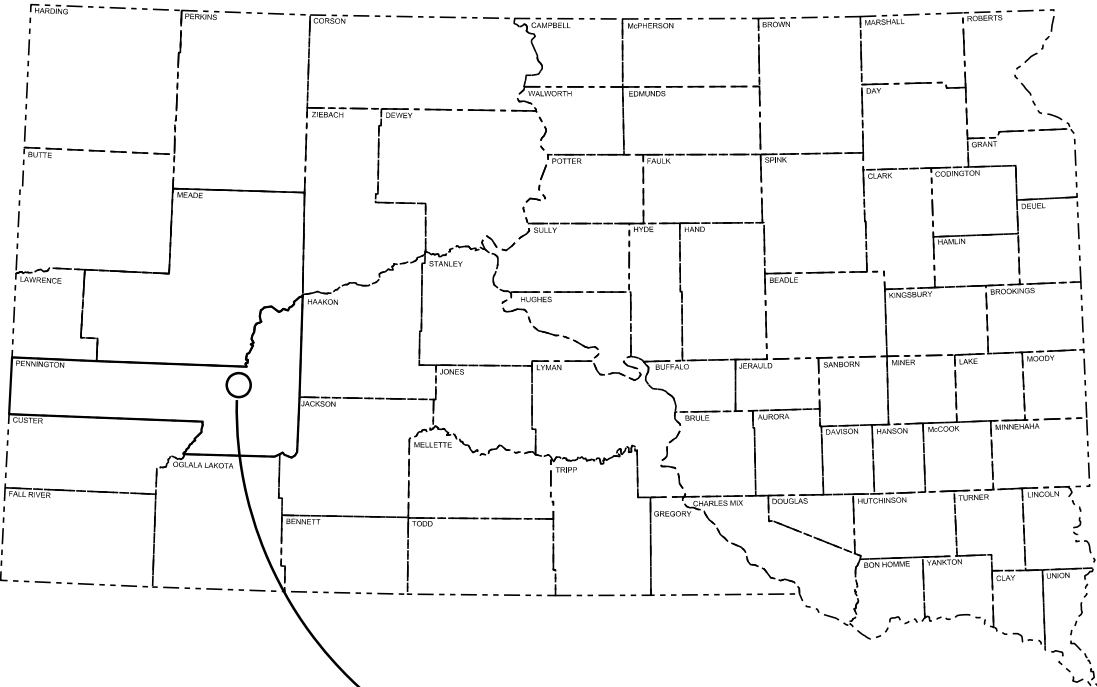


Plot Scale - 1:200

Plotted From - TRRC12216

Plotted From -



STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECTS 090 E-452
& 090 W-452
I90 EB & WB WASTA REST AREAS
PENNINGTON COUNTY

LANDSCAPING
i70L & i70M

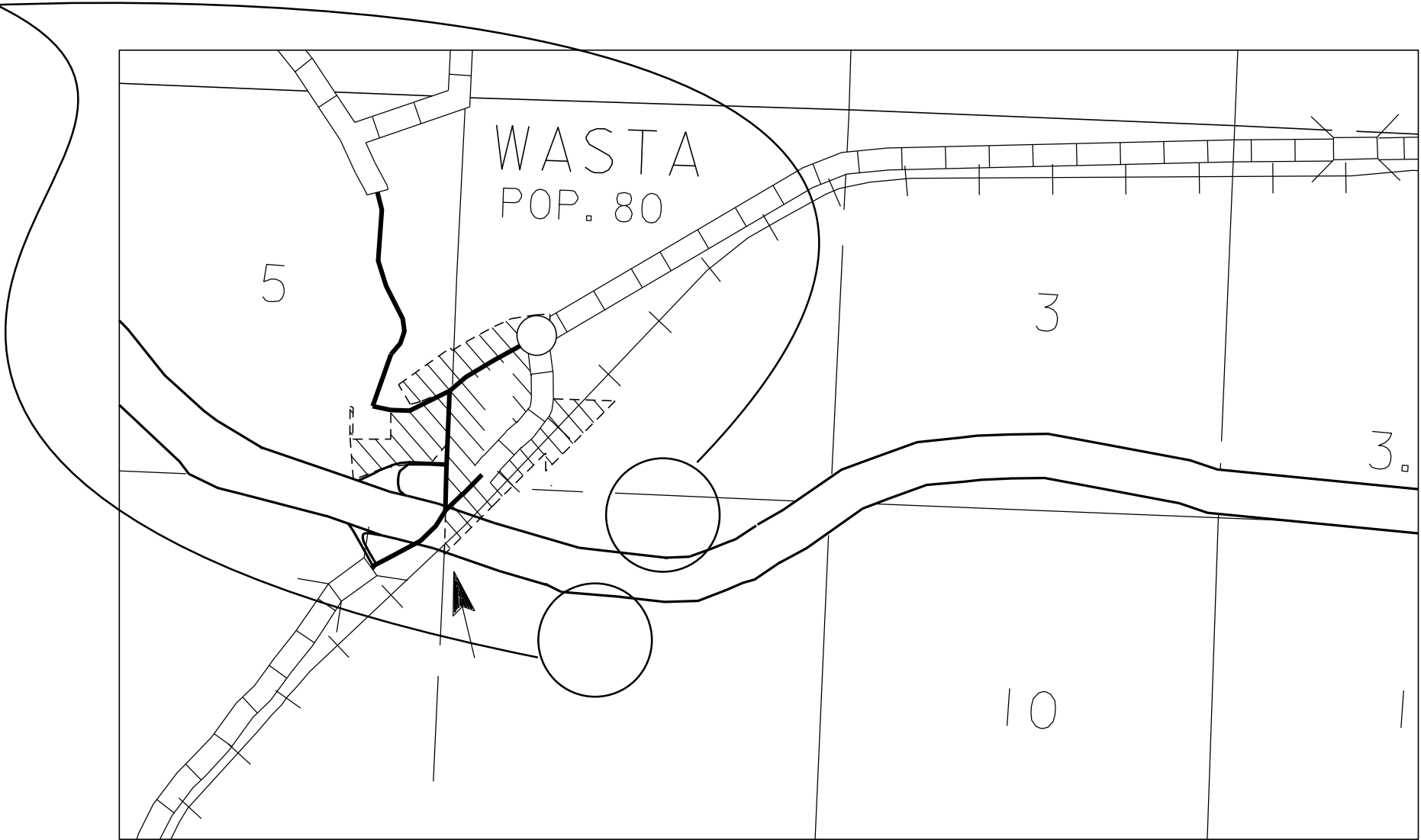
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	1	17

