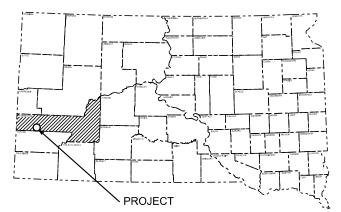
STATE OF	PROJECT	SHEET	TOTAL SHEETS
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10/17/2023



STATE OF SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED

PROJECT 000P-469 PCN I61D

US Hwy 16/385 & Railroad Ave - New Signal Cabinet & Controller US Hwy 16/385 & SD Hwy 244 - New Signal Cabinet & Controller

US Hwy 16 & 16B in Hill Clty - New School Zone Flashing Beacons & Signing

NONSECTION INDEX OF PAGES

Ttitle Sheet

Sheet 1: Sheets 2-4: Sheets 5-6: Sheets 7-8: Notes
Wiring Diagrams
Conduit Layouts
Timing Plans
Beacon & Signing Details
Standard Plates Sheets 9-10:

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New Signal Cabinet & Controller

New Signal Cabinet & Controller School Zone Flashing Beacon Work Hill City

Oreville Junction

DESIGN DESIGNATION US HWY 16 MRM 40.51

DESIGN DESIGNATION US HWY 16 MRM 40.51

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E5110	Salvage Signal Equipment	Lump Sum	LS
110E7150	Remove Sign for Reset	6	Each
250E0010	Incidental Work	Lump Sum	LS
632E1320	2.0"x2.0" Perforated Tube Post	72.0	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	6.6	SqFt
632E3500	Reset Sign	6	Each
634E0110	Traffic Control Signs	153.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0930	Intersection Control Beacon	4	Each
635E5410	Controller Cabinet	1	Each
635E5515	Battery Backup System for Traffic Signal	2	Each
635E5800	Miscellaneous Signal Parts	Lump Sum	LS
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E6960	Install Controller Cabinet	2	Each
635E6962	Install Traffic Signal Controller	2	Each

SPECIFICATIONS

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

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf >

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT E: STORM WATER

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 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 Environment and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

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

- 1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".
- 2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time 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.

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All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

State Historical Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

Action Taken/Required:

All earth disturbing activities 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.

US HWY 16/385 & SD HWY 244 (OREVILLE JUNCTION SIGNAL)

This project consists of removing and replacing with new, the traffic signal cabinets and controllers and various other signal components at the signals in Hill City and at Oreville Junction on US HWY 16/385. The Contractor is encouraged to visit these signals ahead of bidding and construction to see the work site.

SEQUENCE OF OPERATIONS

SCOPE OF WORK

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate 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. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

The following is a sequence of operations for the Contractor to follow:

- 1. Remove old infrastructure
- 2. Install new infrastructure
- 3. Verify Signals operate the way they did before construction
- 4. Restore disturbed areas to satisfaction of the Engineer

US HWY 16/385/RAILROAD AVE & MAIN ST (HILL CITY SIGNAL)

This portion of the project will consist of replacing the traffic signal cabinet, and all of its contents with new equipment. The Contractor will remove the old cabinet and base and install a new, larger TS2 type cabinet on a new, standard-height concrete base. The new base will be located three feet closer to the main junction box to provide slack in the wiring. Anchor bolts for cabinets may have hooked ends. Costs for removing the old cabinet base will be incidental to the contract lump sum price for "Remove Signal Equipment". Costs for installing the cabinet base and associated 3" conduit will be incidental to the contract unit price per each for "Install Controller Cabinet".

The Contractor will install a SDDOT furnished traffic signal cabinet and McCain controller. Costs for installing the new controller will be incidental to contract unit price per each for "Install Traffic Signal Controller".

A Timing sheet is provided in these plans, The Contractor will program new controller with these timings. The new cabinet will have manual control capabilities. Costs for installing the contents of the DOT furnished cabinet will be incidental to the contract lump sum price for "Miscellaneous Electrical". An existing wiring diagram will be provided in these plans for The Contractor to reference, (see sheet 4). The Contractor will verify that the signal functions exactly as it did prior, after new cabinet is installed.

