DEPARTMENT OF TRANSPORTATION

Planning & Engineering
Office of Project Development
700 E. Broadway Avenue
Pierre, SD 57501
O: 605.773.3275
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November 8, 2024

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

To Whom It May Concern,

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

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

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

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

Join Pre-bid Meeting

Date: November 26, 2024

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

Meeting ID: 211 221 837 478

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

We look forward to seeing you there!

Sincerely,
SD DOT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F1	F34

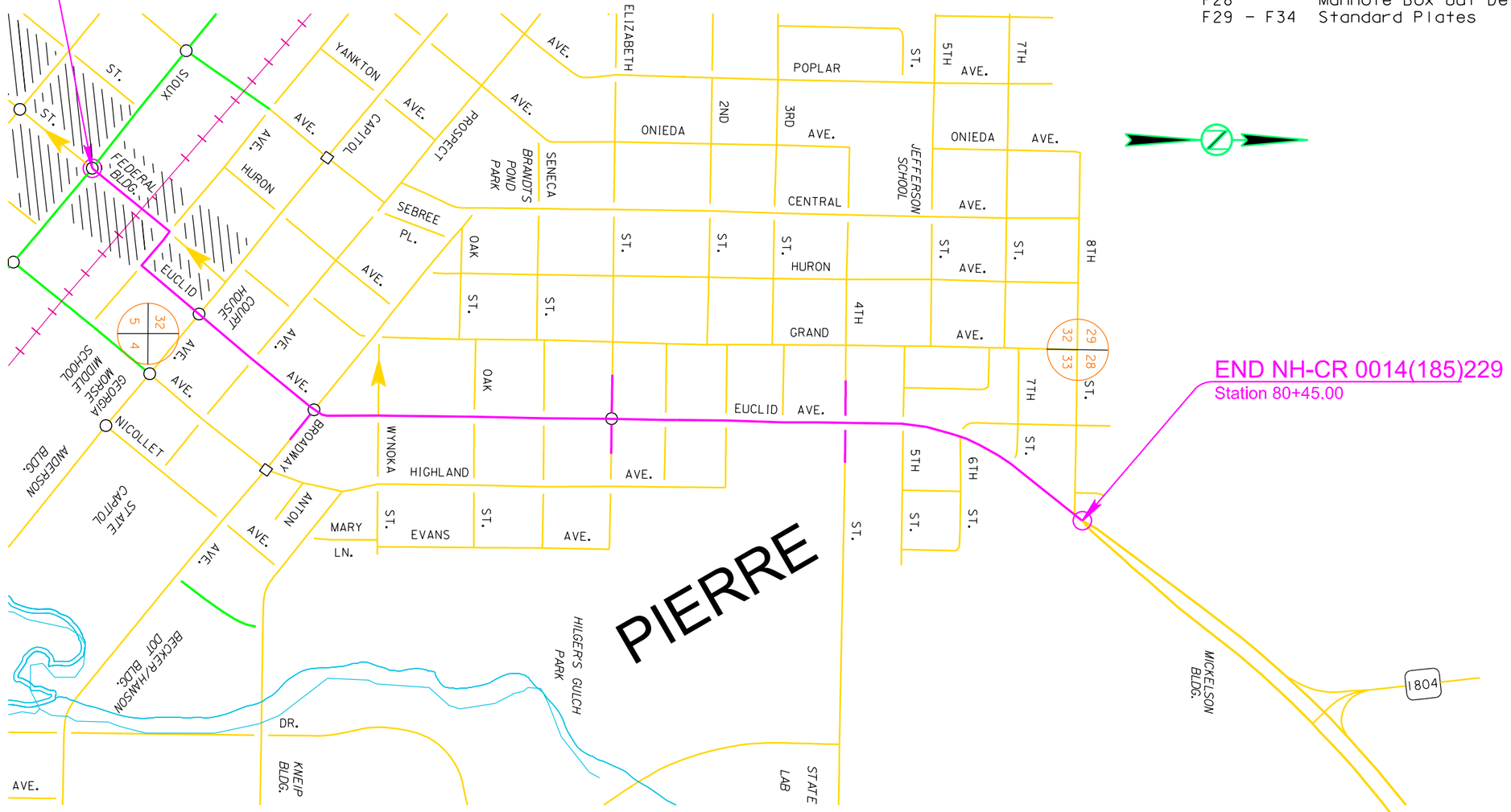
Plotting Date: 06/10/2024

Section F: Surfacing Plans

INDEX OF SHEETS

BEGIN NH-CR 0014(185)229
Station 10+30.00

END NH-CR 0014(185)229
Station 80+45.00



Revised 06-10-2024 LLA

SECTION F ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E0010	Unclassified Excavation	482	CuYd
120E6200	Water for Granular Material	661.5	MGal
120E9000	Pit Run	652.4	Ton
260E1010	Base Course	21,415.1	Ton
260E1030	Base Course, Salvaged	32,965.2	Ton
270E0220	Blend and Stockpile Granular Material	32,965.2	Ton
320E1200	Asphalt Concrete Composite	588.6	Ton
320E3000	Compaction Sample	9	Each
330E0010	MC-70 Asphalt for Prime	59.8	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	34.0	Ton
330E0300	SS-1h or CSS-1h Asphalt for Fog Seal	10.0	Ton
330E1000	Blotting Sand for Prime	10.0	Ton
330E3000	Sand for Fog Seal	10.0	Ton
360E0042	CRS-2P Asphalt for Surface Treatment	57.8	Ton
360E1200	Modified Cover Aggregate	492.6	Ton
380E0050	8" Nonreinforced PCC Pavement	7,285.8	SqYd
380E3020	6" PCC Driveway Pavement	143.6	SqYd
380E3040	8" PCC Driveway Pavement	139.2	SqYd
380E6000	Dowel Bar	11,875	Each
380E6110	Insert Steel Bar in PCC Pavement	163	Each
450E4748	15" CMP 14 Gauge, Furnish	190	Ft
450E4750	15" CMP, Install	190	Ft
450E5402	15" CMP Safety End, Furnish	2	Each
450E5403	15" CMP Safety End, Install	2	Each
831E0210	Non-woven Separator Fabric	848	SqYd
831E0300	Reinforcement Fabric (MSE)	46,429	SqYd

SECTION F ESTIMATE OF QUANTITIES – ALTERNATE A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	855.7	Ton
320E1060	Class G Asphalt Concrete	14,875.4	Ton
320E4000	Hydrated Lime	147.5	Ton

SECTION F ESTIMATE OF QUANTITIES – ALTERNATE B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	756.1	Ton
320E1060	Class G Asphalt Concrete	15,275.9	Ton
320E4000	Hydrated Lime	152.2	Ton

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

RECYCLED CONCRETE AGGREGATE (RCA)

Portland cement concrete pavement (RCA) removed from the mainline within the project limits may be crushed and reused as granular material provided it meets the requirements for the granular material it is replacing.

All in-place steel reinforcement (including rebar, wire mesh and welded wire fabric) will be separated and removed from the RCA. The Contractor will dispose of this material at a site approved by the Engineer.

There is an estimated 6,888.1 tons of PCC Pavement on this project that can be crushed and reused. This quantity is based on a unit weight of 118 lbs. per cubic foot for the recycled concrete aggregate.

Payment for the recycled concrete aggregate will be at the contract unit price per ton for the granular material that it is replacing.

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Base Course, Salvaged / Base Course spread rates and taking the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway.

The Contractor will compute the required spread rates for each typical surfacing section and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the Contractor's calculations and spread charts. The station to station spread will be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each day's shift, the Contractor will verify the following:

- All tickets are present and accounted for,
- The quantity summary for each item is calculated,
- The amount of material wasted if any,
- Each day's ticket summary is marked with the corresponding 'computed by',
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary by item will be given to the Engineer no later than the following morning.

If the checker is not properly and accurately performing the required duties, the Contractor will correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of the work.

The Department will perform depth checks. The Contractor will be responsible for placement of material to the correct depth unless otherwise directed by the Engineer. If the placed material is not within a tolerance of ±1/2 inch of the plan shown depth, the Contractor will correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for. Achieving the correct depth may require picking up and moving material or other action as required by the Engineer. All costs for providing the Contractor furnished checker and performing all related duties will be incidental to the contract lump sum price for the "Checker". No allowances will be made to the contract lump sum price for "Checker" due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25 percent. Payment for the Checker will then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

BLEND AND STOCKPILE GRANULAR MATERIAL

An Estimated 11,612.1 tons (for informational purposes only) of salvaged asphalt mix material will be blended with 21,353.1 tons of salvaged granular material and stockpiled at the Contractor's furnished stockpile site.

The Contractor will use a portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale to control the blending and weighing of the salvage material.

The salvaged asphalt mix material will be crushed to meet the requirements of Section 884.2 D.2 prior to blending into the stockpile.

Salvaged asphalt mix material will be blended with salvaged granular material at a rate of no more than 50% salvaged asphalt mix material and at least 50% salvaged granular material to obtain stockpile material. Material will be uniformly blended to the satisfaction of the Engineer.

No further gradation testing of the blended material will be required.

All costs for crushing the salvaged asphalt mix material, stockpiling, and blending the materials will be incidental to the contract unit price per ton for Blend and Stockpile Granular Material.

REINFORCEMENT FABRIC (MSE)

18 inches of material below the bottom of the proposed Asphalt Concrete in designed cut sections will be excavated and backfilled with Base Course, Salvaged or Base Course. 16 inches of material below the bottom of the proposed Portland Cement Concrete in designed cut sections will be excavated and backfilled with Base Course, Salvaged or Base Course. The excavation will extend from behind the curb to behind the opposite curb. The distance behind the curb will be determined based on the paving operation. Excess material excavated from the earthen subgrade during this process will be wasted and disposed of at a site approved by the Engineer. Shallow embankment sections, fills less than 18 inches in height measured at the finished subgrade shoulders, will be excavated to assure a minimum height of 18 inches of base course for the entire width of the roadbed.

Prior to placing granular surfacing materials, the upper 6 inches of subgrade will be reworked and recompacted to moisture and density requirements as per Standard Specifications. It is anticipated portions of the subgrade will require additional drying effort to meet moisture and density requirements. The Contractor is advised that smaller equipment may be necessary for reworking the subgrade due to the poor soil conditions, especially over storm sewer and utilities.

REINFORCEMENT FABRIC (MSE) - CONTINUED

If the subgrade cannot be stabilized by this method, a layer of Reinforcement Fabric (MSE) will be placed on top of the subgrade. Soft and unstable conditions are most likely to be encountered from Station 17+76.25± to 64+00±. An estimated 46,429 square yards of Reinforcement Fabric (MSE) is included in the materials quantities for bidding purposes. This quantity includes 15% to account for overlaps. Contact the Geotechnical Engineering Activity (605-773-3725) for assistance should the use of fabric becomes necessary. If subgrade conditions are stable during construction and the use of fabric is not necessary, the quantity will be removed by CCO.

Some longitudinal storm sewer pipes will interfere with the proposed placement of Reinforcement Fabric (MSE). The top of the pipe will be near or higher than the proposed placement for fabric around the approximate locations: 24+00, 26+50, and 54+50. Additional locations not listed may also interfere as determined by field conditions. Fabric will not be allowed to run over any pipe. Instead, the fabric will be cut adjacent the pipe section. To avoid damaging the fabric, it is recommended that the underground utility work be completed prior to placing the fabric.

Specification:

The fabric will conform to Section 831 of the Specifications. The fabric will be on the Approved Products List for this material or will be certified by the supplier to meet this specification prior to installation.

Fabric will be paid for at the contract unit price per square yard for Reinforcement Fabric (MSE). Payment quantities will be based on area covered plus 15%. Overlaps are accounted for by the additional 15%. Payment will be full compensation for furnishing and installing the fabric only. Granular backfill materials will be paid for under a separate bid item.

Installation Procedure:

The top of the subgrade will be prepared by smoothing the surface of the subgrade to minimize any ruts, ridges, and depressions. Any rocks or other protrusions must be removed prior to placement of Reinforcement Fabric (MSE).

The fabric will be placed as taut as possible with minimal wrinkles. Placement will be done so that subsequent granular cover material does not shove, wrinkle or distort the in-place fabric. The fabric will be overlapped a minimum of 2 feet. The overlaps will be shingled in a manner that assures granular material will not be forced under the fabric during backfilling operations.

The fabric may be held in place with small piles of granular material or staples. No traffic or equipment will be allowed on the uncovered fabric.

Granular material will be dumped at least 20 feet behind the leading edge of the backfill and pushed into place with a loader or dozer from the covered areas to the uncovered areas.

The granular material will conform to the requirements of base course and will be compacted to 97% of the maximum dry density.

TABLE OF REINFORCEMENT FABRIC (MSE)

Begin Station	to	End Station	Area (yd2)
S. Euclid Avenue/US Hwy 14 - PCC			
17+76.25	to	19+07.00	814
S.& N. Euclid Avenue/US Hwy 14 - AC			
19+07.00	to	30+77.00	7,132
30+77.00	to	34+43.00	2,410
34+43.00	to	43+38.00	6,367
43+38.00	to	64+00.00	23,650
		Total:	40,373
Total including additional 15% overlap:			46,429

BASE COURSE, SALVAGED

Base Course, Salvaged will be obtained from the stockpile site(s) provided by the Contractor and may be used without further gradation testing.

The Contractor will ensure the Base Course, Salvaged material contains no more than 50% salvaged asphalt mix material and at least 50% granular material. Blended material will be to the satisfaction of the Engineer.

All other requirements for Base Course, Salvaged will apply.

TRAFFIC CONTROL TEMPORARY ASPHALT

See Section C for Temporary Asphalt notes and details.

BLOCKOUT AREAS

A minimum of 3 Business & Residence pavement blockouts may be required at various locations on this project to facilitate traffic during the paving activity. Additional locations may also be added by the Engineer.

TABLES OF BLOCKOUT AREAS

Business & Residence Blockouts				
Station	**L or R**	**Description**	**Blockouts**	**Temporary Crossings**
16+34	R	CENEX Corner Store	1	1
16+75	L	The Game Room/Central Couriers	1	1
17+57	R	The Crossing	1	1
29+39	L	Terrace Motel Apts. North Parking Lot	---	1
32+18	L	Private Residence	---	1
35+85	R	Private Residence	---	1
37+25	L	Private Residence	---	1
48+91	R	Cowboy Country Store	---	1
49+18	L	Private Residence	---	1
51+89	R	State Motel	---	1
56+86	R	Delta Dental/SD Dental Association	---	1
62+81	L	Private Residence	---	1
Blockouts & Crossings Totals =			3	12

Street Blockouts				
Station	**L or R**	**Description**	**Blockouts**	**Temporary Crossings**
63+70	R	E. 5th Street	---	1
67+16	R	E. 6th Street	---	1
Blockouts & Crossings Totals =			0	2

*For Temporary crossings, see Section C for more information.

8" NONREINFORCED PCC PAVEMENT

The aggregate may require screening as determined by the Engineer.

The concrete mix used in the PCC Pavement will conform to Section 380.

In lieu of an automatic subgrader operating from a preset line, a motor grader or other suitable equipment may be used to trim the gravel cushion to final grade prior to placement of concrete. There will be no direct payment for trimming of the gravel cushion for PCC pavement. The trimming will be considered incidental to the related items required for PCC Pavement.

A minimum of 3 pavement blockouts will be required at various locations on this project to facilitate traffic during the paving activity.

A construction joint will be sawed whenever new concrete pavement is placed adjacent to existing concrete pavement.

The transverse construction joints will be handled in accordance with Standard Plate 380.15.

The location of joints, as shown and designated on the PCC Pavement Joint Layout(s) are only approximate locations to be used as a guide and to afford bidders a basis for estimating the construction cost of the joints. The final locations of the joints are to be designated by the Engineer during construction.

The surface of the mainline paving will be transversely tined. All other areas will be tined as directed by the Engineer.

Unless specified otherwise in the PCC Pavement Joint Layout Sheets or elsewhere in the plans, the typical joint spacing for 8" Nonreinforced PCC Pavement will be 13'.

See Standard Plate 380.04 for placement of Dowel Bars.

The transverse contraction joints will be perpendicular to the centerline. In multilane areas the transverse contraction joints will be perpendicular to the centerline and be in a straight line across the entire width of pavement. In special situations the Engineer may pre-approve transverse contraction joints that do not meet these requirements. All nonconforming transverse contraction joints will be removed at the Contractor's expense. Any method of placement that cannot produce these requirements will not be allowed.

The location of joints, as shown and designated on the PCC Pavement Joint Layout(s) are only approximate locations to be used as a guide and to afford bidders a basis for estimating the construction cost of the joints. The final locations of the joints are to be designated by the Engineer during construction.

The Nonreinforced PCC Pavement will be tested using the 10' straight edge as per Specifications 380.3.O.1.

STEEL BAR INSERTION

The Contractor will insert the Steel Bars (1¼ inch x 18 inch epoxy coated plain round dowel bars) into drilled holes in the existing concrete pavement. An epoxy resin adhesive must be used to anchor the steel bar in the drilled hole.

The steel bars will be cut to the specified length by sawing or shearing and will be free from burring or other deformations.

Epoxy coated plain round steel bars will be inserted on 12 inch centers in the transverse joint. The first steel bar will be placed a minimum of 3 inches and a maximum of 6 inches from the outside edge of the slab.

TABLE OF STEEL BAR INSERTION

LOCATION	1-1/4" x 18" Plain Round Dowel Bars
S. Pierre Street @ Sioux Ave.	31
West Sioux Avenue	60
East Sioux Avenue	60
South Pierre Street Tie In	12
Total:	**163**

CURING OF CONCRETE

Portland Cement Concrete Pavement, Concrete Curb & Gutter, Concrete Gutter and Concrete Fillet will be cured with Linseed Oil Base Emulsion Compound. All costs for Curing of Concrete will be incidental to the contract unit price per various Portland cement concrete bid items.

TABLE OF 8" NONREINFORCED PCC PAVEMENT

Mainline Location Sta.	to	Sta.	8" NONREINFORCED PCC PAVEMENT (SqYd)
S. Pierre Street/US Hwy 14 - PCC			
9+49.00	to	13+17.24	2,468.1
13+17.24	to	13+94.13	418.6
13+94.13	to	15+50.10	796.1
S. Euclid Avenue/US Hwy 14 - PCC			
17+76.25	to	19+07.00	685.5
E. Pleasant Drive			
906+00.00	to	910+53.79	2,104.0
Sioux Avenue			
900+90.42	to	901+90.05	734.7
		Total:	7,207.0

TABLE OF 8" INTERSECTING ROADS PCC PAVEMENT

Location	8" NONREINFORCED PCC PAVEMENT (SqYd)
S. Pierre Street	78.8
Total:	78.8

TABLE OF 8" NONREINFORCED PCC PAVEMENT FOR DRIVEWAYS

STATION	L/R	8" PCC DRIVEWAY PAVEMENT (SqYd)
12+52	L	3.6
15+02	R	18.4
907+82	R	8.6
908+52	R	5.3
909+01	R	5.3
909+69	R	5.2
19+69	R	1.8
20+14	R	13.3
22+62	R	4.7
23+11	R	12.1
24+23	L	2.3
48+90	R	11.9
49+81	R	11.1
51+20	R	6.9
51+89	R	6.9
54+68	L	6.7
55+85	R	7.0
59+38	L	8.1
	Total:	139.2

TABLE OF 6" NONREINFORCED PCC PAVEMENT FOR DRIVEWAYS

STATION	L/R	6" PCC DRIVEWAY PAVEMENT (SqYd)
28+54	R	0.9
28+89	R	1.0
29+23	R	1.1
32+18	L	3.3
41+28	R	6.0
41+61	R	18.9
42+07	R	15.6
49+18	L	2.0
62+40	R	3.9
70+62	L	24.2
699+26	R	3.9
700+33	L	22.4
700+72	R	14.1
700+97	L	26.3
	Total:	143.6

TABLE OF DOWEL BARS

Location	1 1/4" Bars
South Euclid Avenue	1900
East Pleasant Drive	1177
West Pleasant Drive	164
South Pierre Street	8095
Sioux Avenue	539
Total Dowel Bars:	11,875

MANHOLE BOX-OUT DETAILS

The Contractor will construct box-outs for all manholes in the 8” Concrete Pavement according to the Box-Out Detail. Locations of Proposed Manholes and water valve boxes are shown on the Pavement Joint Layout Sheets.