Plotting Date: 03/10/2023

INDEX OF SHEETS

- | | |
|-------|-----------------------------|
| 1 | General Layout with Index |
| 2-4 | Estimate with General Notes |
| 5-8 | Project Layout |
| 9 | Plant Legend & Quantities |
| 10-13 | Plant Layouts |
| 14-15 | Plant Examples |
| 16-17 | Existing Sprinkler Layout |

PROJECT



STORM WATER PERMIT
None Required

i70L – EASTBOUND WASTA REST AREA - ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0010	Unclassified Excavation	48	CuYd
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E2020	Temporary Curb Ramp	1	Each
735E0110	1 Gallon Perennial Plant, Furnish and Plant	48	Each
735E1150	5' Deciduous Shrub, Furnish and Plant	17	Each
735E5010	1 Gallon Ornamental Grass, Furnish and Plant	24	Each
900E5149	Landscaping Rock	48	CuYd
900E5151	Ornamental Landscaping Boulders	17	Each
900E5152	Weed Barrier Fabric	556	SqYd
900E5430	Irrigation System	Lump Sum	LS

i70M – WESTBOUND WASTA REST AREA - ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0010	Unclassified Excavation	46	CuYd
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E2020	Temporary Curb Ramp	1	Each
735E0110	1 Gallon Perennial Plant, Furnish and Plant	46	Each
735E1150	5' Deciduous Shrub, Furnish and Plant	6	Each
735E5010	1 Gallon Ornamental Grass, Furnish and Plant	16	Each
900E5149	Landscaping Rock	21	CuYd
900E5151	Ornamental Landscaping Boulders	12	Each
900E5152	Weed Barrier Fabric	238	SqYd
900E5430	Irrigation System	Lump Sum	LS

SPECIFICATIONS

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

UTILITIES

The Contractor will be responsible for having the existing underground utilities located in the construction area. Underground utilities damaged by the Contractor due to negligence will be repaired at the Contractor's expense.

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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	2	17

GENERAL PLANTING NOTES

All plants and shrubs will conform to or exceed minimum quality standards as defined by the American Nursery and Landscaping Association, current edition of American Standard for Nursery Stock, and will be purchased from a Landscape Nursery. Plants and shrubs furnished will be of the same genus, species, cultivar, and size as specified in the plans. Species and variety may be substituted only by the approval of the Engineer. Each plant and shrub will have an identification label.

All plants and shrubs will bear the same relationship to the finished grade as the plant's original grade before digging. All plants and shrubs will be planted in accordance with all the drawings and specifications included in the plans.

Planting locations for each individual species will be identified prior to planting. Locations will be approved by the Engineer prior to installation.

Fertilizer will not be required on this project.

Within 2 hours after being planted, plants and shrubs will be watered to thoroughly saturate the backfill soil as this provides settlement and filling of voids in the backfill.

As soon as the initial planting is completed, the Engineer will visually inspect plants and shrubs for health, vigor, and condition, and will at that time accept or reject them.

The Contractor will provide a one year warranty for all plants and shrubs. After one year from initial planting, the Engineer will make an inspection and dead, unhealthy, or otherwise not acceptable plants and shrubs will be replaced by the Contractor at no additional cost to the State.

All costs for furnishing, handling, storing, and planting the plants and shrubs including the materials, equipment, labor, preparation of the ground, initial watering if irrigation system is not in place, clean up of the planted areas, and the warranty, will be incidental to the contract unit price per each for the corresponding "Plant and Shrub, Furnish and Plant" contract item.

UNCLASSIFIED EXCAVATION

Unclassified Excavation for this project includes removing existing grass and soil to provide room for the 3 inches of landscape rock to be flush with the surrounding concrete sidewalks.

The removed grass and soil will become the property of the contractor.

All costs for equipment and labor to remove the grass and soil, and hauling off material will be included in the price per cubic yard for "Unclassified Excavation".

LANDSCAPING ROCK

The landscaping rock will be placed at a thickness of 3 inches at planting bed areas as shown in the plans. The landscaping rock will be 1 ½” to 2 ½” Crushed River Rock. The final surface of the landscaping rock will be flush with the surrounding concrete sidewalks.

The Contractor will provide a sample of the landscaping rock to the Engineer for approval two weeks prior to installation.

All costs for furnishing, handling, and placing the landscaping rock including the materials, equipment, labor, and incidentals necessary will be incidental to the contract unit price per cubic yard for “Landscaping Rock”.

ORNAMENTAL LANDSCAPING BOULDERS

Ornamental Landscaping Boulders will be placed in the landscape beds as shown in the plant layouts.

Ornamental Landscaping Boulders will match the landscape rock that is to be installed.

Ornamental Landscaping Boulders will be between 3 feet and 6 feet in the largest dimension.

All costs for furnishing, handling, and placing the ornamental landscaping boulders including the materials, equipment, labor, and incidentals will be included in the price per each “Ornamental Landscaping Boulder”.

MODIFY IRRIGATION SYSTEM

The existing irrigation system consists of pvc pipe and sprinkler heads for watering grass.

The existing irrigation system will be modified to be a drip irrigation system to provide irrigation to the new plants and shrubs. The Contractor will be responsible for designing the drip irrigation system before installation. The Contractor will submit the design for the drip irrigation system to the department for approval before installation.

The Contractor will supply as-built drawings of the new irrigation system upon completion of the modification.

All costs for the design, materials, equipment, labor, and incidentals necessary to modify the irrigation system will be included in the lump sum price for “Irrigation System”.

WEED BARRIER FABRIC/LANDSCAPE FABRIC

Weed barrier fabric will be placed at the areas specified in the plans.

Weed barrier fabric will be anchored to the ground with 6” U shaped staples. The staples will be placed at a 4’ spacing along all edges, overlaps, and throughout the area of weed barrier fabric. The weed barrier fabric will be overlapped 4” between rolls.

Weed barrier fabric will be measured to the nearest square yard. Measurement of the overlaps will not be made.

All costs for furnishing, handling, and placing the weed barrier fabric including the materials, equipment, labor, and incidentals necessary will be incidental to the contract unit price per square yard for “Weed Barrier Fabric”.

