

PLOT SCALE - 1:1000

PLOTTED FROM - TRJWJNT06

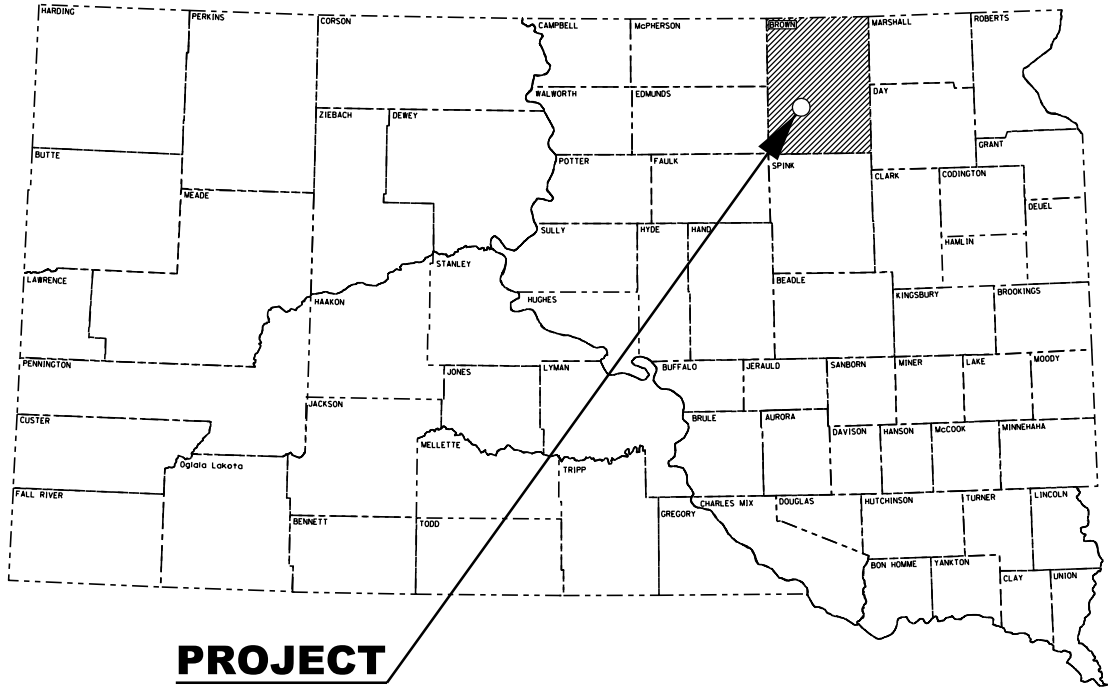
STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

PROJECT 0009-151  
MAINTENANCE YARD  
BROWN COUNTY  
GRADING, FULL DEPTH RECLAMATION,  
RESURFACING AND VALLEY GUTTER  
PCN I5EY

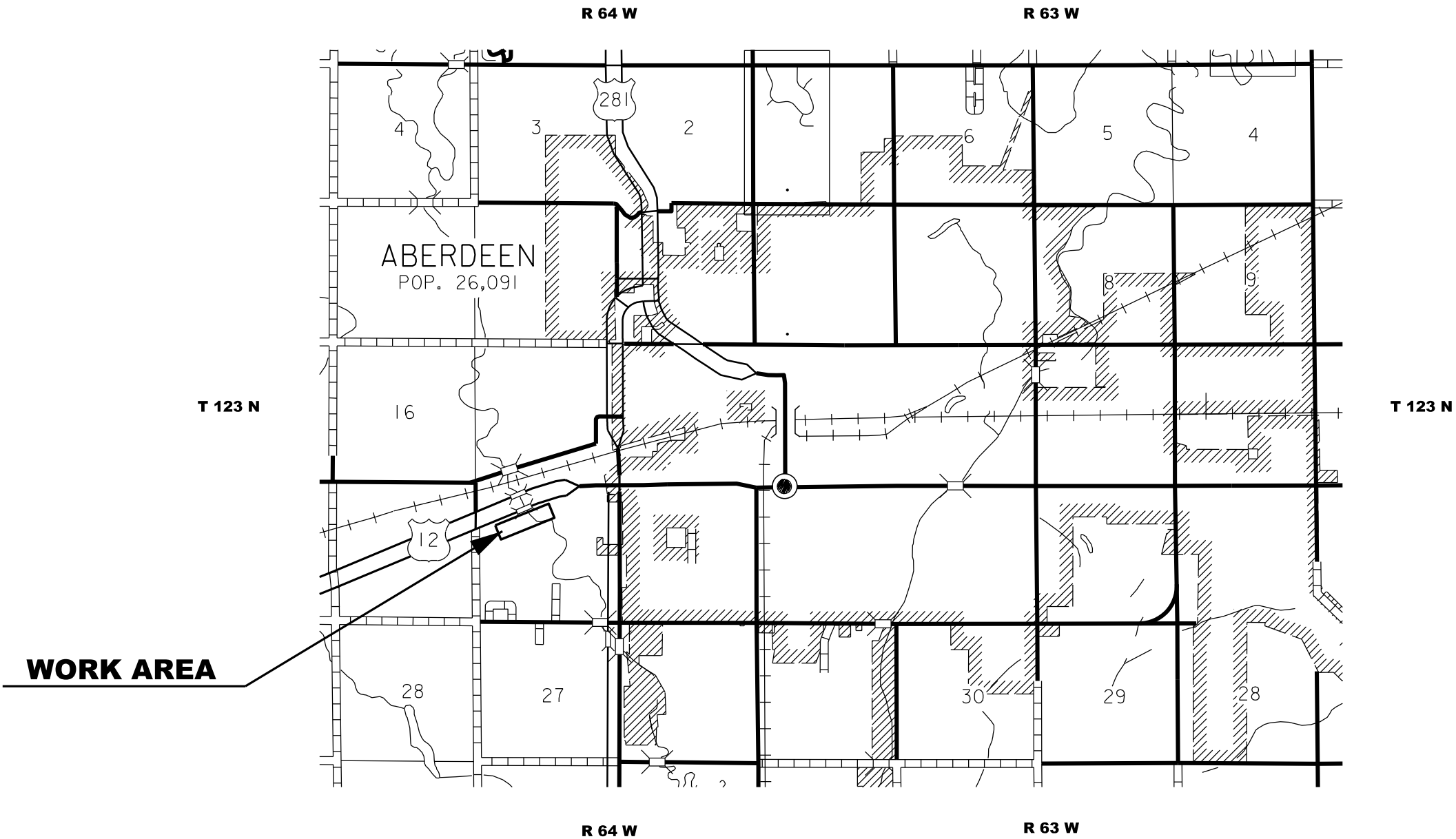
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PROJECT



STORM WATER PERMIT  
(None Required)

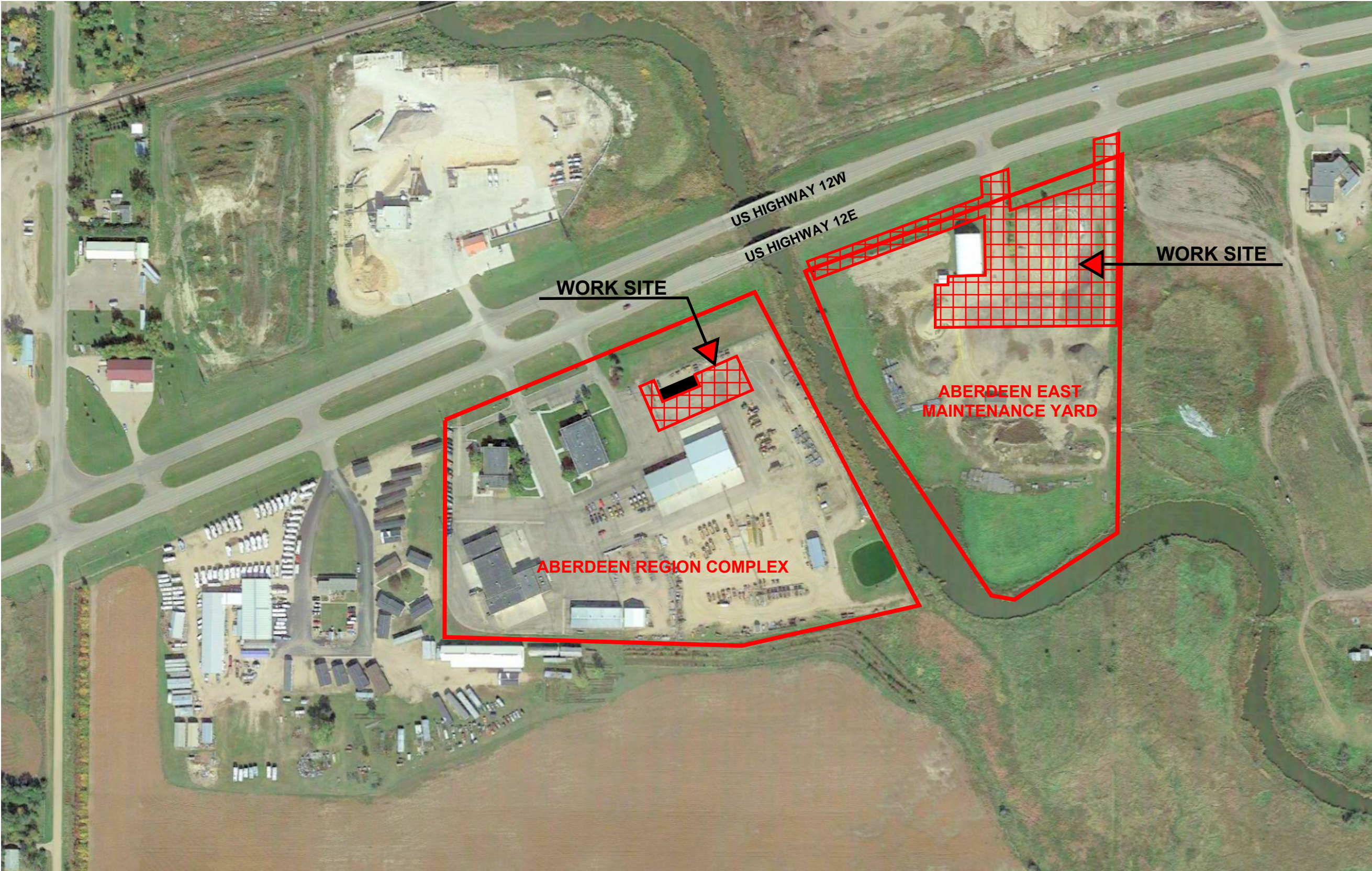
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# SITE MAP

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## PLOT SCALE - 1:200

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BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Construction Staking	Lump Sum	LS
110E0600	Remove Fence	1,015	Ft
110E1010	Remove Asphalt Concrete Pavement	1,833.3	SqYd
110E7800	Remove Chain Link Fence for Reset	169	Ft
120E0010	Unclassified Excavation	1,988	CuYd
210E1010	Site Preparation	Lump Sum	LS
230E0100	Remove and Replace Topsoil	Lump Sum	LS
260E1080	Base Course, Salvaged, State Furnished	4,920.6	Ton
280E0010	Full Depth Reclamation	6,800	SqYd
320E0005	PG 58-34 Asphalt Binder	175.3	Ton
320E1050	Class E Asphalt Concrete	2,922.5	Ton
320E5020	Saw Joint in Asphalt Concrete	433	Ft
330E0100	SS-1h or CSS-1h Asphalt for Tack	3.4	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	2.8	Ton
330E2000	Sand for Flush Seal	52.6	Ton
621E0060	6' Chain Link Fence with Top Rail	1,091	Ft
621E0430	Double Vehicular Swing Gate	1	Each
621E0450	Double Vehicular Sliding Gate	1	Each
621E0520	Reset Chain Link Fence	169	Ft
634E0110	Traffic Control Signs	144.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
650E6080	8" Concrete Valley Gutter	120	Ft
734E0010	Erosion Control	Lump Sum	LS
734E0154	12" Diameter Erosion Control Wattle	100	Ft
831E0300	Reinforcement Fabric (MSE)	7,066	SqYd

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

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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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## 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 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:

- 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".
- 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.



# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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**COMMITMENT I: HISTORICAL 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 of 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 will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office 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.

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PLOT SCALE - 1:200

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**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.

**SEQUENCE OF OPERATIONS**

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

The Contractor will contact the Aberdeen Maintenance Forces on site (605-626-3483) a minimum of 48 hours prior to beginning excavation so that access to the building and yard can be arranged.

**TRAFFIC CONTROL**

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

The Contractor will be responsible to provide and install any traffic control devices necessary to keep the public from entering the work zone. TRUCK CROSSING signs will be placed on US Highway 12 in both directions, on both sides of the highway and located a minimum of 550' in advance of the entrance to the Aberdeen Region Complex and/or maintenance yard.

The TRUCK CROSSING signs, 48" x 48", will be displayed at all times when haul vehicles are hauling material to and from the site. During non-working hours, the signs will be covered or removed from view.

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

**UTILITIES**

Utilities are not planned to be affected on this project. If utilities are identified near the improvement are through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor will notify the Engineer to determine modifications that will be necessary to avoid utility impacts.

The Contractor will notify the Engineer prior to work to allow the SDDOT to locate private utilities in the work area.

**UNCLASSIFIED EXCAVATION**

When plan quantities are used for payment, the Unclassified Excavation quantity will be used for final payment and the plans quantity for the items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

It is not anticipated that the Contractor will encounter any unstable excavation areas that contain saturated or weak compressible soils and other organic materials. However, in the event that such a site is encountered, the depth of excavation will be adjusted by the Engineer to ensure a solid foundation free of organic, soft and incompressible earthen material is removed. All costs associated with removing the material will be incidental to the contract unit price per cubic yard for UNCLASSIFIED EXCAVATION.

Stable and incompressible excavation material can be used at various fill and embankment construction areas at the discretion of the Engineer. All remaining excavation material not used on the project will become the property of the Contractor for their disposal. It is estimated that 1940 cubic yards of waste material will be remaining upon project completion. Compaction of the subgrade prior to the installation of the Reinforcement Fabric (MSE) shall be to the satisfaction of the Engineer.

**TABLE OF UNCLASSIFIED EXCAVATION**

	CuYd
Excavation (Region Complex)	732
Excavation (East Maintenance Yard)	1256

**WATER FOR COMPACTION OF GRANULAR MATERIALS**

Cost of water for compaction of the granular material will be incidental to the contract unit price for the various contract items. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

**CLASS E ASPHALT CONCRETE**

The mineral aggregate shall conform to Class E, Type 1.

In lieu of a Mix Design Submittal as outlined in Section 320.3 C.3, the Contractor may provide a recent job mix formula to the Department's Bituminous Engineer with supporting mix design data prior to production. A DOT-97 (Certificate of Compliance for Asphalt Concrete Composite) will be an acceptable way of documenting the mix design on this project.

No Quality, Acceptance or Independence Assurance Testing of the aggregate composite, binder or hot mix material will be required on this project. No density testing will be required and density will be to the satisfaction of the Engineer.

**FLUSH SEAL**

Application of flush seal will be completed within 10 working days following completion of the asphalt concrete surfacing.

Tack or flush seal oil applied to concrete or buildings will be removed to the satisfaction of the Engineer at no cost to the State.

**REINFORCEMENT FABRIC (MSE)**

**7066** square yards of Reinforcement Fabric (MSE) should be included in the materials quantities for bidding purposes. This quantity is assumed to cover approximately 6144 square yards. The bid quantity has been increased by 15% to account for overlaps.

The top of the subgrade will be prepared by smoothing the surface of the subgrade to minimize any ruts, ridges, and depressions. Any rocks or other protrusions that might damage the fabric will be removed. The fabric will be overlapped a minimum of 2 feet.

The fabric will be placed as taut as possible with minimal wrinkles. Placement will be done so that subsequent granular cover material does not shove, wrinkle or distort the in place fabric. The overlaps will be shingled in a manner that assures granular material will not be forced under the fabric during backfilling operations. The fabric may be held in place with small piles of granular material or staples. No traffic will be allowed on the uncovered fabric.

Granular material will be dumped at least 20 feet behind the leading edge of the backfill and pushed into place with a loader or dozer from the covered areas to the uncovered areas. The granular material will be compacted to 97% maximum dry density as determined by the Specified Density Method.

The fabric will conform to the specification for Geotextiles and Impermeable Plastic Membrane, Reinforcement Fabric (MSE) (Section 831 of the Specifications). The fabric will be on the Approved Products List for this material or will be certified by the supplier to meet this specification prior to installation.

Fabric will be paid for at the contract unit price per square yard for REINFORCEMENT FABRIC (MSE). Payment quantities will be based on the area covered plus 15%. Overlaps are accounted for the additional 15%. Payment will be full compensation for furnishing and installing the fabric only. Granular backfill materials will be paid for under separate bid items.

**8" VALLEY GUTTER**

The valley gutter will be built in accordance with Standard Plate 650.40. The specified width is 4'. The slope towards the center of the valley gutter will be 2%. The course aggregate used in the M6 concrete will be crushed ledge rock.

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BASE COURSE, SALVAGED, STATE FURNISHED

The Base Course, Salvaged, State Furnished, material is located at the East Maintenance Yard East of the Aberdeen Region Complex. The legal description of the location is Sec.22 T123N R64W. The Contractor will coordinate with the Aberdeen Area for access to the site. The Aberdeen Area Engineer is Bruce Schroeder Phone 605-626-7885.

The value of the Material for Excise Tax purposes is 18.75 dollars per ton.

No gradation testing of the material will be required.

REMOVE AND RESET CHAIN LINK FENCE – REGION COMPLEX

Chain link fence will be removed and reset by the Contractor to allow for the regrading of the Aberdeen Region Complex.

The Contractor shall remove all chain link fence, posts, footings, and sliding gate. Any damage during the removal will be replaced by the Contractor at no cost to the State.

Upon completion of the grading work the Contractor will reset all fencing, posts, footings, and sliding gate to its original condition. The sliding gate shall be reset 10 feet South of its original location. Prior to resetting the posts, the concrete footing around the posts will be removed to the satisfaction of the Engineer.

The Contractor is advised to visit the site to inspect the work involved to verify if any additional materials that may be necessary to complete the work. No separate payment will be made to complete the remove and resetting of the chain link fence and roller gate.

All costs for removing and resetting fence and gate shall be paid for at the contract unit bid price per foot for “Remove Chain Link Fence for Reset” and “Reset Chain Link Fence”.

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment will be installed at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor will provide certification that the erosion control wattles do not contain noxious weeds.

The erosion control wattle provided will be from the approved product list. The approved product list for erosion control wattle may be viewed at the following internet site:

http://sddot.com/business/certification/products/Default.aspx

EROSION CONTROL

The estimated area requiring erosion control is 3508 square feet. Erosion control will be completed at the disturbed locations along the entrance to the East Maintenance Yard. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding and mulching will be incidental to the contract lump sum price for EROSION CONTROL.

The limits of erosion control work will be determined by the Engineer during construction.

Mycorrhizal Inoculum

Mycorrhizal inoculum will consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier will provide certification of the fungal species claimed and the live propagule count. The inoculum will include the following fungal species:

- 25% Glomus intraradices
- 25% Glomus aggregatum or deserticola
- 25% Glomus mosseae
- 25% Glomus etunicatum

All seed will be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed will be incidental to the contract lump sum price for EROSION CONTROL.

The mycorrhizal inoculum will be as shown below or an approved equal:

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 <a href="http://www.mycorrhizae.com">www.mycorrhizae.com</a>
AM 120 Multi Species Blend	Reforestation Technologies Int. Gilroy, CA Phone: 1-800-784-4769 <a href="http://www.reforest.com">www.reforest.com</a>

Permanent Seeding

Type B Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Switchgrass	Dacotah, Forestburg, Nebraska 28, Pathfinder, Summer, Sunburst, Trailblazer	3
Indiangrass	Holt, Tomahawk, Chief, Nebraska 54	3
Big Bluestem	Bison, Bonilla, Champ, Sunnyview, Rountree, Bonanza	3
Canada Wildrye	Mandan	2
Total:		18

Mulching (Grass Hay or Straw)

Grass Hay or Straw Mulch will be used as temporary erosion control on areas determined by the Engineer during construction.

REMOVE AND REPLACE TOPSOIL

Topsoil will be salvaged and stockpiled prior to construction the erosion repair areas. Limits of this work, depth of salvage, and stockpile location will be determined by the Engineer. Following completion of construction, topsoil will be spread evenly over the disturbed areas.

The estimated amount of topsoil to be removed and replaced is 65 CuYd.

All costs associated with removal and replacing the topsoil along areas to be regraded will be incidental to the contract lump sum price for “Remove and Replace Topsoil”.

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# HORIZONTAL ALIGNMENT DATA AND CONTROL DATA

## EAST MAINTENANCE YARD (ENTRANCE ROAD)

Type	Station			Northing	Easting
POB	0+00.00			595861.749	2346337.191
		TL = 37.42	S 20°02'31" E		
PC	0+37.42			595826.594	2346350.016
PI	0+86.05	R = 300.00	D= 18°24'56" R	595780.908	2346366.682
PT	1+33.85			595732.296	2346368.062
		TL = 294.03	S 01°37'35" W		
POE	4+27.87			595438.389	2346376.408

## ABERDEEN REGION COMPLEX

Type	Station			Northing	Easting
POB	0+00.00			595199.211	2345492.278
		TL = 300.00	N 65°58'23" E		
POE	3+00.00			595321.361	2345766.284