ALKALI SILICA REACTIVITY

Fine aggregate will conform to Section 800.2 D Alkali Silica Reactivity (ASR) Requirements.

Below is a list of known fine aggregate sources and the average corresponding 14-day expansion values (as of 8-30-2023):

Source	Location	Expansion Value
Bachman	Winner, SD	0.335*
Bitterman	Delmont, SD	0.316*
Concrete Materials	Corson, SD	0.146
Concrete Materials - Vellek Pit	Yankton, SD	0.411**
Croell	Hot Springs, SD	0.089
Croell	Wasta, SD	0.212
Emme Sand & Gravel	Oneil, NE	0.217
Fisher S&G – Blair Pit	W of Vale, SD	0.171
Fisher S&G - Mickelson Pit	E of Nisland, SD	0.129
Fisher S&G - Vallery Pit	Nisland, SD	0.110
Fisher S&G	Rapid City, SD	0.092
Fisher S&G	Spearfish, SD	0.053
Fisher S&G	Wasta, SD	0.159
Fuchs	Pickstown, SD	0.275*
Henning – Tilstra Pit	Ash Creek, MN	0.199
Higman	Hudson, SD	0.187
Jensen	Herried, SD	0.276*
L.G. Everist	Akron, IA	0.257*
L.G. Everist	Brookings, SD	0.297*
L.G. Everist – Ode Pit	E Sioux Falls, SD	0.215
L.G. Everist – Nelson Pit	NE Sioux Falls, SD	0.156
L.G. Everist	Hawarden, IA	0.176
L.G. Everist	Summit, SD	0.184
Mark’s S&G – Moerke Pit	Underwood, MN	0.165
Morris – Birdsall	Blunt, SD	0.229
Morris - Leesman	Blunt, SD	0.231
Morris - Richards Pit	Onida, SD	0.188
Morris - Shawn’s Pit	E of Sturgis, SD	0.186
Northern Concrete Agg.	Rauville, SD	0.113
Northern Concrete Agg.	Luverne, MN	0.133
Opperman - Gunvordahl Pit	Burke, SD	0.363*
Opperman - Cahoy Pit	Herrick, SD	0.307*
Opperman - Jones Pit	Burke, SD	0.321*
Opperman - Randall Pit	Pickstown, SD	0.230
Pete Lien & Sons	Creston, SD	0.158
Pete Lien & Sons	Oral, SD	0.157
Pete Lien & Sons	Wasta, SD	0.226
Simon Materials - Beltline Pit	Scottsbluff, NE	0.277*
Thorpe Pit	Britton, SD	0.098
Wagner Building Supplies	Pickstown (Wagner), SD	0.251*
Winter Brothers- Whitehead Pit	Brookings, SD	0.197

* These sources will require Type II cement with a fly ash content of 25% in the concrete mix.
** These sources will not be used.

The Department will use the running average of the last three or fewer known expansion test results for determining acceptability of the source. These expansion results are reported in the preceding table. Additional testing, when requested by the Contractor, will be performed by the Department at the Contractor's expense.

The values listed in the table are intended for use in bidding. If a previously tested pit by SDDOT with a test value less than 0.250 is discovered after letting to be 0.250 or greater, then the Department will accept financial responsibility if higher costs are incurred due to higher percent of fly ash requirement.

CLASS G ASPHALT CONCRETE

Mineral Aggregate for Class G Asphalt Concrete - Alternate A will conform to the requirements for Class G, Type 1.

Mineral Aggregate for Class G Asphalt Concrete - Alternate B will consist of a minimum of eighty percent crushed limestone ledge rock and will conform to the requirements for Class G, Type 1.

Mix Design Criteria – Alternate B:
Mix Design requirements for the Class G Hot Mixed Asphalt Concrete will conform to the requirements of Class G except as modified by the following:

Fine Aggregate Angularity:

	Minimum Uncompacted Void Content (%):
Class G	43.0

When directed by the Engineer, the Contractor will saw and remove a total of three undamaged compaction cores (4” dia. min.) per asphalt concrete lift from designated area(s) and repair the hole(s) to the satisfaction of the Engineer. All costs associated with the compaction cores will be incidental to the contract unit price per each for Compaction Sample.

All other requirements for Class G will apply.

Revised 06-10-2024 LLA

SUMMARY OF CLASS G ASPHALT CONCRETE - ALTERNATE A

Class G Asphalt Concrete Locations	With Specified Density Compaction (Ton)	Without Specified Density Compaction (Ton)
Mainline		
Sta. 19+07 to Sta. 30+77	2,089.2	---
Sta, 30+77 to Sta. 34+43	709.5	---
Sta. 34+43 to Sta.43+38	1,893.6	---
Sta. 43+38 to Sta. 77+74	7,009.8	---
Sta. 77+74 to Sta.80+45	479.7	---
Intersecting Streets	---	2,179.8
East Wynoka Street	288.0	---
5" AC Driveways - 13 each	---	225.8
Totals:	12,469.8	2,405.6
Grand Total:	14,875.4	

SUMMARY OF CLASS G ASPHALT CONCRETE - ALTERNATE B

Class G Asphalt Concrete Locations	With Specified Density Compaction (Ton)	Without Specified Density Compaction (Ton)
Mainline		
Sta. 19+07 to Sta. 30+77	2,145.6	---
Sta, 30+77 to Sta. 34+43	728.7	---
Sta. 34+43 to Sta.43+38	1,944.9	---
Sta. 43+38 to Sta. 77+74	7,199.1	---
Sta. 77+74 to Sta.80+45	492.6	---
Intersecting Streets	---	2,237.4
East Wynoka Street	295.8	---
5" AC Driveways - 13 each	---	231.6
Totals:	12,806.7	2,469.0
Grand Total:	15,275.7	

ASPHALT CONCRETE COMPOSITE

Section 324 will apply except that Class G Hot Mixed Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for Asphalt Concrete Composite regardless of the class of asphalt concrete used at such locations.

Included in the Estimate of Quantities are 300 tons of Asphalt Concrete Composite for the Maintenance of Detour Routes to be used in areas designated by the Engineer.

Sta. 82+56 - MEDIAN CROSSOVER ITEMS

Component	Quantity	Units
15" CMP Safety End	2	Each
15" CMP	190	Feet
Non-woven Separator Fabric	848	Square Yards
Unclassified Excavation	482.0	Cubic Yards
Asphalt Concrete Composite	288.6	Tons
Base Course	547.7	Tons
Pit Run	652.4	Tons
Water for Granular Material	14.4	Mgal

BLOTTING SAND FOR PRIME

Included in the Estimate of Quantities are 10 tons of Blotting Sand for Prime to be used where necessary for maintenance of traffic as directed by the Engineer. (Rate = 10 pounds per square yard)

APPLICATION RATES FOR ASPHALT SURFACE TREATMENT MATERIALS

CRS-2P: 0.30 gal per square yard @ 8.5 lbs/gal.

Modified Cover Aggregate: 22 lbs per square yard.

SS-1h or CSS-1h Asphalt for Fog Seal: 0.05 gal per square yard @ 8.5 lbs/gal.

BROOMING

All material will be broomed off curb & gutter areas. Care will be taken to ensure no material is broomed into any drop inlets. Materials from curb & gutter areas will be disposed of in a manner satisfactory to the Engineer.

ASPHALT FOR SURFACE TREATMENT

CRS-2P Asphalt for Surface Treatment will be used on this project.

Asphalt for surface treatment delivered for use on this contract will be used in the order that it is received. Storage of asphalt for surface treatment will only be allowed at the end of the work day. The material that is placed in storage will be the first material used the following work day.

Application of the asphalt surface treatment will be applied to the widths specified in the plans. The Contractor will have to consider the width of overlap at centerline to obtain the total width specified. A gap at centerline between surface treatment passes will not be allowed.

MODIFIED COVER AGGREGATE

Modified Cover Aggregate will be used on this project. Modified Cover Aggregate will conform to the following gradation requirements:

% Passing 3/8' Sieve	100%
% Passing No. 4 Sieve	0 – 75%
% Passing No. 8 Sieve	0 – 30%
% Passing No. 40 Sieve	0 – 6%
% Passing No. 200 Sieve	0 – 1.5%

Should the material fail the No. 200 sieve requirements, the Contractor will shut down operations until the Engineer determines if changes or corrections are required. Application of the cover aggregate will be maintained within 500 feet or have a time limit of 1 minute between the application of the CRS-2P Asphalt for Surface Treatment and the application of the Modified Cover Aggregate, whichever amounts to a shorter time period.

The Contractor will continue chip spreader progress, forward, through the asphalt application at any end where work will be temporarily shut down for more than 5 minutes, to allow for satisfactory uniform rolling of the placed aggregate. The Contractor will not allow the chip spreader, trucks, rollers, or other equipment to lie dormant on the aggregate while transitioning between asphalt distributor loads and/or any other temporary shutdown of production before uniform rolling is completed. All passes of the rollers will be completed within 8 minutes of application of the CRS-2P Asphalt for Surface Treatment.

After an aggregate stockpile has been produced, the Contractor will submit an aggregate sample to the asphalt supplier a minimum of 14 days prior to starting the project to allow time to evaluate the compatibility and design of the surface treatment. A copy of the test results will be submitted to the Engineer and Bituminous Engineer for approval prior to starting the asphalt surface treatment work.

Quality testing on the Modified Cover Aggregate for abrasion and soundness conforming to Type 1B Cover Aggregate are required by specification. The Contractor will notify the Pierre Area Office prior to sampling and a representative from the Pierre Area Office will witness all sampling of aggregates to be submitted to the Central Testing Laboratory for quality assurance. Satisfactory test results for the Modified Cover Aggregate will be obtained prior to its use on the project.

FOG SEAL

The fog seal will be placed following the completion of the asphalt surface treatment. Prior to the application of the fog seal, the Contractor will be required to broom the asphalt surface treatment. A CSS-1h or SS-1h emulsion will be used for the fog seal application. The Asphalt for Fog Seal used will be compatible with the aggregate used.

The Contractor will fog seal the entirety of the asphalt surface treatment surface, including the sluff.

SAND FOR FOG SEAL

The Contractor will plan the fog seal operation to allow adequate cure time for the fog seal and to minimize/eliminate the need to apply Sand for Fog Seal.

If adequate cure time for the fog seal is not available, to facilitate traffic, the Contractor will be allowed to place a minimum sufficient amount of blotting sand on the fog seal to allow traffic to cross the uncured portion of the fog seal, as permitted by the Engineer.

Sand for Fog Seal is only intended to be placed for accesses to businesses, intersection crossings, and as determined by the Engineer to facilitate traffic movements. Sand for Fog Seal will not be used to accelerate the Contractor's schedule. Sand that is applied will be broomed off the surface of the roadway once the fog seal has sufficiently cured as determined by the Engineer.

Sand for Fog Seal will conform to Section 879.1.B. Prior to hauling, Sand for Fog Seal will be screened to minimize segregation, eliminate oversize, and effectively breakup or discard material bonded into chunks. All costs for supplying, hauling, placing, and brooming the blotting sand will be incidental to the contract unit price per ton for "Sand for Fog Seal".

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TABLE OF QUANTITIES

LOCATION	WATER FOR GRANULAR MATERIAL	BASE COURSE or BASE COURSE, SALVAGED	ALTERNATE A CLASS G ASPHALT CONCRETE			ALTERNATE A PG 64-34 ASPHALT BINDER 5.8%			ALTERNATE B CLASS G ASPHALT CONCRETE			ALTERNATE B PG 64-34 ASPHALT BINDER 5.0%			ASPHALT FOR PRIME	ALTERNATE A HYDRATED LIME			ALTERNATE B HYDRATED LIME			ASPHALT FOR TACK			CRS-2P ASPHALT FOR SURFACE TREATEMENT	MODIFIED COVER AGGREGATE	ASPHALT FOR FOG SEAL
			1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift		1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift			
Station to Station	(MGal)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)
S Pierre Street/US Hwy 14 - PCC																											
9 + 49.00 to 13 + 17.24	24.9	2,073.0																									
13 + 17.24 to 13 + 94.13	3.9	325.0																									
13 + 94.13 to 15 + 50.10	10.1	842.0																									
S Euclid Avenue/US Hwy 14 - PCC																											
17 + 82.69 to 19 + 07.00	8.2	684.0																									
S/N Euclid Avenue/US Hwy 14 - AC																											
19 + 07.00 to 30 + 77.00	80.9	6,740.0	696.4	696.4	696.4	40.0	40.0	40.0	715.2	715.2	715.2	35.4	35.4	35.4	8.5	6.9	6.9	6.9	7.1	7.1	7.1	1.6	1.6	1.6	7.9	68.3	1.3
30 + 77.00 to 34 + 43.00	27.3	2,277.0	236.5	236.5	236.5	13.6	13.6	13.6	242.9	242.9	242.9	12.0	12.0	12.0	2.9	2.3	2.3	2.3	2.4	2.4	2.4	0.5	0.5	0.5	2.7	23.2	0.5
34 + 43.00 to 43 + 38.00	72.2	6,017.0	631.2	631.2	631.2	36.3	36.3	36.3	648.3	648.3	648.3	32.1	32.1	32.1	7.5	6.3	6.3	6.3	6.4	6.4	6.4	1.4	1.4	1.4	7.2	61.9	1.2
43 + 38.00 to 77 + 74.00	268.2	22,349.0	2,336.6	2,336.6	2,336.6	134.2	134.2	134.2	2,399.7	2,399.7	2,399.7	118.8	118.8	118.8	28.0	23.1	23.1	23.1	23.8	23.8	23.8	5.3	5.3	5.3	26.6	229.3	4.4
77 + 74.00 to 80 + 45.00	10.7	892.0	159.9	159.9	159.9	9.2	9.2	9.2	164.2	164.2	164.2	8.1	8.1	8.1	1.1	1.6	1.6	1.6	1.6	1.6	1.6	0.4	0.4	0.4	1.8	15.7	0.3
W/E Pleasant Drive/US Hwy 14 - PCC																											
906 + 00.00 to 910 + 53.79	26.0	2,165.0																									
8" PCC Driveways - 20 each	2.0	120.0																									
6" PCC Driveways - 15 each	1.5	90.9																									
5" AC Driveways - 16 each	3.2	296.3	112.9		112.9	6.6		6.6	115.9		115.9	5.8		5.8	0.5	1.1		1.1	1.1		1.1	0.2		0.2	1.6	8.8	0.2
4" Base Course Driveways - 12 each	1.2	63.4																									
East Wynoka Street	9.7	809.0	144.0		144.0	8.3		8.3	147.9		147.9	7.3		7.3	1.5	1.4		1.4	1.5		1.5	0.3		0.3	1.6	14.1	0.6
Temporary Granular Crossings	2.4	200.0																									

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TABLE OF QUANTITIES - CONTINUED

LOCATION	WATER FOR GRANULAR MATERIAL	BASE COURSE or BASE COURSE, SALVAGED	ALTERNATE A CLASS G ASPHALT CONCRETE			ALTERNATE A PG 64-34 ASPHALT BINDER 5.8%			ALTERNATE B CLASS G ASPHALT CONCRETE			ALTERNATE B PG 64-34 ASPHALT BINDER 5.0%			ASPHALT FOR PRIME	ALTERNATE A HYDRATED LIME			ALTERNATE B HYDRATED LIME			ASPHALT FOR TACK			CRS-2P ASPHALT FOR SURFACE TREATEMENT	MODIFIED COVER AGGREGATE	ASPHALT FOR FOG SEAL
			1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift		1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift			
Station to Station	(MGal)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)
Intersecting Streets																											
West Pleasant Drive - Tie In	0.6	51.0	6.1	6.1	6.1	0.4	0.4	0.4	6.2	6.2	6.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1				0.1	0.6	
East Pleasant Drive - Tie In	0.7	57.0	6.8	6.8	6.8	0.4	0.4	0.4	6.9	6.9	6.9	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1				0.1	0.7	
South Pierre Street	1.2	97.0																									
E Capitol Avenue - West	3.5	289.0	29.9	29.9	29.9	1.7	1.7	1.7	30.7	30.7	30.7	1.5	1.5	1.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	2.9	0.1
E Capitol Avenue - East	3.6	298.0	30.5	30.5	30.5	1.8	1.8	1.8	31.3	31.3	31.3	1.6	1.6	1.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	3	0.1
E Prospect Avenue - West	2.6	217.0	22.2	22.2	22.2	1.3	1.3	1.3	22.8	22.8	22.8	1.1	1.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	2.2	
E Prospect Avenue - East	3.3	271.0	27.7	27.7	27.7	1.6	1.6	1.6	28.5	28.5	28.5	1.4	1.4	1.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	2.7	0.1
E Broadway Avenue - West	3.4	287.0	24.8	24.8	24.8	1.4	1.4	1.4	25.5	25.5	25.5	1.3	1.3	1.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	2.4	0.1
E Broadway Avenue - East	3.9	329.0	33.7	33.7	33.7	1.9	1.9	1.9	34.6	34.6	34.6	1.7	1.7	1.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.4	3.3	0.1
E Wynoka Street - West	1.8	152.0	10.4	10.4	10.4	0.6	0.6	0.6	10.7	10.7	10.7	0.5	0.5	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1				0.1	1	
E Wynoka Street - East	2.3	190.0	17.5	17.5	17.5	1.0	1.0	1.0	17.9	17.9	17.9	0.9	0.9	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2				0.2	1.7	
E Oak Street - West	2.4	198.0	15.5	15.5	15.5	0.9	0.9	0.9	15.9	15.9	15.9	0.8	0.8	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2				0.2	1.5	
E Oak Street - East	2.8	235.0	22.8	22.8	22.8	1.3	1.3	1.3	23.4	23.4	23.4	1.2	1.2	1.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	2.2	
E Seneca Street - West	3.2	270.0	22.4	22.4	22.4	1.3	1.3	1.3	23.0	23.0	23.0	1.1	1.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	2.2	
E Seneca Street - East	2.3	189.0	18.3	18.3	18.3	1.1	1.1	1.1	18.8	18.8	18.8	0.9	0.9	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2				0.2	1.8	
E Elizabeth Street - West	18.1	1,506.0	141.8	141.8	141.8	8.1	8.1	8.1	145.7	145.7	145.7	7.2	7.2	7.2	1.9	1.4	1.4	1.4	1.4	1.4	1.4	0.3	0.3	0.3	1.6	13.9	0.3
E Elizabeth Street - East	1.5	128.0	8.5	8.5	8.5	0.5	0.5	0.5	8.7	8.7	8.7	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1				0.1	0.8	
E 1st Street - West	1.8	151.0	10.2	10.2	10.2	0.6	0.6	0.6	10.4	10.4	10.4	0.5	0.5	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1				0.1	1	
E 1st Street - East	1.7	141.0	12.3	12.3	12.3	0.7	0.7	0.7	12.6	12.6	12.6	0.6	0.6	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1				0.1	1.2	
E 2nd Street - West	1.3	112.0	6.8	6.8	6.8	0.4	0.4	0.4	7.0	7.0	7.0	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1				0.1	0.7	
E 2nd Street - East	1.7	139.0	12.1	12.1	12.1	0.7	0.7	0.7	12.4	12.4	12.4	0.6	0.6	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1				0.1	1.2	
E 3rd Street - West	1.2	100.0	8.9	8.9	8.9	0.5	0.5	0.5	9.1	9.1	9.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1				0.1	0.9	
E 4th Street - West	3.2	270.0	26.3	26.3	26.3	1.5	1.5	1.5	27.0	27.0	27.0	1.3	1.3	1.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	2.6	0.1
E 4th Street - East	4.6	381.0	34.3	34.3	34.3	2.0	2.0	2.0	35.2	35.2	35.2	1.7	1.7	1.7	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.4	3.4	0.1
E 5th Street - West	3.8	317.0	31.0	31.0	31.0	1.8	1.8	1.8	31.8	31.8	31.8	1.6	1.6	1.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.4	3	0.1
E 5th Street - East	2.5	209.0	17.1	17.1	17.1	1.0	1.0	1.0	17.5	17.5	17.5	0.9	0.9	0.9	0.3	0.2	0.2	0.2	0.2	0.2	0.2				0.2	1.7	
N Euclid Avenue - West	5.0	419.0	44.7	44.7	44.7	2.6	2.6	2.6	45.9	45.9	45.9	2.3	2.3	2.3	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.1	0.1	0.1	0.5	4.4	0.1
E 6th Street - East	3.6	299.0	25.3	25.3	25.3	1.5	1.5	1.5	26.0	26.0	26.0	1.3	1.3	1.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	2.5	0.1
E 7th Street - West	2.9	241.0	24.1	24.1	24.1	1.4	1.4	1.4	24.8	24.8	24.8	1.2	1.2	1.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.3	2.4	0.1
E 8th Street - West	4.2	346.0	34.6	34.6	34.6	2.0	2.0	2.0	35.5	35.5	35.5	1.8	1.8	1.8	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.4	3.4	0.1
Totals	647.1	53,832.6	5,044.1	4,787.2	5,044.1	290.2	275.3	290.2	5,179.9	4,916.1	5,179.9	256.4	243.3	256.4	59.8	50.0	47.5	50.0	51.6	49.0	51.6	11.5	11.0	11.5	57.8	492.6	10.0
Grand Totals:	647.1	53,832.6	14,875.4			855.7			15,275.9			756.1			59.8	147.5			152.2			34.0			57.8	492.6	10.0

*Hydrated Lime is required for placement of Class G Asphalt Concrete.

