

STATE OF SOUTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	0009-351	1	13

Plotting Date: 05/11/2023

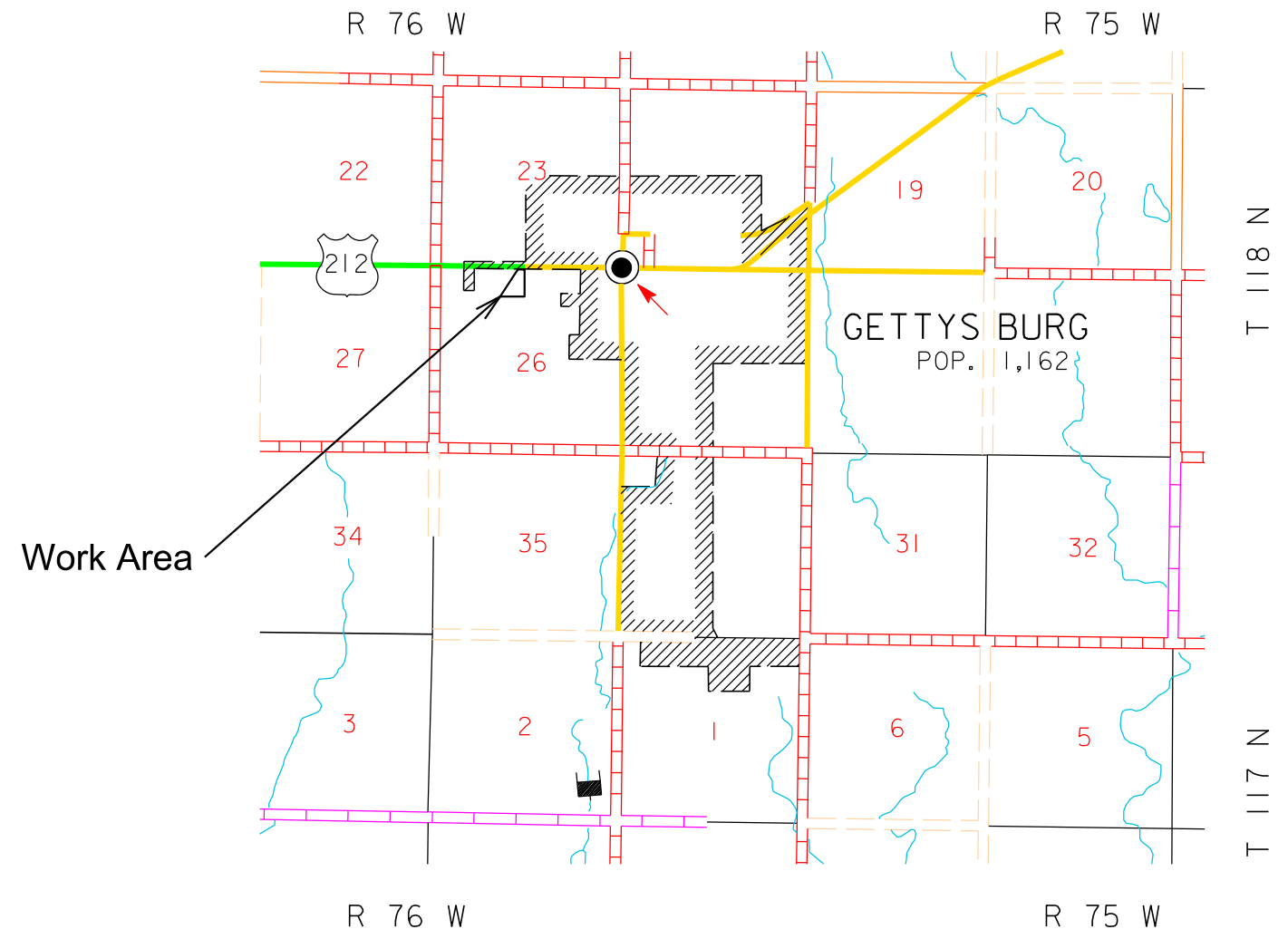
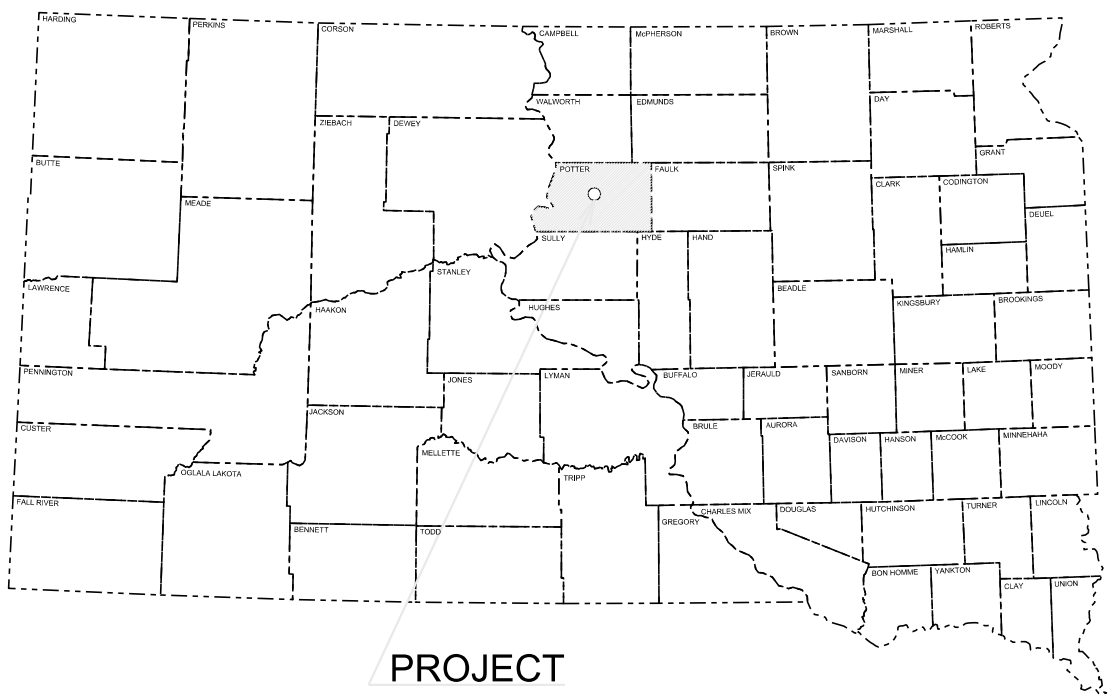
# PROJECT 0009-351 Gettysburg Maintenance Yard POTTER COUNTY

