

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
PROJECT 410B343
FLANDREAU DOT
MAINTENANCE YARD
MOODY COUNTY

SALVAGE ASPHALT MIX MATERIAL, MINOR
REGRADING TO IMPROVE DRAINAGE, &
ASPHALT CONCRETE SURFACING

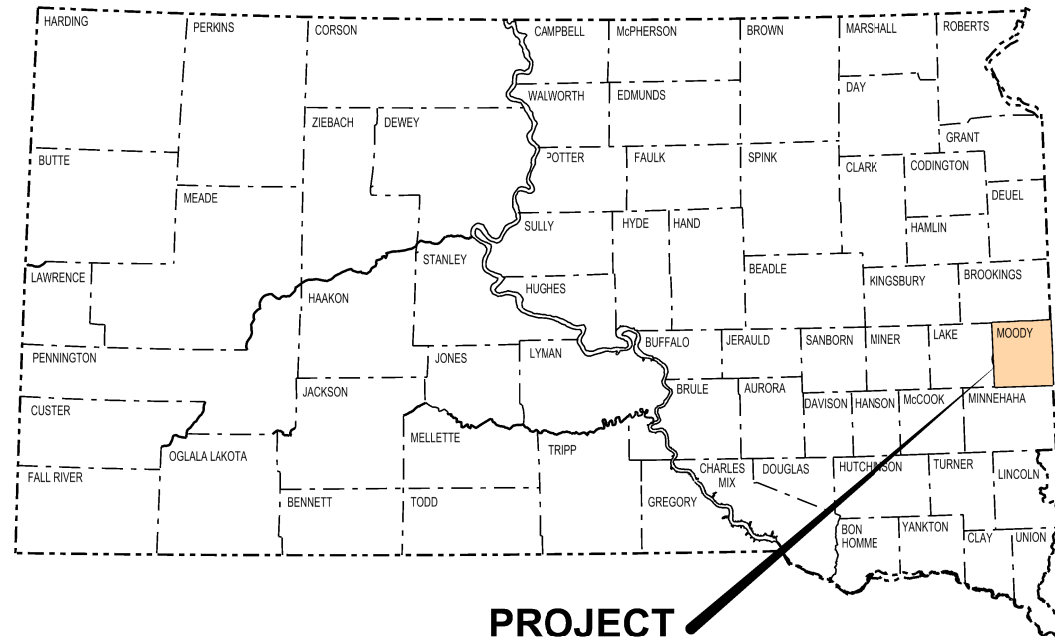
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	1	8

