FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F1	F22

Plotting Date: 04-04-2025

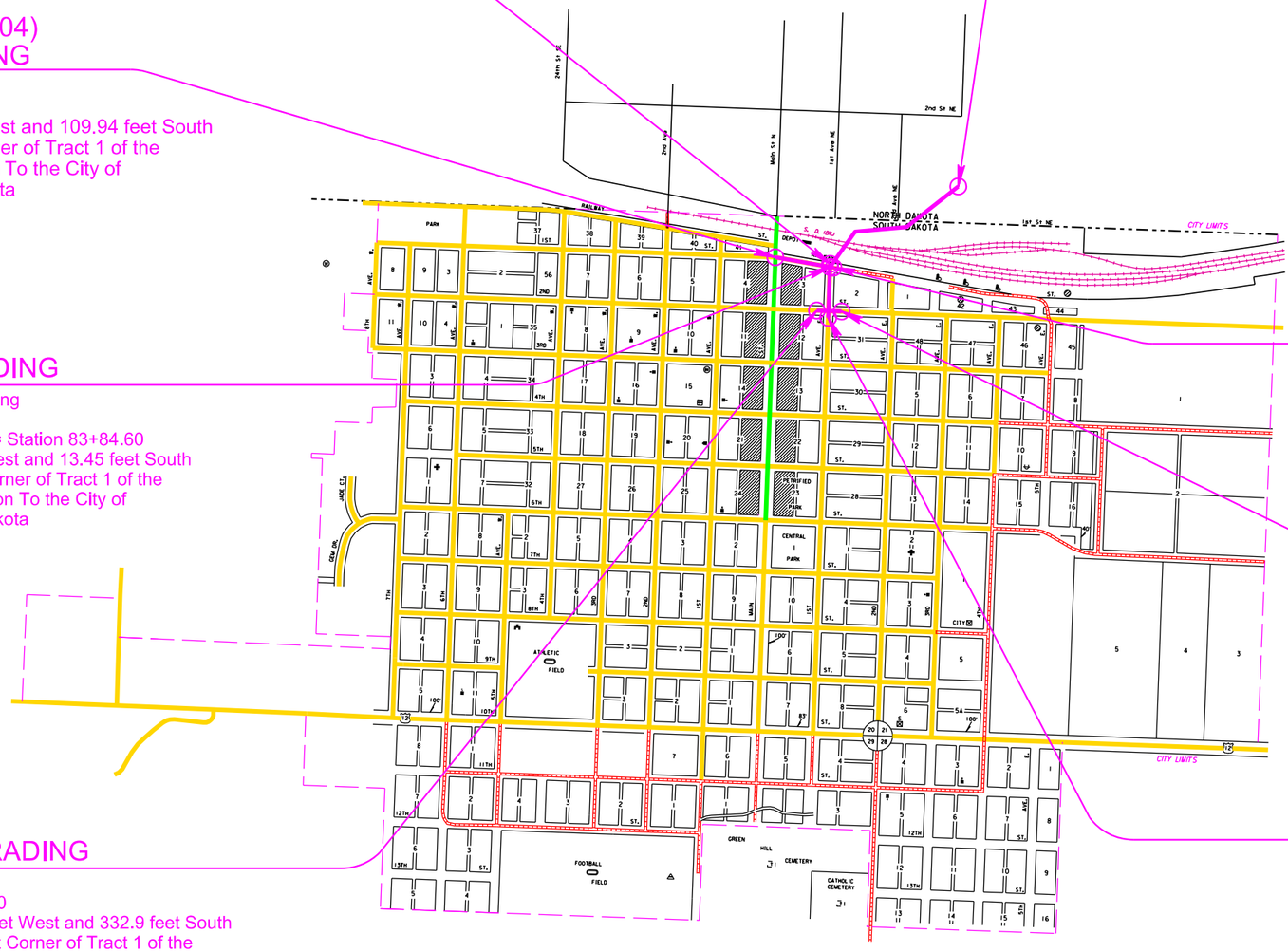
SECTION F: SURFACING PLANS

INDEX OF SHEETS

END GRADING
1st Avenue East
Station 104+00.00
located 80.5 feet West and 64.52 feet North
of the Southeast Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota

END GRADING
Storm Sewer Crossing
Station 207+20.49
located 79.3 feet East and 90.95 feet North
of the Northeast Corner of Section 20 -
Township 23 North - Range 16 East of
the B.H.M.

BEGIN P 6542(04)
BEGIN GRADING
1st Street East
Station 80+00.00
located 53.58 feet West and 109.94 feet South
of the Northwest Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota



BEGIN GRADING
Storm Sewer Crossing
Station 200+00.00
Station 200+00.00 = Station 83+84.60
located 82.9 feet West and 13.45 feet South
of the Southeast Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota

END P 6542(04)
END GRADING
1st Street East
Station 84+82.00
located 13.6 feet East and 29.57 feet South
of the Southeast Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota

END GRADING
2nd Street East
Station 45+00.00
located 23.1 feet East and 338.8 feet South
of the Southeast Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota

BEGIN GRADING
2nd Street East
Station 43+00.00
located 173.8 feet West and 332.9 feet South
of the Southeast Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota

BEGIN GRADING
1st Avenue East
Station 99+00.00
located 93.8 feet West and 435.5 feet South
of the Southeast Corner of Tract 1 of the
CHS Second Addition To the City of
Lemmon, South Dakota

3

August 20, 2025

Plotted From - CBOBZIEN

File - ...\Section F\Title Sheet

SECTION F – ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
260E2010	Gravel Cushion	15.0	Ton
260E3010	Gravel Surfacing	670.2	Ton
380E3020	6" PCC Driveway Pavement	47.1	SqYd

Section F - Surfacing - PCN 09V7 Surfacing Material - Alternate A - Asphalt Concrete Composite

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	33.2	MGal
260E1010	Base Course	2,085.5	Ton
320E1200	Asphalt Concrete Composite	1,045.0	Ton
380E1000	6" Miscellaneous PCC Pavement	54.6	SqYd

Section F - Surfacing - PCN 09V7 Surfacing Material - Alternate B - Portland Cement Concrete

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	33.2	MGal
260E2010	Gravel Cushion	2,096.9	Ton
380E0010	6" Nonreinforced PCC Pavement	3,131.8	SqYd
380E6000	Dowel Bar	4,682	Each

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Base Course and Asphalt Concrete or Gravel Cushion 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.

CHECKING SPREAD RATES CONTINUED

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.

SURFACING THICKNESS DIMENSIONS

The plans shown basis of estimate will be applied even though the thickness may vary from that shown in the plans.

At those locations where material must be placed to achieve a required elevation, the depth/quantity may be varied to achieve the required elevation.

Table of Base Course

Pavement/Surfacing Type	Depth of Base Course (inches)	Base Course (Ton)
8" PCC Fillet Section	8	64.9
Type B66 and P6 Curb and Gutter (+1')	10	365.7
Asphalt Concrete Composite (Section F)	10	1631.2
6" Miscellaneous PCC Pavement	6	17.1
4' Concrete Valley Gutters	10	6.5
	Total	2085.5

INTERSECTING ROADS AND ENTRANCES

In areas where granular material has been placed adjacent to the existing asphalt concrete, the Contractor will be required to remove the granular material to a depth below the existing asphalt concrete to allow for the placement of the new asphalt concrete. New asphalt concrete will be placed flush with the existing asphalt concrete. The existing granular material removed will be placed on the entrances, intersecting roads or other locations as directed by the Engineer.

All costs to remove and place the granular material including labor, equipment and incidentals will be incidental to the various related contract items.

PREPARATION FOR PARKING LOT & DRIVEWAY PAVEMENTS

The foundation will be excavated, shaped, and compacted to a firm, uniform bearing surface. Unsuitable foundation material will be removed and replaced as directed by the Engineer. The foundation will be thoroughly moistened immediately prior to placing the PCC Pavement. Moisture will be applied without forming pools of water.

Granular material will be placed to the depth specified and satisfactorily compacted.

Payment for any excavation will be incidental to the contract unit price of the surfacing material.

WATER FOR GRANULAR MATERIAL

Included in the Estimate of Quantities are 12 Gal of Water for Granular Material per Ton for compaction.

GRANULAR MATERIAL, FURNISH

Granular material will be furnished by the Contractor.

The granular material will be Base Course or Gravel Cushion meeting the requirements of Section 882.

GRAVEL SURFACING

To the extent possible, the Contractor will strip and salvage all granular material located within the project limits. If material is deemed not suitable for reuse, it will be removed. As such, this material is accounted for and will be paid at the contract unit price per cubic yard for Unclassified Excavation. If the material is deemed suitable for gravel surfacing, it will be the Contractor's responsibility to limit contamination of such material prior to placing the salvaged material. Stockpiling of the material may be necessary to facilitate other contract items and will be incidental to the line item for Unclassified excavation.

A table of estimated quantity for gravel surfacing is listed below.

The gravel surfacing will be placed on the project as closely following completion of grading the roadbed as feasible. At no time will grading operations be permitted to proceed adjacent to new concrete until sufficient concrete strength tests have been completed, or otherwise approved by the engineer.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
06/18/2025

Table of Gravel Surfacing

Station	Station	L/R	Gravel Surfacing (Tons)
43+25.49	44+82.84	L	16.1
43+25.45	44+67.66	R	32.3
80+66.27	84+51.85	L	277.6
80+53.24	84+51.85	R	42.8
101+49.13	102+71.62	R	19.8
101+55.54	102+87.46	L	13.4
203+17.55	206+04.47	L/R	268.3
		Total	670.2

ASPHALT CONCRETE COMPOSITE

Mineral Aggregate for Asphalt Concrete Composite will conform to the requirements of Class E, Type 1. All other requirements in the Standard Specifications for Asphalt Concrete Composite will apply. The Asphalt Binder used in the mixture will be PG 64-28 Asphalt Binder.

