

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
PROJECTS 085-471 & 168-471
US HIGHWAY 85 & SD HIGHWAY 168
BUTTE COUNTY
ASPHALT CONCRETE MILL AND OVERLAY
PCN i7VY & i7W0

INDEX OF SHEETS

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① US85, MRM 54.34+0.040 to MRM 55+0.020 - PCN 17VY

DESIGN DESIGNATION

ADT (2024)	14710
ADT (2044)	21109
DHV	2778
D	50%
T DHV	3.0%
T ADT	6.6%
V	35 MPH

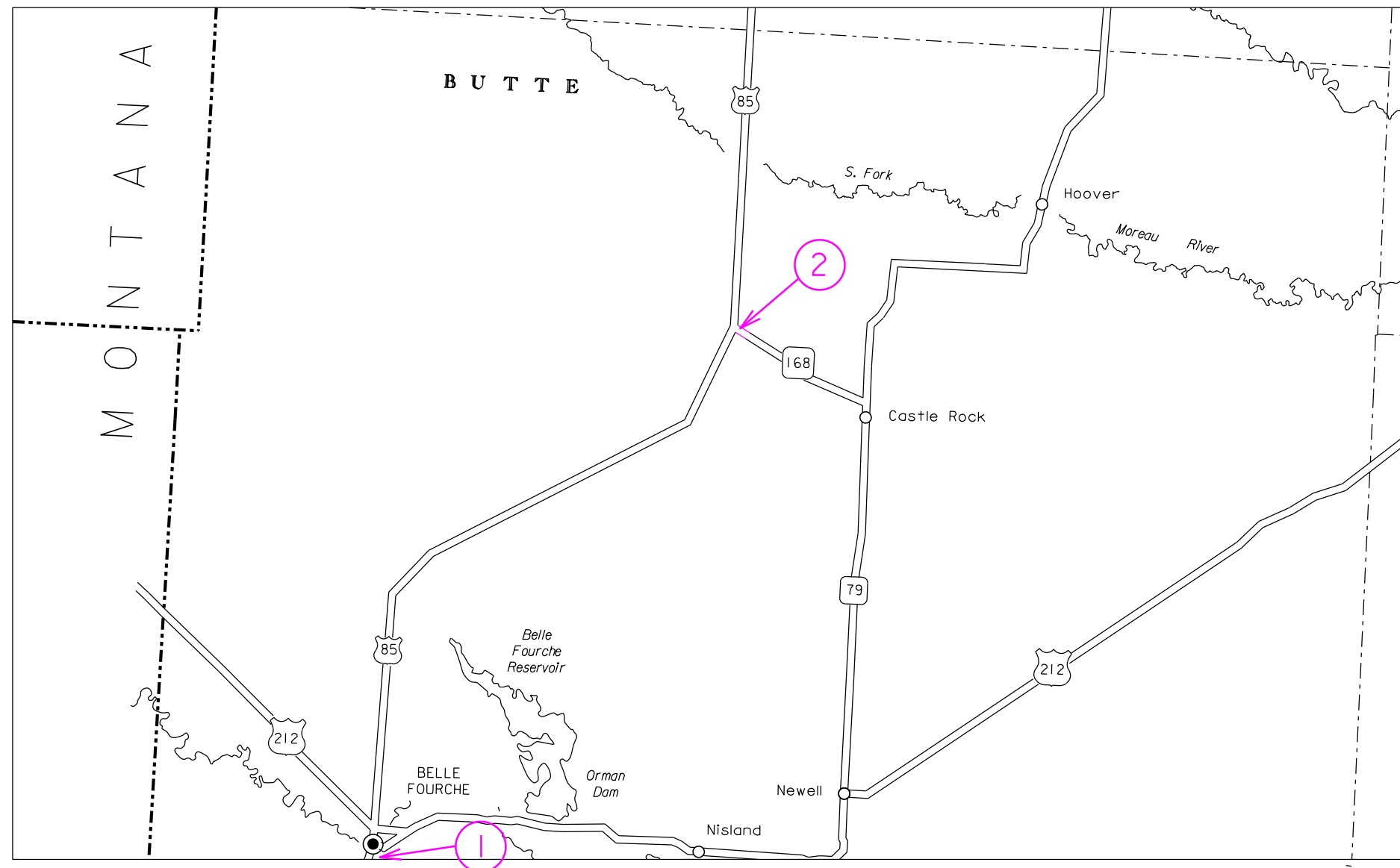
② SD168, MRM 25+0.017 - PCN 17W0

DESIGN DESIGNATION

ADT (2024)	342
ADT (2044)	491
DHV	78
D	50%
T DHV	12.1%
T ADT	26.7%
V	65 MPH

STORM WATER PERMIT

No Permit Required





PROJECT	SECTION	SHEET
085-471 & 168-471	Non	2/15

ESTIMATE OF QUANTITIES

PCN i7VY – US85

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
320E1200	Asphalt Concrete Composite	337.5	Ton
332E0010	Cold Milling Asphalt Concrete	3,000	SqYd
633E0010	Cold Applied Plastic Pavement Marking, 4"	2,360	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	120	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	2,360	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	120	Ft
634E0110	Traffic Control Signs	313.6	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	20	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0640	Temporary Pavement Marking	5,900	Ft
634E1215	Contractor Furnished Portable Changeable Message Sign	1	Each

PCN i7W0 – SD168

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	300	CuYd
260E1010	Base Course	40.0	Ton
320E1200	Asphalt Concrete Composite	93.9	Ton
332E0010	Cold Milling Asphalt Concrete	744	SqYd
633E1220	High Build Waterborne Pavement Marking Paint, 4" White	310	Ft
633E1222	High Build Waterborne Pavement Marking Paint, 4" Yellow	88	Ft
634E0010	Flagging	80.0	Hour
634E0110	Traffic Control Signs	358.5	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 B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

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 (≥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 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.

SHPO/THPO review does not relieve the Contractor of the responsibility 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.

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.

SEQUENCE OF OPERATIONS

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