Plotting Date: 05/12/2015

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PLOT SCALE - 1:100.506



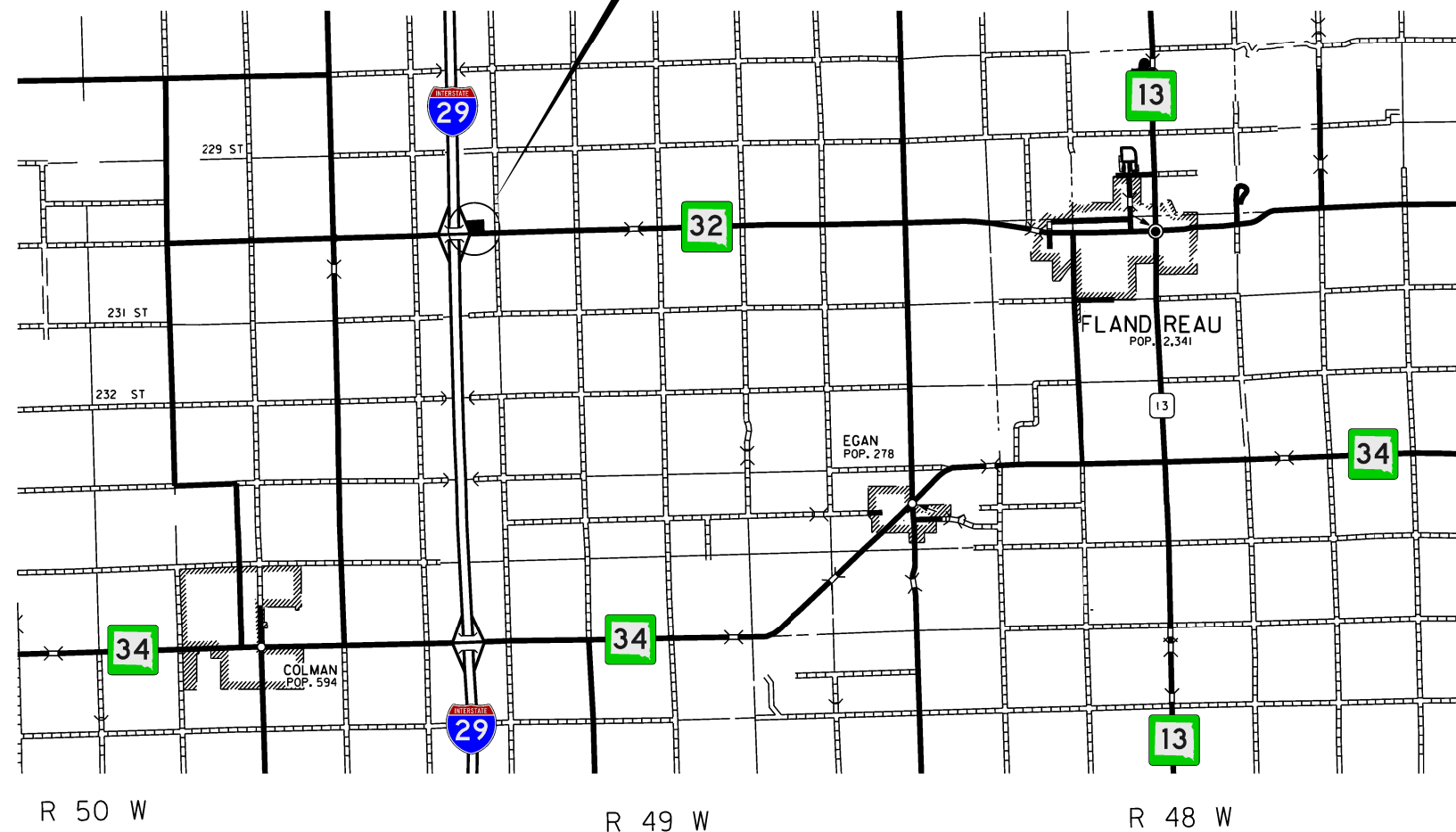
PROJECT

PCN I3VE

Project Location
SD DOT Flandreau Maintenance Shop
SD Hwy 32 MRM 414.41
Sec 19 T107N R49W



STORM WATER PERMIT
(None required)



PLOTTED FROM - IRSE12114

PLOT NAME - 1

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	2	8

Plotting Date: 04/29/2015

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	50	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
260E1050	Base Course, Salvaged Asphalt Mix	100.0	Ton
270E0022	Salvage Asphalt Mix Material	2,459.0	Ton
320E1200	Asphalt Concrete Composite	2,780.0	Ton
634E0100	Traffic Control	136	Unit

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

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 C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

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.

PLOT SCALE - 1:89,794

PLOTTED FROM - IRSE12114

PLOT NAME - 2

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	3	8

Plotting Date: 04/29/2015

SCOPE OF WORK

Work on this project includes, but is not limited to Salvage Asphalt Mix Material, Reshaping, Scarifying & Compacting of Base Material (Incidental Grading), and Asphalt Concrete Surfacing.

SEQUENCE OF OPERATIONS

The following sequence of operations shall be adhered to. Any changes must be approved in writing by the Area Engineer prior to changes being made.

1. Salvage Asphalt Mix Material
2. Excavate Digouts and Complete Backfill Operations
3. Scarify, Reshape, and Compact Granular Base
4. Complete Asphalt Concrete Surfacing

Contractor shall notify the Sioux Falls Area Office a minimum of 2 weeks prior to any stage of construction. Any obstacles located in the Flandreau DOT Maintenance Yard that will interfere with work, will be relocated by DOT personnel.

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

SAWING IN EXISTING SURFACING

Where new Asphalt Concrete Pavement is placed adjacent to existing asphalt concrete or when as directed by the Engineer the existing asphalt concrete shall be sawed full depth to a true line with a vertical face. No separate payment shall be made for sawing.

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities. Utilities owned by the property owner (beyond the "meter") shall also be the contractor's responsibility for locating prior to excavation/underground work.

TRAFFIC CONTROL

Construction operations shall be conducted in a manner to provide DOT forces access to the Maintenance Yard on a continuous basis.