Asphalt Concrete Composite will include MC-70 Asphalt for Prime placed at the rate of 0.30 gallons per square yard. The Asphalt for Prime will be applied to the Base Course for the full width of the bottom layer of Asphalt Concrete Composite plus one foot additional on the outside shoulder.

Asphalt for tack SS-1h or CSS-1h will be applied prior to each lift of Asphalt Concrete Composite. Asphalt for tack will be applied at a rate of 0.09 gallons per square yard on existing pavement or milled asphalt concrete surfaces and at a rate of 0.06 gallons per square yard on primed base course or new asphalt concrete pavement. The Asphalt for tack will be applied for the full width of the bottom layer of Asphalt Concrete Composite plus one-half foot additional on the outside shoulder.

Table of Asphalt Concrete Composite

Station	Station	L/R	Asphalt Concrete Composite (Tons)
43+35.45	44+57.66	L/R	174
80+84.95	84.41.85	L/R	580
100+42.96	102+93.93	L/R	291
		Total	1045

EXISTING PCC PAVEMENT

It is unknown if the existing PCC pavement is reinforced in any way (wire mesh, rebar, etc..). The jointing varies significantly and any changes to sawing operations which may match existing joints more accurate will be submitted to the Engineer for approval.

CURING OF CONCRETE

Portland Cement Concrete Pavement, Driveway Pavement, Miscellaneous Pavement, Concrete Curb & Gutter, Concrete Valley 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.

6" PCC DRIVEWAY PAVEMENT

The concrete for the 6" PCC Driveway Pavement will comply with the requirements of the specifications for Class M6 Concrete, unless otherwise specified in the plans. The mix design can meet either Class M6 Concrete specifications or conform to the Special Provision for Contractor Furnished Mix Design for PCC Pavement or Section 380.

The surface of the 6" PCC Driveway Pavement will have a maximum 10% slope and the tie-ins will match the existing and/or new adjoining PCC Approach Pavement.

Contraction joints in the 6" PCC Driveway Pavement will be 1½ 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 ¼ the thickness of the approach pavement.

All costs for furnishing and placing the 6" PCC Driveway Pavement and constructing the expansion and contraction joints including labor, equipment, and materials (including the earthen backfill) will be incidental to the contract unit price per square yard for "6" PCC Driveway Pavement".

Payment for any excavation required for placing the 6" PCC Driveway Pavement and granular material will be incidental to the contract unit price of the surfacing material.

All costs for furnishing and placing the granular material will be incidental to the contract unit price per ton for "Gravel Cushion".

TABLE OF 6" PCC DRIVEWAY PAVEMENT

Station	L/R	Area (SqYd)
81+06	R	16.9
82+06	R	30.2
	Total	47.1

Table of Gravel Cushion

Pavement/Surfacing Type	Depth of Gravel Cushion (inches)	Gravel Cushion (Ton)
6" PCC Driveway Pavement	6	15.0
	Total	15.0

MANHOLE BOX-OUT DETAILS

The Contractor will construct box-outs for all manholes and gate valves in the surfacing areas according to one of the Box-Out Detail options. See 6" Miscellaneous PCC Pavement or Section B for locations of proposed manholes and water valve boxes.

6" MISCELLANEOUS PCC PAVEMENT

The concrete for 6" Miscellaneous PCC Pavement will comply with the requirements of the specifications for Class M6 Concrete, unless otherwise specified in the Plans. The mix design can meet either Class M6 Concrete specifications or conform to the Contractor Furnished Mix Design for PCC Pavements Special Provision.

The surface of the 6" PCC Pavement will tie-in to existing or proposed PCC/ACC and match the existing and/or new adjoining PCC or Asphalt Concrete elevation and slope.

If necessary, Contraction joints in the 6" PCC Pavement will be 1½ 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 ¼ the thickness of the approach pavement.

All costs for furnishing and placing the 6" Miscellaneous PCC Pavement and constructing the expansion and contraction joints including labor, equipment, and materials (including the earthen backfill) will be incidental to the contract unit price per square yard for 6" Miscellaneous PCC Pavement.

Payment for any excavation required for placing the 6" PCC Driveway Pavement and granular material will be incidental to the contract unit price of the surfacing material.

All costs for furnishing and placing the granular material will be incidental to the contract unit price per ton for Base Course.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
06/18/2025

TABLE OF 6” MISCELLANEOUS CONCRETE PAVEMENT

MH ID	Station	L/R	Area (SqYd)
MH #12	43+39.79	L	2.44
GV	43+52.74	R	0.43
MH #A8	43+83.09	R	2.44
GV	43+96.41	R	0.43
GV	44+00.57	R	0.43
EX JB#4	80+49.67	L	2.44
MH#7	81+22.02	L	2.44
MH#6	82+43.98	L	2.44
MH#5	83+31.53	L	2.44
MH AB1	83+85.32	R	2.43
MH #11	99+66.21	L	2.44
MH #10	100+13.22	L	2.44
MH #8	102+94.9	L	2.49
		Total	25.73

Station to	Station	L/R	Quantity Area (SqYd)
80+45.31	80+50.96	L	28.85
		Total:	28.85
	Project Total:		54.58*

*If alternative surfacing is awarded, this quantity is included in Mainline Alternative pavement.

SAW AND SEAL JOINTS

Longitudinal and transverse joints at concrete repair areas will be sawed and sealed.

Joint sealing will conform to Section 380.3 P.

Longitudinal and transverse joints in urban sections will be sealed with Hot Poured Elastic Joint Sealer. Transverse joints in rural sections will be sealed with Low Modulus Silicone Sealant. Longitudinal joints in rural sections may be sealed with either Hot Poured Elastic Joint Sealer or Low Modulus Silicone Sealant.

Acceptance of the Low Modulus Silicone Sealant and Hot Poured Elastic Joint Sealer will be based on visual inspection by the Engineer.

Cost for sawing and sealing of the longitudinal construction joint and both transverse joints will be incidental to the contract unit prices associated with project items.

Alternate B Notes

6" NONREINFORCED PCC PAVEMENT

The aggregate may require screening as determined by the Engineer.

The concrete mix used in the PCC Pavement will conform to the Special Provision for Contractor Furnished Mix Design for PCC Pavement.

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.

It is anticipated that pavement blockouts may be required at various locations on this project to facilitate traffic during the paving activity, unless otherwise approved by the Engineer and CHS Southwest Grain.

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 entire surface of the mainline paving will be a heavy carpet drag. The surface of the mainline paving will receive a heavy carpet drag to within 2 or 3 feet of the face of the curb. All other areas will be textured as directed by the Engineer.

TRANSVERSE CONTRACTION JOINTS

Unless specified otherwise in the PCC Pavement Joint Layout Sheets or elsewhere in the plans, the typical joint spacing for the 6” Nonreinforced PCC Pavement will be 10’.

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.

CURB AND GUTTER

Some curb and gutter may be placed monolithically or may be placed with a separate operation according to Standard Plate 380.21.

Table of 6" Nonreinforced PCC Pavement

Station	Station	L/R	Non-reinforced PCC Pavement (SY)
43+35.45	44+57.66	L/R	519.8
80+84.95	84+41.85	L/R	1738.9
100+42.96	102+93.93	L/R	873.1
		Total	3131.8

Table of Alternate Gravel Cushion

Pavement/Surfacing Type	Depth of Gravel Cushion (inches)	Gravel Cushion (Ton)
8" PCC Fillet Section	8	64.9
Type B66 and P6 Curb and Gutter (+1')	10	365.7
6” Nonreinforced PCC Pavement	10	1659.7
4' Concrete Valley Gutters	10	6.5
	Total	2096.9

TABLE OF DOWEL BARS

Location	12 Bar Assembly Dowel Bar (Size 3/4”) Each
Mainline	
Sta. 43+35.45 to 44+57.66	734
Sta. 80+84.95 to Sta. 84+41.85	1,782
Sta. 100+42.96 to Sta. 102+93.93	2,166
Total:	4,682

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
06/18/2025

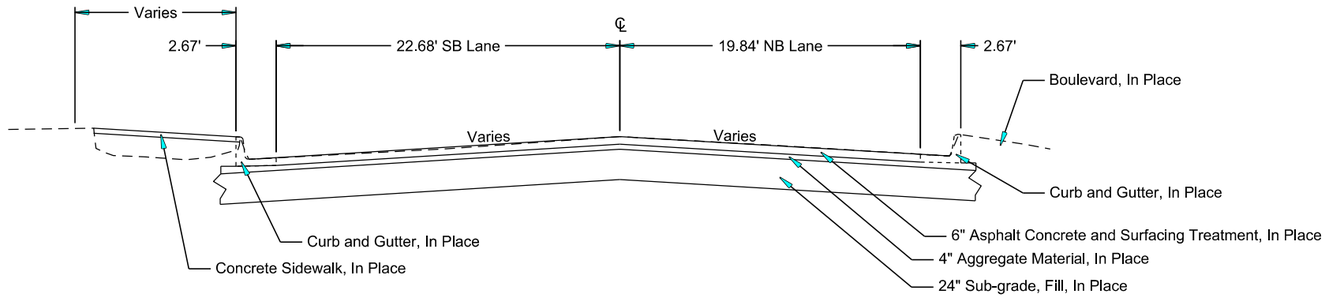
FOR BIDDING PURPOSES ONLY

In Place Typical Sections

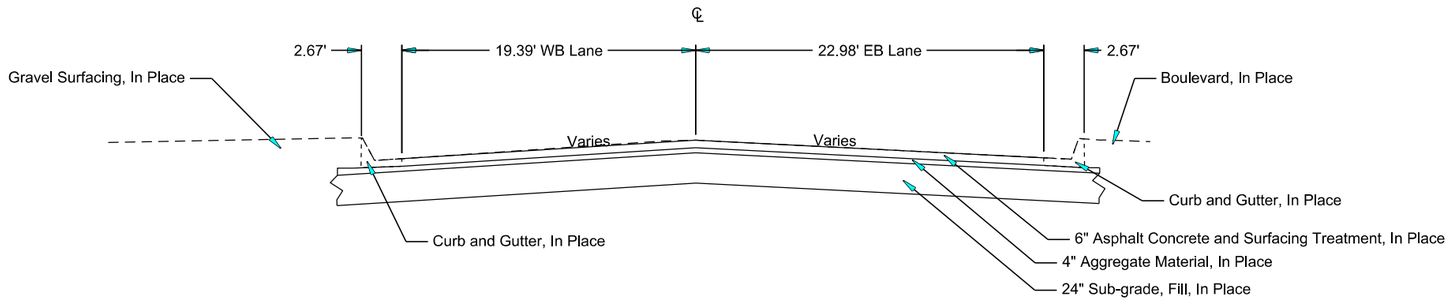
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F5	F22