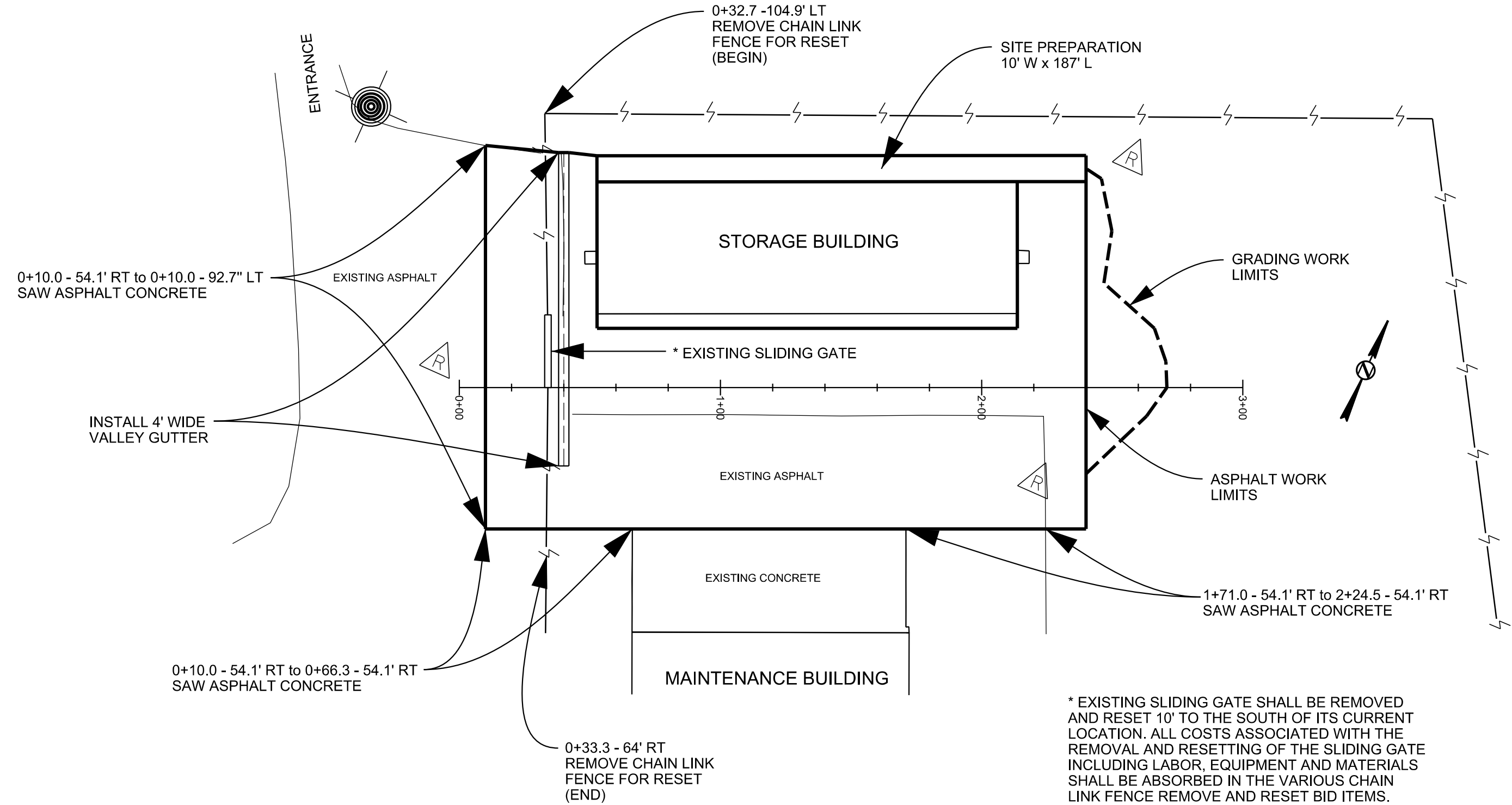
## CONTROL DATA

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
5001			REFMRK	595204.878	2345481.271	1314.82
5002			REFMRK	595255.965	2345709.263	1312.61
5003			REFMRK	595383.946	2345691.916	1310.37
6006			REFMRK	595223.930	2345088.710	1318.71



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# GENERAL LAYOUT - REGION COMPLEX



\* EXISTING SLIDING GATE SHALL BE REMOVED AND RESET 10' TO THE SOUTH OF ITS CURRENT LOCATION. ALL COSTS ASSOCIATED WITH THE REMOVAL AND RESETTING OF THE SLIDING GATE INCLUDING LABOR, EQUIPMENT AND MATERIALS SHALL BE ABSORBED IN THE VARIOUS CHAIN LINK FENCE REMOVE AND RESET BID ITEMS.

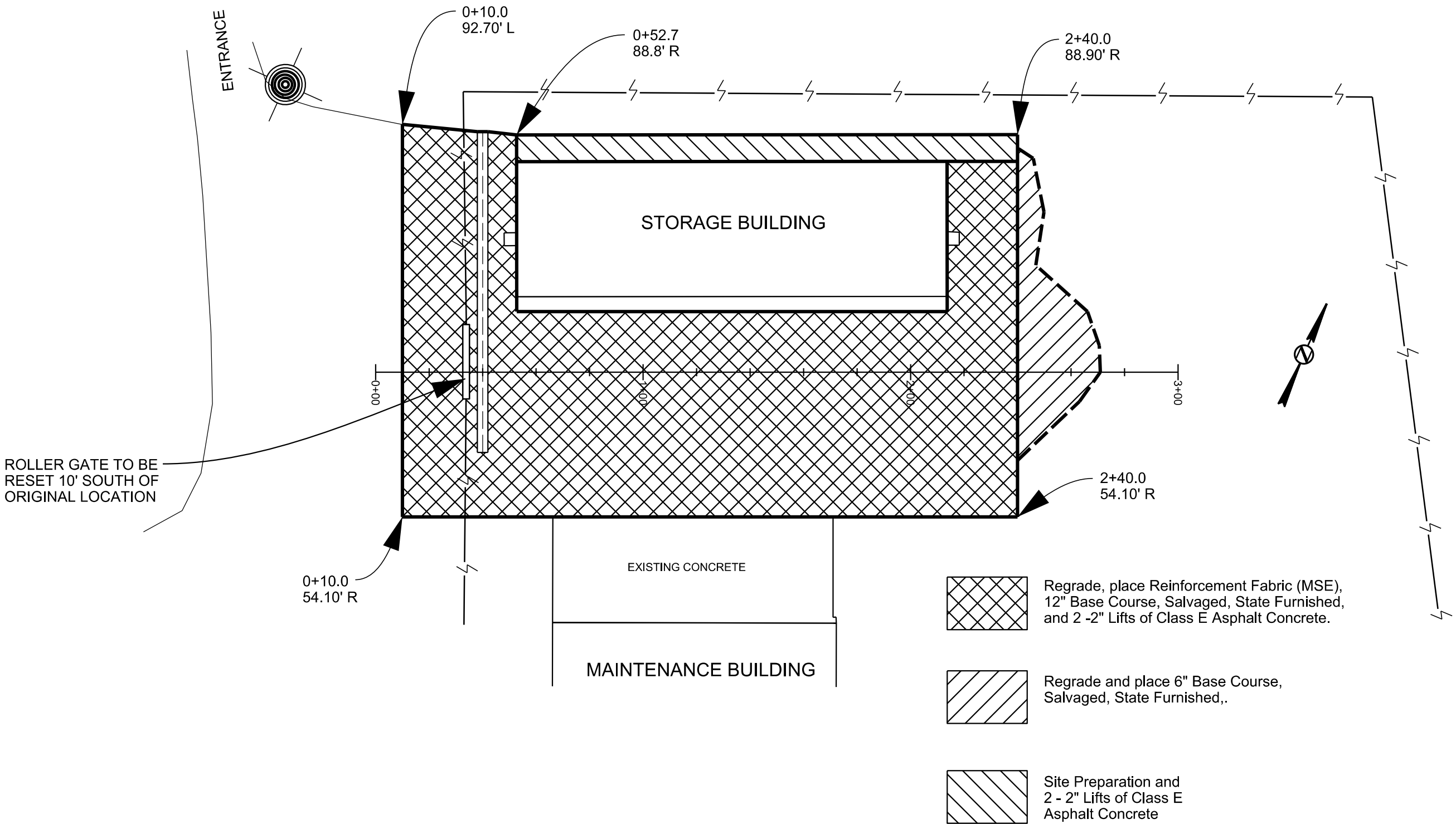


PLOT SCALE - 1"=40'

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# SURFACING LAYOUT - REGION COMPLEX



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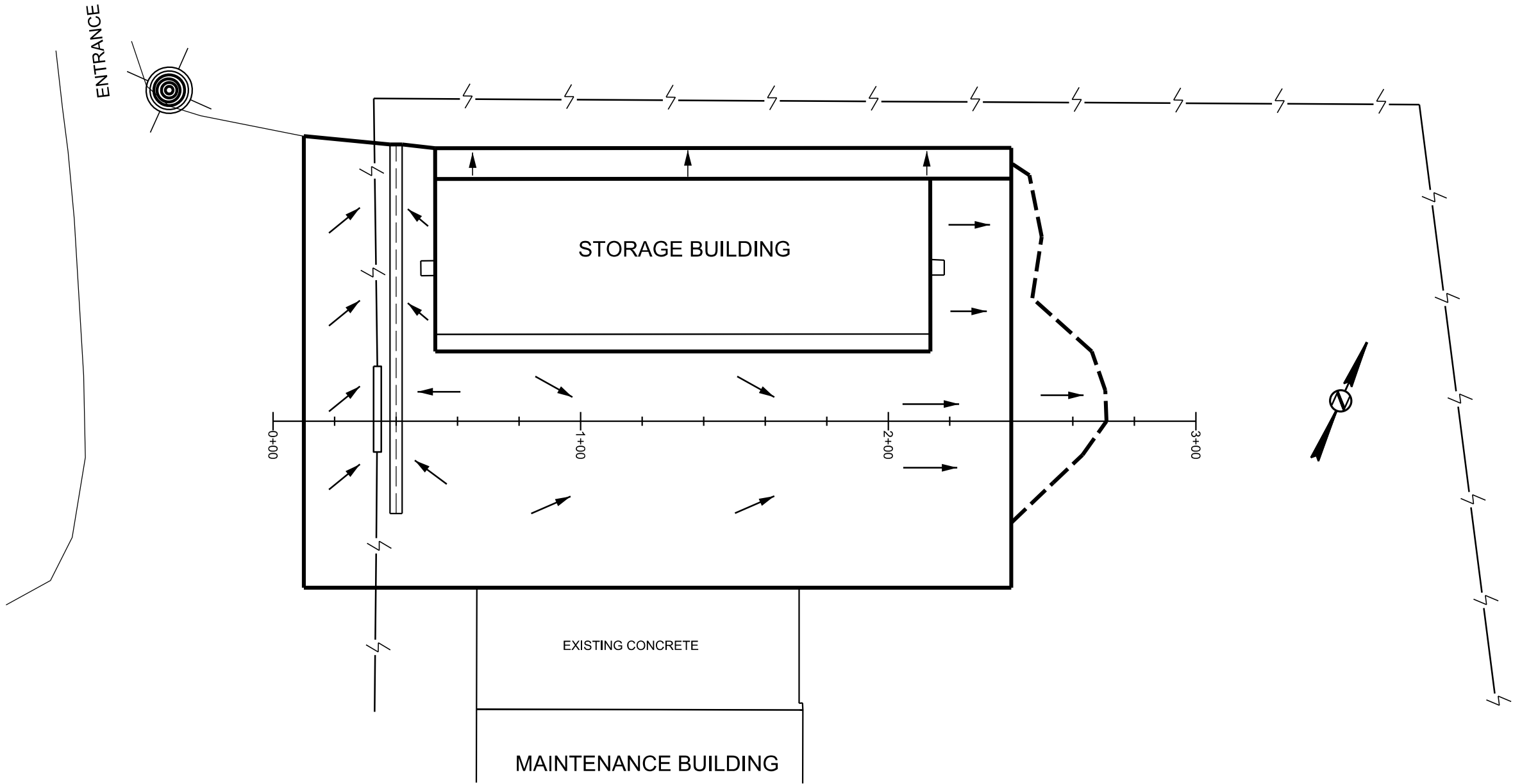


PLOT SCALE - 1"=40'

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# DRAINAGE LAYOUT - REGION COMPLEX