IN PLACE TYPICAL SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F9	F34

Plotting Date: 06/10/2024

Salvage Asphalt Mix Material

Salvage Granular Material

Remove Concrete Pavement

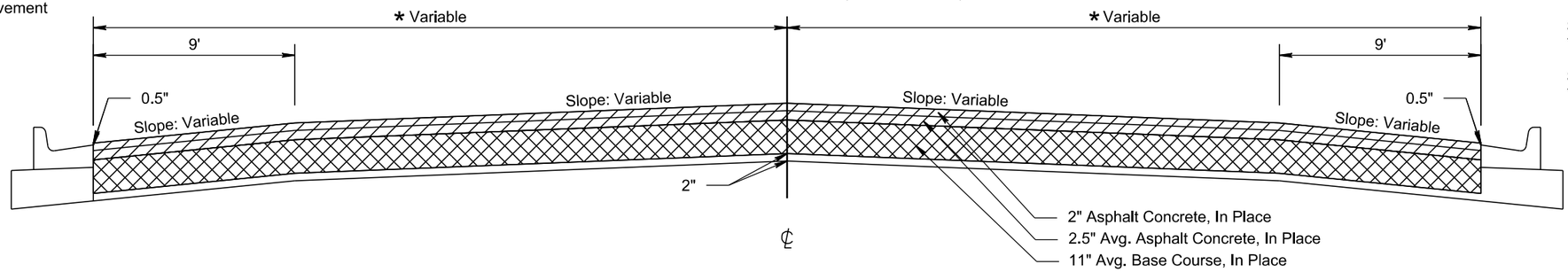
Note:

Removal for the Intersection of West Sioux Avenue and South Pierre Street is same typical section
Sta. 900+90.5 to Sta. 901+90.05

Section 1

US14/83 MAINLINE

Sta. 10+30 to Sta. 13+36
Sta. 35+08.8 to Sta. 80+45
Sta. 900+90.5 to Sta. 901+90.5 (West Sioux Ave)



Transitions:

Sta. 10+30 to Sta. 13+36
* 64'

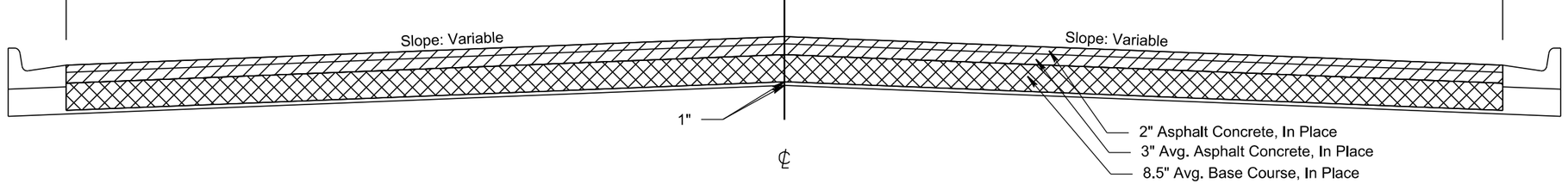
Sta. 35+08.8 to Sta. 60+87.5
* 62'

Sta. 60+87.5 to Sta. 80+45
* 48'

Section 2

US 14/83 MAINLINE

Sta. 13+36 to Sta. 15+65.8



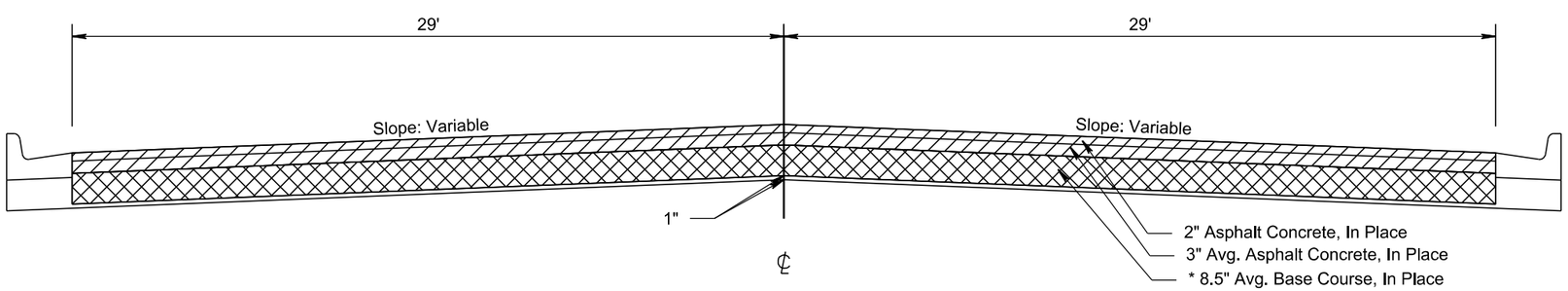
Section 3

US 14/83 MAINLINE

Sta. 15+65.8 to Sta. 35+08.8

Note:

* Sta. 19+50 7.5" PCC instead of Base Course



TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F10	F34

Plotting Date: 06/10/2024

Transitions:

Sta. 10+30 to Sta. 10+65
* 0'

Sta. 10+65 to Sta. 10+84
* 0' to 13'

Sta. 10+84 to Sta. 11+16
*13'

Sta. 11+16 to Sta. 11+20
* 13' to 8'

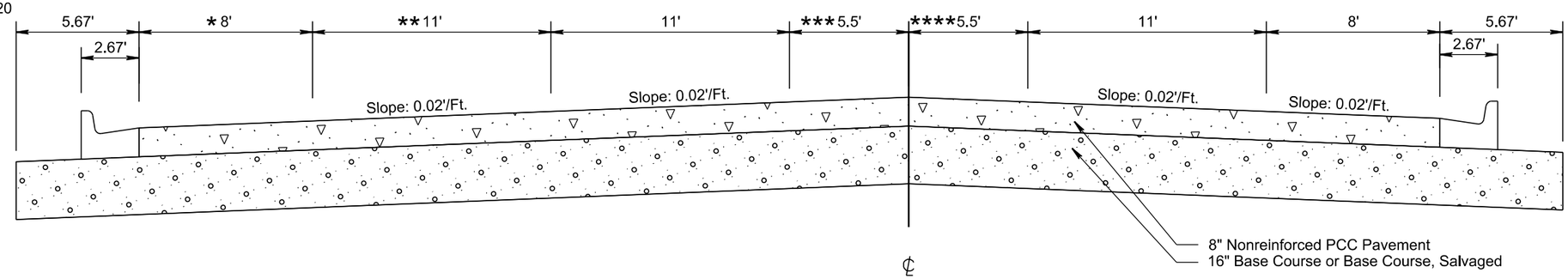
Note:

Intersection of West Sioux Avenue and South Pierre Street is same typical section
Sta. 900+90.5 to Sta. 901+90.05

Section 4

SOUTH PIERRE STREET MAINLINE

Sta. 10+30 to Sta. 12+60
Sta. 900+90.5 to Sta. 901+90.05



Transitions:

Sta. 11+10 to Sta. 12+60
** 11' to 0'

Sta. 10+30 to Sta. 11+10
*** 0'

Sta. 11+10 to Sta. 12+60
*** 0' to 5.5'

Sta. 10+30 to Sta. 11+10
**** 11'

Sta. 11+10 to Sta. 12+60
**** 11' to 5.5'

Section 5

SOUTH PIERRE STREET/ EAST PLEASANT DRIVE/ SOUTH EUCLID AVENUE MAINLINE

Sta. 12+60 to Sta. 13+17
Sta. 13+94 to Sta. 19+07

Transitions:

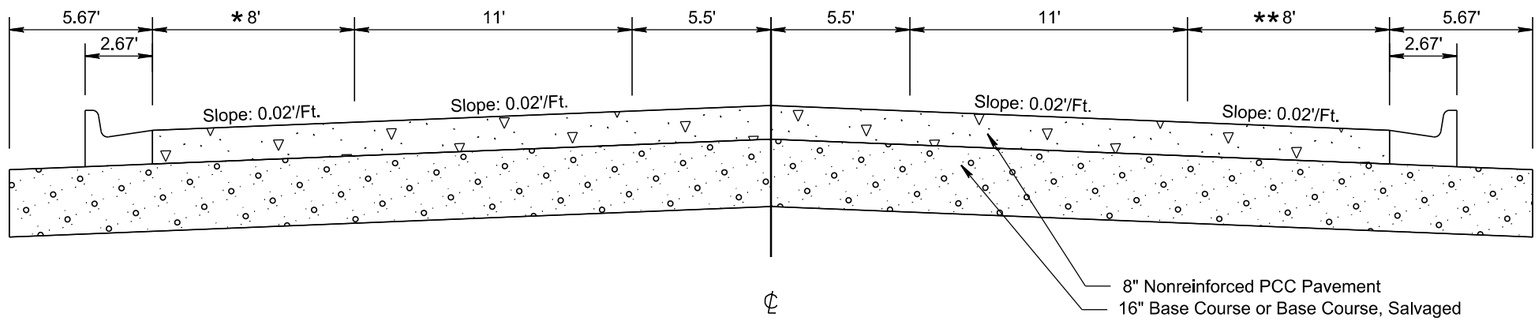
Sta. 14+91 to Sta. 16+09
* Variable

Sta. 16+09 to Sta. 17+11
* 4'

Sta. 17+11 to Sta. 18+15
* 4' to 0'

Sta. 18+15 to Sta, 18+25
* Variable

Sta. 18+25 to Sta. 18+46
* 0' to 8'



Transitions:

Sta. 14+42 to Sta. 14+62
** 8' to 0'

Sta. 14+62 to Sta. 17+21
** 0'

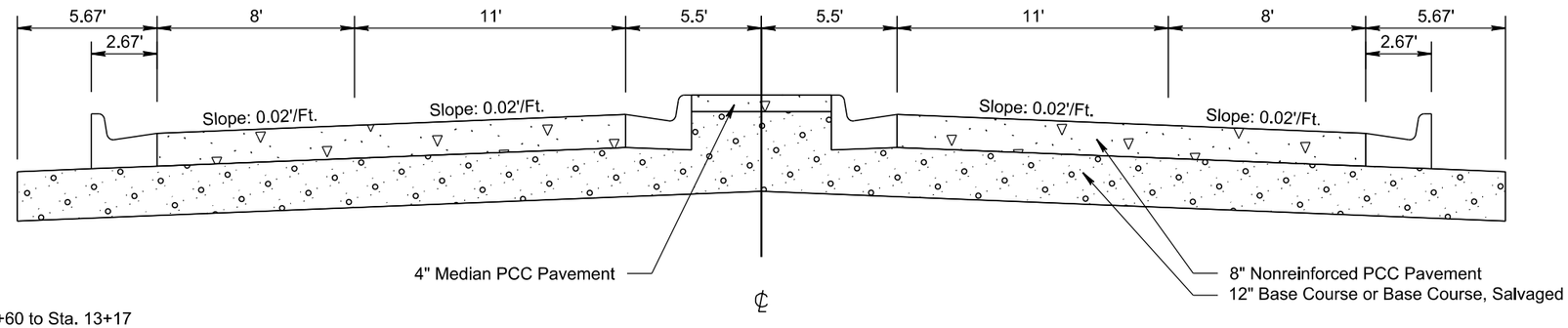
Sta. 17+21 to Sta. 18+05
** 0' to 8'

Sta. 18+05 to Sta. 25+56
** 8'

Section 6

SOUTH PIERRE STREET MAINLINE

Sta. 13+17 to Sta. 13+94



Note:

Surfacing to transition from 24" to 20" from Sta. 10+60 to Sta. 13+17 and from 20" to 24" from Sta. 13+94 to Sta. 15+50 by transitioning the granular material between 12" and 16"

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F11	F34

Plotting Date: 06/10/2024

Revised 06-10-2024 LLA

Section 7

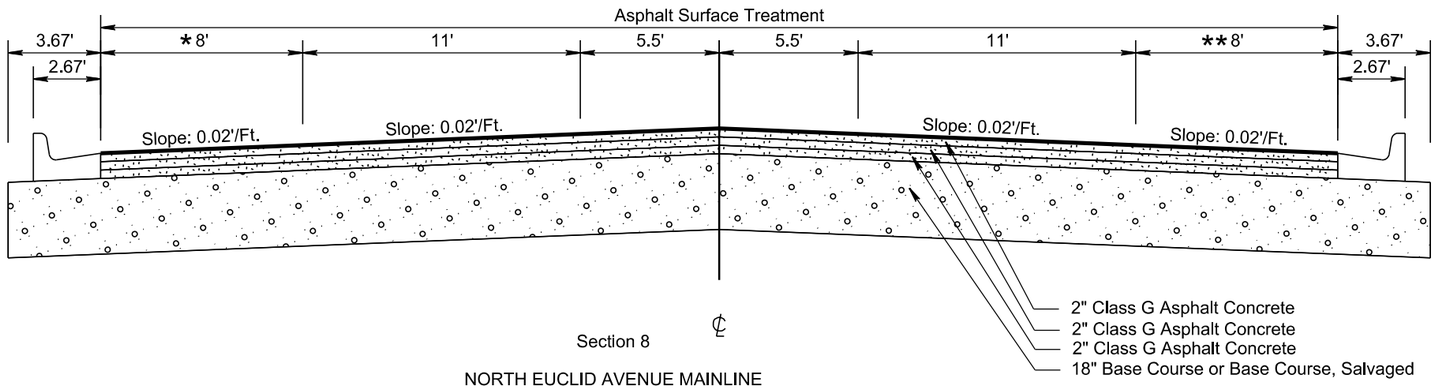
SOUTH EUCLID/ NORTH EUCLID AVENUE MAINLINE

Sta. 19+07 to Sta. 30+77

Transitions:

Sta. 19+07 to Sta. 29+50
* 8'

Sta. 29+50 to Sta. 30+77
* 8' to 1'



Transitions:

Sta. 19+07 to Sta. 25+56
** 8'

Sta. 25+56 to Sta. 26+31
** 8' to 15.6'

Sta. 26+31 to Sta. 26+84
** 15.6' to 8'

Sta. 26+84 to Sta. 27+70
** 8'

Sta. 27+70 to Sta. 27+90
** 8' to 0'

Sta. 27+90 to Sta. 30+77
** 0' to 11'

Section 8

NORTH EUCLID AVENUE MAINLINE

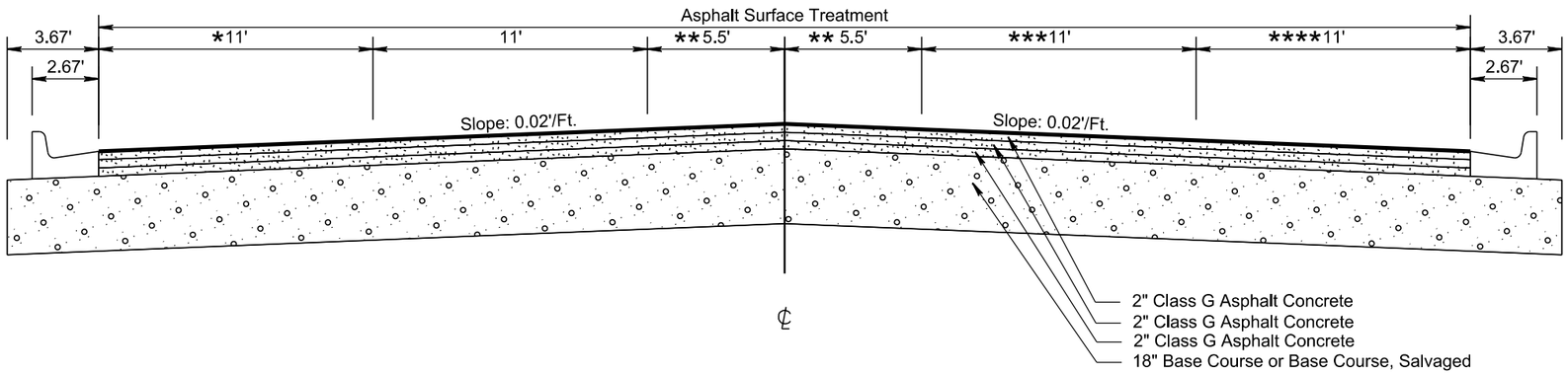
Sta. 30+77 to Sta. 34+43
Sta. 43+38 to Sta. 77+74

Transitions:

Sta. 30+77 to Sta. 33+06
* 1' to 11'

Sta. 43+38 to Sta. 44+08
** 0'

Sta. 44+08 to Sta. 45+22
** 0' to 5.5'



Transitions:

Sta. 77+28 to Sta. 77+74
*** 11' to 12'

Sta. 77+28 to Sta. 77+52
**** 11' to 12'

Sta. 77+52 to Sta. 77+74
**** 12'

Transitions:

Sta. 36+54 to Sta. 39+69
** 5.5' to 0'

Sta. 37+69 to Sta. 43+38
** 0'

Sta. 34+43 to Sta. 34+60
*** 0'

Sta. 34+60 to Sta. 34+80
*** 0' to 8'