Plotting Date: 04-04-2025

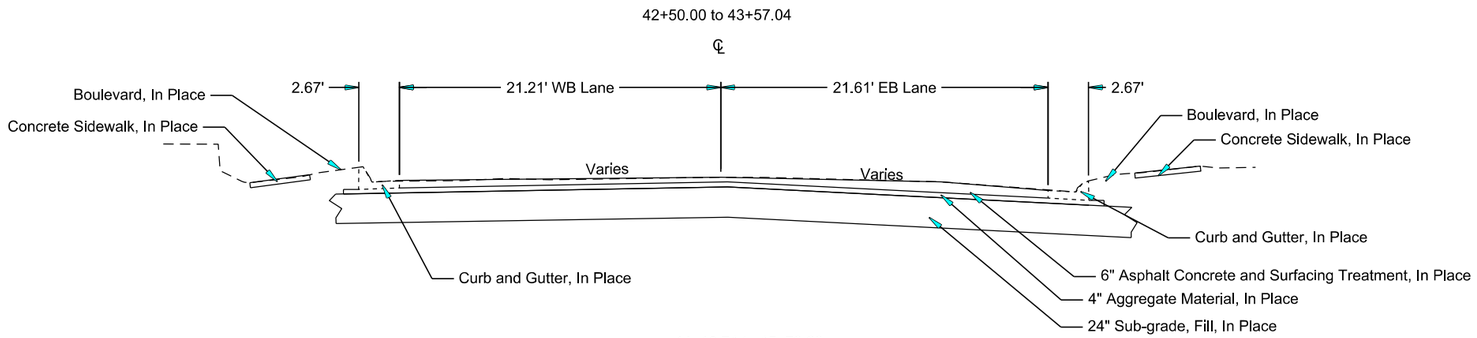
100+20.15 to 102+93.93



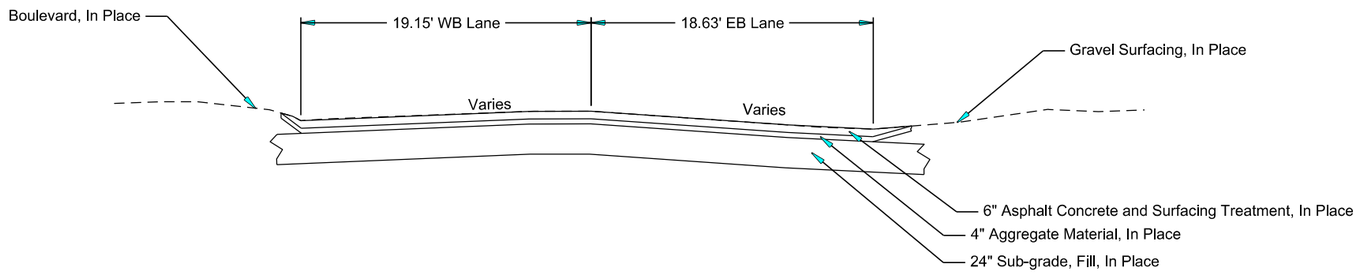
80+84.95 to 84+41.85



42+50.00 to 43+57.04



44+10.71 to 45+72.23



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SOUTH DAKOTA
05/29/2025

Plotted From - CBOBZIEN

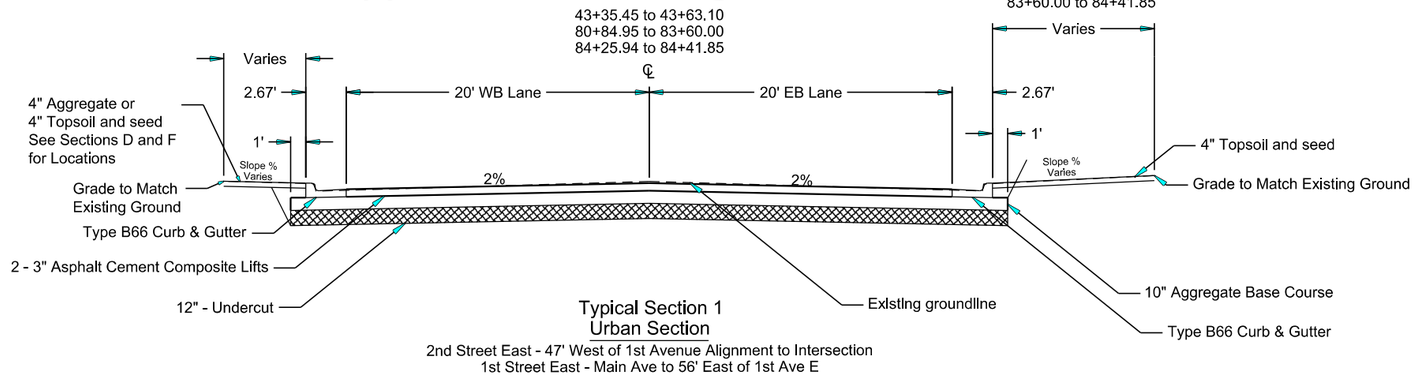
File - ...\Section F\Typical Sections

FOR BIDDING PURPOSES ONLY

Typical Surfacing Sections

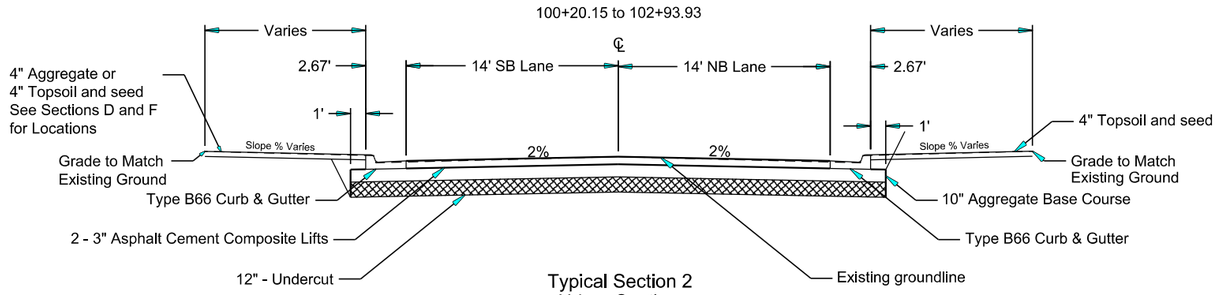
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F6	F22

Plotting Date: 04-04-2025



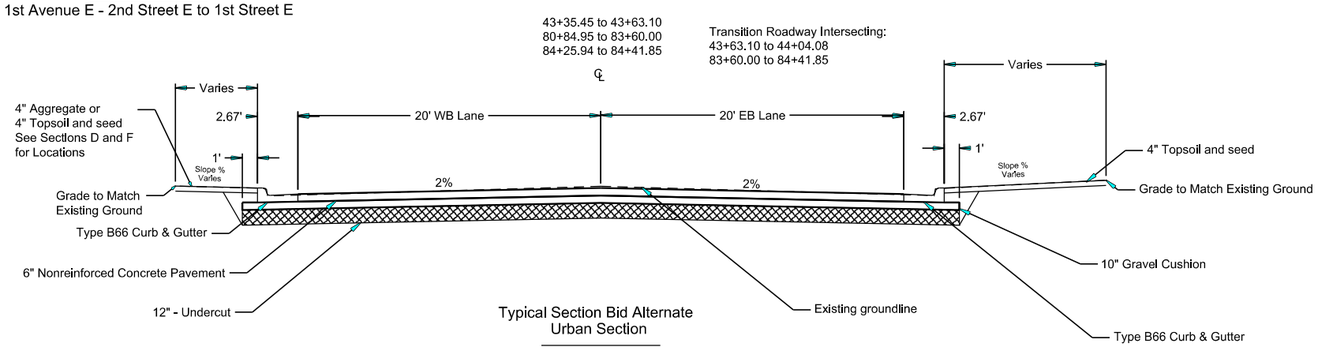
Typical Section 1
Urban Section

2nd Street East - 47' West of 1st Avenue Alignment to Intersection
1st Street East - Main Ave to 56' East of 1st Ave E