Work will proceed according to the following sequence:

US85 – i7VY

1. Set up traffic control.
2. Complete milling operations for the three sites
3. Complete paving operations for the three sites.
4. Complete grooving and pavement marking operations.
5. Remove traffic control.

SD168 – i7W0

1. Set up traffic control.
2. Complete milling operations.
3. Complete paving operations.
6. Remove traffic control.

TRAFFIC CONTROL FOR US85

MRM 54.61 to MRM 55.02: Close both southbound lanes along with a portion of the center turn lane as per Standard Plate 634.59. Set up head-to-head traffic on northbound lanes.

MRM 54.41 to MRM 54.61: Transition southbound traffic back to the southbound driving lane. Keep southbound passing lane and center turn lane closed.

MRM 54.38 to MRM 54.41: Keep the southbound passing lane and the center turn lane closed as per Standard Plate 634.56.

A minimum lane width of 16’ will be maintained on the existing roadway through work areas. The Contractor will adjust traffic control items to accommodate over width vehicles when necessary, up to 16’ wide.

Alternate phasing may be required at the Hay Creek location to maintain 16’ width for traffic.

No traffic exposed to uneven lanes or grooved surfaces.

A ROAD CLOSED (R11-2) sign with three Type 3 Barricades will be installed on the East and West sides of the work zone at the intersection of US85 and Summit St. There will also be a ROAD CLOSED TO THRU TRAFFIC (R11-4) sign with a Type 3 Barricade installed on Summit St. at the intersection of Mill St.

The Summit St./US85 traffic signal will need to be temporary turned off and covered. Coverings for traffic signal must be approved by the Engineer. All costs associated with this will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

GROOVED PAVEMENT (W8-15) signs with MOTORCYCLE (W8-15P) plaques are required in advance of areas that have been cold milled and are not resurfaced the same day. The GROOVED PAVEMENT sign assemblies will be installed a minimum of 1000 feet in advance of cold milled sections and remain in place until the sections have been resurfaced.

The Contractor will notify businesses/homeowners a minimum of two weeks prior to construction to inform them of upcoming construction and again a minimum of 48 hours prior to any blocked access to make appropriate arrangements.