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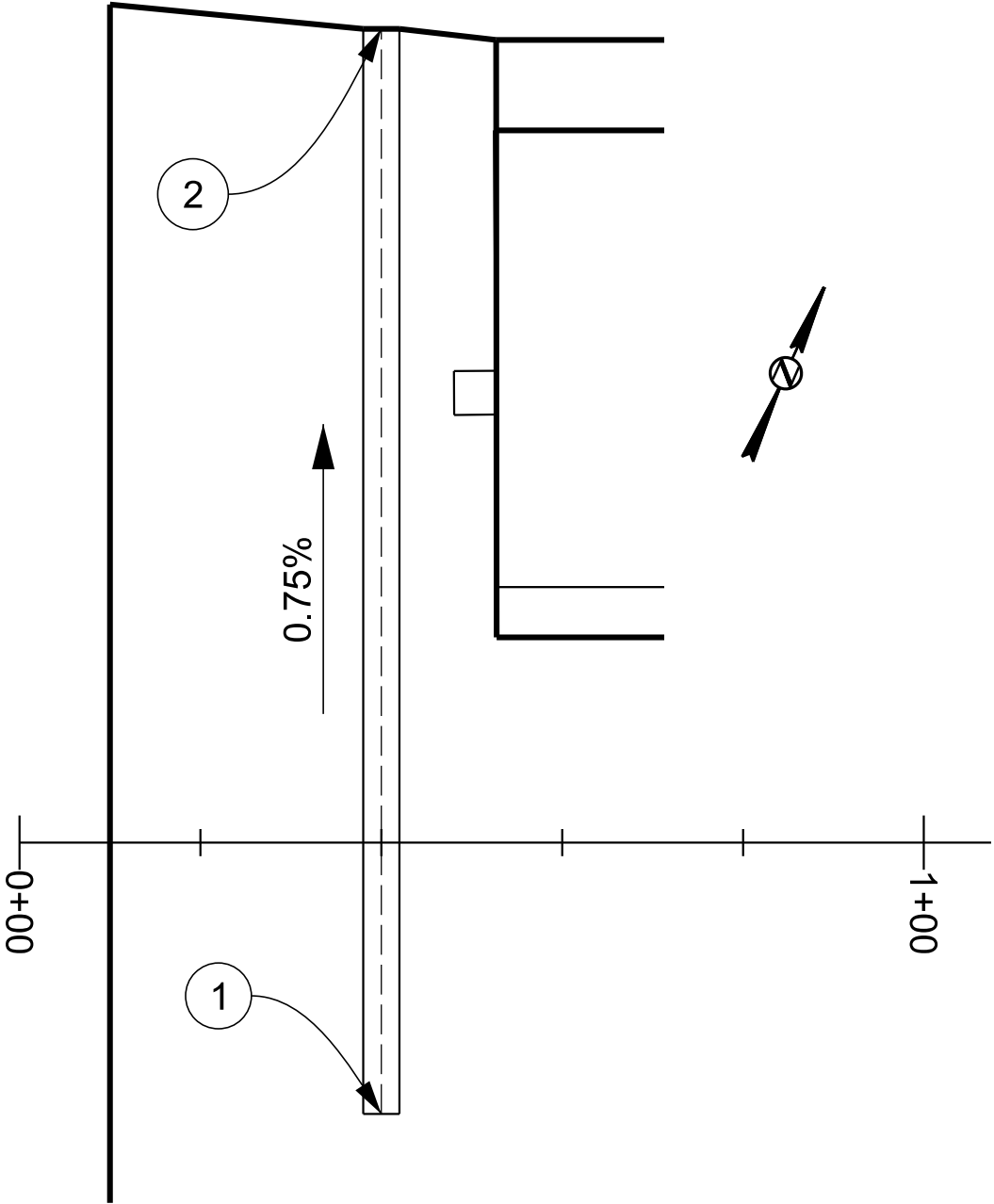
PLOT SCALE - 1"=40'

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# 4' WIDE VALLEY GUTTER LAYOUT REGION COMPLEX

- 1 0+40.0 - 30' Rt  
Begin Str Valley Gutter  
FL Elev 1314.30
- 2 0+40 - 90' Lt  
End Str Valley Gutter  
FL Elev 1313.40



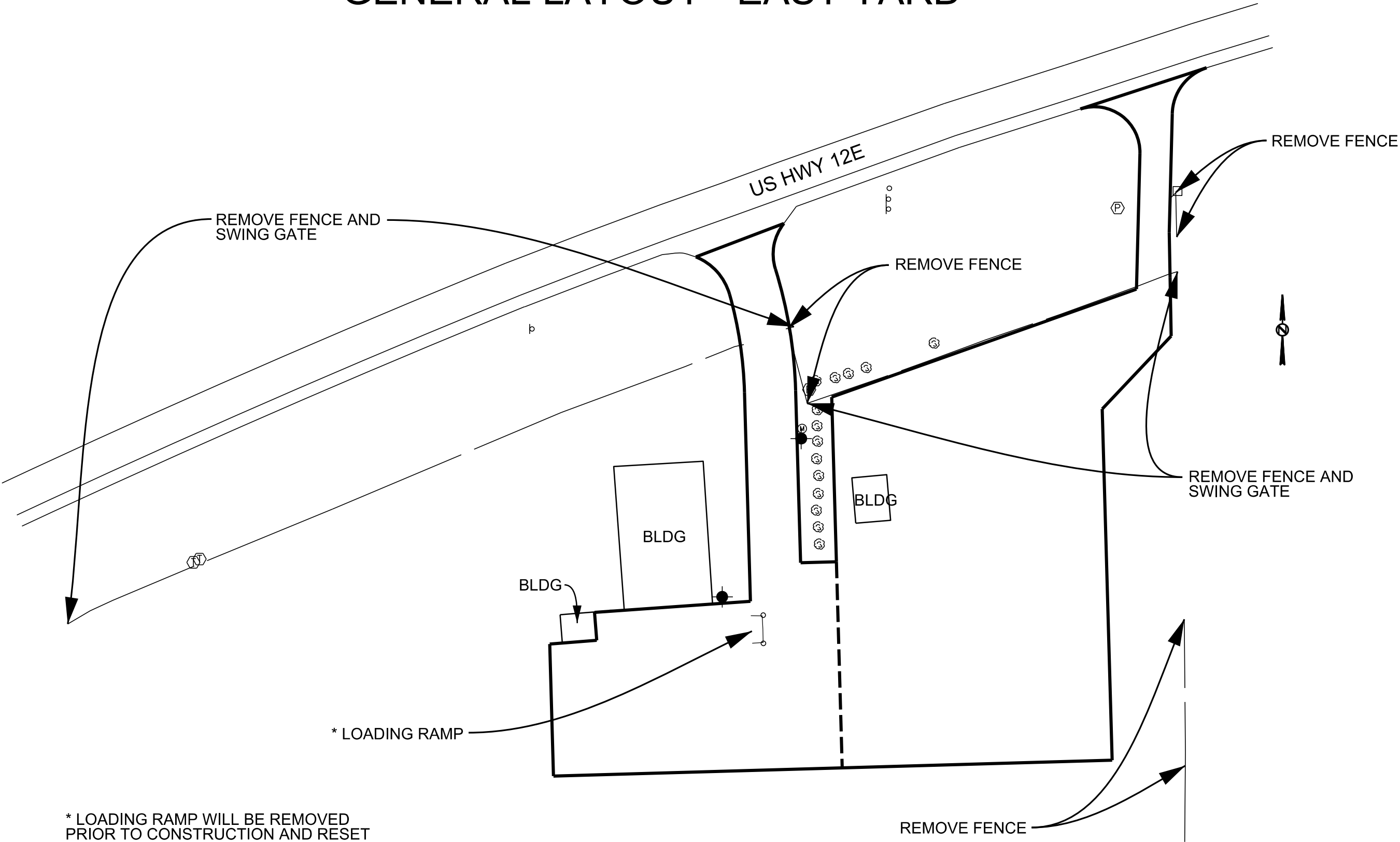
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# GENERAL LAYOUT - EAST YARD

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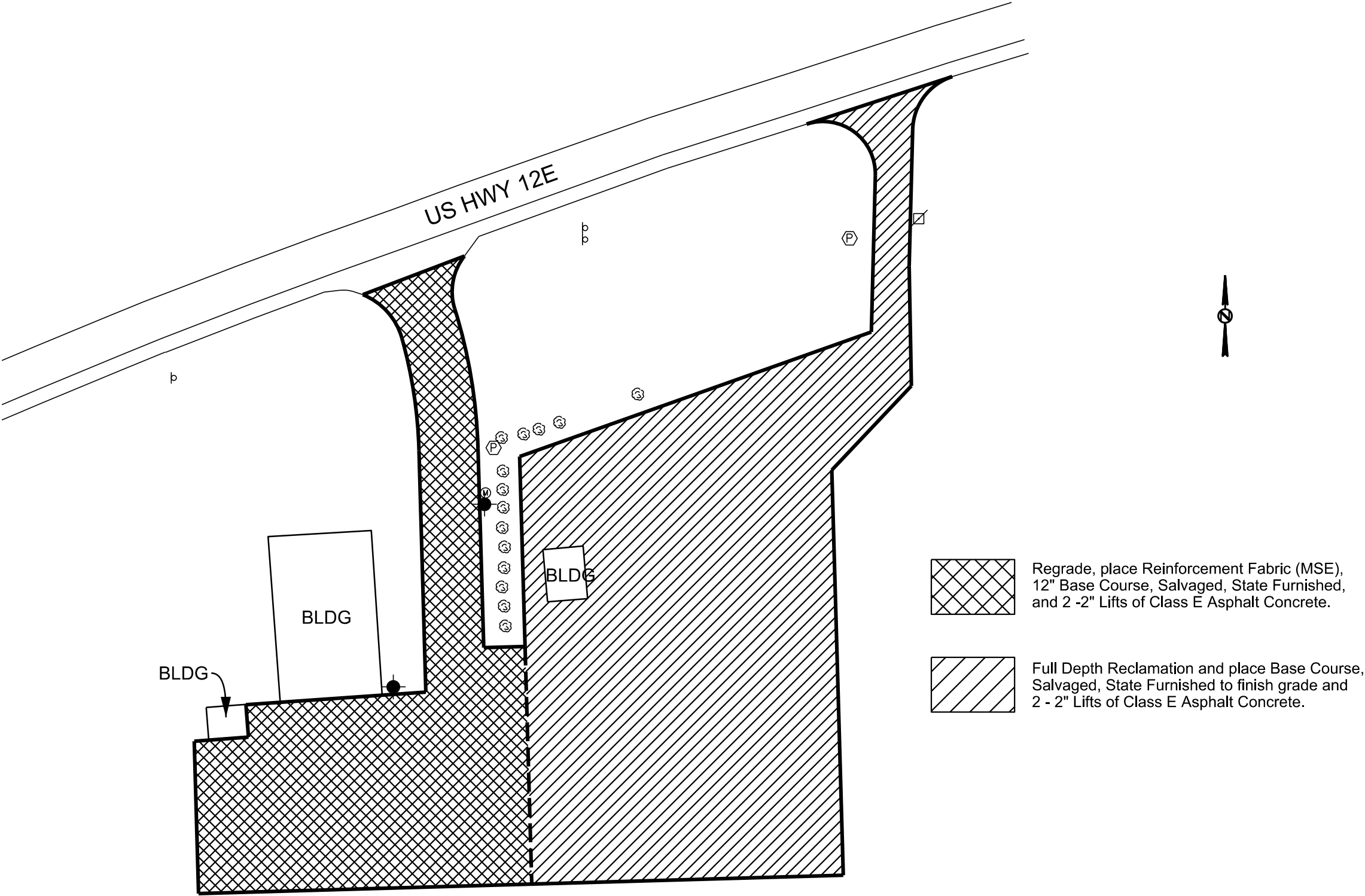


\* LOADING RAMP WILL BE REMOVED  
PRIOR TO CONSTRUCTION AND RESET  
BY SDDOT STATE FORCES AFTER  
PROJECT COMPLETION.