PCC PAVEMENT  
 PCN i6WM

### INDEX OF SHEETS

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- Sheet: 6 Horizontal Alignment Data & Control Data
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- Sheet: 8-10 Typical Section & Detailed Drawings
- Sheet: 11 Standard Plates
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Plot Scale - 1:200



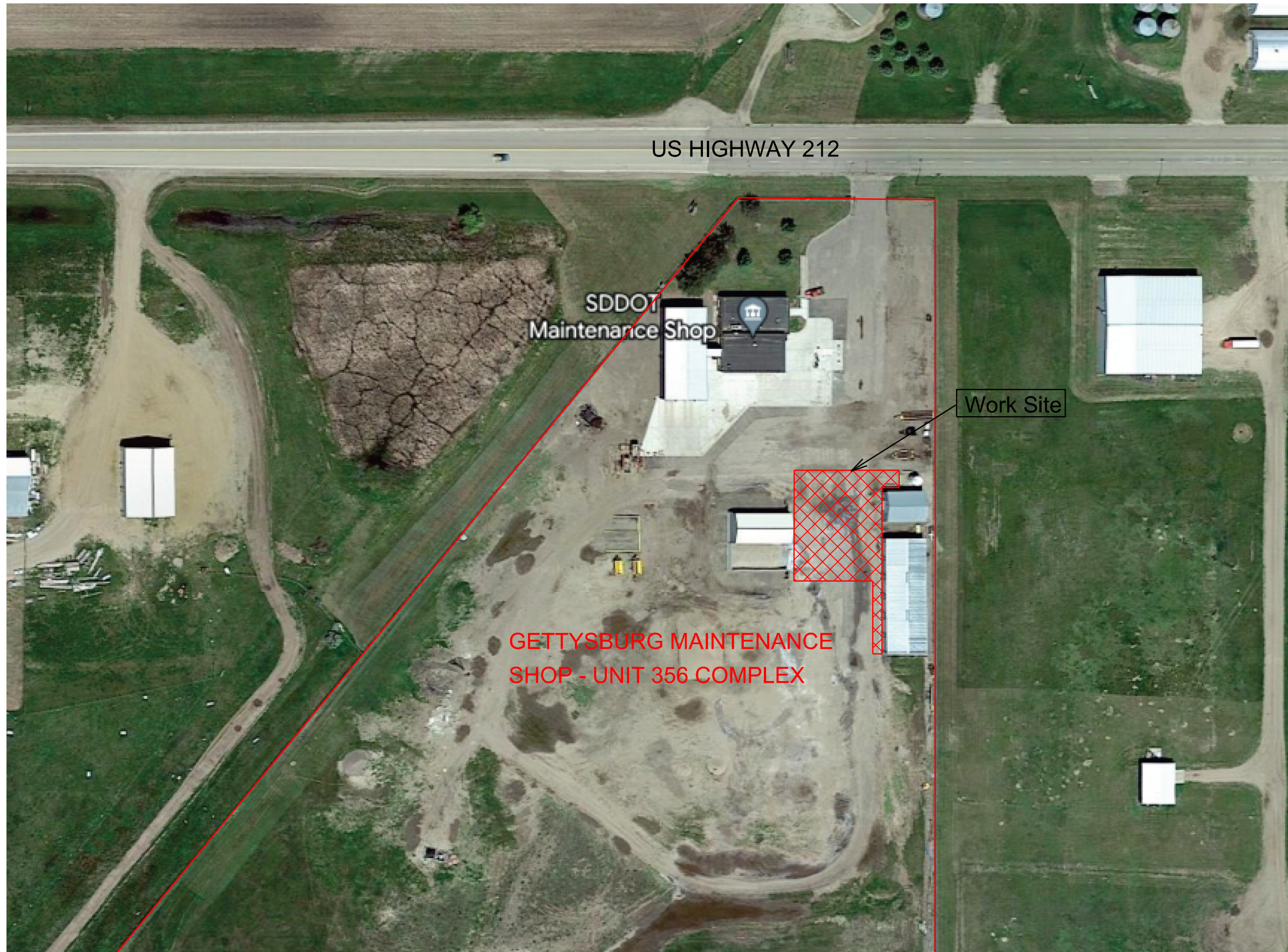
STORM WATER PERMIT  
 (None Required)