Storage of vehicles and equipment may be permitted within the Flandreau DOT Maintenance Yard as space permits. If there is not space within the Flandreau DOT Maintenance Yard it shall be the contactors responsibility to locate an alternate staging site. Indiscriminate driving and parking of vehicles at the site will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than 3 days. If the duration is more than 3 days the signs shall be on fixed location, ground mounted, breakaway supports.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
W8-6	48" x 48"	TRUCK CROSSING	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	2	34	68
TOTAL UNITS					136

SALVAGE ASPHALT MIX MATERIAL

Salvaging asphalt mix material shall precede asphalt concrete paving by no more than 14 calendar days.

An estimated 2,459.0 tons of asphalt mix material (6,245 SqYd's for informational purposes only) shall be salvaged at an average depth of 6" - 8" from the project in areas as shown on the Salvage Asphalt Mix Material Detail. The depth may need to be adjusted depending on the depth of existing material and as directed by the Engineer.

The quantity of Salvage Asphalt Mix Material may vary from the plans. No adjustment will be made to the contract unit price for variations of the quantity of Salvage Asphalt Mix Material. Plans Quantity will be the basis of payment unless an adjustment to the depth of Salvaged material is ordered by the Engineer.

Contractor is advised section 270.2 of the Standard Specifications regarding processing of the material does apply.

It may be necessary to use special methods and equipment to salvage material close to obstacles and buildings. Any material that may not be salvageable shall be disposed by the Contractor. All costs associated with this work shall be incidental to the contract unit price per ton for Salvage Asphalt Mix Material.

EXCAVATION OF UNSTABLE MATERIAL

Included in the Estimate of Quantities are **50** Cubic Yards of Unclassified Excavation, Digouts for the necessary removal of unstable material.

Backfill shall be Base Course, Salvage Asphalt Mix paid for at the contract unit price per ton.

BASE COURSE, SALVAGED ASPHALT MIX

Base Course, Salvaged Asphalt Mix shall be obtained from the material produced on this project and may be used without further quality testing.

Included in the Estimate of Quantities are **100** Tons of Base Course, Salvaged Asphalt Mix for Unclassified Excavation, Digouts.

Compaction for Base Course, Salvage Asphalt Mix shall be to the satisfaction of the Engineer.

All other requirements of the specifications for Base Course, Salvaged shall apply.

INCIDENTAL WORK, GRADING

Upon completion of the salvaging asphalt mix material, the asphalt mix material shall be spread for base over the areas to receive asphalt concrete. All areas as shown on the Final Site Layout Detail shall be shaped for positive drainage to prevent ponding and drainage away from buildings. The areas adjacent to buildings and concrete pads will also need to be shaped for room to place the 4 inches of asphalt concrete composite.

Any remaining salvaged material (excluding material used for Base Course, Salvaged Asphalt Mix) shall be evenly spread over the areas as shown with gravel surfacing on the Final Site Layout Detail. This material shall be compacted to the satisfaction of the Engineer.

In all areas shown on the Final Site Layout Detail to receive asphalt concrete composite surfacing, a minimum of the upper 4 inches of granular material shall be scarified, reworked, and recompacted. Compaction shall be to the satisfaction of the Engineer.

All costs associated with the work listed under the heading Incidental Work, Grading including but not limited to spreading material, shaping, scarifying, and recompacting shall be included in the lump sum cost for Incidental Work, Grading. Please contact Highway Maintenance Supervisor, Rich Harding (605-941-4478) with any questions regarding the extent of this work.

WATER FOR COMPACTION OF GRANULAR MATERIALS

Cost of water for compaction of the granular material shall be incidental to the contract lump sum price per Incidental Work, Grading. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

PLOT SCALE - 1:89,794

PLOTTED FROM - IRSE12114

PLOT NAME - 3

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	4	8

Plotting Date: 04/29/2015

ASPHALT CONCRETE COMPOSITE

Areas marked on the Final Site Layout Detail shall receive two - 2" lifts of asphalt concrete composite. The limits of the locations to receive asphalt concrete surfacing shall be marked by DOT personnel.

Mineral aggregate for the Asphalt Concrete Composite shall conform to the requirements of the Standard Specifications for Class E, Type 1.

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

The asphalt binder used in the mixture shall be a PG 64-22, PG 64-28, or PG 64-34 Asphalt Binder.

SS-1h or CSS-1h for tack will be required on any vertical faces, along buildings, or any other structure.

It can be anticipated that handwork will be required to shape the asphalt concrete around obstacles and buildings.