Transitions:

Sta. 38+79 to Sta. 38+99
*** 8' to 0'

Sta. 38+99 to Sta. 40+03
*** 0'

Sta. 40+03 to Sta. 40+23
*** 0' to 8'

Sta. 42+61 to Sta. 42+82
*** 8' to 0'

Sta. 42+82 to Sta. 43+38
*** 0'

Section 9

NORTH EUCLID AVENUE MAINLINE

Sta. 34+43 to Sta. 43+38

Transitions:

Sta. 34+43 to Sta. 37+69
* 0'

Sta. 37+69 to Sta. 37+89
* 0' to 8'

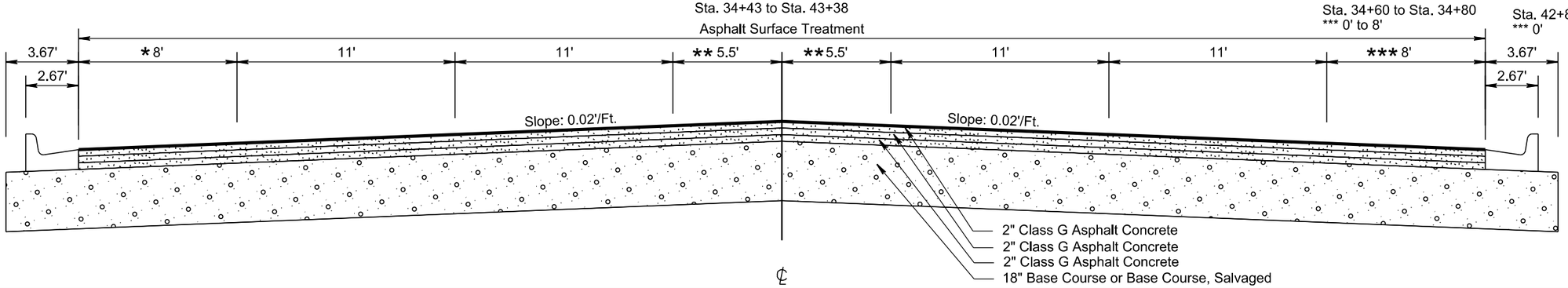
Sta. 38+76 to Sta. 38+96
* 8' to 0'

Sta. 38+96 to Sta. 40+00
* 0'

Sta. 40+00 to Sta. 40+20
* 0' to 8'

Sta. 42+61 to Sta. 42+82
* 8' to 0'

Sta. 42+82 to Sta. 43+38
* 0'



PLOT SCALE - 1:6.00001

PLOT NAME - 11

FILE - ...\026Z_TYPICAL SECTIONS.DGN

PLOTTED FROM - TRPR18387

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F12	F34

Plotting Date: 06/10/2024

Revised 06-10-2024 LLA

Section 10

NORTH EUCLID AVENUE MAINLINE

Sta. 77+74 to Sta. 80+45

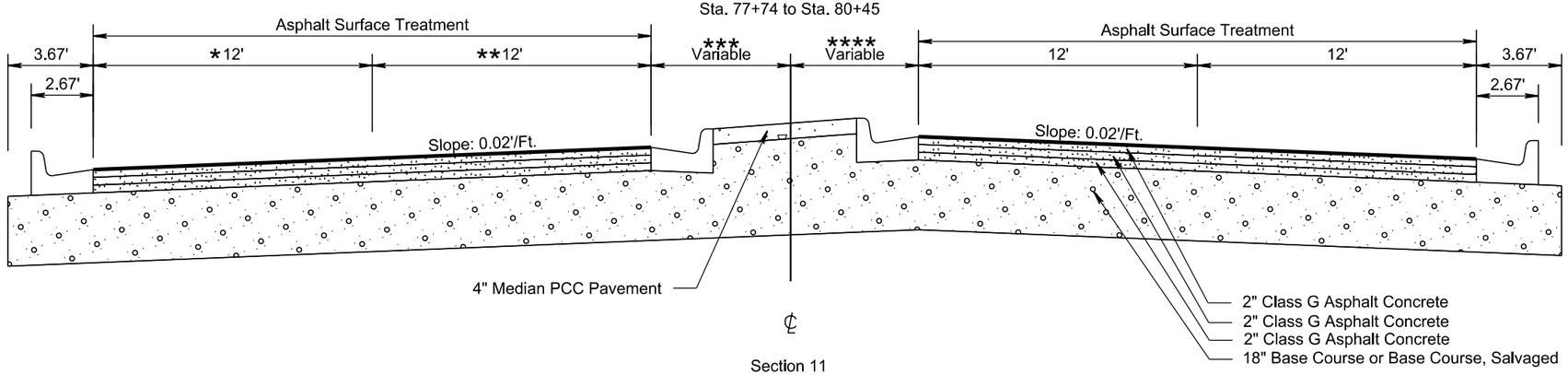
Transitions:

Sta. 77+74 to Sta. 78+33
* 11'

Sta. 78+33 to Sta. 78+56
* 11' to 12'

Sta. 77+74 to Sta. 78+56
** 11'

Sta. 78+56 to Sta. 78+79
** 11' to 12'



Transitions:

Sta. 77+74 to Sta. 80+45
*** 5.5' to 12.8'

Sta. 77+74 to Sta. 80+45
**** 5.5' to 16.8'

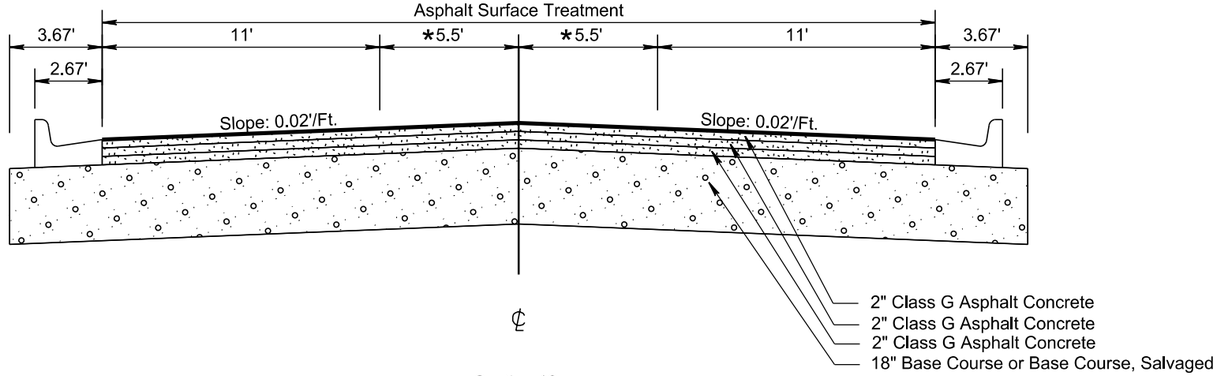
Section 11

EAST ELIZABETH STREET

Sta. 698+07 to Sta. 701+42

Transitions:

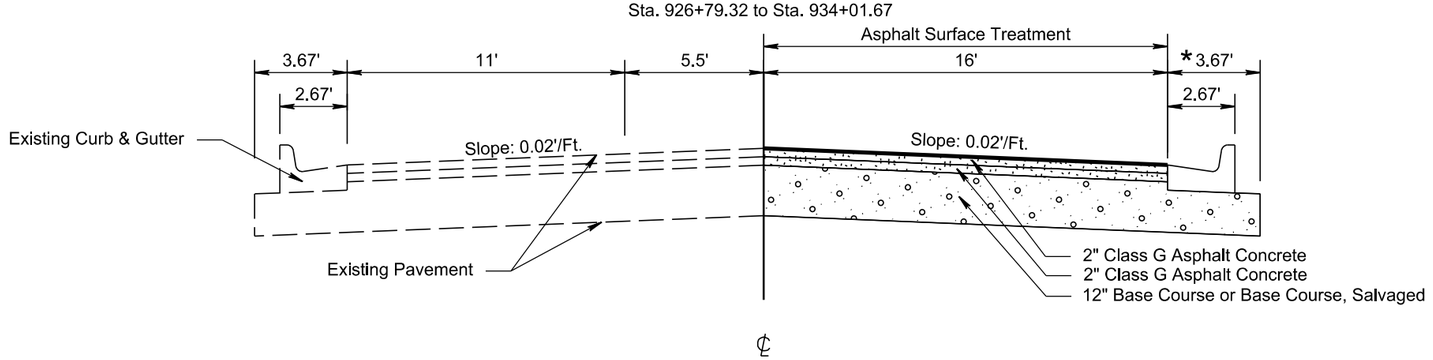
Sta. 698+07 to Sta. 698+71
* 2' to 5.5'



Section 12

EAST WYNOKA STREET

Sta. 926+79.32 to Sta. 934+01.67



* New Curb & Gutter @ Southwest corner of Highland Ave. & Wynoka St.

PLOT SCALE - 1:6.00001

PLOTTED FROM - TRPR18387

PLOT NAME - 12

FILE - ...\0262_TYPICAL SECTIONS.DGN

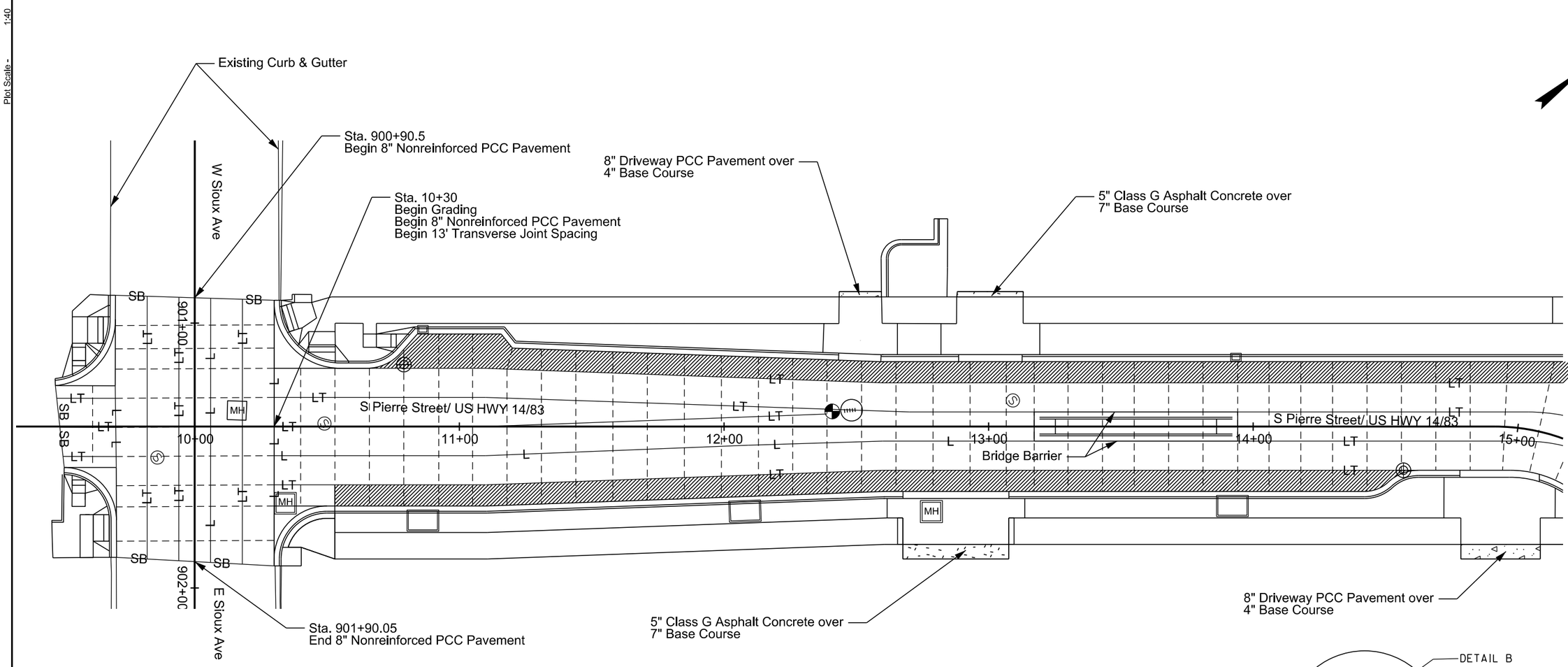
PCC PAVEMENT JOINT LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F13	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 1 of 3 Sheets

Plot Scale - 1:40



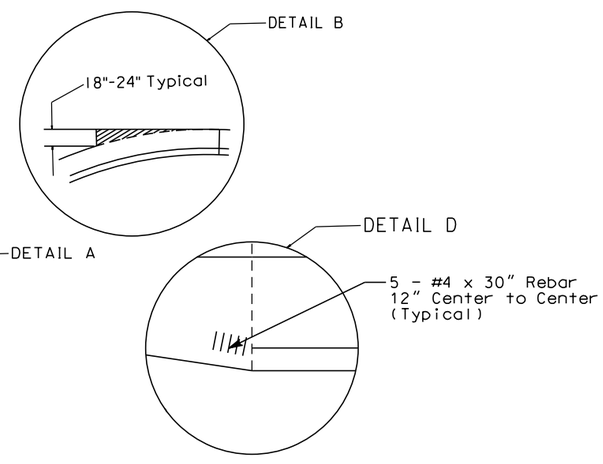
LEGEND:

Longitudinal Joint Without Tie Bars (Construction or Sawed) ——L——L——
Longitudinal Joint With Tie Bars (Construction or Sawed) ——LT——LT——
Transverse Contraction Joint — — — — — — — — — — — — — — — — — —
Steel Bar Installation in Longitudinal or Transverse Joint ——SB——SB——
Areas to be poured monolithically with adjacent slab (See Detail A)
Areas to be poured monolithically with adjacent curb and gutter (See Detail B)
Reinforce Transverse or Longitudinal joint termination with #4 x 30" rebar 12" Center to Center (See Detail D)

Transverse contraction joints within these areas will not have dowel bar assemblies. All other transverse contraction joints will have dowel bar assemblies.

Class G Asphalt Concrete
Base Course
Driveway PCC Pavement

Typical Drop Inlet
Water Gate Valve
Sanitary Sewer Manhole
Fire Hydrant
Cleanout
Curb Stop



Plotted From - TRPR18387

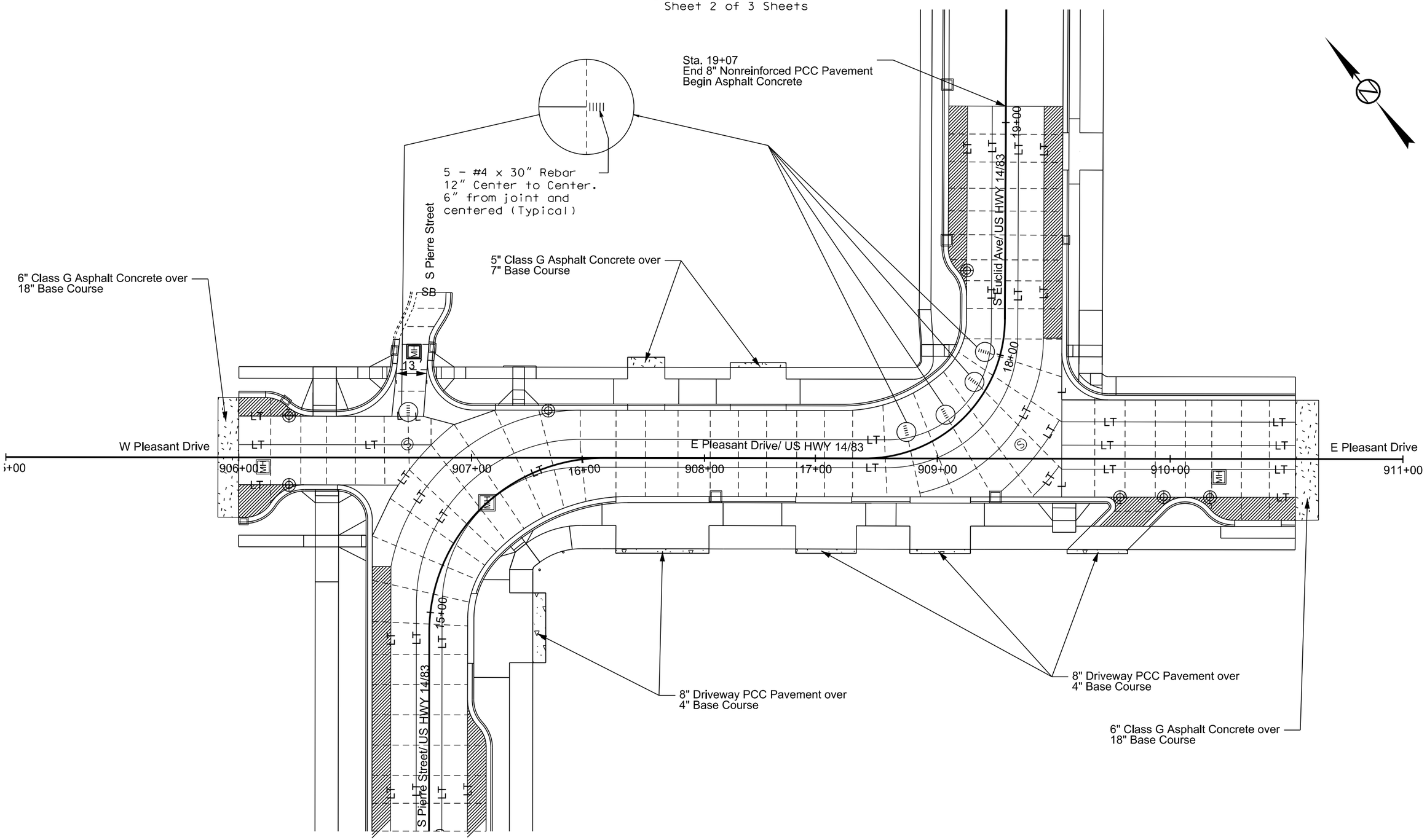
File - ...\pr\hugh0262\0262_Layouts.dgn

PCC PAVEMENT JOINT LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F14	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 2 of 3 Sheets



