

PLOT SCALE - 1:200

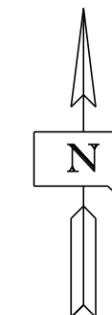
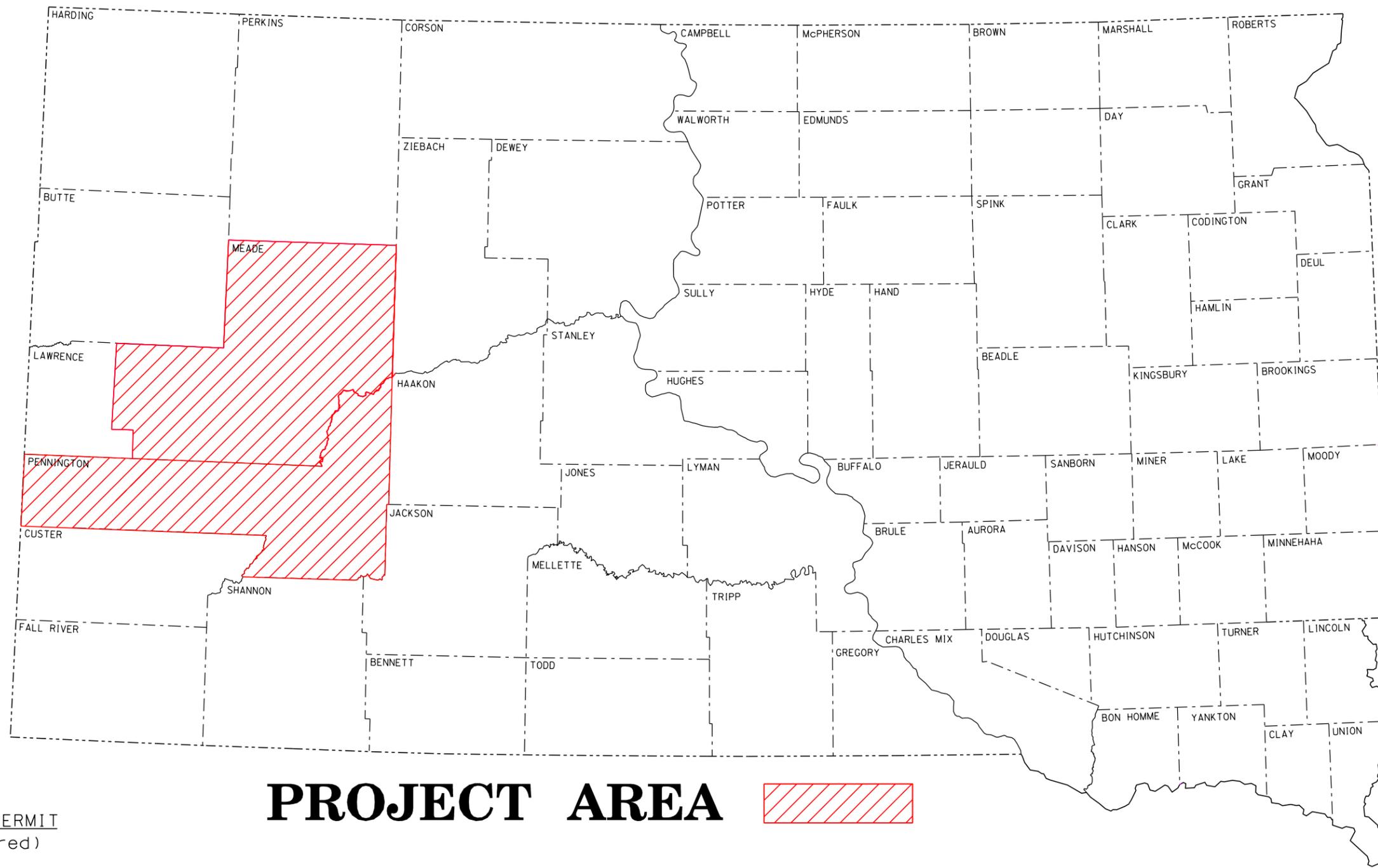
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	1	23

Plotting Date: 02/13/2015

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROJECT P 000S(00)021
COUNTY PAVEMENT MARKING
RAPID CITY REGION
PCN 02ST

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STORM WATER PERMIT
(None Required)

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
633E1300	Pavement Marking Paint, White	11,794.1	Gal
633E1305	Pavement Marking Paint, Yellow	8,932.0	Gal
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

- South Dakota Department of Transportation Standard Specifications for Roads and Bridges, 2004 Edition, Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.
- U.S. Department of Transportation Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition and current Revisions.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived 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. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

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 shall 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 State ROW.

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

The waste disposal site(s) shall 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 Project Engineer.

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of 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 of time not to exceed the duration of the project. Prior to project completion, the waste shall 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) shall be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. 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; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on 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 shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). 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.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order 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 staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)021	3	23

GENERAL NOTES

The Contractor will be required to repaint all existing pavement marking including centerline, edge line, lane lines and word messages. This list is approximate. Additional quantities are included in the estimate of quantities to paint the additional pavement marking.

The in-place pavement markings shall be duplicated when striping. The Contractor shall take the necessary action to retain widths and location of tapers, hash marks, arrows, etc., to be able to reproduce those that are in-place. Quantities of paint are included in the Estimate of Quantities and the cost of this work shall be incidental to the contract unit price per gallon for "Pavement Marking Paint, White" and "Pavement Marking Paint, Yellow".

Pavement edge lines shall be marked 10 to 12 feet from centerline, as directed by the County Highway Superintendent. Driving surfaces less than 20 feet wide for 2 lanes of traffic shall not require edgelines. Edgelines on 2-lane roads 20 feet wide or greater shall be located as shown on the details in these plans. The pavement shall be cleaned of dirt, loose stones, and other foreign material before the paint is applied.

Some of the miles shown in these plans are scheduled to be resealed or overlaid prior to painting. The Contractor shall provide written notice to the Engineer and each County Highway Superintendent at least 20 calendar days in advance of the begin workday for that county. The Contractor shall also give the County Highway Superintendent a verbal 48 hour notice, before beginning work in that County.

When the Contractor starts work in a County he shall pursue the work in that County to completion before commencing work available in another County. Routes that are continuous from one County to another may be marked in one operation.

The Contractor shall limit his operation so that no more than 2 crews are working in one county at any one time.

The Contractor must inform the Engineer weekly of the quantity of paint applied and the location of where the Contractor will be working.

The Contractor shall provide a detailed list showing route, length of route and gallons of paint applied on each route in each county. This list shall be signed by a representative of the County and Contractor before submittal to the State for payment. Payment will not be made until the State receives a detailed and signed list of paint applied. There shall be no payment made to the Contractor until the Certificate(s) of Compliance for the Pavement Marking Paint has been received by the Engineer.

The Contractor shall have a satisfactory calibrated meter on each color of paint to measure the quantity of paint used.

Due to annual surfacing or sealing projects it may be necessary to delete a small amount of the total miles to be marked in some or all of the counties.

Some of the roads in Meade and Pennington County shall be striped prior to the Sturgis Motorcycle Rally as specified in the Special Provision for Contract Time. See the informational tables for both Pennington and Meade County presented on pages 4 through 6.

It is expected that some of the roads will not be ready for striping until after September 15, 2015. The Contractor will be required to return after September 15, 2015 to complete the project if any roads are not ready due to sealing operations.

All materials shall be applied as per manufacturer's recommendations.

COUNTY RESPONSIBILITIES

If a portion of the total miles are to be deleted due to scheduled surfacing or sealing operations, the County Highway Superintendent shall notify the Contractor and the Engineer upon receipt of the Contractor's written notice.

Excess material on resealed roads shall be removed by brooming full width, including edgeline locations, and will be accomplished by County Maintenance Forces in advance of the Contractor's operations.

The County shall provide a representative on the project to coordinate, observe and document quantities for the striping operations. The County shall coordinate with the Engineer for acceptance sampling for paint and beads. Sampling for paint and beads shall be performed as per South Dakota materials Manual SD 501 and SD 510. The County Highway Superintendent or representative of the superintendent shall provide the Contractor all the information needed for No Passing Zones, Railroad Crossings and Turn Lanes as noted in the following paragraphs.

NO PASSING ZONES

No Passing Zones shall be established under the direction of the County Highway Superintendent. The County Highway Superintendent shall verify the No Passing Zones have been checked at an eye height of 3.5 feet prior to painting by the Contractor.

If No Passing Zones need to be established or reestablished, the County shall do so at its own expense.

Beginning and ending of No Passing Zones shall be marked by each County Highway Department prior to the start of work under this contract. The exact starting point for each route to be marked will be determined by the County Highway Superintendent. The County shall mark the center of the road. When there is a seam that does not fall on the center of the road, the center of the road shall be marked every 100 feet to establish the center of the road.

If a No Passing Zone is painted incorrectly, it shall be the Contractor's responsibility to completely remove the incorrect markings and paint correctly at no cost to the State or County. Pavement marking edgelines, centerlines or No Passing Zone lines painted in a non-straight manner, with excessive overspray, in a poor workmanship like manner or not conforming within the tolerances stated in Section 633.3 C. of the Specifications or as shown in the typical marking details in the plans shall be removed and repainted at no cost to the State or County.

RAILROAD CROSSINGS

The County Highway Superintendents shall check the location of Advance Warning Signs and adjust their location as per the MUTCD prior to painting the new markings on the roadway. See Plate Number 633.10.

Pavement marking for each Railroad Crossing shall consist of marking both approaches - crossing symbol and 24" bars before and after each crossing symbol in accordance with the details shown in Plate Number 633.10.

All costs for traffic control devices, signs and SDDOT Certified flaggers used for Railroad Crossing pavement markings shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

NOTE: Paint quantities for Railroad Crossing pavement markings are included in the Bid Item "Pavement Marking Paint, White." (Rate = 4 gallons per crossing and 8 pounds of beads per gallon)

TURN LANES

The locations of the turn lanes are not shown in the plans; therefore the County Highway Superintendents shall provide the Contractor with the location of all turn lanes at the time of the pre-construction meeting or upon receipt of the contractor written notice.

Pavement marking for each turn lane shall follow the details shown in Plate 633.01, unless otherwise specified by the County Highway Superintendent.

All costs for traffic control devices, signs and flaggers used for turn lane markings shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

NOTE: Paint quantities for turn lane pavement markings are included in the Bid Item "Pavement Marking Paint, White" and "Pavement Marking Paint, Yellow". (Rate = 4 gallons of white paint and 16 gallons of yellow paint, per turn lane and 8 pounds of beads per gallon)

RATES OF MATERIALS

- 4" Edgeline - 17± Gallons per Mile of White Paint
- 4" Centerline - 21± Gallons per Pass Mile of Yellow Paint
- 34± Gallons per No Pass Mile of Yellow Paint (It is estimated that 30% of total miles will be no passing)
- Beads - 8 Pounds per Gallon of Paint

Note: If applied on a fresh chip seal, rates are:

- 4" Edgeline - 22± Gallons per Mile of White Paint
- 4" Centerline - 27± Gallons per Pass Mile of Yellow Paint
- 44± Gallons per No Pass Mile of Yellow Paint (It is estimated that 30% of total miles will be no passing)
- Beads - 8 Pounds per Gallon of Paint

TRAFFIC CONTROL

Vehicles working in traffic or alongside traffic shall be equipped with flashing amber light visible from all directions. The amber light shall be mounted on the uppermost part of the contractor's vehicle. Lights must have peak intensity within the range of 40 to 400 candelas and must flash at 75 ± 15 flashes per minute. Vehicle flasher/hazard lights are not acceptable.

All equipment and vehicles entering and exiting closed lanes of traffic in addition to working in traffic or alongside traffic shall display a flashing amber light visible from all directions at a minimum distance of ¼ mile.

All signs, shadow vehicles, arrow boards, of changeable message signs shown in the details for "Mobile Operations On Two-Lane Road" shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

Painting will be allowed only during the hours from 1/2 hour after sunrise to 1/2 hour before sunset.

Cost of traffic control, including arrow panel and any flagging necessary shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

If flagging operation is used per Standard Plate 634.23, signs shall be mounted on portable supports. The bottom of signs on portable supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas.

TABLE OF QUANTITIES

The following table is for information only.

County	County Roads (Mile)	NABI Railroad Crossings (Qty)	NABI Turn Lanes (Qty)	Paint White (Gal)	Paint Yellow (Gal)	NABI Glass Beads (Lb)
MEADE	78.7	3	4	2703.8	2023.6	37819
PENNINGTON	258.7	25	25	9090.3	6908.4	127989
	337.4	28	29	11794.1	8932.0	165809

Any excess paint due to an under run in quantities shall become the property of the Contractor.

