

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000P-471	1	7

STATE OF SOUTH DAKOTA

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECT 000P-471

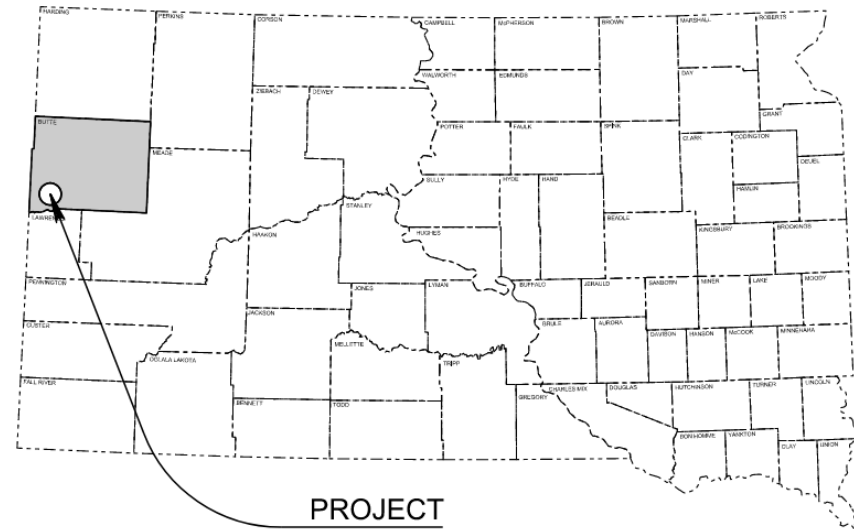
U.S. HIGHWAY 85

U.S. HIGHWAY 212

BUTTE COUNTY

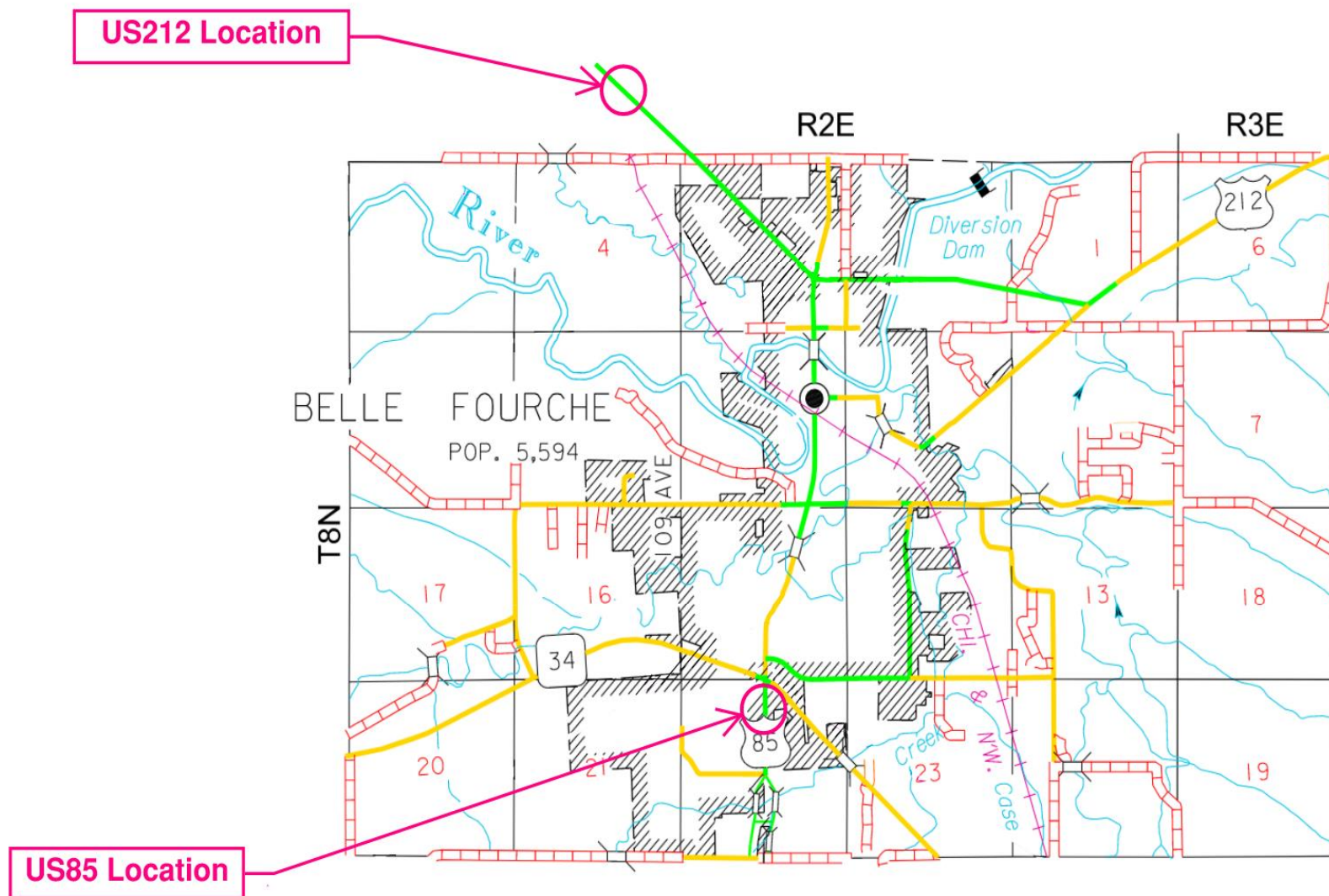
PAVEMENT MARKING IMPROVMENT

PCN i78C



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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
633E0010	Cold Applied Plastic Pavement Marking, 4"	4799	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	160	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow"	11	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	4799	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	160	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow"	11	Each
634E0010	Flagging	50	Hour
634E0110	Traffic Control Signs	112	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	6	Each
634E0420	Type C Advance Warning Arrow Board	1	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	585	Ft
634E0565	Remove Pavement Marking, Arrow	4	Each

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 E: STORM WATER

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.

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.

WORK DESCRIPTON

Work on this project consists of Obliterating existing cold plastic and applying Cold Plastic Pavement Marking Tape and Paint, and replacing with new tape in the updated layouts on the following routes in Belle Fourche:

1. US85 – Between SD34 and Runnings Access
 - Replace all existing paint and tape with tape for the center lane.
 - Surface is PCCP
 - Do not include Stop Bar
 - Do not include white skips or edge lines.
2. US212 – Between Ring Container Technologies Entrance and Belle Fourche Livestock Market Entrance
 - Remove existing paint and tape in center lane and replace with tape in new layout.
 - Surface is PCCP
 - Do not include white skips or edge lines.
 - Edge line will be removed across new entrance north of Ring Container entrance.

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.

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 or each for “Grooving for Cold Applied Plastic Pavement Marking” contract items.

REMOVE PAVEMENT MARKING, 4” OR EQUIVALENT