PLOT SCALE - 1:88,794

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PLOT NAME - 7

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EXISTING SITE LAYOUT DETAIL

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	5	8

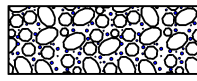
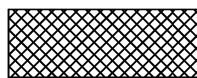
Plotting Date: 04/29/2015

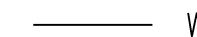

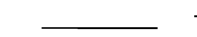


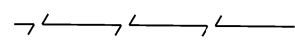
PLOT SCALE - 1:89,794

PLOT NAME - 4

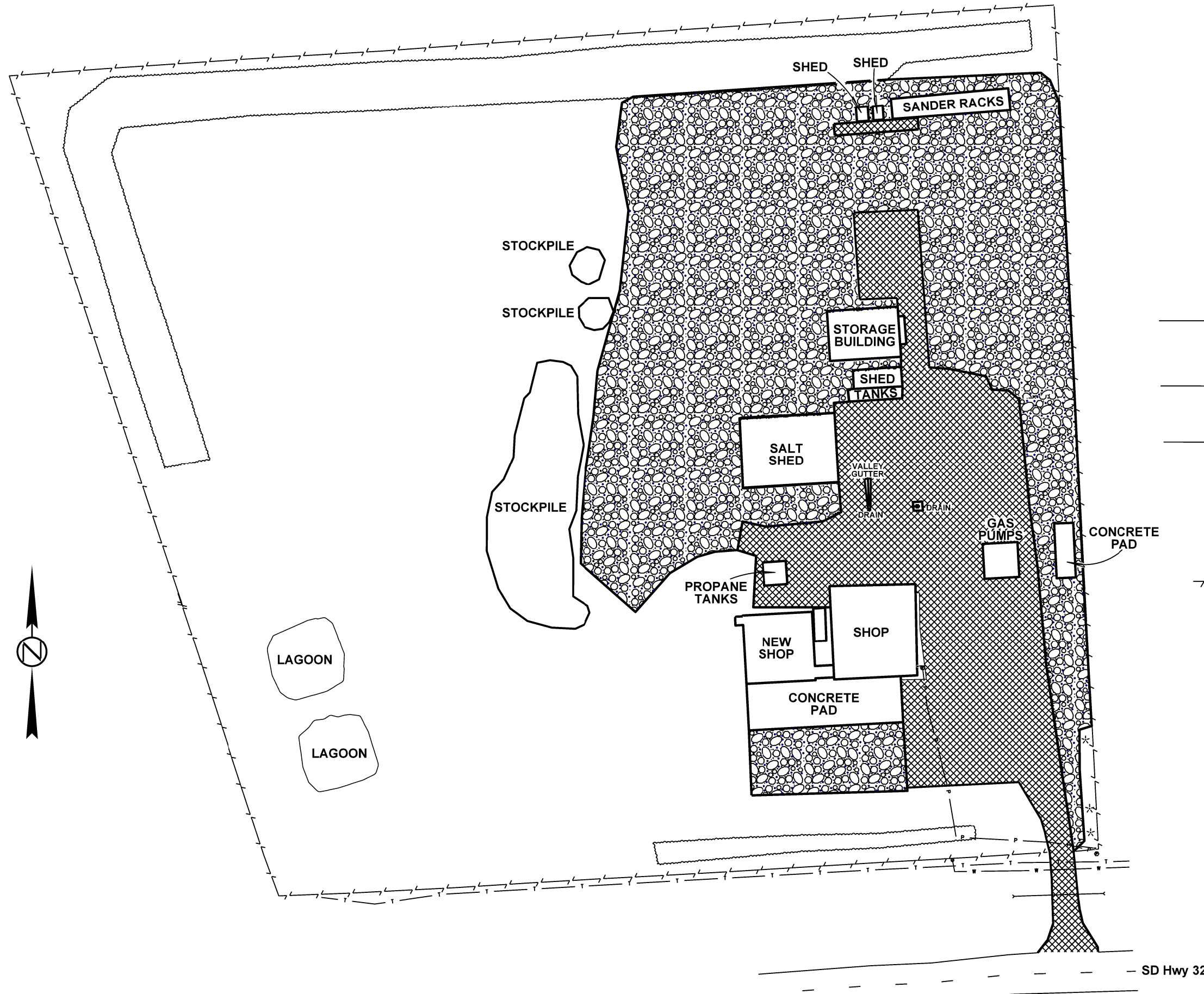
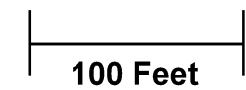
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LEGEND