The weed barrier fabric will be provided from the list below or an approved alternate:

Weed Barrier Fabric/Landscape Fabric	
Product	Manufacturer
Green Line Ground Cover	Thrace-LINQ, Inc. Summerville, SC Phone: 1-800-445-4675
Green Line Landscape	Thrace-LINQ, Inc. Summerville, SC Phone: 1-800-445-4675
Purple Line Landscape	Thrace-LINQ, Inc. Summerville, SC Phone: 1-800-445-4675
Geotex 351	Propex Inc. Chattanooga, TN Phone: 1-800-621-1273 www.geotextile.com
Earthscape 4530	Propex Inc. Chattanooga, TN Phone: 1-800-621-1273
Mirafi Mscape	TenCate Geosynthetics Pendergrass, GA Phone: 1-706-693-2226
Mirafi Mscape Plus	TenCate Geosynthetics Pendergrass, GA Phone: 1-706-693-2226
Typar Professional Landscape Fabric 3301	Fiberweb, Inc. Old Hickory, TN Phone: 1-800-382-8467 www.typarlandscape.com

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	3	17

SEQUENCE OF OPERATIONS

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the sequence of operations will only be allowed when the proposed changes meet with the Department’s intent for traffic control and sequencing of the work.

The following restrictions will be followed:

- No work will be allowed between Memorial Day and Labor Day, inclusive.
- Access to the rest area buildings will be maintained at all times.

GENERAL TRAFFIC CONTROL

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

The contractor will provide ADA compliant access routes to the rest area buildings with the use of temporary curb ramps or the existing curb ramps.

TRAFFIC CONTROL, MISCELLANEOUS

The contractor will provide means to keep non-project related staff out of the construction site at all times by the use of fence, barriers, or other system approved by the engineer. The cost for keeping the work zone separate from pedestrians will be included in the contract lump sum price for “Traffic Control, Miscellaneous”.

All costs for traffic control, including signs, will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.

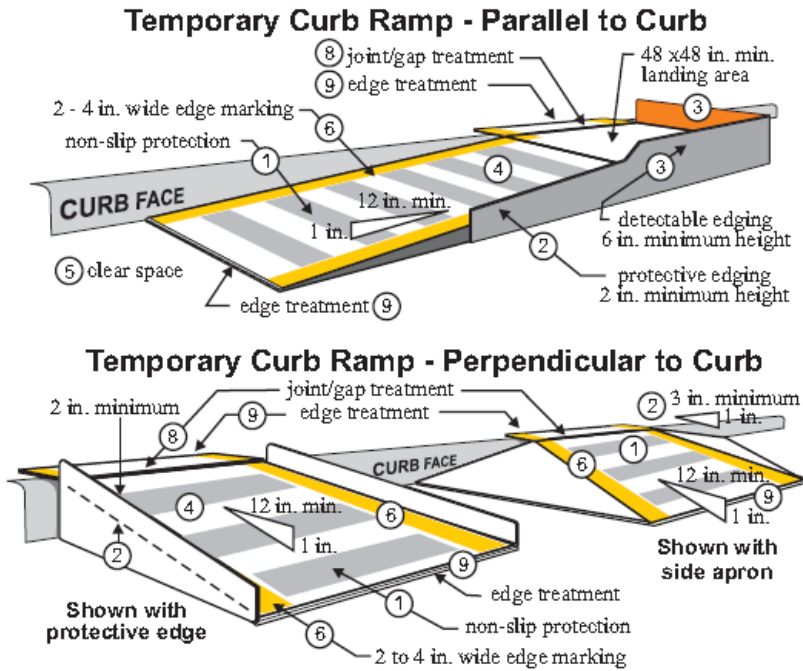
TEMPORARY CURB RAMP

Temporary curb ramps should be firm, stable, and have a non-slip surface. They will not warp or buckle, and should be made of materials strong enough to support a weight of 800 pounds. Temporary curb ramps will be yellow or color contrasting and contain marked edges, so they are noticeable by pedestrians who have visual impairments. Lateral joints or gaps between surfaces will be a maximum of 0.5 inches in width. Temporary curb ramps will include detectable warning panels.

Temporary curb ramps will be the same width as the temporary pedestrian access route, with a recommended width of 60 inches and a minimum width of 48 inches. Temporary curb ramps will have a maximum slope of 8.3% and have free draining surfaces with a maximum cross slope of 2%. Handrails on temporary curb ramps are not required unless the curb ramp has a rise exceeding 6 inches and a length exceeding 72 inches.

All costs will be incidental to the contract unit price per each for “Temporary Curb Ramp”.

TEMPORARY CURB RAMP DETAILS



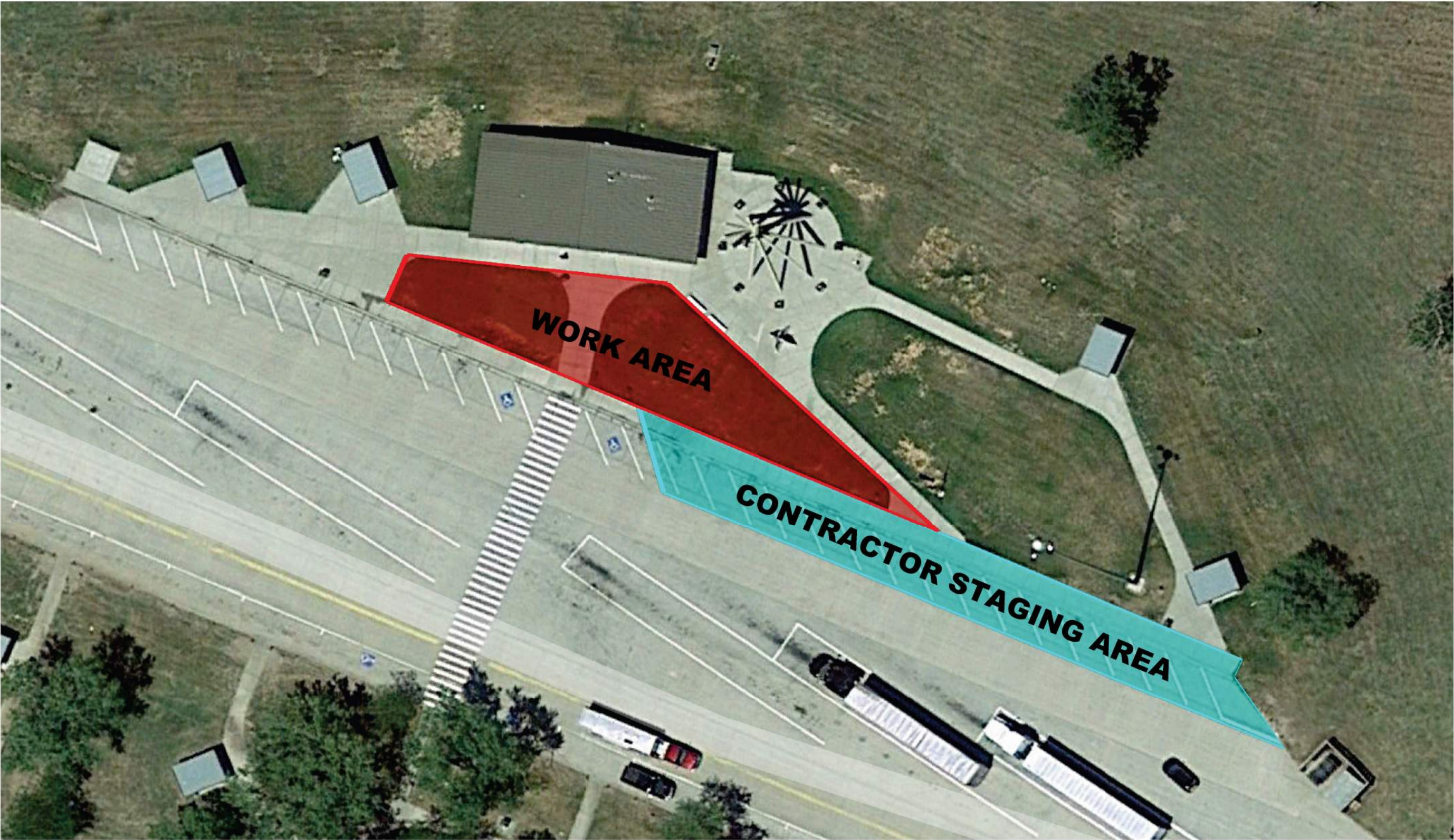
- Curb ramps will be 48-inch minimum width with a firm, stable, and non-slip surface.
- Protective edging with a 2-inch minimum height will be installed when the curb ramp or landing platform has a vertical drop of 6 inches or greater or has a side apron slope steeper than 33:1 (3%). Protective edging should be considered when curb ramps or landing platforms have a vertical drop of 3 inches or more.
- Detectable edging with 6 inches minimum height and contrasting color will be installed on all curb ramp landings where the walkway changes direction (turns).
- Curb ramps and landings should have a 50:1 (2%) maximum cross slope.
- A minimum clear space of 48 inch x 48 inch minimum will be provided above and below the curb ramp, with a 60 inch x 60 inch clear space preferred.
- The curb ramp walkway edge will be marked with a contrasting color 2 to 4 inch wide marking. The marking is optional where color contrasting edging is used.
- Water flow in the gutter system will have minimal restriction.
- Lateral joints or gaps between surfaces will be less than 0.5 inches in width.
- Changes between surface heights should not exceed 0.5 inches. Lateral edges between 0.25 inches and 0.5 inches in height, should be vertical up to 0.25 inches in height and beveled at 2:1 between 0.25 inches and 0.5 inches in height.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	4	17