Plot Scale - 1:40

Plotted From - TRPR18387

File - ...\pr\hugh0262\0262_Layouts.dgn

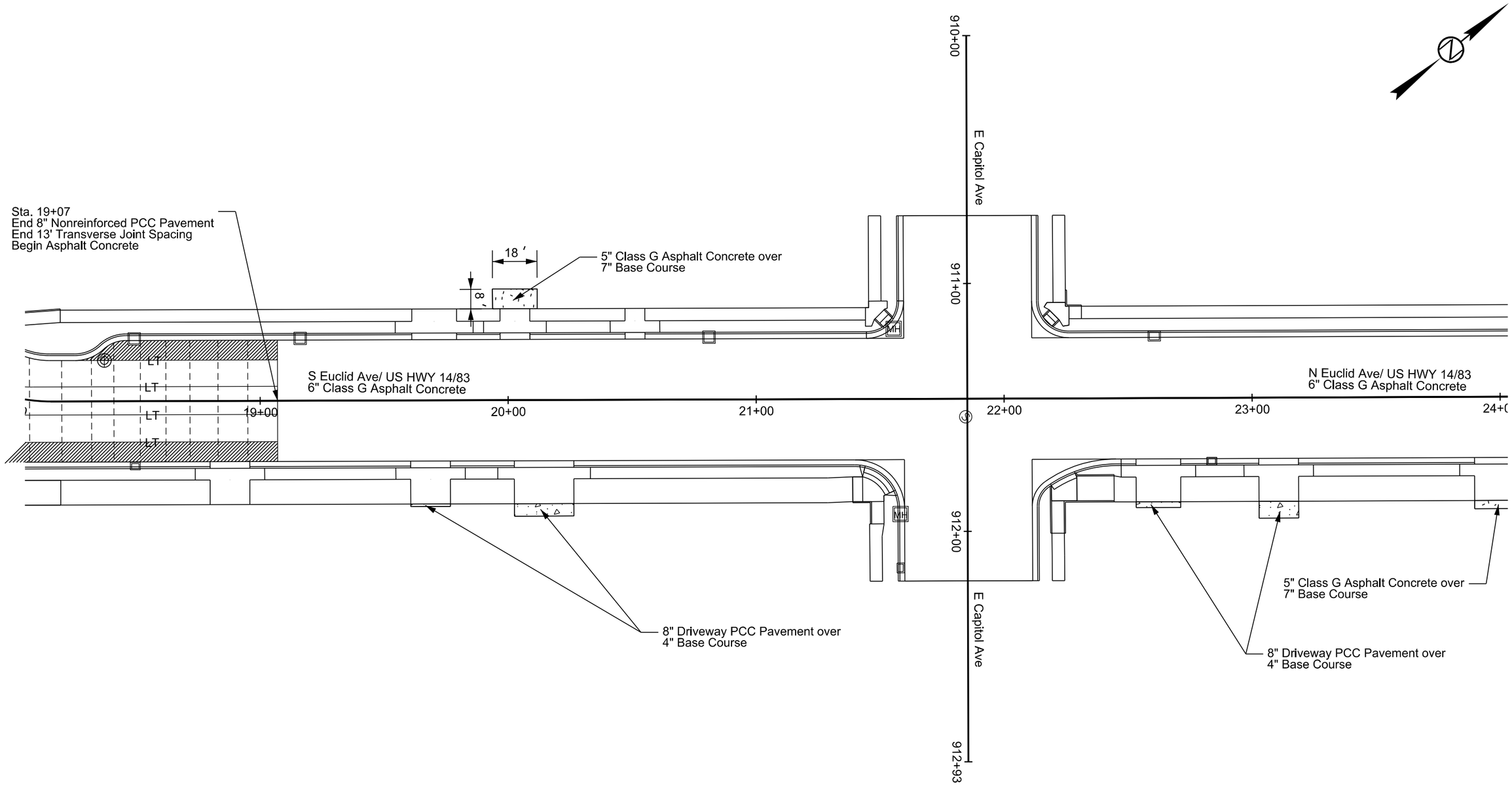
PCC PAVEMENT JOINT LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F15	F34

Plotting Date: 06/10/2024

Revised: 04/15/2024 RTS

Scale 1 Inch = 40 Feet
Sheet 3 of 3 Sheets



Plot Scale - 1:40

Plotted From - TRPR18387

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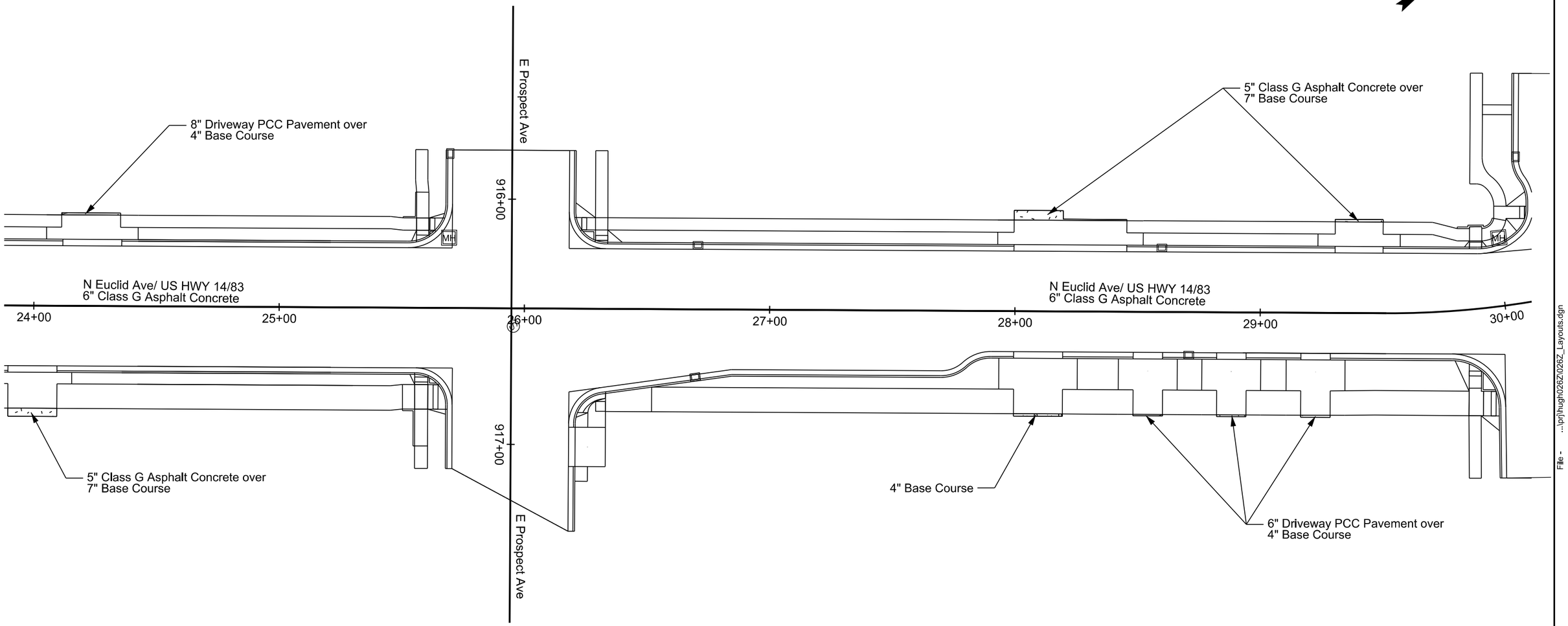
ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F16	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 1 of 10 Sheets



Plot Scale - 1:40

Plotted From - TRPR18387

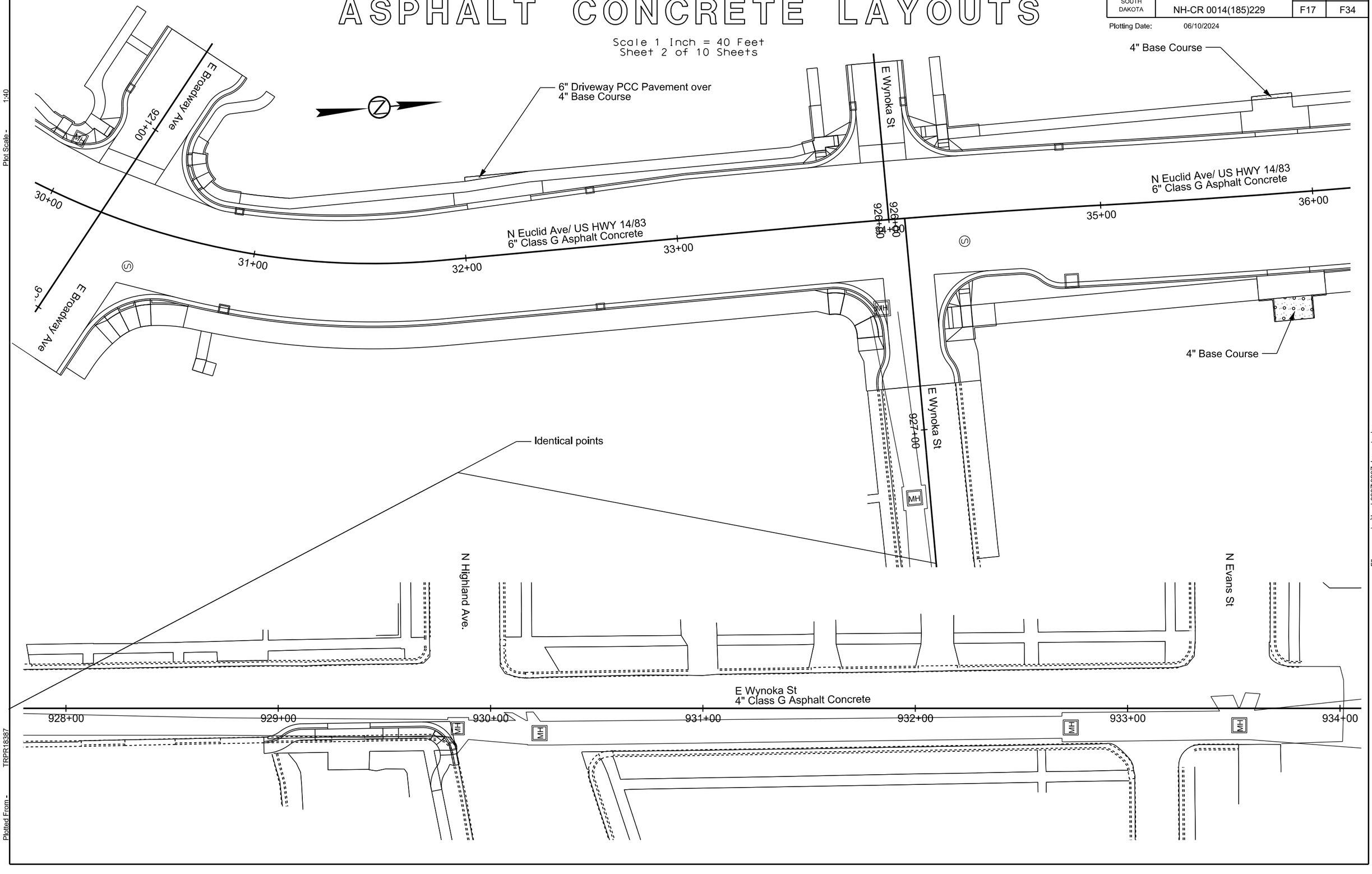
File - ...\prj\hugh\0262\0262Z_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

Scale 1 Inch = 40 Feet
Sheet 2 of 10 Sheets

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F17	F34

Plotting Date: 06/10/2024



Plot Scale - 1:40

Plotted From - TRPR18387

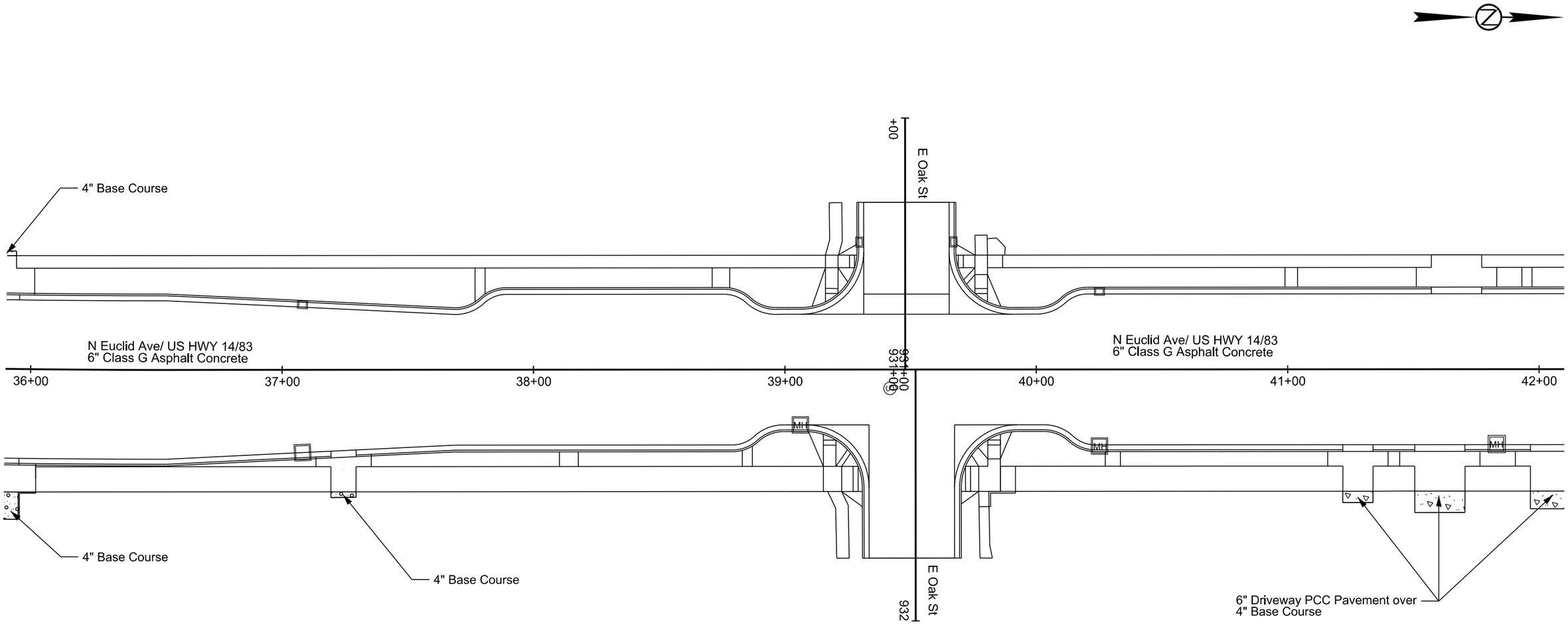
File - ...\pr\hugh0262\0262_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F18	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 3 of 10 Sheets



Plot Scale - 1:40

Plotted From - TRPR18387

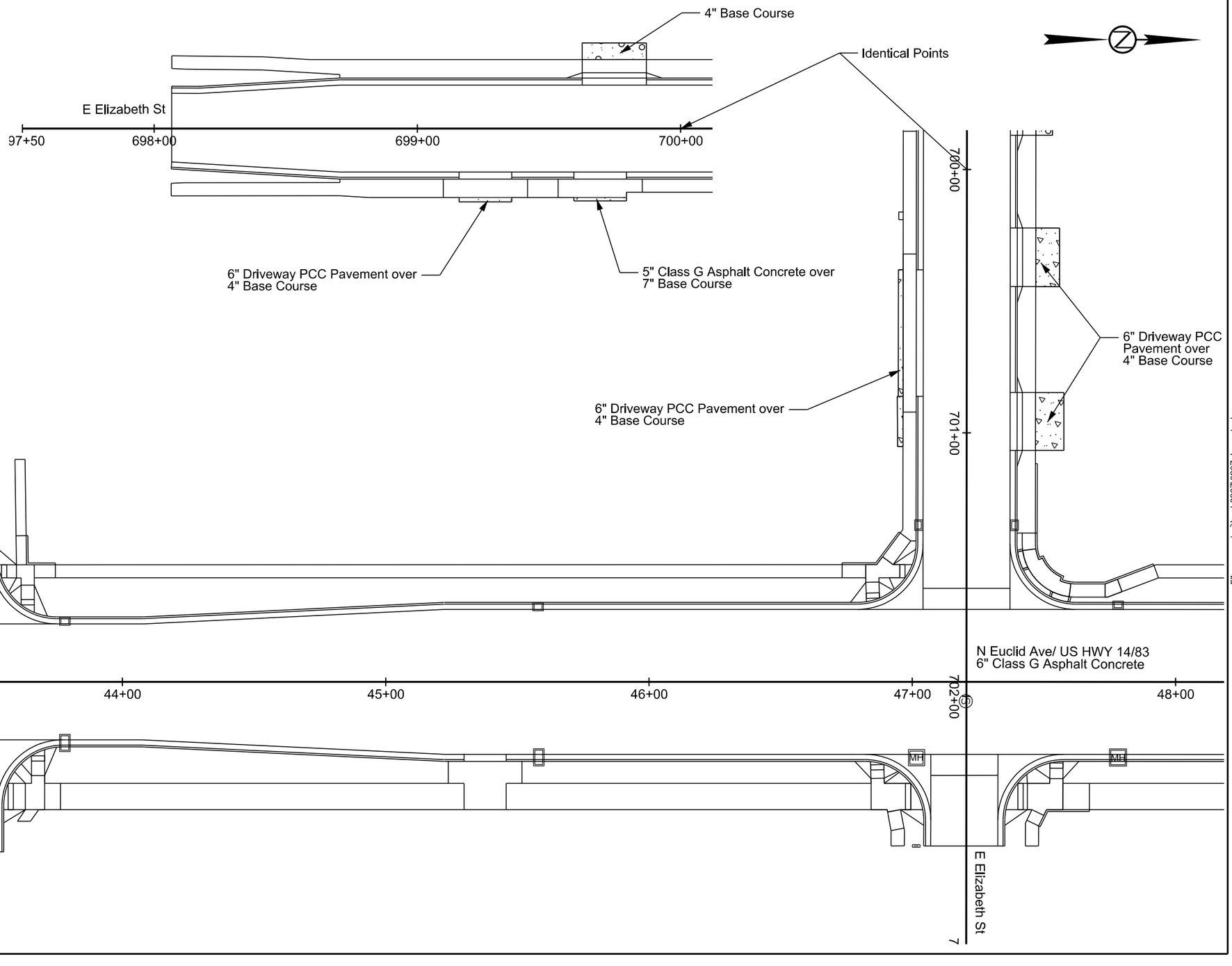
File - ...\prj\hugh0262\0262_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

Scale 1 Inch = 40 Feet
Sheet 4 of 10 Sheets

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F19	F34

Plotting Date: 06/10/2024



Plot Scale - 1:40

TRPR18387

Plotted From -

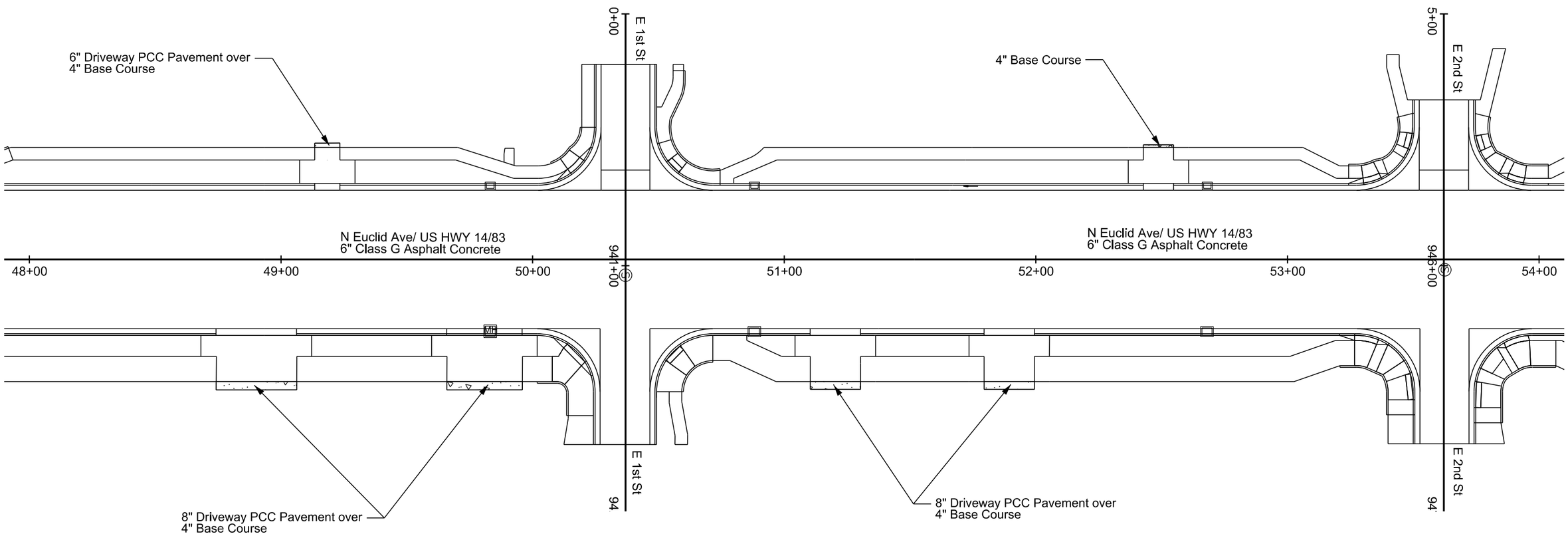
File - ...\prj\hugh\0262\0262Z_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