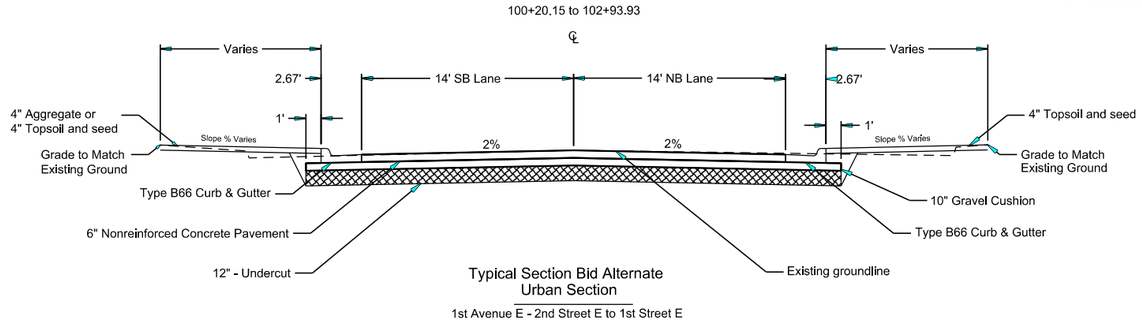
Typical Section 2
Urban Section

1st Avenue E - 2nd Street E to 1st Street E



Typical Section Bid Alternate
Urban Section

2nd Street East - 47' West of 1st Avenue Alignment to Intersection
1st Street East - Main Ave to 56' East of 1st Ave E



Typical Section Bid Alternate
Urban Section

1st Avenue E - 2nd Street E to 1st Street E

Plotted From - CBOBZIEN

File - ...\Section F\Typical Sections

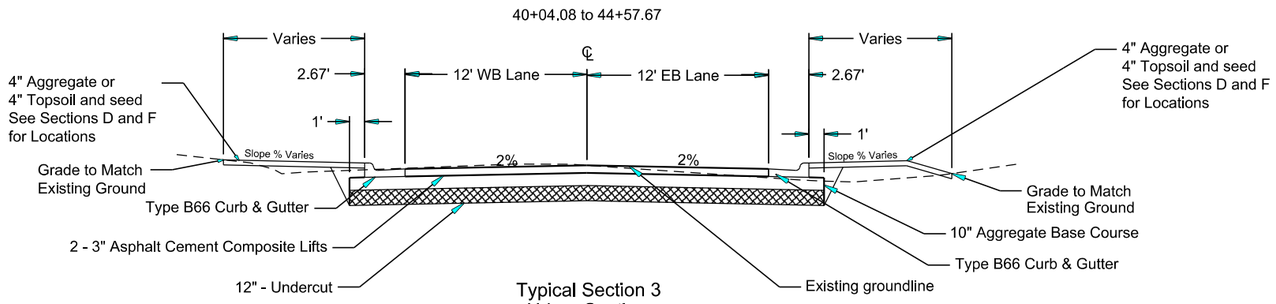
FOR BIDDING PURPOSES ONLY

Typical Surfacing Sections

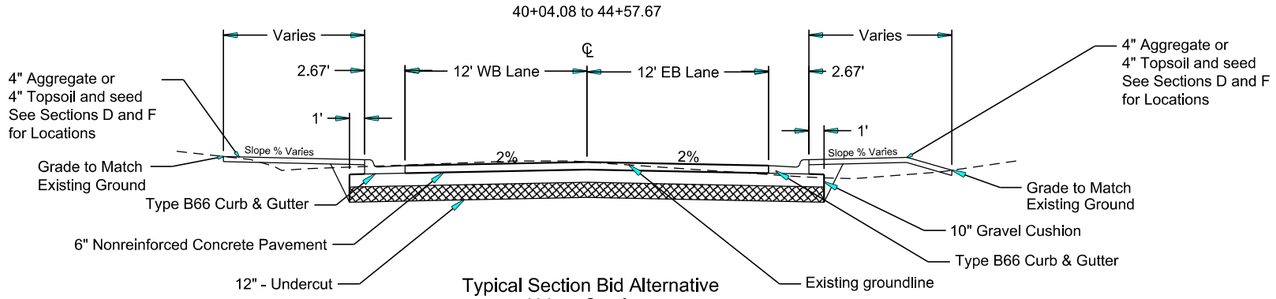
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F7	F22

Plotting Date: 04-04-2025

Transition Roadway Intersecting:
43+63.10 to 44+04.08
83+60.00 to 84+41.85



Typical Section 3
Urban Section
2nd Street E - Intersection to 75' East of 1st Avenue Alignment



Typical Section Bid Alternative
Urban Section
2nd Street E - Intersection to 75' East of 1st Avenue Alignment

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
05/29/2025

Plotted From - CBOBZIEN

File - ...\Section F\Typical Sections

FOR BIDDING PURPOSES ONLY

Revised - 06/18/2025

Surfacing Plan

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F8	F22

Plotting Date: 06-18-2025

NOTE: CONTRACTOR WILL SUBMIT
MANHOLE ADJUSTMENT PREFERENCE TO MEET
SHEET F22

Legend

- Limits of Construction
- Existing ROW
- PCC Fillet/C&G/Approach Pavement
- Asphalt
- 6" Gravel Surfacing

SCALE IN FEET
0 20 40

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
06/18/2025

CHS 2ND ADDITION

CHS INC
Parcel 1

TRACT 1

RR
Parcel 2

ADJUST EXISTING MANHOLE TO FINAL SURFACING GRADE

ADJUST MANHOLE TO FINAL SURFACING GRADE

ADJUST EXISTING MANHOLE TO FINAL SURFACING GRADE

ADJUST MANHOLE TO FINAL SURFACING GRADE

ADJUST EXISTING WATER VALVE BOX TO FINAL GROUND (INCIDENTAL)

20' paving from C-L

14' paving from C-L

80+00 81+00 82+00 83+00 84+00 84+82

102+00 104+00

1st Street

Main Street

1st Avenue East

CITY OF LEMMON
Parcel 10

LOT 16

LOT 15

CITY OF LEMMON

BLAIR L JOHNSON TRUST FBO

LOT 14

LOT 13

LOT 12

LOT 11

SHARI SMITH
Parcel 12

LEMMON ORIGINAL

BLOCK 3

LOT 2

SHARI SMITH

DAKOTA PROPANE GAS

LOT 6

DAKOTA PROPANE GAS
Parcel 13

BLOCK 2

DAKOTA PROPANE GAS

Parcel 14

HARVEST STATES COOPERATIVES

Plotted From - CBOBZIEN

File - ...\F8_Surfacing_Plan.dgn

FOR BIDDING PURPOSES ONLY

Revised: 6/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F9	F22

Surfacing Plan

SCALE IN FEET
0 20 40

Legend

- Limits of Construction
- Existing ROW
- PCC Fillet/C&G/Approach Pavement
- Asphalt
- 6" Gravel Surfacing

NOTE: CONTRACTOR WILL SUBMIT MANHOLE ADJUSTMENT PREFERENCE TO MEET SHEET F22

ADJUST EXISTING WATER VALVE BOX TO FINAL SURFACE GRADE

ADJUST MANHOLE TO FINAL SURFACE GRADE

ADJUST EXISTING WATER VALVE BOX TO FINAL SURFACING GRADE

ADJUST EXISTING WATER VALVE BOX IF N 90' 7 & IN 90' LOT 8 TO FINAL SURFACING GRADE

ADJUST EXISTING WATER VALVE BOX TO FINAL GROUND (INCIDENTAL)

ADJUST EXISTING MANHOLE TO FINAL SURFACE GRADE

14' paving from C-L

1st Avenue East

2nd Street

1st Street

LEMMON ORIGINAL

LOT 1 LOT 2 LOT 3 LOT 4 LOT 5

BLOCK 2 BLOCK 3 BLOCK 31

B&C PLUMBING & HEATING LLC

SHARI SMITH Parcel 11

SHARI SMITH Parcel 12

DAKOTA PROPANE GAS Parcel 13

KURT BORRIS S 50' OF LOTS 7 & 8

STOCKS ELECTRIC SALES & SERVICE CO

W 41' OF LOT 6 & E 25' OF N 90' OF LOT 7

CHS INC

RR Parcel 2

99+00 100+00 101+00 102+00 103+00 104+00 43+00 44+00 45+00 83+00 84+00 84+82 200+00 202+00

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
06/18/2025

Plotted From - CBOBZIEN

File - ...\F9_Surfacing_Plan.dgn

FOR BIDDING PURPOSES ONLY

Surfacing Plan

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F10	F22

Plotting Date: 04-04-2025

Legend

- Limits of Construction
- Existing ROW
- PCC Fillet/C&G/Approach Pavement
- Asphalt
- 6" Gravel Surfacing

N

SCALE IN FEET
0 20 40

AVOIDANCE AREA
DO NOT DISTURB
ESS1

RR
Parcel 2

104+00
84+00
84+82
201+00
202+00
203+00
204+00
205+00
206+00
501

ESS
SS
OH

Street

RR

RR
Parcel 2

RR
Parcel 2

TOM MUNYON
Parcel 3A

BLOCK 12A LOT 1

BLOCK 12

Sec 20 - T23N - R16W

Sec 21 - T2

MON ORIGINAL

Parcel 14

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
10974
Craig M.
Mizera
SOUTH DAKOTA
05/29/2025

Plotted From - CBOBZIEN

File - ...\Bore pipe under railroad

FOR BIDDING PURPOSES ONLY

PCC PAVEMENT JOINT LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F11	F22

Plotting Date: 04-04-2025

NOTE: CONTRACTOR WILL SUBMIT A MANHOLE ADJUSTMENT PREFERENCE FOR APPROVAL PRIOR TO PAVEMENT SURFACING OPERATIONS.