FLAGGING

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

It is required that the flaggers be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for “Flagging”.

ITEMIZED LIST OF TRAFFIC CONTROL DEVICES

PCN i7VY – US85

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	1	30"	5.2	5.2
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
R11-2	ROAD CLOSED	2	48" x 30"	10.0	20.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	1	60" x 30"	12.5	12.5
W1-4	REVERSE CURVE (L or R)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W9-3	CENTER LANE CLOSED AHEAD	1	48" x 48"	16.0	16.0
W13-1P	ADVISORY SPEED 25MPH(plaque)	3	30" x 30"	6.3	18.9
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	4	48" x 48"	16.0	64.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		313.6			

PCN i7W0 – SD168

SIGN CODE	SIGN DESCRIPTION	NUMBER	CONVENTIONAL ROAD		
			SIGN SIZE	SQFT PER SIGN	SQFT
W8-1	BUMP	3	48" x 48"	16.0	48.0
W8-7	LOOSE GRAVEL	3	48" x 48"	16.0	48.0
W8-11	UNEVEN LANES	3	48" x 48"	16.0	48.0
W8-15	GROOVED PAVEMENT	3	48" x 48"	16.0	48.0
W8-15P	MOTORCYCLE (plaque)	3	24" x 18"	3.0	9.0
W20-1	ROAD WORK AHEAD	3	48" x 48"	16.0	48.0
W20-4	ONE LANE ROAD AHEAD	3	48" x 48"	16.0	48.0
W20-7	FLAGGER (symbol)	3	48" x 48"	16.0	48.0
G20-2	END ROAD WORK	3	36" x 18"	4.5	13.5
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		358.5			

TABLE OF ADDITIONAL FIXED TRAFFIC CONTROL SIGNS

Location	MRM	L/R	Description
Ziebach Street	54.34(US85)	R	Road Work Ahead (1)
Mall Drive	54.40(US85)	L	Road Work Ahead (1)
Mall Drive	54.40(US85)	L	Left Turn Prohibition(symbol) (1)
Summit Street	54.73(US85)	R	Road Work Ahead (1)
Summit Street	54.73(US85)	R	Stop (1)

All signs will be spaced according to the posted speed or as directed by the Engineer.

PERMANENT PAVEMENT MARKING

The Contractor will be required to repaint all existing pavement markings including centerline, edge line, lane lines. This list is approximate. The Contractor will be required to document and be able to relocate for replacement of the existing markings. before the markings are obliterated. The cost to duplicate the existing marking locations will be incidental to the contract unit prices for the various contract items.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

One week prior to starting work affecting the traveling public, portable changeable message signs (PCMS) will be installed at Northeast corner of US85 and Summit St. to notify drivers of the upcoming construction. The Contractor will program the portable changeable message signs with the following message:

ROAD WORK
STARTS (Date)

CONSIDER
ALT
ROUTE

When work begins that will affect traffic patterns, the Contractor will re-program the PCMS with the following messages:

CROSS
TRAFFIC
NOT STOP

CONSIDER
ALT
ROUTE

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a press release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

COLD MILLING ASPHALT CONCRETE

In areas where maintenance patches have raised and/or widened the road, additional asphalt concrete will be milled to provide a uniform typical section from centerline to the edge of the finished shoulder. Milling will be daylighted to the outside edge of the roadway. Any additional costs associated with this additional cold milling will be incidental to the contract unit price per square yard for Cold Milling Asphalt Concrete.

The initial/final lift of asphalt paving will be completed within 14 days after the pavement has been cold milled. If any pavement repairs or digouts are required by the Engineer after that time frame they will be repaired by the Contractor at their own expense.

Cold milling asphalt is estimated to produce 421 tons of cold milled asphalt concrete material.

The asphalt concrete millings will become the property of the Contractor for disposal.

SD 168 LOCATION

The area shown on the detail sheet will be milled 2".

Additional Unclassified Excavation, Digouts areas will be as directed by the Engineer.