Scale 1 Inch = 40 Feet
Sheet 5 of 10 Sheets

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F20	F34

Plotting Date: 06/10/2024



Plot Scale - 1:40

Plotted From - TRPR18387

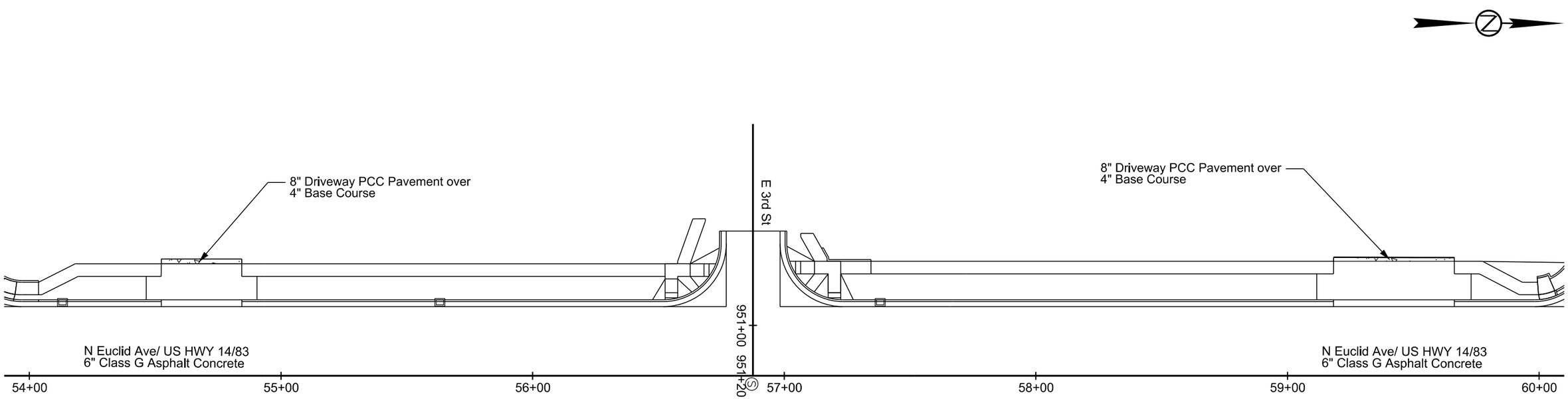
File - ...\pr\hugh\026Z\0262_Layouts.dgn

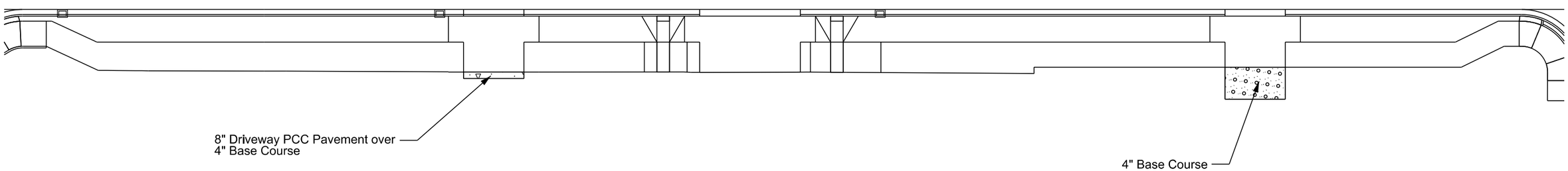
ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F21	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 6 of 10 Sheets





Plot Scale - 1:40

Plotted From - TRPR18387

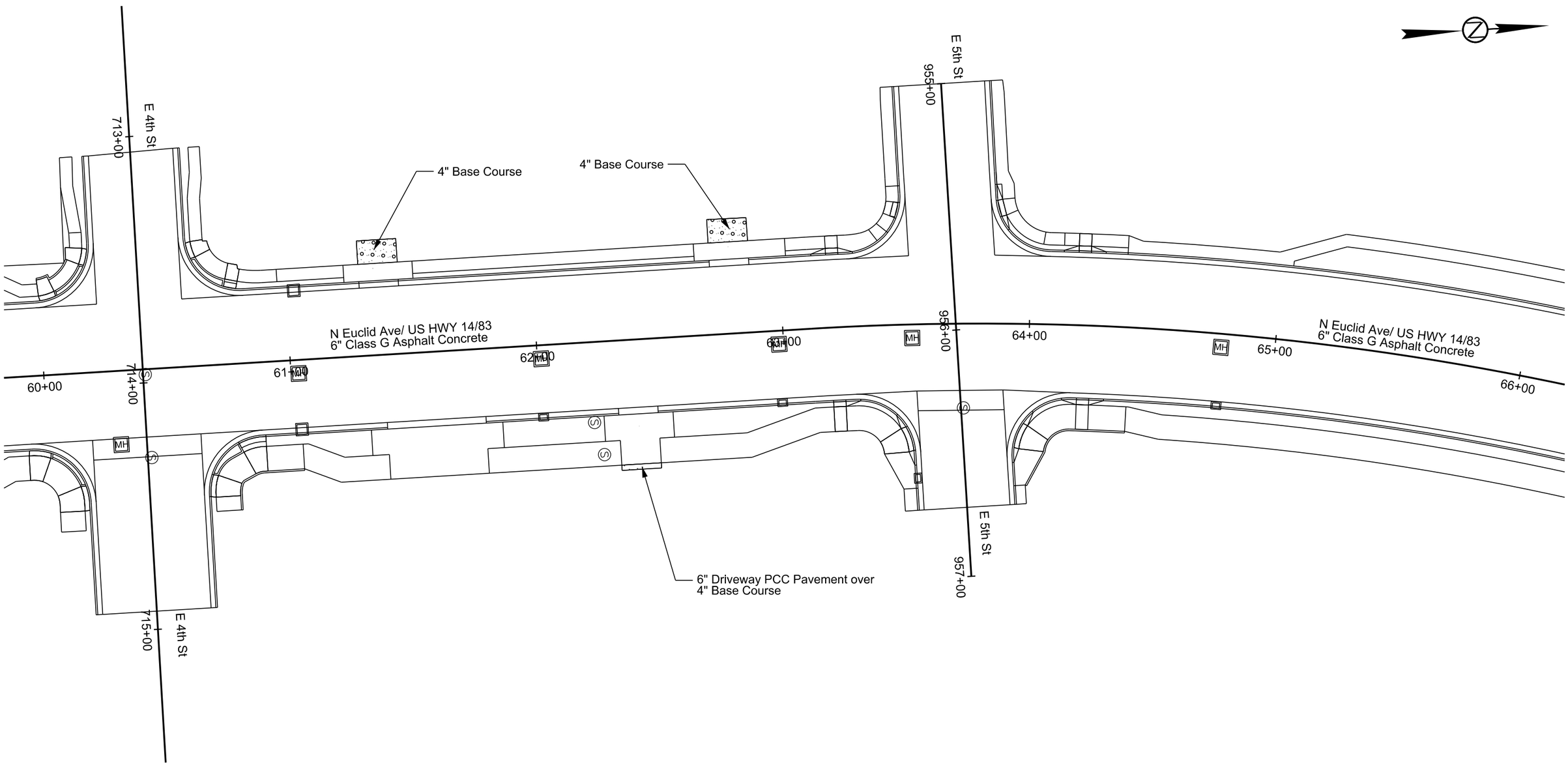
File - ...\phlhugh0262\0262_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

Scale 1 Inch = 40 Feet
Sheet 7 of 10 Sheets

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F22	F34

Plotting Date: 06/10/2024



Plot Scale - 1:40

Plotted From - TRPR18387

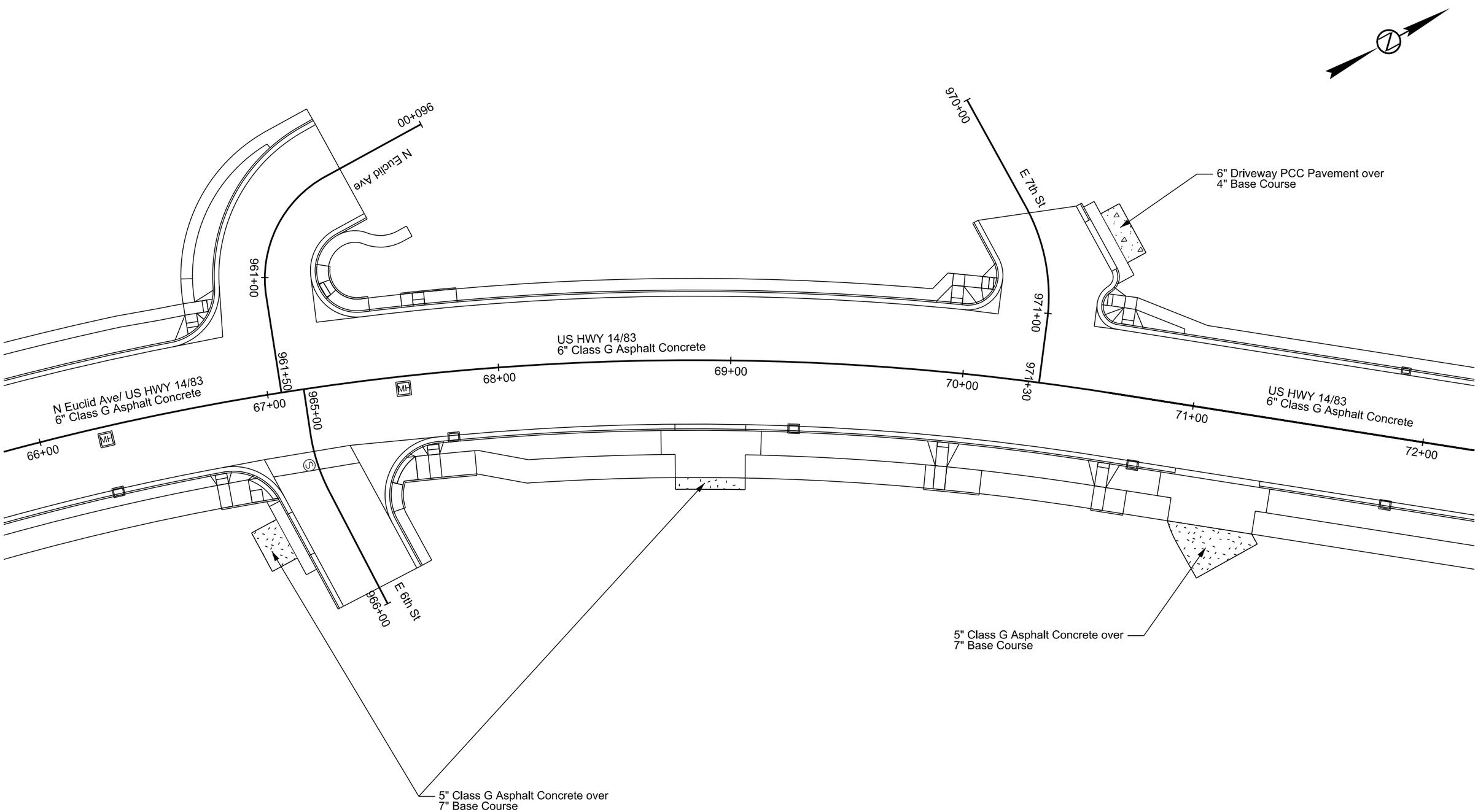
File - ...\pn\hugh\0262\0262_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F23	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 8 of 10 Sheets



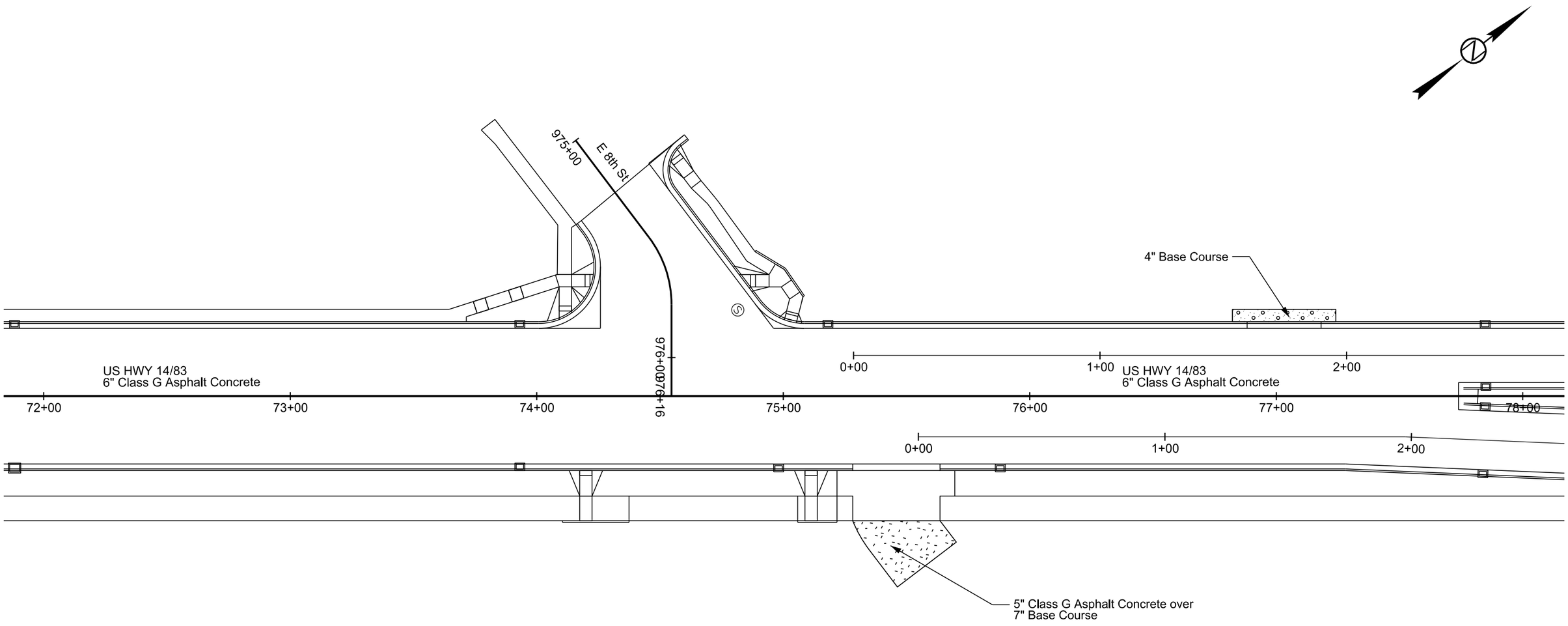
Plot Scale - 1:40
Plotted From - TRPR18387
File - ...\prj\hugh\026Z\026Z_Layouts.dgn

ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F24	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 9 of 10 Sheets



Plot Scale - 1:40

Plotted From - TRPR18387

File - ...\ph\hugh0262\0262Z_Layouts.dgn

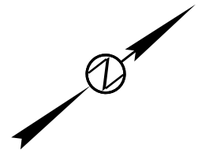
ASPHALT CONCRETE LAYOUTS

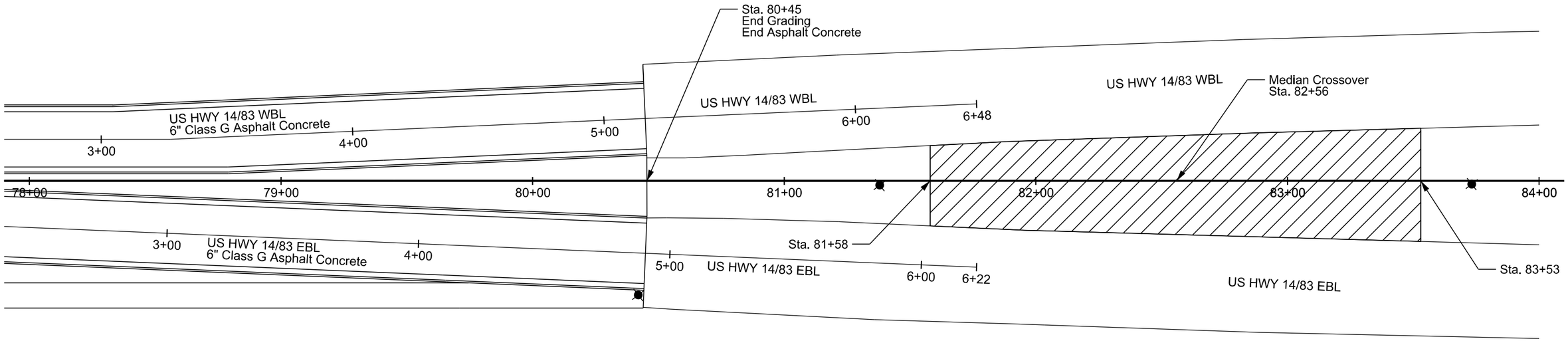
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F25	F34

Plotting Date: 06/10/2024

Scale 1 Inch = 40 Feet
Sheet 10 of 10 Sheets

6" Class G Asphalt Concrete
over 12" Base Course





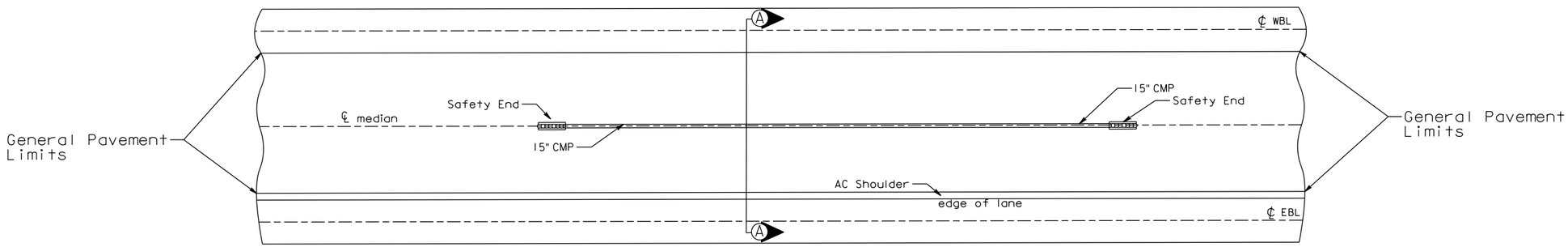
Plot Scale - 1:40

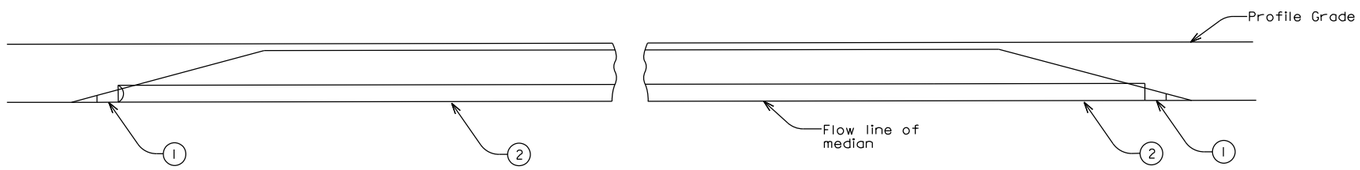
Plotted From - TRPR18387

File - ...\pr\hugh0262\0262_Layouts.dgn

MEDIAN CROSSOVERS

Sta. 82+56





Sta. 82+56

Median Drainage Components

1. 15" CMP Safety End
2. 15" CMP

GENERAL NOTES:

The intent of this plan is to show the construction requirements for the Median Crossovers.