The Contractor will reinstall all traffic detectors (inductive loops) in new cabinets ensuring full functionality as before. Any new parts needed to reconnect detectors/install completely new detectors will be paid for as incidental to the contract lump sum price for "Miscellaneous Signal Parts". All labor involved with these installations will be incidental to the contract lump sum price for "Miscellaneous Electrical".

This portion of the project will consist of replacing the traffic signal cabinet, and all of its contents with new equipment. The Contractor will remove the old cabinet and install a new NEMA size G (36in) Econolite "Plug-N-Go Lite TS2 Type-1" or approved equal cabinet mounted to the pole. The cabinet will be fully enclosed except for conduit entering the bottom. Costs for installing the cabinet, and associated splicing of conduit into bottom of cabinet will be incidental to the contract price per each for "Install Controller Cabinet". Costs for the new cabinet will be incidental to contract unit price per each for "Traffic Signal Cabinet".

An existing wiring diagram will be provided in these plans for The Contractor to reference (see sheet 5). The Contractor will verify that the signal functions exactly as it did prior, after new cabinet is installed.

The Contractor will install a SDDOT furnished McCain controller in the new cabinet. The Contractor is encouraged to research compatibility of a McCain controller in an Econolite cabinet before bidding. A Timing sheet is provided in these plans, The Contractor will program new controller with these timings. Costs for installing the new controller will be incidental to contract unit price per each for "Install Traffic Signal Controller".

The new cabinet will have manual control capabilities. There is a manual control box that is pole-mounted on the SE quadrant of the intersection, The Contractor will maintain functionality of this control box; cost for this will be incidental to the contract lump sum price for "Miscellaneous Electrical".

The Contractor will reinstall all traffic detectors (inductive loops) in new cabinets ensuring full functionality as before. Any new parts needed to reconnect detectors/install completely new detectors will be paid for as incidental to the contract lump sum price for "Miscellaneous Signal Parts". All labor involved with these installations will be incidental to the contract lump sum price for "Miscellaneous Electrical".

DOT FURNISHED CONTROLLERS & CABINET

The Contractor will contact Nick Wuebben, SDDOT RC Region traffic technician (605-381-9875) for delivery of McCain controllers, and cabinet (located at south yard, inside building) for Hill City Signal.

BATTERY BACKUP CABINET

The Contractor will supply battery backup cabinets/systems in Hill City and at Oreville Jct. In Hill city The Contractor will supply an added concrete footing for housing the battery backup cabinet. At the Oreville Junction signal the battery backup cabinet will be attached to the side of the signal cabinet without a footing. The battery backup cabinets will be an aluminum NEMA 3R type. The cabinet will have a thermostatically controlled exhaust fan. The cabinet will be securely attached to the concrete pad with steel anchors and to the back wall of the controller cabinet using chase nipples as approved by the Engineer. Anchor bolts for battery backup cabinets may have hooked ends.

All costs for constructing the concrete pad and footing, materials, labor, and furnishing and installing the battery backup cabinet will be incidental to the contract unit price per each for "Battery Backup System for Traffic Signal."

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SALVAGE SIGNAL EQUIPMENT

Removed signal cabinets and all their contents will be salvaged and delivered to RC Region Traffic office at 2300 Eglin St in Rapid City, SD, **c**osts for this will be incidental to contract lump sum price for "Salvage Signal Equipment". Any equipment damaged during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

Contractor will contact Nick Wuebben, SDDOT RC Region traffic technician (605-381-9875) for delivery of salvaged cabinets.

INCIDENTAL WORK

Incidental work includes, but is not limited to, the restoration of all disturbed areas to the satisfaction of the Engineer.

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor will submit shop drawings and catalog cuts in accordance with Section 985 of the Specifications.