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SURFACING LAYOUT - EAST YARD



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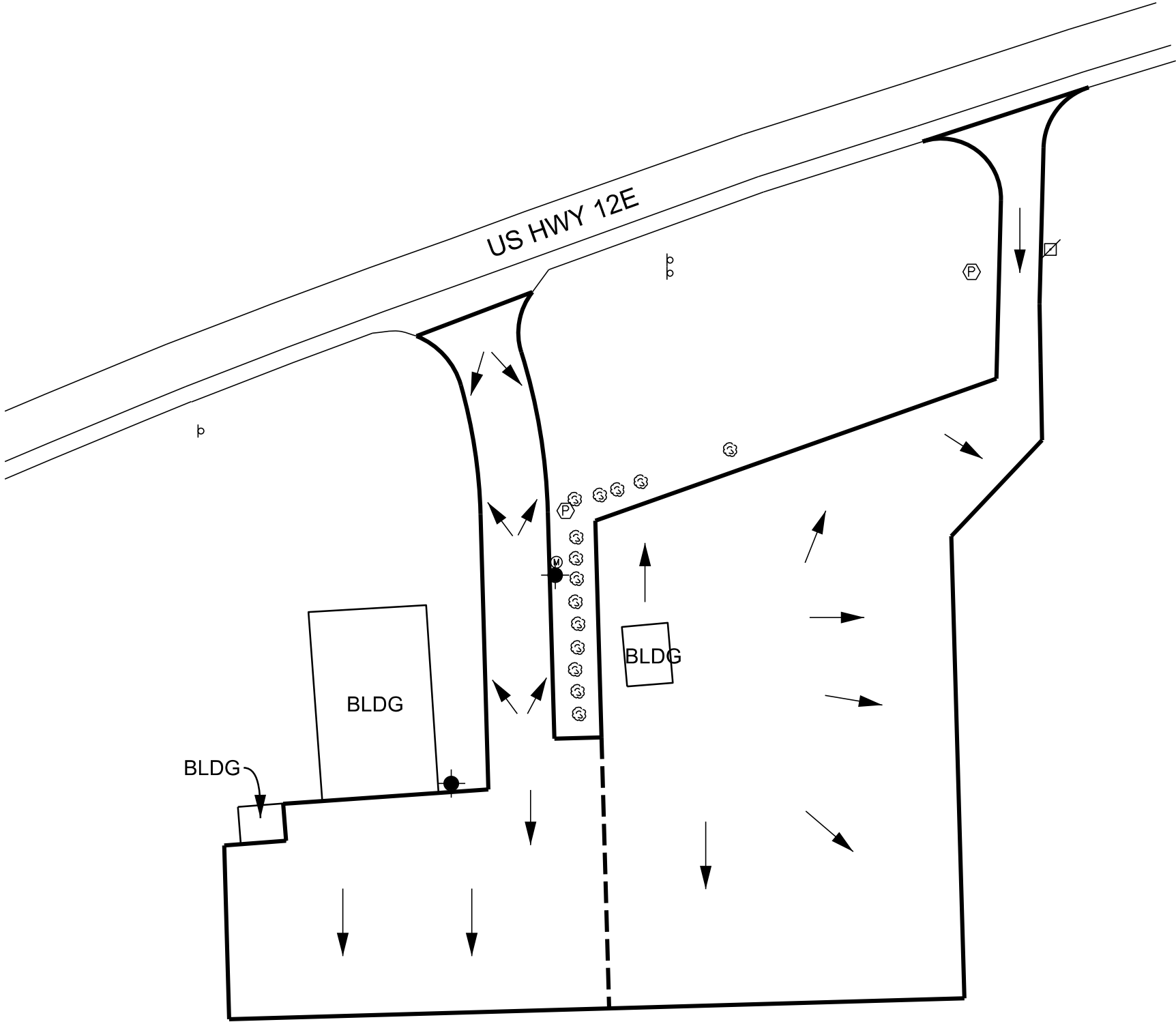
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# DRAINAGE LAYOUT - EAST YARD

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PLOT SCALE - 1"=70'

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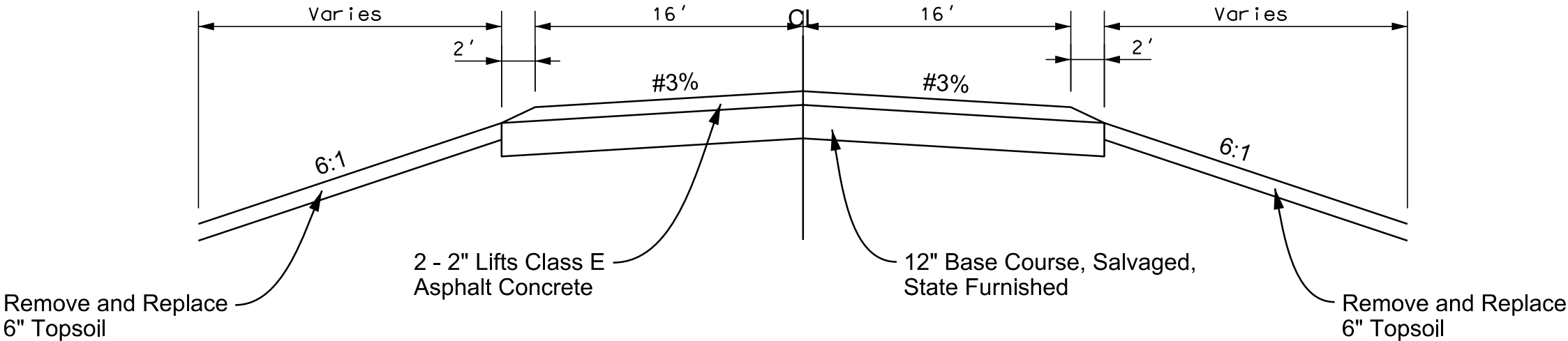


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TYPICAL SURFACING SECTION

EAST MAINTENANCE YARD  
STA 0+25 TO STA 2+75

# TRANSITIONS: STA 1+75 to STA 2+75 : 3% to 2%





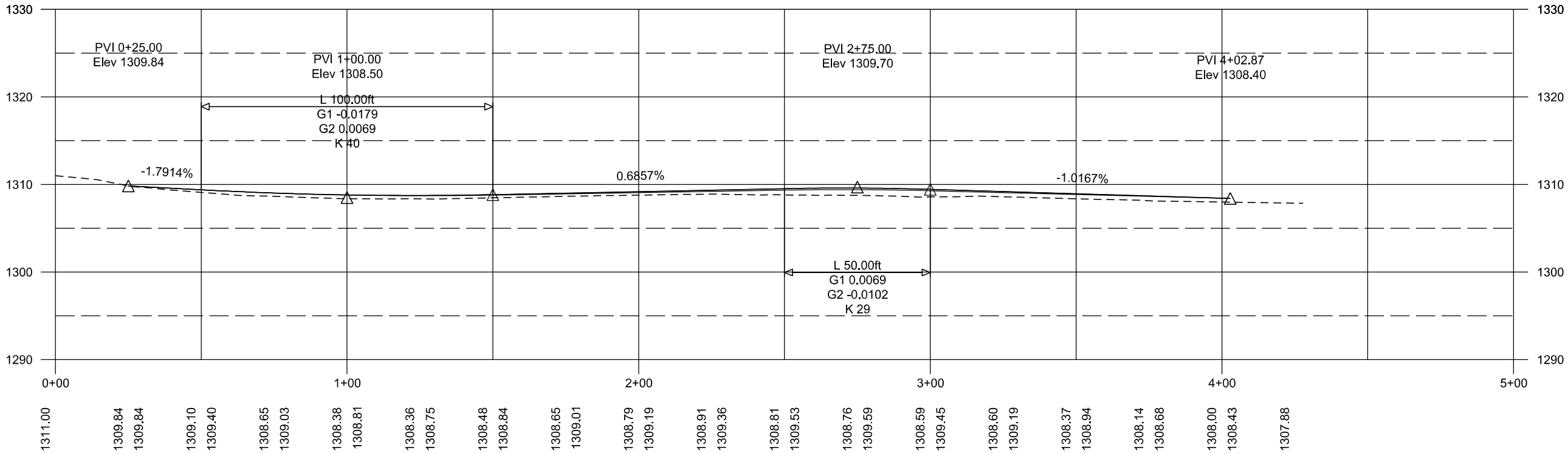
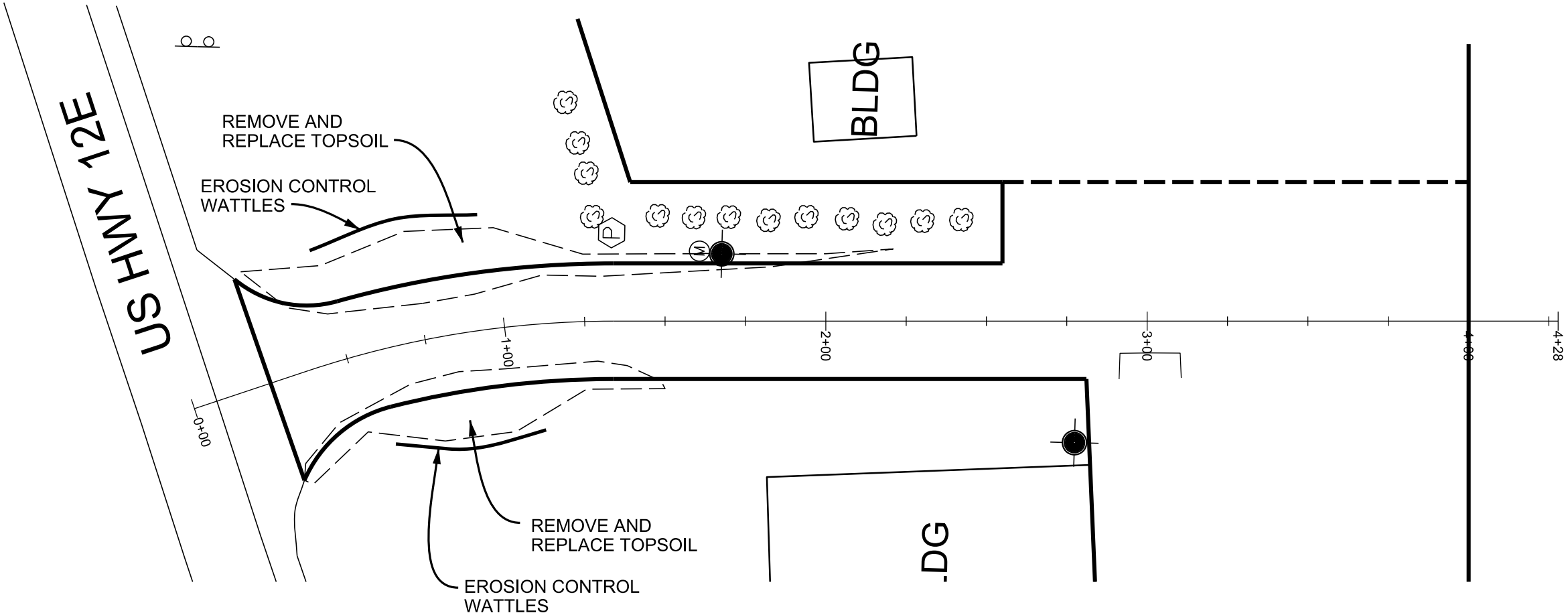
PLOT SCALE - 1"=40'

PLOTTED FROM - TRHJUNT06

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	17	27
Plotting Date: 05/04/2022			

