

PLOT SCALE - 1:1000

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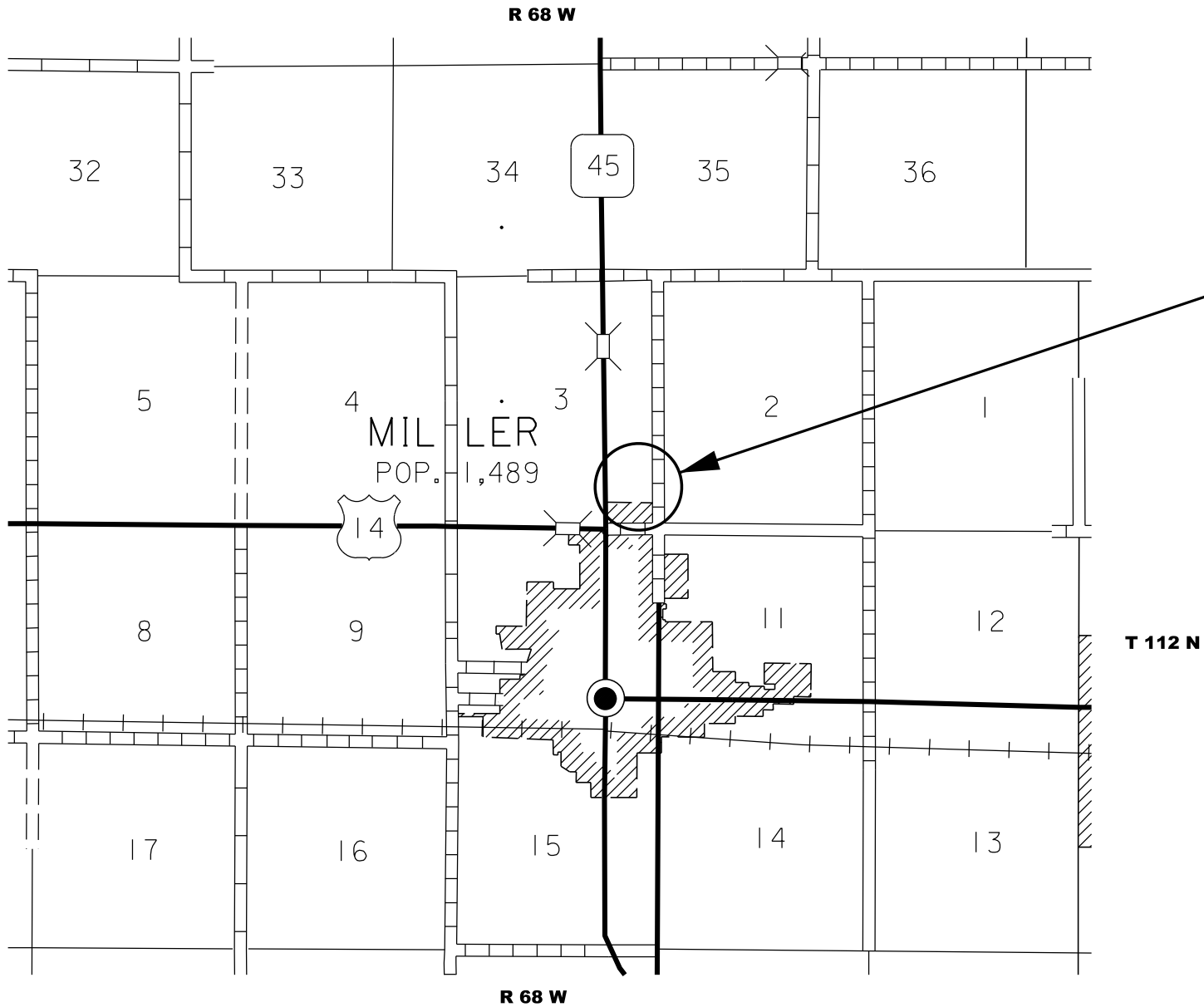
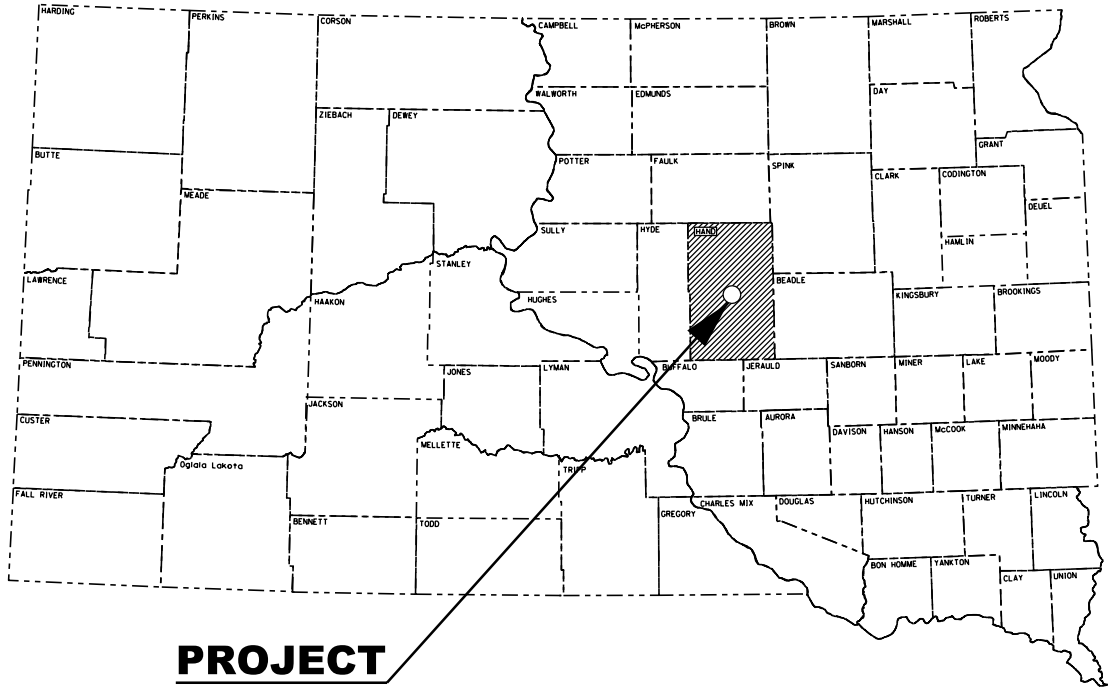
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT 0009-192
MAINTENANCE YARD
HAND COUNTY
COLD MILLING ASPHALT CONCRETE,
ASPHALT CONCRETE RESURFACING,
SURFACE PREPARATION AND VALLEY GUTTER
PCN i6N3

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-192	1	15
Plotting Date: 06/16/2023			

Index of Sheets

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Sheet: 3-5	Estimate of Quantities and Environmental Commitments
Sheet: 6	Plan Notes
Sheet: 8-13	Detail Drawings
Sheet: 14-15	Standard Plates



STORM WATER PERMIT
(None Required)