NABI = Not a bid item

COUNTY CONTACTS

County	Name	Address	Phone No.	Cell No.
Meade	Ken McGirr	20623 131 st Ave., Sturgis 57785 kmcgirr@meadecounty.org	(605)-347-4565	490-3550
Pennington	Thomas Wilsey	3601 Cambell St., Rapid City 57701 tom.wilsey@pennco.org	(605)-394-2166	430-5107

DEPARTMENT OF TRANSPORTATION CONTACT

John Matthesen, Engineering Supervisor, South Dakota Department of Transportation, PO Box 1970 Rapid City, SD 57709 phone # (605)-394-2248

MEADE COUNTY 2015 PAVEMENT MARKING

The following table was provided by the County for informational purposes:

Road Name	Striping Location	Completion Date	Length Miles	Turn Lane	Railroad Crossing
Sturgis Area					
Avalanch Rd (1-C)	Sturgis City Limit to End of Asphalt	*	1.00		
Whitewood Service Rd (12-W-T)	Sturgis City Limit to Lawrence County Line	**	0.50		
Vanocker Canyon Rd (3-C)	Sturgis City Limit to Lawrence County Line	**	10.00		
Alkali Road (12-C)	Hwy 34 to End of Asphalt	*	5.00		
Blucksberg Rd (BLUCKS)	Exit 34 to End of Asphalt		1.00		
Pleasant Valley Drive (8-T-N)	Exit 34 to Exit 37	*	1.50		2
Piedmont Area					
Anderson Road (R-A-L)	I-90 Service Road to End of Asphalt		0.70		
Sidney Stage Road (4-L-A)	Exit 44 north to End of Asphalt		0.50		
Stage Stop Road (W-H-L)	Exit 48 to End of Asphalt		0.50		
Elk Creek Rd (4-C)	Exit 46 to End of Asphalt	*	8.00		1
Black Hawk Area					
Peaceful Pines (2-L)	Hwy 79 to Woodland Hills		2.00		
Peaceful Pines/Deadwood Ave (2-L)	Exit 52 east to Pennington Co. Line	*	3.00	2	
Ericson Ranch Rd (7-L)	Elk Creek Rd to Peaceful Pines	*	6.00		
Seeaire St (7-L-S)	Peaceful Pines to West Elm St		0.50		
West Elm (7-L-E)	Seeaire St to Hwy 79 Service Rd		0.50		
Norman Ave (FOOTHLS)	Peaceful Pines North and East		3.00		
Rapid City Area					
N. Haines Ave (9-C)	Elk Creek Rd to Pennington Co Line	*	6.00	2	
Central Meade Co.					
Bixby Rd (31-L)	Hwy 34 to Perkins Co Line		1.00		
New Underwood Rd (21-C)	Pennington Co Line to Hwy 34		28.00		

* Preferred to be striped prior to Sturgis Motorcycle Rally.

** Shall be striped prior to Sturgis Motorcycle Rally. See Special Provision for Contract Time

PENNINGTON COUNTY 2015 PAVEMENT MARKING

The following table was provided by the County for informational purposes:

Road Name	Striping Location	Surf Type	Completion Date	Length Miles	Turn Lane	Railroad Crossing
Rapid City Area						
143 rd Avenue	225 th St south to Country Rd	AST		1.00		
143 rd Avenue	Country Rd south to 300 feet south of Neva Way	AC		0.50		
151 st Avenue	225 th south to Hwy 1416	AC		2.04		
154 th Avenue	233 rd St south to Dawkins Rd	AST		1.86		
225 th Street	143 St east to Dyess Ave	AST		1.00		
225 th Street	150 Ave east to 151 Ave	AST		1.02		
47 th Avenue West	Wilderness Canyon Rd northeast to Bears Loose Rd	AC		1.07		
Anderson Road	0.30 North of Long View Rd south to Long View Rd	AC		0.31		
Anderson Road	Long View Rd south to E Hwy 44	AST		1.00		
Anderson Road	E Hwy 44 south to Southside Dr	AC		0.99		
Anderson Road	Southside Dr south for 0.49 miles	AC		0.33		
Bennett Road	Meade County Line south to Country Rd	AST		1.04		
Bradsky Road	E Hwy 44 south to 0.07 miles east of Dawkins Rd	AC		1.60		
Cavern Road	W Hwy 44 northwest to end of road	AC		0.46		
Clarkson Road	Sheridan Lake Rd southwest thence southeast to 278 feet southeast of Cougar Ct	AC		1.80		
Cleghorn Canyon Road	500' West of Jackson Blvd northwest for 1.00 miles	AST		1.08		
Country Road	143 Ave east to West Gate Rd	AC		4.03		
Dark Canyon Road	W Hwy 44 west for 1.37 miles	AST		1.37		
Daughenbaugh Road	S Hwy 79 to 0.50 miles south of Dewey Ln	AST		1.99		1
Deadwood Avenue, North	Meade County Line south for 0.56 miles	AC		0.56		
Dunn Road	Anderson Rd east to Radar Hill Rd	AST		0.98		
Dunsmore Road	Sheridan Lake Rd south thence southwest to 225 feet west of Eagle Canyon Dr	AC		1.32		
Dunsmore Road	225 feet west of Eagle Canyon Dr south to end of cul-de-sac	AST		0.05		
Dyess Avenue	Meade County Line south to 0.25 miles south of Country	AC		1.39		
Elk Vale Road, North	Meade County Line south to Country Rd	AC		1.06		
Everest Road	Sturgis Rd southeast for 0.20 miles	AST		0.00		1
Forest Road	Sonquist Ln southeasterly to W Hwy 44	AST		1.37		
Green Valley Drive	Reservoir Rd southeast to Anderson Rd	AC		1.17		
Haines Avenue, North	Meade County Line southeast for 0.31 miles	AST		0.31		
Hart Ranch West Road	Neck Yoke Rd south to Rodeo Rd	AC		1.09		
Hisega Road	W Hwy 44 southeast thence southwest to Hisega Dr	AST		1.29		
Jolly Lane	Twilight Dr south to E Hwy 44	AST		0.59	1	
LaCrosse Street	280 feet south of Centre St south to San Francisco St	AC		0.22		
Lamb Road	Old Folsom Rd east to Reservoir Rd	AC		1.11		1
Liberty Boulevard	Tower Rd east and south to Hwy 1416	PC		1.33	1	

Road Name	Striping Location	Surf Type	Completion Date	Length Miles	Turn Lane	Railroad Crossing
Rapid City Area cont.						
Long View Road	E Hwy 44 east to Reservoir Rd	AC		0.10	2	
Long View Road	Reservoir Rd east to Radar Hill Rd	AST		1.91	2	
Long View Road	Radar Hill Rd east 1.00 mile, then continuing at 2.83 miles west of 153 Ave east for 0.84 miles, excluding area within Rapid City Limits	AST		1.86		
Long View Road	1.99 miles west of 153 Ave east to 154 Ave, excluding area within Rapid City Limits	AST		3.01		
Lower Spring Creek Road	S Hwy 79 southeast to Old Folsom Rd	AC		2.35		
Lower Spring Creek Road	Old Folsom Rd south to 2.05 miles east of Wedmore Rd	AC		8.35		1
Merritt Road	Northdale Dr west 0.24 miles west of Quarry Rd	AST		0.00		1
Moon Meadows Road	Dunsmore Rd east thence southeast for 2.04 miles	AC		2.04		
Morris Lane	Anderson Rd east to Radar Hill Rd	AST		0.99		
Nameless Cave Road	W Hwy 44 northwest to end of road	AST		1.98		
Neck Yoke Road	S Rockerville Rd east to Pine Grove Rd	AC	*	1.98		
Neck Yoke Road	Pine Grove Rd southeast to Spring Creek Rd	AST	*	4.94		
Neck Yoke Road	Spring Creek Rd north to S Hwy 16	AC	*	0.33		
Nemo Road	Lawrence County Line southeast to Norris Peak Rd	AST	**	2.08		
Nemo Road	Norris Peak Rd northeast thence southeast to Potter Rd	AC	**	3.29		
Nemo Road	Potter Rd southeast to Kings Rd	AST	**	2.24	1	
Nemo Road	Kings Rd southeast to Westberry Hill Rd	AC	**	1.90	2	
Nike Road, West	Meade County Line south for 0.91 miles	AST		0.87		
Norris Peak Road	Nemo Rd southwest to W Hwy 44	AST	**	4.42		
Old Folsom Road	S Hwy 79 east for 0.51 miles	AC		0.56		
Old Folsom Road	0.51 miles east of Hwy 79 southeast to Lamb Rd	AC		2.11		
Old Folsom Road	Lamb Rd south to Antelope Creek Rd	AST		2.82		
Old Folsom Road	Antelope Creek Rd south to Lower Spring Creek Rd	AST		2.13		
Radar Hill Road	229 St south to Long View Rd	AST		2.02	1	
Radar Hill Road	Long View Rd south to E Hwy 44	AC		1.47	1	
Radar Hill Road	E Hwy 44 south to end of road	AC		0.15		
Reservoir Road	Meadow Ridge Dr south to Twilight Dr	AC		0.53		
Reservoir Road	Twilight Dr south to E Hwy 44	AC		0.06	1	
Reservoir Road	E Hwy 44 south to Lamb Rd	AST		2.62		
Rockerville Road, South	S Hwy 16 south to Neck Yoke Rd	AST	*	0.91		
Rockerville Road, South	Neck Yoke Rd southwest to Hwy 40	AST	*	4.72		
San Francisco Street	La Crosse St east to Cambell St	AC		0.52		
Schroeder Road	Ridgeland Loop northeast to Nemo Rd	AST		1.65		
Sheridan Lake Road	Hwy 385 east to Boulder Hill Rd	AC	**	5.06		
Sheridan Lake Road	Boulder Hill Rd northeast to Victoria Lake Rd	AC	**	3.98		
Sheridan Lake Road	Victoria Lake Rd east to Alberta Dr	AC	**	2.52	1	
Sheridan Lake Road	Albertta Dr east to 270 feet south of Wildwood Dr	AC	**	2.23	7	
Sherman Street	Silver City Rd south to end of street	AST	*	0.07		

Road Name	Striping Location	Surf Type	Completion Date	Length Miles	Turn Lane	Railroad Crossing
Rapid City Area cont.						
Silver City Road	Hwy 385 southeast to Sherman St	AST	*	4.58		
Silver Mountain Road	S Hwy 16 southwest reconnecting to S Hwy 16	AC	*	2.09		
South Canyon Road	Westberry Hill Rd east to 224 feet west of Roubaix Dr	AC	*	1.94	1	
Southside Drive	Reservoir Rd east to Redemption Rd	AC		1.52		
Spring Canyon Trail	Sheridan Lake Rd south to Mountain Pine Ln	AST		0.35		
Spring Creek Road	Arena Dr southeast to S Hwy 79	AC	*	1.75		
Spring Creek Road	Neck Yoke Rd east to Arena Dr	AC	*	3.10		
Thunderhead Falls Road	W Hwy 44 south to end of road	AST		1.47		
Twilight Drive	Reservoir Rd east to 272 feet east of Helios Dr	AST		0.12		
Universal Drive	Sturgis Rd southeast to 672 feet east of Lien Quarry Rd	AC		1.39		1
Valley Drive, South	E Saint Patrick St south to E Fairmont Blvd	AST		1.00		
Westberry Hill Road	Nemo Rd south to Westberry Ct	AST		0.33		
Wide View Drive	Sun Ridge Rd southeast to South Canyon Rd	AST		0.37		
Wilderness Canyon Road	Wilderness Cir south to S Hwy 16	AC		1.42		
Wilderness Circle	End of Wilderness Canyon Road	AC		0.26		

Hill City Area						
Deerfield Road	Mystic Rd southeast to Hwy 385	AC	**	5.36		
Deerfield Road	Slate Prairie Rd southeast to Mystic Rd	AC	**	4.87		
Deerfield Road	Gillette Prairie Rd east to Slate Prairie Rd	AC	**	4.26		
Deerfield Road	W Deerfield Rd southeast to Gillette Prairie Rd	AC	**	3.26		
Mystic Road	End of AST south to Deerfield Rd	AC	**	0.48		
Old Hill City Road	E Main St southeast to Twin Springs Rd	AST	**	4.10	2	5
Old Hill City Road	Twins Spring Rd east to Camp Judson	AST	**	3.23		7
Old Hill City Road	Camp Judson east to Hwy 16A	AC	**	2.84		2
Pink Cabin Road	S Hwy 16 south to Old Hill City Rd	AC	*	1.14		
Playhouse Road	Hwy 40 south to Custer County Line	AST	*	3.16		
Rochford Road	S Rochford Rd northeast to N Rochford Rd	AST	*	0.67		
Rochford Road	N Rochford Rd east for 0.62 miles	AST	*	0.62		
Rochford Road, North	Lawrence County Line south to Rochford Rd	AST	*	1.23		
Rochford Road, South	350 feet north of Forest Service Rd #461 south to W Deerfield Rd	AC	*	1.01		
Twin Springs Road	S Hwy 16 southwest to Old Hill City Rd	AC	*	1.04		1

Road name	Striping Location	Surf Type	Completion Date	Length Miles	Turn Lane	Railroad Crossing
<u>New Underwood Area</u>						
156 th Avenue	Hwy 1416 south to 229 St	AC		2.00		1
160 th Avenue	Base Line Rd south to E Hwy 44	AC		2.72		
160 th Avenue	E Hwy 44 south to end of pavement	AST		1.89		
161 st Avenue	Meade County Line south to Hwy 1416	AC		2.98		
161 st Avenue	South end of A Ave south to 232 St	AST		3.61		
161 st Avenue	232 St south to Base Line Rd	AC		3.00		
171 st Avenue	0.46 miles south of Meade County Line south to Hwy 1416	AST		2.41		
173 rd Avenue	Meade County Line south to I-90	AC		2.34		
173 rd Avenue	I-90 south to Hwy 1416	AST		0.44		
173 rd Avenue	Hwy 1416 south for 5.42 miles to Owanka	AST		5.42		1
A Avenue	Hwy 1416 south for 0.57 miles	AST		0.57		1
Base Line Road	160 Ave east to 161 Ave	AC		1.38		
Bombing Range Road	Indian Creek Rd to Shannon County Line	AC		6.75		
Dawkins Road	E Hwy 44 east to 840 feet north on 154 Ave	AST		0.79		
Elm Springs Road	1,356 feet south and 1,065 feet west of the NE corner of Section 5, T1N, R14E south to Hwy 1416 thence east to C Ave	AST		0.77		
Highway 14/16	West Gate Rd including eastbound lane of 2.55 miles, and westbound lane of 2.55 miles to 0.54 miles east of Ellsworth Rd	AC		5.09	1	
Highway 14/16	0.54 miles east of Ellsworth Rd east to 151 Ave	AC		1.59	1	
Highway 14/16	151 Ave east to 160 Ave	AC		9.19		
Highway 14/16	160 Ave east to 161 Ave	AC		1.01		
Highway 14/16	161 Ave east to 167 Ave	AC		5.98		
Highway 14/16	167 Ave to 173 Ave	AST		5.99		

<u>Wall Area</u>						
Golf Course Road	Glenn St west 1.00 mile thence south to Sage Creek Rd	AST		2.04		
Quinn Road	Kelly Hill Rd south to Wolf Rd	AC		5.10		
Quinn Road	Wolf Rd south to Hwy 14	AC		3.66		1
Sage Creek Road	Hwy 240 west 5.00 miles thence south for 0.20 miles	AC		5.20		
Sage Creek Road	0.20 miles south of 237 St south to Rim Rd	AST		1.30		

* Preferred to be striped prior to Sturgis Motorcycle Rally.