Legend

- Limits of Construction
- Existing ROW
- PCC Fillet/C&G/Approach Pavement
- 6" Gravel Surfacing

SCALE IN FEET 0 20 40

CHS 2ND ADDITION

CHS INC
Parcel 1

TRACT 1

RR
Parcel 2

Box Out Manhole Cover

Box Out Manhole Cover

Begin Concrete Surfacing
Sta. 80+49.85

80+00 | 81+00 | 82+00 | 83+00 | 84+00 | 84+82

6" Nonreinforced PCC Pavement

1st Street

Main Street

1st Avenue East

End Concrete Surfacing
Sta. 84+41.85

ADJUST EXISTING MANHOLE TO FINAL SURFACING GRADE

ADJUST EXISTING WATER VALVE BOX TO FINAL GROUND (INCIDENTAL)

SHARI SMITH
Parcel 12 Box Out Manhole Over

CITY OF LEMMON
Parcel 10

LOT 16

LEMMON ORIGINAL

BLOCK 3

LOT 2

SHARI SMITH

DAKOTA PROPANE GAS

DAKOTA PROPANE GAS
Parcel 13

BLOCK 2

DAKOTA PROPANE GAS

Parcel 14

HARVEST STATES COOPERATIVES

LOT 6

LOT 11

BLAIR L JOHNSON TRUST FBO

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)

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

DETAIL A — 18"-24" Typical

DETAIL B — 18"-24" Typical

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
05/29/2025

Plotted From - CBOBZIEN

File - ...\1st Street - Sta. 80+00 to 84+82- PCC JOINTING PLAN

FOR BIDDING PURPOSES ONLY

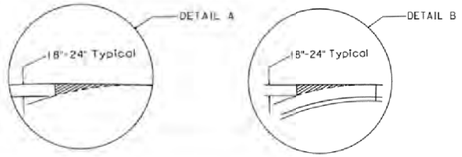
PCC PAVEMENT JOINT LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F12	F22

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)

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



SCALE IN FEET
0 20 40

Legend

- Limits of Construction
- Existing ROW
- PCC Fillet/C&G/Approach Pavement
- 6" Gravel Surfacing

NOTE: CONTRACTOR WILL SUBMIT A MANHOLE ADJUSTMENT PREFERENCE FOR APPROVAL PRIOR TO PAVEMENT SURFACING OPERATIONS.

Begin Concrete Surfacing Sta. 43+35.48

Box Out Manhole Cover

Box Out Manhole Cover

Box Out Manhole Cover

End Concrete Surfacing Sta. 102+97.70

ADJUST EXISTING WATER VALVE BOX TO FINAL SURFACING GRADE

ADJUST EXISTING MANHOLE # TO FINAL SURFACE GRADE

Box Out Manhole Cover

End Concrete Surfacing Sta. 99+57.34

ADJUST EXISTING WATER VALVE BOX TO FINAL SURFACING GRADE

ADJUST EXISTING WATER VALVE BOX TO FINAL SURFACING GRADE

Begin Concrete Surfacing Sta. 100+20.21

ADJUST EXISTING WATER VALVE BOX TO FINAL GROUND (INCIDENTAL)

End Concrete Surfacing Sta. 44+57.57

ADJUST MANHOLE TO FINAL SURFACE GRADE Parcel 13

6" Nonreinforced PCC Pavement

B&C PLUMBING & HEATING LLC
LOT 3
BLOCK 3
LEMMON ORIGINAL
LOT 2
LOT 1
SHARI SMITH Parcel 12
SHARI SMITH Parcel 11
SHARI SMITH
LOT 4
LOT 3
2nd Street
1st Street
1st Avenue East
KURT BORRIS S 50' OF LOTS 7 & 8
1ST ADDITION
BLOCK 31
W 41' OF LOT 6 & E 25' OF N 90' OF LOT 7
CHS INC
W 25' OF N 90' OF LOT 7 & N 90' LOT 8
STOCKS ELECTRIC SALES & SERVICE CO
LOT 5
LOT 4
BLOCK 2
DAKOTA PROPANE GAS Parcel 13
DAKOTA PROPAN GAS
RR Parcel 2
99+00
100+00
101+00
102+00
103+00
104+00
43+00
44+00
45+00
83+00
84+00
84+82
200+00
202+00

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
05/29/2025

Plotted From - CBOBZIEN

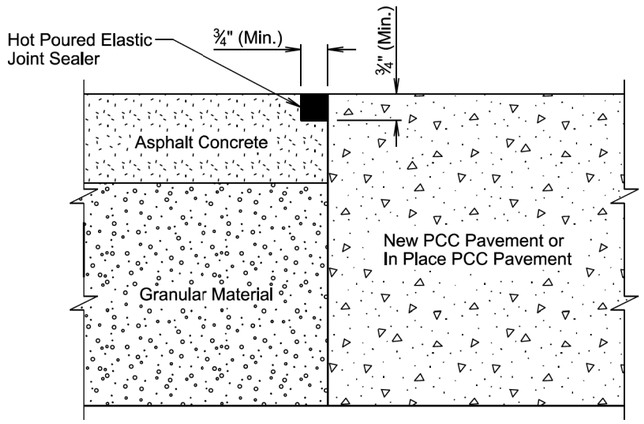
File - ...\1st Avenue East - Sta. 100+00 to 104+00_PCCJOINTPLAN

FOR BIDDING PURPOSES ONLY
Revised: 06/18/2025

Standard Plates

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F13	F22

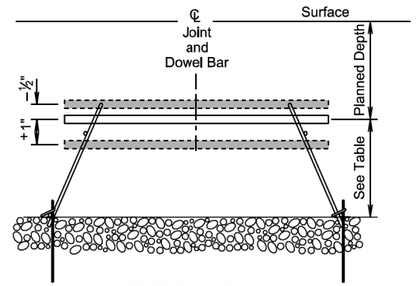
Plotting Date: 06-18-2025



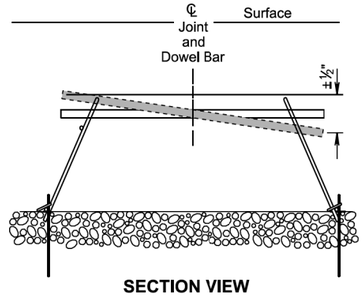
TRANSVERSE SECTION
(Asphalt Concrete Shoulder Joint)

September 14, 2019

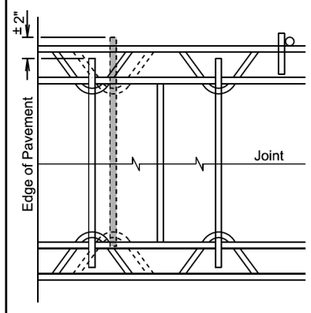
Published Date: 2026	SDDOT	ASPHALT CONCRETE SHOULDER JOINT ADJACENT TO PCC PAVEMENT	PLATE NUMBER 320.15 Sheet 1 of 1



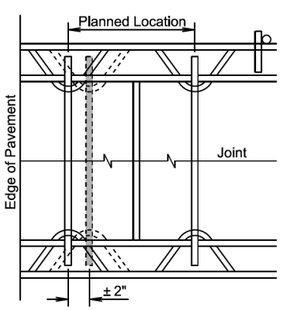
SECTION VIEW
VERTICAL TRANSLATION
Depth: mid-depth + 1 inch or – ½ inch



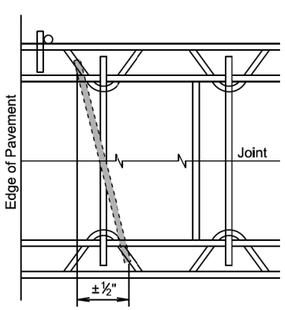
SECTION VIEW
VERTICAL TILT
Vertical rotational alignment: ½ inch over 18 inch



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: 2026	SDDOT	PCC PAVEMENT DOWEL BAR ALIGNMENT TOLERANCES	PLATE NUMBER 380.01 Sheet 1 of 1

Plotted From - CBOBZIEN

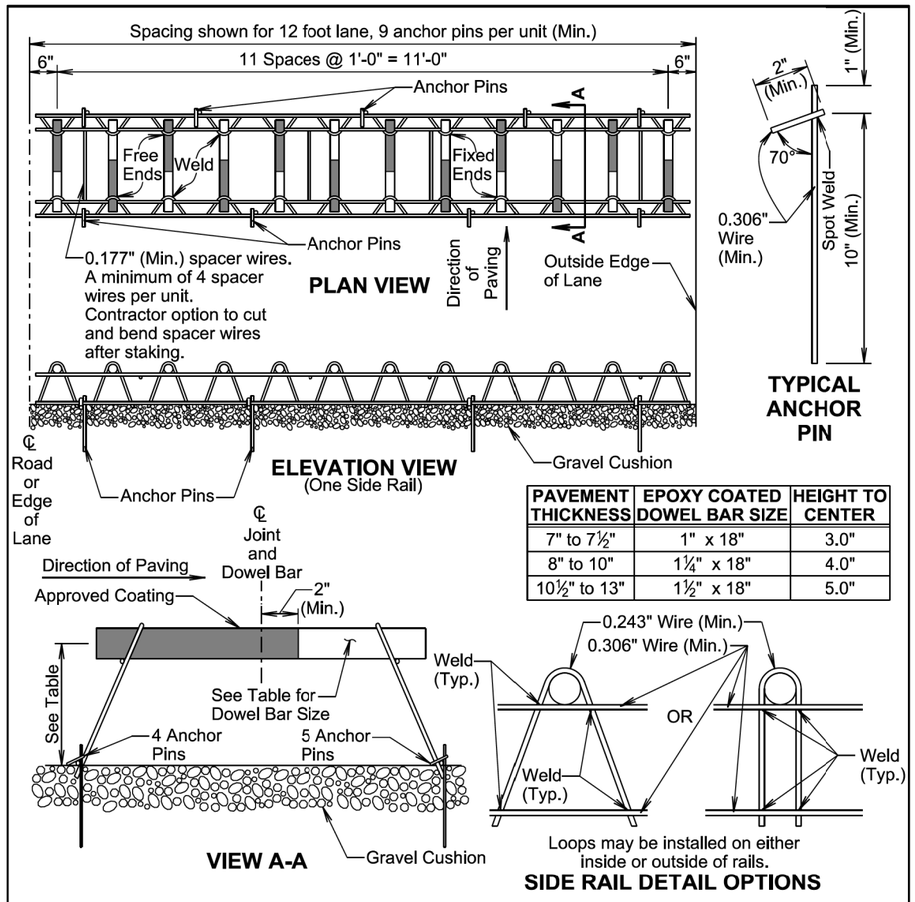
File - ...\F13_Standard_Plates.dgn

FOR BIDDING PURPOSES ONLY

Standard Plates

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F14	F22

Plotting Date: 06-18-2025



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 NOTES:

