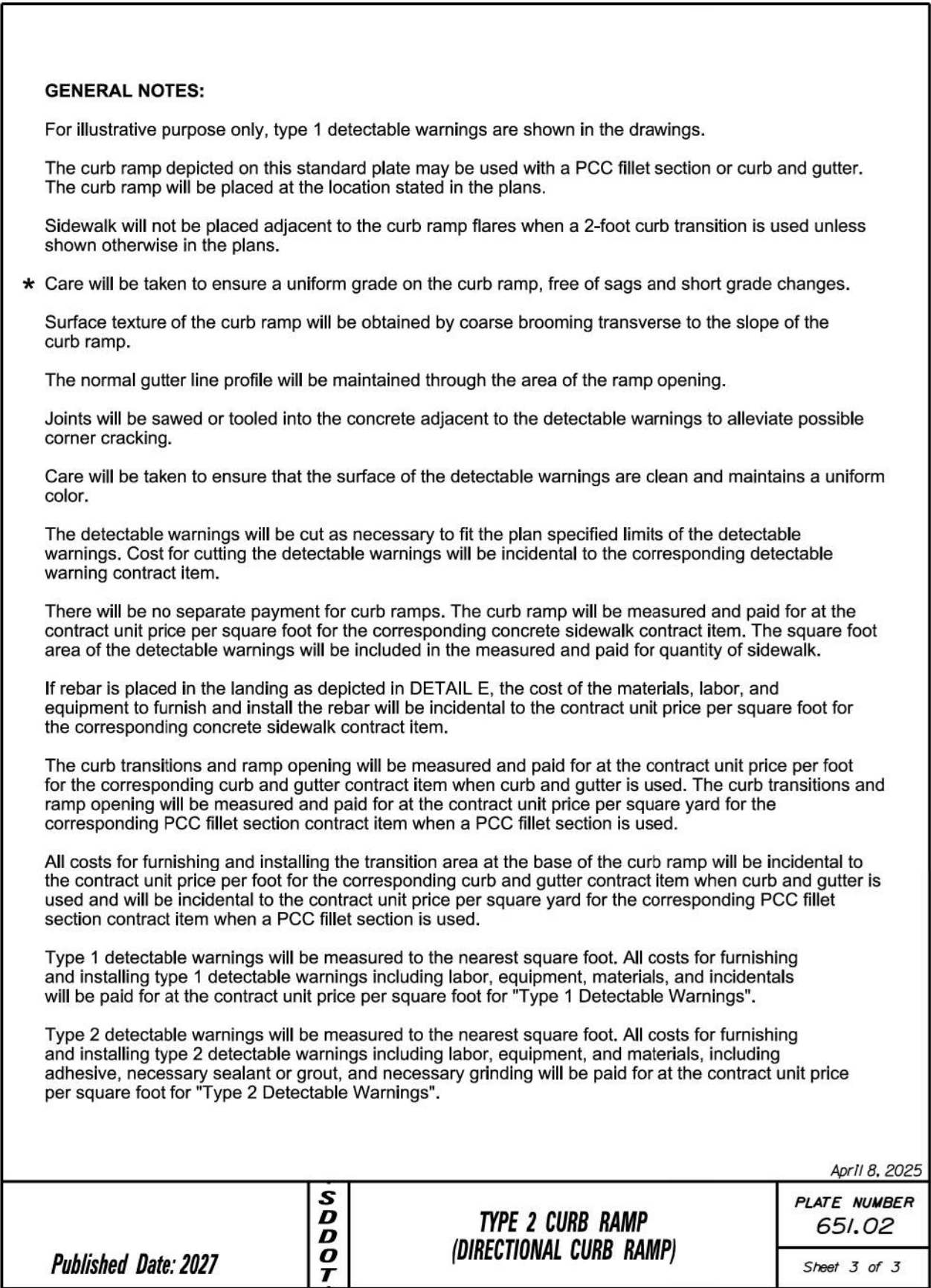
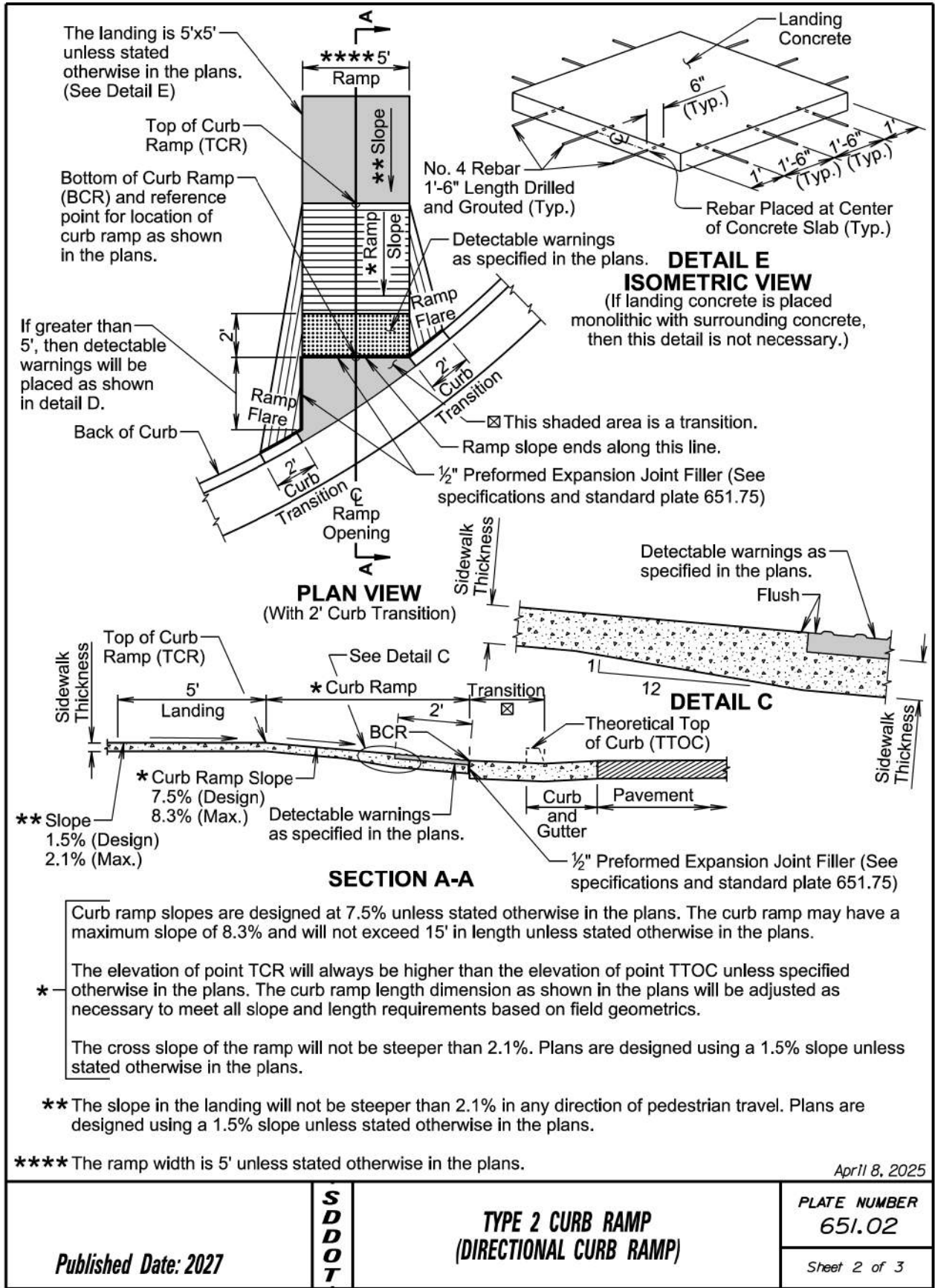


April 8, 2025

Published Date: 2027	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 1 of 3

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0037(156)125	SHEET B118	TOTAL SHEETS B139
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Plotting Date: 06/03/2026



Sheet 2 of 3

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B120	B139

Plotting Date: 06/03/2026

GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, a PCC fillet section is shown in one of the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or with curb and gutter.

The curb ramp will be placed at the location stated in the plans.

Sidewalk adjacent to the curb ramp will be as shown in the plans.

* Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (see plan view for joint location).

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel will conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings and the curb along the short radius will be included in the measured and paid for quantity of sidewalk.

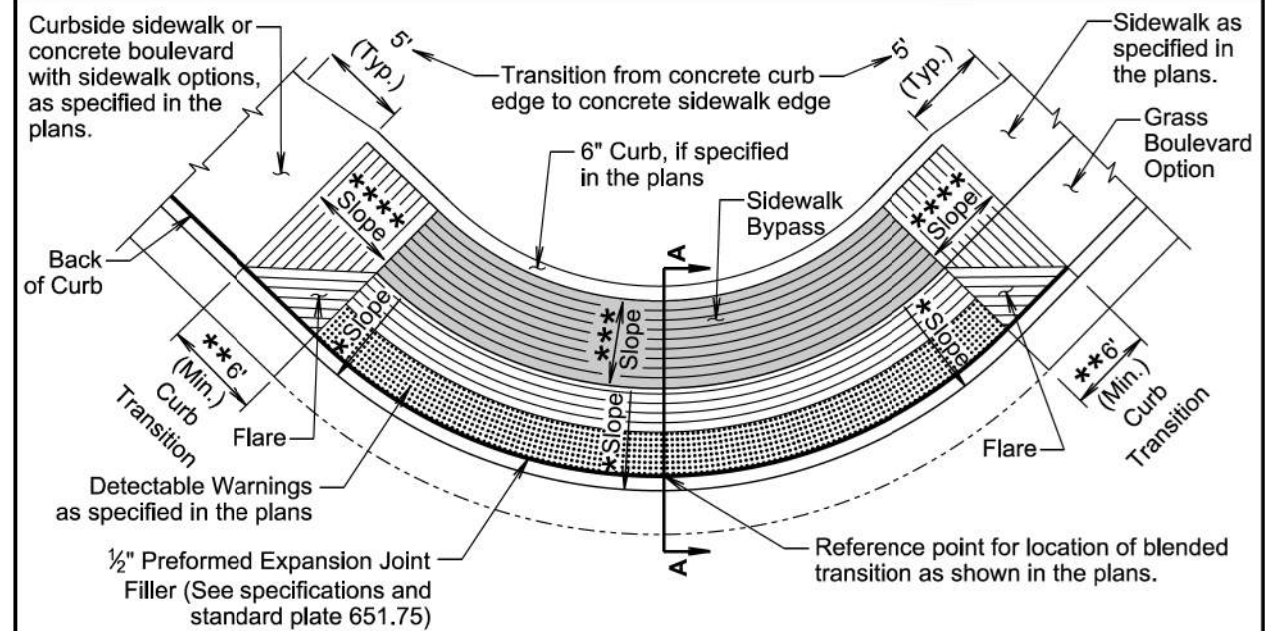
The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

Type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

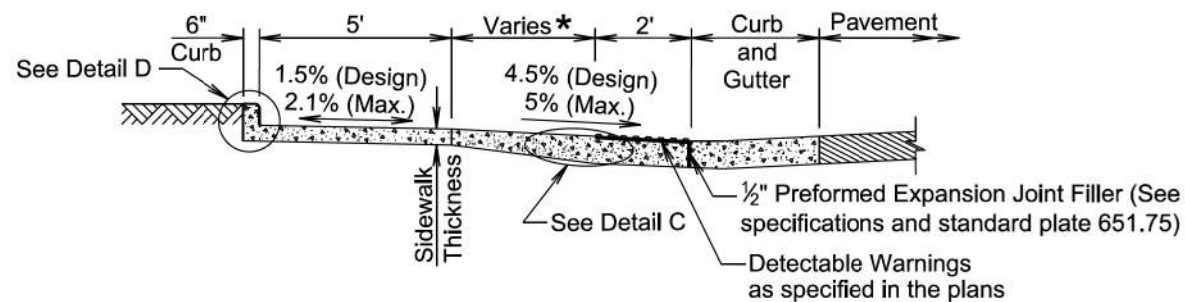
Type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

April 8, 2025

Published Date: 2027	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 3 of 3



PLAN VIEW



SECTION A-A

* Blended transition slopes are designed at 4.5% unless stated otherwise in the plans. The blended transition may have a maximum slope of 5%.

* The blended transition length dimension shown in the plans will be adjusted as necessary to meet all slope and length requirements based on the field geometrics.

The cross slope of the blended transition will not be steeper than 2.1%. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

** The curb transition will be a minimum of 6' long, a maximum of 10', long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on the field geometrics.

*** The slope of the sidewalk bypass will not be steeper than 2.1% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

**** The slope of the sidewalk in these areas will not be steeper than 5%. Plans are designed using a 4.5% slope unless stated otherwise in the plans.

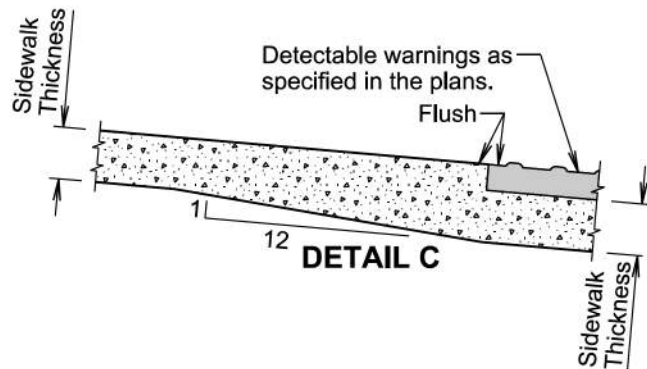
April 8, 2025

Published Date: 2027	S D D O T	BLENDED TRANSITION	PLATE NUMBER 651.05
			Sheet 1 of 3

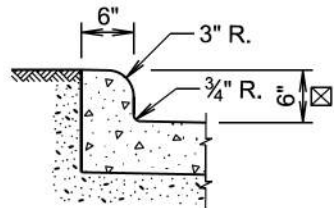
1:200
Plot Scale -
Plotted From - TRSF12141

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0037(156)125	SHEET B121	TOTAL SHEETS B139
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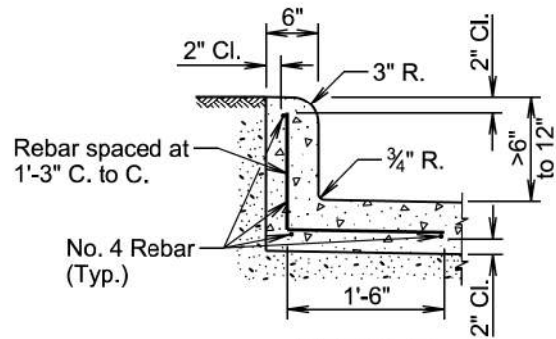
Plotting Date: 06/03/2026



☒ The curb height will be 6" unless stated otherwise in the plans.



DETAIL D



DETAIL D
(Use this detail when the curb height is greater than 6" and less than 12")

April 8, 2025

Published Date: 2027	S D D O T	BLENDED TRANSITION	PLATE NUMBER 651.05
			Sheet 2 of 3

GENERAL NOTES:

The blended transition may be used with a PCC fillet section or curb and gutter.

Sidewalk adjacent to the blended transition will be as shown in the plans.

Care will be taken to ensure a uniform grade on the blended transition, free of sags and short grade changes.

Surface texture of the blended transition will be obtained by coarse brooming transverse to the running slope of the blended transition.

The normal gutter line profile will be maintained through the area of the blended transition opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care will be taken to ensure that the surface of the detectable warnings are clean and maintain a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel will conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

There will be no separate payment for blended transition. The blended transition will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings and the curb along the short radius will be included in the measured and paid for quantity of sidewalk.