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# SITE MAP





# ESTIMATE OF QUANTITIES, ENVIRONMENTAL COMMITMENTS & NOTES

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## ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	10	CuYd
250E0010	Incidental Work	Lump Sum	LS
260E1010	Base Course	361.3	Ton
380E3040	8" PCC Driveway Pavement	1,211.0	SqYd
634E0110	Traffic Control Signs	0.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

## SPECIFICATIONS

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

## 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 C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water ( $\geq 140$  °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

## Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at: <https://sdleastwanted.sd.gov/maps/default.aspx>

< [South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04](https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04) >

## 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:

1. 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".

2. 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.

## COMMITMENT I: HISTORIC 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

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**COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES**

**(Continued)**

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 in 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 within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery 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.

**SCOPE OF WORK**

The work required for this project includes, but is not limited to, the following. (Items are not listed in order of execution.)

1. DOT forces will remove existing material, complete any grading, and blue top the subgrade in preparation for Contractor placement of Base Course and 8" PCC Driveway Pavement
2. Unclassified Excavation for Digouts, if needed
3. Place and Compact Base Course
4. Place 8" PCC Driveway Pavement

The Contractor is encouraged to inspect the project site prior to bidding to evaluate the extent of work that will be required for construction.

**SEQUENCE OF OPERATIONS**

The Contractor will coordinate their activities with the SDDOT Gettysburg Maintenance personnel to minimize the disruption of the Owner's use of the yard and shop areas.

The Contractor will contact the Gettysburg Maintenance Forces on site (605) 773-8205 a minimum of 48 hours prior to beginning excavation so that access to the yard and buildings can be arranged.

**TRAFFIC CONTROL**

The Contractor will coordinate with the DOT maintenance personnel to provide access to the facilities for day to day operations.

The Contractor will be responsible to provide and install any traffic control devices necessary to keep the public from entering the work zone. TRUCK CROSSING signs will be placed on US Highway 212 in both directions, on both sides of the highway and located a minimum of 550' in advance of the entrance to the Gettysburg Maintenance yard.

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.

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

**UTILITIES**

The Contractor will contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It will be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor will contact the Engineer to determine modifications that will be necessary to avoid utility impacts.

**WATER FOR COMPACTION OF GRANULAR MATERIALS**

The cost of water for compaction of the granular material will be incidental to the various other contract items. A minimum of 4% moisture will be required at the time of compaction unless otherwise directed by the Engineer.

**PREPARATION FOR PARKING LOT PAVEMENT**

The SDDOT Gettysburg Maintenance forces will remove existing material to prepare for placement of Base Course and 8" PCC Driveway Pavement.

The Contractor is responsible for checking that the foundation is 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 8" PCC Driveway Pavement. Moisture will be applied without forming pools of water.

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

Payment for any excavation will be incidental to the contract unit price of the "8" PCC Driveway Pavement".

**EXCAVATION OF UNSTABLE MATERIAL**

The locations and extent of digout areas will be determined in the field by the Engineer. The backfilling material for the digouts shall be Base Course paid for at the contract unit price per ton.

Included in the Estimate of Quantities are 10 cubic yards of Unclassified Excavation – Digouts for the removal of unstable material throughout the project.

**BASE COURSE**

Base Course shall be utilized for 8" PCC Driveway Pavement reconstruction, formwork reconstruction, and digout areas as detailed in the plans.

8" PCC Driveway Pavement reconstruction, formwork reconstruction, and digout areas of excess moisture shall be dried, loose material shall be removed, and disturbed areas shall be leveled and compacted to the satisfaction of the Engineer prior to placing Base Course.

Compaction shall be to the satisfaction of the Engineer.

10 tons of base course material has been included for backfilling Digouts and 15 tons of base course material has been include for backfilling formwork reconstruction. All costs associated with the aforementioned work shall be incidental to the contract unit price per ton for "Base Course".

**INCIDENTAL WORK**

The Contractor will be required to remove existing concrete along the Southeast building around the parking bollards. The Contractor will retain the downspouts along the building and reset upon completion of 8" PCC Driveway Pavement. The Contractor will retain the bollards in the existing locations to be poured into place in the new 8" PCC Driveway Pavement. Bollards and Downspouts that are damaged during concrete removal operations will be replaced at the Contractors expense. It is estimated that 67 Sq. Yds. of concrete will be removed. All work, equipment, and labor to complete the concrete removal, debris disposal, shaping and bollard placement for new 8" PCC Driveway Pavement will be incidental to the contract lump sum price for "Incidental Work".

**CURING OF CONCRETE**

8" PCC Driveway Pavement 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.