** Shall be striped prior to Sturgis Motorcycle Rally. See Special Provision for Contract Time.

AC = Asphalt Concrete surfacing type

AST = Asphalt Surface Treatment surfacing type

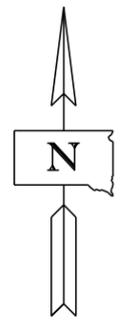
PC = Portland Concrete surfacing type

STATE OF SOUTH DAKOTA	PROJECT P 000S(00)021	SHEET NO. 8	TOTAL SHEETS 23
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Plotting Date: 02/13/2015

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

MEADE COUNTY (North Central)



78.7 MILES OF CENTERLINE & EDGELINE

3 RAILROAD CROSSINGS

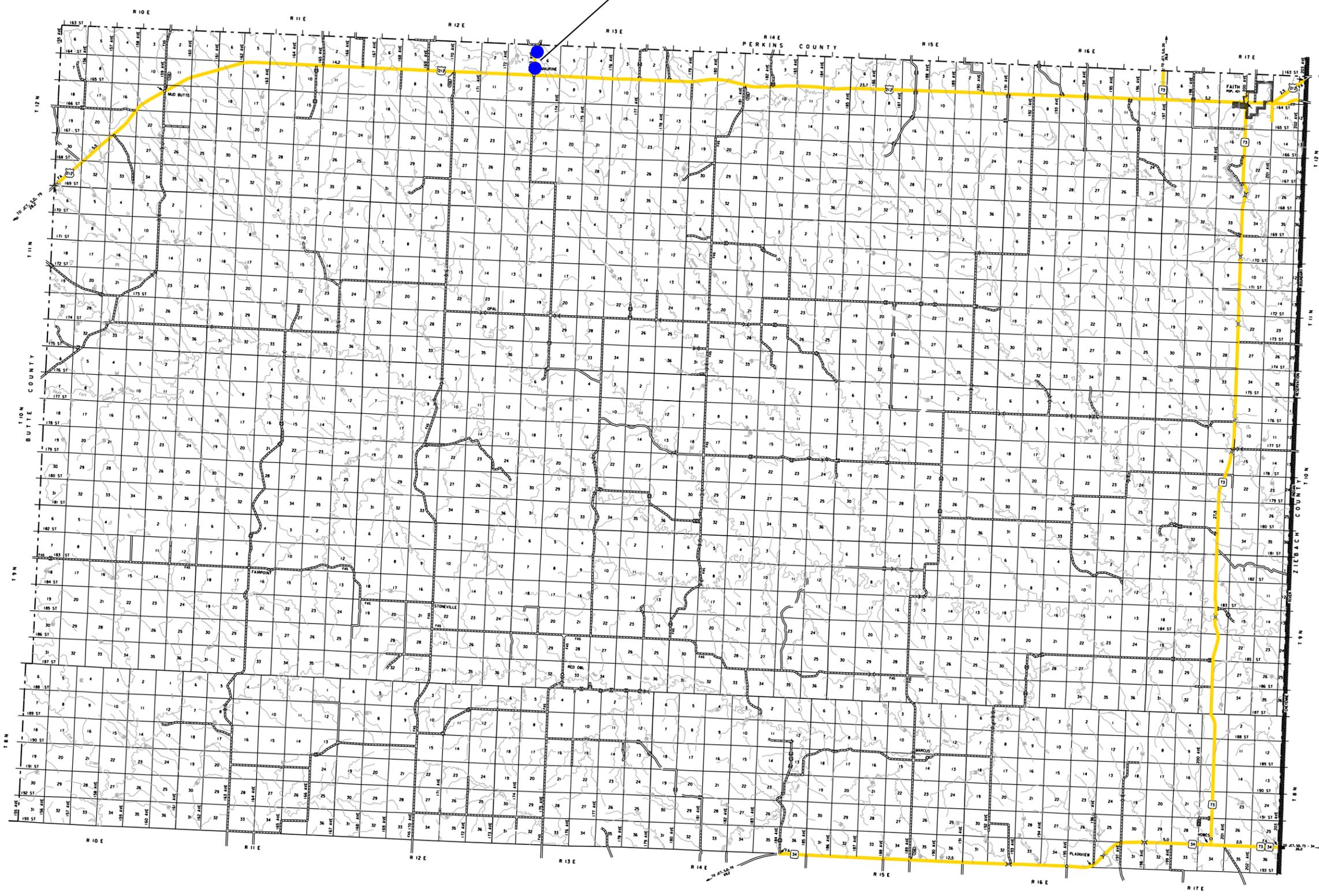
4 TURN LANES
(contact county for locations)

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

PLOT SCALE - 1:200

Bixby Rd (31-L)



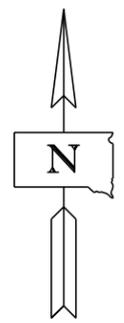
FILE - ...ARC DESIGN\MEADE\NCENTRAL.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	9	23

Plotting Date: 02/13/2015



MEADE COUNTY (BLACK HAWK)

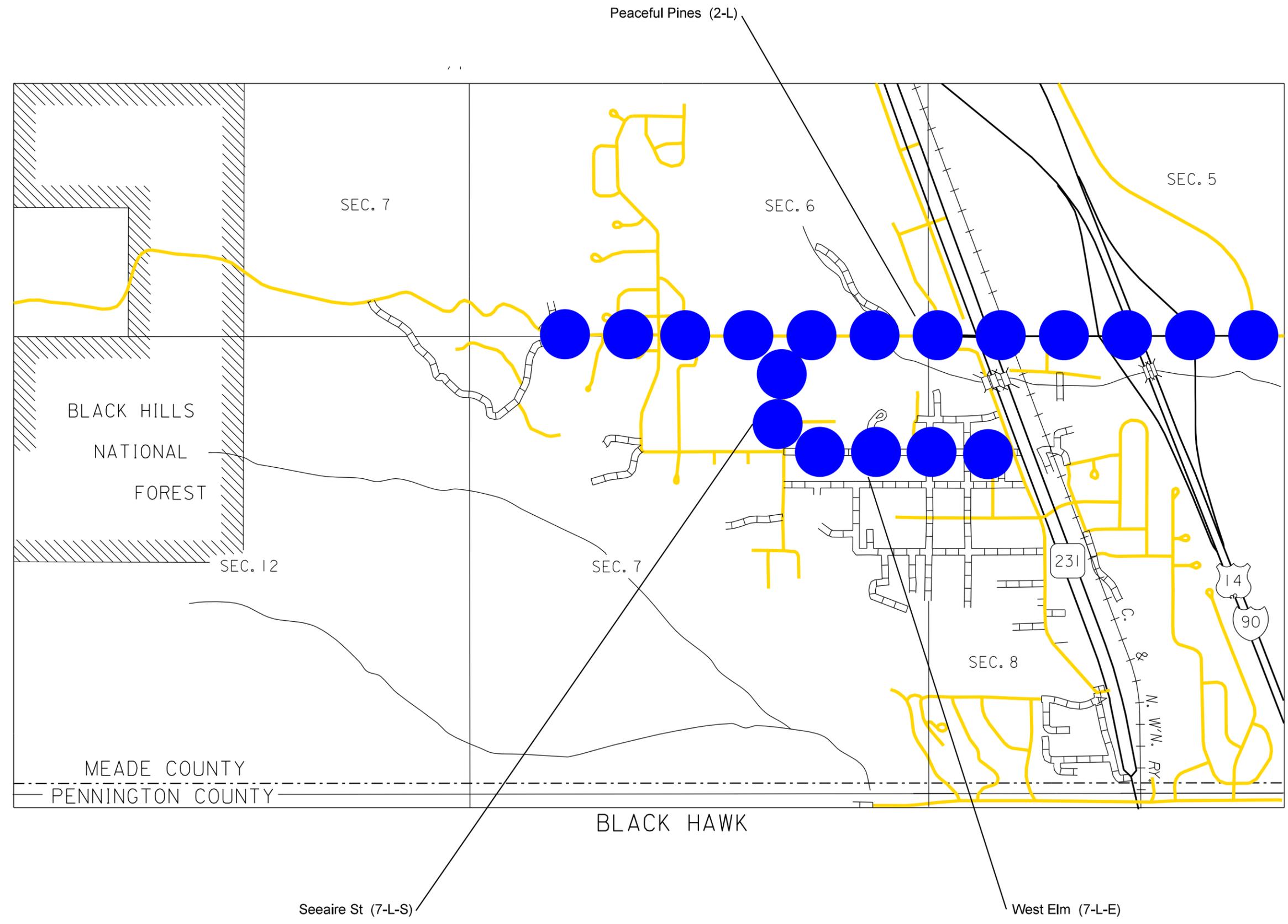


see sheet 8 for miles of striping

LEGEND

- CENTERLINE & EDGELINES
- CENTERLINE ONLY
- EDGELINES ONLY
- RAILROAD CROSSING
- CENTERLINE & EDGELINES NEW CHIP SEAL
- CENTERLINE ONLY NEW CHIP SEAL
- EDGELINES ONLY NEW CHIP SEAL

PLOT SCALE - 1"=200'



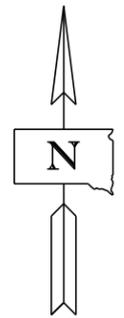
FILE ... ARC DESIGN\MEADE BLACK HAWK.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	10	23

Plotting Date: 02/13/2015

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

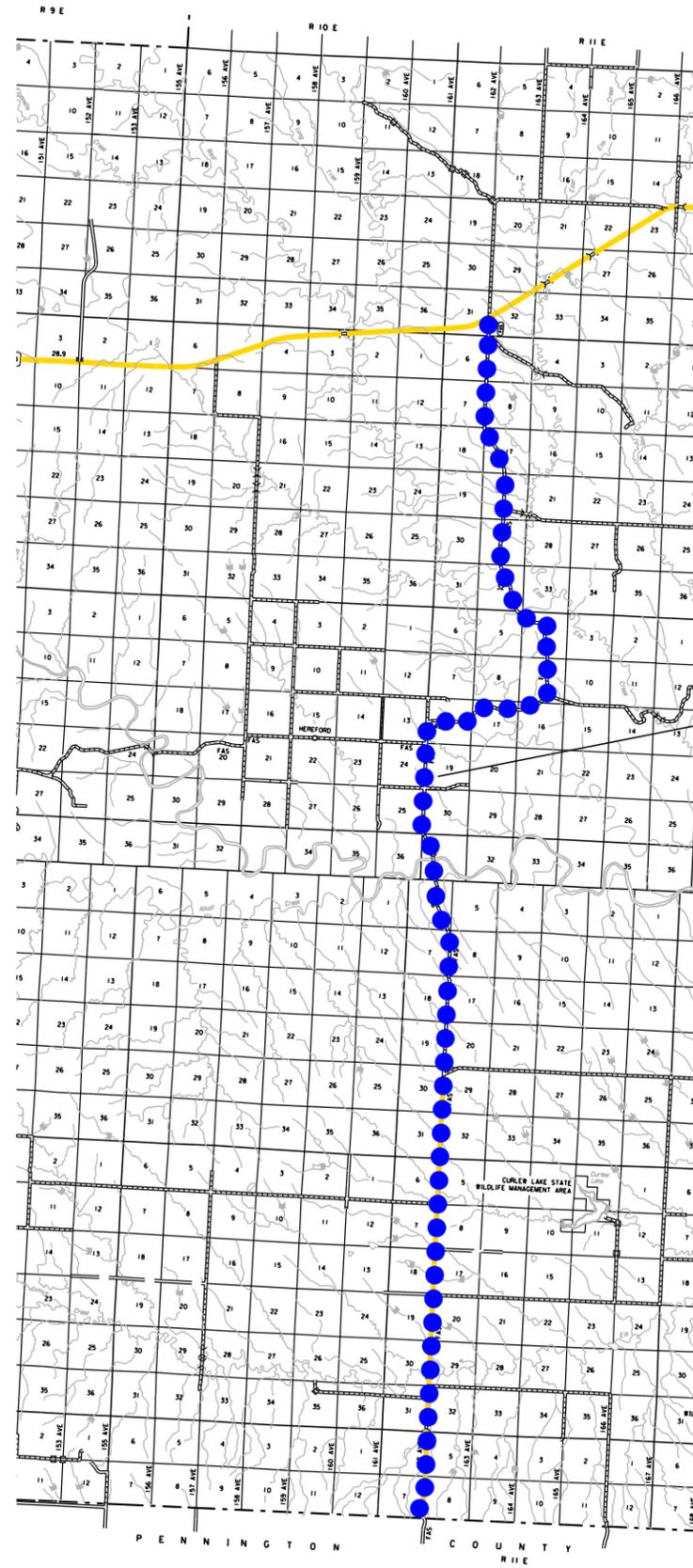
MEADE COUNTY (Central)



see sheet 8 for miles of striping

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL



New Underwood Rd. (21-C)