The curb transitions and blended transition opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and blended transition opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

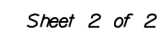
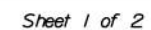
Type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

Type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

April 8, 2025

Published Date: 2027	S D D O T	BLENDED TRANSITION	PLATE NUMBER 651.05
			Sheet 3 of 3

File - ...bead06\ASD\PlateSectionB.dgn

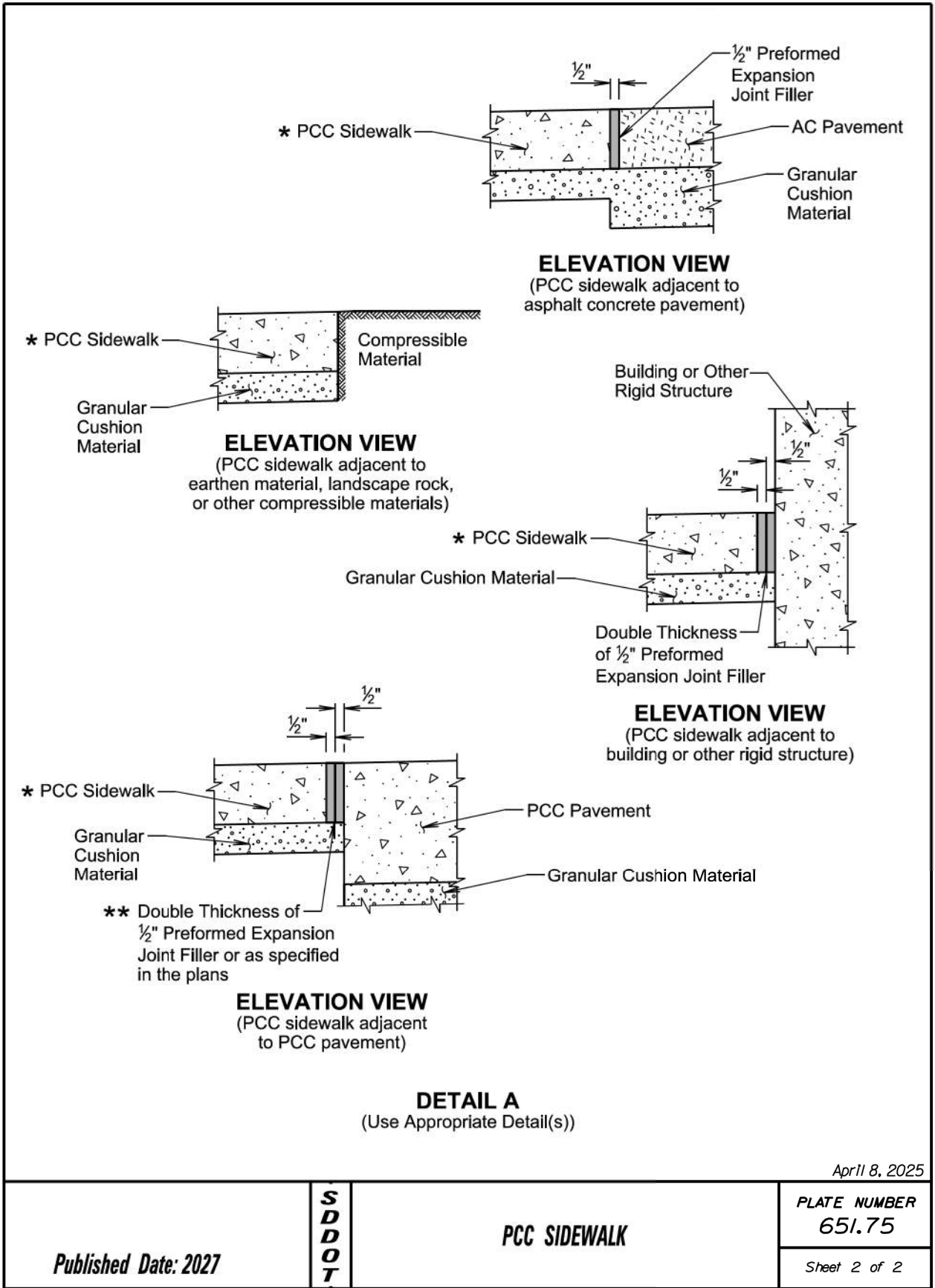
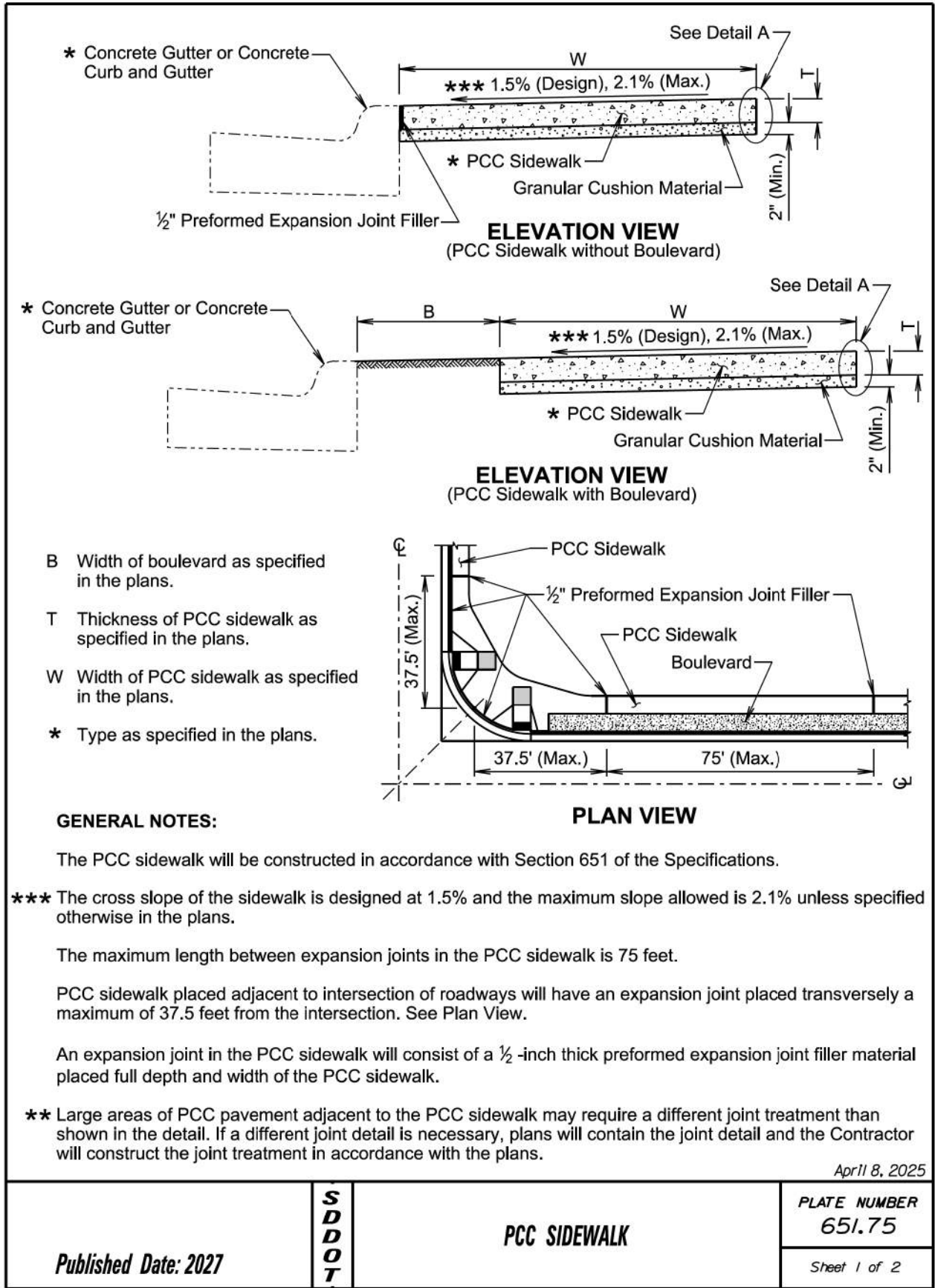


Plot Scale - 1:200

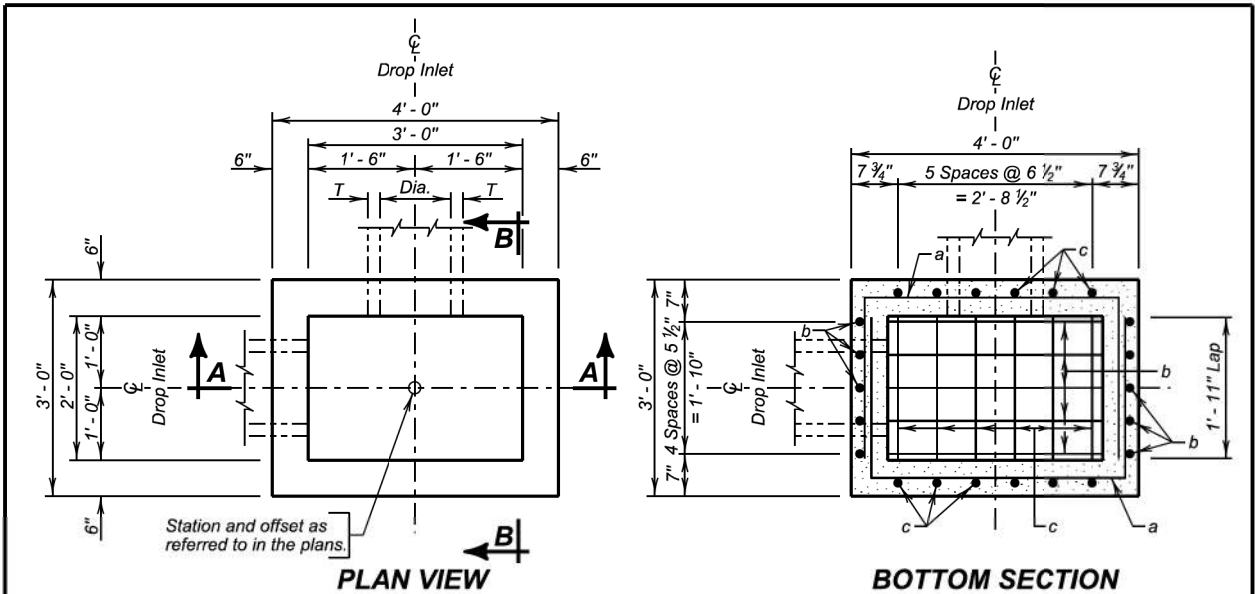
Plotted From - TRSF12141

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B123	B139

Plotting Date: 06/03/2026



File - ...bead06\A\StdPlateSectionB.dgn



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.26	0.22H
Reinforcing Steel	Lb.	51.19	28.97H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 24" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

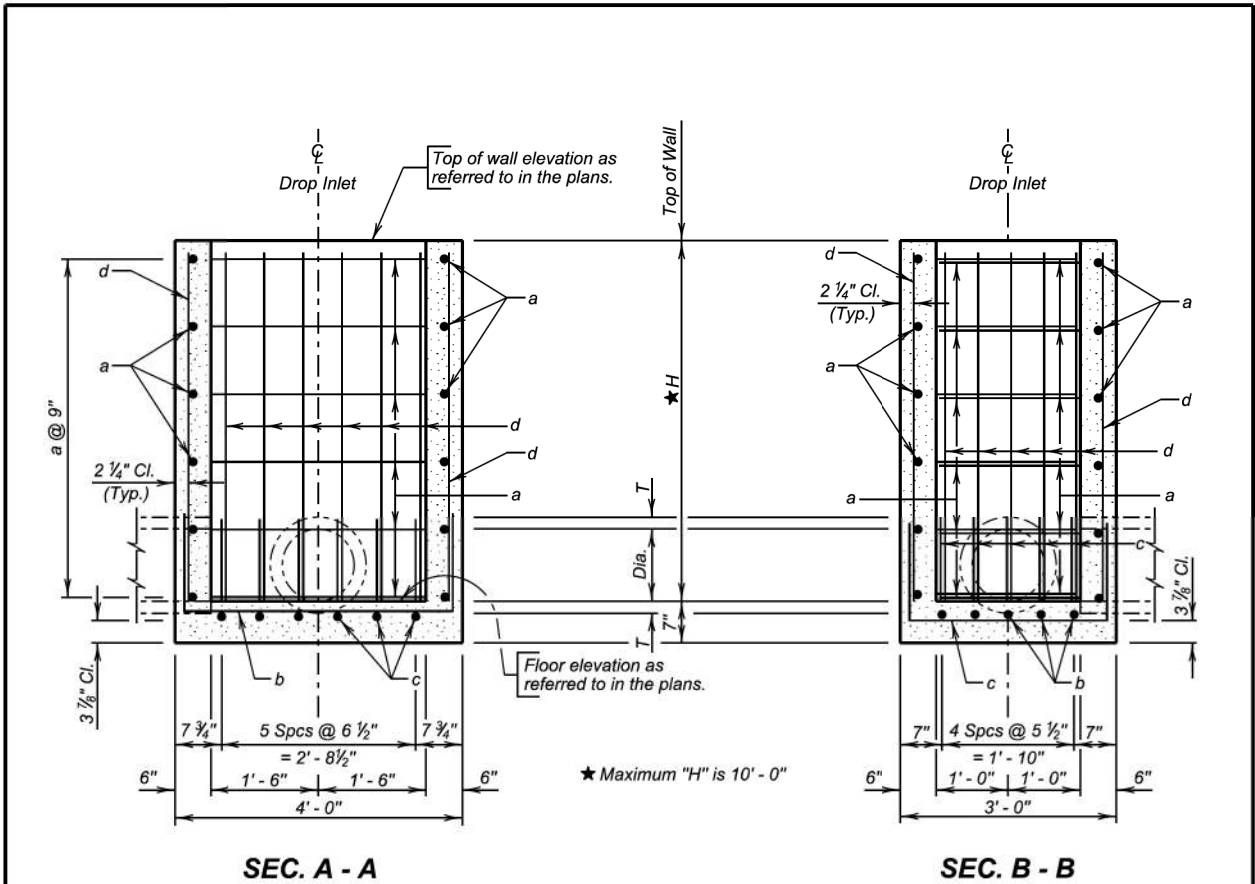
Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

Maximum R.C.P. diameter shall not exceed 18 inches on the 2-foot wide side and shall not exceed 24 inches (24 inches for R.C. arch) on the 3-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

Apr11 17, 2026

Published Date: 2027	S D O T	2' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.01
			Sheet 1 of 2



REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	2.67H	4	8' - 0"	17
b	5	5	6' - 3"	17
c	6	4	5' - 3"	17
d	22	4	H - 2"	Str.

NOTE:
All dimensions are out to out of bars.

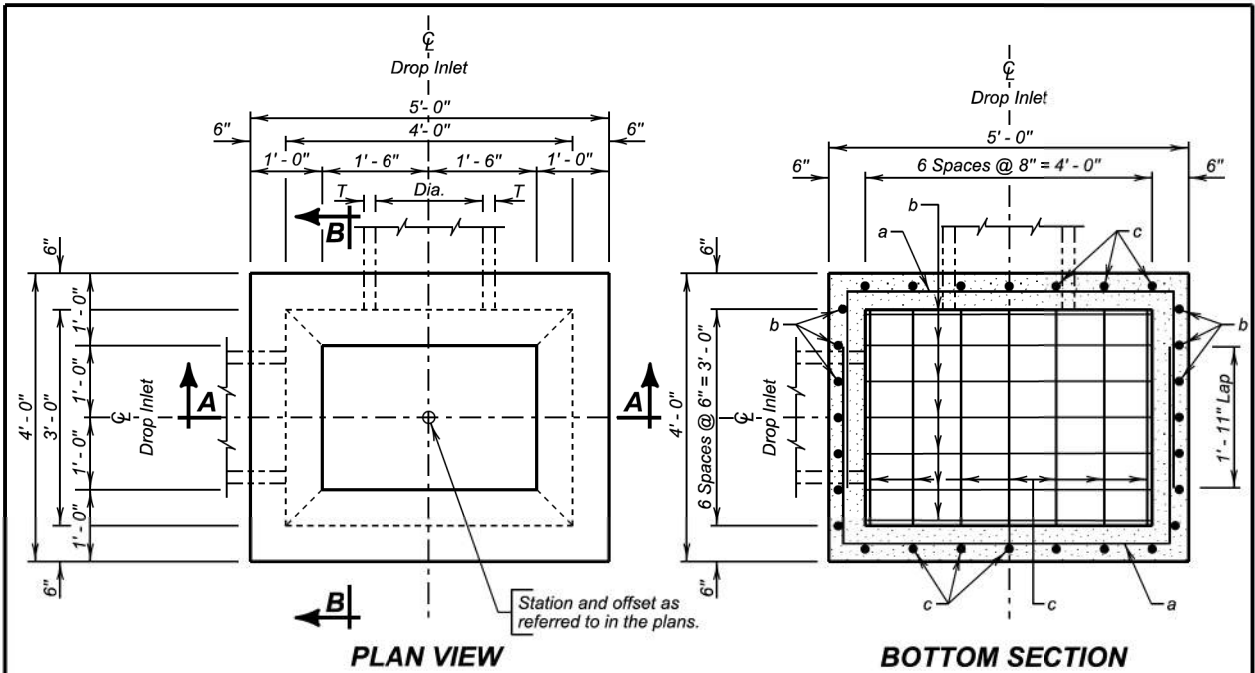
Bending Details

Type 17

a 2' - 2 1/2"
b 1' - 3 1/2"
c 1' - 3 1/2"

Apr11 17, 2026

Published Date: 2027	S D O T	2' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.01
			Sheet 2 of 2



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.72	0.30H
Reinforcing Steel	Lb.	130.93	36.54H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 36" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

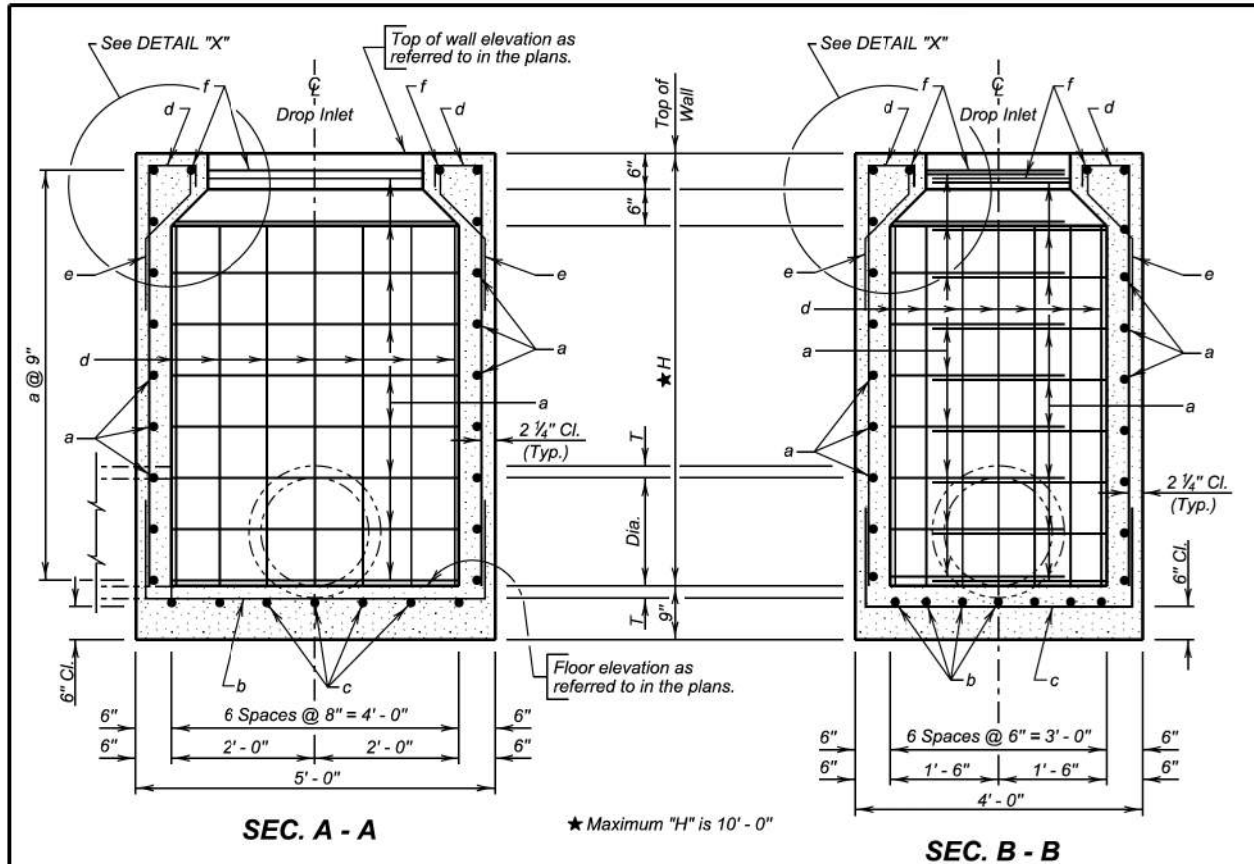
Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

Maximum R.C.P. diameter shall not exceed 24 inches (24 inches for R. C. arch) on the 3-foot wide side and shall not exceed 36 inches (30 inches for R.C. arch) on the 4-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

Apr11 17, 2026

Published Date: 2027	S D D O T	3' X 4' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.02
			Sheet 1 of 2



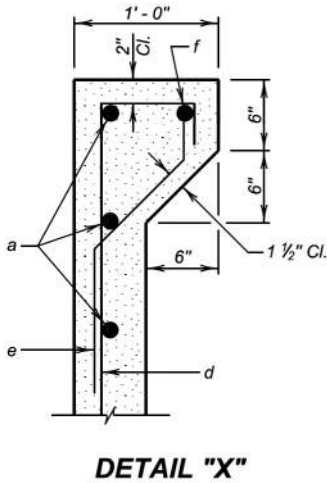
REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	2.67H	4	10'-0"	17
b	7	4	7'-6"	17
c	7	4	6'-6"	17
d	28	4	H + 9"	S17
e	28	4	2'-3"	S19
f	2	4	7'-0"	17

NOTE: All dimensions are out to out of bars.