It is estimated that three areas will require digouts. The dimension of the digout areas are:

- 12' x 20'
- 6' x 20'
- 6' x 30'

Digouts will be 1.5' in depth from the roadway surface. One foot of Base Course will be placed in the digout areas followed by 2-2" lifts of Asphalt Concrete Composite

A final 2" lift of Asphalt Concrete Composite will be placed over the entire milled area.

Compaction will be to the satisfaction of the Engineer.

ASPHALT CONCRETE COMPOSITE

The composite will meet Class G aggregate specifications.

Binder will be PG 58-34 or PG 64-34.

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.

COLD APPLIED PLASTIC PAVEMENT MARKING

All materials will be applied as per the manufacturer's recommendations.

Cold Applied Plastic Pavement Markings will be 3M Series 380 IES or an approved equal.

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer's recommendations. High build waterborne pavement marking paint will conform to the supplemental specifications for Section 980.1 B.

Reflective media will consist of glass beads. Reflective media will require a Certificate of Compliance for Certification for each source and lot. Acceptance sampling will not be required.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

- Solid 4" line = 22.5 Gals/Mile
- Dashed 4" line = 6.2 Gal/Mile
- Glass Beads = 8 Lbs/Gal.

All cost for materials, labor, and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

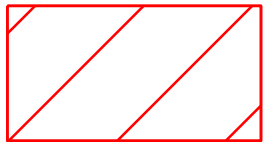
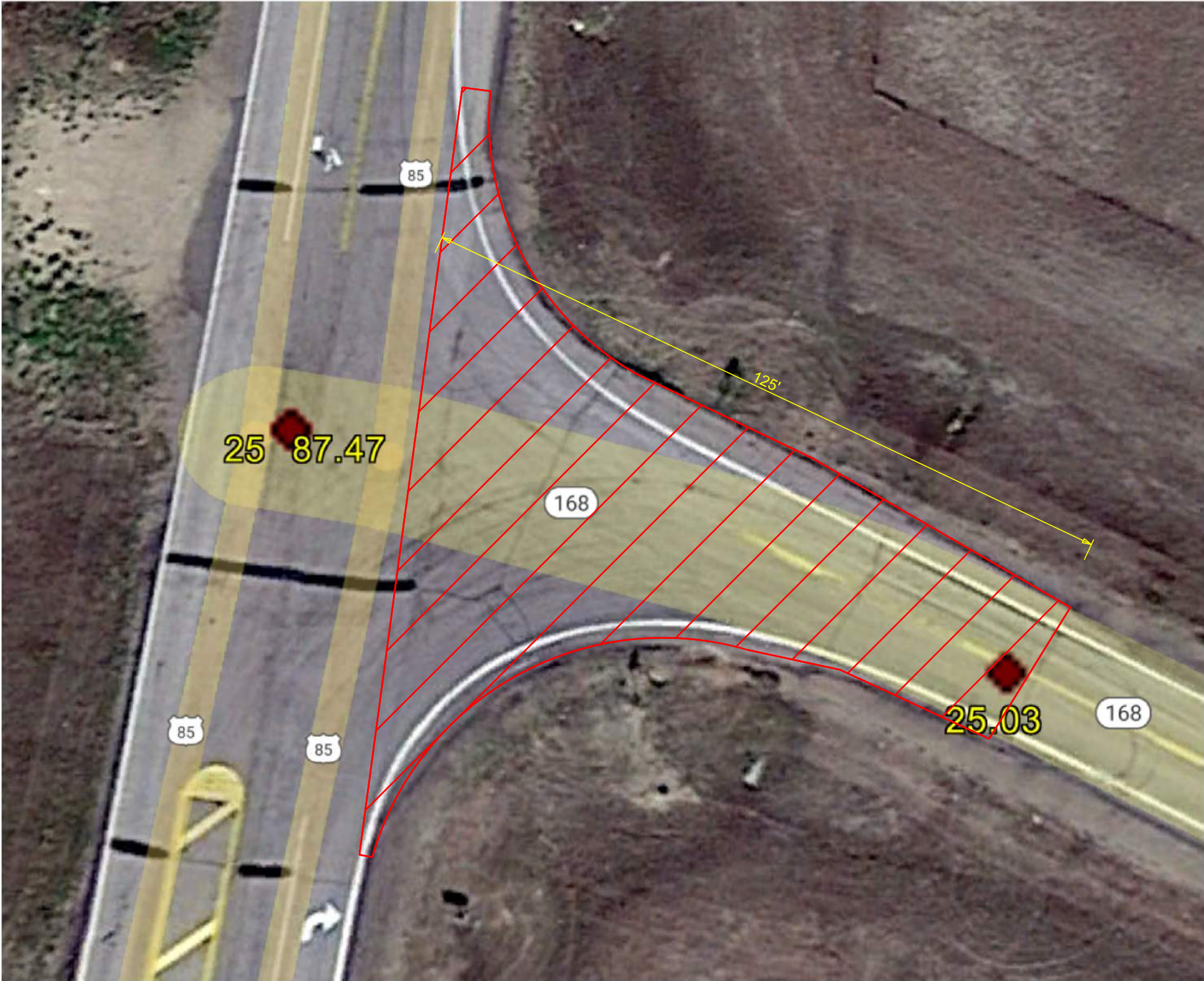
GROOVING FOR COLD APPLIED PLASTIC PAVEMENT MARKING