PLOT NAME - 1

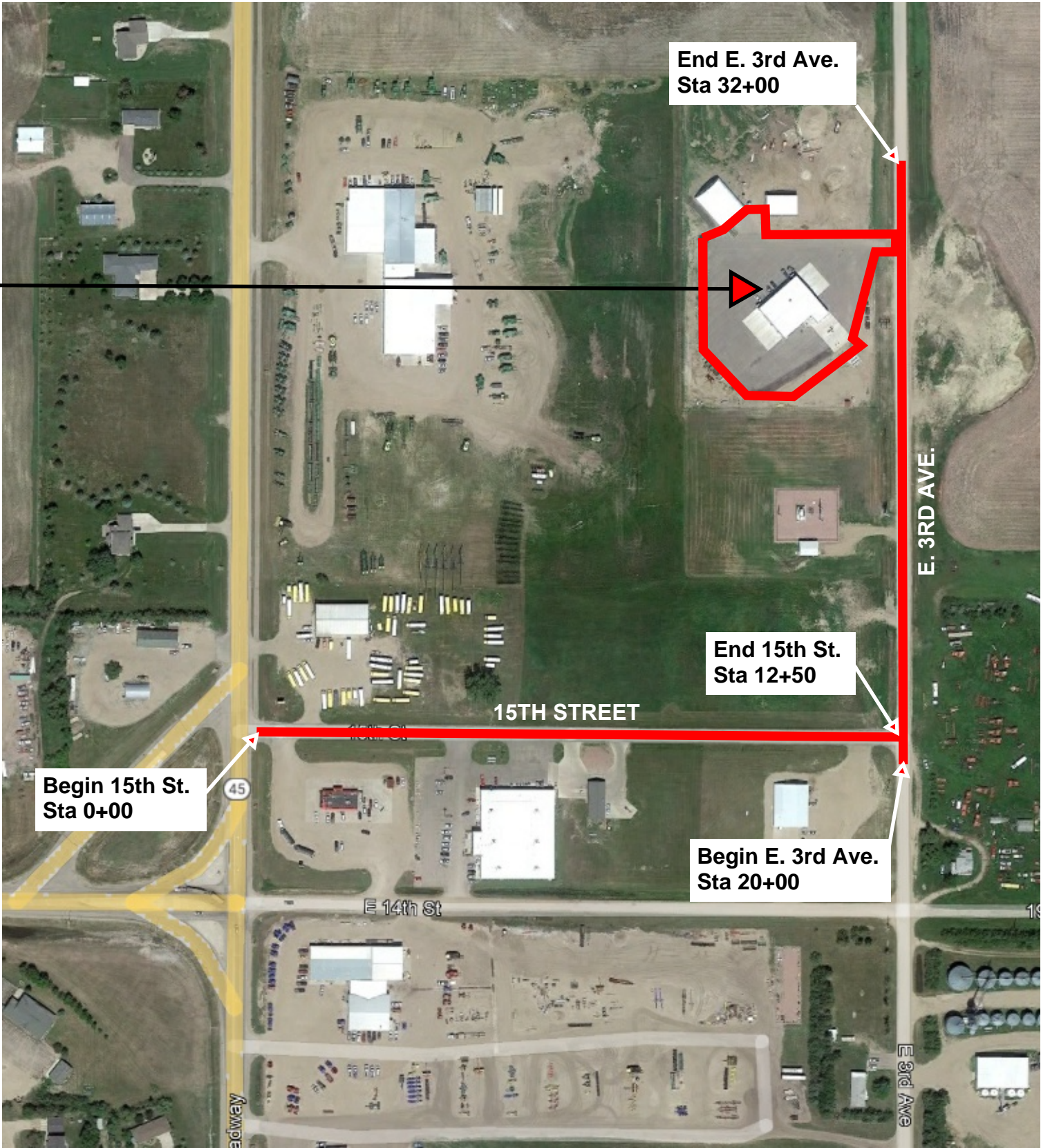
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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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SITE MAP



SDDOT MILLER
MAINTENANCE YARD



15TH STREET (0+00 to 12+50):
1.5" Lift Asphalt Concrete Composite

E. 3RD AVENUE (20+00 to 32+00):
Surface Preparation
2 - 2.5" Lifts Asphalt Concrete Composite

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	589.1	SqYd
110E1140	Remove Concrete Sidewalk	0.9	SqYd
120E0100	Unclassified Excavation, Digouts	40	CuYd
210E1005	Surface Preparation	0.227	Mile
260E1010	Base Course	80.0	Ton
320E1200	Asphalt Concrete Composite	2,401.2	Ton
332E0010	Cold Milling Asphalt Concrete	8,170	SqYd
380E3040	8" PCC Driveway Pavement	15.9	SqYd
634E0110	Traffic Control Signs	224.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	12	Each
650E6080	8" Concrete Valley Gutter	510	Ft
651E0040	4" Concrete Sidewalk	16	SqFt

TABLE OF QUANTITIES
(FOR INFORMATION ONLY)

BID ITEM NUMBER	ITEM	15th Street	East 3rd Avenue	Maintenance Yard	TOTAL	UNIT
009E0010	Mobilization	Lump Sum	Lump Sum	Lump Sum	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement			589.1	589.1	SqYd
110E1140	Remove Concrete Sidewalk			0.9	0.9	SqYd
120E0100	Unclassified Excavation, Digouts			40	40	CuYd
210E1010	Surface Preparation		0.227		0.227	Mile
260E1010	Base Course		40	40	80	Ton
320E1200	Asphalt Concrete Composite	339.0	1105.0	957.2	2401.2	Ton
332E0010	Cold Milling Asphalt Concrete			8170	8170	SqYd
380E3040	8" PCC Driveway Pavement			15.9	15.9	SqYd
634E0110	Traffic Control Signs	112.0	112.0		224	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	Lump Sum	Lump Sum	Lump Sum	LS
634E0275	Type 3 Barricade	4	8		12	Each
650E6080	8" Concrete Valley Gutter			510	510	Ft
651E0040	4" Concrete Sidewalk			16	16	SqFt

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <<https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Agriculture and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

- Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, "No Dumping Allowed".
- Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06. Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

State Historic Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view of which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office to determine an appropriate course of action.

The Contractor is responsible for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

PLOT SCALE - 1:200

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PLOT NAME - 1

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PLOT SCALE - 1:200

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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.

SEQUENCE OF OPERATIONS

The Contractor will contact the Miller Maintenance Forces on site (605-853-2212) a minimum of 72 hours prior to beginning work so that access to the building and yard can be arranged for day to day operations of state personnel.

TRAFFIC CONTROL

TRUCK CROSSING signs will be placed on SD Highway 45 in both directions located a minimum of 550' in advance of the Hwy 45 / 15th Street intersection.

The TRUCK CROSSING signs, 48' x 48", will be displayed at all times when haul vehicles are hauling material to and from the site. During non-working hours, the signs will be covered or removed from view.

Bump, Road Work Ahead, Road Closed Ahead and End Road Work signs will be placed at the direction of the Engineer as work progresses from segment to segment.

Street closure on 15th Street will only be allowed during working hours and will be reopened at night.

Work activities during non-daylight hours will not be allowed without prior approval from the Engineer.