**PCC DRIVEWAY PAVEMENT - GENERAL**

Locations and size (length or width) of 8" PCC Driveway Pavement are subject to change in the field, at the discretion of the Engineer, at no additional cost to the state. Payment will be based on actual area placed.

Any existing adjacent concrete pavement shall be sawed full depth prior to placing 8" PCC Driveway Pavement.

Once the 8" PCC Driveway Pavement has been placed, the formwork shall be removed.

Compaction of the subgrade shall be to the satisfaction of the Engineer. The Contractor will then place 5" Base Course in the 8" Reinforced PCC Driveway Pavement area.

**8" PCC DRIVEWAY PAVEMENT**

The aggregate may require screening as determined by the Engineer.

The concrete used in the Portland Cement Concrete Pavement shall conform to section 462 Class M and shall contain crushed ledge rock as coarse aggregate.

The surface of the concrete shall be a carpet drag finish.

The Contractor shall place the #4 rebar at 24" center to center, mid-depth of 8" PCC Driveway Pavement slabs. To accomplish this, the Contractor may need to use chairs.

1" (Dual 1/2") expansion material shall be used between the existing building's foundations and the new concrete. These joints shall be sealed with Low Modulus Silicone Joint Sealant.

Contraction joints in the 8" PCC Driveway Pavement shall be 1 1/2 inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint shall be at least 1/4 the thickness of the approach pavement.

All costs for furnishing and placing the 8" PCC Driveway Pavement, #4 rebar, 1/2" dual expansion material and constructing the expansion and contraction joints including labor, equipment and materials shall be incidental to the contract unit price per square yard for "8" PCC Driveway Pavement".

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

**SAW AND SEAL JOINTS**

All longitudinal and transverse joints shall be sawed and sealed. Longitudinal and transverse joints in the 8" PCC Driveway Pavement area shall be sealed with Hot Poured Elastic Joint Sealer.

Joint sealing shall conform to Section 380.3 P.

Expansion joint material shall be used between the existing building foundation and the new concrete. These joints shall be sealed with Low Modulus Silicone Joint 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 joints, expansion joint material, Hot Poured Elastic Joint Sealer, Low Modulus Silicone Sealant, and sealing of all longitudinal and transverse joints shall be incidental to the contract unit price per square yard for "8" PCC Driveway Pavement".

**TRAFFIC CONTROL SIGN TABLE:**

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					<b>32.0</b>

# HORIZONTAL ALIGNMENT DATA AND CONTROL DATA

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## MAINLINE:

<u>Type</u>	<u>Station</u>			<u>Northing</u>	<u>Easting</u>
POB	0+00.00			430246.539	1976084.463
		TL = 829.82	S 0°00'00" E		
POE	8+29.82			429416.721	1976084.463


## CONTROL DATA:

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 100	7+96.24	65.08 Rt		429453.3629	1976153.3163	2104.607
CP 101	0+06.81	76.87 Rt		430242.7905	1976165.7393	2106.477
CP 102	8+02.68	768.74 Lt		429446.9179	1975319.4936	2104.103
CP 103	0+14.90	165.75 Lt		430234.7015	1975922.4858	2104.720



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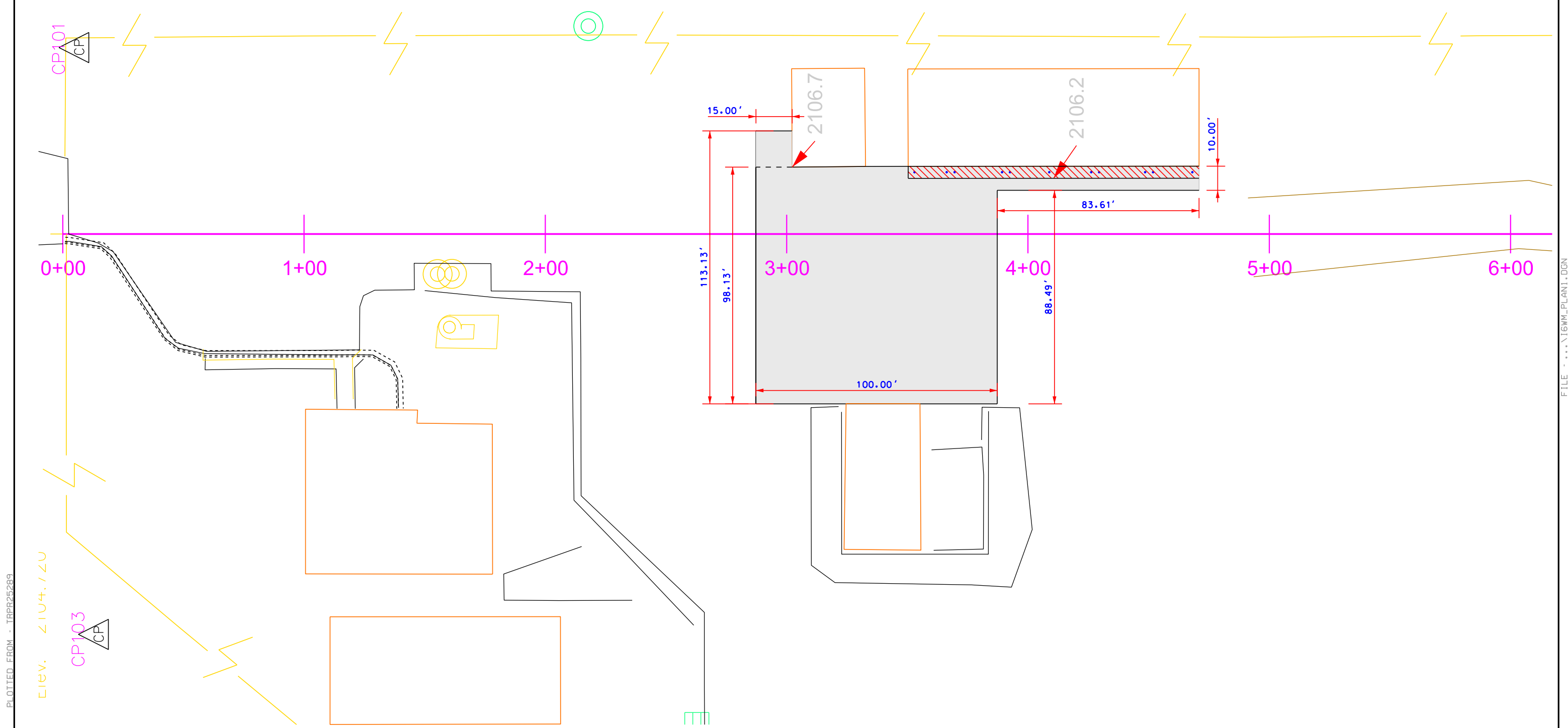
 Station 3+50.4 to 4+70.9  
Breakout existing concrete