Bending Details

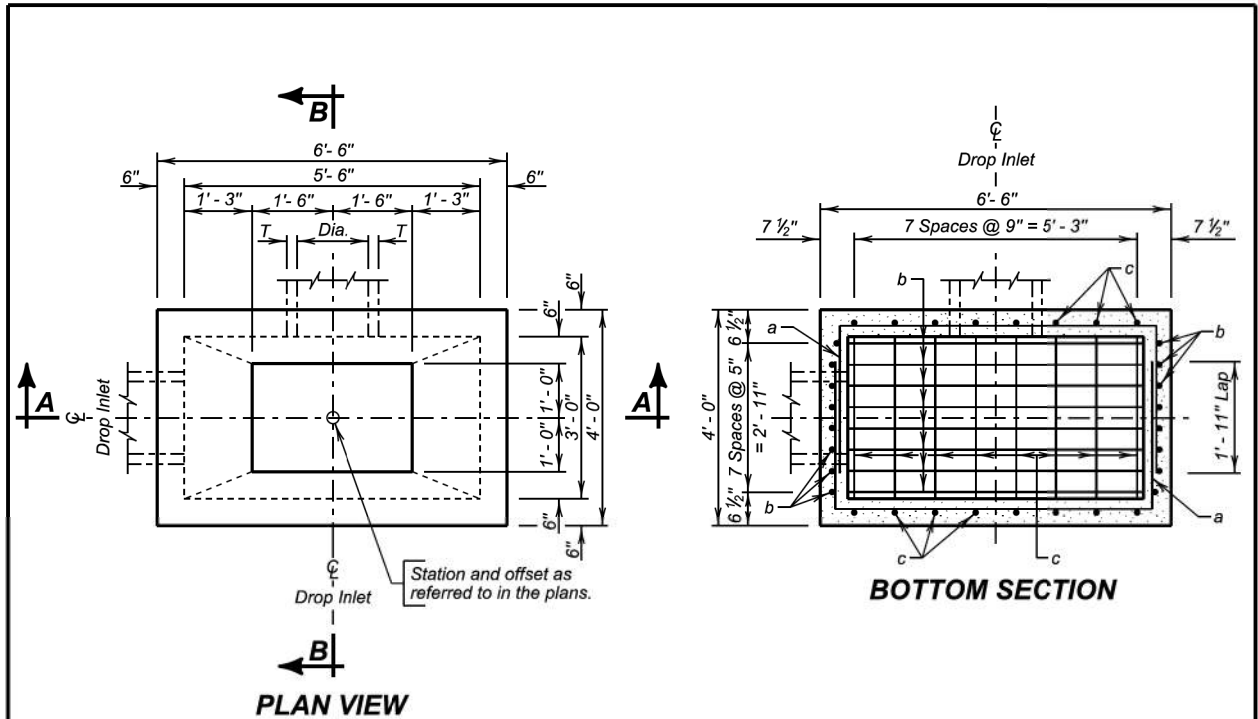
Type S17

Type S19



Apr11 17, 2026

Published Date: 2027	S D D O T	3' X 4' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.02
			Sheet 2 of 2



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
★ Class M6 Concrete	Cu. Yd.	1.02	0.35H
Reinforcing Steel	Lb.	169.67	41.89H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 54" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d and e bars shall be lapped 12 inches with the c and b bars, respectively. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

★ Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

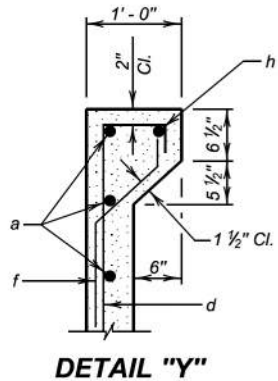
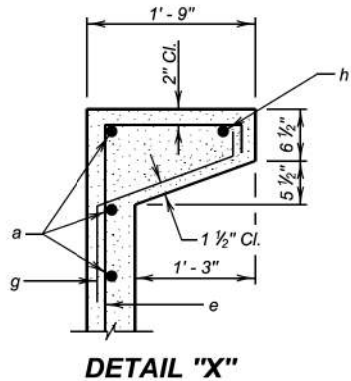
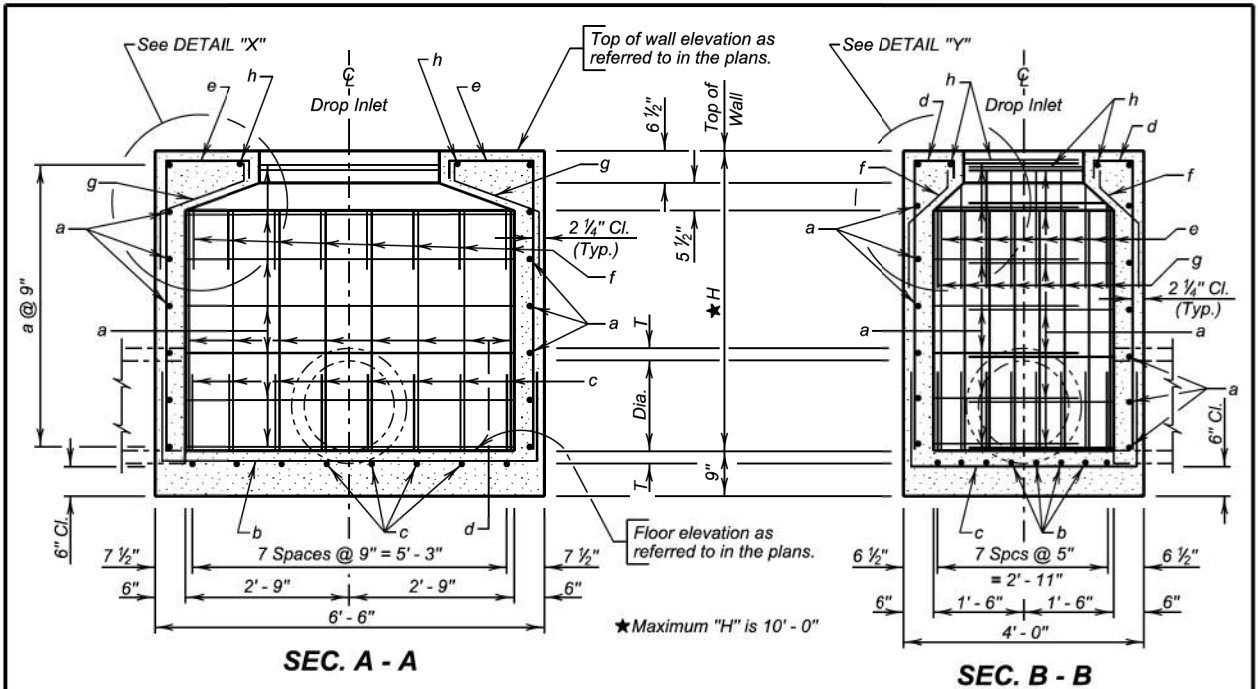
Maximum R.C.P. diameter shall not exceed 24 inches (24 inches for R. C. arch) on the 3-foot wide side and shall not exceed 54 inches (42 inches for R.C. arch) on the 5.5-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS		
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)
12	2	0.03
15	2 1/4	0.04
18	2 1/2	0.05
24	3	0.09
30	3 1/2	0.14
36	4	0.20
42	4 1/2	0.26
48	5	0.34
54	5 1/2	0.43
18	2 1/2	0.05
24	3 1/2	0.09
30	4	0.14
36	4 1/2	0.19
42	4 1/2	0.24

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Published Date: 2027	S D D O T	3' X 5.5' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.03
			Sheet 1 of 2

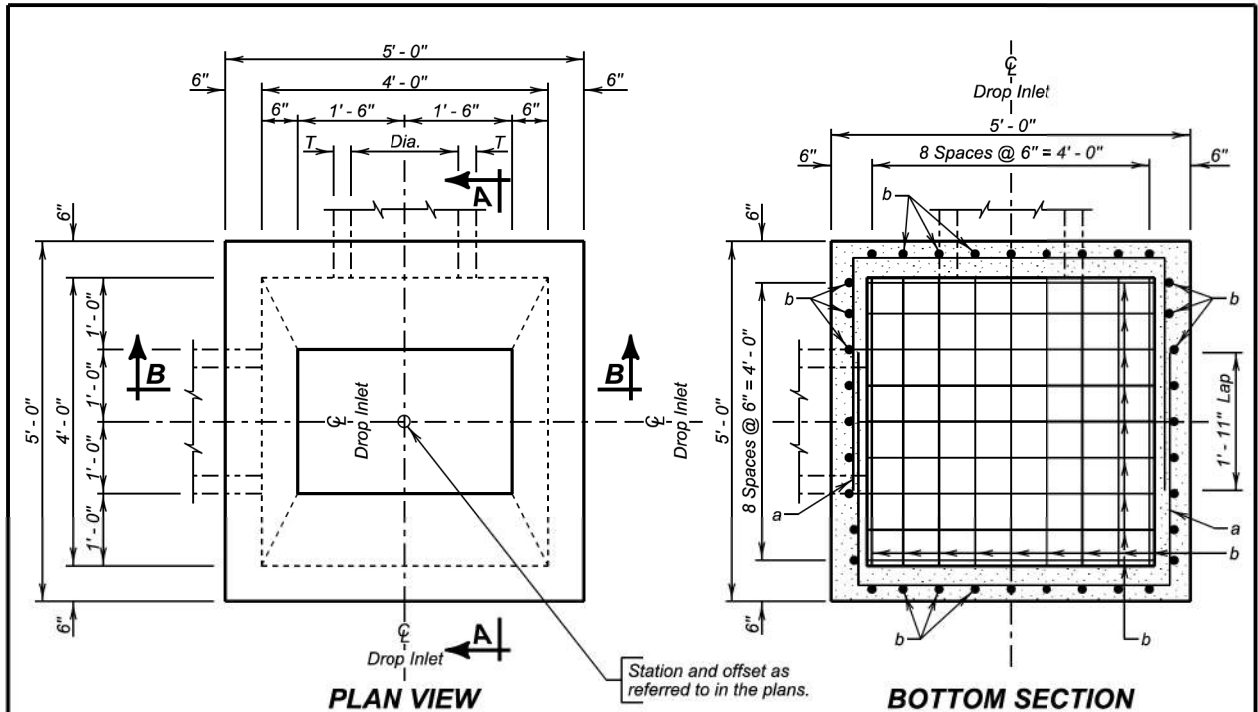


REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	2.67H	4	11' - 6"	17
b	8	4	9' - 0"	17
c	8	4	6' - 6"	17
d	16	4	H + 9"	S17
e	16	4	H + 18"	S17
f	16	4	2' - 3"	S19
g	16	4	2' - 9"	S19
h	2	4	7' - 0"	17

NOTE:
All dimensions are out to out of bars.

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Published Date: 2027	S D D O T	3' X 5.5' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.03
			Sheet 2 of 2



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.98	0.33H
Reinforcing Steel	Lb.	180.69	43.67H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 36" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

Maximum R.C.P. diameter shall not exceed 36 inches (30 inches for R. C. arch) on the 4-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
12	2	0.03	
15	2 1/4	0.04	
18	2 1/2	0.05	
24	3	0.09	
30	3 1/2	0.14	
36	4	0.20	
18	2 1/2	0.05	
24	3 1/2	0.09	
30	4	0.14	

SDDOT

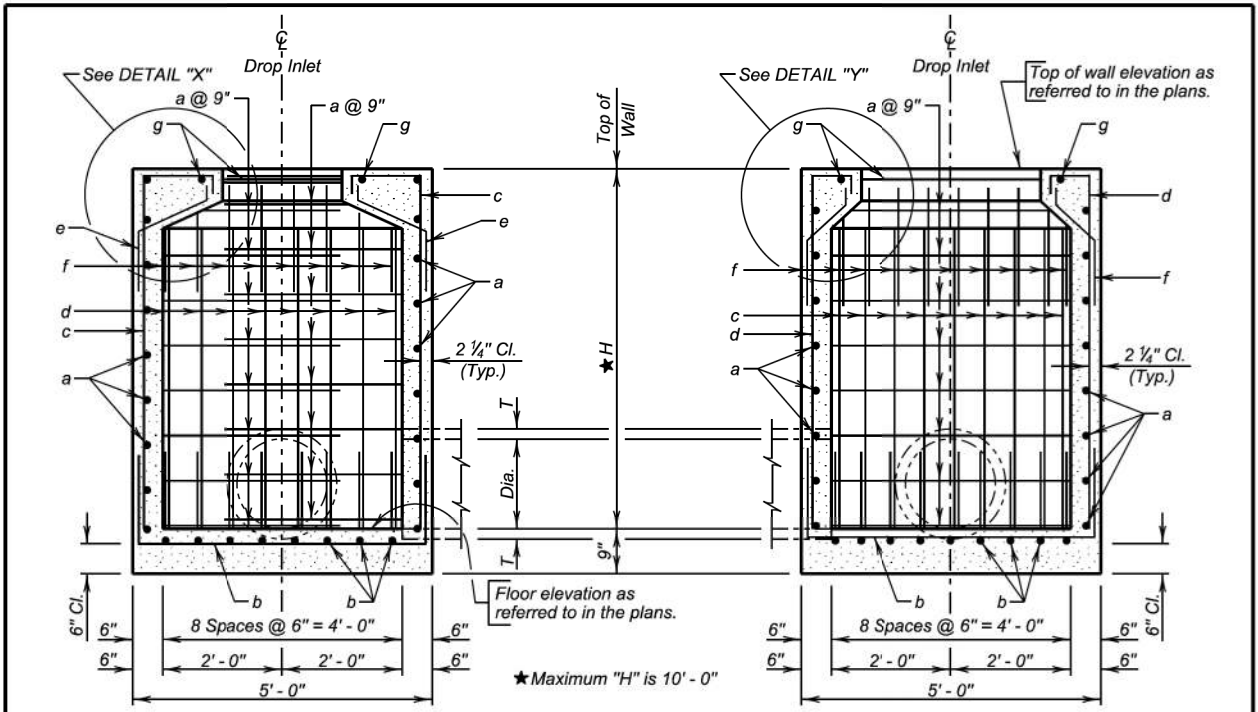
Published Date: 2027

4' X 4' TYPE B
REINFORCED CONCRETE DROP INLET

PLATE NUMBER
670.04

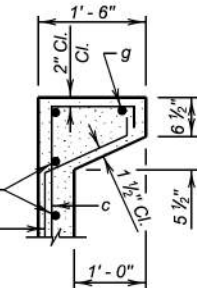
Sheet 1 of 2

Apr 11 17, 2026

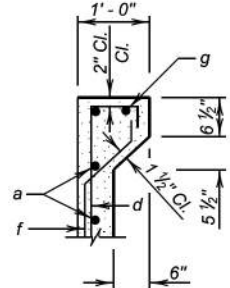


SEC. A - A

SEC. B - B



DETAIL "X"



DETAIL "Y"

REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	2.67H	4	11' - 0"	17
b	18	4	7' - 6"	17
c	18	4	H + 15"	S17
d	18	4	H + 9"	S17
e	18	4	2' - 6"	S19
f	18	4	2' - 3"	S19
g	2	4	7' - 0"	17

NOTE:
All dimensions are out to out of bars.