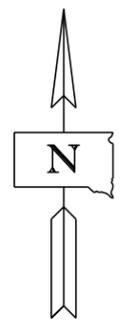
PLOT SCALE -- 1"=200'

FILE ... ARC DESIGN\MEADE CENTRAL.DGN

Plotting Date: 02/13/2015

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

MEADE COUNTY (South West)



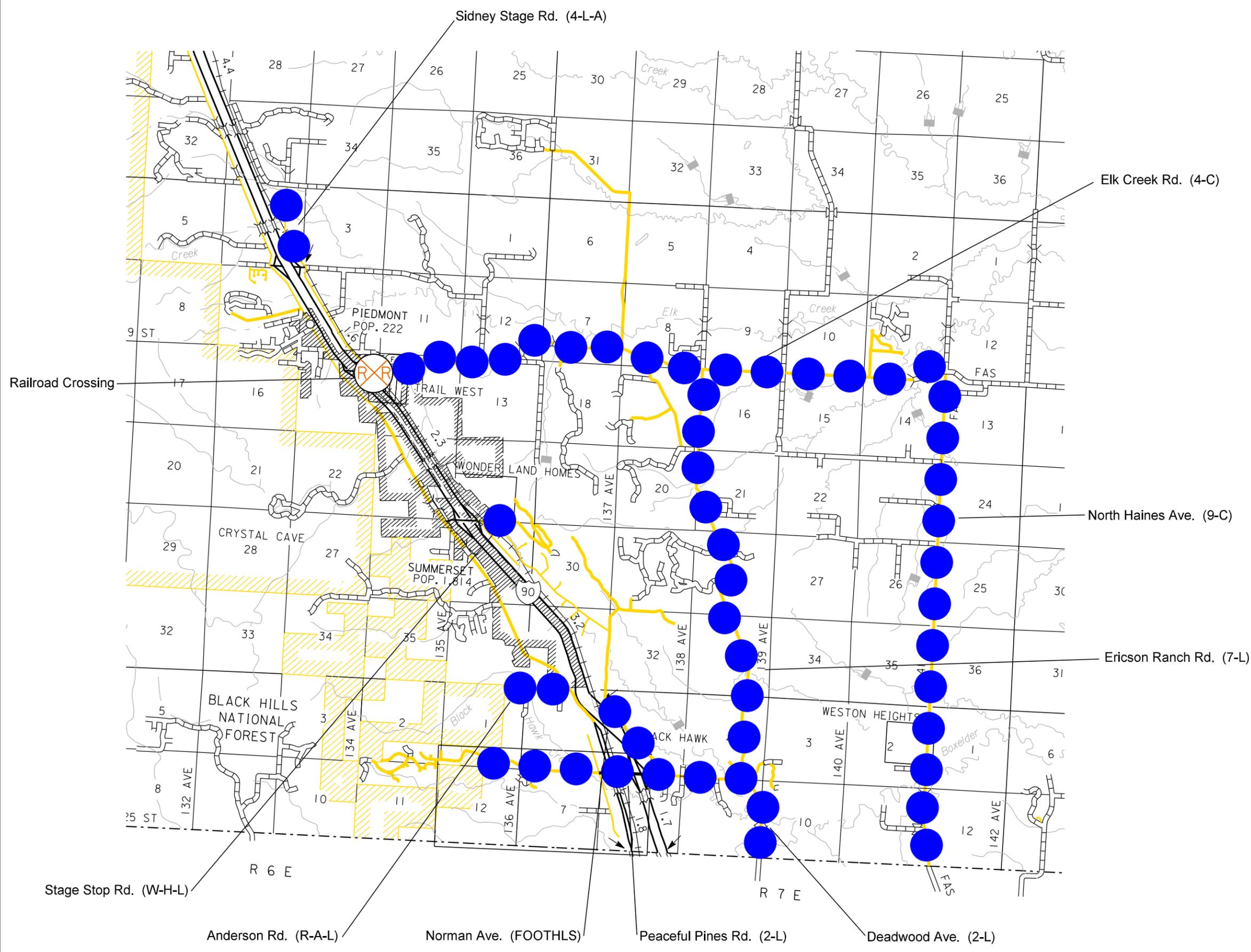
see sheet 8 for miles of striping

LEGEND

- CENTERLINE & EDGELINES
- CENTERLINE ONLY
- EDGELINES ONLY
- R
X
R RAILROAD CROSSING
- CENTERLINE & EDGELINES
NEW CHIP SEAL
- CENTERLINE ONLY
NEW CHIP SEAL
- EDGELINES ONLY
NEW CHIP SEAL

PLOT SCALE - 1:200

FILE ... ARC DESIGN\MEADE_SOUTHWEST.DGN

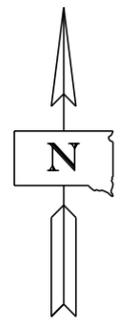


STATE OF SOUTH DAKOTA	PROJECT P 000S(00)021	SHEET NO. 12	TOTAL SHEETS 23
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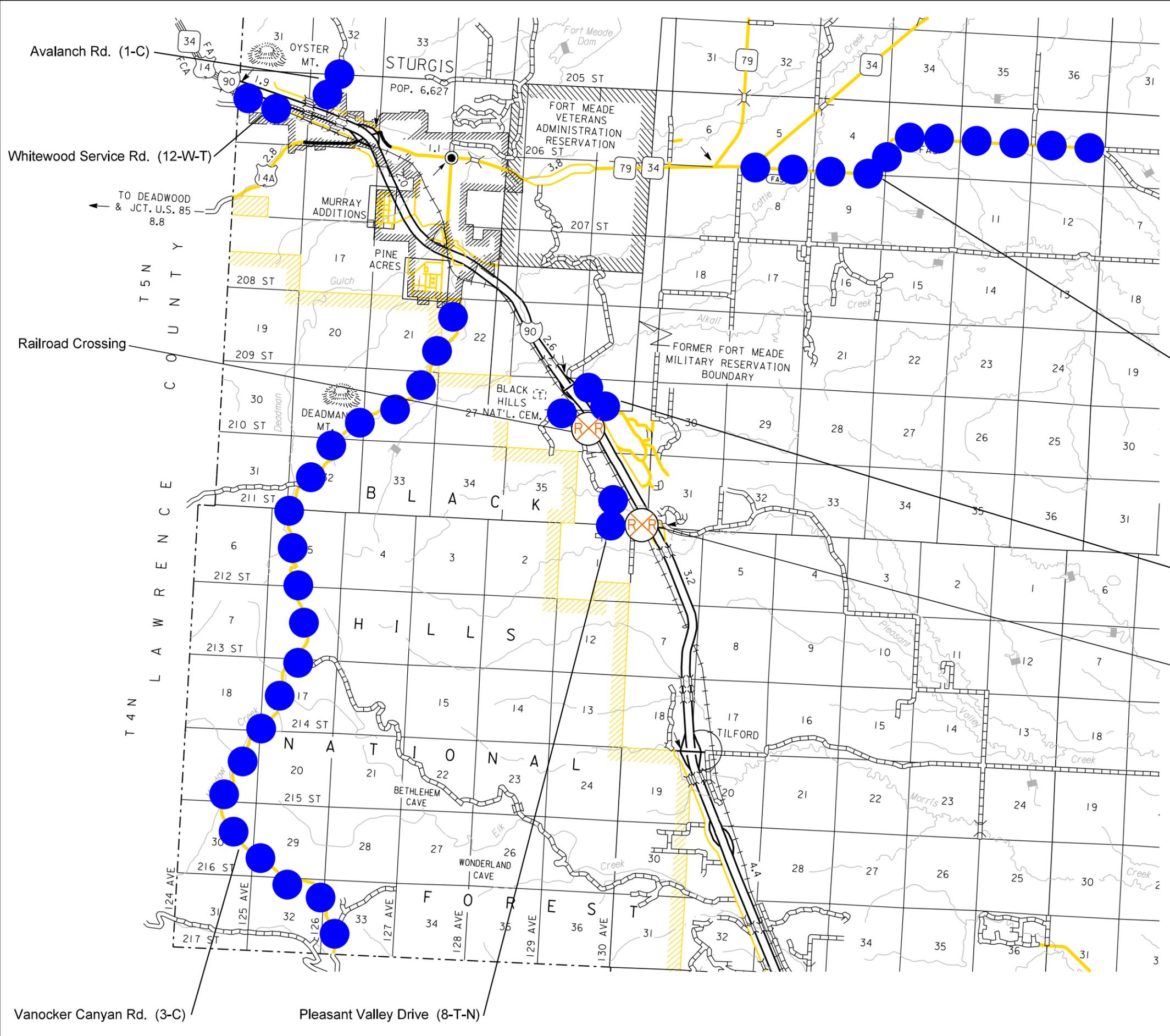
Plotting Date: 02/13/2015

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

MEADE COUNTY (West)



PLOT SCALE - 1"=200'



Alkali Road (12-C)

Blucksberg Rd. (BLUCKS)

Railroad Crossing

see sheet 8 for miles of striping

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

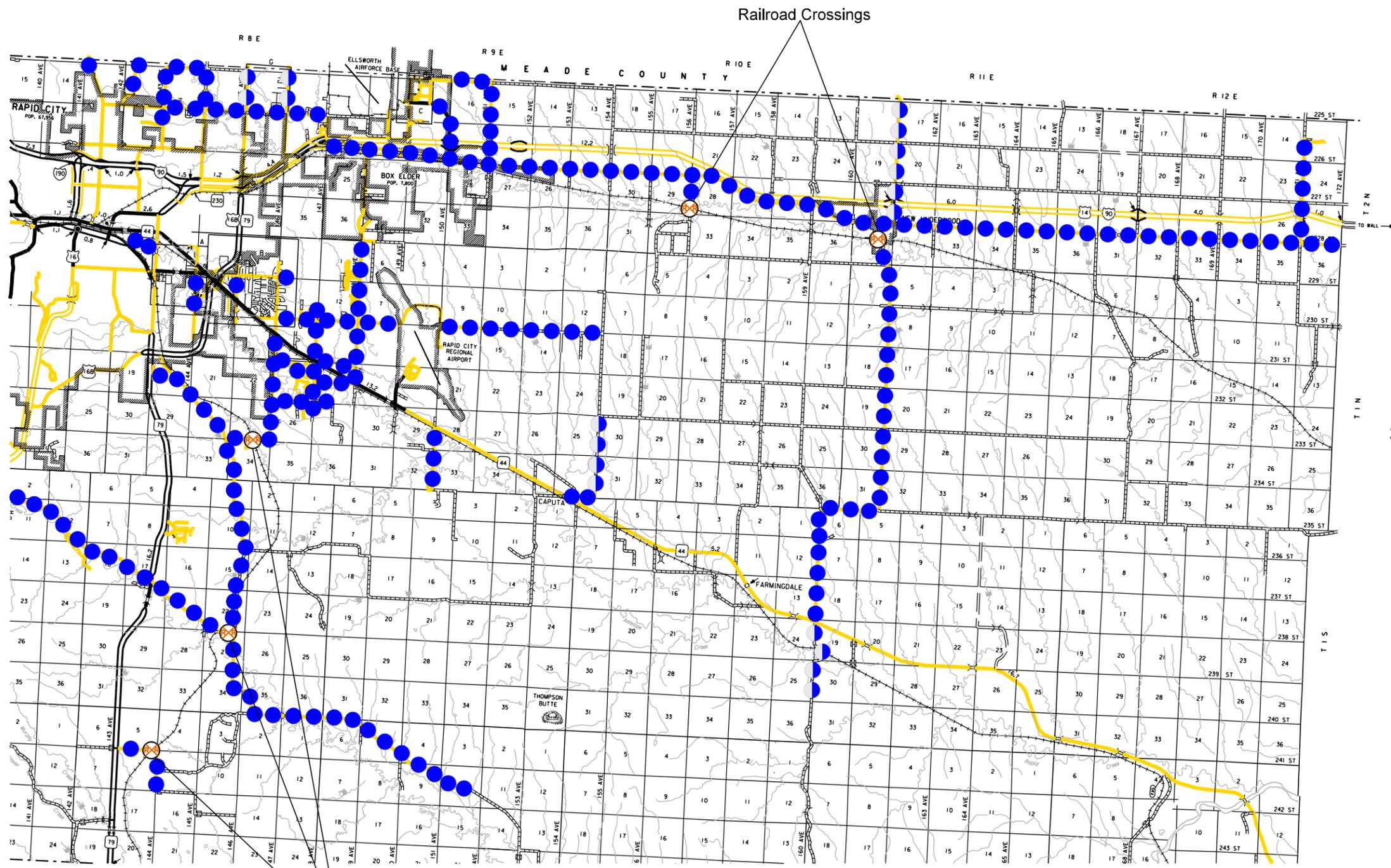
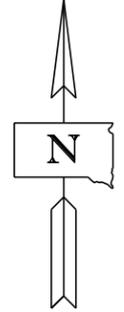
FILE ...ARC DESIGN\MEADE WEST.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	13	23