UTILITIES

Utilities are not planned to be affected on this project. If utilities are identified near the improvement through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor will notify the Engineer to determine modifications that will be necessary to avoid utility impacts.

The Contractor will notify the Engineer prior to work to allow the SDDOT to locate private utilities in the work area.

WATER FOR COMPACTION OF GRANULAR MATERIALS

Cost of water for compaction of the granular material will be incidental to the contract unit price for the various contract items. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

ASPHALT CONCRETE COMPOSITE

The asphalt binder used in the mixture will be PG 64-28, PG 58-34 or PG 64-34 Asphalt Binder.

All other requirements in the Standard Specifications for Asphalt Concrete Composite will apply.

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 and a rate of 0.06 gallons per square yard on new asphalt concrete pavement.

ASPHALT FOR FLUSH SEAL

Application of flush seal will be completed within 10 working days following completion of the asphalt concrete surfacing.

Tack or flush seal oil applied to concrete or buildings will be removed to the satisfaction of the Engineer at no cost to the State.

ASPHALT FOR PRIME

Asphalt for Prime, MC-70 will be applied upon completion of the Surface Preparation of East 3rd Avenue. Asphalt for Prime will be applied at a rate of 0.30 gallons per square yard. Blotting Sand for Prime will be applied at a rate of 10 pounds per square yard.

8" VALLEY GUTTER

The valley gutter will be built in accordance with Standard Plate 650.40 and the Valley Gutter detail sheets. The course aggregate used in the M6 concrete will be crushed ledge rock.

The Contractor will place a minimum of 4 inches of salvaged granular material generated from removals at the Valley Gutter locations as shown in the Valley Gutter Layout sheets. All cost associated with the removal and installation of the granular material will be incidental to contract unit price per foot for 8" Valley Gutter. Compaction will be to the satisfaction of the Engineer.

COLD MILLING ASPHALT CONCRETE

Millings generated from the project will be placed in the northern stockpile area of the maintenance yard. The stockpile location will be determined by the Miller maintenance supervisor and will become the property of the State.

Cold Milling will be to a depth to provide for the placement of two inches of asphalt concrete composite and allow for proper drainage. At a minimum a depth of one inch will be completed on all areas of the asphalt paving limits within the maintenance yard and will be at the sole discretion of the Engineer.

PCC DRIVEWAY PAVEMENT

Concrete will be Class M6 and will conform to Section 462 of the specifications.

REMOVE ASHPHALT CONCRETE PAVMENT

Waste material generated from the removals will become the property of the Contractor for proper disposal as determined by the Engineer.

E. 3 rd Avenue Main Entrance:	74.7
North Valley Gutter:	238.0
South Valley Gutter:	216.4
Digouts	<u>60</u>
Total:	589.1 SqYd

UNCLASSIFIED EXCAVATION, DIGOUTS

The locations and extent of digouts areas will be determined in the field by the Engineer. The backfilling material for the digouts will be Asphalt Concrete Composite and Base Course. The depth of asphalt will be 2 inch thickness.

Included in the Estimate of Quantities are **40** cubic yards of Unclassified Excavation, Digouts and **60** square yards of Remove Asphalt Concrete Pavement for the removal of asphalt and unstable material throughout the project.

Included in the Estimate of Quantities are **40** tons of Base Course and **15** tons of Asphalt Concrete Composite for backfill of Unclassified Excavation, Digouts.

BASE COURSE

Included in the Estimate of Quantities are **40** tons of Base Course for tapering at begin and end of asphalt concrete on E. 3rd Street.

HORIZONTAL ALIGNMENT DATA AND CONTROL DATA

South Valley Gutter

Type	Station			Northing	Easting
POB	0+00.00			256634.014	2233249.283
		TL = 151.00	N 54°55'49" E		
PI	1+51.00			256720.775	2233372.869
		TL = 37.79	N 66°48'24" E		
PI	1+88.79			256735.660	2233407.609
		TL = 46.21	N 52°25'14" E		
POE	2+35.01			256763.845	2233444.235

North Valley Gutter

Type	Station			Northing	Easting
POB	0+00.00			256969.589	2233170.933
		TL = 265.00	N 89°01'31" E		
POE	2+65.00			256974.097	2233435.895

E. 3rd Avenue

Type	Station			Northing	Easting
POB	19+75.00			255884.976	2233552.255
		TL = 1250.00	N 00°43'55" W		
POE	32+25.00			257134.874	2233536.289