 Station 2+87.3 to 4+70.9  
Place 1,211 SY 8" PCC Driveway Pavement



PLOT SCALE - 1:40

PLOT NAME - 1



PLOTTED FROM - IRPR25289

ELEV. 4104.720

CP103

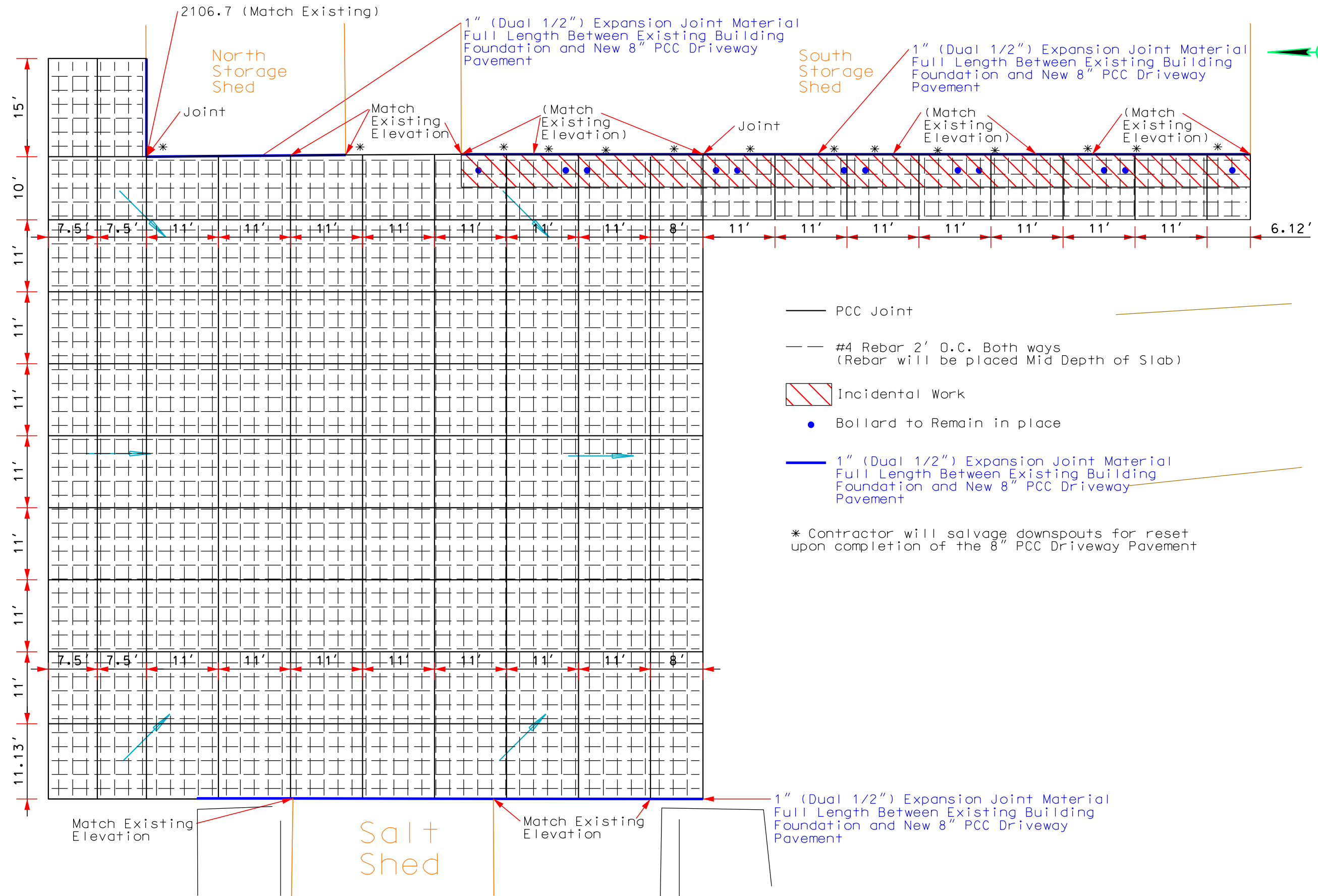
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# 8" PCC Driveway Pavement Plan