PDF submittals will be sent to the following email addresses:

John.Less@state.sd.us

SUPPLYING AS BUILT PLANS

If the new wiring and signal equipment are constructed differently than what is stated in the plans, the Contractor will supply as built plans to the Engineer and a copy will be sent to the Rapid City Region Traffic Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

SIGNAL HEAD WIRING CHANGES

The signal heads at Oreville Junction intersection currently have detachable trailer-plug type wiring connectors on the backside of each head. The Contractor will splice in new, continuous, and permanent wiring in place of these trailer-plug connectors, and seal up holes. Costs for installing the new signal head wiring will be incidental to the contract lump sum price for "Miscellaneous Electrical".

RE-MOUNT SIGNAL HEAD

At the Oreville Junction Signal, the lowest 3-section signal head on the vertical pole just above the controller cabinet will be remounted with all new mounting hardware. Costs for remounting this signal head will be incidental to the contract lump sum price for "Miscellaneous Signal Parts".

SITE INSPECTION

An on-site inspection of the new traffic signal equipment will be conducted before acceptance of the project. The on-site inspection will be conducted by the Project Engineer and Region Traffic Engineer with the Contractor.

US16/385 SCHOOL SPEED ZONE BEACON INSTALLATION

The Contractor will install four school speed zone flashing beacons around the school in downtown Hill City. Three of the beacons will be direct-wired and one will be solar-powered (Main St & McGregor St); the beacons will have yearly/weekly/daily flash scheduling capabilities and daylight savings time settings. All details for beacon installation, and associated signing work can be found on sheets 11-12 in these plans titled "US16/385 SCHOOL SPEED ZONE BEACON INSTALLATION DETAILS." Costs for installing new school zone flashing beacons will be incidental to the contract unit price per each for "Intersection Control Beacon".

Associated signing work is quantified in the "Signing Quantities" table in the notes of this plan set. Standard 24"x10" S4-4P "When Flashing" signs will be added to each school zone flashing beacon sign assembly. Additionally, the removal of existing flashing beacons, and installation of power for new beacons will be incidental to the contract lump sum price for "Miscellaneous Electrical". Signing quantities are outlined in this table:

Signing C	Quantities		
	İ	TOTALS	
	Bid Item#	Unit	
2" x 2" Perforated Tube Post (Ft)	632E1320	ft	72
Remove Sign for Reset	110E7150		6
Reset Rign	632E3500		6
24" x 10" "When Flashing" signs x 4 (Sq Ft Nonremovable copy high intensty)	632E3203	sq ft	6.6

TRAFFIC CONTROL

During replacement of signal equipment the Contractor will not need to be occupying lanes of traffic at Hill City but will need to at Oreville Junction. The Contractor will utilize traffic control standard plate 634.03 (shoulder work) for replacement of signal cabinets and controllers. The Contractor will utilize traffic control standard plates 634.03 (shoulder work), and 634.52 (3-lane,

Center Lane Closed) for replacement of signal head wiring at Oreville Junction.

During replacement of cabinets, when the cabinet swap is happening and the signal heads are de-energized, the Contractor will perform this work with a temporary stop sign in place on the "T" leg of the intersection. During the tourist season (May – Oct) this work will be performed during the hours of 8p-6a; in the off-tourist season (Nov 1 - May 1) this work can be performed anytime during the day.

GENERAL TRAFFIC CONTROL

The Contractor will be limited to one traffic control setup at any one time.