EASTBOUND WASTA REST AREA

WORK AREA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	5	17
Plotting Date:		03/10/2023	

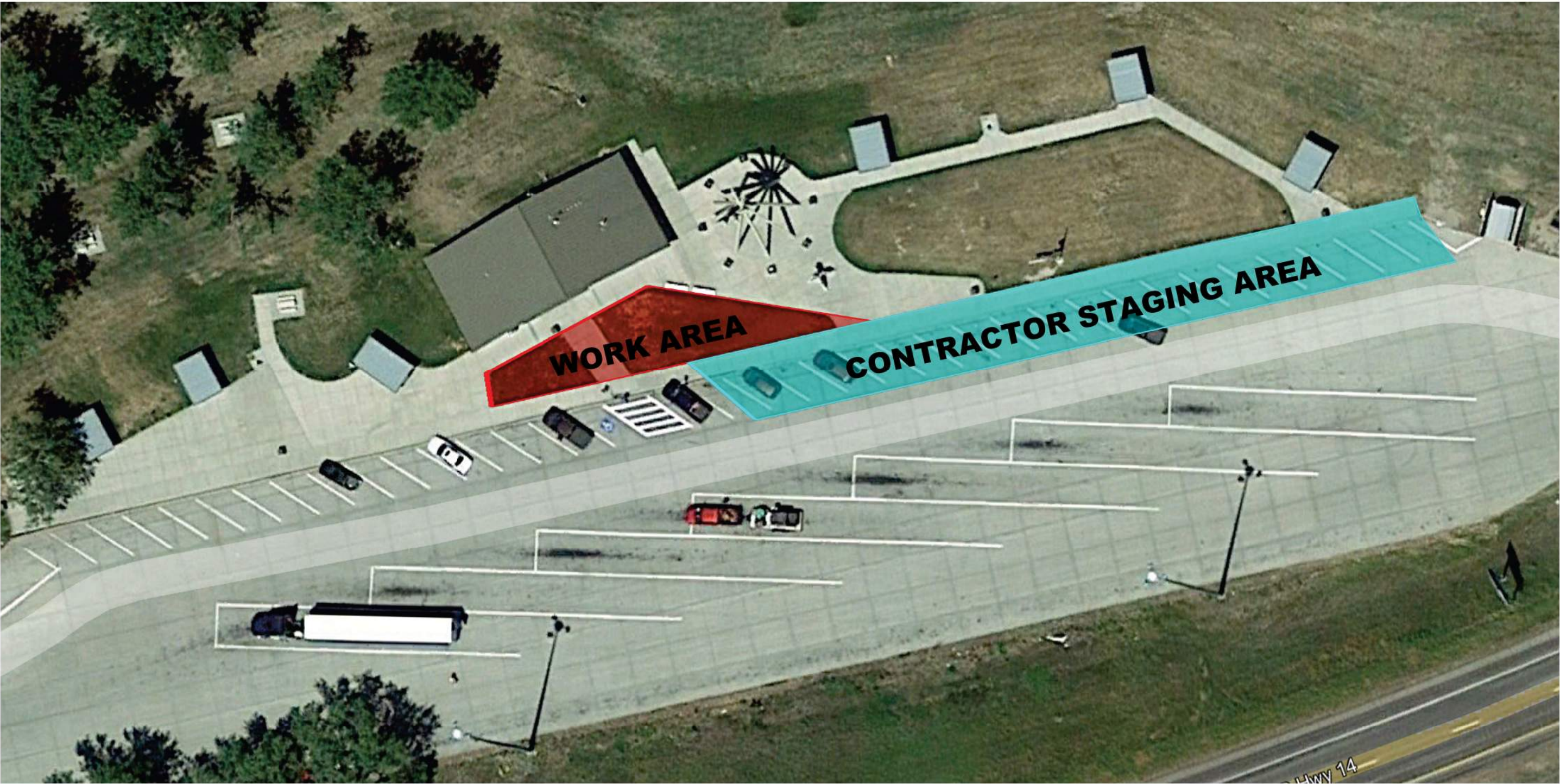


WESTBOUND WASTA REST AREA

WORK AREA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	6	17

Plotting Date: 03/10/2023



EASTBOUND WASTA REST AREA

OVERVIEW

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	7	17

Plotting Date: 03/10/2023



WESTBOUND WASTA REST AREA

OVERVIEW

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	8	17

Plotting Date: 03/10/2023

















Plotted From: TRRC12216 Plot Scale: 1"=40'