-  Existing Gravel Surfacing
-  Existing Asphalt Concrete Surfacing

-  Rural Water
-  Sioux Valley Energy
-  Century Link
-  Tree
-  Shelter Belt
-  Fence

SCALE



PLOTTED FROM - IRSE12114

- SD Hwy 32

SALVAGE ASPHALT MIX MATERIAL DETAIL

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	6	8

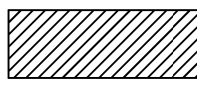
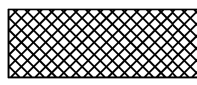

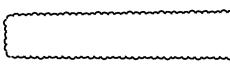
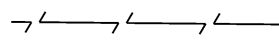
Plotting Date: 04/29/2015

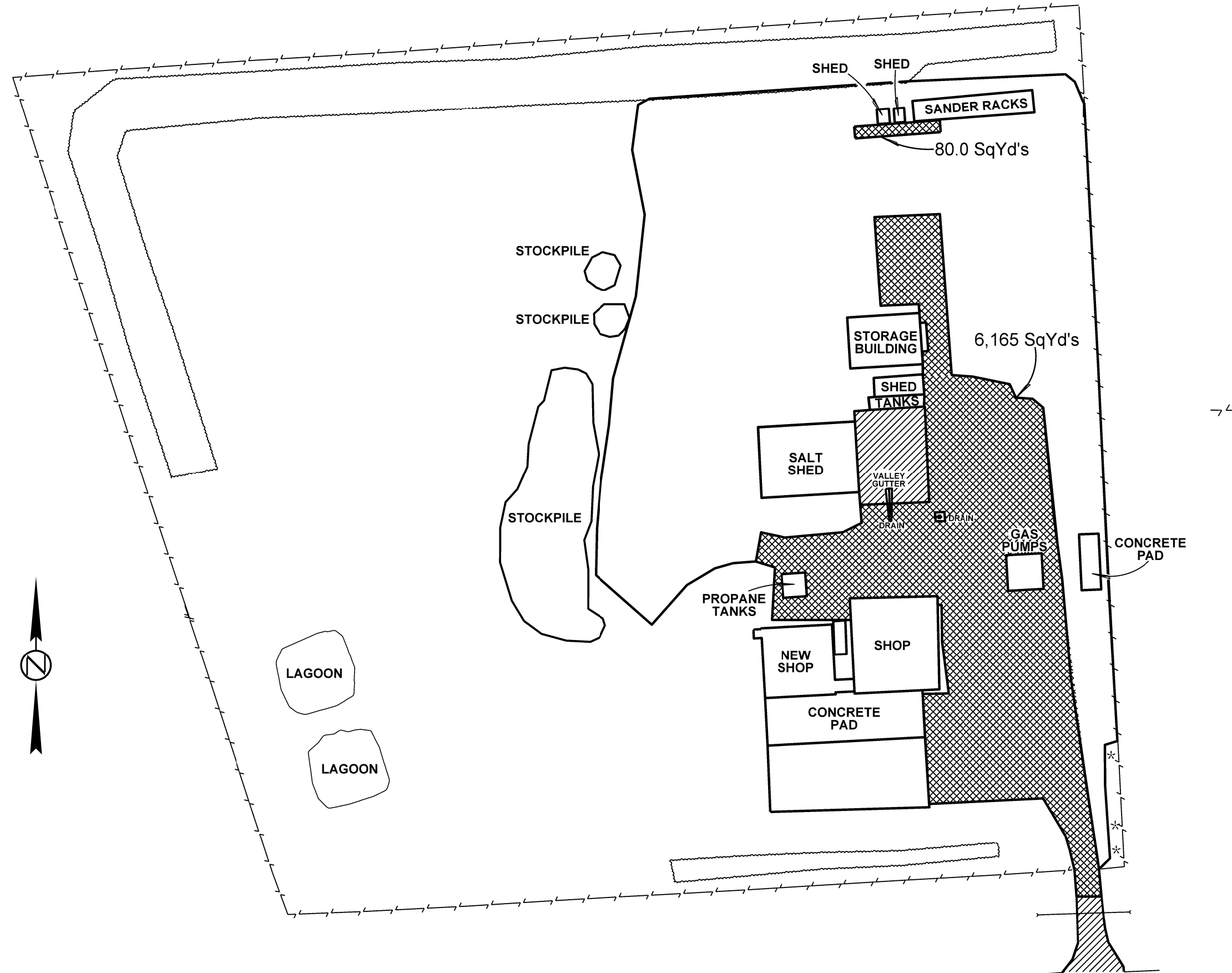
PLOT SCALE - 1:89,794

PLOT NAME - 5

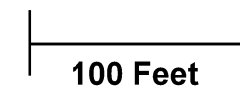
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LEGEND