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- PCC Joint
- #4 Rebar 2' O.C. Both ways (Rebar will be placed Mid Depth of Slab)
- ▨ Incidental Work
- Bollard to Remain in place
- 1" (Dual 1/2") Expansion Joint Material Full Length Between Existing Building Foundation and New 8" PCC Driveway Pavement

\* Contractor will salvage downspouts for reset upon completion of the 8" PCC Driveway Pavement

PLOT SCALE - 1:27.7395

PLOT NAME - 1

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PLOTTED FROM - TRPR25289

PLOT SCALE - 1:27.7395

PLOTTED FROM - ITR25289

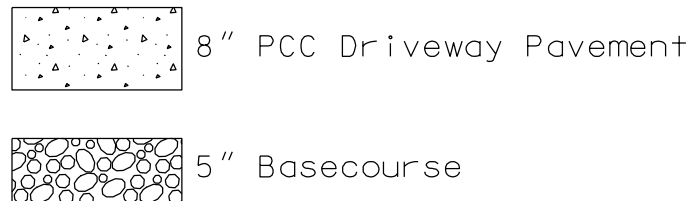
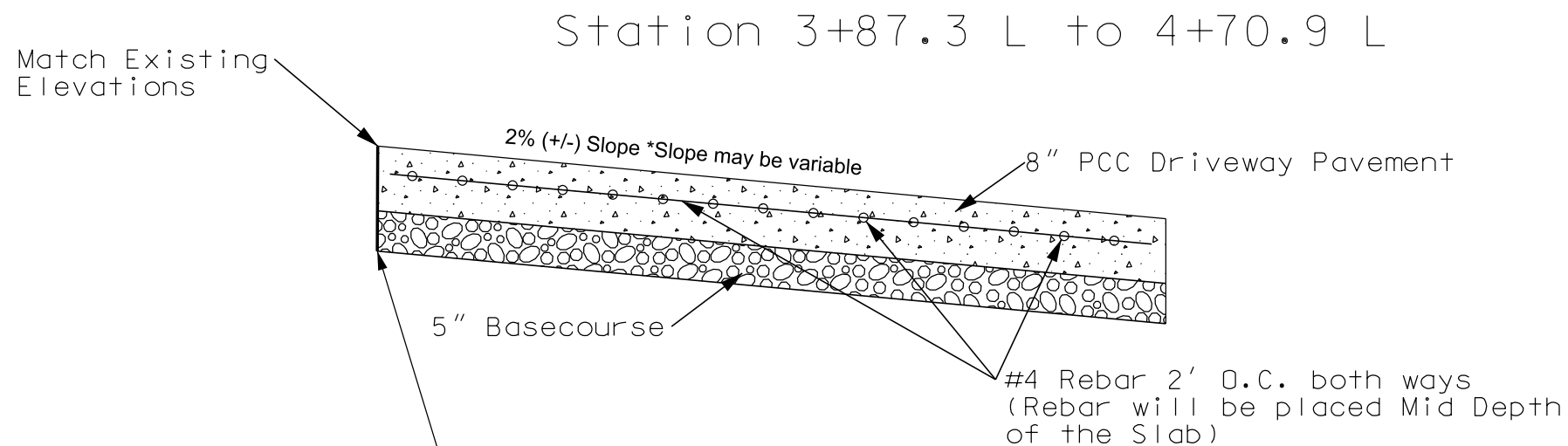
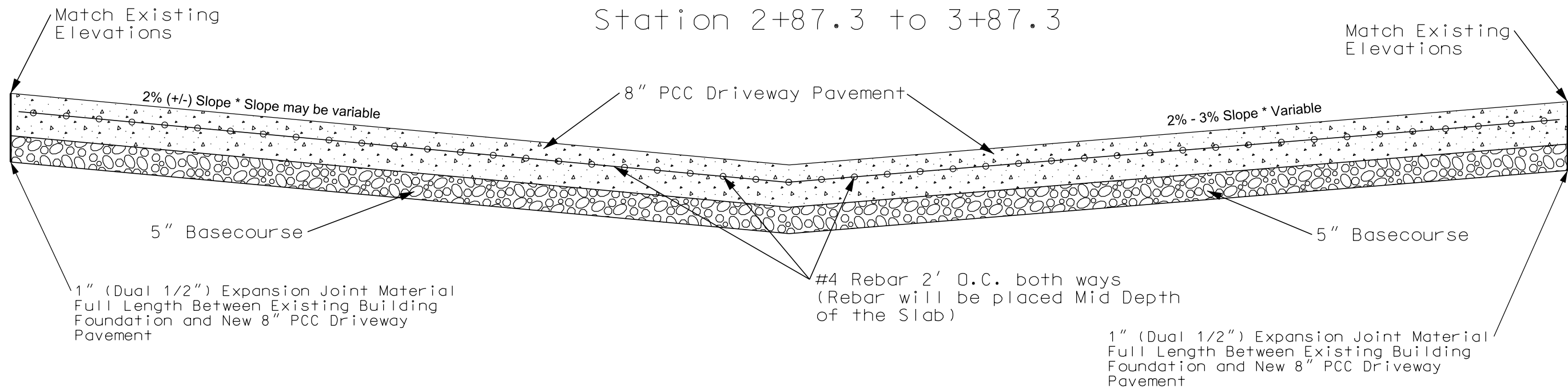
# 8" PCC Driveway Pavement Typical Section