Construction of median crossover will conform to the requirement of the Specifications.

Typical Sections shows Median Crossovers located on grade requiring through drainage.

Section A-A depicts the surfacing requirements.

The contract unit prices for the various contract items will be considered full compensation for furnishing all necessary materials and labor to construct the median crossover as detailed hereon.

Note:

Not to scale

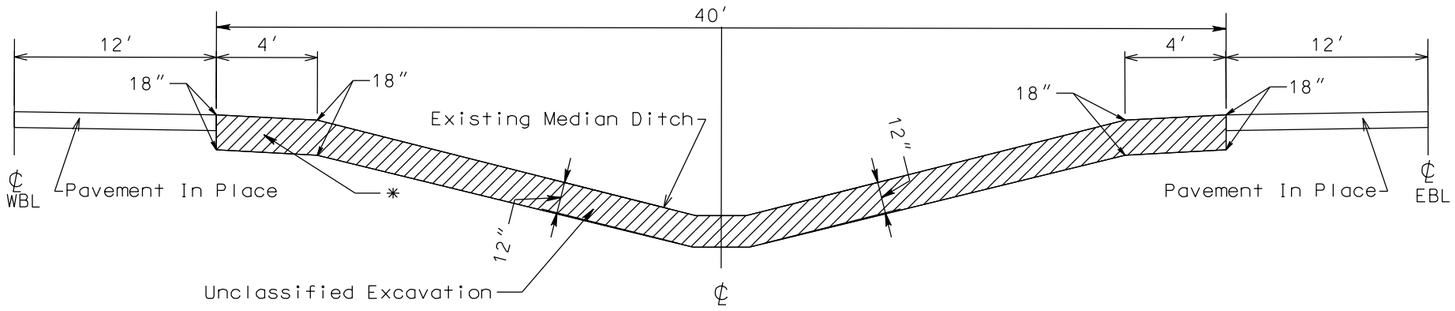
MEDIAN CROSSOVERS

SHEET 1 OF 2 SHEETS

MEDIAN CROSSOVERS

Unclassified Excavation

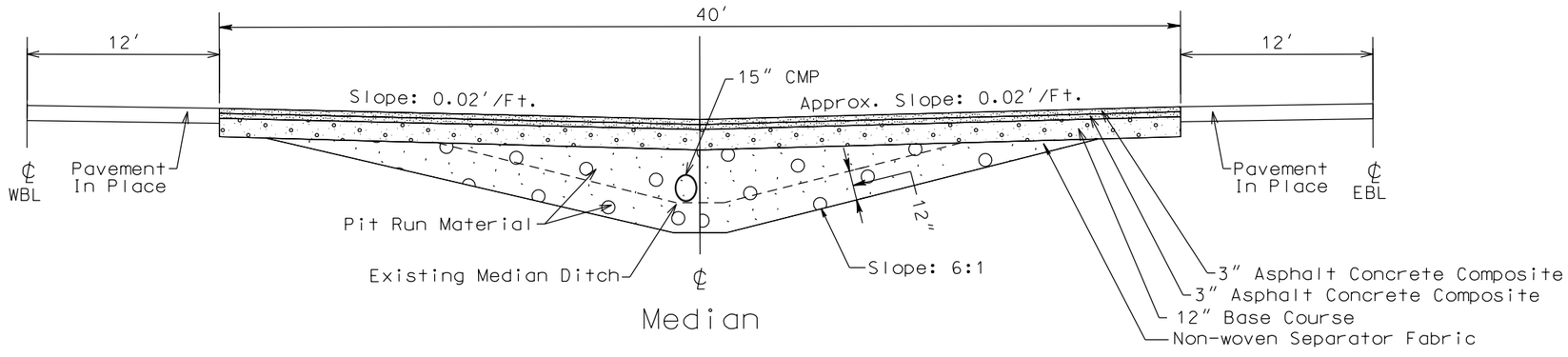
Sta. 82+56



Median

SECTION A-A

Sta. 82+56



Median

Note:

Not to scale

MEDIAN CROSSOVERS

SHEET 2 OF 2 SHEETS

PLOT SCALE - 1:8.99752

PLOT NAME - 27

FILE - ...\026Z_MEDIAN CROSSOVER DETAILS.DGN

PLOTTED FROM - TRPR18387

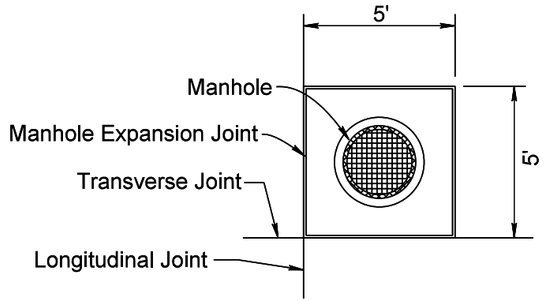
TYPICAL MANHOLE BOX-OUT DETAILS FOR PCC PAVEMENT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0014(185)229	F28	F34

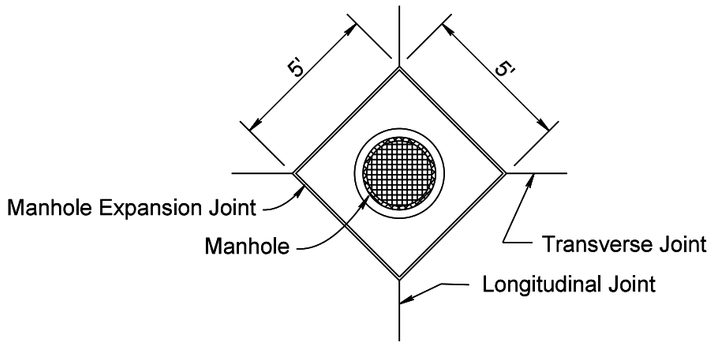
Plotting Date: 06/10/2024

Plot Scale - 1:6

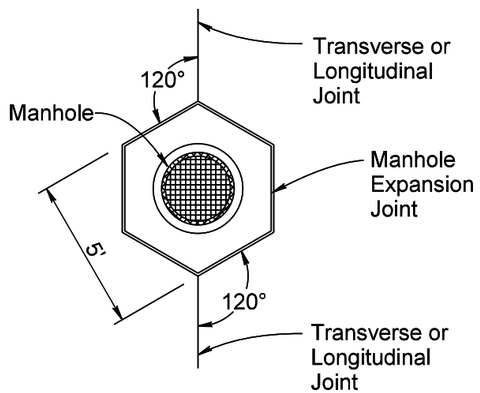
BOX-OUT DETAIL IN PCC PAVEMENT



Where the utility access is offset from the longitudinal and transverse joints

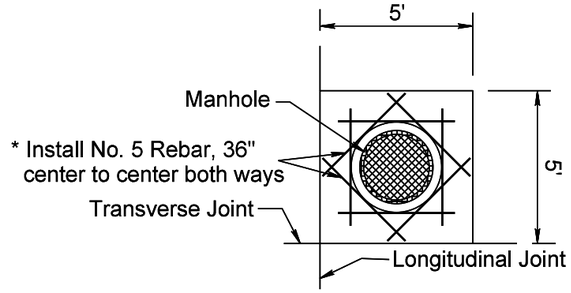


Where the utility access is intersected by the longitudinal and transverse joints

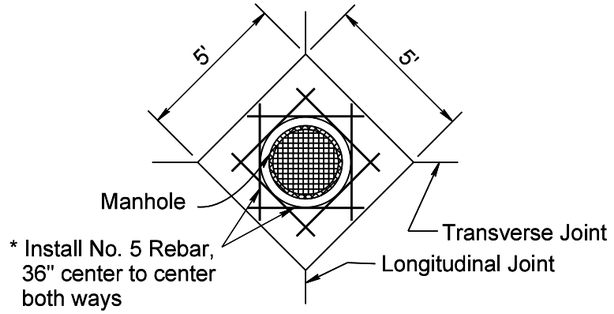


Where no Longitudinal or Transverse joints are present or at Longitudinal or Transverse joint.

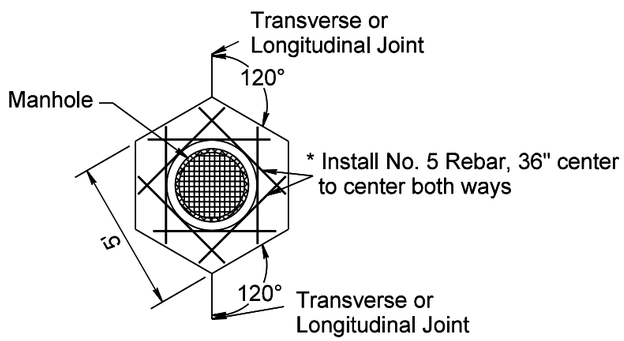
REBAR LAYOUTS IN PCC PAVEMENT WITH BOX-OUTS



Where the utility access is offset from the longitudinal and transverse joints

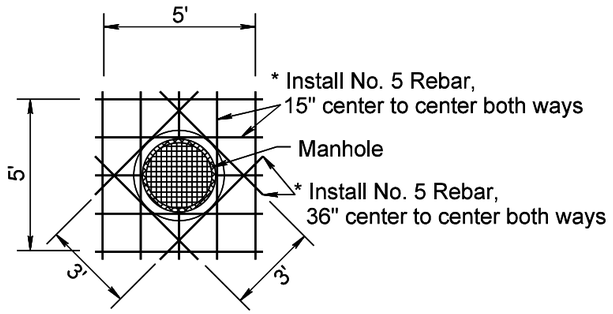


Where the utility access is intersected by the longitudinal and transverse joints



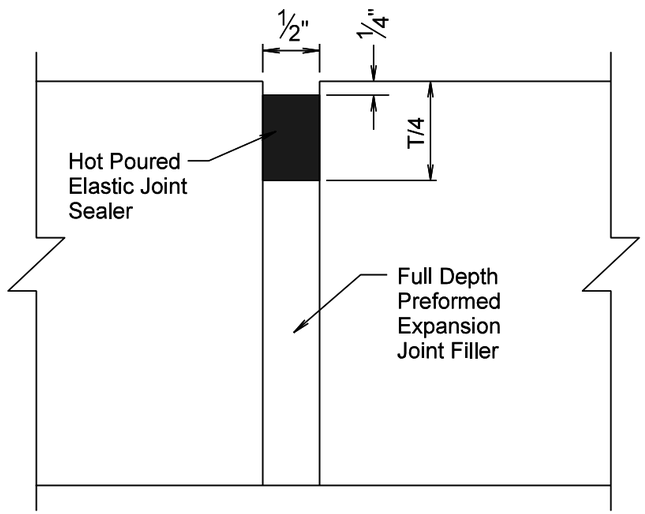
Where no Longitudinal or Transverse joints are present or at Longitudinal or Transverse joint.

REBAR LAYOUT IN PCC PAVEMENT WITHOUT BOX-OUT



Note: The rebar shall not cross any joint in the concrete pavement. If manhole is next to a joint in the concrete pavement the Engineer shall approve a revised layout of the rebar.

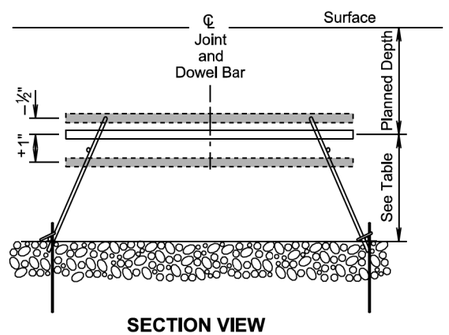
MANHOLE EXPANSION JOINT DETAIL



* Rebar will be placed at the midpoint depth of the PCC Pavement. Cost for furnishing & installing rebar and constructing box-outs shall be incidental to the contract unit price per square yard for 8.5" Nonreinforced PCC Pavement.

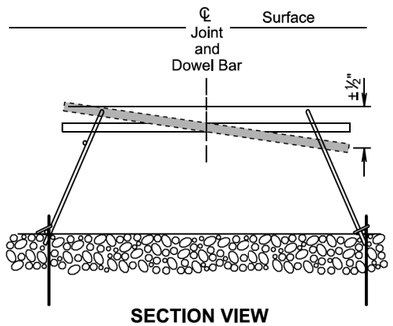
Plotted From - TRPR18387

File - ...\hugh02627\manhole detail.dgn



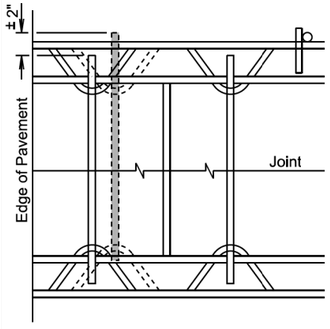
SECTION VIEW
VERTICAL TRANSLATION

Depth: mid-depth + 1 inch or – ½ inch



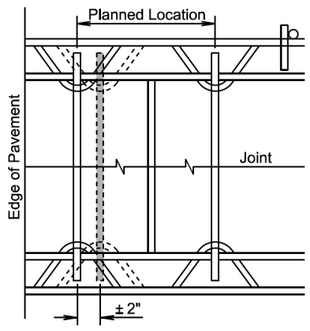
SECTION VIEW
VERTICAL TILT

Vertical rotational alignment: ½ inch over 18 inch



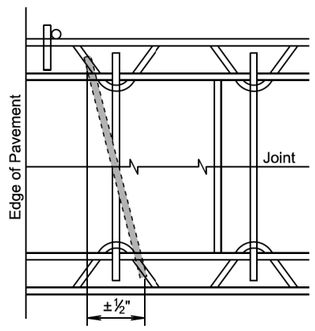
PLAN VIEW
LONGITUDINAL TRANSLATION

Longitudinal side shift: ± 2 inch for 18 inch bars



PLAN VIEW
HORIZONTAL TRANSLATION

Side shift ± 2 inch



PLAN VIEW
HORIZONTAL SKEW

Horizontal rotational alignment: ½ inch over 18 inch

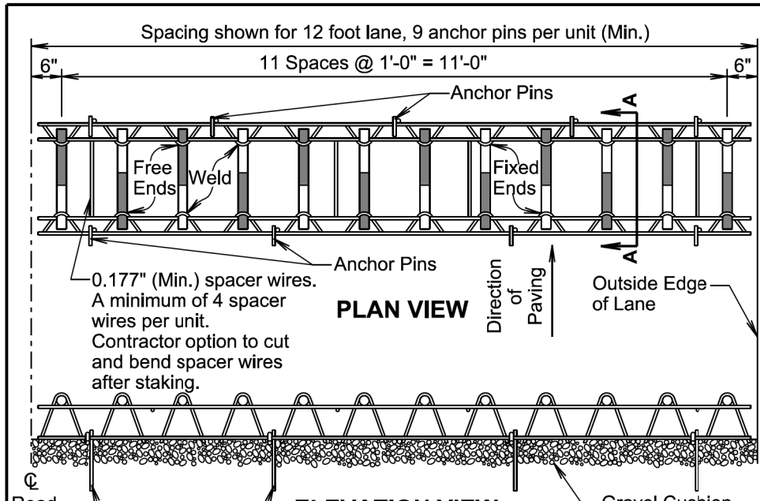
PAVEMENT THICKNESS	EPOXY COATED DOWEL BAR SIZE	HEIGHT TO CENTER
7" to 7½"	1" x 18"	3.0"
8" to 10"	1¼" x 18"	4.0"
10½" to 13"	1½" x 18"	5.0"

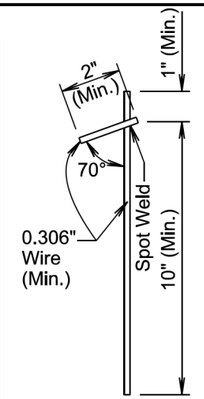
GENERAL NOTE:

The tolerances shown above represent the maximum deviation for acceptance of dowel bar placement.

November 19, 2022

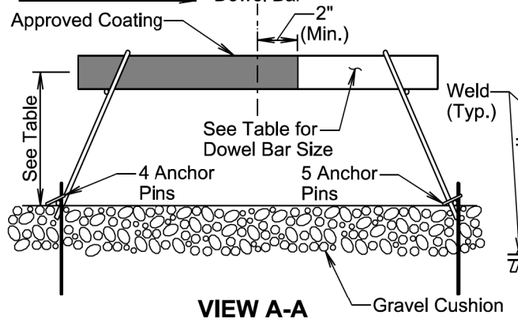
Published Date: 2025	SDDOT	*PCC PAVEMENT DOWEL BAR ALIGNMENT TOLERANCES*	*PLATE NUMBER* 380.01 *Sheet 1 of 1*



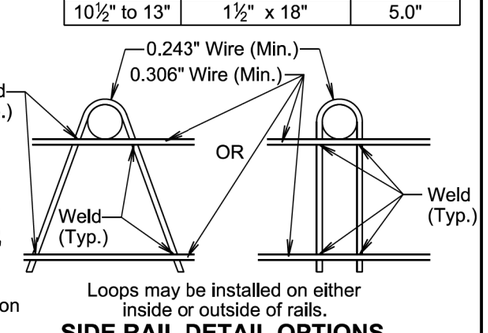


TYPICAL ANCHOR PIN

PAVEMENT THICKNESS	EPOXY COATED DOWEL BAR SIZE	HEIGHT TO CENTER
7" to 7½"	1" x 18"	3.0"
8" to 10"	1¼" x 18"	4.0"
10½" to 13"	1½" x 18"	5.0"



VIEW A-A



Loops may be installed on either inside or outside of rails.

SIDE RAIL DETAIL OPTIONS

GENERAL NOTES:

Longitudinal joint tie bars will be placed a minimum of 15 inches from the transverse contraction joint.

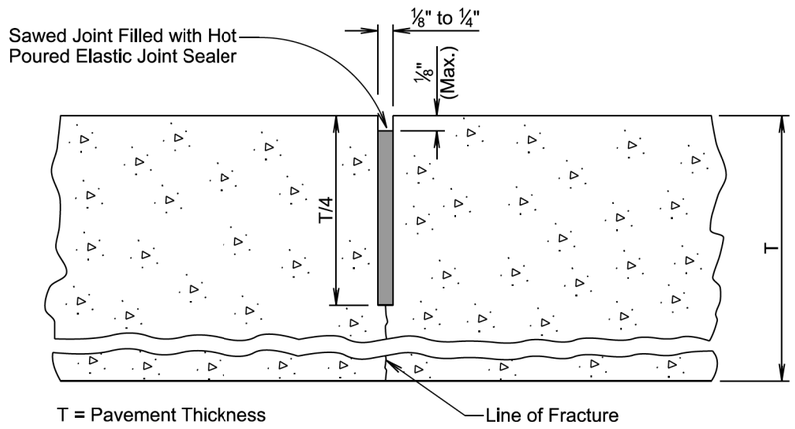
The transverse contraction joints will be sawed perpendicular to the centerline of the roadway. The transverse sawed joint will be centered over the dowel bars.

Supporting devices as shown on this sheet, or equivalent as approved by the Engineer, will be used to maintain proper horizontal and vertical alignment of the dowel bars.

All dowel bar alignment tolerances will be as shown in the PCC Pavement Dowel Bar Alignment Tolerances standard plate.