-  Existing Asphalt Concrete to Stay In-Place
-  Salvage Asphalt Mix Material
-  Tree
-  Shelter Belt
-  Fence



SCALE



-SqYd's Given for Informational Purposes Only

SD Hwy 32

PLOTTED FROM - IRSE12114

FINAL SITE LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	410B343	7	8

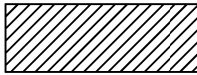
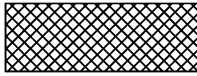
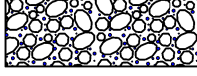


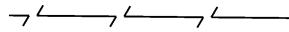
Plotting Date: 04/29/2015

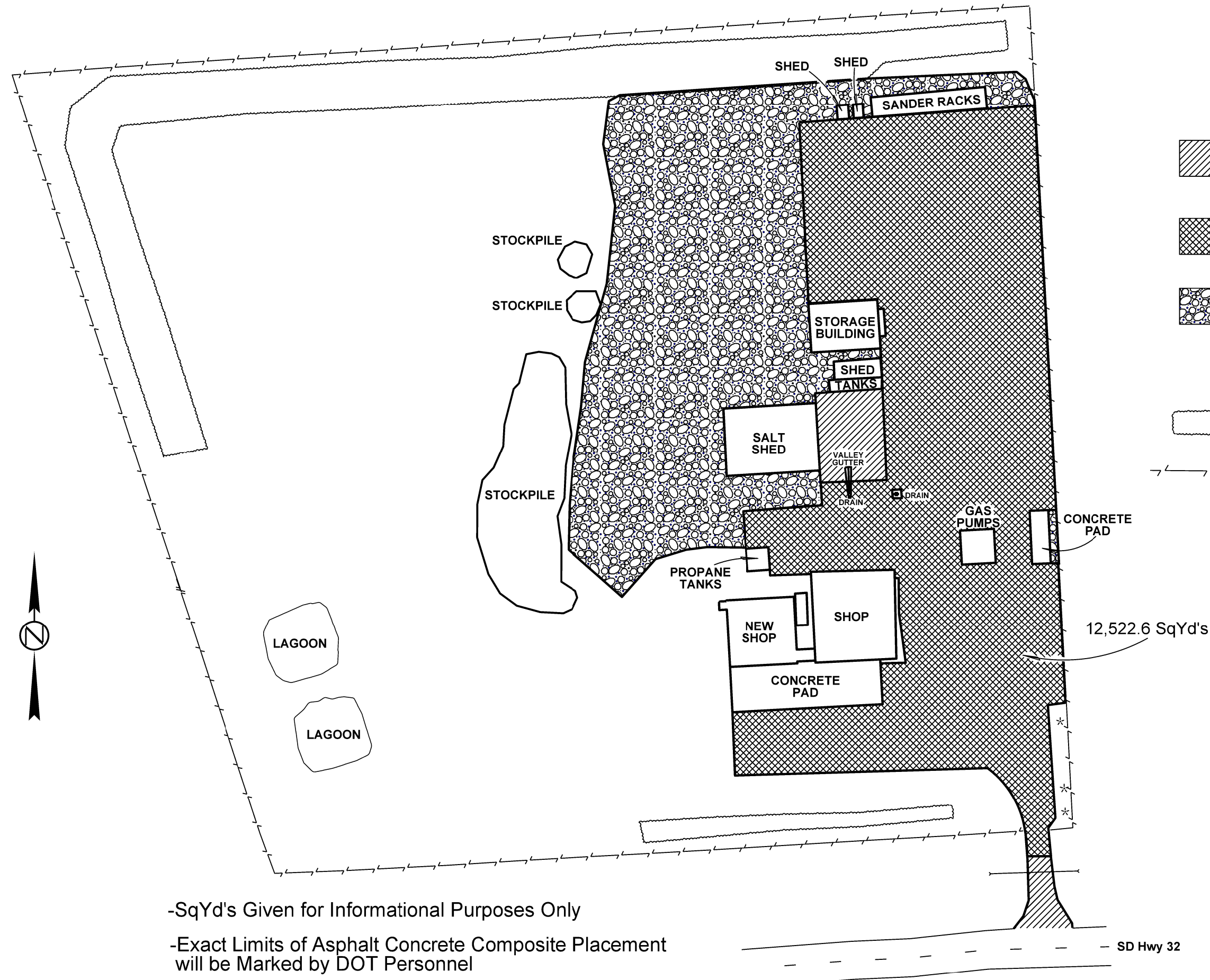
PLOT SCALE - 1:89,794

PLOT NAME - 6

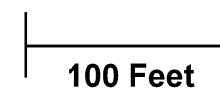
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LEGEND

-  Existing Asphalt Concrete to Stay In-Place