PLANT QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	9	17

Plotting Date: 03/10/2023

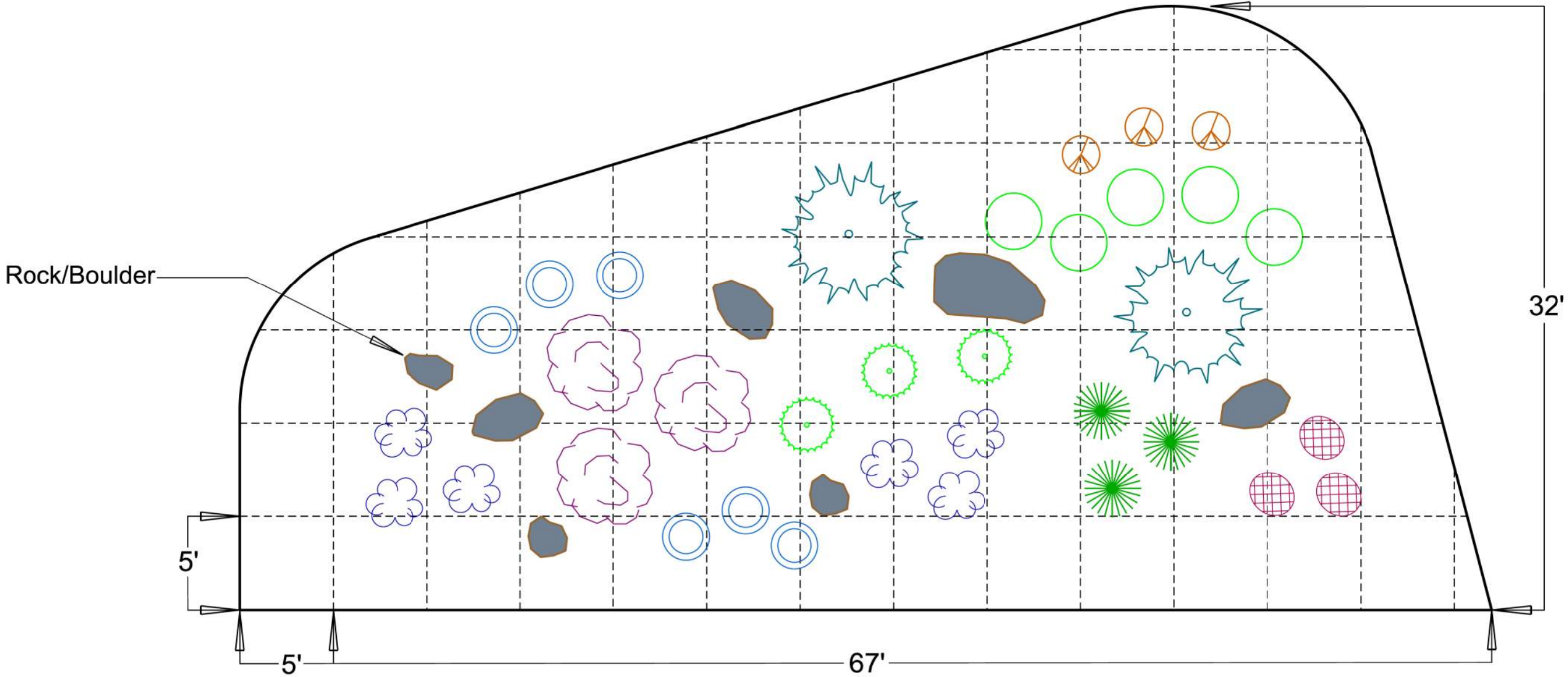
Symbol	Common Name	Botanical Name	Cultivar	Size (HxW)	Bloom Color	Container Size	Quantity						
							i70L		i70M				
Perennial Flowers							Bed #1	Bed #2	Total		Bed #3	Bed #4	Total
	Yarrow	<i>Achillea 'Moonshine'</i>	Moonshine	2' x 2'	Yellow	#1	0	9	9		6	6	12
	Catmint	<i>Mepeta x faassenii</i>	Walker's Low	2.5' x 2.5'	Blue	#1	6	0	6		0	0	0
	Sedum	<i>Sedum 'Thunderhead'</i>	Thunderhead	2.5' x 2'	Pink/Red	#1	3	0	3		6	0	6
	Purple Coneflower	<i>Echinacea pallida</i>	Pale Purple	3' x 2'	Purple	#1	0	9	9		6	9	15
	Black-Eyed Susan	<i>Rudbeckia fulgida var. sullivantii</i>	Goldstrum	2' x 2'	Yellow	#1	3	3	6		0	8	8
	Small Soapweed	<i>Yucca Glauca</i>	Yucca	2' x 3'	White	#1	3	6	9		0	0	0
	False Indigo	<i>Baptisia australis</i>	Blue Wild Indigo	3' x 3'	Purple	#1	6	0	6		0	5	5
									48		46		
Grasses													
	Switch Grass	<i>Panicum virgatum</i>	Shenandoah	4' x 3'	Burgundy	#1	3	0	3		3	0	3
	Little Bluestem	<i>Schizachyrium scoparium</i>	Blaze	2.5' x 3'	Blue/Copper	#1	0	8	8		0	5	5
	Big Bluestem	<i>Andropogon gerardii</i>	Red October	5' x 3'	Red	#1	0	8	8		3	5	8
	Prairie Dropseed	<i>Sporobolus heterolepis</i>	N/A	3' x 3'	Tan	#1	5	0	5		0	0	0
									24		16		
Shrubs													
	Western Sand Cherry	<i>Prunus besseyi</i>	Hansen's Bush Cherry	5' x 5'	White	#5	3	6	9		0	6	6
	Creeping Juniper	<i>Juniperus horizontalis</i>	Blue Prince	1' x 5'	Blue/Green	#5	2	6	8		0	0	0
									17		6		
	Ornamental Landscaping Boulder						7	10	17		5	7	12
									17		12		

File - ...Plant Layout.dgn

EASTBOUND WASTA REST AREA

PLANT LAYOUT - LANDSCAPE BED #1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	10	17
Plotting Date: 03/10/2023			



Plot Scale - 1/4"