PLOT NAME - 1

FILE - ... \AREA DESIGN\PLAN-PROFILE.DGN



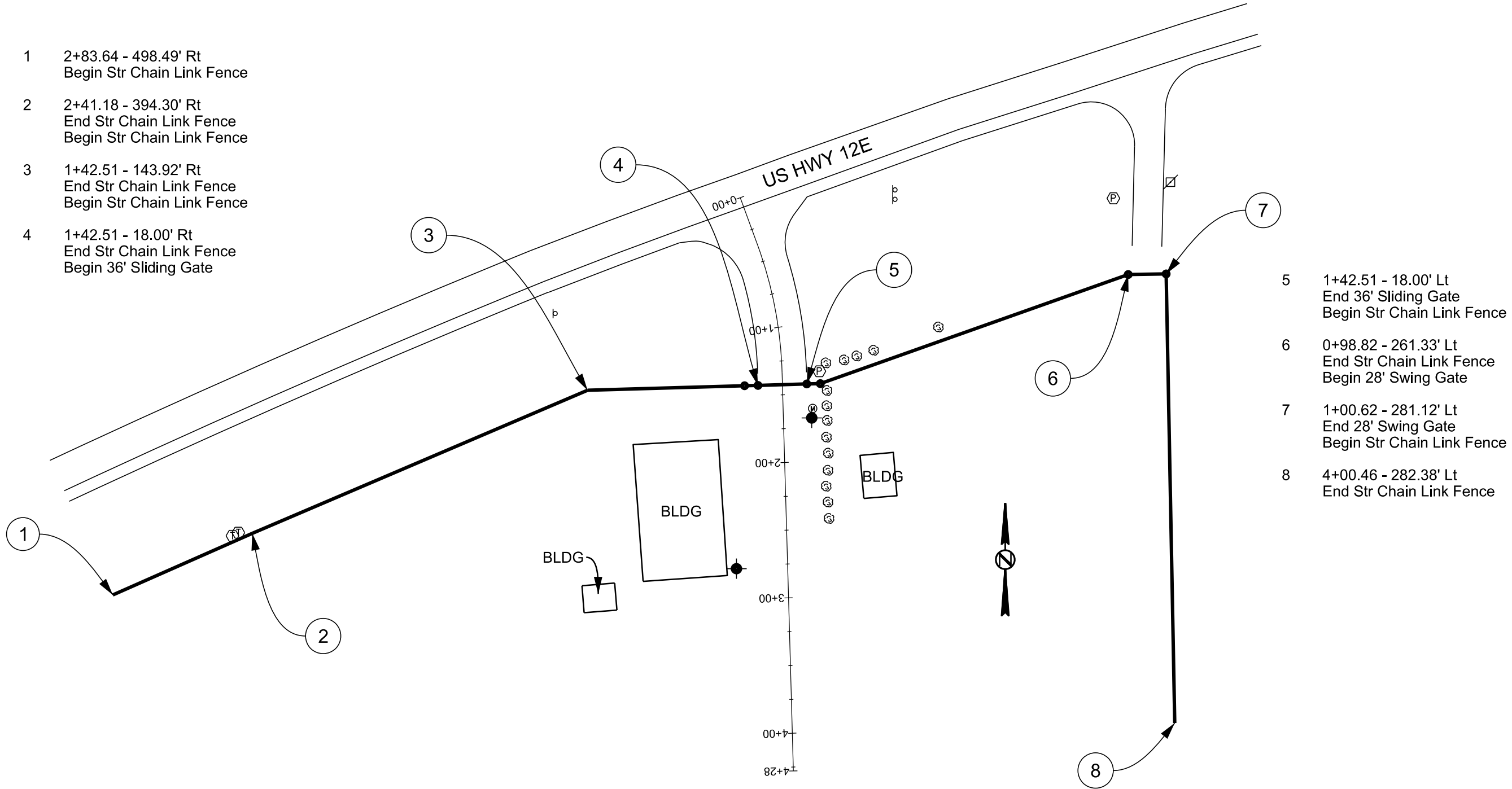


PLOT SCALE - 1:80

PLOTTED FROM - TRHJUNT06

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	18	27
Plotting Date: 05/04/2022			

# CHAIN LINK FENCE LAYOUT - EAST MAINTENANCE YARD



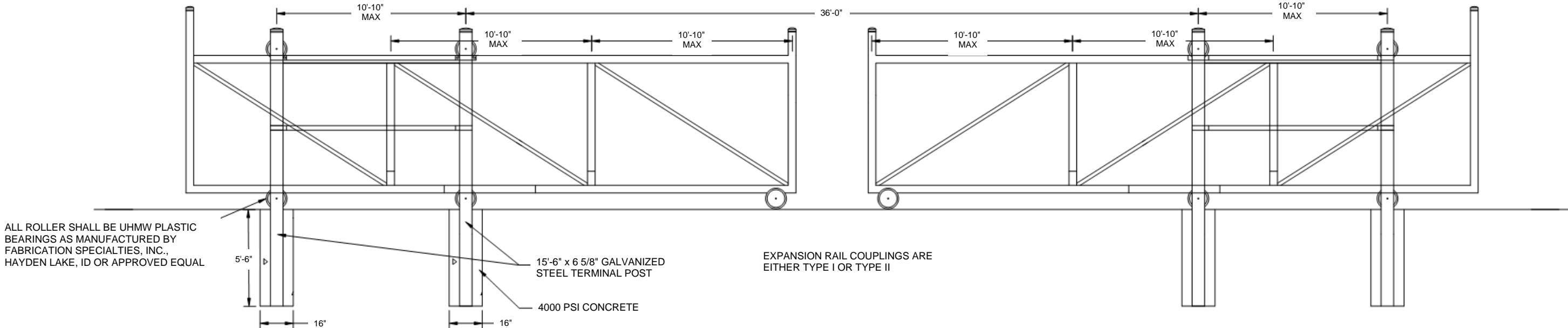
PLOT NAME - 1

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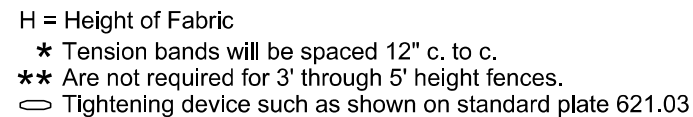


STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	19	27
Plotting Date: 03/04/2022			

**36' MANUAL CANTILEVERED ROLL GATE DETAIL**  
**EAST MAINTENANCE YARD**  
NOT TO SCALE





Plotting Date: 03/04/2022

COMPONENT	END, CORNER, and PULL POST		LINE POST			TOP and BRACE RAIL	
Type of Fabrication	Round Pipe Nominal	Roll Formed Steel	Round Pipe Nominal	"C" Section	H Beam Steel	Round Pipe Nominal	Roll Formed Steel
Size	3.00" O. D.	3.5"x3.5"	2.50" O. D.	1.875"x1.625"	2.25"x1.70"	1.625" O. D.	1.625"x1.25"
Weight (lb. / Ft.)	5.79 or 4.64	5.14	3.65 or 3.12	2.34	3.43	2.27 or 1.84	1.35

Specific details of the component parts of the fence will be approved by the Engineer. Commercially available items produced specifically for the use intended will be used wherever possible in the construction of the fence.

Chain link fabric will be 2-inch mesh, No. 9 gage galvanized wire securely fastened to tension wire, line post, rails, braces, and stretcher bars.

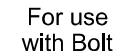
Where fence must cross small bodies of water such as drainage areas or ponds that could freeze during the winter, use 11 gage hog rings. Provide only two ties per tension wire and top rail between line posts.

June 26, 2019

Published Date: 2nd Qtr. 2022	S D D O T	CHAIN LINK FENCE WITH TOP RAIL	PLATE NUMBER 621.01
			Sheet 1 of 1



(Shown for example only)



(Bands will be rectangular for "C" Section and "H" Beam Posts.)



## RAIL ENDS

<p><i>Published Date: 2nd Qtr. 2022</i></p>	<p><b>S D D O T</b></p>	<p><b>HARDWARE FOR CHAIN LINK FENCE</b></p>	<p>PLATE NUMBER <b>621.03</b></p>
			<p>Sheet 1 of 1</p>



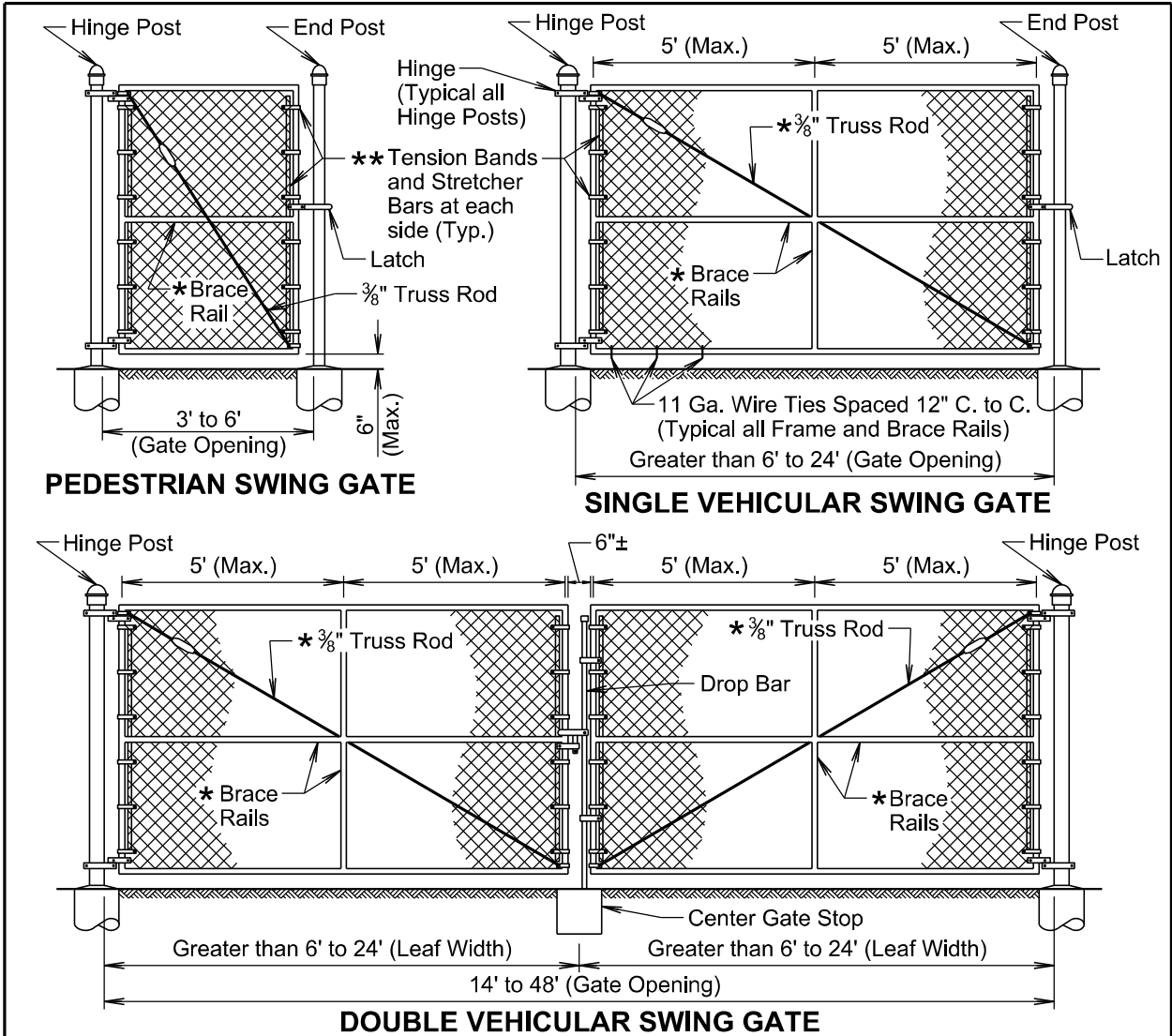
PLOT SCALE - 1:200

PLOTTED FROM - TRHJUNT06

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	21	27
Plotting Date: 03/04/2022			

PLOT NAME - 1

FILE - ... \AREA DESIGN\BORDER-3D.DGN



<sup>1</sup> Gate Opening Width	Hinge Post		Concrete Footing	
	Round Pipe Nominal	Roll Formed Steel	Depth	Diameter
3' to 6'	3.00"	3.50"x3.50"	36"	12"
> 6' to 13'	4.00"	—	42"	12"
> 13' to 18'	6.625"	—	48"	18"
> 18' to 23'	8.625"	—	48"	24"

- \* Are not required for gates 3' to 5' height or 5' or less in width.
- \*\* Tension Bands will be spaced 12" center to center.
- Tightening Device such as shown on standard plate 621.03
- 1 Leaf width for Double Vehicular Swing Gate
- 2 Will coincide with fence height

Gate Opening		Frame Pipe Nominal	Brace Rail Pipe Nominal
<sup>1</sup> Width	<sup>2</sup> Height		
3' to 8'	3' to 6'	1.50"	1.50"
>8' to 23'	6'	1.90"	1.50"
>8' to 23'	>6' to 12'	1.90"	1.90"

**GENERAL NOTES:**

Gate frames may be constructed of bent or welded steel tubing, must be approved by the Engineer prior to installation, and installed in accordance with the Manufacturer's installation instructions.

Center gate stops must be approved by the Engineer prior to installation and will be installed in accordance with the Manufacturer's installation instructions.