Plotting Date: 02/13/2015

PENNINGTON COUNTY (Central)

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015



- 0.05 MILES OF EDGELINE ONLY
- 249.38 MILES OF CENTERLINE & EDGELINE
- 9.31 MILES OF CENTERLINE & EDGELINE
NEW CHIP SEAL
- 25 RAILROAD CROSSINGS
- 25 TURN LANES
(contact county for location of turn lanes)

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

PLOT SCALE - 1:200

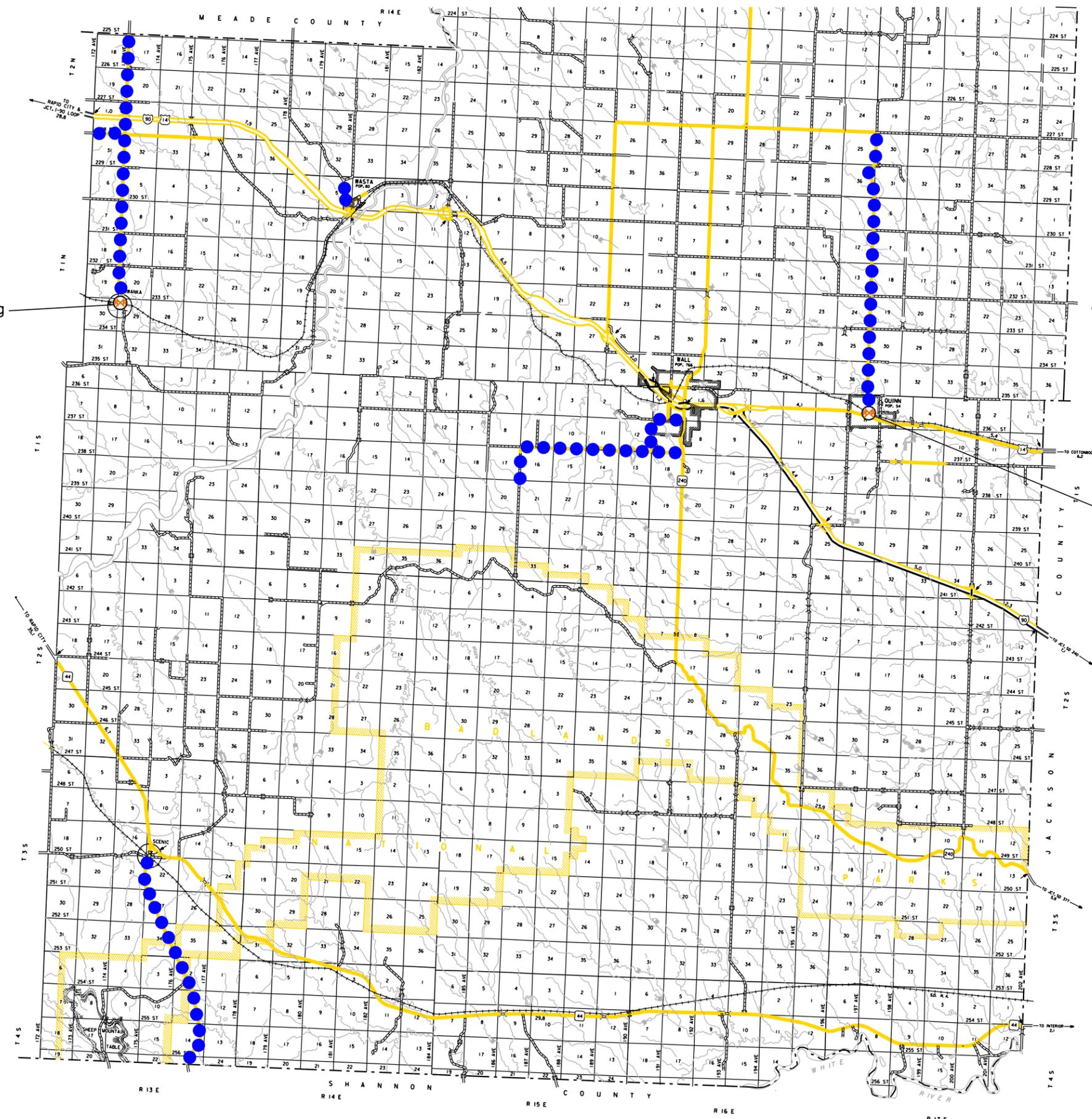
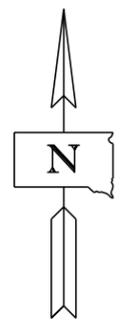
FILE - ... \PENNINGTON CENTRAL.DGN

STATE OF SOUTH DAKOTA	PROJECT P 000S(00)021	SHEET NO. 14	TOTAL SHEETS 23
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Plotting Date: 02/13/2015

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

PENNINGTON COUNTY (East)



Railroad Crossing

see sheet 13 for miles of striping

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

PLOT SCALE - 1:200

FILE - ...ARC DESIGN-PENNINGTON EAST.DGN

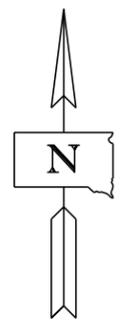
STATE OF SOUTH DAKOTA	PROJECT P 000S(00)021	SHEET NO. 15	TOTAL SHEETS 23
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Plotting Date: 02/13/2015