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

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

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

All construction operations will be conducted in the general direction of traffic movement.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

TRAFFIC CONTROL SIGNING TABLE

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

	ODE SIGN DESCRIPTION		CONVENTIO	NAL ROAD	
SIGN CODE W9-3 W20-1 W20-5	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W9-3	CENTER LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W21-5	SHOULDER WORK	3	48" x 48"	16.0	48.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT		153.0	

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SOUTH			SHEETS
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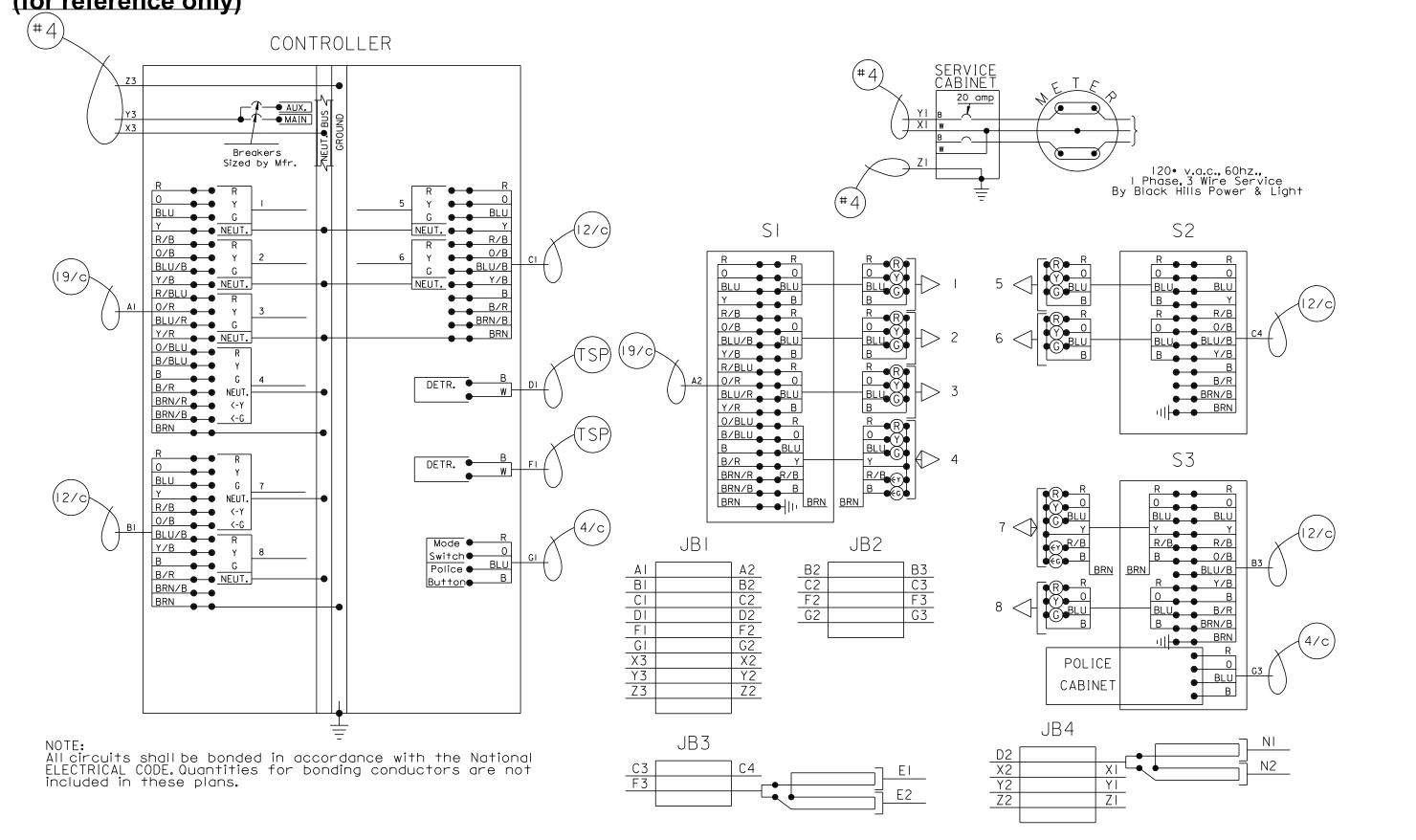
SHEET