Plotted From - TRRC12216

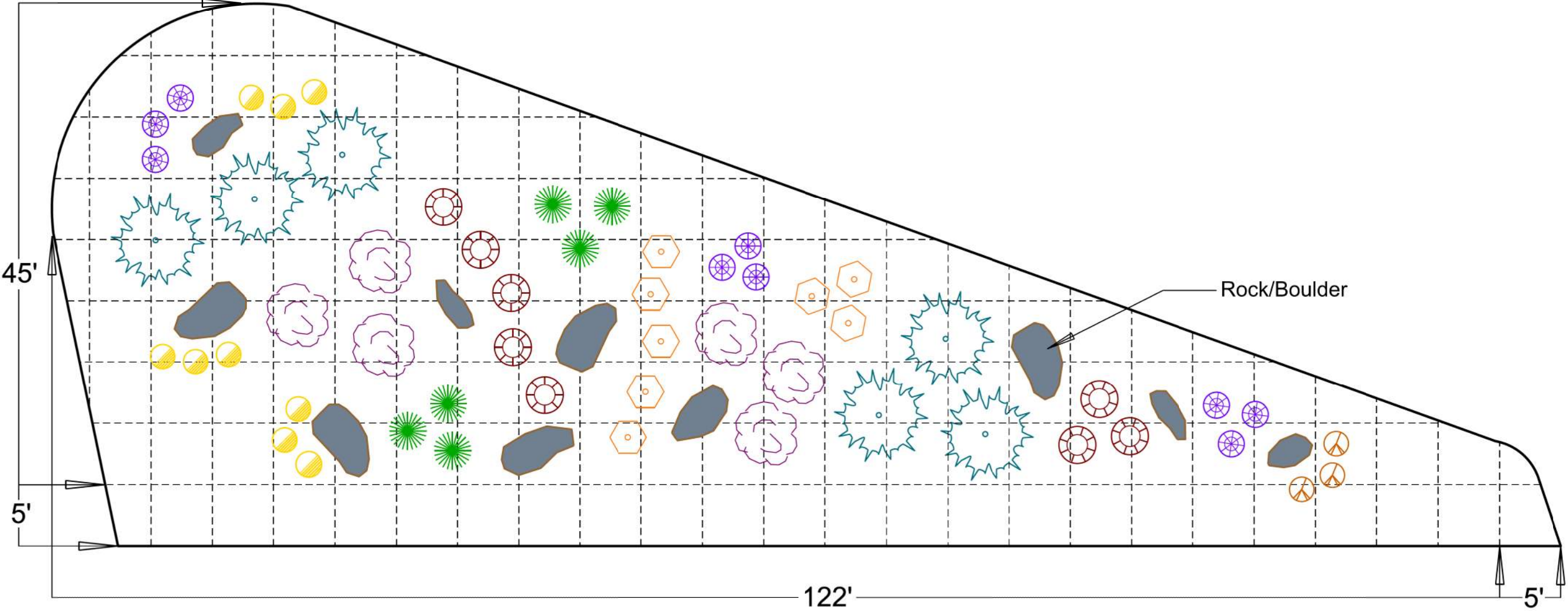
File - ...Plant Layout.dgn

EASTBOUND WASTA REST AREA

PLANT LAYOUT - LANDSCAPE BED #2

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	11	17

Plotting Date: 03/10/2023



Plot Scale - 1/40

Plotted From - TRRC12216

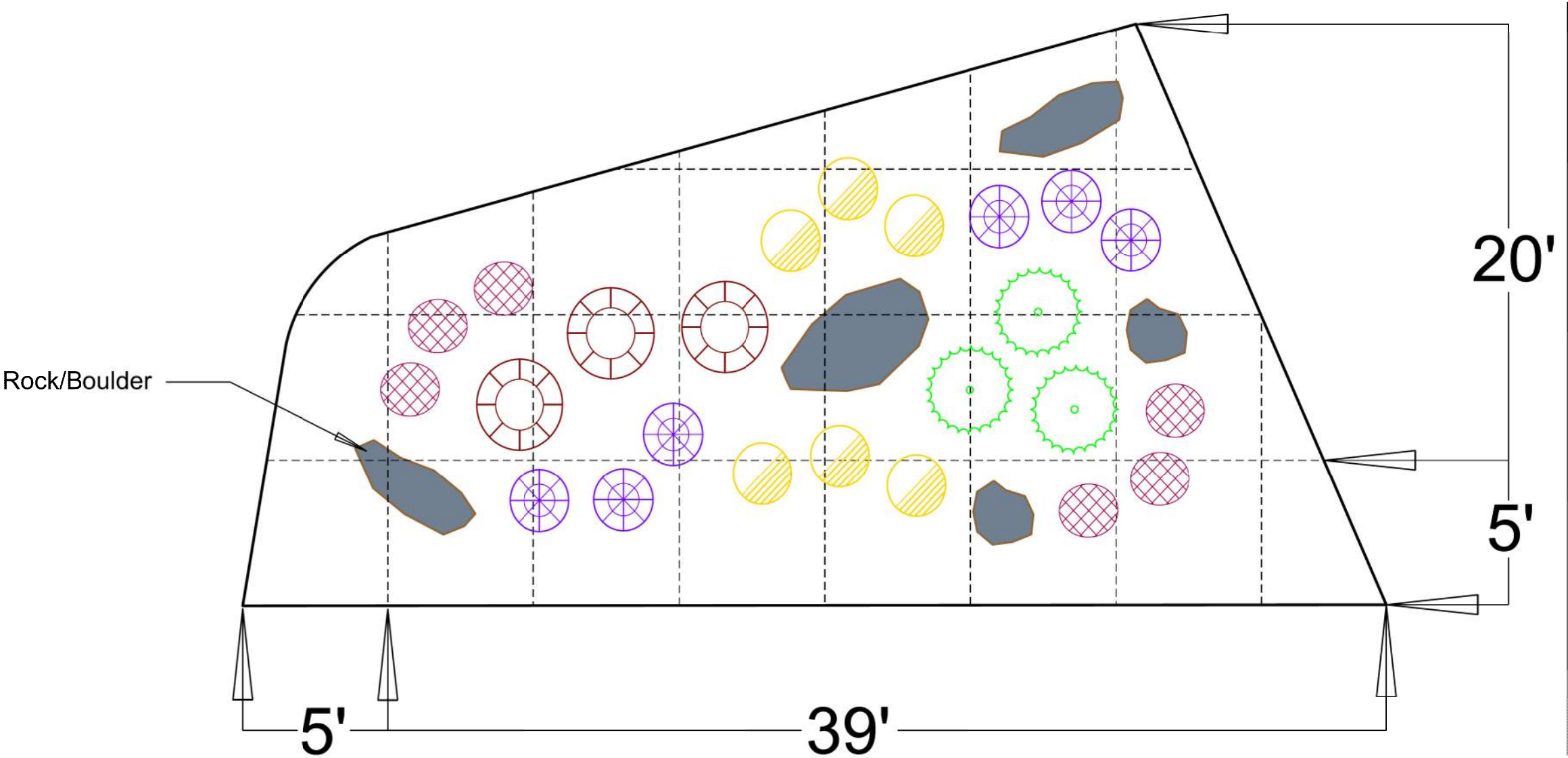
File - ...Plant Layout.dgn

WESTBOUND WASTA REST AREA

PLANT LAYOUT - LANDSCAPE BED #3

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	12	17

Plotting Date: 03/10/2023



Plot Scale - 1"=40'