-  Asphalt Concrete Composite Placed In Two - 2" Lifts
-  Gravel Surfacing
-  Tree
-  Shelter Belt
-  Fence



SCALE

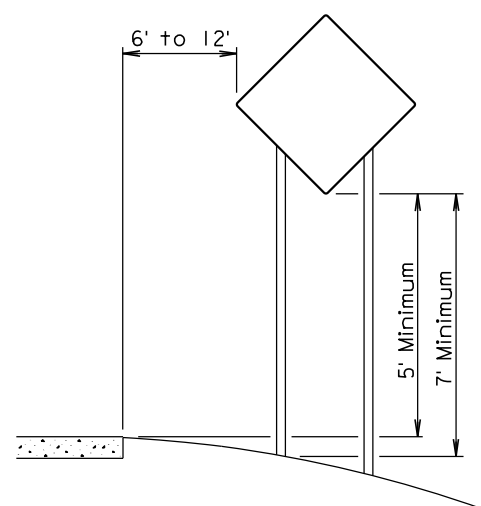


-SqYd's Given for Informational Purposes Only
 -Exact Limits of Asphalt Concrete Composite Placement will be Marked by DOT Personnel

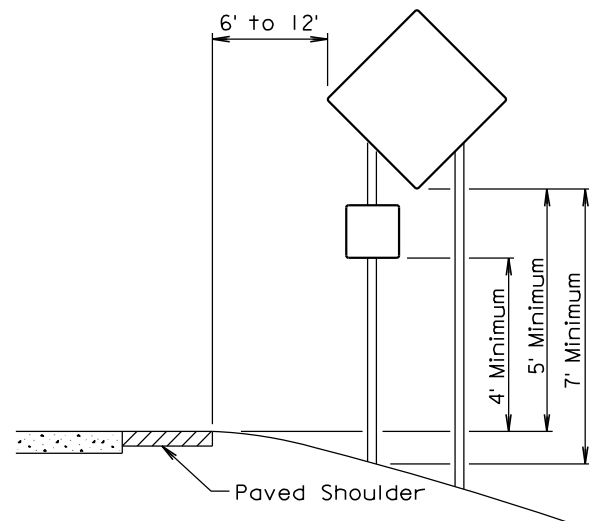
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Plotting Date: 04/29/2015

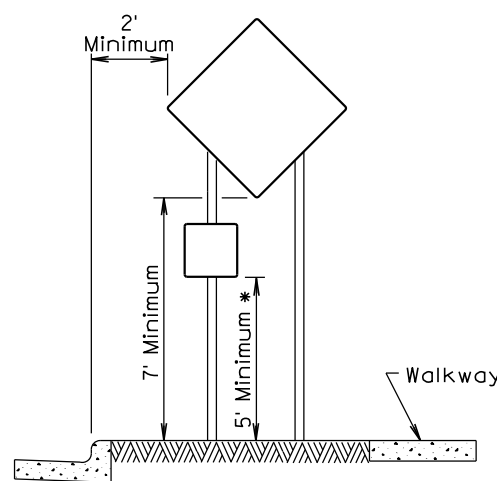
PLOT SCALE - 1:89,794



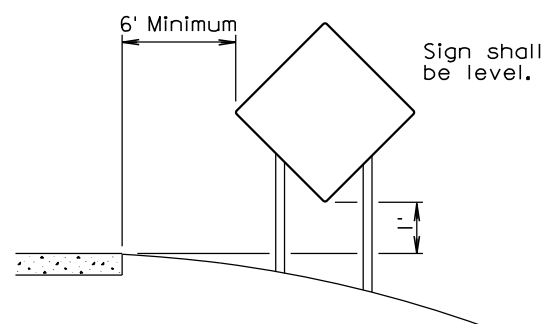
RURAL DISTRICT



RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT



RURAL DISTRICT 3 DAY MAXIMUM

(Not applicable to regulatory signs)