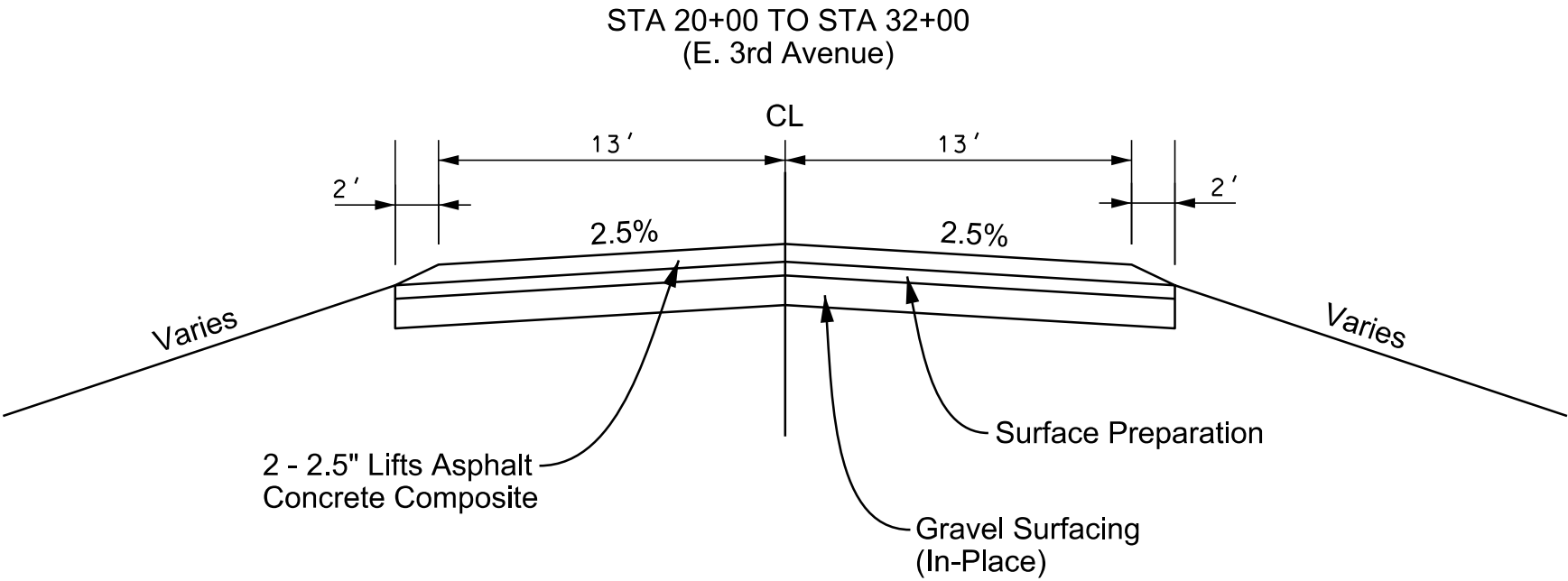
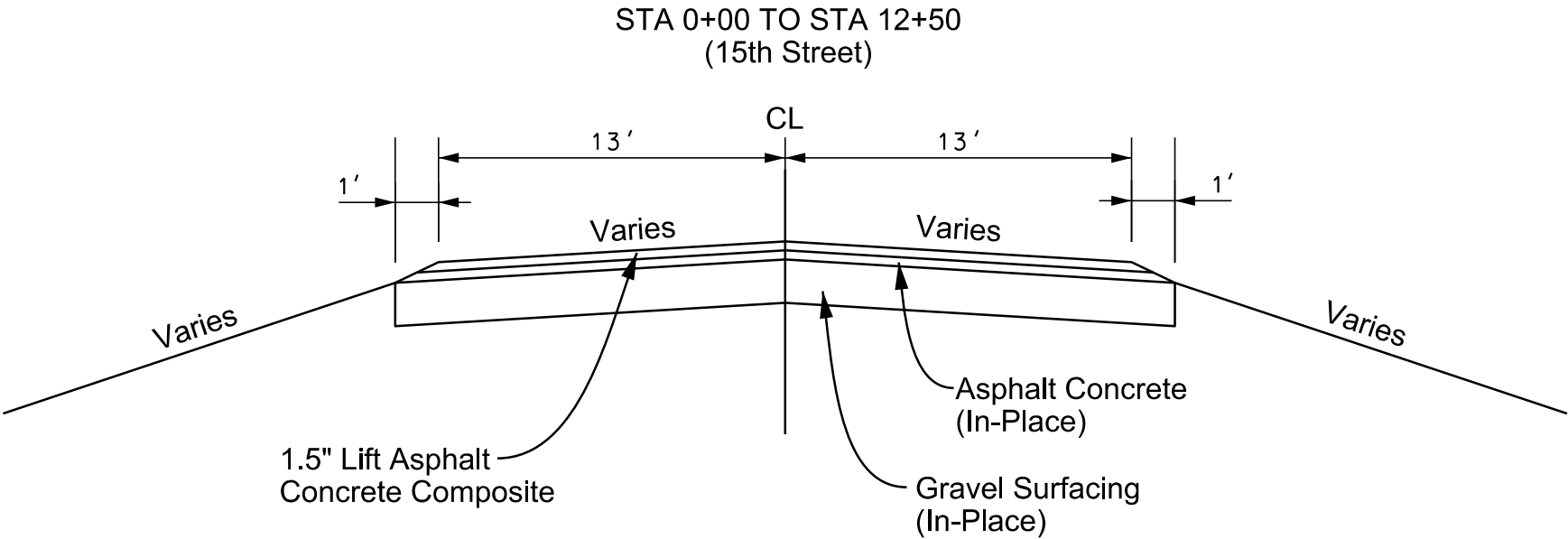
CONTROL DATA

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
PRS962			REFMRK	251819.752	2234710.744	1613.557

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/11); epoch 2010; Geoid 2012a; SF = 0.99990621

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TYPICAL SURFACING SECTION

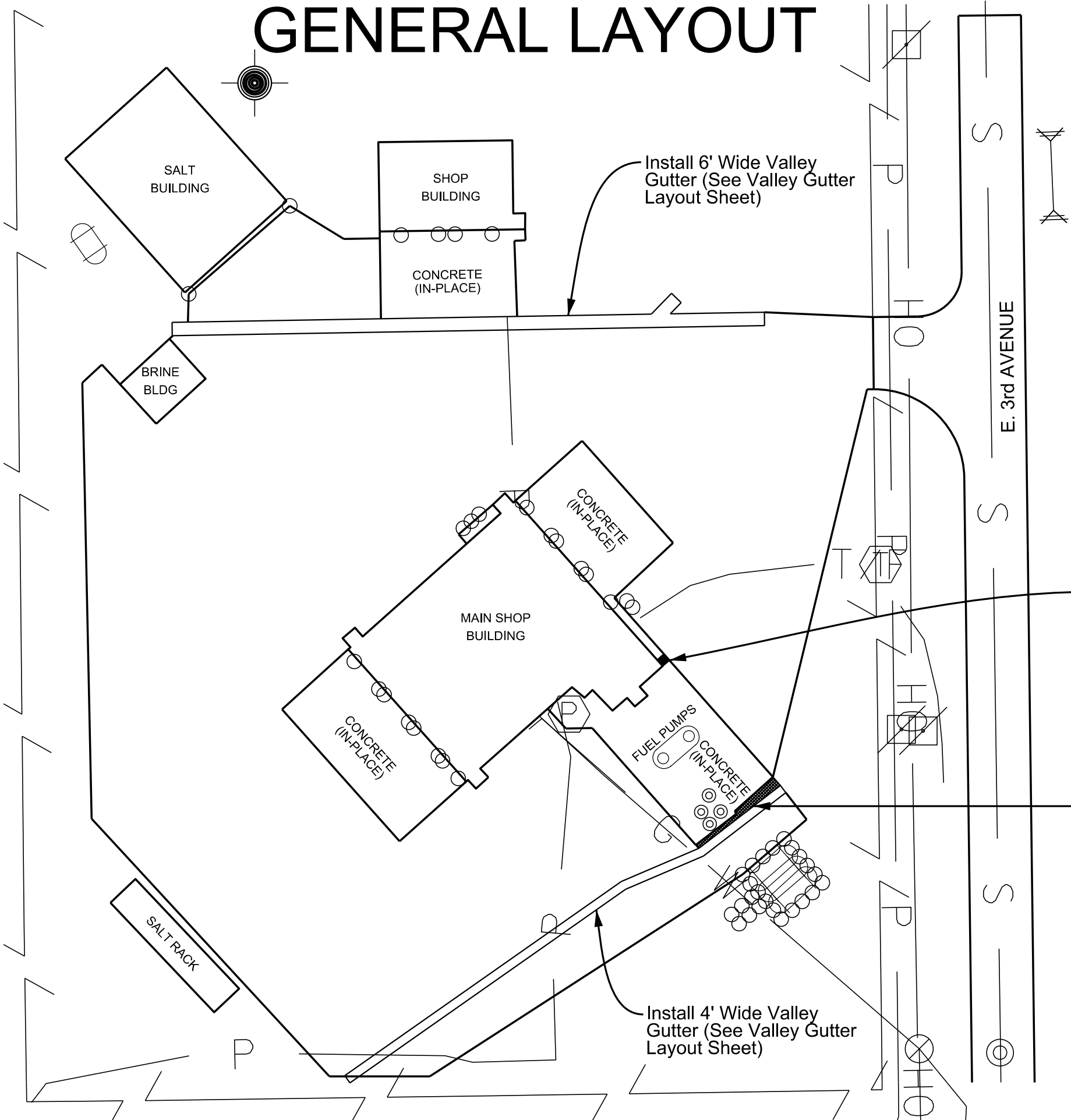


PLOT SCALE - 1:150

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GENERAL LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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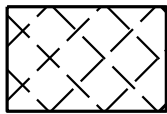