Type 17

Type S17

Type S19

Type S19

Apr 11 17, 2026

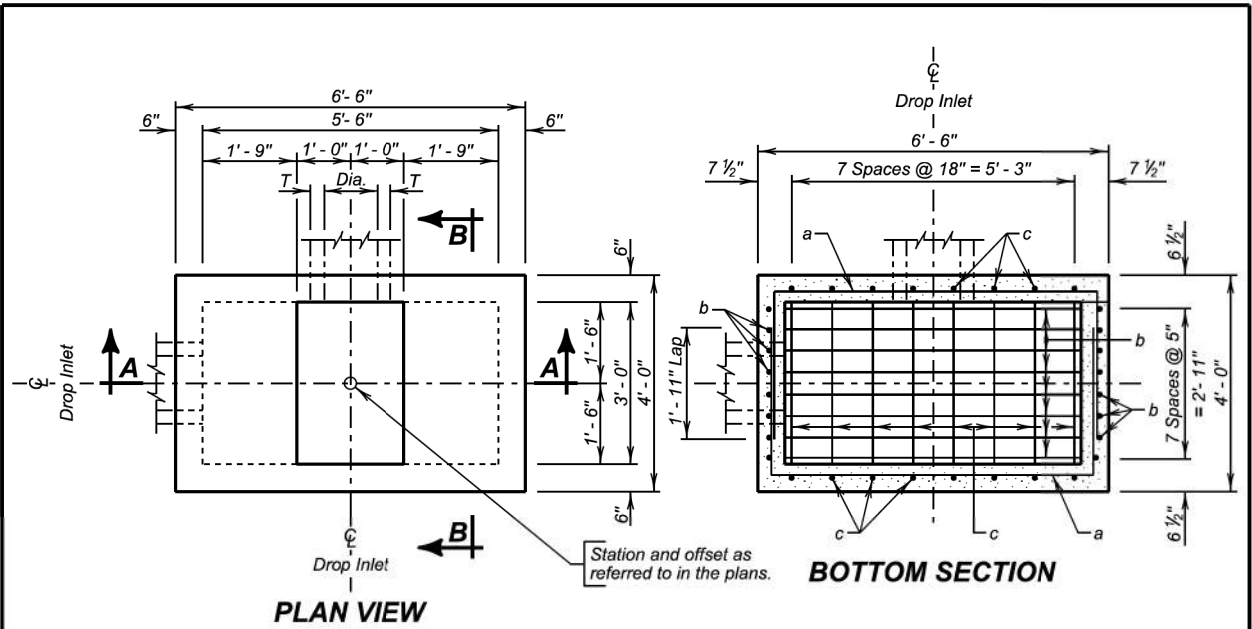
SDDOT

Published Date: 2027

4' X 4' TYPE B
REINFORCED CONCRETE DROP INLET

PLATE NUMBER
670.04

Sheet 2 of 2



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	1.03	0.35H
Reinforcing Steel	Lb.	161.19	47.89H
Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 54" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

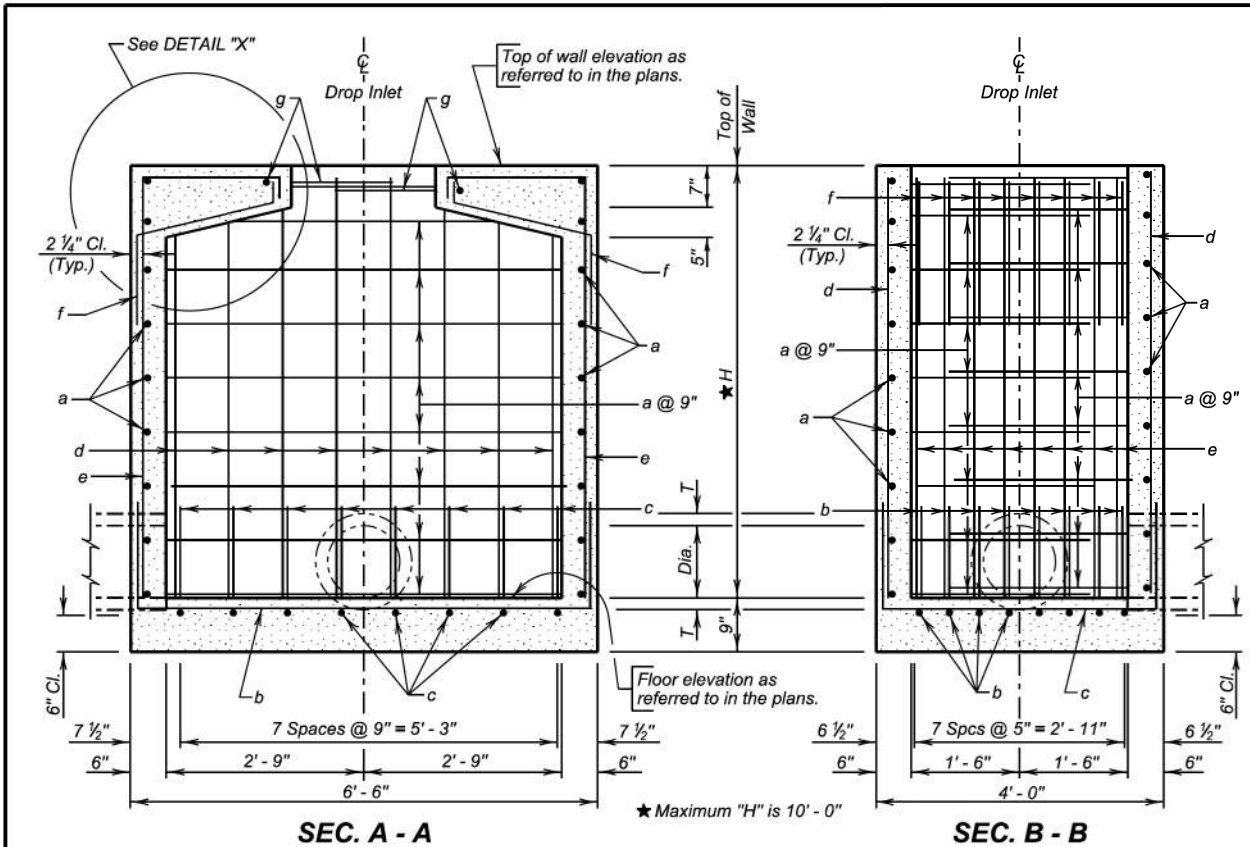
Maximum R.C.P. diameter shall not exceed 54 inches (42 inches for R. C. arch) on the 5.5-foot wide side and shall not exceed 24 inches (24 inches for R. C. arch) on the 3-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
12	2	0.03	
15	2 1/4	0.04	
18	2 1/2	0.05	
24	3	0.09	
30	3 1/2	0.14	
36	4	0.20	
42	4 1/2	0.26	
48	5	0.34	
54	5 1/2	0.43	
18	2 1/2	0.05	
24	3 1/2	0.09	
30	4	0.14	
36	4 1/2	0.19	
42	4 1/2	0.24	

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Published Date: 2027	S D D O T	5.5' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.05
			Sheet 1 of 2



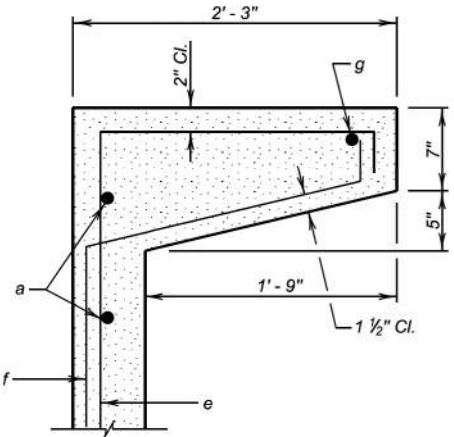
REINFORCING SCHEDULE					
Mk.	No.	Size	Length	Type	Bending Details
a	2.67H	4	11'-6"	17	
b	8	4	9'-0"	17	
c	8	4	6'-6"	17	
d	16	4	H-2"	Str.	
e	16	5	H+24"	S17	
f	16	4	3'-6"	S19	
g	2	4	7'-0"	17	

NOTE:
All dimensions are out to out of bars.

Type S17

Type S19

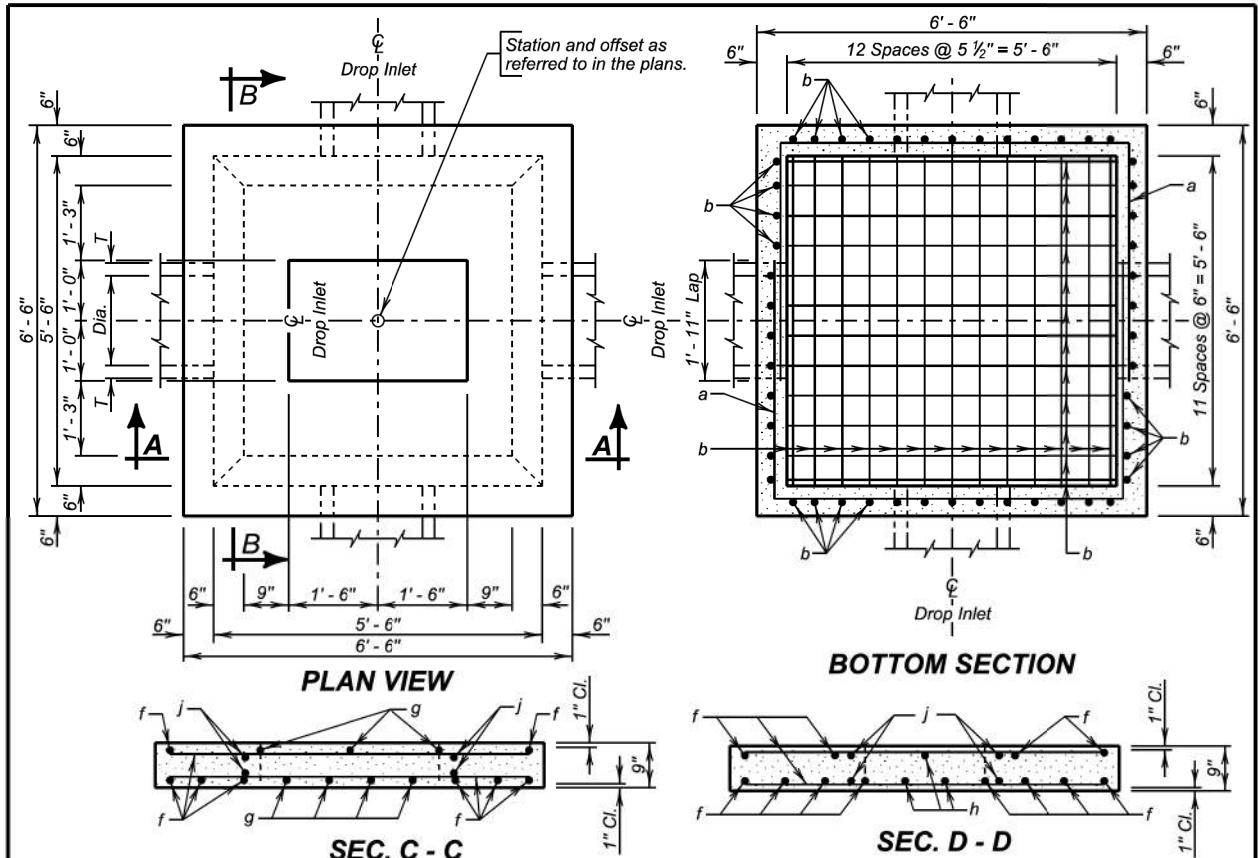
Type 17



DETAIL "X"

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Published Date: 2027	S D D O T	5.5' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.05
			Sheet 2 of 2



SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The c bars shall be lapped 12 inches with the b bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

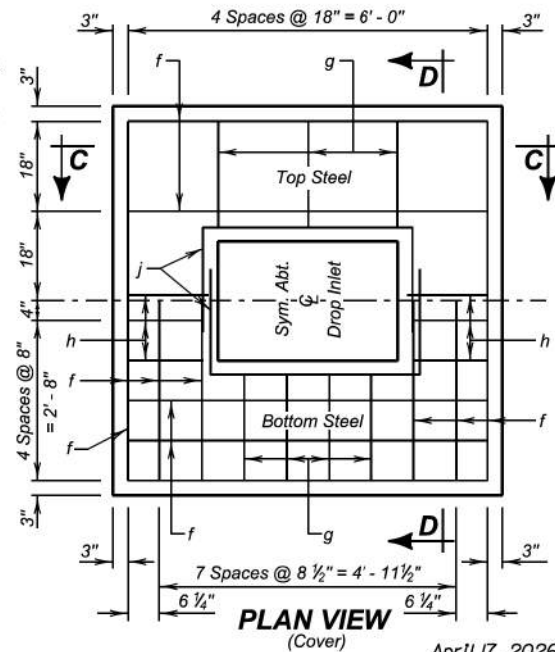
* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Apply a thin layer of grout between the drop inlet and cover to ensure uniform bearing. Grout shall conform to Section 460.2 K.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

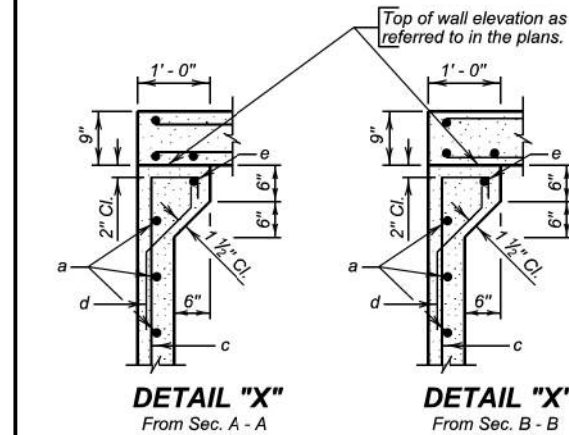
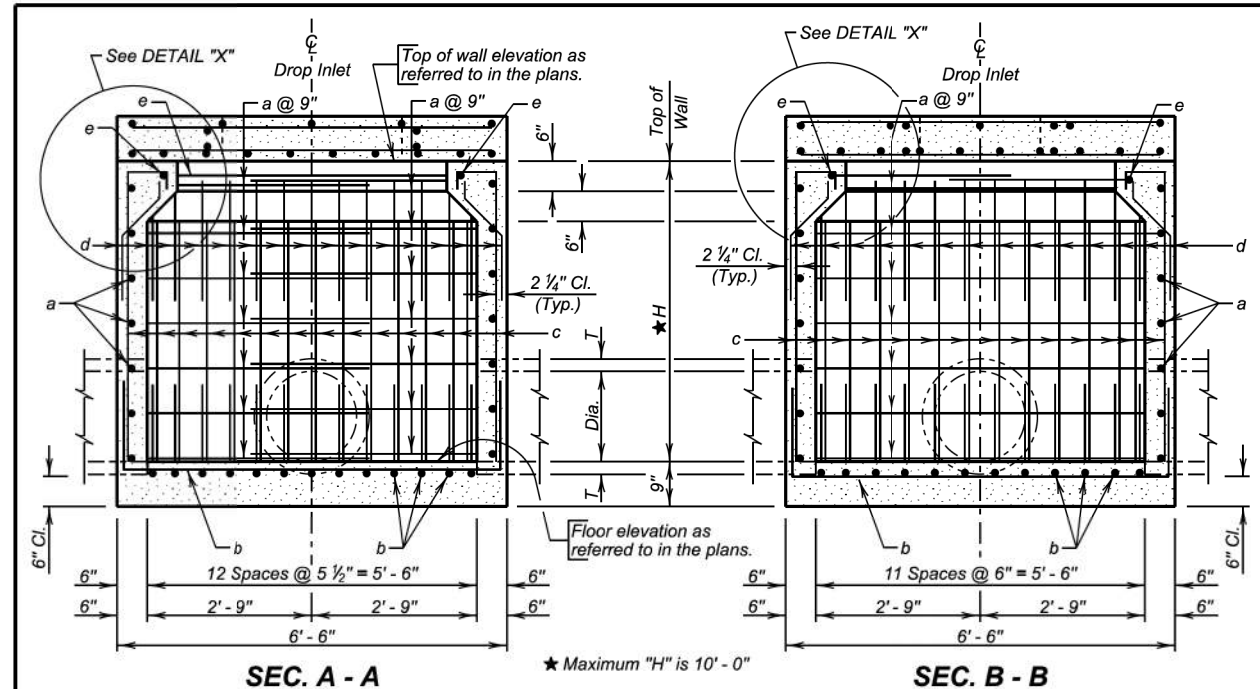
Maximum R.C.P. diameter shall not exceed 54 inches (42 inches for R. C. arch) on the 5.5-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.



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S D D O T	5.5' X 5.5' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.06
		Sheet 1 of 2
		Published Date: 2027



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	2.46	0.44H
Reinforcing Steel	Lb.	380.09	58.37H
Frame and Grate Assembly	Each	1	

REINFORCING SCHEDULE					
Mk.	No.	Size	Length	Type	Bending Details
a	2.67H	4	14' - 0"	17	
b	25	4	9' - 0"	17	
c	50	4	H + 9"	S17	
d	50	4	2' - 3"	S19	
e	2	4	10' - 6"	17	
f	18	4	6' - 0"	Str.	
g	14	4	1' - 9"	Str.	
h	10	4	1' - 3"	Str.	
j	4	4	7' - 0"	17	

NOTE: All dimensions are out to out of bars.