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. The cleaning of the residue for grooving will be to the satisfaction of the Engineer and may require more than one pass to adequately remove material. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per foot for Grooving for Cold Applied Plastic Pavement Marking contract items.

Table of Quantities - US85 & SD168																							
		MRM Disp		to MRM Disp		Direction	Description	Length	Width	Area	Milling Depth	Unclassified Excavation, Digouts	Cold Milling Asphalt Concrete	Asphalt Concrete Composite	Base Course	High Build Waterborne Pavement Marking Paint, White	High Build Waterborne Pavement Marking Paint, Yellow	Cold Applied Plastic Pavement Marking, 4" (White)	Cold Applied Plastic Pavement Marking, 4" (Yellow)	Grooving for Cold Applied Plastic Pavement Marking, 4"	Cold Applied Plastic Pavement Marking, 24" (White)	Grooving for Cold Applied Plastic Pavement Marking, 24"	Temporatrty Pavement Marking
PCN	Route							Ft	Ft	SqFt	Inches	(CuYd)	(SqYd)	(Ton)	(Ton)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)
i7VY	85	54.34	+0.040	54.40	+0.010	SB	Passing Lane	250	12	3000	2		333.3	37.5				62.5	250	312.5			750
	85	54.40	+0.210	54.73	+0.040	SB	Driving and Passing Lanes	750	24	18000	2		2000.0	225				825	660	1485	128	128	2250
	85	54.93	+0.060	55.00	+0.020	SB	Driving and Passing Lanes	250	24	6000	2		666.7	75				312.5	250	562.5			750
Total													3000.0	337.5				1200.0	1160.0	2360.0	128.0	128.0	3750.0
i7W0	168	25.00	+0.017	25.00	+0.026	EB&WB	Intersection leg			6700	2	300	744.4	93.9	40.0	310	87.5						

ASPHALT CONCRETE RESURFACING - SD 168 - MRM i7W0

SD DOT	PROJECT	SECTION	SHEET
	085-471 & 168-471	Non	7/15
Plotting Date: 5/9/2025			



Mill 2" Depth and Place 2" Asphalt Concrete Composite

Unclassified Excavation, Digouts 1.5' depth as directed by the Engineer
(Place 1' Base Course and 2 - 2" lifts of Asphalt Concrete Composite)

ASPHALT CONCRETE RESURFACING - US 85 - PCN i7VY



Plotting Date: 05/08/2025

PROJECT

085-471 & 168-471

SECTION SHEET

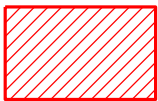
Non 8/15



US85 (Mall Dr.):
Southbound Passing Lane,
250' x 12'

US85 (Summit St.):
Southbound Lanes,
750' x 24'