Markings that fall outside of the new groove will be obliterated using additional methods approved by the Engineer. Removal of the existing markings will be accomplished without causing damage to the pavement, pavement joints, or joint sealant. The Contractor will repair any damage to the pavement, pavement joints, or joint sealant for no additional payment and at no cost to the State. All costs for materials, labor, and equipment

necessary to remove the existing markings will be incidental to the contract unit price per foot for “Remove Pavement Marking, 4” or Equivalent”.

GENERAL TRAFFIC CONTROL

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

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

MAINTENANCE OF TRAFFIC

Each construction work area will be individually signed throughout the entire length of the construction work area.

Resetting, temporary relocation and/or covering of existing or conflicting traffic control devices as necessary to adequately maintain traffic or perform the work, will be the responsibility of the Contractor. This work will be included in the contract lump sum price for Traffic Control, Miscellaneous. Any delineators or signs damaged or lost will be replaced by the Contractor at no cost to the State.

Damage to the ditch due to the Contractor’s operations will be repaired by the Contractor, to the satisfaction of the Engineer, at no expense to the State.

SIGN TABULATION

One table of traffic control sign tabulation is shown for all routes in these plans under the heading labeled “Traffic Control Signs”. The Contractor may work on a maximum of 1 route at any one time therefore the total amount of traffic control signs is paid for once.

SEQUENCE OF OPERATIONS

Construction operations will be conducted in the general direction of traffic movement. Work activities will be confined to 1/2 width of the roadway leaving the adjoining lane open to traffic.

Construction work areas will be limited in length to what the Contractor can prepare and apply in a day’s production. On two lane roads, centerline markings will be in place prior to nightfall.

TRAFFIC CONTROL

Traffic control will be provided in type and quantity as shown on the Traffic Control standard plates. The use and placement of signs will be as shown on the Traffic Control standard plates or as required by the Engineer.

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.

Traffic Control Signs, as shown in the Estimate of Quantities, are estimates. Contractor’s operation may require adjustments in quantities, either more or

less. Payment will be for those signs used on the project, in accordance with the Specifications.