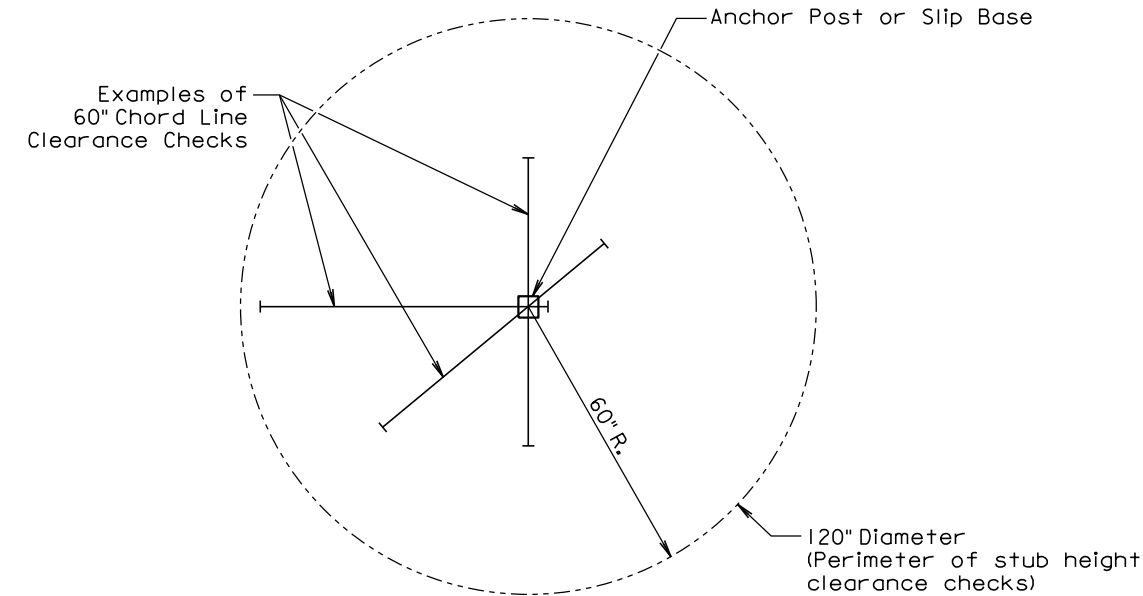
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

September 22, 2014

Published Date: 2nd Qtr. 2015	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

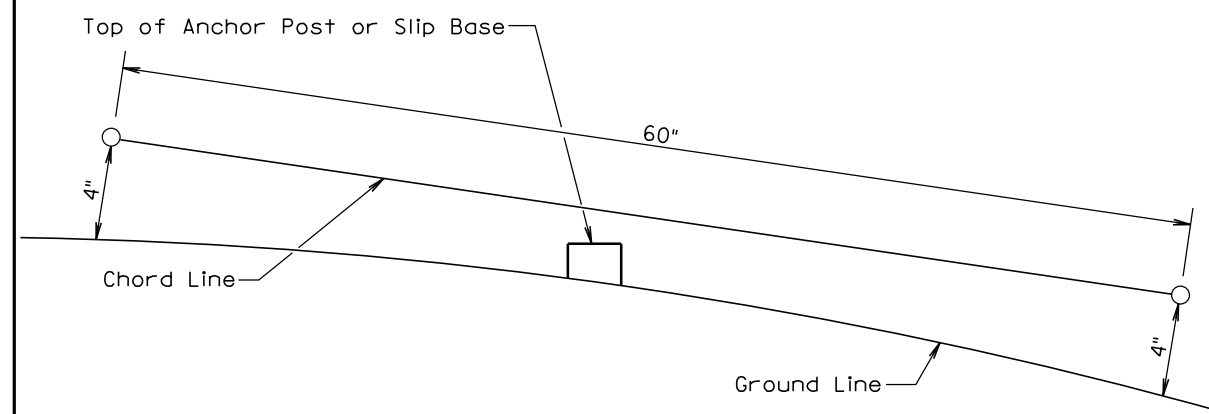
PLOT NAME - 8

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PLAN VIEW

(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 2nd Qtr. 2015	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1