Hill City to Keystone

**SOUTH DAKOTA
COUNTY PAVEMENT
MARKING 2015**

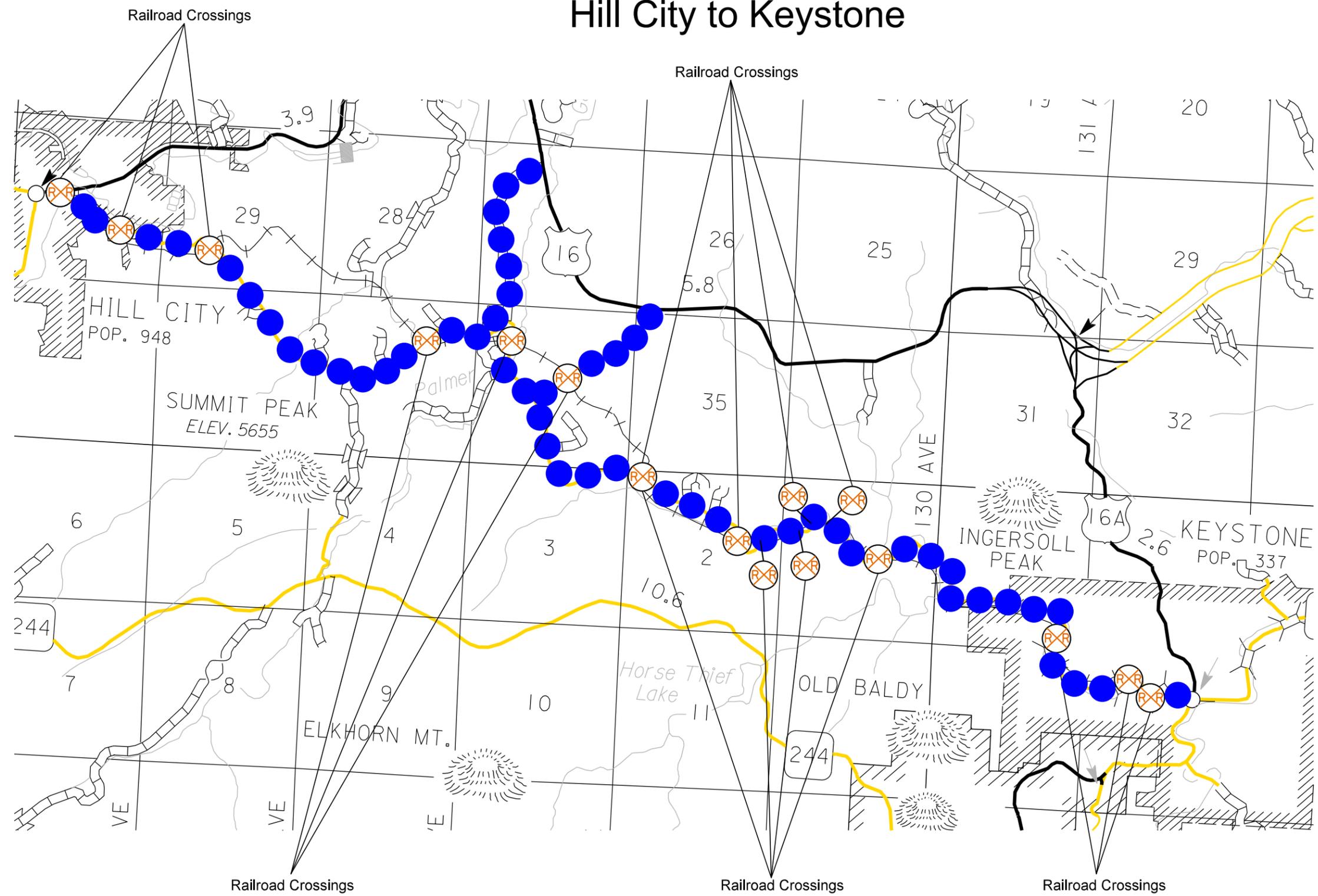
**PENNINGTON
COUNTY**



see sheet 13 for miles of striping

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

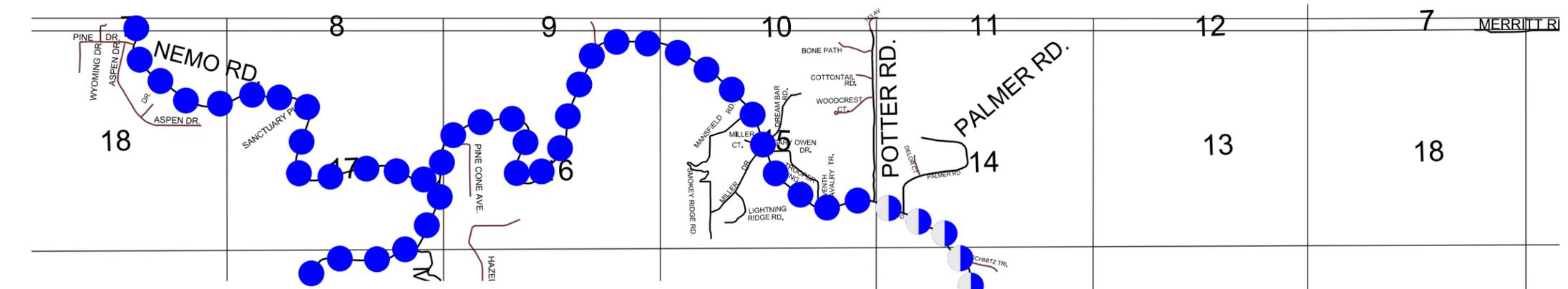


PLOT SCALE - 1:200

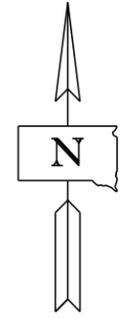
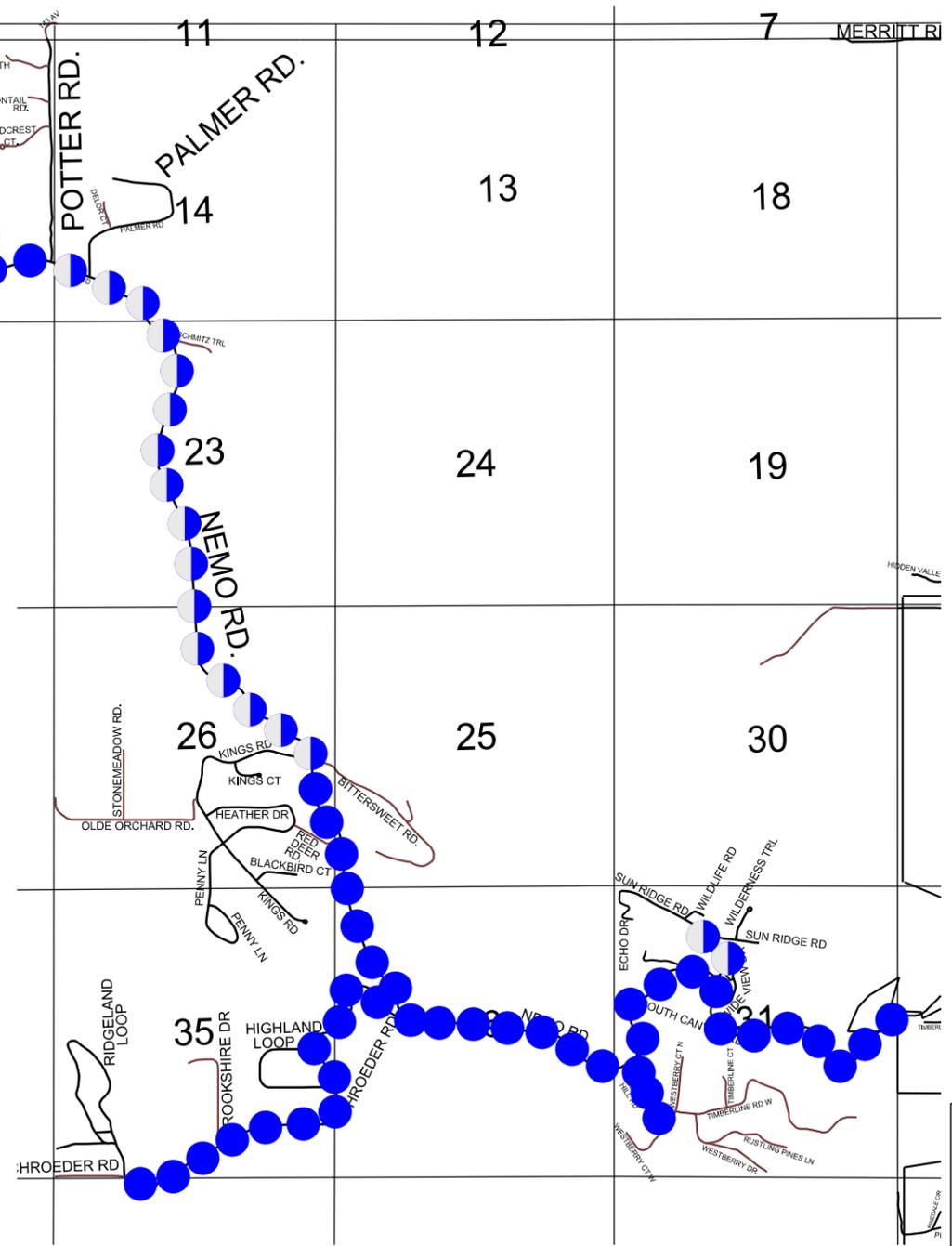
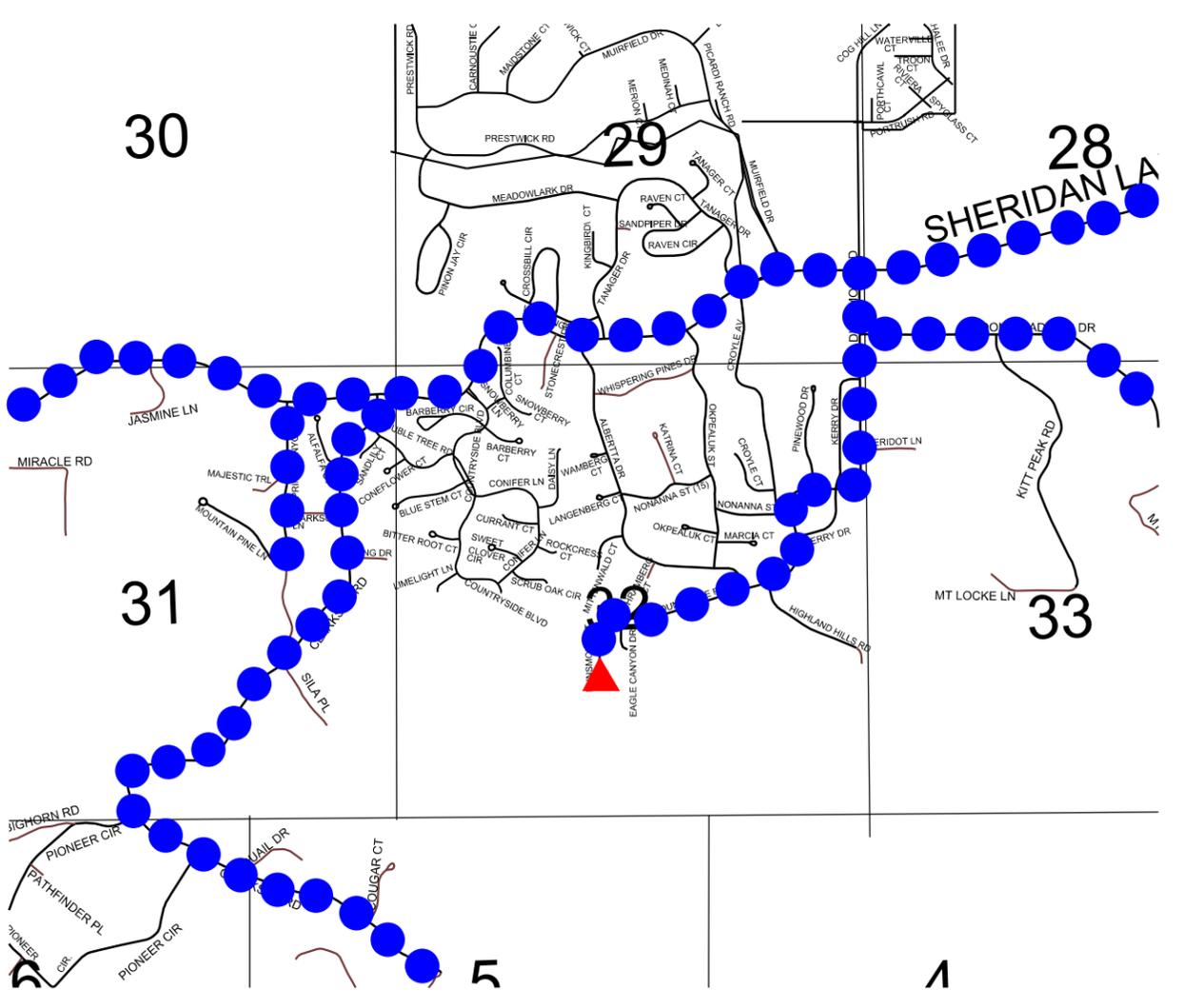
FILE ...PENNINGTON HILL CITY TO KEYSTONE.DGN

Plotting Date: 02/13/2015

SOUTH CANYON/NEMO ROAD



COUNTRY/WHISPERING PINES



see sheet 13 for miles of striping

LEGEND

- CENTERLINE & EDGELINES
- CENTERLINE ONLY
- EDGELINES ONLY
- RAILROAD CROSSING
- CENTERLINE & EDGELINES NEW CHIP SEAL
- CENTERLINE ONLY NEW CHIP SEAL
- EDGELINES ONLY NEW CHIP SEAL

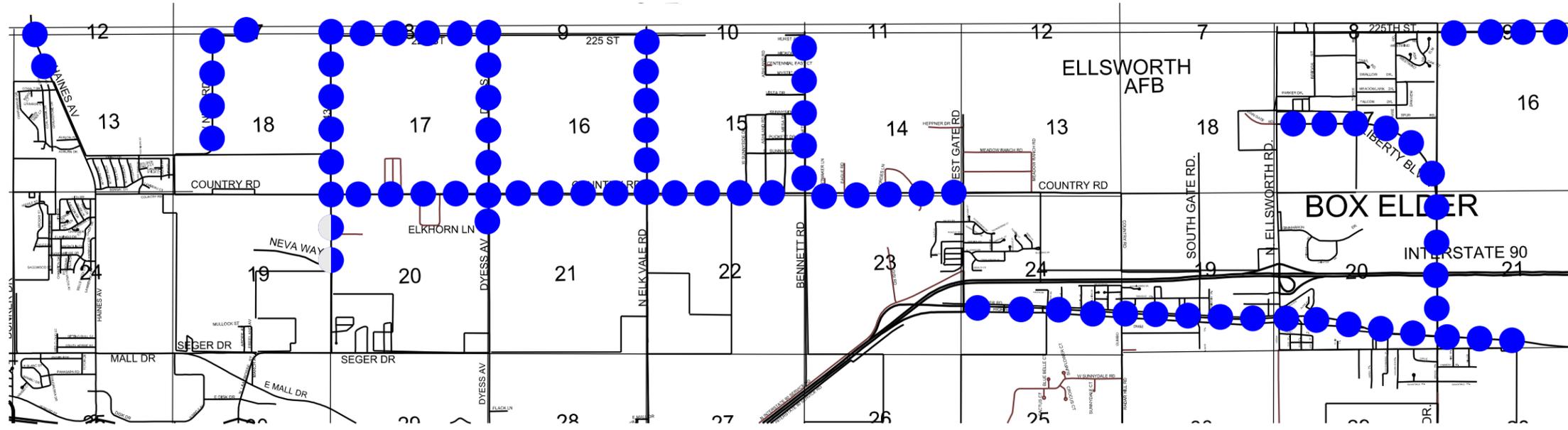
PLOT SCALE - 1"=200'

FILE ... \PENNINGTON NEMO ROAD.DGN

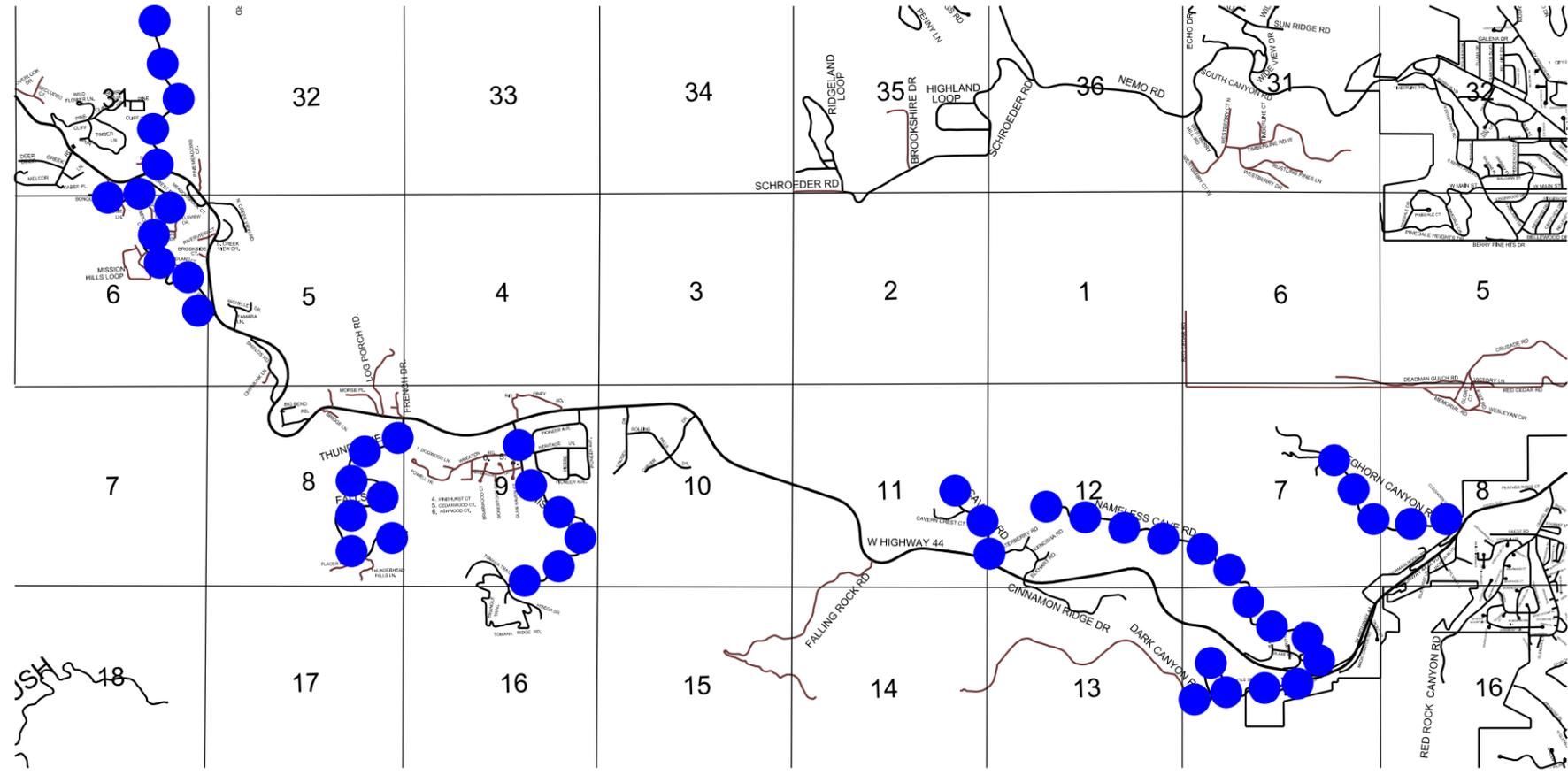
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	17	23

Plotting Date: 02/13/2015

NORTH RAPID CITY



WEST HIGHWAY 44



see sheet 13 for miles of striping

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES NEW CHIP SEAL
-  CENTERLINE ONLY NEW CHIP SEAL
-  EDGELINES ONLY NEW CHIP SEAL

PLOT SCALE = 1"=200'

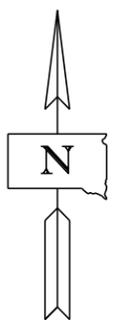
FILE ... \PENNINGTON\NORTH RAPID CITY.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	18	23