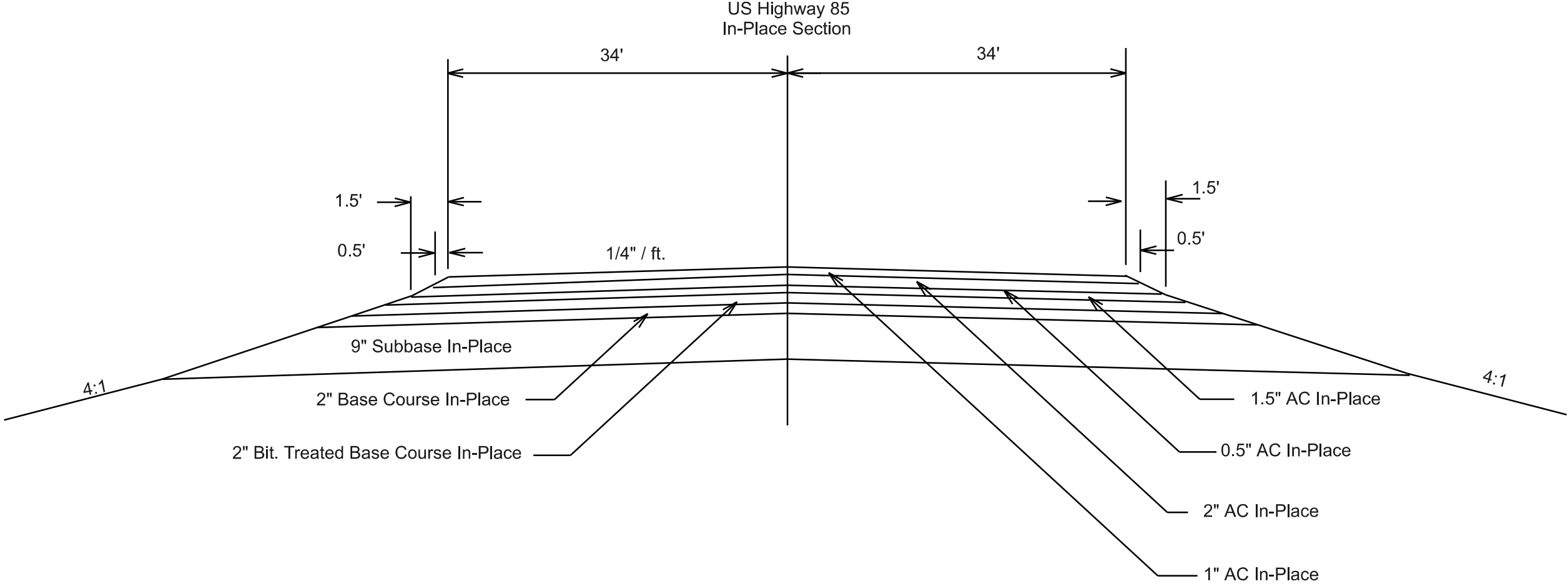
US85 (Hay Creek):
Southbound Lanes,
250' x 24'