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

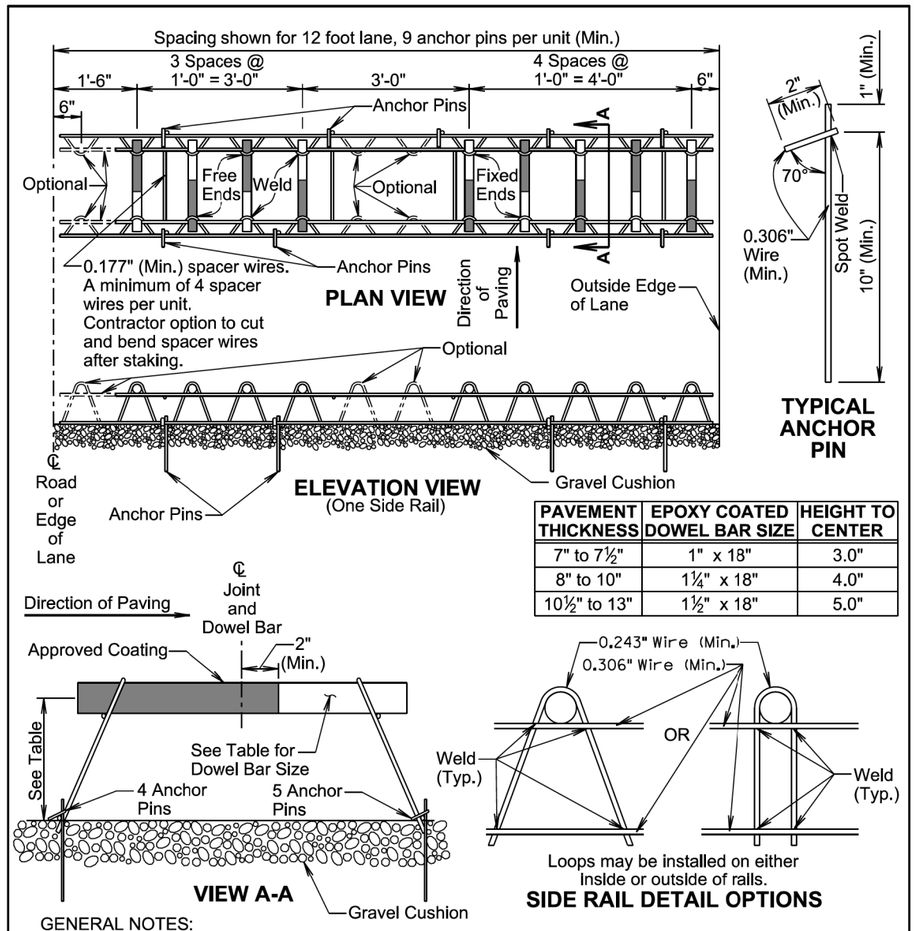
The transverse contraction joints will be sawed perpendicular to the centerline of the roadway. The transverse sawed joint will be centered over the dowel bars.

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: 2026	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



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 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: 2026	SDDOT	PCC PAVEMENT DOWEL BAR ASSEMBLY FOR TRANSVERSE CONTRACTION JOINTS 9 Bar Assembly on Granular Base Material	PLATE NUMBER 380.06
			Sheet 1 of 1

Plotted From - CBOBZIEN

File - ...\F14_Standard_Plates.dgn

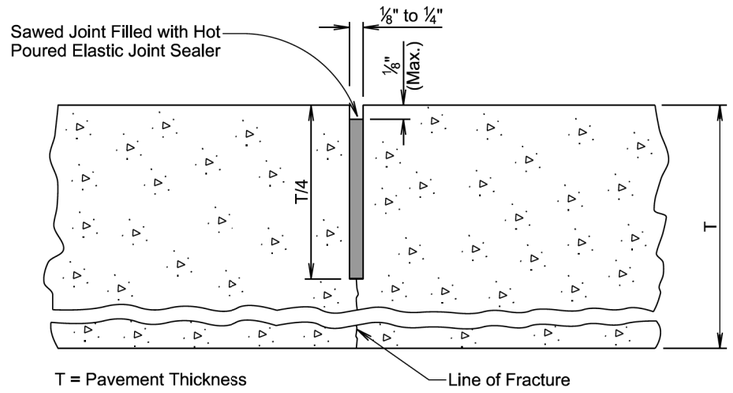
FOR BIDDING PURPOSES ONLY

Standard Plates

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F15	F22

Revised: 06/18/2025

Plotting Date: 06-18-2025



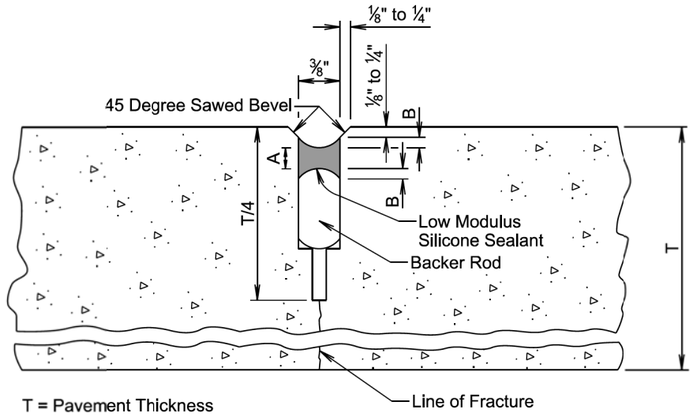
GENERAL NOTES:

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: 2026	SDDOT	PCC PAVEMENT TRANSVERSE CONTRACTION JOINT WITH OR WITHOUT DOWEL BAR ASSEMBLY	PLATE NUMBER 380.12 Sheet 1 of 1



LOW MODULUS SILICONE SEALANT ALLOWABLE CONSTRUCTION TOLERANCES			
A (Min.) (in.)	A (Max.) (in.)	B (Min.) (in.)	B (Max.) (in.)
3/16	5/16	⅛	¼

GENERAL NOTES:

The first saw cut to control cracking will be a minimum of ¼ the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the low modulus silicone joint sealant will be necessary.

The backer rod will be a non-moisture absorbing resilient material approximately 25% larger in diameter than the width of the joint to be sealed.

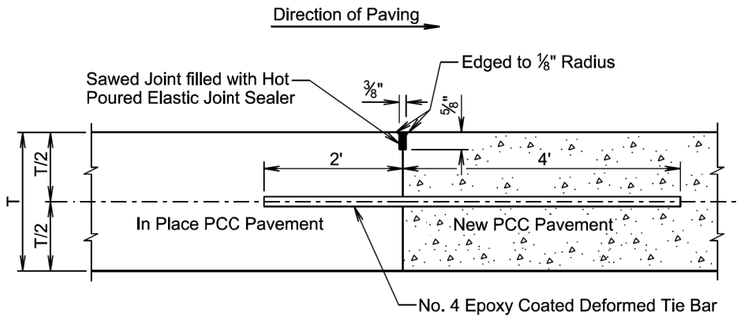
November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT BEVELED TRANSVERSE CONTRACTION JOINT WITH OR WITHOUT DOWEL BAR ASSEMBLY	PLATE NUMBER 380.13 Sheet 1 of 1

Plotted From - CBOBZIEN

File - ...\F15_Standard_Plates.dgn

Standard Plates



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.

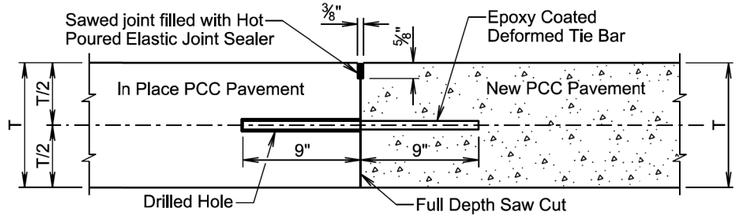
When a transverse construction joint is made, paving will not be allowed in this area for 12 hours.

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: 2026	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:

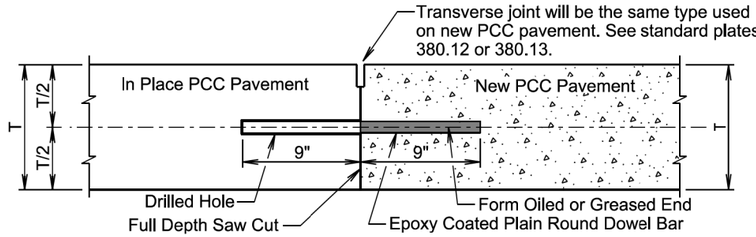
The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

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.