Plotting Date: 02/13/2015

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

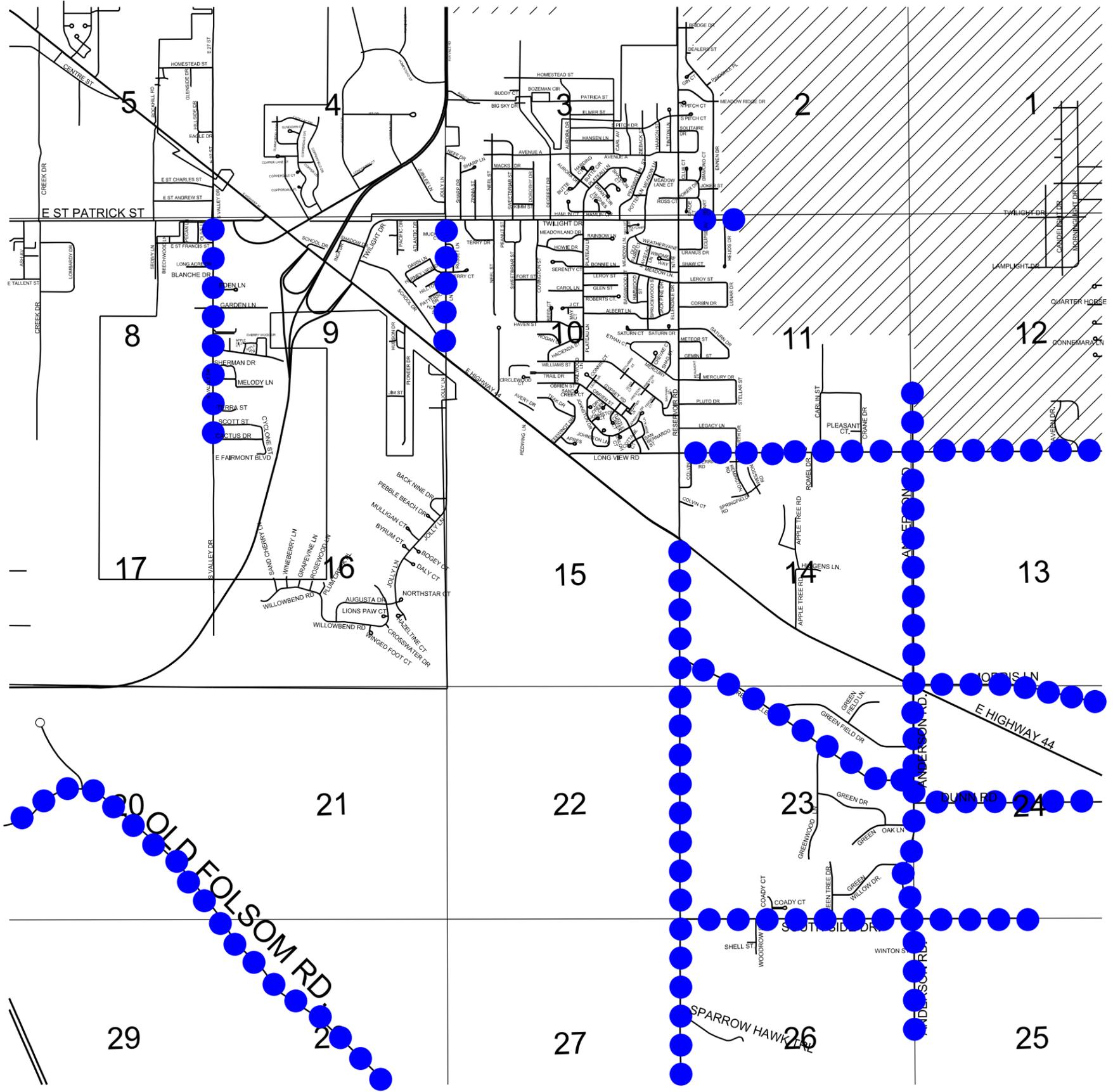
RAPID VALLEY



see sheet 13 for miles of striping

LEGEND

- CENTERLINE & EDGELINES
- CENTERLINE ONLY
- EDGELINES ONLY
- RAILROAD CROSSING
- CENTERLINE & EDGELINES NEW CHIP SEAL
- CENTERLINE ONLY NEW CHIP SEAL
- EDGELINES ONLY NEW CHIP SEAL



PLOT SCALE - 1:200

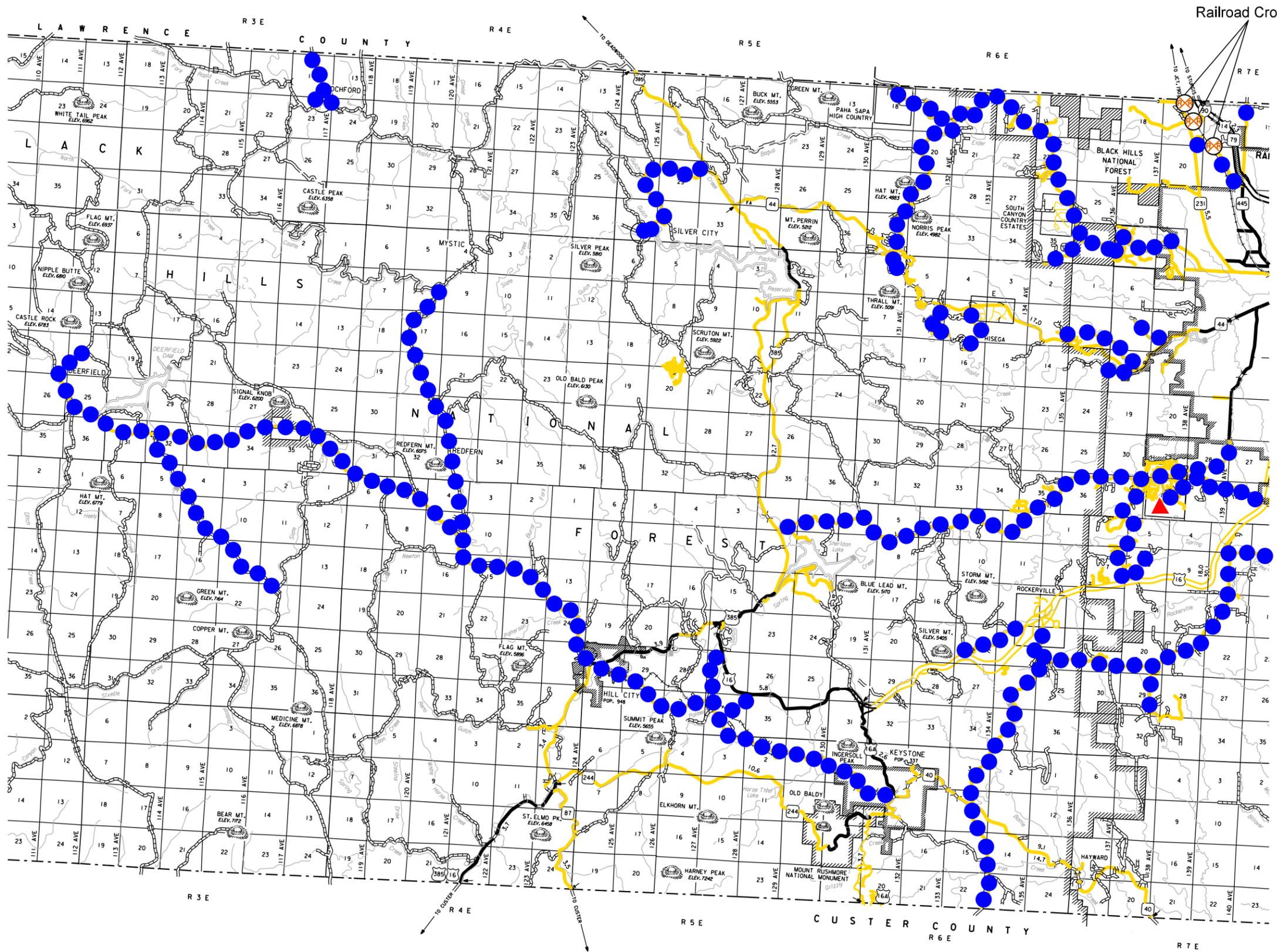
FILE ... \PENNINGTON\RAPIDVALLEY.DGN

Plotting Date: 02/13/2015

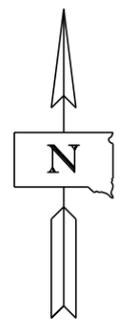
PENNINGTON COUNTY (West)

SOUTH DAKOTA COUNTY PAVEMENT MARKING 2015

PLOT SCALE - 1:200



Railroad Crossings



see sheet 13 for miles of striping

LEGEND

- CENTERLINE & EDGELINES
- CENTERLINE ONLY
- EDGELINES ONLY
- RAILROAD CROSSING
- CENTERLINE & EDGELINES
NEW CHIP SEAL
- CENTERLINE ONLY
NEW CHIP SEAL
- EDGELINES ONLY
NEW CHIP SEAL

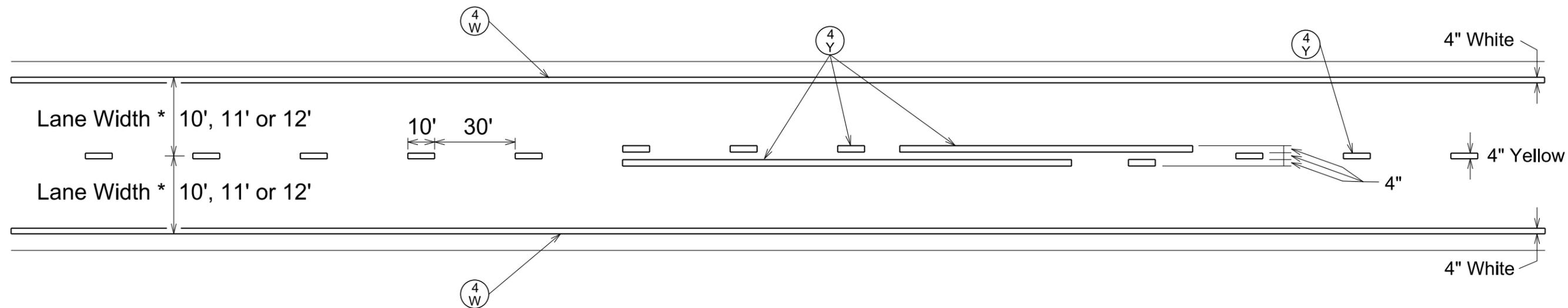
FILE - ...ARC DESIGN-PENNINGTON WEST.DGN

PAVEMENT MARKING DETAIL FOR COUNTY ROADS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 000S(00)021	20	23

Plotting Date: 03/31/2014

PLOT SCALE - 1/2"=20'

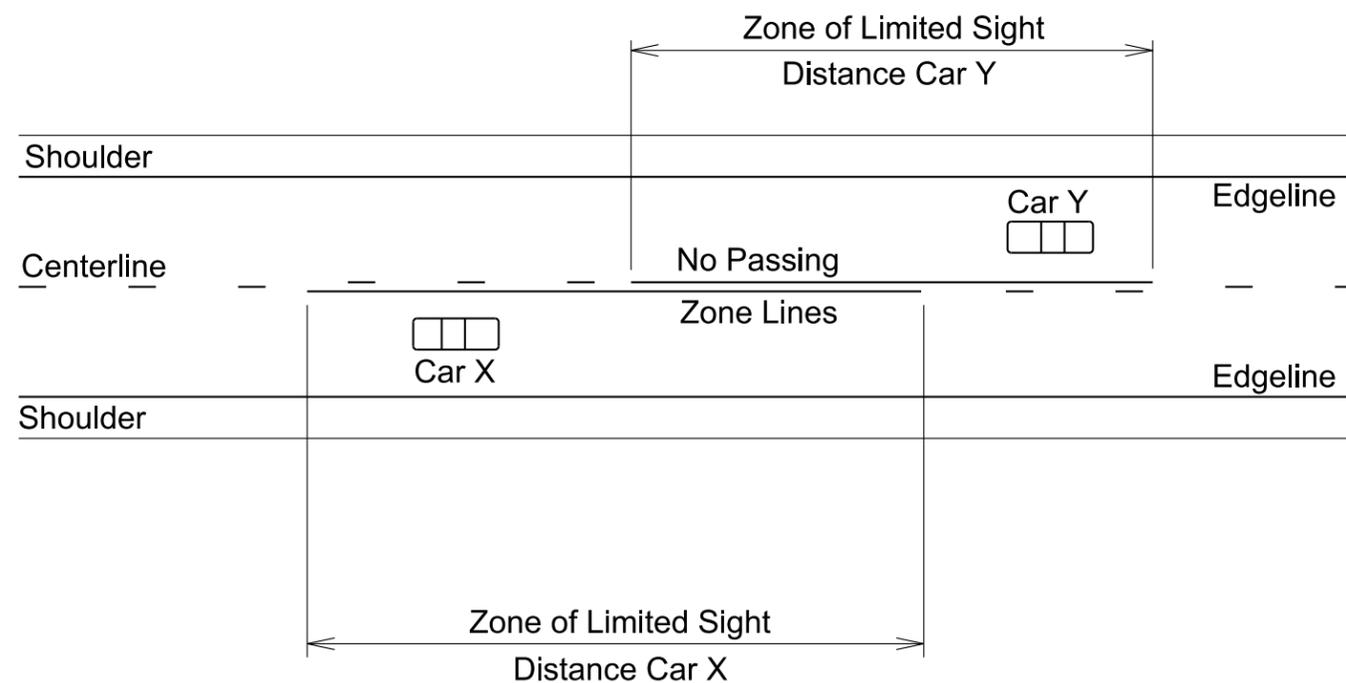


KEY	ITEM
(4W)	4" White
(4Y)	4" Yellow

GENERAL NOTES:

Project centerline marking shall be applied using a three gun system.

The typical pavement marking as shown on this sheet is to be applied on the county roads of this project.



FILE ... \PMDetail\REVISED.DGN

PLOT SCALE - 1:200

Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies.