Type 17

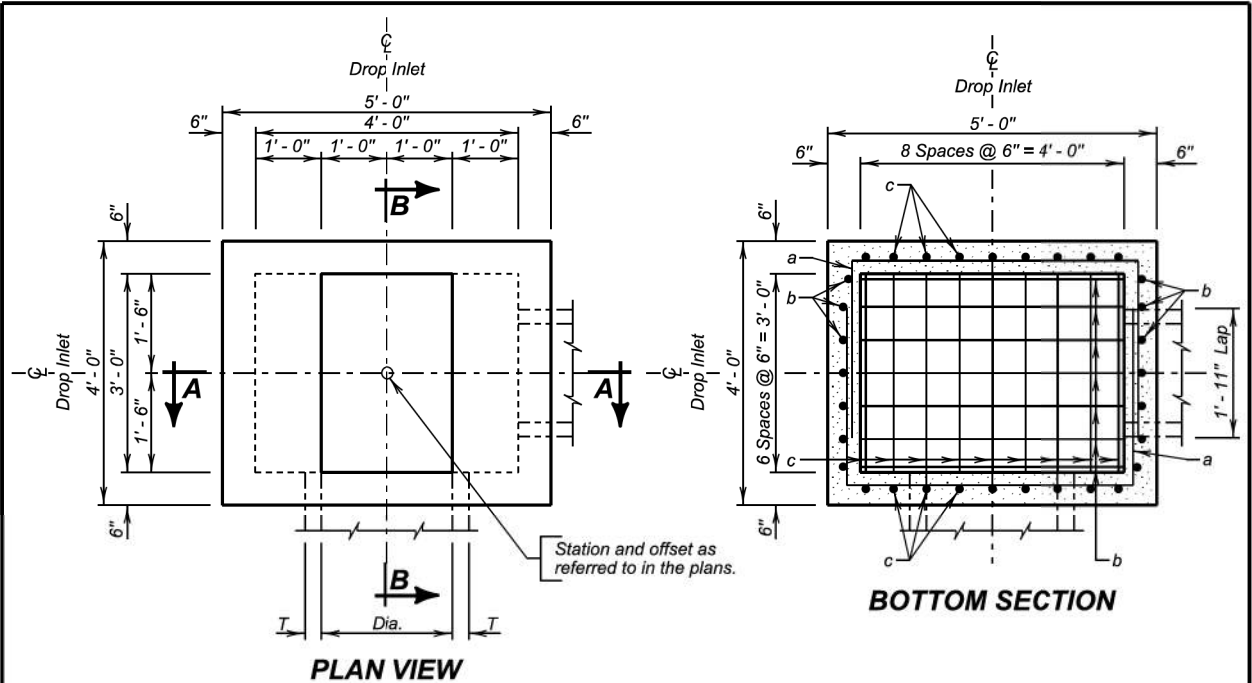
Type S19

Type S17

PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
12	2	0.03	
15	2 1/4	0.04	
18	2 1/2	0.05	
24	3	0.09	
30	3 1/2	0.14	
36	4	0.20	
42	4 1/2	0.26	
48	5	0.34	
54	5 1/2	0.43	
18	2 1/2	0.05	R.C.P.
24	3 1/2	0.09	R.C. ARCH
30	4	0.14	
36	4 1/2	0.19	
42	4 1/2	0.24	

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S D D O T	5.5' X 5.5' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.06
		Sheet 2 of 2
		Published Date: 2027



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.58	0.33H
Reinforcing Steel	Lb.	116.24	39.21H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 36" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d and e bars shall be lapped 12 inches with the c and b bars, respectively. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

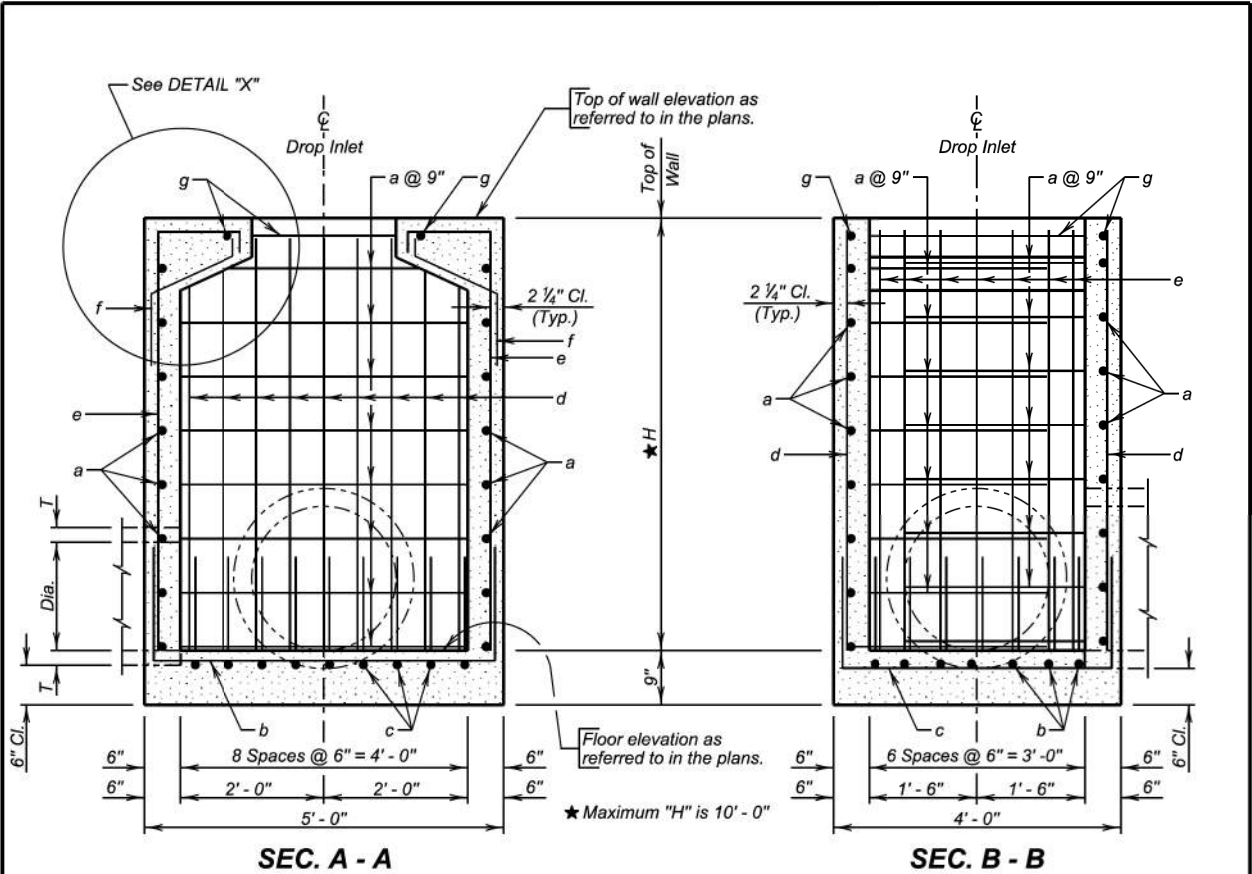
Maximum R.C.P. diameter shall not exceed 36 inches (30 inches for R. C. arch) on the 4-foot wide side and shall not exceed 24 inches (24 inches for R. C. arch) on the 3-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
12	2	0.03	
15	2 1/4	0.04	
18	2 1/2	0.05	
24	3	0.09	
30	3 1/2	0.14	
36	4	0.20	
18	2 1/2	0.05	
24	3 1/2	0.09	
30	4	0.14	

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Published Date: 2027	S D D O T	4' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.07
			Sheet 1 of 2



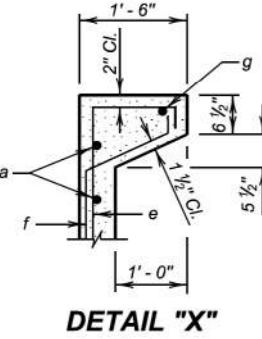
REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	2.67H	4	10' - 0"	17
b	7	4	7' - 6"	17
c	9	4	6' - 6"	17
d	18	4	H - 2"	Str.
e	14	4	H + 15"	S17
f	14	4	2' - 6"	S19
g	2	4	6' - 9"	17

NOTE: All dimensions are out to out of bars.

Type 17: a 4' - 6 1/2", b 4' - 7 1/2", c 3' - 7 1/2", g 3' - 3"

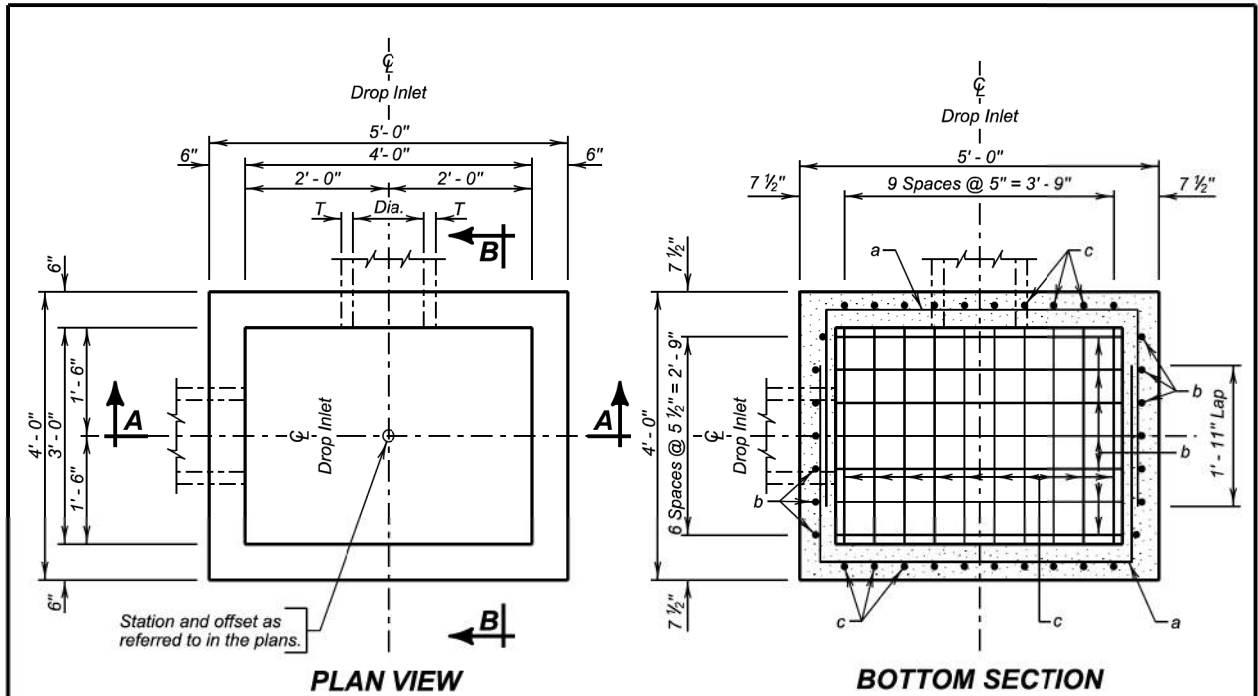
Type S19: f 1' - 3"

Type S17: e 13 3/4", 3 1/2"



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Published Date: 2027	S D D O T	4' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.07
			Sheet 2 of 2



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.43	0.30H
Reinforcing Steel	Lb.	90.90	40.53H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 36" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

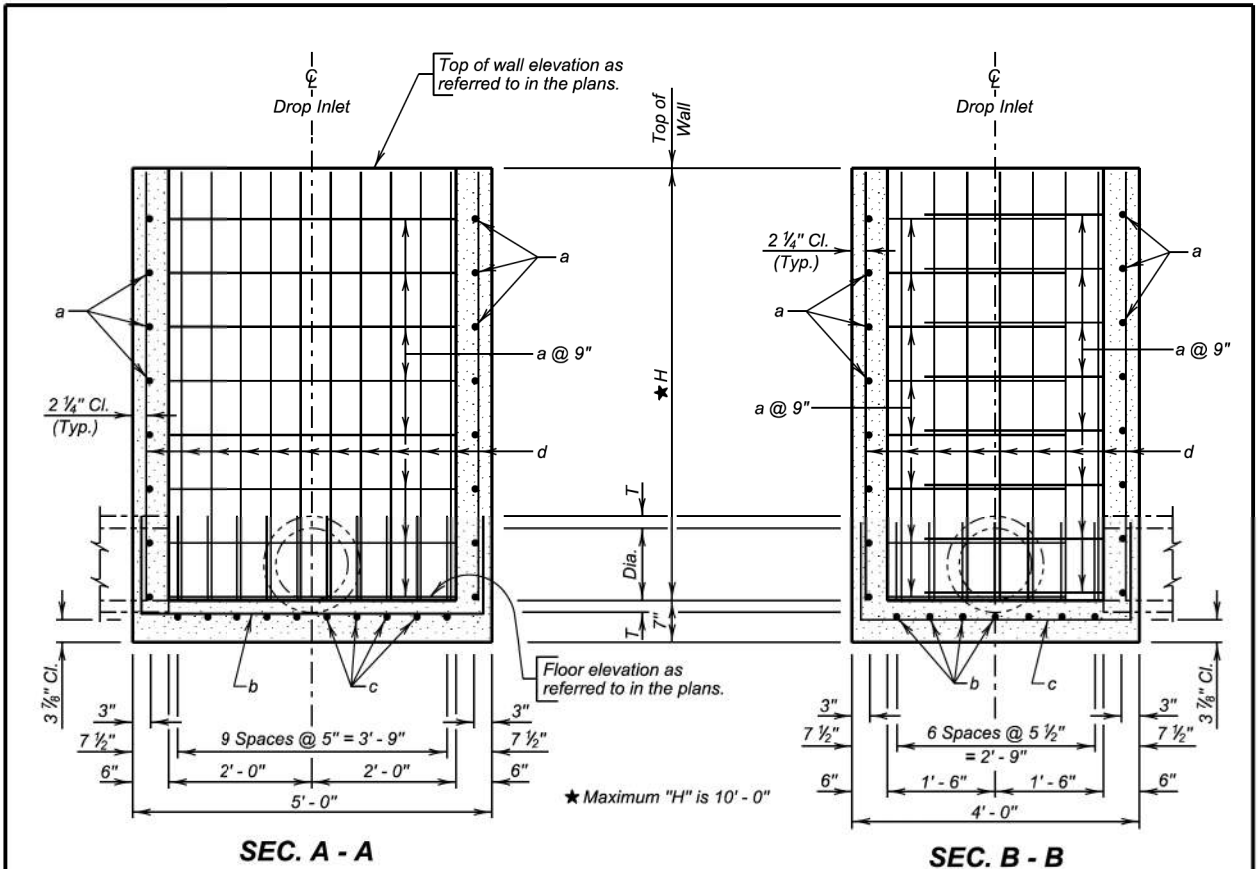
Maximum R.C.P. diameter shall not exceed 24 inches (24 inches for R. C. arch) on the 3-foot wide side and shall not exceed 36 inches (30 inches for R. C. arch) on the 4-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
12	2	0.03	
15	2 1/4	0.04	
18	2 1/2	0.05	
24	3	0.09	
30	3 1/2	0.14	
36	4	0.20	
18	2 1/2	0.05	
24	3 1/2	0.09	
30	4	0.14	

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Published Date: 2027	S D D O T	3' X 4' TYPE C REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.10
			Sheet 1 of 2

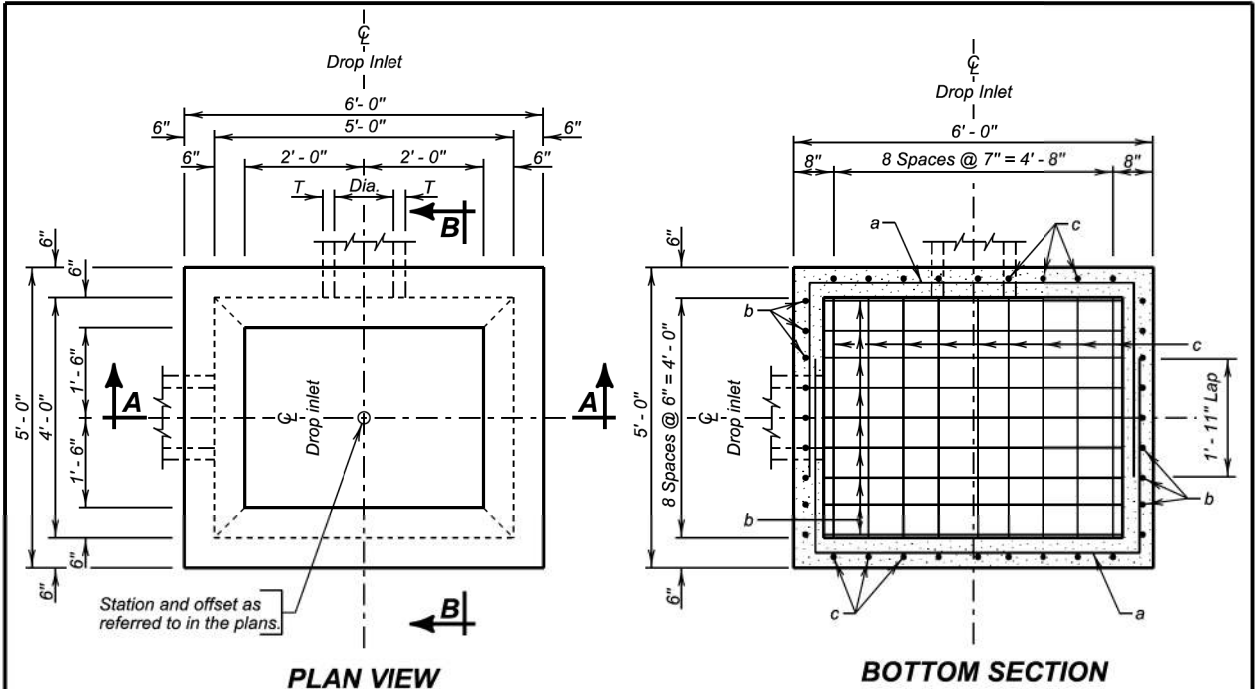


REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	2.67H	4	10' - 0"	17
b	7	5	7' - 3"	17
c	10	4	6' - 3"	17
d	34	4	H - 2"	Str.