November 19, 2022

Published Date: 2025	SDDOT	*PCC PAVEMENT DOWEL BAR ASSEMBLY FOR TRANSVERSE CONTRACTION JOINTS 12 Bar Assembly on Granular Base Material*	*PLATE NUMBER* 380.04 *Sheet 1 of 1*



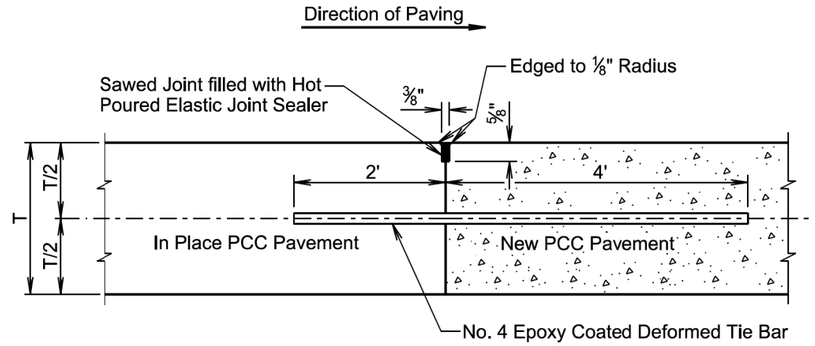
GENERAL NOTES:

If an early entrance saw cut does not develop the full transverse crack, then the saw cut to control cracking will be a minimum ¼ of the thickness of the pavement.

All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the Contractor.

November 19, 2022

Published Date: 2025	SDDOT	PCC PAVEMENT TRANSVERSE CONTRACTION JOINT WITH OR WITHOUT DOWEL BAR ASSEMBLY	PLATE NUMBER 380.12
			Sheet 1 of 1



T = Pavement Thickness

GENERAL NOTES:

No. 4 epoxy coated deformed tie bars will be spaced 12 inches center to center and will be a minimum of 3 inches and a maximum of 6 inches from the pavement edges.

The minimum distance between a transverse construction joint with tie bars and an adjacent transverse contraction joint will be 5 feet.

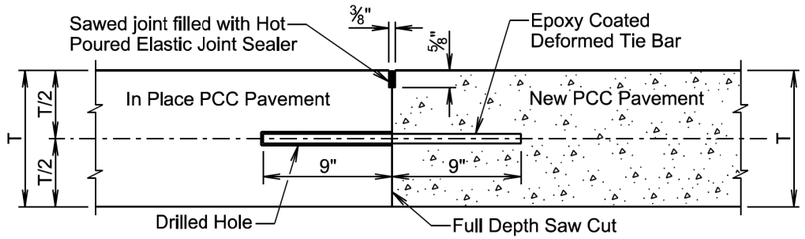
When a transverse construction joint is made, paving will not be allowed in this area for 12 hours.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on the current project.

March 31, 2024

Published Date: 2025	SDDOT	PCC PAVEMENT MID PANEL TRANSVERSE CONSTRUCTION JOINT	PLATE NUMBER 380.14
			Sheet 1 of 1

DETAIL A
TRANSVERSE CONSTRUCTION JOINT WITH TIE BARS



T = In Place PCC Pavement and New PCC Pavement Thickness

GENERAL NOTES:

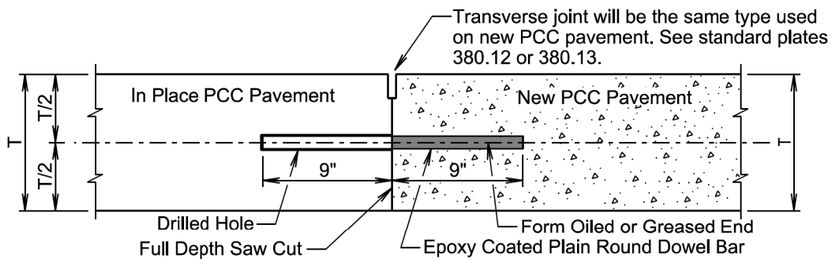
The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

See sheet 2 of 2 of this standard plate to determine if Detail A will be used.

The tie bars will be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive or a non-shrink grout.

No. 9 epoxy coated deformed tie bars will be used in 10 inch thickness and less PCC Pavement and No. 11 epoxy coated deformed tie bars will be used in 10.5 inch thickness and greater PCC Pavement. The tie bar spacing will be 18 inches center to center and will be a minimum of 3 inches and a maximum of 9 inches from the pavement edges.

DETAIL B
TRANSVERSE CONSTRUCTION JOINT WITH DOWEL BARS



GENERAL NOTES: T = In Place PCC Pavement and New PCC Pavement Thickness

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project or current project.

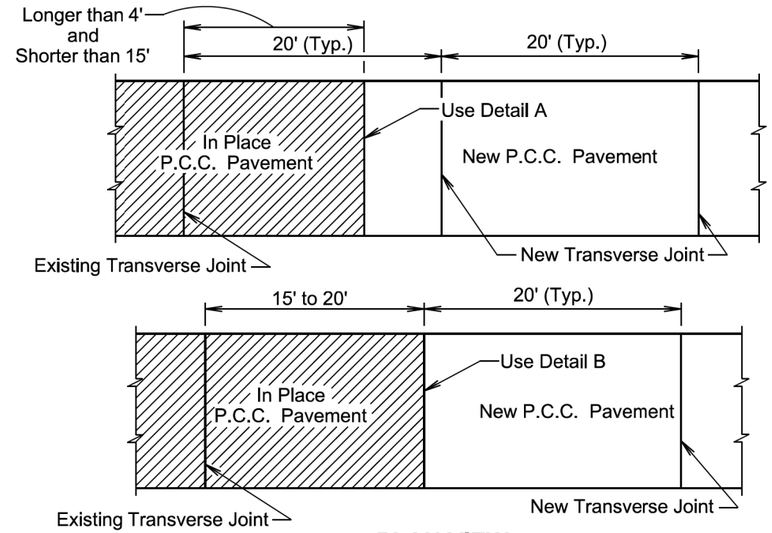
See sheet 2 of 2 of this standard plate to determine if Detail B will be used.

The plain round dowel bars will be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive or a non-shrink grout.

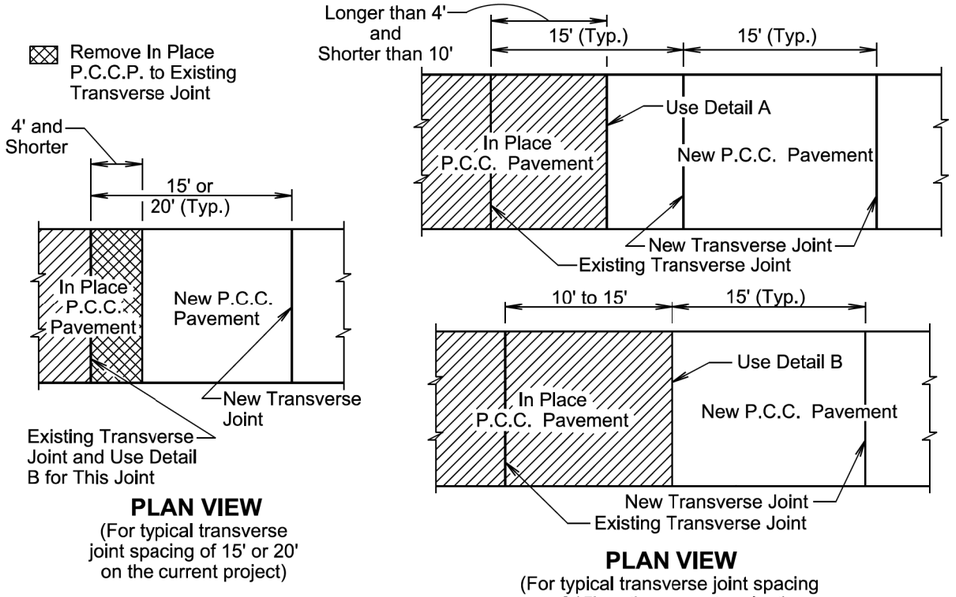
The epoxy coated plain round dowel bar size, number, and spacing will be the same as detailed on the corresponding dowel bar assembly standard plate (380.04, 380.05, 380.06, or 380.07). The epoxy coated plain round dowel bars will be a minimum of 3 inches and a maximum of 6 inches from the pavement edges.

January 22, 2023

Published Date: 2025	SDDOT	PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS	PLATE NUMBER 380.15
			Sheet 1 of 2



PLAN VIEW
(For typical transverse joint spacing of 20' on the current project)



PLAN VIEW
(For typical transverse joint spacings of 15' or 20' on the current project)

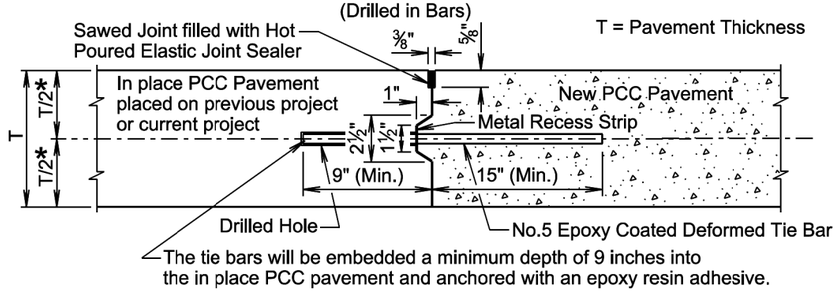
PLAN VIEW
(For typical transverse joint spacing of 15' on the current project)

January 22, 2023

Published Date: 2025	SDDOT	PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS	PLATE NUMBER 380.15
			Sheet 2 of 2

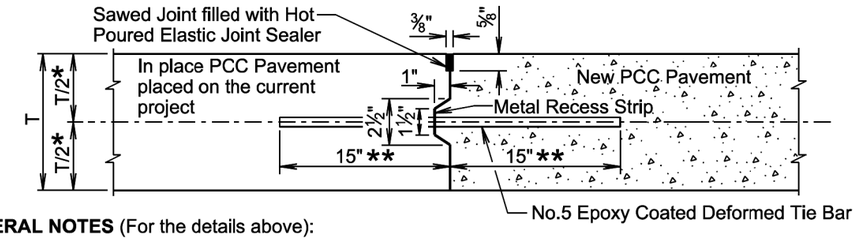
LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(Drilled in Bars)



LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(Inserted or Formed in Bars)



GENERAL NOTES (For the details above):

The epoxy coated deformed tie bars will be spaced in accordance with the following tables:

TIE BAR SPACING 48" MAXIMUM	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

TIE BAR SPACING 30" MAXIMUM	
Transverse Contraction Joint Spacing	Number of Tie Bars
5' to 7'	2
7.5' to 9.5'	3
10' to 12'	4
12.5' to 14.5'	5
15' to 17'	6
17.5' to 19.5'	7
20' to 22'	8

The tie bars will be placed a minimum of 15 inches from transverse contraction joints.

The required number of tie bars as shown in the table will be uniformly spaced within each panel. The uniformly spaced tie bars will be spaced a maximum of 48 inches center to center for a female keyway and will be spaced a maximum of 30 inches center to center for a vertical face and male keyway. The maximum tie bar spacing will apply to tie bars within each panel.

The keyway illustrated in the above details depict a female keyway.

The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

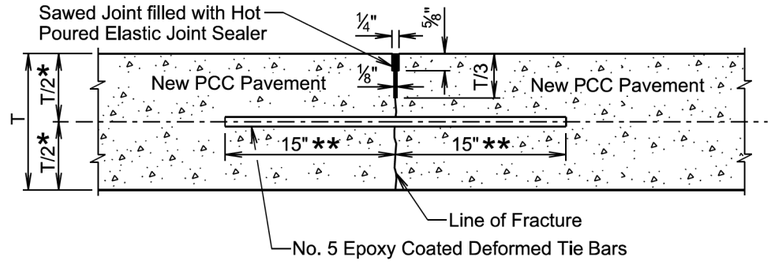
* The vertical placement tolerance for any part of the tie bar will be ± T/6.
** The transverse placement (side shift) tolerance will be ± 3 inches when measured perpendicular to the longitudinal joint line.

November 19, 2022

Published Date: 2025	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.20
			Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITH TIE BARS

(Poured Monolithically)



T = Pavement Thickness

GENERAL NOTES (For the detail above):

The epoxy coated deformed tie bars will be spaced in accordance with the following table:

TIE BAR SPACING 48" MAXIMUM	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

The tie bars will be placed a minimum of 15 inches from the transverse contraction joints.

The required number of tie bars as shown in the table will be uniformly spaced within each panel with a maximum space of 48 inches center to center. The maximum tie bar spacing will apply to tie bars within each panel.

The first saw cut to control cracking will be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer is necessary.

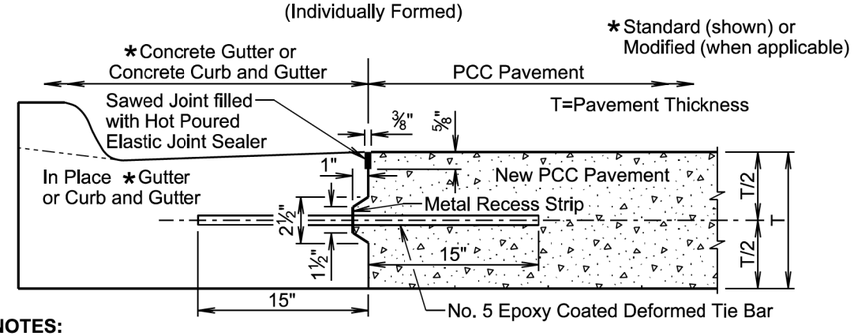
* The vertical placement tolerance for any part of the tie bar will be ± T/6.
** The transverse placement (side shift) tolerance will be ± 3 inches when measured perpendicular to the longitudinal joint line.

November 19, 2022

Published Date: 2025	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.20
			Sheet 2 of 2

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(Individually Formed)



GENERAL NOTES:

No. 5 epoxy coated deformed tie bars will be spaced 48 inches center to center. The tie bars will be placed a minimum of 15 inches from existing transverse contraction joints. The keyway shown above is a female keyway.

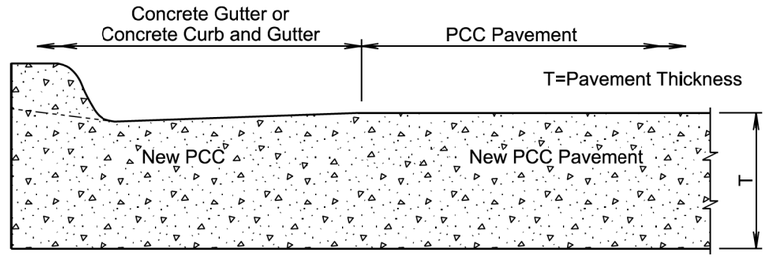
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

The transverse contraction joints in the concrete gutter or concrete curb and gutter will be placed at each mainline PCC pavement transverse contraction joint. The transverse contraction joints in the concrete gutter or the concrete curb and gutter will be 1½ inches deep if formed in fresh concrete using a suitable grooving tool. If a saw is used to cut the transverse contraction joints, then the depth of the joint will be at least ¼ the thickness of the concrete gutter or concrete curb and gutter.

Standard curb and gutter may not be placed monolithically with PCC pavement if the mainline lane width is greater than 12 feet.

The term "In Place *Gutter or Curb and Gutter" in the above drawing indicates that the in place *concrete gutter and concrete curb and gutter was placed on the current project.

POURED MONOLITHICALLY (Standard Concrete Curb and Gutter)



GENERAL NOTES:

The mainline curb and gutter may be placed monolithically with the PCC pavement if the mainline lane width is less than or equal to 12 feet. If this method of construction is used, the tie bars and the sawed joint between the curb and gutter and the PCC pavement will be eliminated.

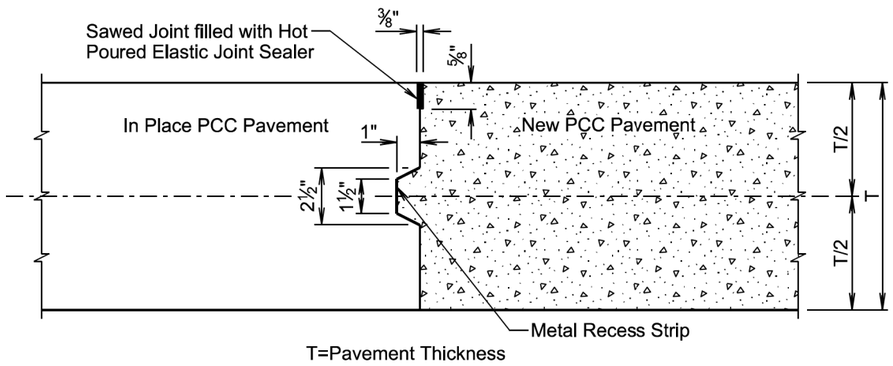
The gutter or curb and gutter will be sawed transversely at each mainline transverse contraction joint. The transverse contraction joints in the gutter or curb and gutter will be sawed and sealed same as the transverse contraction joints in the PCC pavement.

The slope of the gutter will be the slope designated for the type of gutter or curb and gutter to be constructed. The bottom slope of the gutter or curb and gutter will be constructed at the same slope as the mainline concrete pavement.

March 31, 2024

Published Date: 2025	SDDOT	PCC PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS WITH CONCRETE GUTTER OR CONCRETE CURB AND GUTTER	PLATE NUMBER 380.21
			Sheet 1 of 2

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS

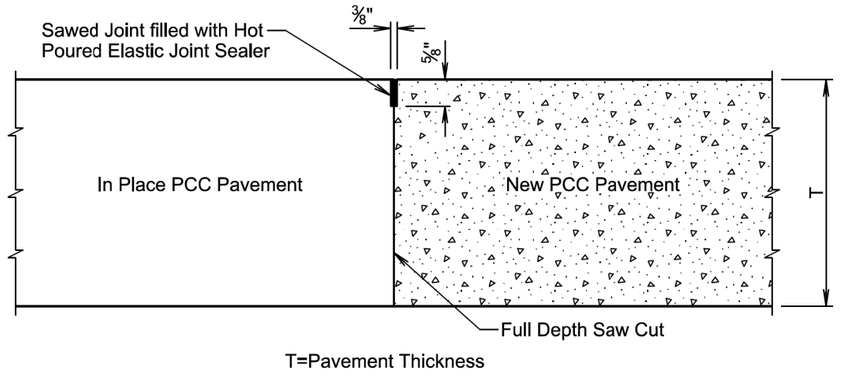


GENERAL NOTES:

When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on the current project.

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS



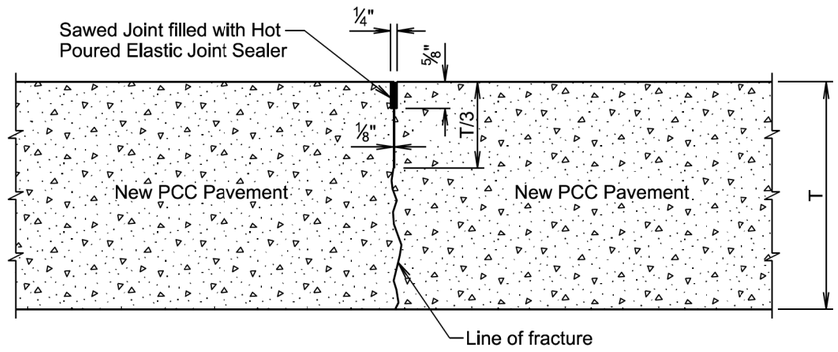
GENERAL NOTE:

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

November 19, 2022

Published Date: 2025	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITHOUT TIE BARS	PLATE NUMBER 380.22
			Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITHOUT TIE BARS



T=Pavement Thickness

GENERAL NOTE:

The first saw cut to control cracking will be a minimum of ⅓ the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer will be necessary.

November 19, 2022

Published Date: 2025	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITHOUT TIE BARS	PLATE NUMBER 380.22 Sheet 2 of 2