PLOT NAME - 1

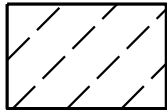
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SURACING LAYOUT

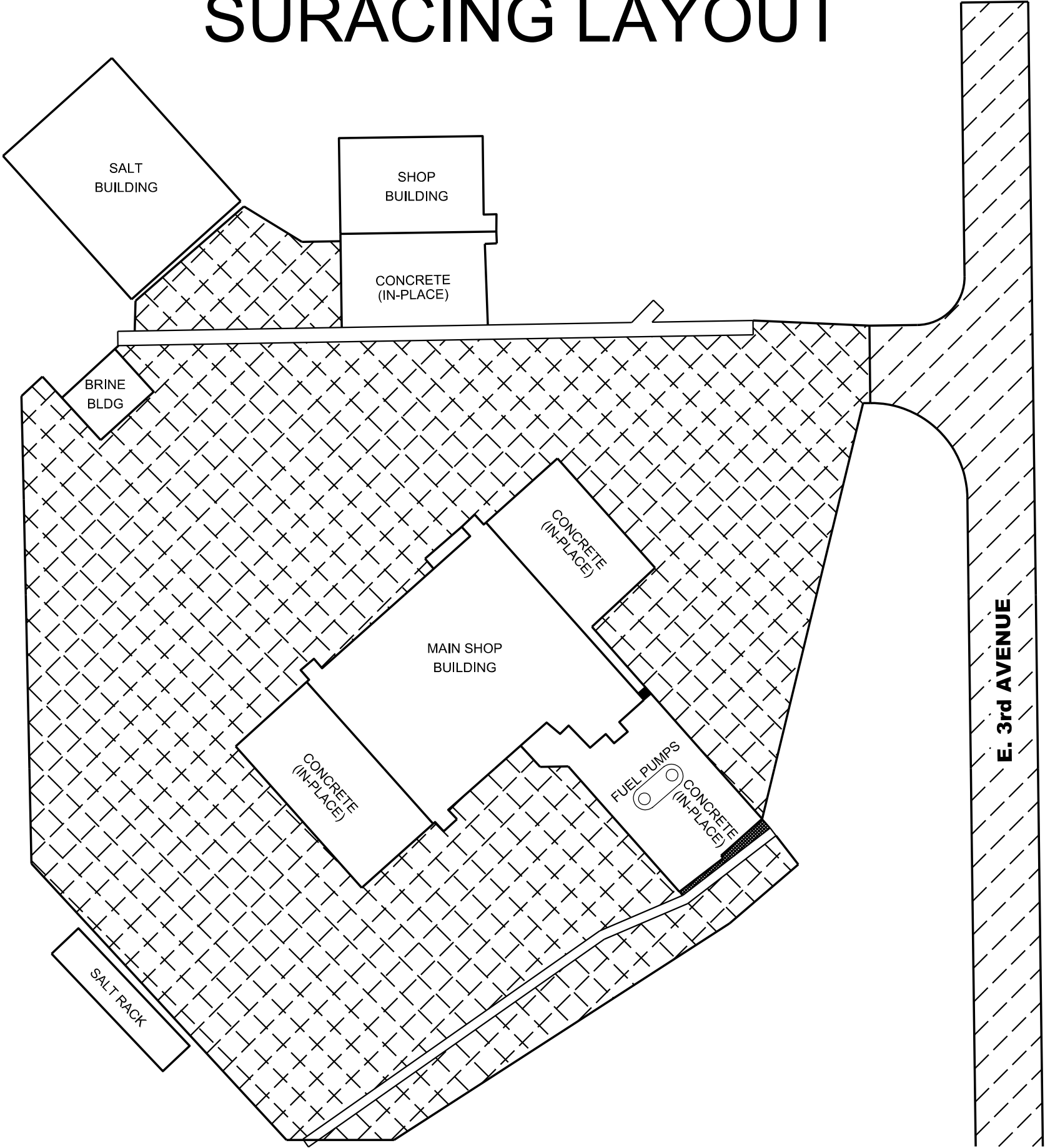
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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- Cold Milling Asphalt Concrete
- 2.0" Lift Asphalt Concrete Composite

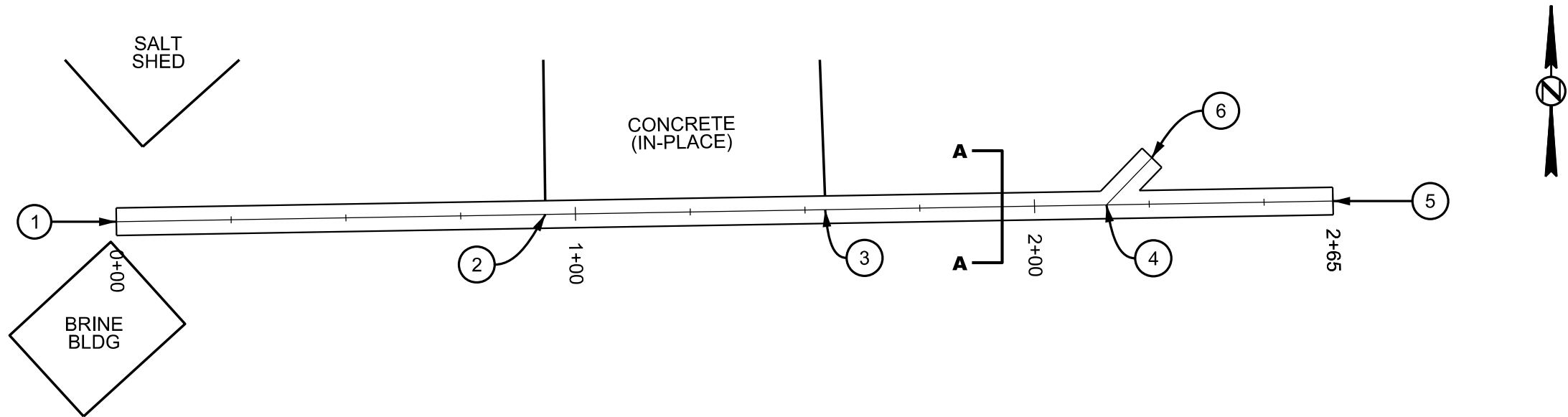


- Surface Preparation
- Asphalt for Prime
- 2 - 2.5" Lifts Asphalt Concrete Composite