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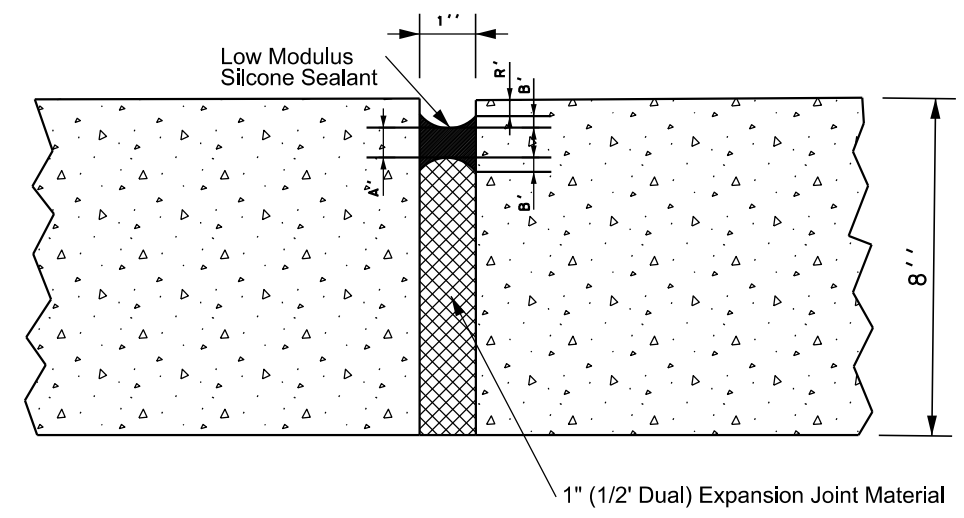
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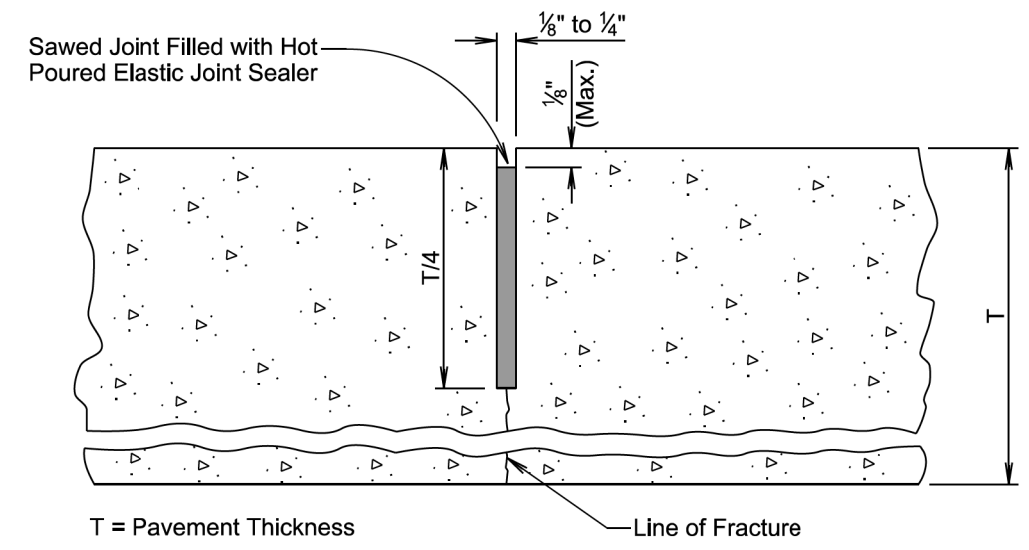


Plotting Date: 02/17/2022

Seal PCC Pavement Joint (Silicone)



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 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 1/4 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

<b>S D D O T</b>	<b>PCC PAVEMENT TRANSVERSE CONTRACTION JOINT WITH OR WITHOUT DOWEL BAR ASSEMBLY</b>	PLATE NUMBER <b>380.12</b>
		Sheet 1 of 1