NOTE:
All dimensions are out to out of bars.

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Published Date: 2027	S D D O T	3' X 4' TYPE C REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.10
			Sheet 2 of 2



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	1.06	0.37H
Reinforcing Steel	Lb.	180.36	45.43H
Frame and Grate Assembly	Each	1	

DROP INLETS FOR 12" TO 48" DIAMETER PIPE

SPECIFICATIONS

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

Maximum R.C.P. diameter shall not exceed 36 inches (30 inches for R. C. arch) on the 4-foot wide side and shall not exceed 48 inches (36 inches for R. C. arch) on the 5-foot wide side of the drop inlet.

The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
12	2	0.03	
15	2 1/4	0.04	
18	2 1/2	0.05	
24	3	0.09	
30	3 1/2	0.14	
36	4	0.20	
42	4 1/2	0.26	
48	5	0.34	
18	2 1/2	0.05	
24	3 1/2	0.09	
30	4	0.14	
36	4 1/2	0.19	

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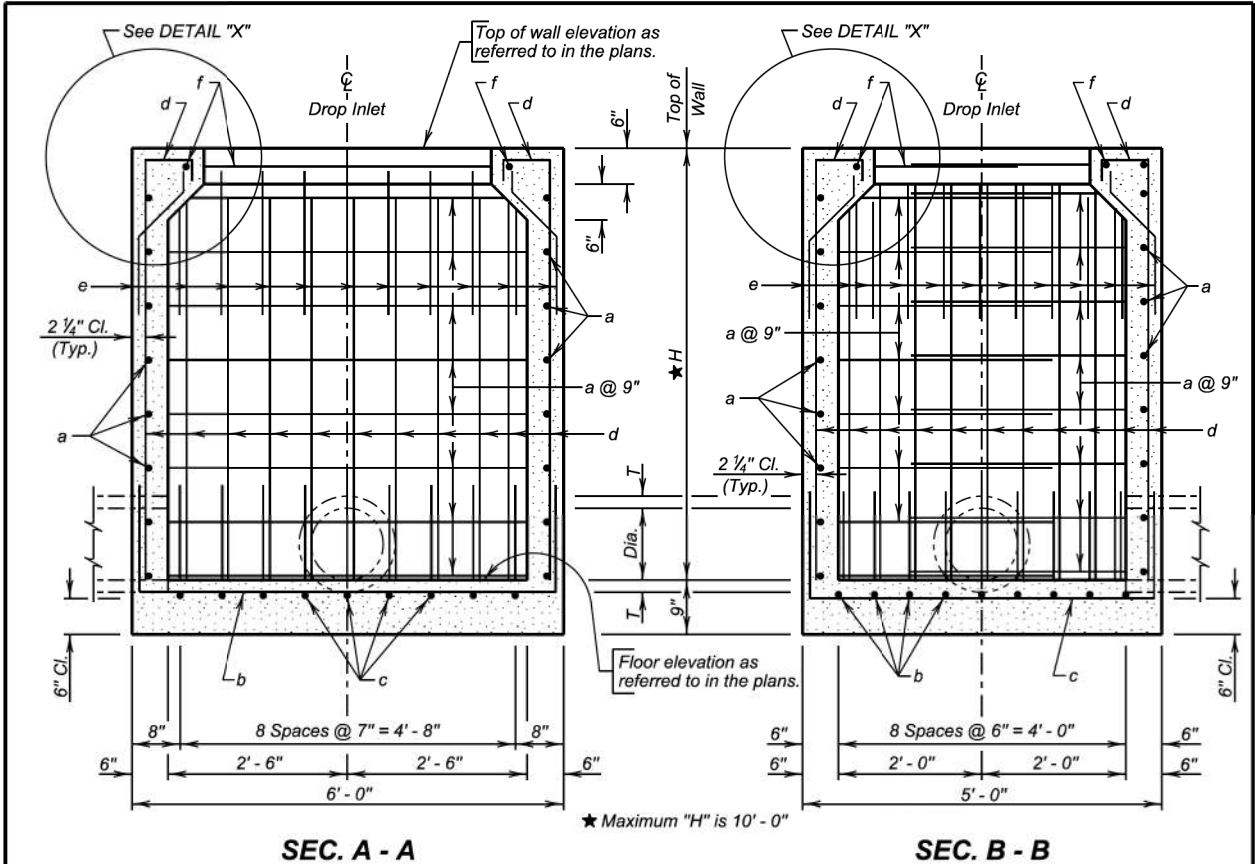
SD
DOT

Published Date: 2027

4' X 5' TYPE C
REINFORCED CONCRETE DROP INLET

PLATE NUMBER
670.11

Sheet 1 of 2



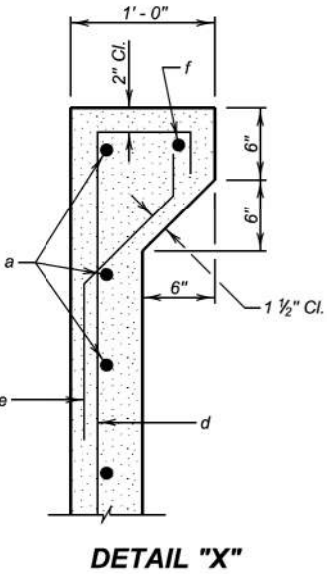
REINFORCING SCHEDULE					
Mk.	No.	Size	Length	Type	Bending Details
a	2.67H	4	12'-0"	17	
b	9	4	8'-6"	17	
c	9	4	7'-6"	17	
d	36	4	H + 9"	S17	
e	36	4	2'-3"	S19	
f	2	4	9'-0"	17	

NOTE:
All dimensions are out to out of bars.

Type S17

Type S19

Type 17



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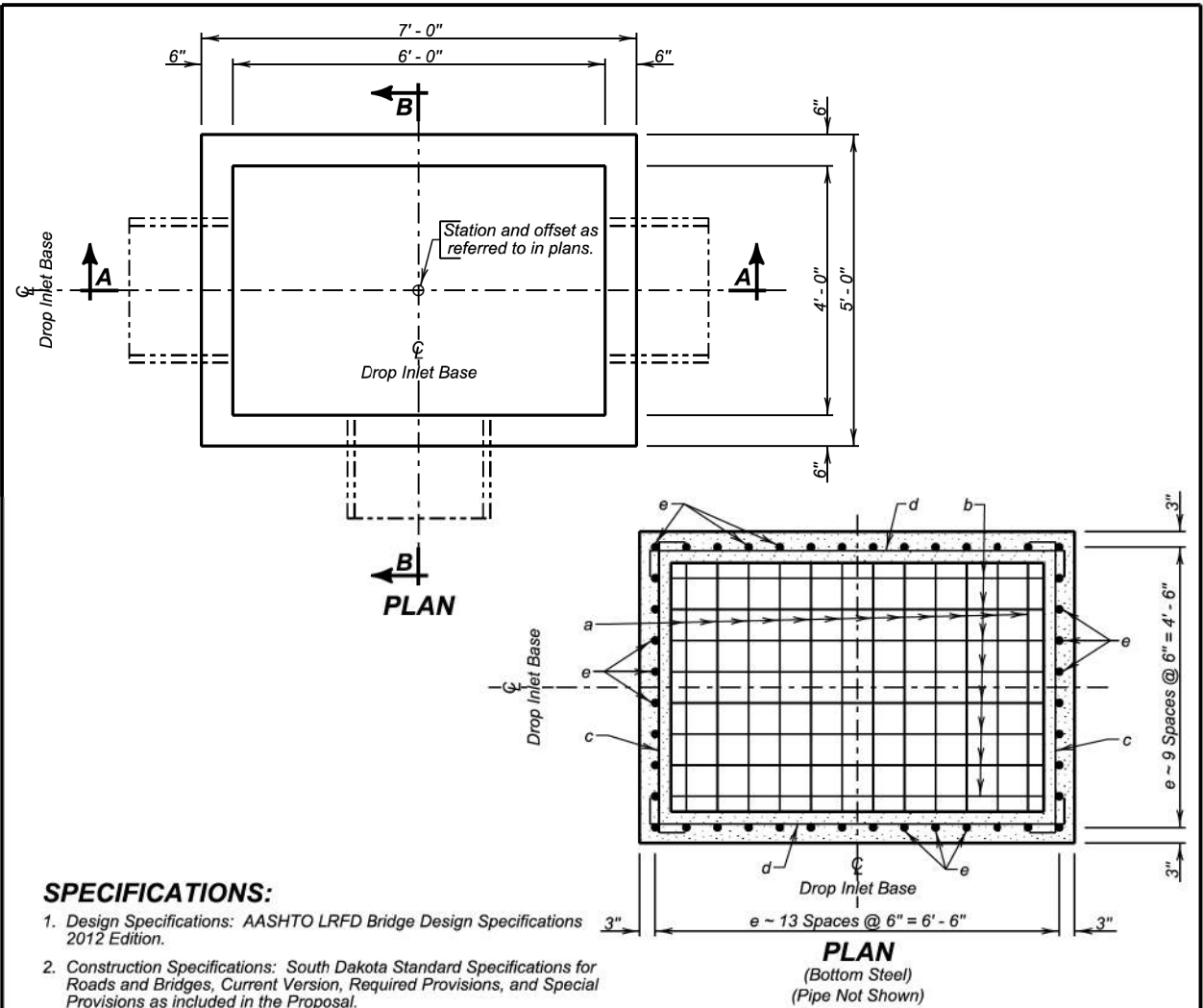
SD
DOT

Published Date: 2027

4' X 5' TYPE C
REINFORCED CONCRETE DROP INLET

PLATE NUMBER
670.11

Sheet 2 of 2



SPECIFICATIONS:

- Design Specifications: AASHTO LRFD Bridge Design Specifications 2012 Edition.
- Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

GENERAL NOTES:

- Design Live Load: HL-93 loading. No construction loading in excess of legal load was considered.
- Base is intended for use with a Precast Concrete Type S Drop Inlet Lid, Standard Plate 670.38. Base may be precast. If precast base used, and details differ from that shown, the precast base must be on the current approved list. The current approved list is available through proper channels from the SDDOT Office of Bridge Design.
- To qualify for addition to the approved list, submit a checked design, by South Dakota Registered Professional Engineers and shop plans to the Office of Bridge Design for approval. Design shall be in accordance with the current edition of the AASHTO LRFD Bridge Design Specifications.
- * Reduce total quantities of concrete by the amount of concrete displaced by the pipe. The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.
- Inlets shown may be modified by the addition or omission of connecting pipes as shown on the layouts. Connecting pipes shall not enter the inlet through the corners.
- Maximum R.C.P. diameter shall not exceed 36 inches (30 inches for R.C. Arch) on the 4-foot wide side and shall not exceed 54 inches (48 inches for R.C. Arch) on the 6-foot wide side of the Drop Inlet.
- Reinforcing steel shall conform to ASTM A615 Grade 60. Cut and bend reinforcing steel as required to place pipe(s) through the inlet wall.
- Use 1 inch clear cover on all reinforcing steel unless otherwise noted.
- The dimension of H is in feet. Maximum H is 8 feet.

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Published Date: 2027	S D D O T	4' X 6' TYPE S DROP INLET BASE	PLATE NUMBER 670.30
			Sheet 1 of 2

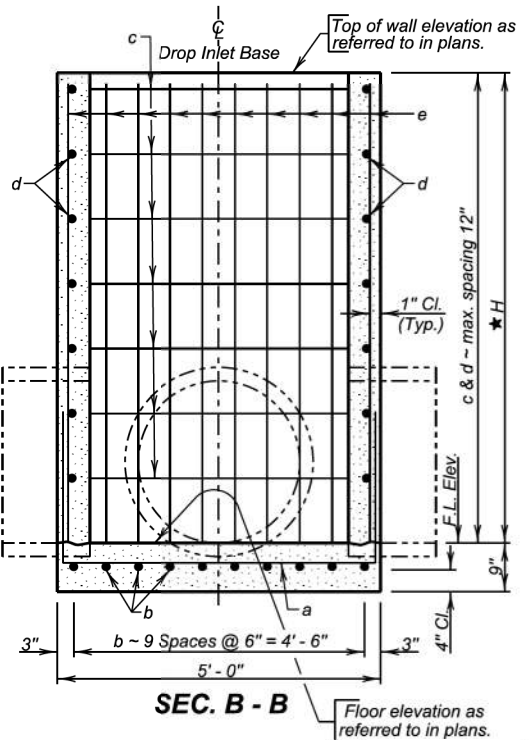
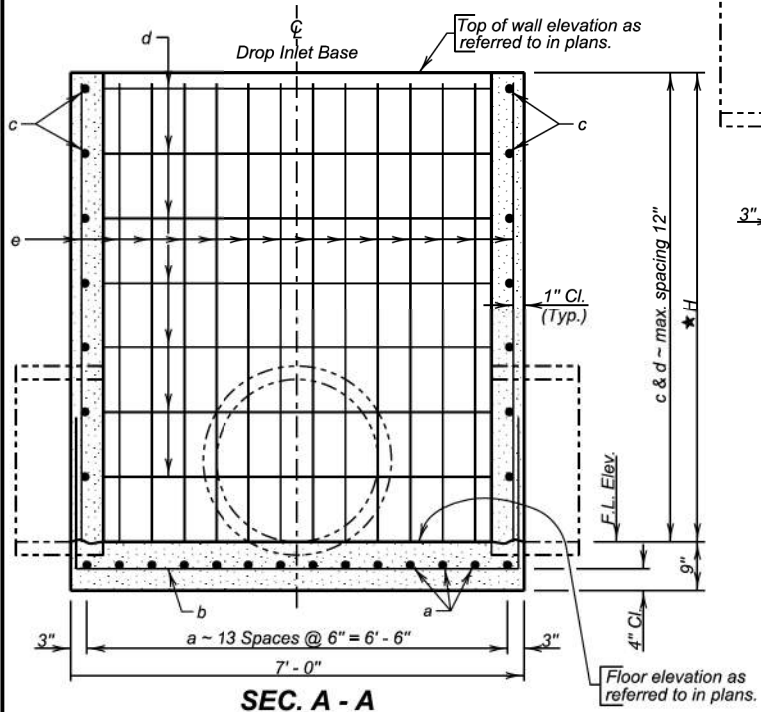
PIPE DISPLACEMENT REDUCTIONS			
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)	
R.C.P.	12	2	0.03
	15	2 1/4	0.04
	18	2 1/2	0.05
	24	3	0.09
	30	3 1/2	0.14
	36	4	0.20
	42	4 1/2	0.26
R.C. ARCH	48	5	0.34
	54	5 1/2	0.43
	18	2 1/2	0.05
	24	3 1/2	0.09
	30	4	0.14
	36	4 1/2	0.19
	42	4 1/2	0.24
	48	5	0.32

REINFORCING SCHEDULE				
Mk.	No.	Size	Length	Type
a	14	5	9' - 6"	17
b	10	5	11' - 6"	17
c	2H	4	5' - 6"	17
d	2H	4	7' - 6"	17
e	44	4	H - 2"	Str.