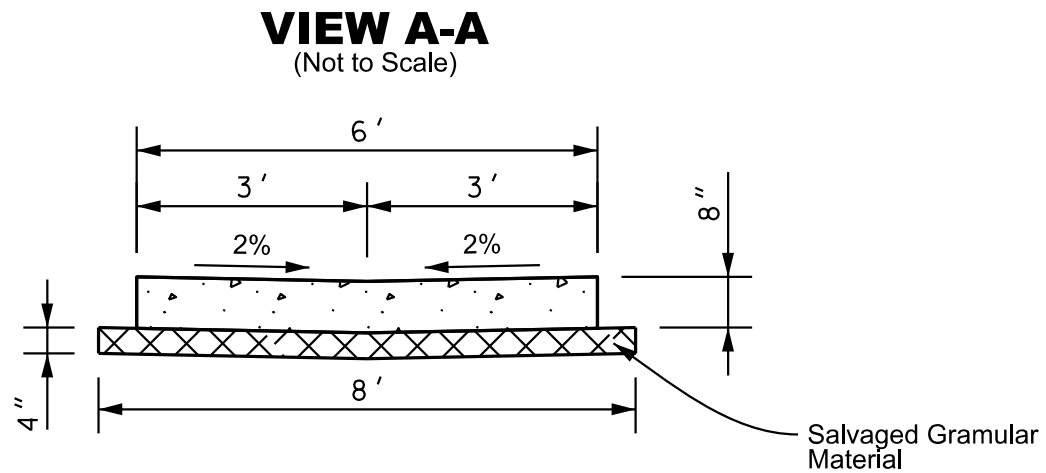


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VALLEY GUTTER LAYOUT



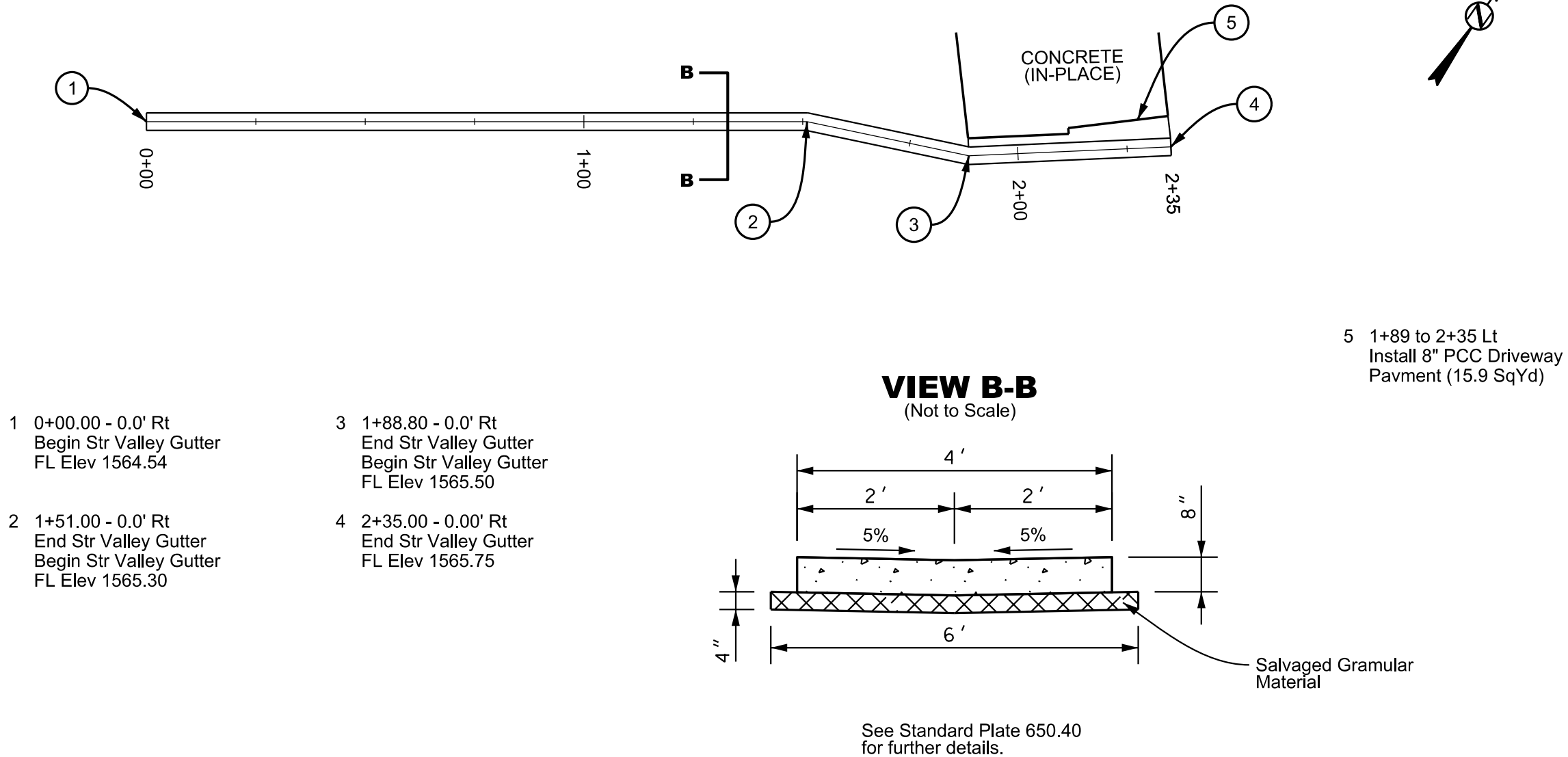
- | | |
|--|--|
| 1 0+00.00 - 0.0' Rt
Begin Str Valley Gutter
FL Elev 1565.55 | 4 2+15.67 - 0.0' Rt
End Str Valley Gutter
Begin Str Valley Gutter
FL Elev 1563.90 |
| 2 0+93.45 - 0.0' Rt
End Str Valley Gutter
Begin Str Valley Gutter
FL Elev 1564.50 | 5 2+65.00 - 0.0' Rt
End Str Valley Gutter
FL Elev 1564.30 |
| 3 1+54.41 - 0.0' Lt
End Str Valley Gutter
Begin Str Valley Gutter
FL Elev 1564.21 | 6 2+25.74 - 10.07' Lt
End Str Valley Gutter
FL Elev 1563.80 |