June 26, 2019

Published Date: 2nd Qtr. 2022

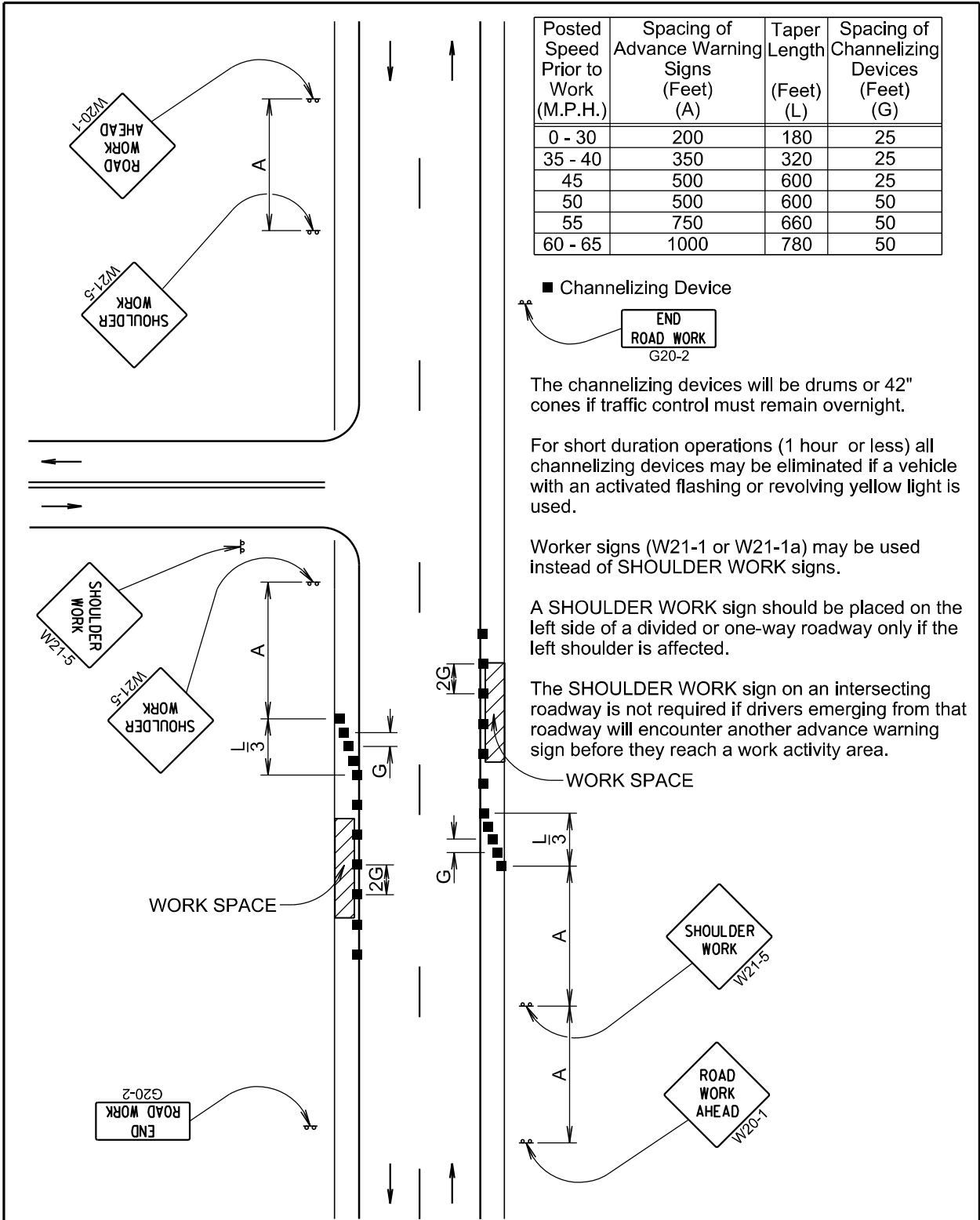
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**SWING GATES FOR CHAIN LINK FENCE**

**PLATE NUMBER  
621.10**

Sheet 1 of 1





January 22, 2021

Published Date: 2nd Qtr. 2022

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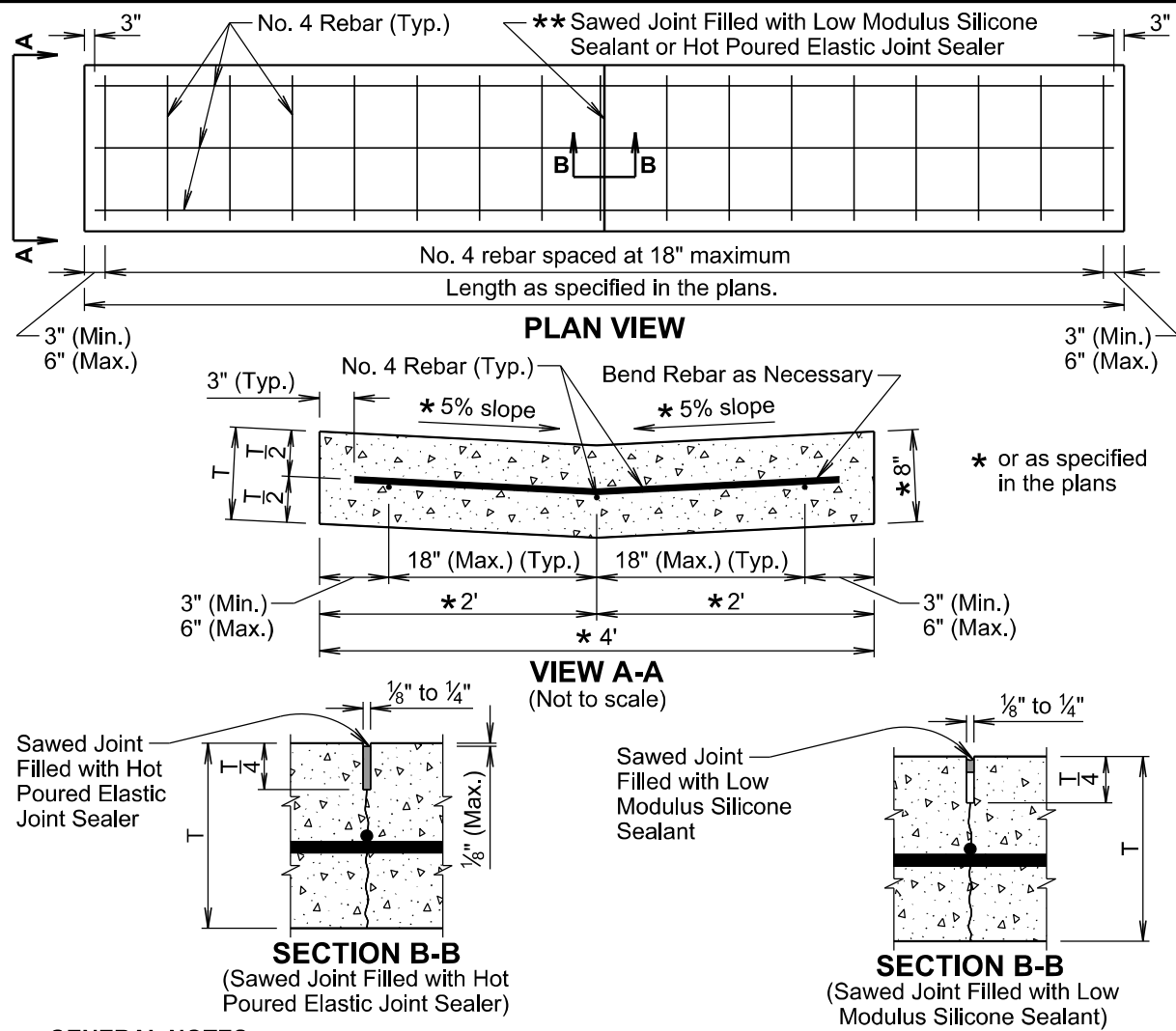
WORK ON SHOULDERS

PLATE NUMBER  
634.03

Sheet 1 of 1

		EXPRESSWAY / INTERSTATE			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-6	TRUCK CROSSING	4	48" x 48"	16.0	64.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	2	48" x 24"	8.0	16.0
		EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT			
		144.0			





**GENERAL NOTES:**

The concrete will comply with the specifications for class M6 concrete.

The reinforcing steel will comply with the requirements of specification sections 480 and 1010.

If a lap splice is provided the No. 4 rebar will be lapped a minimum of 12 inches.

\*\* The sawed joints will be spaced at 12 feet; however, when the length of the valley gutter is 12 feet to 24 feet there will be a joint at the midpoint of the length. The saw cut to control cracking will be a minimum of 1/4 the thickness of the pavement.

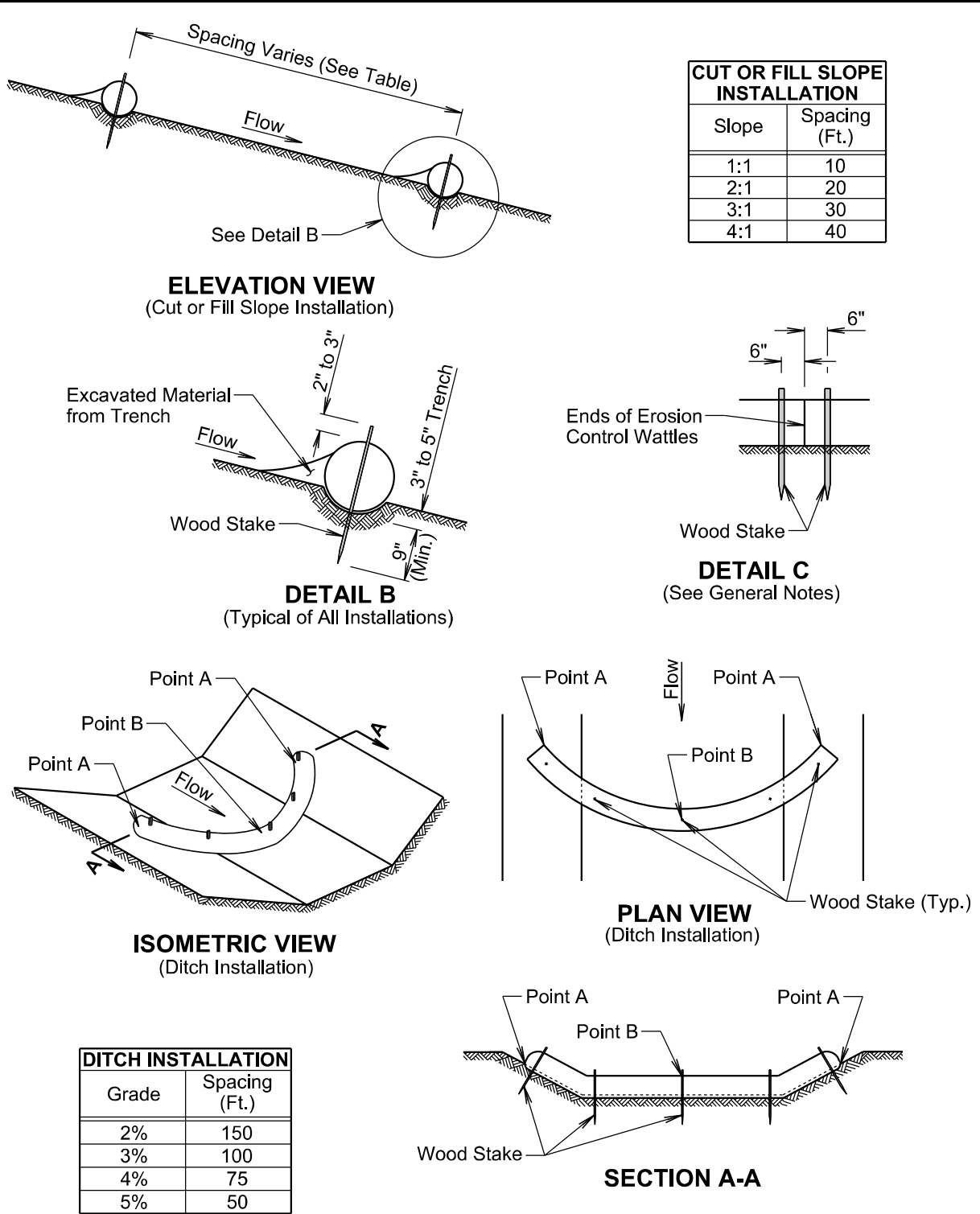
All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the Contractor.