NOTE:
All dimensions are out to out of bars

Type 17

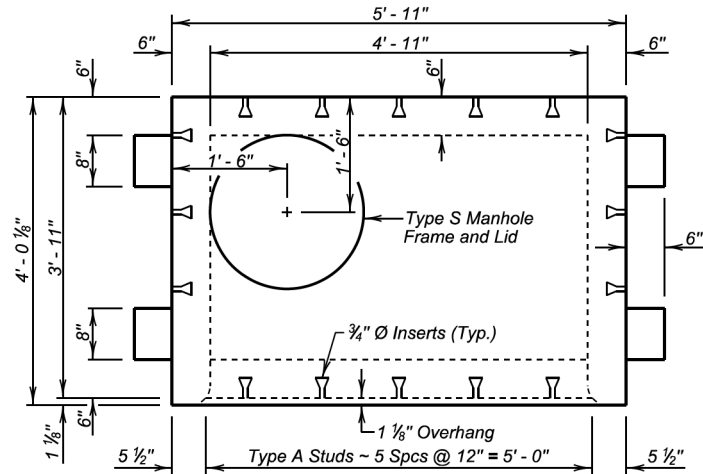
ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.97	0.41H
Reinforcing Steel	Lb.	253.77	46.76H



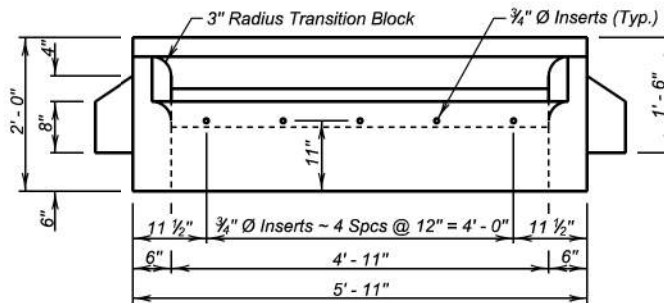
★ Maximum H is 8' - 0"

Apr11 17, 2026

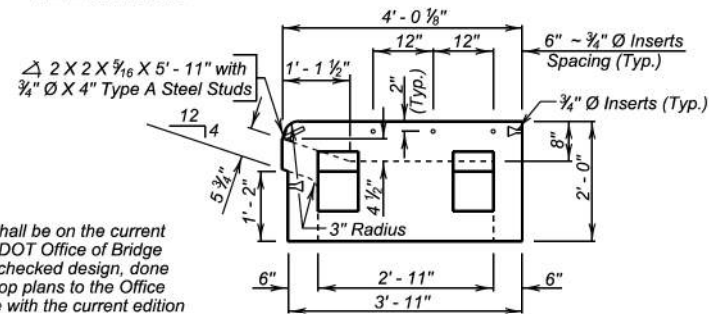
Published Date: 2027	S D D O T	4' X 6' TYPE S DROP INLET BASE	PLATE NUMBER 670.30
			Sheet 2 of 2



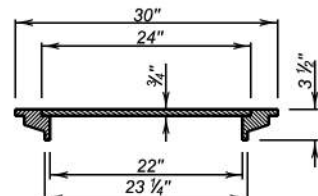
PLAN



ELEVATION



SIDE VIEW
(With Sidewalk Inserts)



TYPICAL SECTION THROUGH
TYPE S MANHOLE
FRAME AND LID

(Weight 140 Lbs.) November 19, 2022

GENERAL NOTES:

1. The Precast Concrete Type S Drop Inlet Lid and the shims shall be on the current approved list available through proper channels from the SDDOT Office of Bridge Design. To qualify for addition to the approved list, submit a checked design, done by South Dakota Registered Professional Engineers, and shop plans to the Office of Bridge Design for approval. Design shall be in accordance with the current edition of the AASHTO LRFD Bridge Design Specifications.
2. Design Live Load shall be HL - 93.
3. Concrete mix shall be as per fabricators design, however, minimum compressive strength shall not be less than 4500 psi. Type II Cement is required.
4. The Type S Manhole Frame and Lid shall conform to AASHTO M105, Class 30.
5. Structural Steel shall conform to ASTM A36. The 3/4 inch diameter Headed Type A Steel Studs shall conform to Section 7 of the current edition of AWS D1.1 Structural Steel Welding Code.
6. The 3/4 inch diameter Concrete Inserts shall be galvanized or made of a corrosion resistant material. Provide 3/4 inch diameter x 1' - 6" long dowels conforming to ASTM A615, Gr. 60 threaded to fit Inserts with each lid.
7. All costs associated with furnishing and installing the Precast Concrete Type S Drop Inlet Lid including the type S manhole frame and lid, shims, inserts, and dowels shall be included in the contract unit price per each for " 4' x 6' Precast Concrete Type S Drop Inlet Lid ".

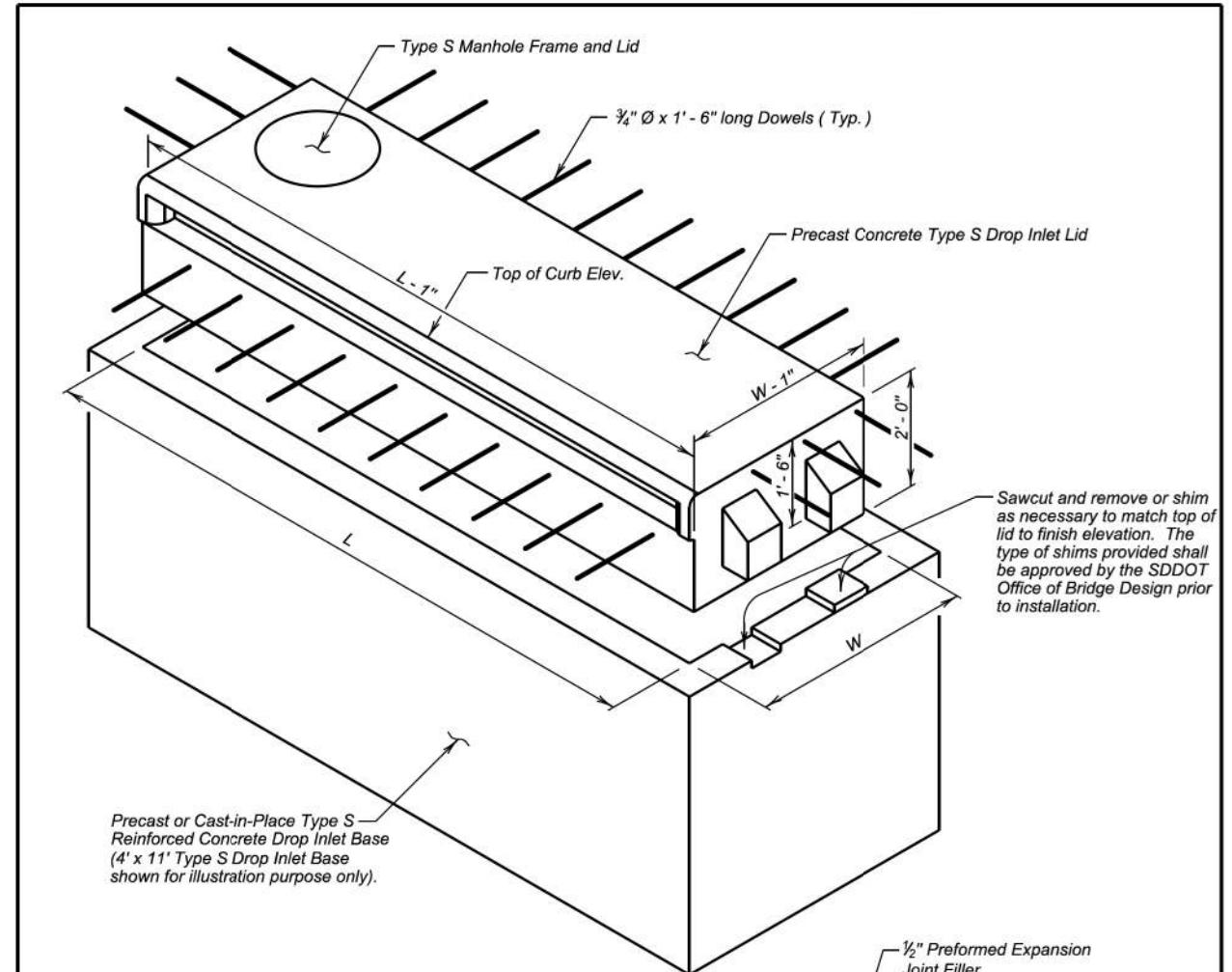
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4' X 6' PRECAST CONCRETE
TYPE S DROP INLET LID

PLATE NUMBER
670.38

Sheet 1 of 1

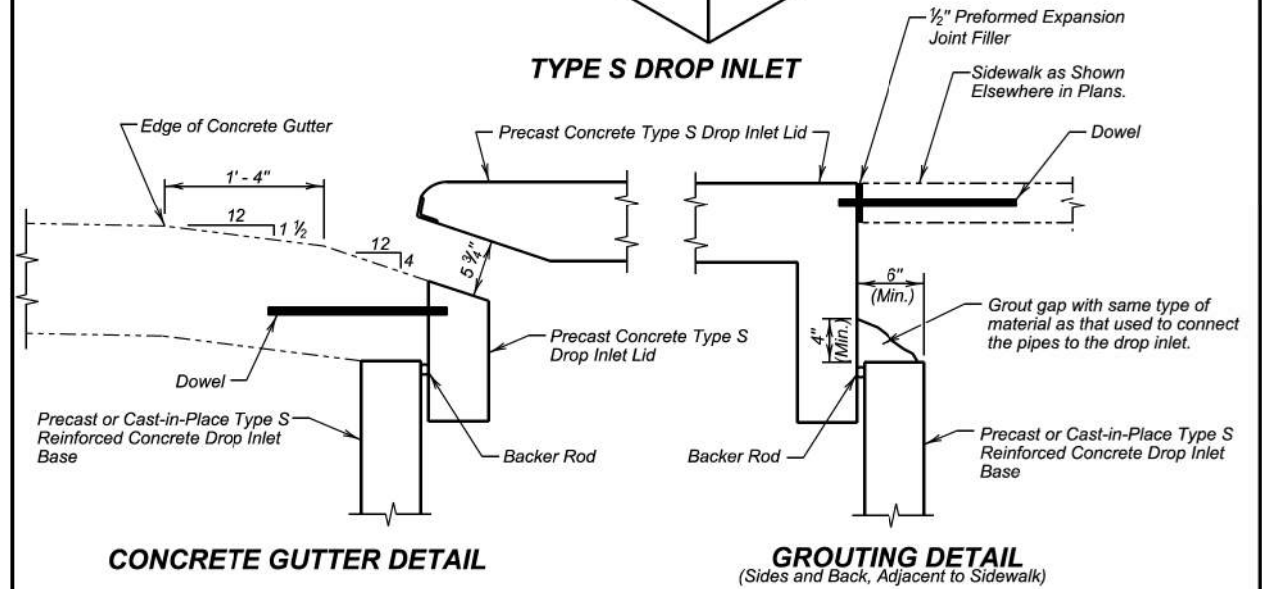
Published Date: 2027



Precast or Cast-in-Place Type S
Reinforced Concrete Drop Inlet Base
(4' x 11' Type S Drop Inlet Base
shown for illustration purpose only).

Sawcut and remove or shim
as necessary to match top of
lid to finish elevation. The
type of shims provided shall
be approved by the SDDOT
Office of Bridge Design prior
to installation.

TYPE S DROP INLET



CONCRETE GUTTER DETAIL

GROUTING DETAIL
(Sides and Back, Adjacent to Sidewalk)

Apr 17, 2026

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INSTALLATION DETAILS FOR
PRECAST CONCRETE TYPE S DROP INLET LID

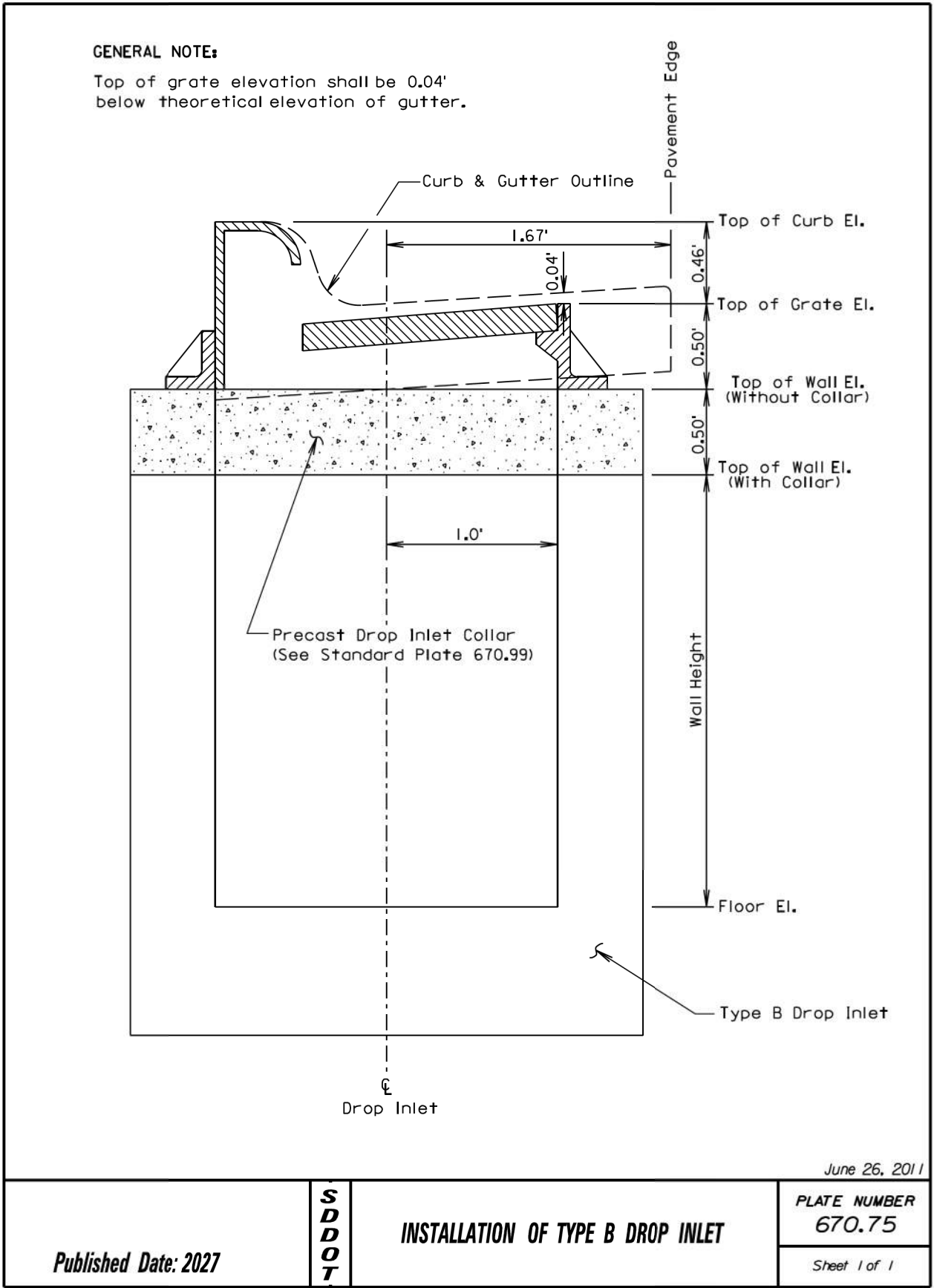
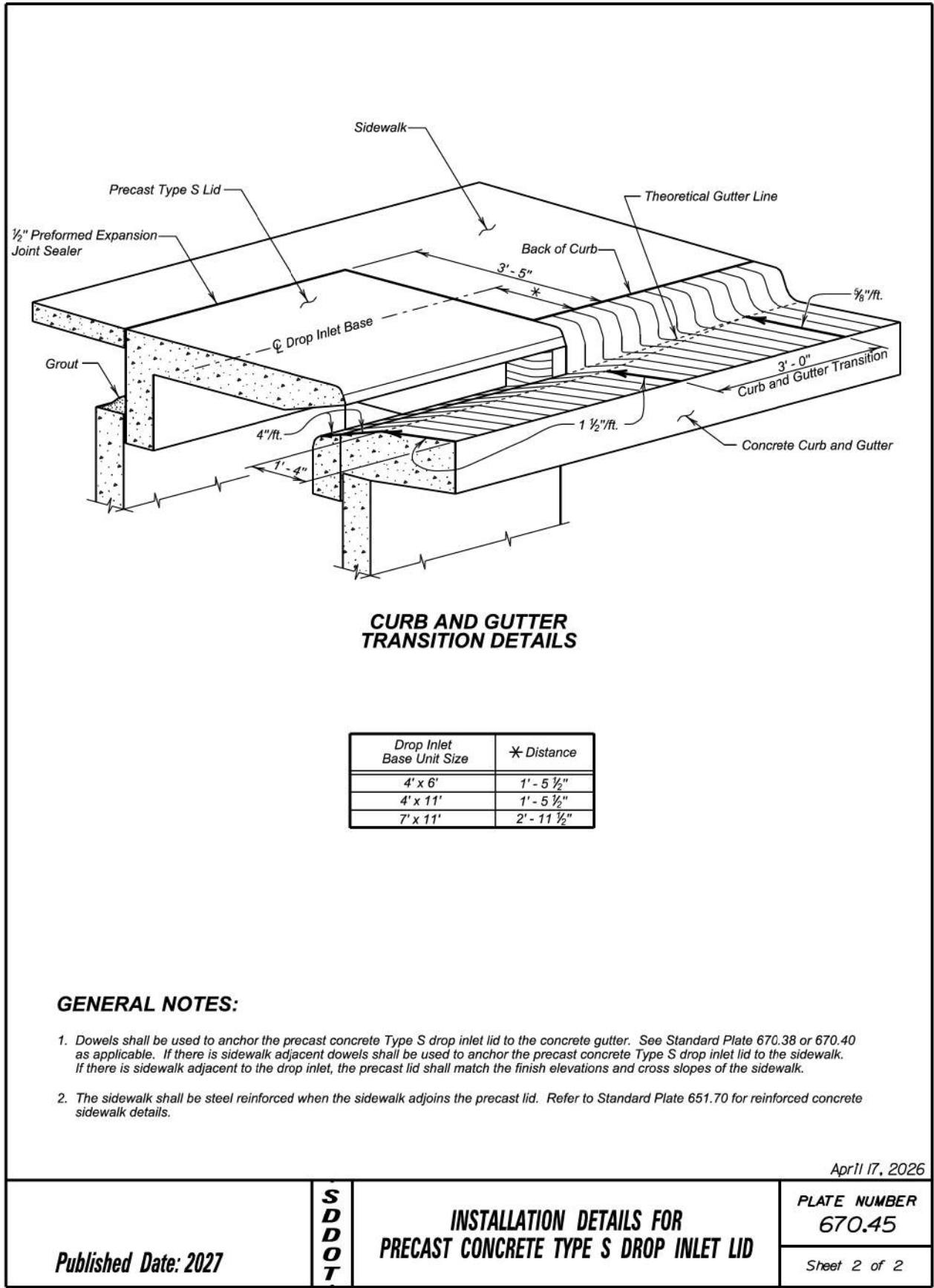
PLATE NUMBER
670.45