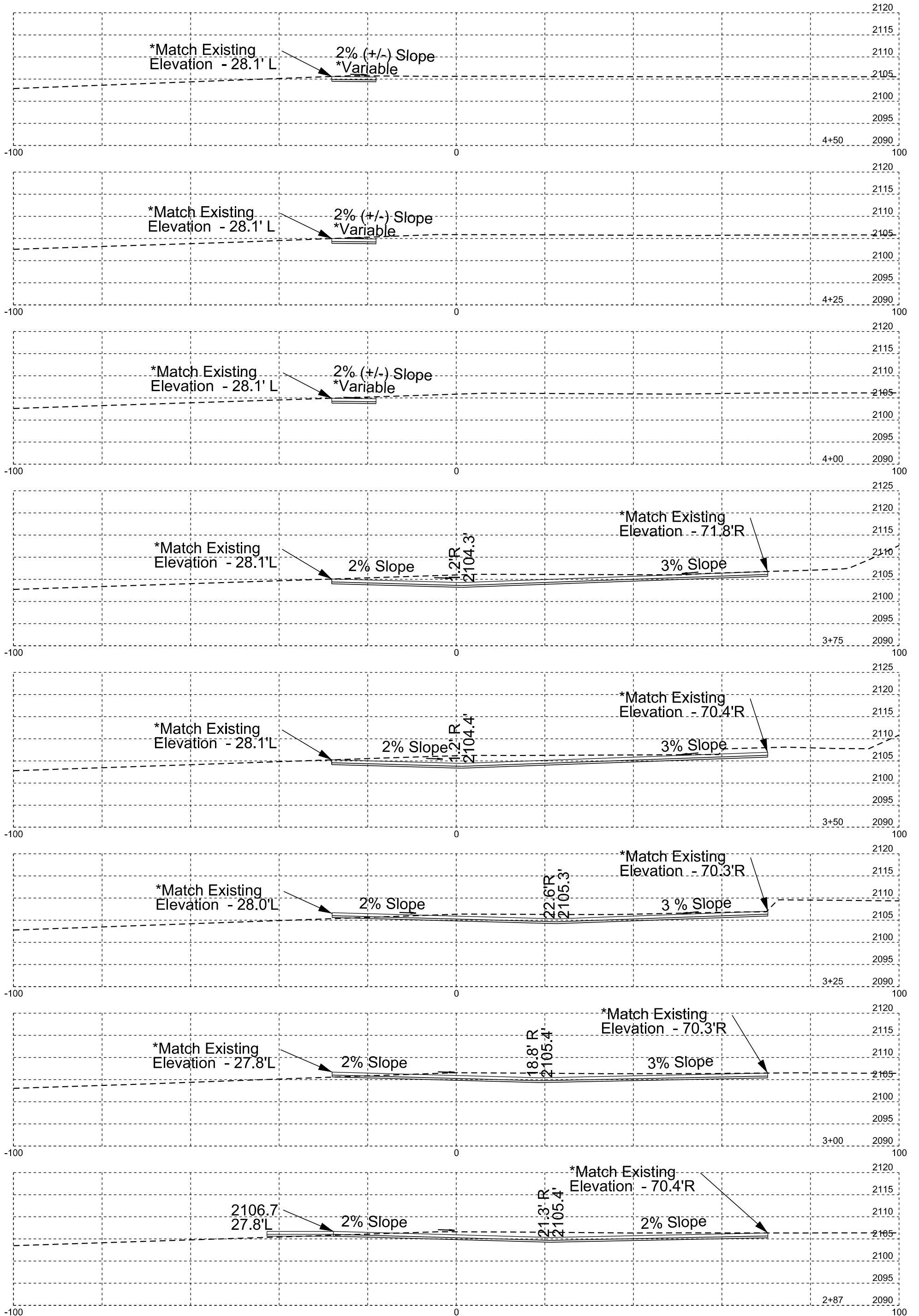
Published Date: 1st Qtr. 2023

PLOT SCALE - 1:200

-PLOTTED FROM - TRPR25289

PLOT NAME - 1

FILE - ... \STANDARD PLATES.DGN



Plotting Date: 05/11/2023

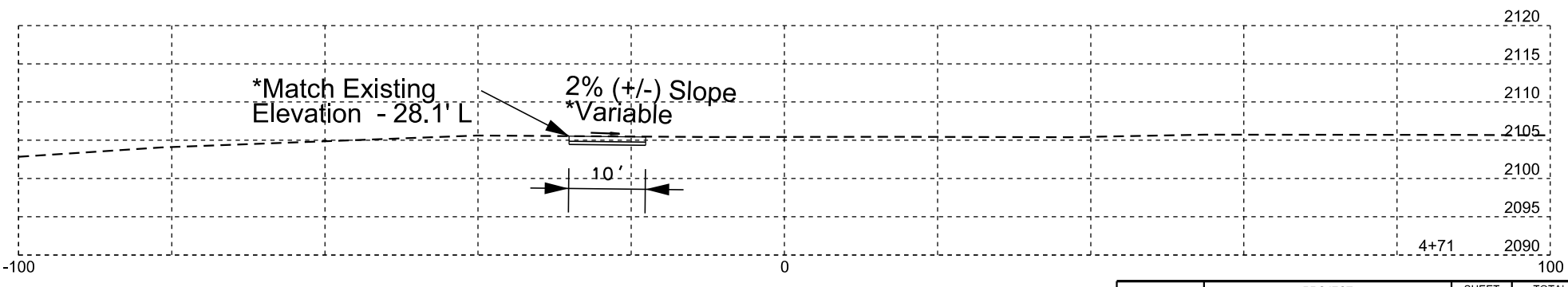
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\*Match Existing  
Elevation - 28.1' L

2% (+/-) Slope  
\*Variable

10'



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