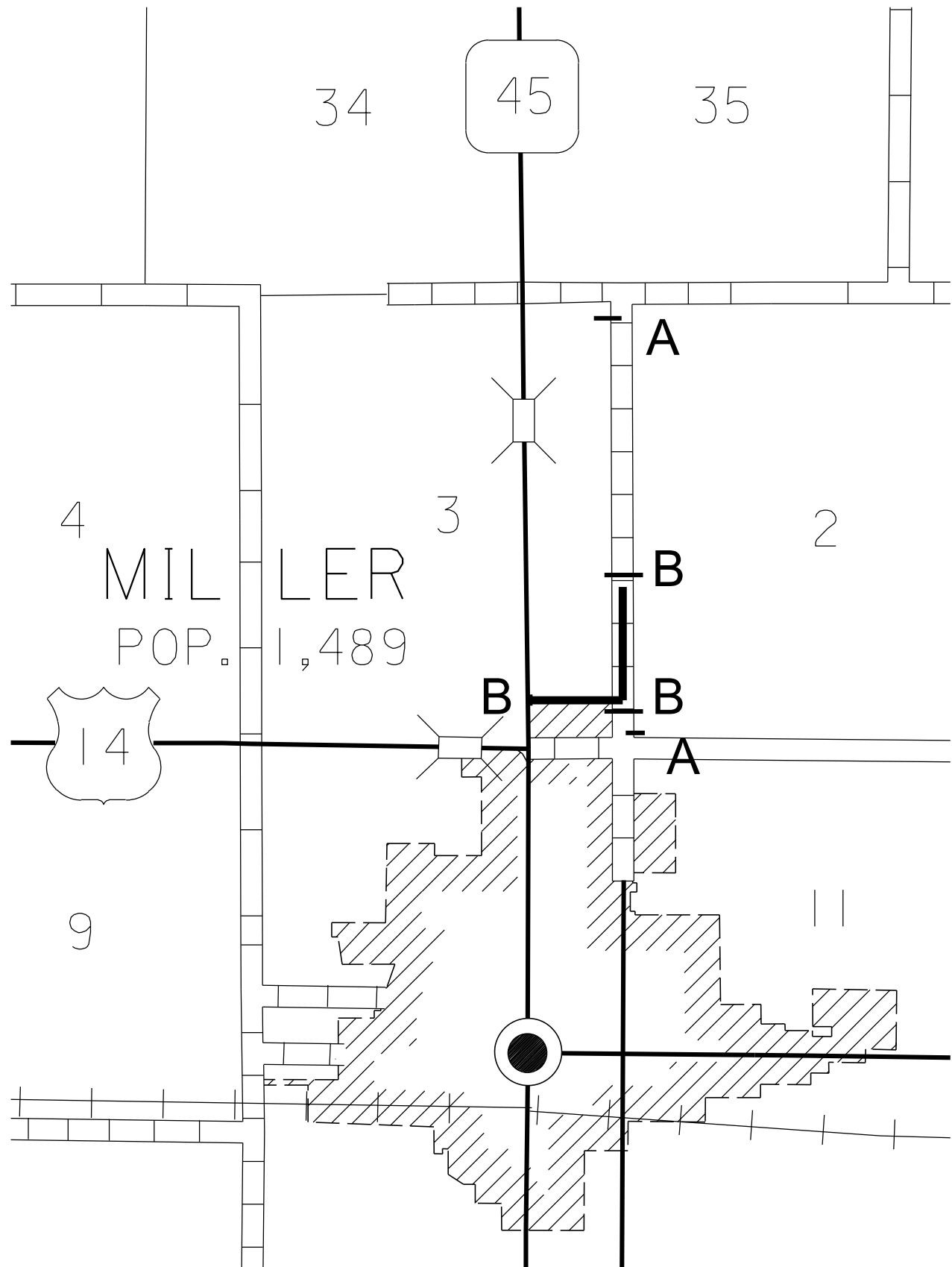


See Standard Plate 650.40
for further details.

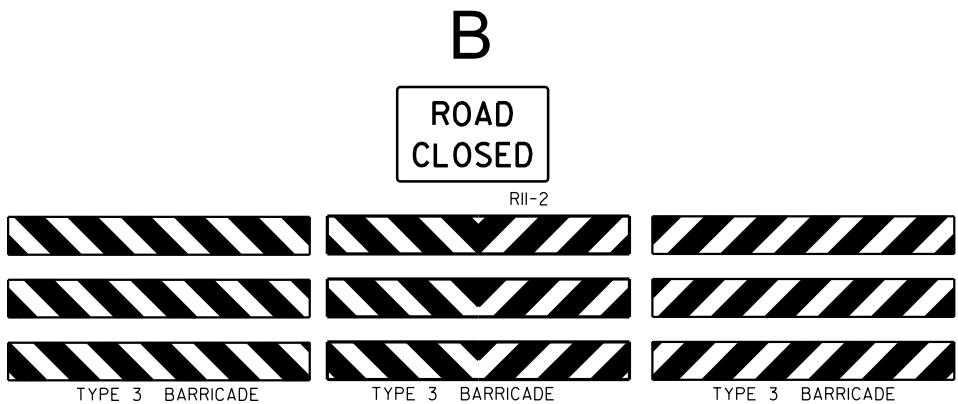
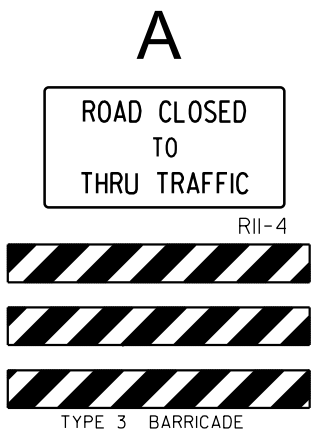
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VALLEY GUTTER LAYOUT