The silicone sealant will be bonded to the sides of a clean joint to completely seal the joint as approved by the Engineer.

All costs for furnishing and installing the valley gutter including materials, equipment, labor, and incidentals will be included in the contract unit price per square yard for the corresponding Valley Gutter contract item.

December 23, 2019

Published Date: 2nd Qtr. 2022	S D D O T	VALLEY GUTTER	PLATE NUMBER
			650.40
			Sheet 1 of 1



February 14, 2020

Published Date: 2nd Qtr. 2022	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER
			734.06
			Sheet 1 of 2



STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	24	27
Plotting Date: 03/04/2022			

**GENERAL NOTES:**

At cut or fill slope installations, wattles will be installed along the contour and perpendicular to the water flow.

At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.

The Contractor will dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.

The stakes will be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes will be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles will be 3' to 4'.

Where installing running lengths of wattles, the Contractor will butt the second wattle tightly against the first and will not overlap the ends. See Detail C.

The Contractor and Engineer will inspect the erosion control wattles in accordance with the storm water permit. The Contractor will remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.

Sediment removal, disposal, or necessary shaping will be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping will be incidental to the contract unit price per cubic yard for "Remove Sediment".

All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials will be incidental to the contract unit price per foot for the corresponding erosion control wattle contract item.

All costs for removing the erosion control wattle from the project including labor, equipment, and materials will be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

February 14, 2020

Published Date: 2nd Qtr. 2022

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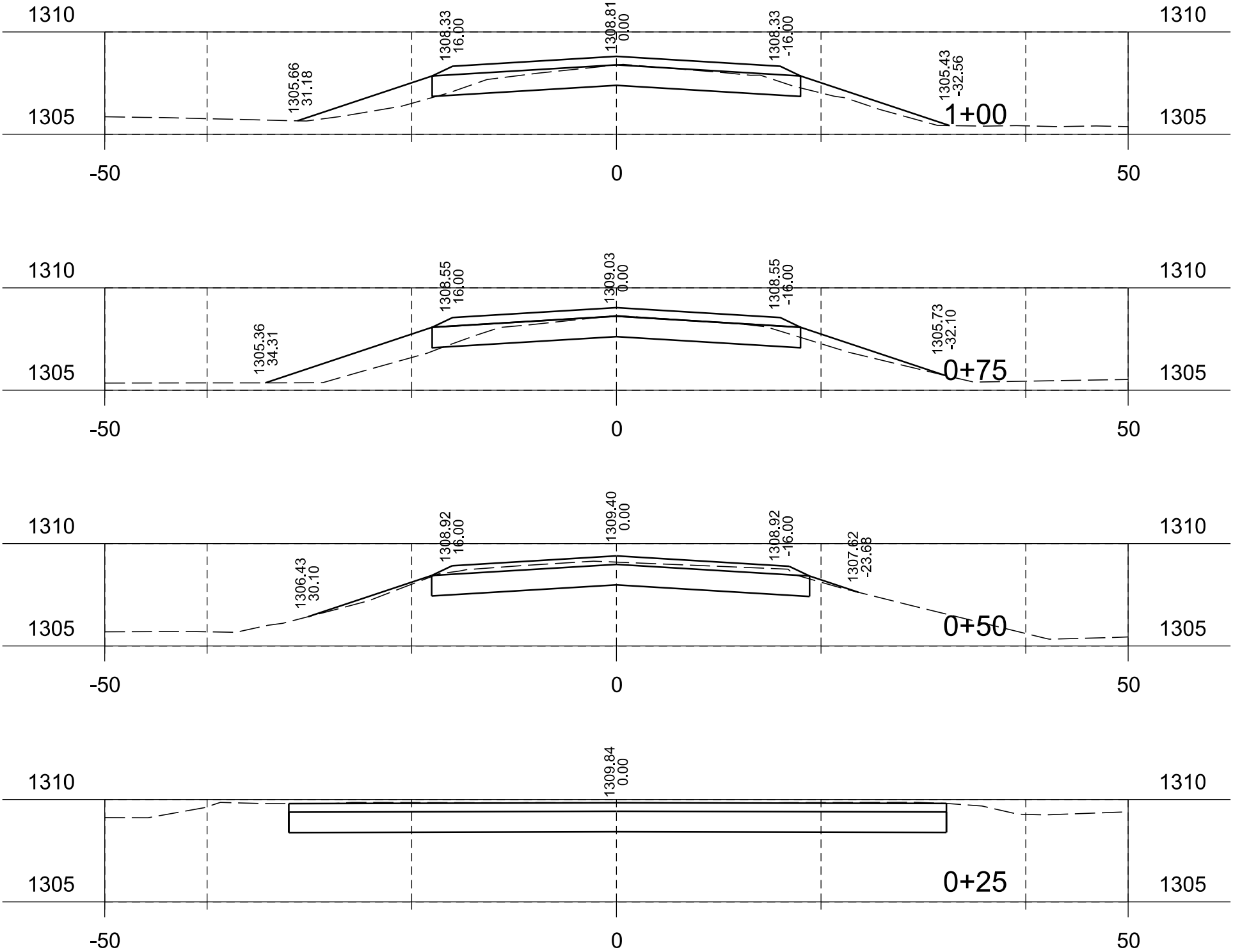
EROSION CONTROL WATTLE

PLATE NUMBER  
734.06

Sheet 2 of 2



STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	25	27
Plotting Date: 05/03/2022			

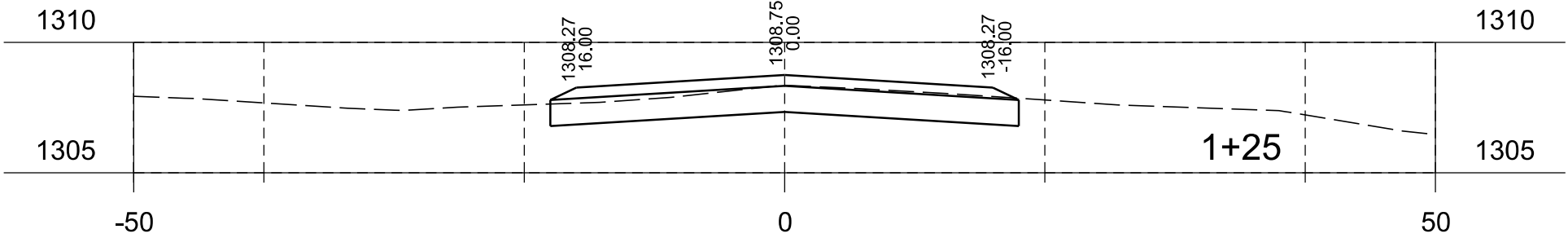
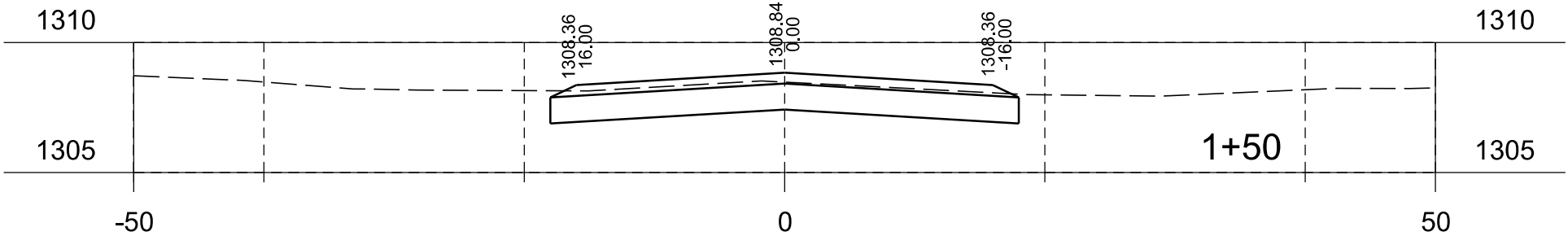
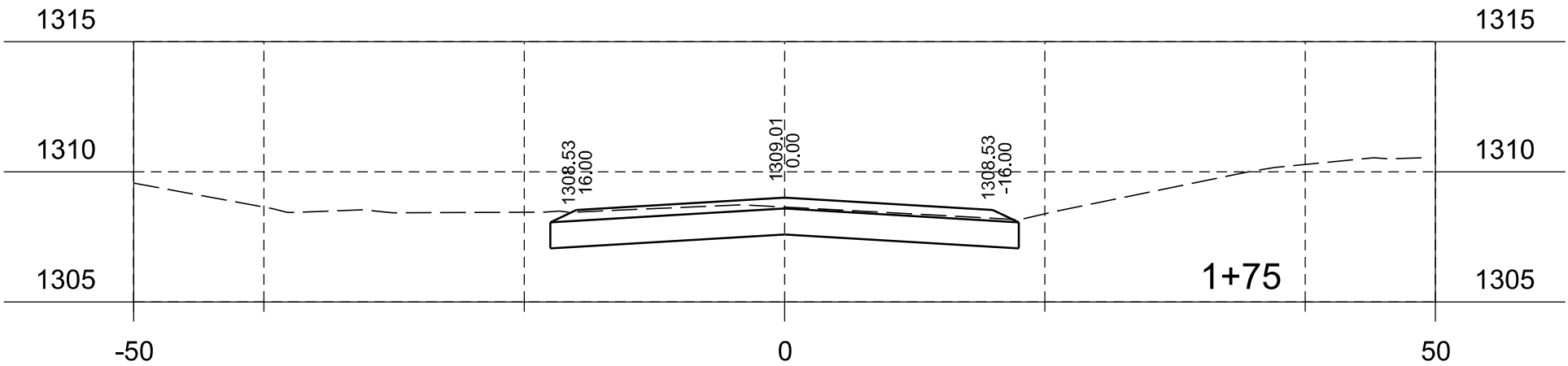
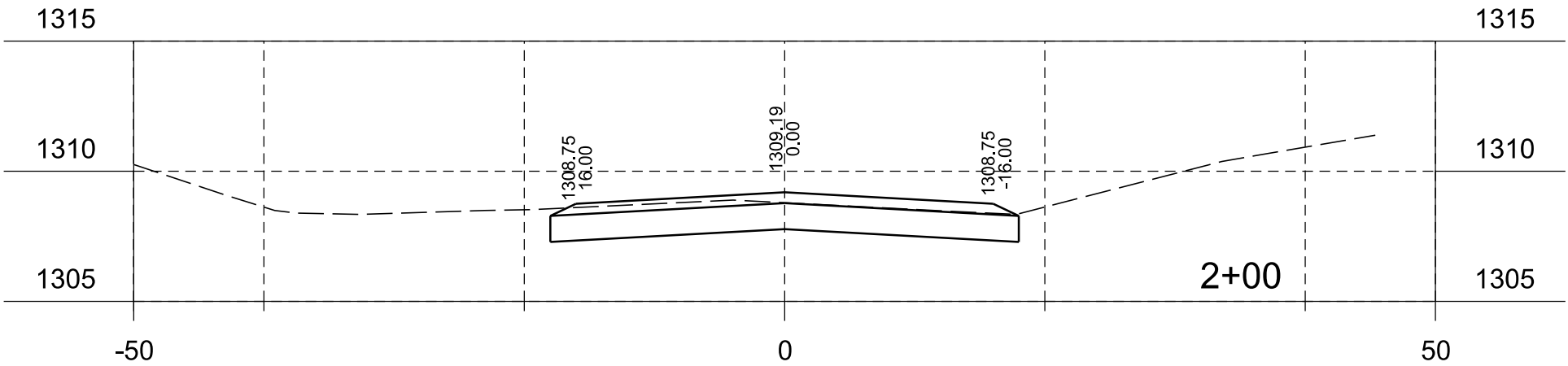




PLOT SCALE - 1:12

PLOTTED FROM - TRHJUNT06

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	26	27
Plotting Date: 05/03/2022			



PLOT NAME - 1

FILE - ... \BRWN15E\AREA DESIGN\CS-2.DGN



STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0009-151	27	27
Plotting Date: 05/03/2022			