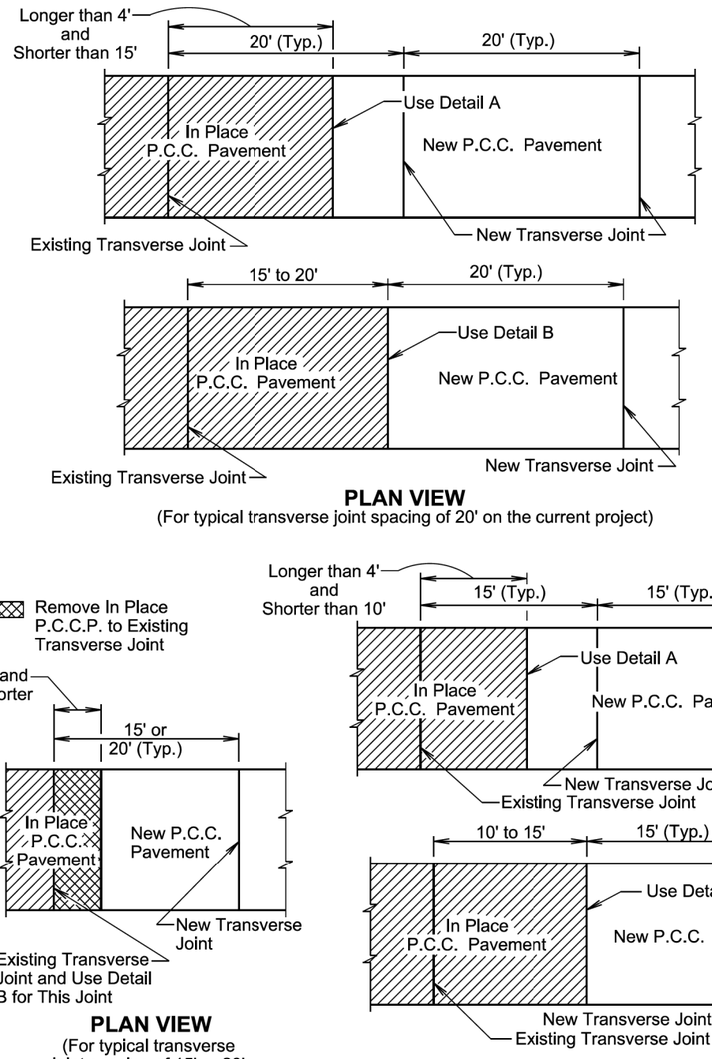
The epoxy coated plain round dowel bar size, number, and spacing will be the same as detailed on the corresponding dowel bar assembly standard plate (380.04, 380.05, 380.06, or 380.07). The epoxy coated plain round dowel bars will be a minimum of 3 inches and a maximum of 6 inches from the pavement edges.

January 22, 2023

Published Date: 2026	SDDOT	PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS	PLATE NUMBER 380.15 Sheet 1 of 2

Plotted From - CBOBZIEN
File - ...\F16_Standard_Plates.dgn

Standard Plates



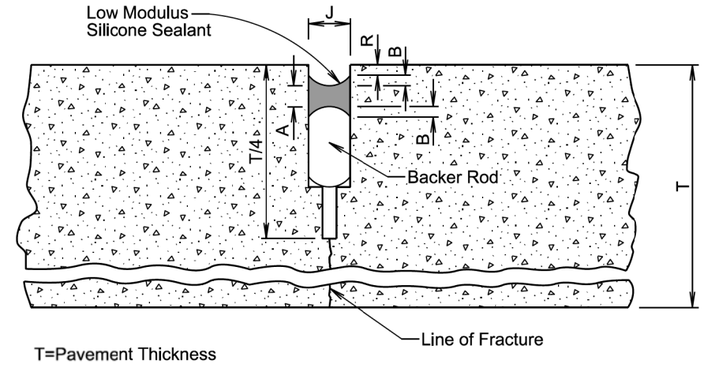
PLAN VIEW
(For typical transverse joint spacing of 20' on the current project)

PLAN VIEW
(For typical transverse joint spacing 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: 2026	SDDOT	PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS	PLATE NUMBER 380.15
			Sheet 2 of 2



T=Pavement Thickness

LOW MODULUS SILICONE SEALANT ALLOWABLE CONSTRUCTION TOLERANCES

J=3/8"				
A (Min.) (in.)	A (Max.) (in.)	B (Min.) (in.)	B (Max.) (in.)	R (in.)
3/16	5/16	1/8	1/4	1/4

J=1/2"				
A (Min.) (in.)	A (Max.) (in.)	B (Min.) (in.)	B (Max.) (in.)	R (in.)
3/16	3/8	1/8	1/4	1/4

J=5/8"				
A (Min.) (in.)	A (Max.) (in.)	B (Min.) (in.)	B (Max.) (in.)	R (in.)
1/4	7/16	1/8	5/16	1/4

J=3/4"				
A (Min.) (in.)	A (Max.) (in.)	B (Min.) (in.)	B (Max.) (in.)	R (in.)
5/16	1/2	3/16	3/8	5/16

J=1"				
A (Min.) (in.)	A (Max.) (in.)	B (Min.) (in.)	B (Max.) (in.)	R (in.)
3/8	5/8	3/16	1/2	5/16

GENERAL NOTE:

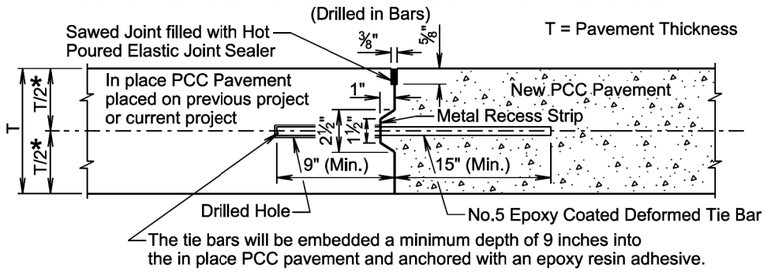
The backer rod will be a nonmoisture absorbing resilient material approximately 25% larger in diameter than the width of the joint to be sealed.

November 19, 2022

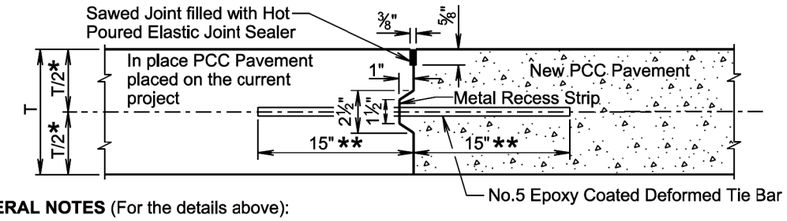
Published Date: 2026	SDDOT	RESEAL PCC PAVEMENT JOINT (SILICONE)	PLATE NUMBER 380.16
			Sheet 1 of 1

Standard Plates

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.

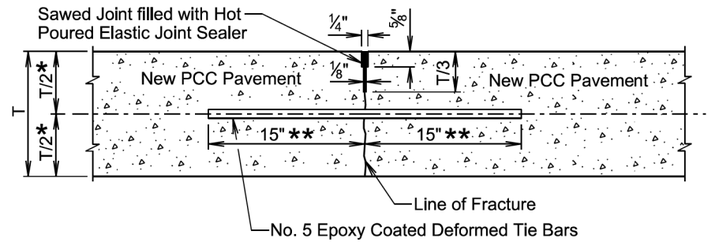
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

* 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: 2026	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: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.20 Sheet 2 of 2

Plotted From - CBOBZIEN
File - ...\F18_Standard_Plates.dgn

FOR BIDDING PURPOSES ONLY

Standard Plates

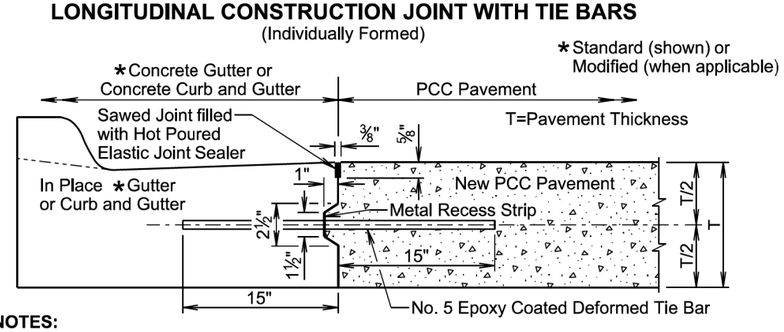
Revised: 06/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F19	F22

Plotting Date: 06-18-2025

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.

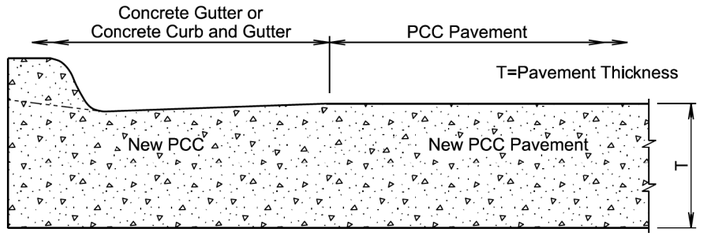
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

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.

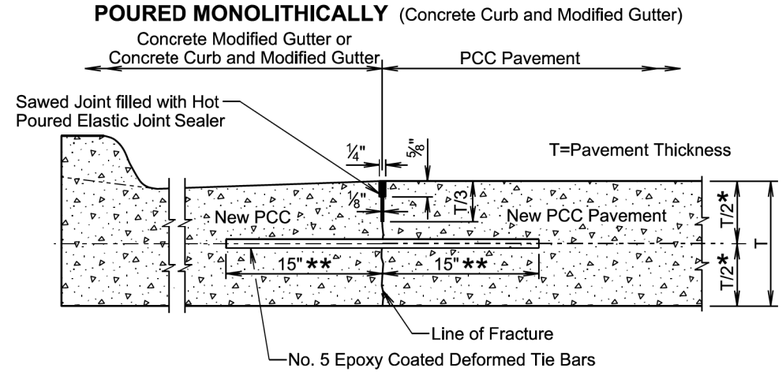
The gutter or curb and gutter will be sawed transversely at each mainline transverse contraction joint. The transverse contraction joints in the gutter or curb and gutter will be sawed and sealed same as the transverse contraction joints in the PCC pavement.