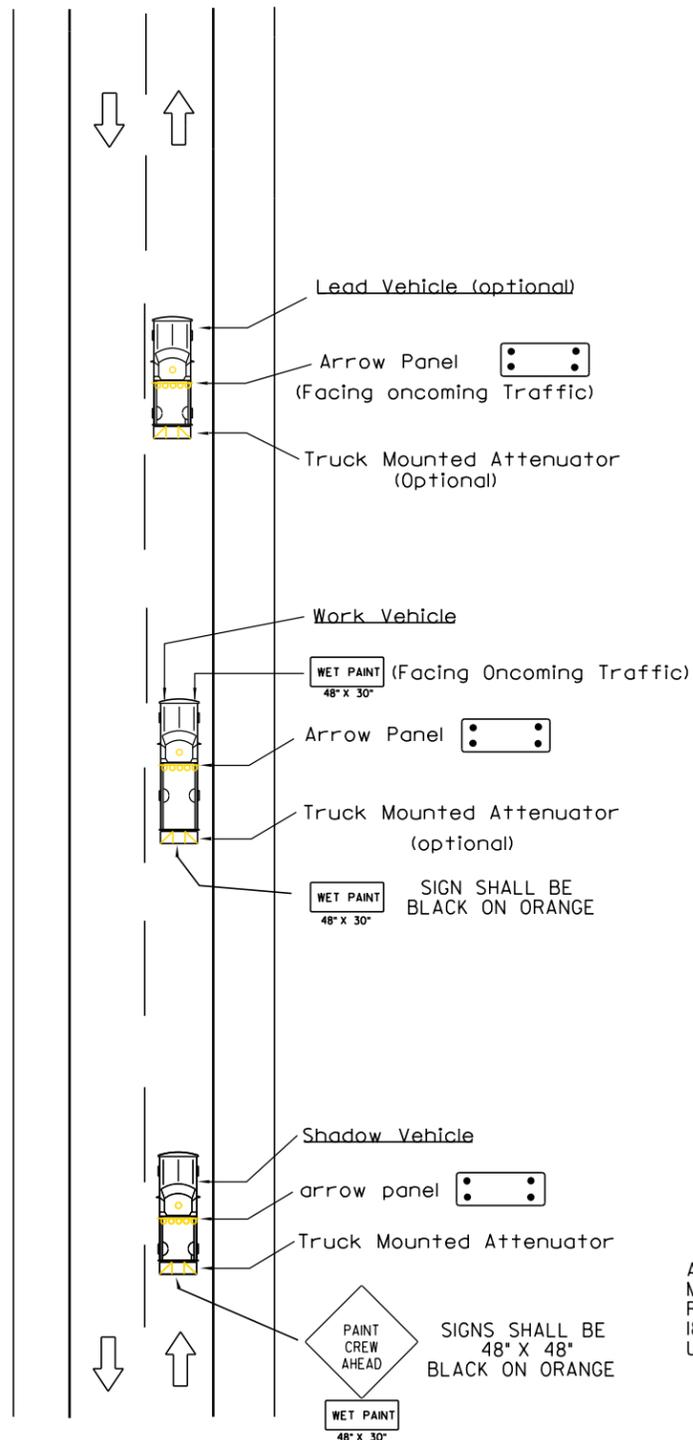
Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.

Shadow and Work vehicles shall display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow panels.

Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

When an arrow panel is used, it shall be used in the caution mode. Marching Diamonds are acceptable.

Arrow panels shall, as a minimum, be Type B, with a size of 60" x 30".



**GUIDES FOR TRAFFIC CONTROL DEVICES
MOBILE OPERATIONS ON 2-LANE ROAD**

MOBILE: Intermittent and continuous moving.

Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies.

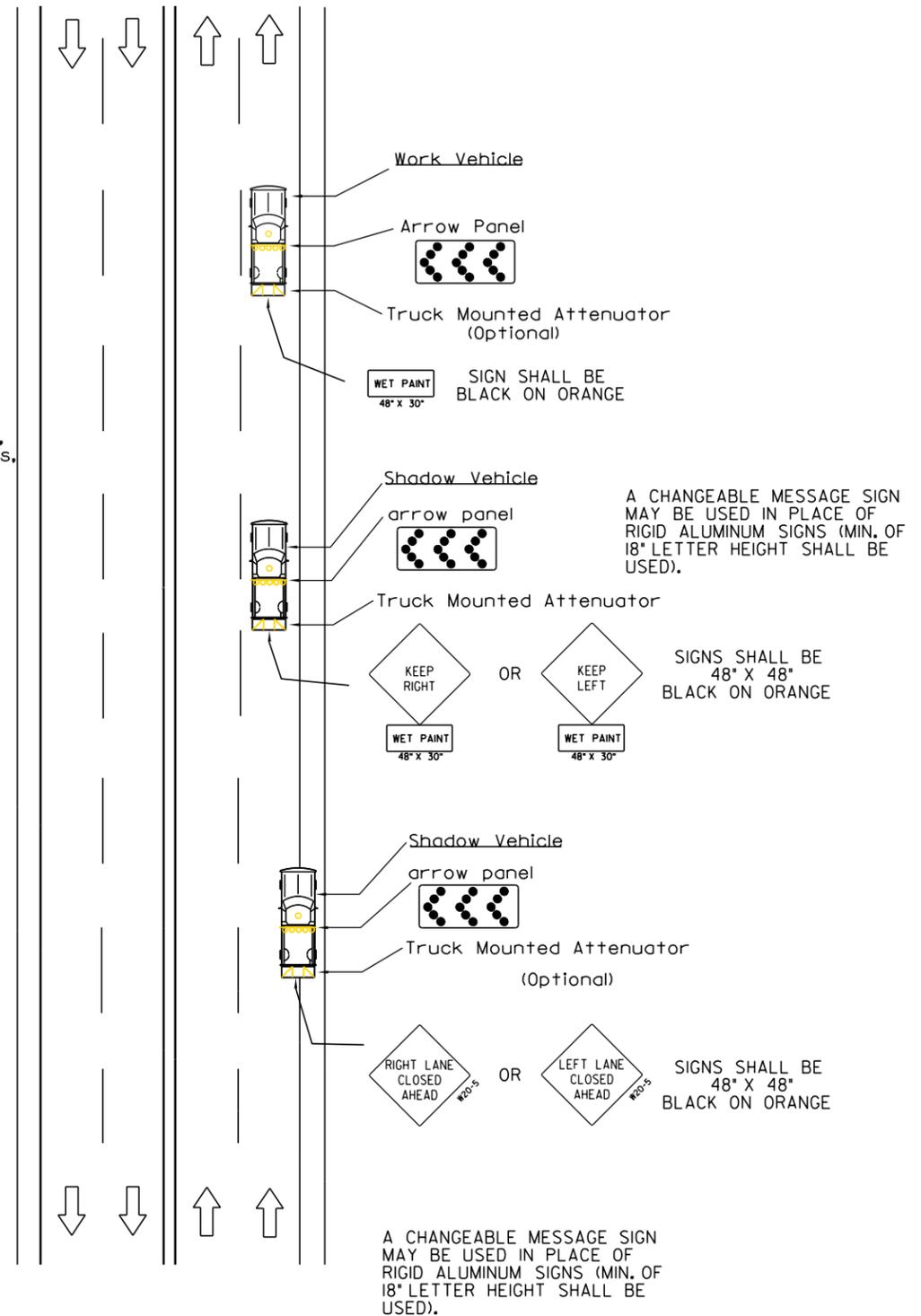
Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.

Shadow and Work vehicles shall display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow panels.

Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Arrow panels shall, as a minimum, be Type B, with a size of 60" x 30".

A CHANGEABLE MESSAGE SIGN MAY BE USED IN PLACE OF RIGID ALUMINUM SIGNS (MIN. OF 18" LETTER HEIGHT SHALL BE USED).



**GUIDES FOR TRAFFIC CONTROL DEVICES
MOBILE OPERATIONS ON 4-LANE DIVIDED**

MOBILE: Intermittent and continuous moving.

FILE - ... \2 & 4 LANE MOBILE OPS.DGN

KEY	ITEM
(4 W)	4" White
(4 Y)	4" Yellow
(12 W)	12" White
(24 W)	24" White
(24 Y)	24" Yellow
↶	Arrow

DETAIL "A"

Typical limits of pavement marking at an intersection, unless otherwise noted in the plans.

Minimum parking restrictions for non signalized intersections.

See DETAIL "A"

GENERAL NOTES:

All pavement marking arrows shall be as depicted in the current edition of the Manual on Uniform Traffic Control Devices, Section 3B.

Stop bar location shall be as shown and dimensioned on this standard plate, or crosswalks will be centered on curb ramps or sidewalks.

Dimension D is variable but shall not exceed 29'.

The crosswalk markings shall be placed to avoid the wheel paths as much as possible and the clear space between the longitudinal crosswalk markings shall be from 2' to 5'.

If more than 2 arrows per storage lane are shown, then the additional arrows shall be placed at approximately equal spaces between the arrow at the beginning of the storage lane and the arrow nearest the stop bar.

Minimum parking restrictions for signalized intersections.

September 14, 2011

S D D O T	PAVEMENT MARKINGS FOR ADJACENT INTERSECTIONS AND CENTER TURN LANE	PLATE NUMBER 633.01
	Published Date: 1st Qtr. 2015	Sheet 1 of 1

KEY	ITEM
(24 W)	24" White
X	White

Posted Speed Limit (M.P.H.)	L (Ft.)
≤ 30	100
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550

DETAIL A

Stop bar shall be approximately 8' from gate if a gate is in place.

See DETAIL A

GENERAL NOTES:

The railroad crossing pavement markings shall be placed symmetrically about the centerline of the railroad crossing.

When pavement markings are used, a portion of the RXR symbol shall be placed directly opposite of the advance warning sign W10-1.

On multi-lane roads the transverse bands shall extend across all approach lanes and individual RXR symbols shall be placed in each approach lane.

The railroad crossing pavement markings shall consist of all the transverse bands, stop bars, and RXR symbols.

When pavement marking paint is used for marking the railroad crossing, all costs for furnishing and painting the markings, materials, labor, and necessary equipment shall be incidental to the contract unit price per gallon for "Pavement Marking Paint, White".

When pavement marking tape is used for marking the railroad crossing, all costs for furnishing and placing the markings, materials, labor, and necessary equipment shall be incidental to the contract unit price per each for "Cold Applied Plastic Pavement Marking, Railroad Crossing".

June 26, 2013

S D D O T	PAVEMENT MARKINGS AT RAILROAD CROSSING	PLATE NUMBER 633.10
	Published Date: 1st Qtr. 2015	Sheet 1 of 1

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 - 50	500	50
55	750	50
60 - 65	1000	50

Warning sign sequence in opposite direction same as below.

- 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.

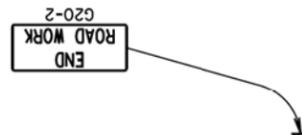
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall 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 shall be drums or 42" cones.

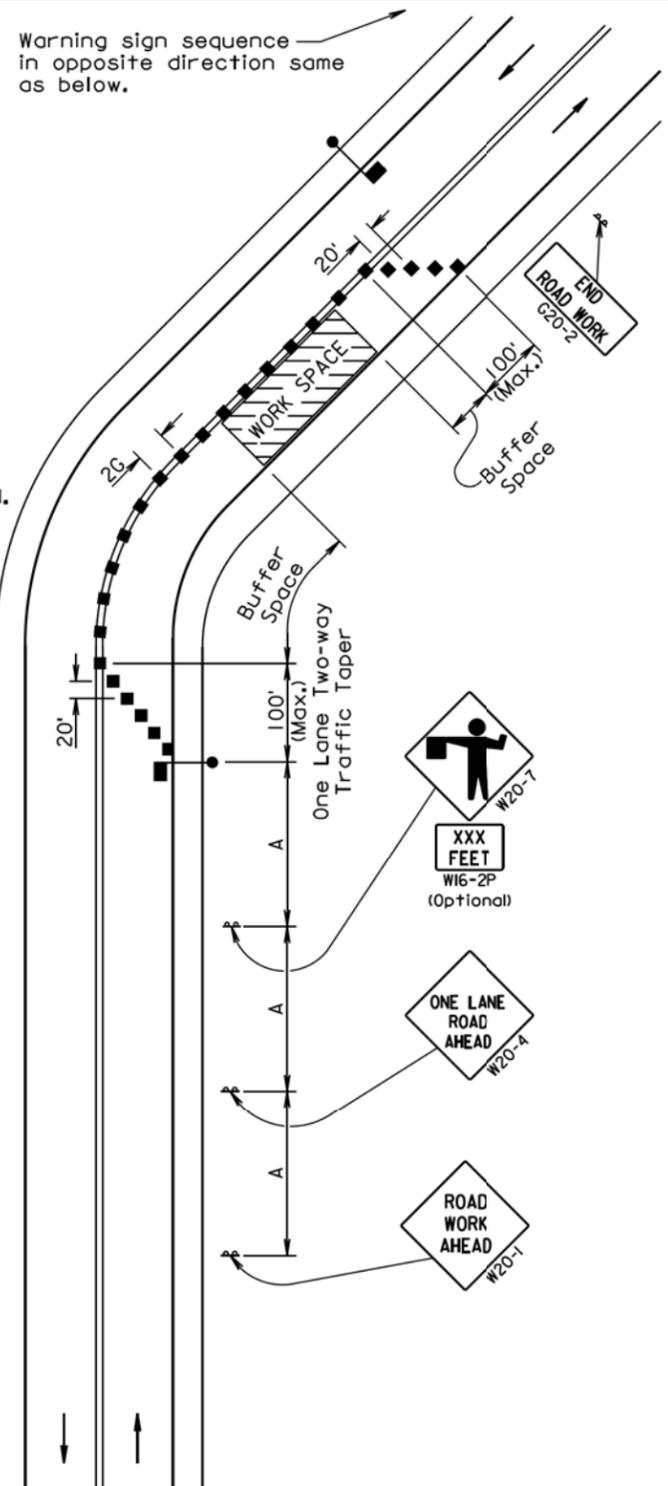
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers shall 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.



September 22, 2014

Published Date: 1st Qtr. 2015

**S
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**GUIDES FOR TRAFFIC CONTROL DEVICES
LANE CLOSURE WITH FLAGGER PROVIDED**

PLATE NUMBER
634.23

Sheet 1 of 1