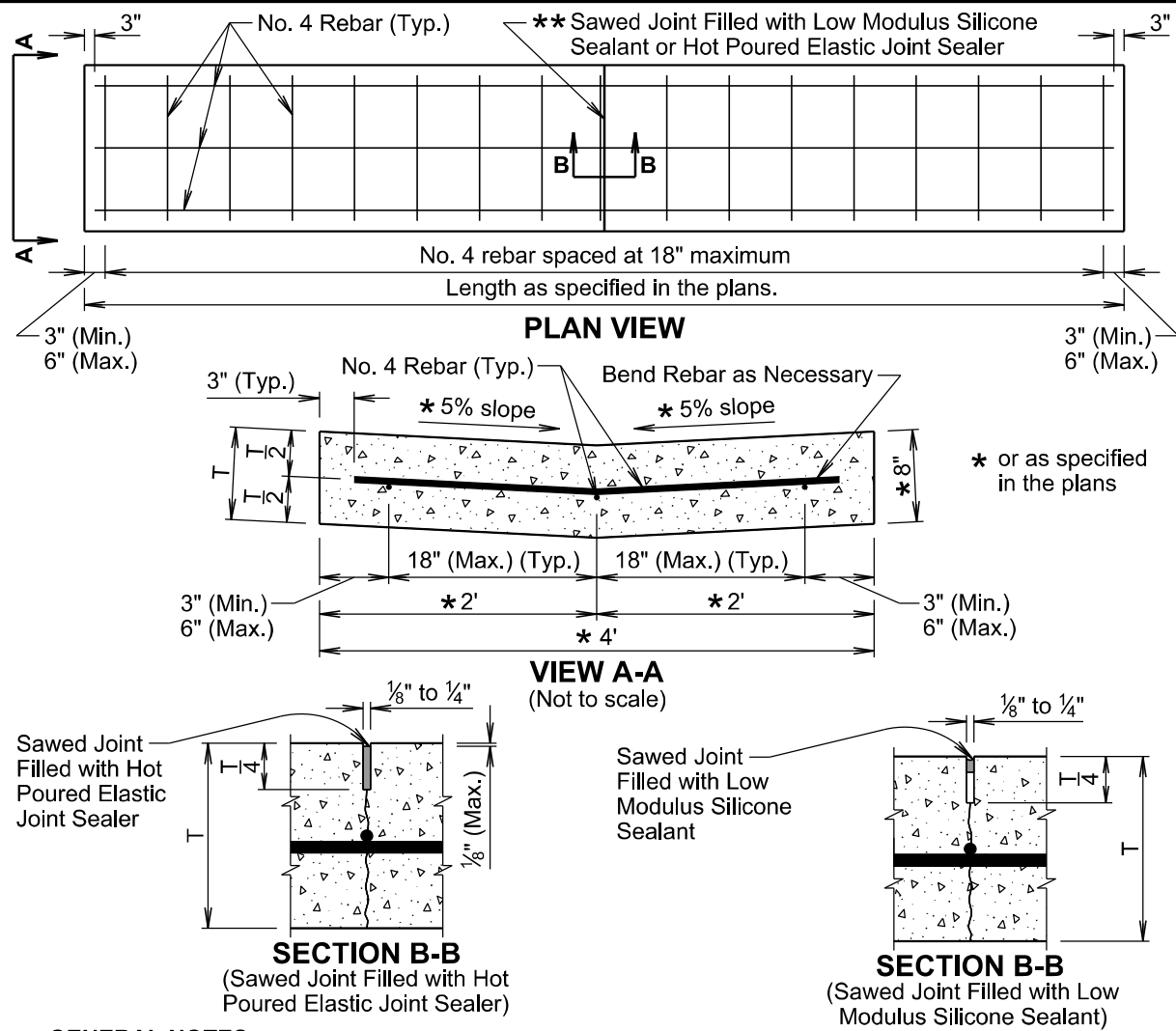


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SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-2	ROAD CLOSED	3	48" x 30"	10.0	30.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	2	60" x 30"	12.5	25.0
W8-1	BUMP	2	48" x 48"	16.0	32.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-3	ROAD CLOSED AHEAD	2	48" x 48"	16.0	32.0
W21-2	FRESH OIL	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		224.0			

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GENERAL NOTES:

The concrete will comply with the specifications for class M6 concrete.

The reinforcing steel will comply with the requirements of specification sections 480 and 1010.

If a lap splice is provided the No. 4 rebar will be lapped a minimum of 12 inches.

****** The sawed joints will be spaced at 12 feet; however, when the length of the valley gutter is 12 feet to 24 feet there will be a joint at the midpoint of the length. The saw cut to control cracking will be a minimum of 1/4 the thickness of the pavement.

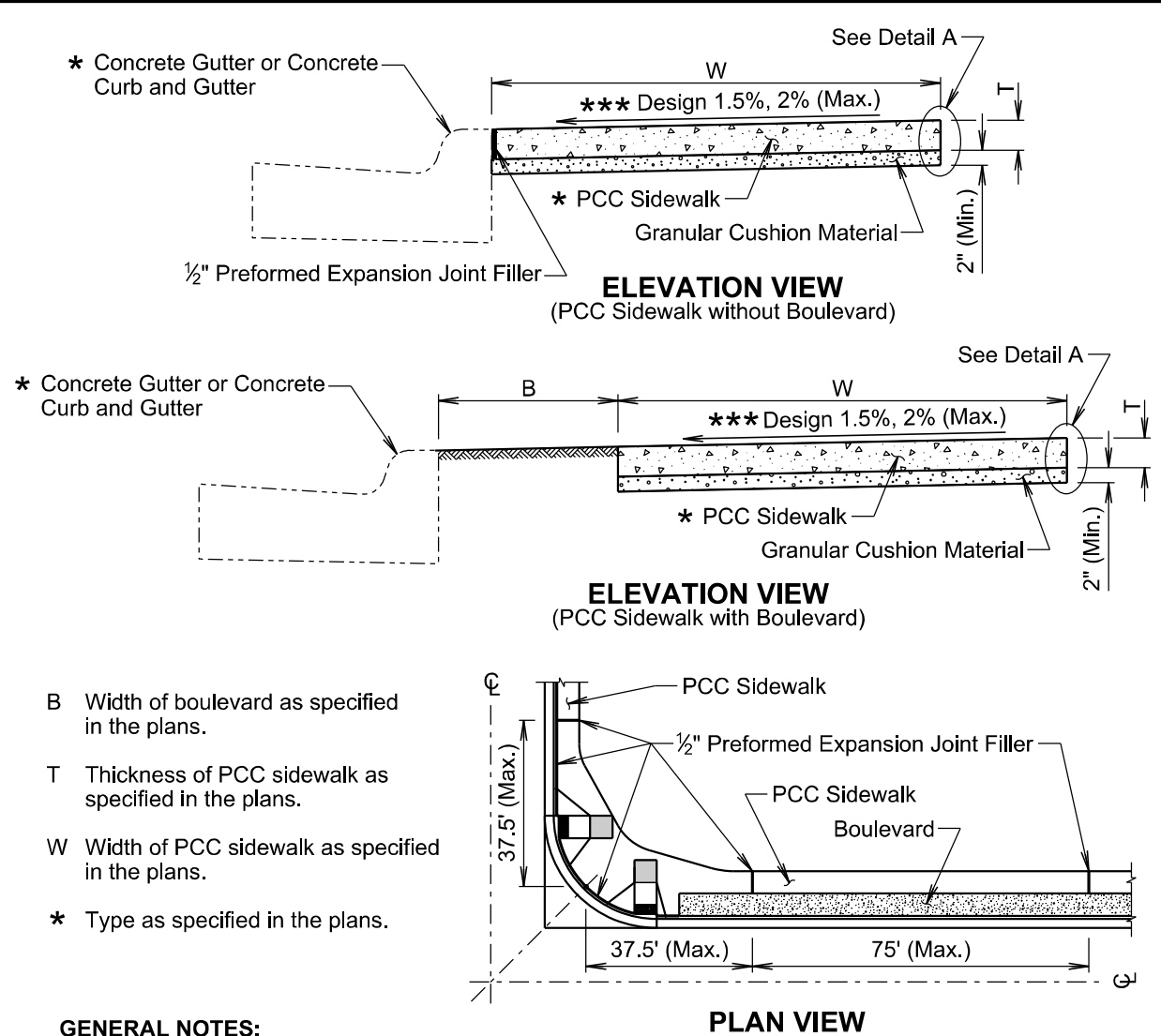
All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the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

The silicone sealant will be bonded to the sides of a clean joint to completely seal the joint as approved by the Engineer.

All costs for furnishing and installing the valley gutter including materials, equipment, labor, and incidentals will be included in the contract unit price per square yard for the corresponding Valley Gutter contract item.

December 23, 2019

Published Date: 2024	S D D O T	VALLEY GUTTER	PLATE NUMBER 650.40
			Sheet 1 of 1



GENERAL NOTES:

The PCC sidewalk will be constructed in accordance with Section 651 of the Specifications.

******* The cross slope of the sidewalk is designed at 1.5% and the maximum slope allowed is 2% unless specified otherwise in the plans.

The maximum length between expansion joints in the PCC sidewalk is 75 feet.

PCC sidewalk placed adjacent to intersection of roadways will have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See Plan View.

An expansion joint in the PCC sidewalk will consist of a 1/2 -inch thick preformed expansion joint filler material placed full depth and width of the PCC sidewalk.

****** Large areas of PCC pavement adjacent to the PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor will construct the joint treatment in accordance with the plans.

February 14, 2020

Published Date: 2024	S D D O T	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 1 of 2

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PLOT NAME - 1

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