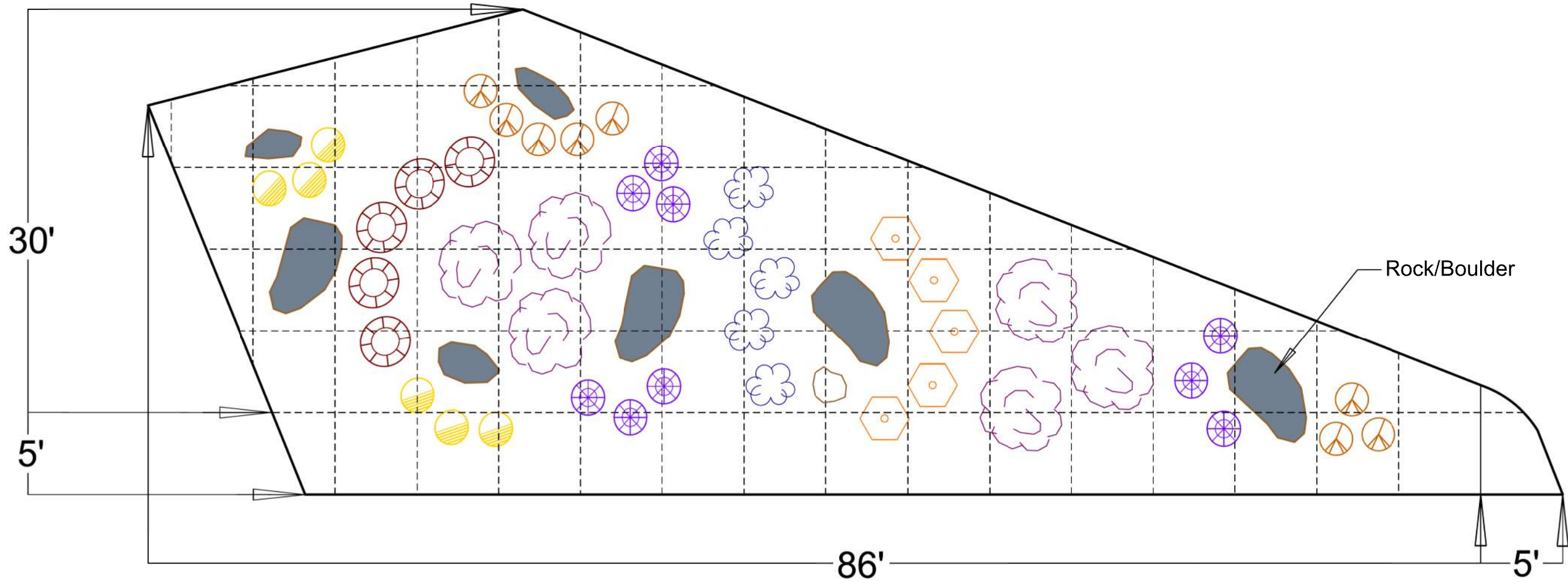
Plotted From - TRRC12216

File - ...Plant Layout.dgn

WESTBOUND WASTA REST AREA
PLANT LAYOUT - LANDSCAPE BED #4

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	13	17

Plotting Date: 03/10/2023



Plot Scale - 1/4"