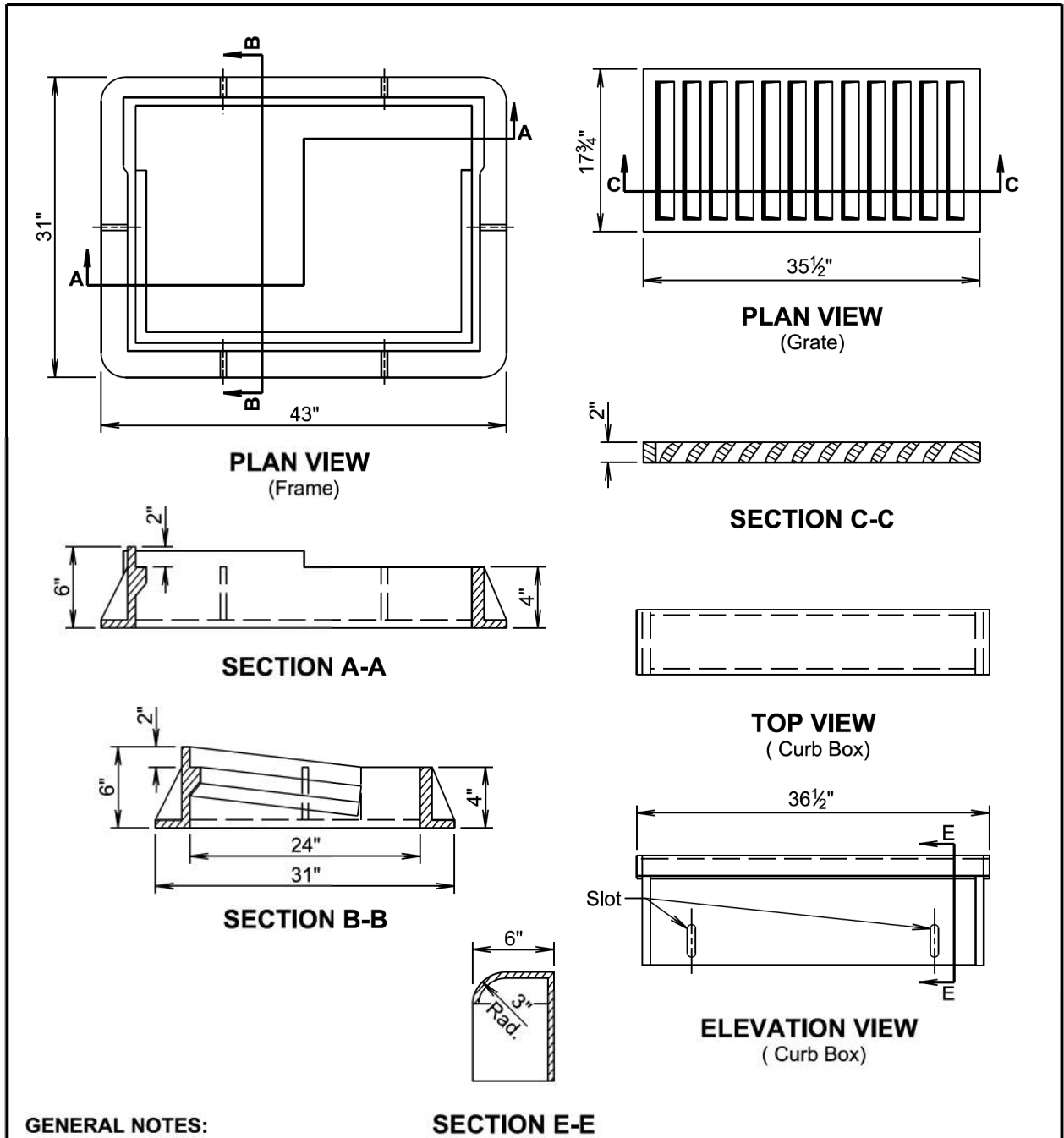
Sheet 1 of 2

Published Date: 2027

1:200
Plot Scale -
Plotted From - TRSF12141

Plotting Date: 06/03/2026





GENERAL NOTES:

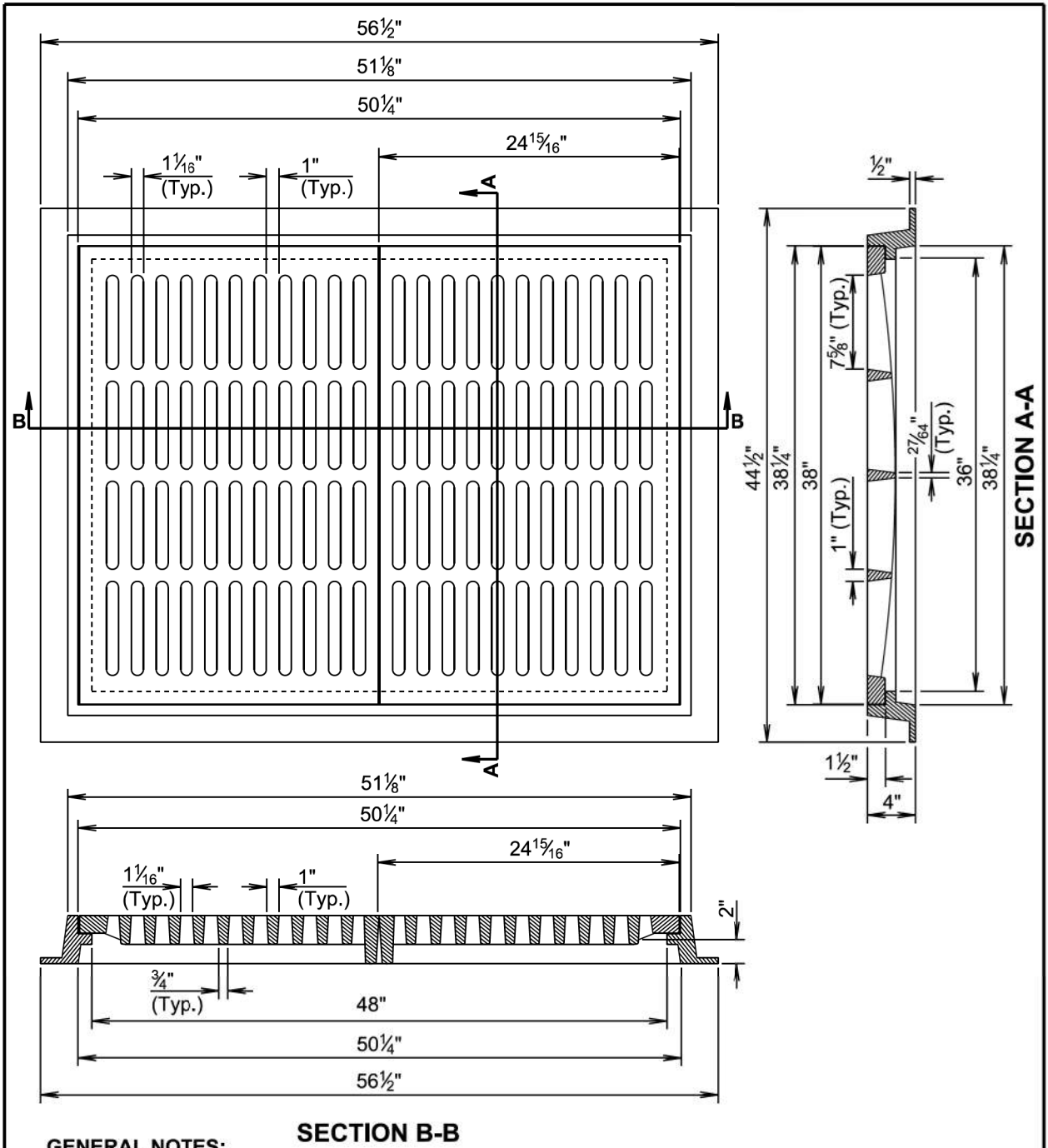
The product dimensions may vary from those shown on the standard plate depending on the manufacturer. Grate size and configuration will be similar to the standard plate for hydraulic capacity and bicycle safety. Any variation in dimensions will be approved by the Engineer and the type B frame and grate assembly will be from a manufacturer on the approved products lists.

Design load for the grate will meet the requirements of AASHTO HL-93.

The curb box will be adjustable 6" to 9".

June 1, 2022

Published Date: 2027	S D D O T	TYPE B FRAME AND GRATE	PLATE NUMBER 670.80
			Sheet 1 of 1



GENERAL NOTES:

The product dimensions may vary from those shown on the standard plate depending on the manufacturer. Grate size and configuration will be similar to the standard plate for hydraulic capacity. Any variation in dimensions will be approved by the Engineer and the type C frame and grate will be from a manufacturer on the approved products list.

Design load for the grate will meet the requirements of AASHTO HL-93.

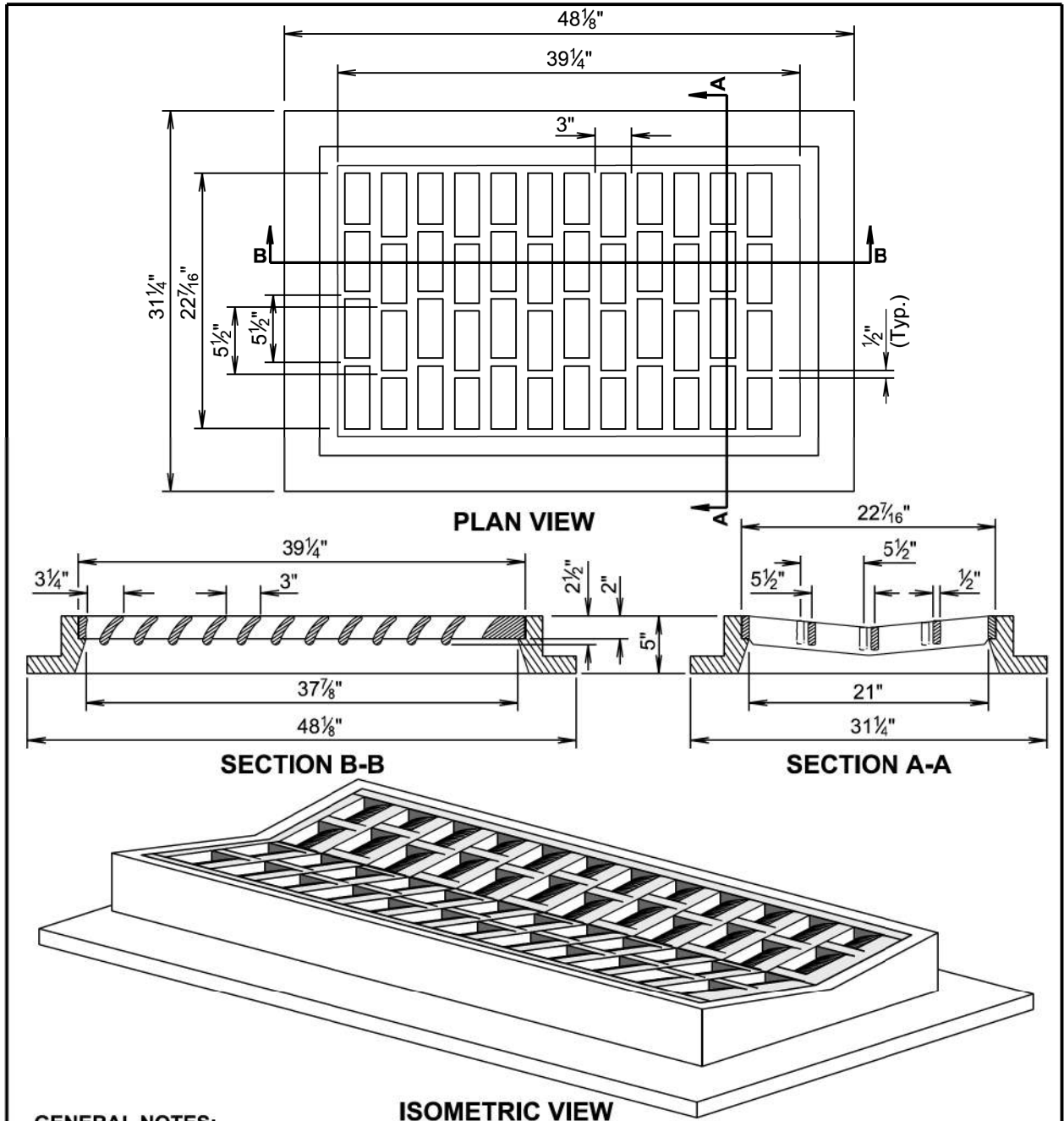
March 31, 2024

Published Date: 2027	S D D O T	TYPE C FRAME AND GRATE	PLATE NUMBER 670.82
			Sheet 1 of 1

Plotted From: TRSF12141 1:200 Plot Scale -

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	B137	B139

Plotting Date: 06/03/2026



GENERAL NOTES:

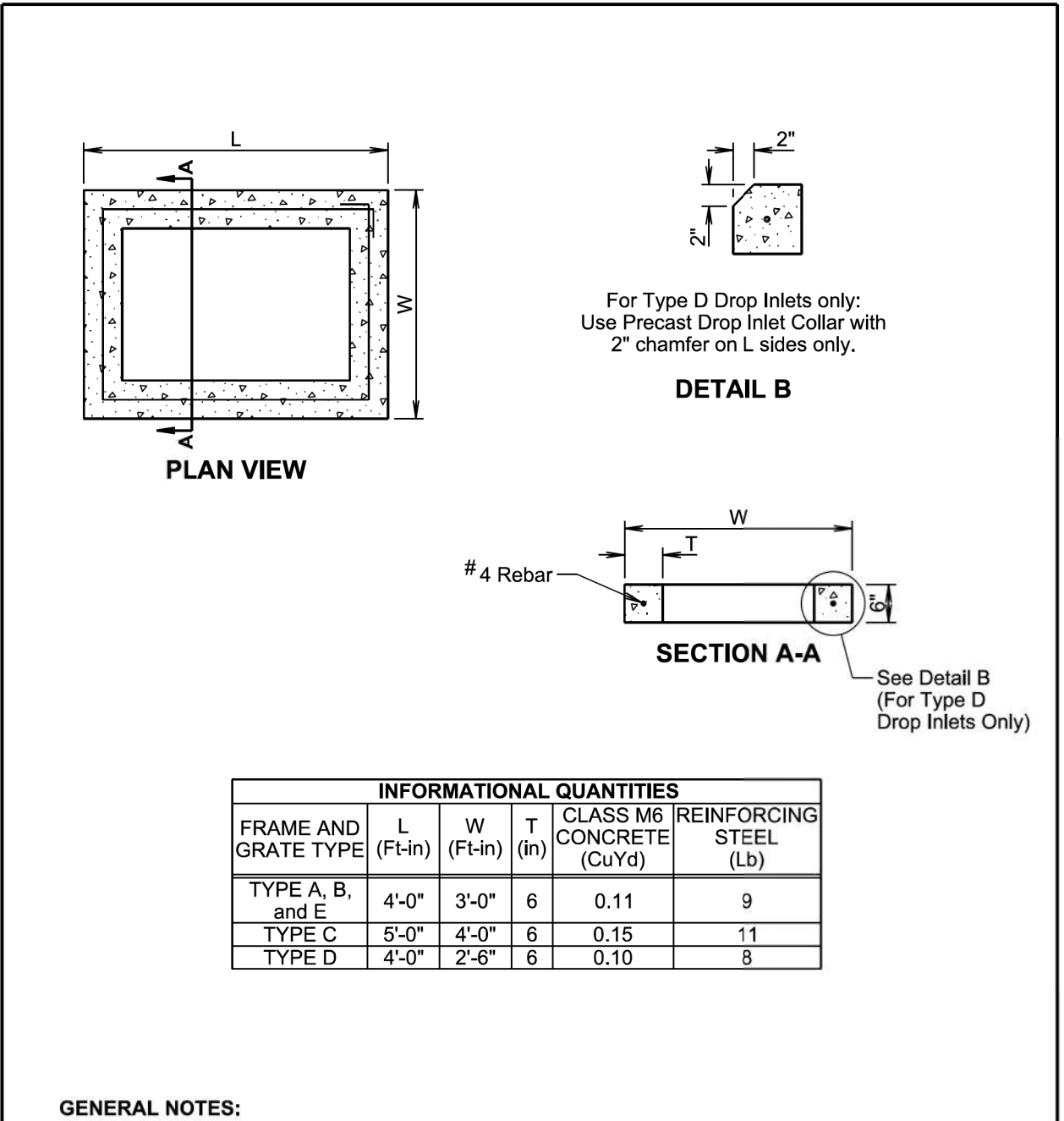
The product dimensions may vary from those shown on the standard plate depending on the manufacturer. Grate size and configuration will be similar to the standard plate for hydraulic capacity and bicycle safety. Any variation in dimensions will be approved by the Engineer and the type E frame and grate will be from a manufacturer on the approved products list.

Design load for the grate will meet the requirements of AASHTO HL-93.

The type E frame and grate is used typically with valley gutter and type P gutter.

June 1, 2022

<i>Published Date: 2027</i>	S D D O T	TYPE E FRAME AND GRATE	PLATE NUMBER 670.86
			Sheet 1 of 1



INFORMATIONAL QUANTITIES					
FRAME AND GRATE TYPE	L (Ft-in)	W (Ft-in)	T (in)	CLASS M6 CONCRETE (CuYd)	REINFORCING STEEL (Lb)
TYPE A, B, and E	4'-0"	3'-0"	6	0.11	9
TYPE C	5'-0"	4'-0"	6	0.15	11
TYPE D	4'-0"	2'-6"	6	0.10	8

GENERAL NOTES:

All reinforcing steel will conform to ASTM A615, Grade 60.

The 1/2" diameter bar will lap 6"± and will be centered in the concrete.

The cost of furnishing and installing Precast Drop Inlet Collars, including labor, materials, and incidentals will be incidental to the contract unit price per Each for "Precast Drop Inlet Collar".

June 1, 2022

<i>Published Date: 2027</i>	S D D O T	PRECAST DROP INLET COLLAR	PLATE NUMBER 670.99
			Sheet 1 of 1