Mill 2" Depth and Place 2" Asphalt Concrete Composite

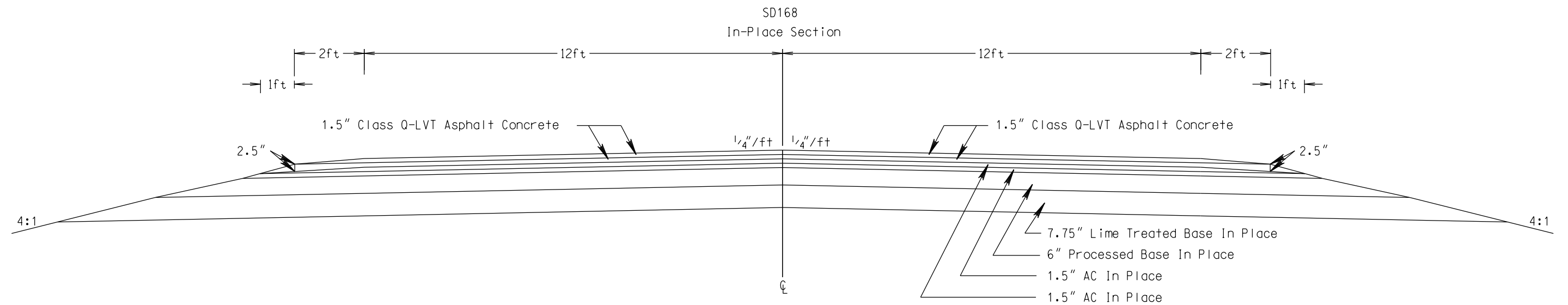
In-Place Section - US85 - PCN i7VY

SD DOT	PROJECT	SECTION	SHEET
	085-471 & 168-471	Non	9/15
Plotting Date: 5/9/2025			



In-Place Section - SD168 - PCN i7W0

 Plotting Date: 5/9/2025	PROJECT	SECTION	SHEET
	085-471 & 168-471	Non	10/15



TYPICAL PAVEMENT MARKING LAYOUT

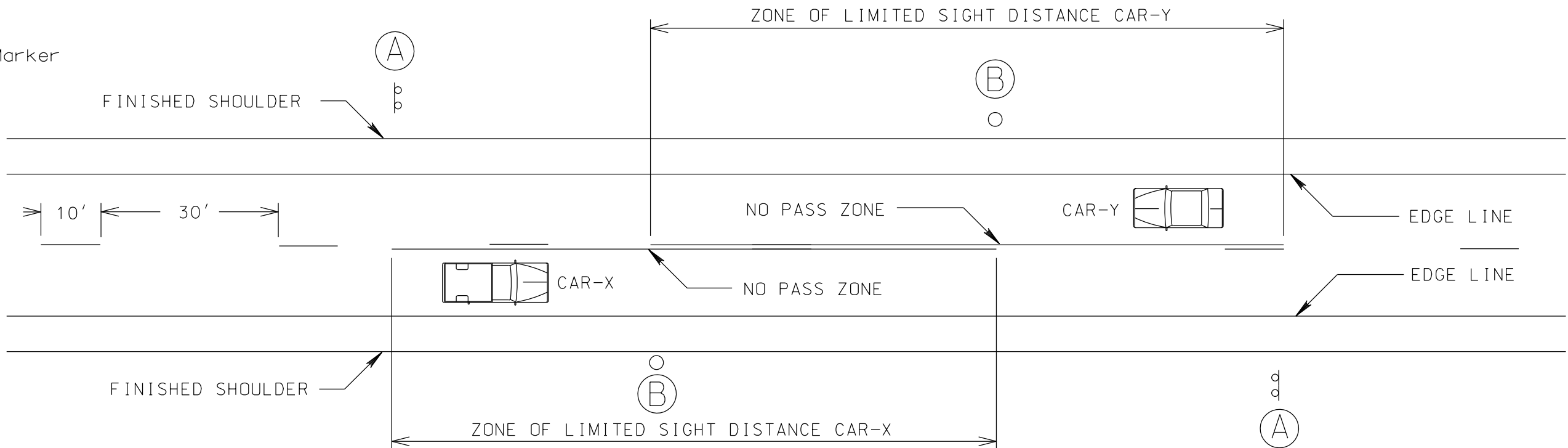


PROJECT	SECTION	SHEET
085-471 & 168-471	Non	11/15

Plotting Date: 5/9/2025



(B) End of Zone Marker



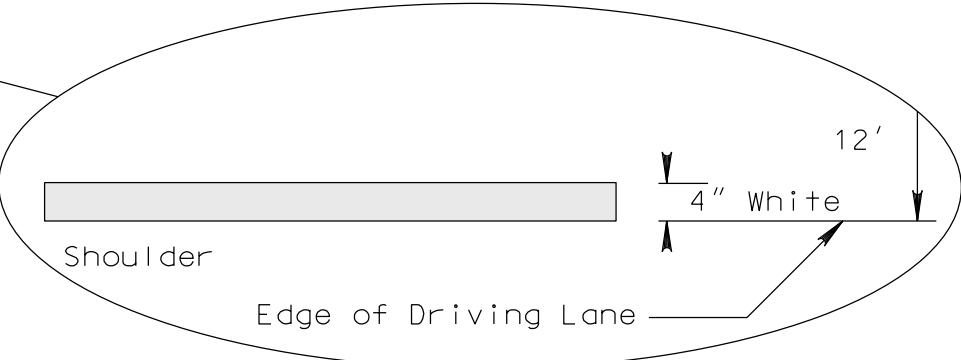
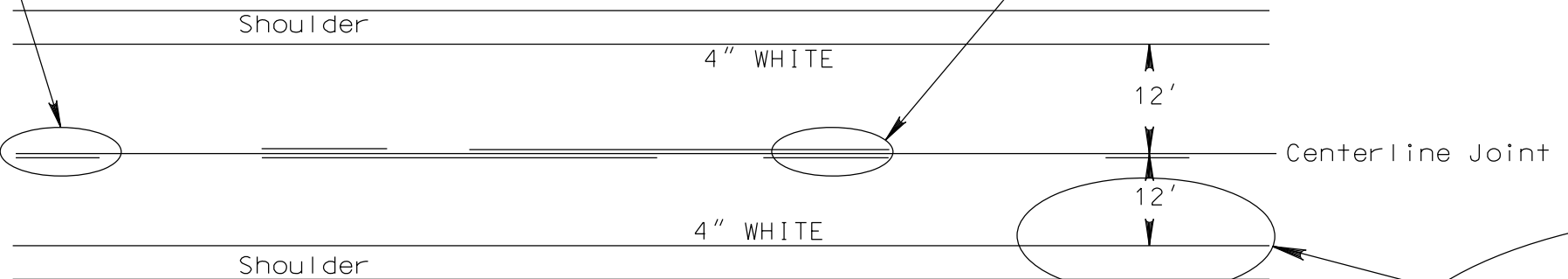
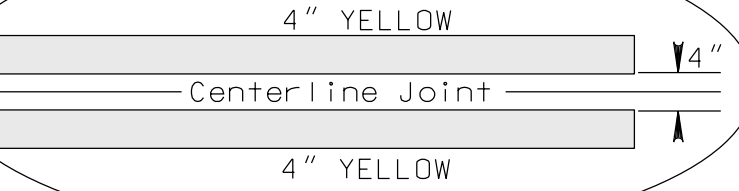
Centerline Detail



NOTE: A TWO "GUN" SYSTEM WILL BE USED TO OBTAIN THIS PATTERN.

WHEN A SINGLE SKIP LINE EXISTS, THE SKIP WILL BE PLACED TO THE SOUTH OR EAST OF THE CENTERLINE JOINT.

Centerline Detail



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45	500	25
50	500	50
55	750	50
60 - 65	1000	50

Flagger

Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices will be drums or 42" cones.

Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.

Warning sign sequence in opposite direction same as below.

20'

100' (Max.)

Buffer Space

One Lane Two-way Traffic Taper

WORK SPACE

ROAD WORK AHEAD W20-1

ONE LANE ROAD AHEAD W20-4

END ROAD WORK G20-2 (Optional)

XXX FEET W16-2P (Optional)

Flagger

Channelizing Device

SD

DOT

LANE CLOSURE WITH FLAGGER PROVIDED

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Sheet 1 of 1

January 22, 2021

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *

* Spacing is 40' for 42" cones.

⊙ Reflectorized Drum

■ Channelizing Device

④ 4" Yellow Temporary Pavement Marking

Pavement markings no longer applicable will be removed or obliterated as soon as practical.

Temporary pavement markings will be used if traffic control must remain overnight.

The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

Use opposing left lane closure only when work may encroach in that lane. If closure is not required use only the ROAD WORK AHEAD sign for opposing traffic and center line channelizing markers.

The length of A and L may be adjusted to fit field conditions.

20'

100' (Max.)

Buffer Space

One Lane Two-way Traffic Taper

WORK SPACE

ROAD WORK AHEAD W20-1

LEFT LANE CLOSED AHEAD W20-5

END ROAD WORK G20-2 (Optional)

XXX FEET W16-2P (Optional)

Flagger

Channelizing Device

SD

DOT

4-LANE UNDIVIDED, LEFT LANE CLOSED

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Sheet 1 of 1

August 31, 2022