Plotted From - TRRC12216

File - ...Plant Layout.dgn

PLANT EXAMPLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	14	17

Plotting Date: 03/10/2023

Moonshine Yarrow



Walker's Low Catmint



Thunderhead Sedum



Pale Purple Coneflower



Goldstrum Black-Eyed Susan



Small Soapweed



Blue Wild Indigo



Shenandoah Switchgrass



PLANT EXAMPLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	15	17

Plotting Date: 03/10/2023

Blaze Little Bluestem



Red October Big Bluestem



Prairie Dropseed



Hansen's Bush Sand Cherry



Blue Prince Creeping Juniper



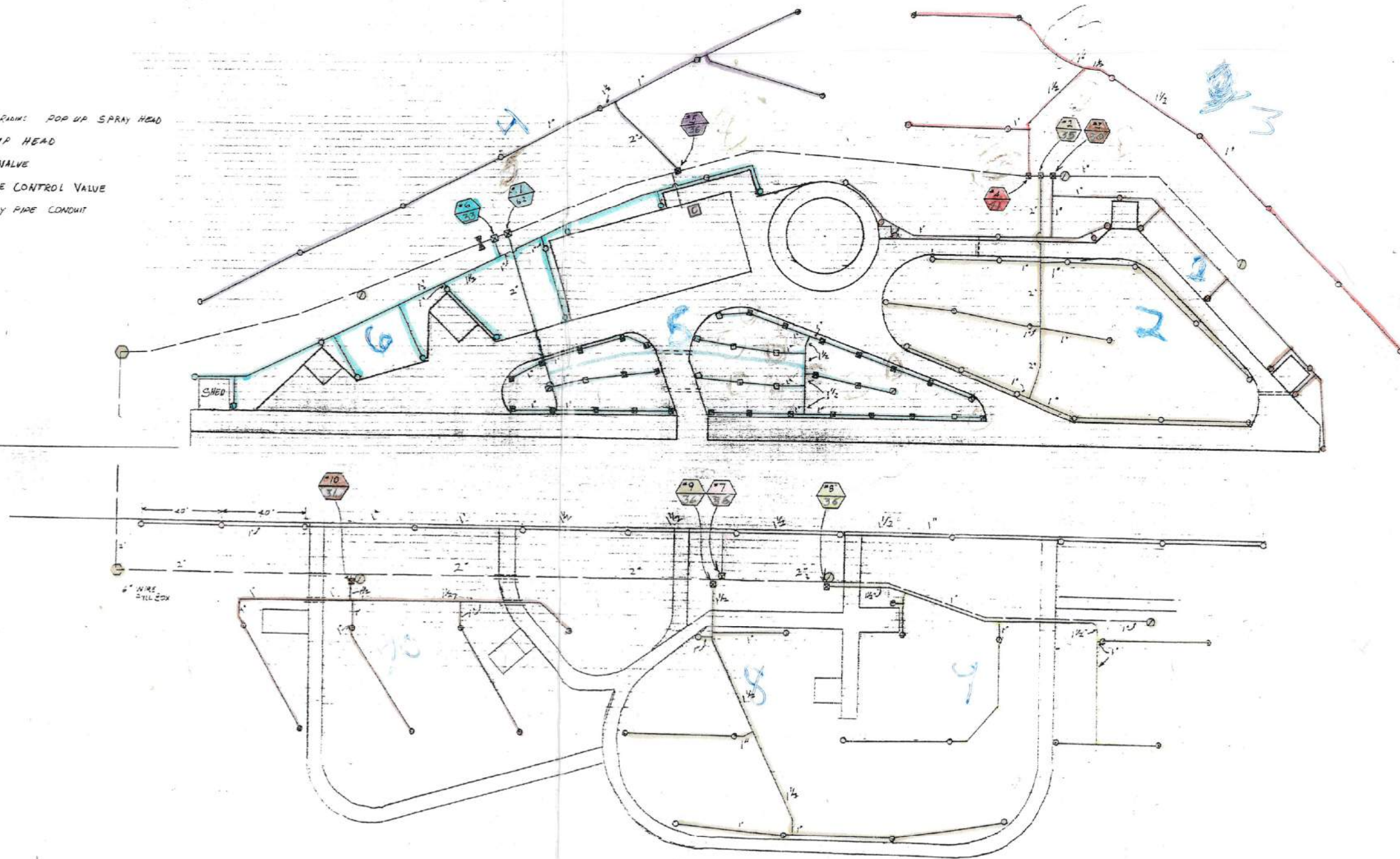
EASTBOUND WASTA REST AREA

EXISTING SPRINKLER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	16	17

Plotting Date: 01/20/2023

- TORO 5702-4P 10' 12" 1/2" RADIAL POP UP SPRAY HEAD
- TORO 5700 ROTARY POP-UP HEAD
- TORO 3/4" QUICK COUPLER VALVE
- TORO 252-21-06 1 1/2" ZONE CONTROL VALVE
- 2" PVC MAIN LINE WITH POLY PIPE CONDUIT
- PVC LATERAL PIPE
- 6" WIRE SPLICE/PULL BOX
- PVC ISOLATION VALVE
- TORO XF-416 CONTROLLER



TORO LAWN SPRINKLER SYSTEM	DRAWN BY: JLG	DESIGNED FOR: DEPARTMENT OF TRANSPORTATION	DATE: 11-13-95	BY:
	PLAN #: SD PROJECT 1M 90-2(44) 99	WASTA REST AREA		
	SCALE: 1" = 30'	WASTA, SOUTH DAKOTA		
	DESIGN PRESSURE: 8-70 + PSI			
	STATIC PRESSURE: 60 PSI			

Shamrock Landscape, Inc.
P.O. Box 2886
Rapid City, SD 57709

Plotted From: TRRC12216 1:40

File: ...As-Built Sprinkler.dgn

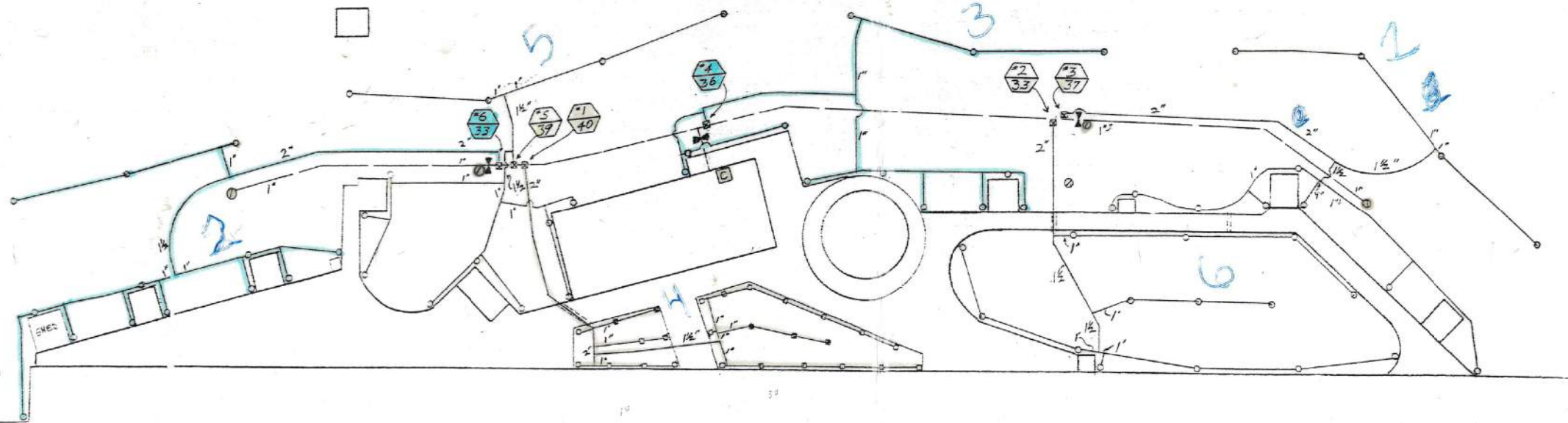
WESTBOUND WASTA REST AREA

EXISTING SPRINKLER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 E-452 & 090 W-452	17	17

Plotting Date: 01/20/2023

- ■ ■ TORO 5702-4F 10' 12' + 15' RADIAL POP UP SPRAY HEAD
- TORO 5700 ROTARY POP-UP HEAD
- TORO 3/4" QUICK COUPLER VALVE
- TORO 252-26-06 1 1/2" ZONE CONTROL VALVE
- 2" PVC MAIN LINE WITH POLY PIPE CONDUIT
- PVC LATERAL PIPE
- 6" WIRE SPLICE/PULL BOX
- PVC ISOLATION VALVE
- TORO XF-416 CONTROLLER



1 = 3
2 = 6
3 = 4
4 = 1
5 = 5
6 = 2

WESTBOUND

AS BUILT

TORO LAWN SPRINKLER SYSTEM	DRAWN BY: JLG	DESIGNED FOR: DEPARTMENT OF TRANSPORTATION	DATE: 11-13-95	BY:
	PLAN # SD Project 1M 90-2(44) 99	WASTA REST AREA		
	SCALE:	WASTA, SOUTH DAKOTA		
	DESIGN PRESSURE: 80 PSI			
	STATIC PRESSURE: 60 PSI			
		Shamrock Landscape, Inc. P.O. Box 2886 Rapid City, SD 57709		