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: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS WITH CONCRETE GUTTER OR CONCRETE CURB AND GUTTER	PLATE NUMBER 380.21
			Sheet 1 of 2

POURED MONOLITHICALLY (Concrete Curb and Modified Gutter)



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 mainline curb and modified gutter may be placed monolithically with the PCC pavement if the mainline lane width is less than or equal to 14 feet.

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 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.

* 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.

March 31, 2024

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS WITH CONCRETE GUTTER OR CONCRETE CURB AND GUTTER	PLATE NUMBER 380.21
			Sheet 2 of 2

Plotted From - CBOBZIEN

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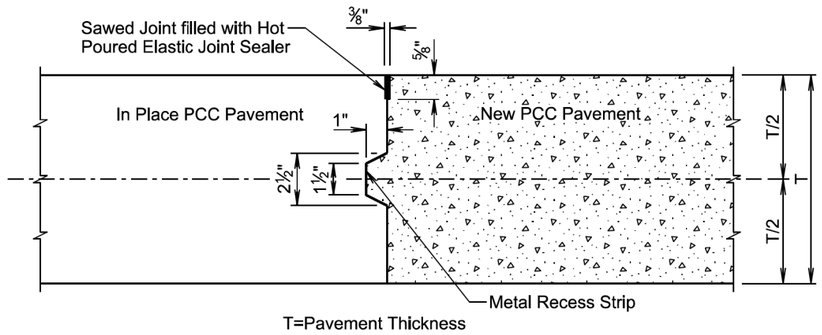
LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS



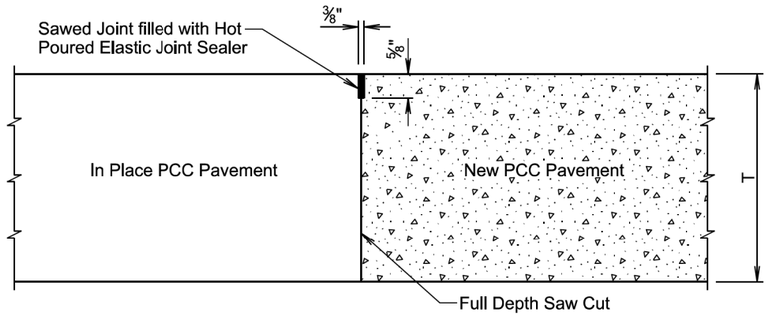
T=Pavement Thickness

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



T=Pavement Thickness

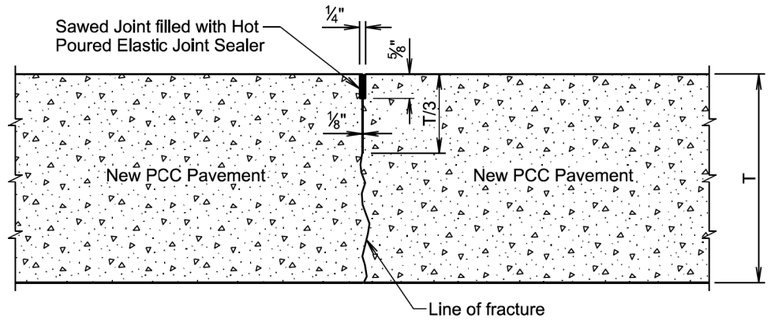
GENERAL NOTE:

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: 2026	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: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITHOUT TIE BARS	PLATE NUMBER 380.22
			Sheet 2 of 2

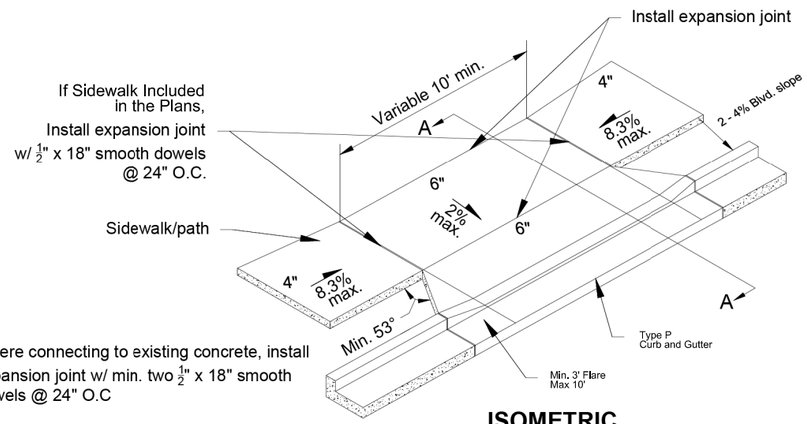
Plotted From - CBOBZIEN
File - ...\F20_Standard_Plates.dgn

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F21	F22

Plotting Date: 04-04-2025

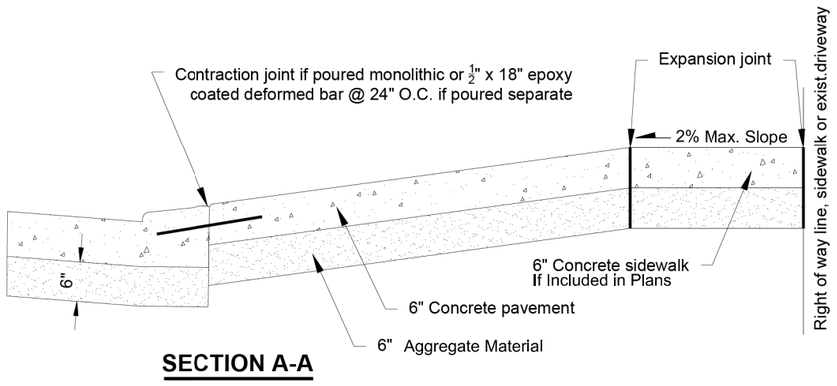
Standard Plates



ISOMETRIC

Notes:

1. Where connecting to existing concrete, install expansion joint w/ min. two ½" x 18" smooth dowels @ 24" O.C
2. Driveways greater than 10' wide will have contraction joints perpendicular to curb with minimum 10' spacing. Match curb joints.
3. Forms are required on all edges.



SECTION A-A

Concrete Driveway Detail

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 10974
Craig M. Mizera
SOUTH DAKOTA
05/29/2025

Plotted From - CBOBZIEN

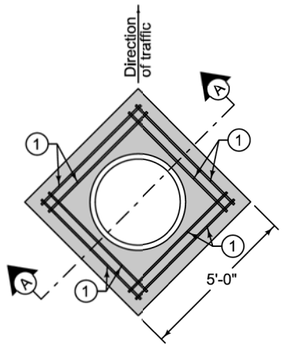
File - ...\Section F\Special Plate

Special Plates

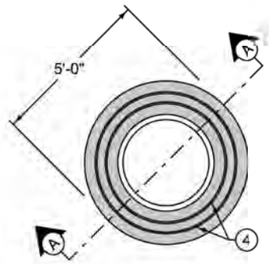
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 6542(04)	F22	F22

Plotting Date: 04-04-2025



RECTANGULAR



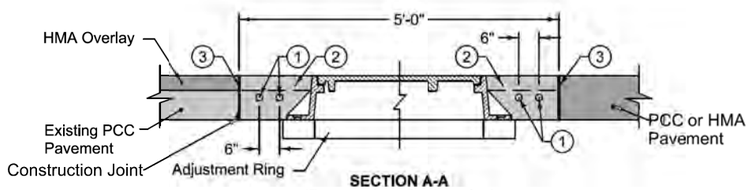
CIRCULAR

Construct Boxout with Class M6 Concrete. Minimum 2 inches of clear cover on reinforcement. Center Casting within the boxout area.

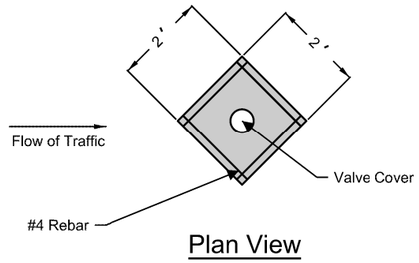
1. 4 foot 8 inch (typ.) #4 bar. Place at mid-slab.
2. If boxout is constructed prior to placement of HMA overlay or final lift of HMA pavement, boxout may be constructed low and then final lift or overlay placed.
3. Apply tack coat. If Necessary.
4. #4 hoops (variable length). Place at mid-slab.

If PCC Pavement is used, joint the proposed pavement and install reinforcement per the Contractors prefered Type. Match Proposed PCC Pavement Depth, 6" Min.

MANHOLE BOXOUTS IN HMA PAVEMENT AND HMA OVERLAYS



SECTION A-A
(For two-piece fixed casting)



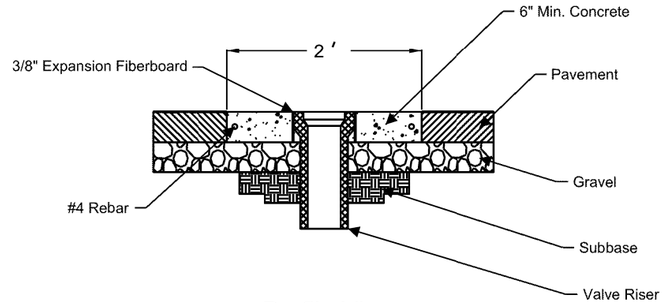
Plan View

Notes:

1. Class M6 Concrete will be used for the boxout. Fast track concrete may be used at the descretion of the enigneer. Minimum concrete thickness will be 6".

2. Steel reinforcing will be epoxy coated Grade 40. Spaced at 6" O.C.

3. A minimum 2" of clear cover on all steel reinforcing.



Profile View

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05/29/2025

GATE VALVE BOXOUT IN HMA PAVEMENT

Plotted From - CBOBZIEN

File - ...\F22_Special_Plates.dgn