TRAFFIC CONTROL SIGNS

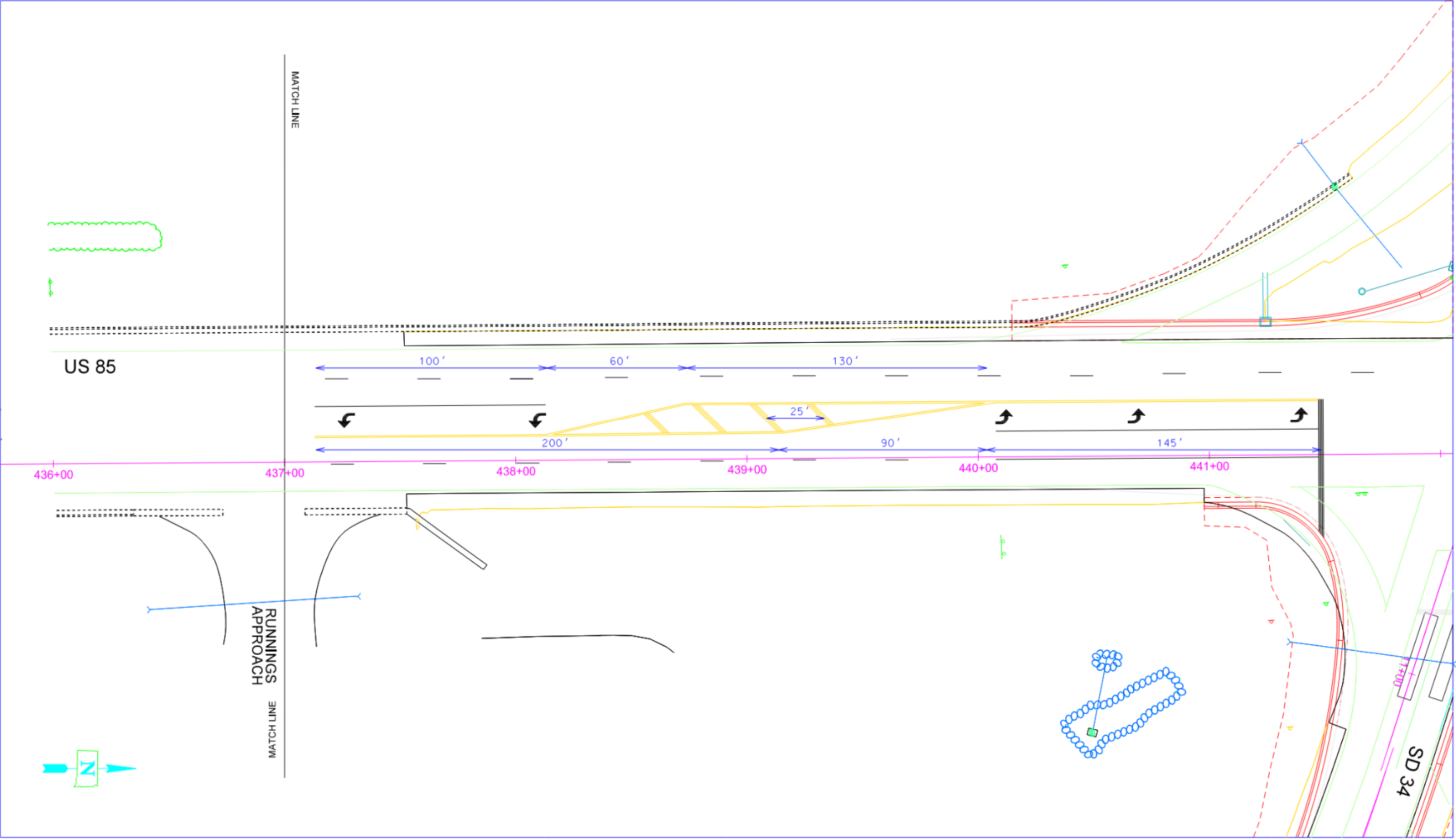
ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS					
SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W4-2	LEFT or RIGHT LANE ENDS (symbol)	1	48" x 48"	16.0	16.0
W9-3	CENTER LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		112.0			

TYPE 3 BARRICADES	
ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Double Sided	6 Each

ARROW BOARDS	
ITEM DESCRIPTION	QUANTITY
Type C Advance Warning Arrow Board	1 Each

QUANTITIES BY ROUTE

	US85	US212	Total Quantity	Unit
Item	Quantity	Quantity		
Mobilization	Lump Sum		Lump Sum	LS
Cold Applied Plastic Pavement Marking, 4”	245 white, 1890 yellow	588 white, 2076 yellow	4799	Ft
Cold Applied Plastic Pavement Marking, 24”	100 yellow	60 yellow	160	Ft
Cold Applied Plastic Pavement Marking, Arrow”	5 left	6 left	11	Each
Grooving for Cold Applied Plastic Pavement Marking, 4”	2135	2664	4799	Ft
Grooving for Cold Applied Plastic Pavement Marking, 24”	100	60	160	Ft
Grooving for Cold Applied Plastic Pavement Marking, Arrow”	5	6	11	Each
Flagging	50		50	Hour
Traffic Control Signs	112		112	SqFt
Traffic Control, Miscellaneous	Lump Sum		Lump Sum	LS
Type 3 Barricade	6		6	Each
Type C Advance Warning Arrow Board	1		1	Each
Remove Pavement Marking, 4” or Equivalent		585	585	Ft
Remove Pavement Marking, Arrow		4	4	Each



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