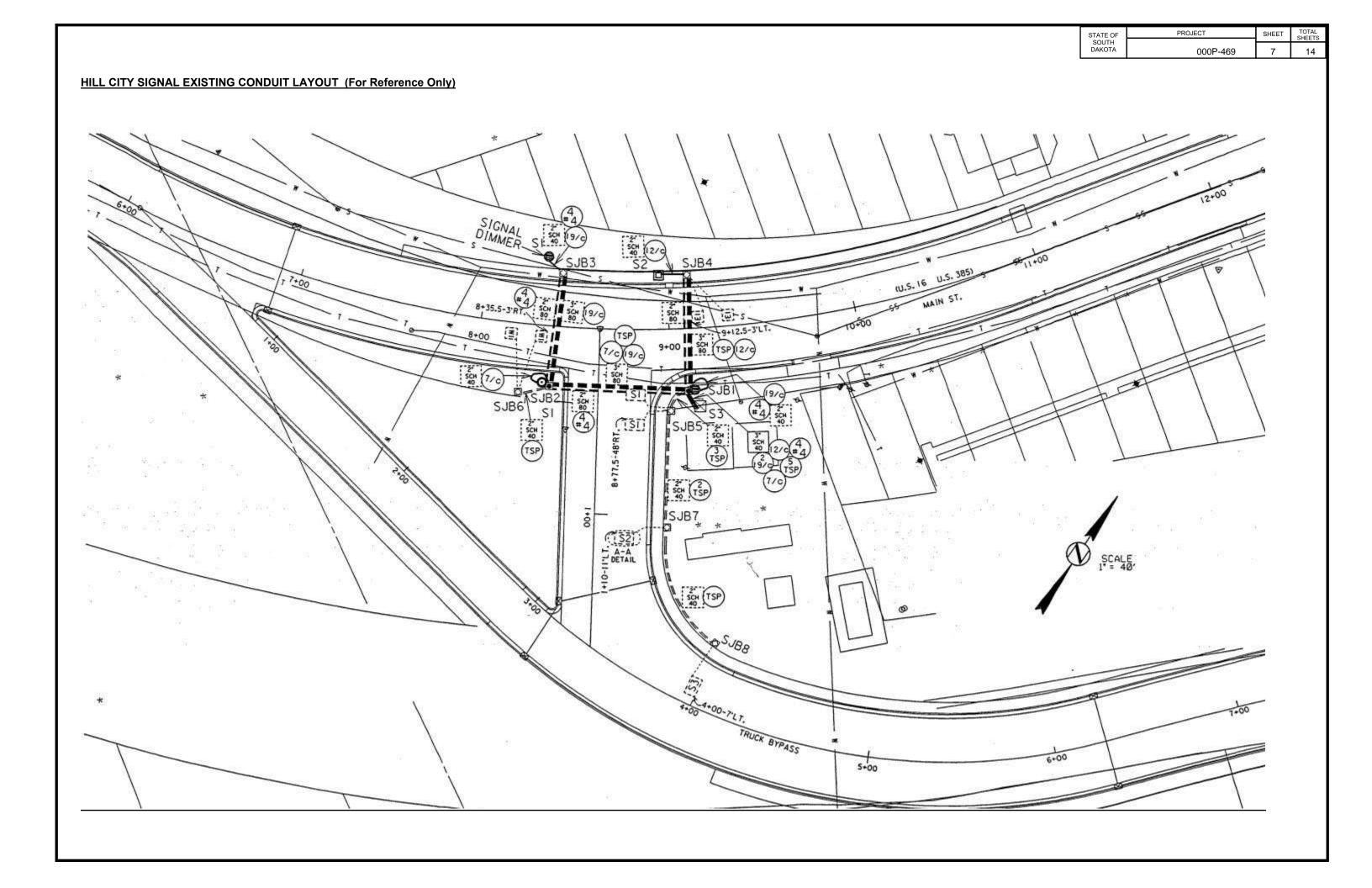
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US HWY 16/385 & SD HWY 244 (OREVILLE JUNCTION) SIGNAL FIELD WIRING DIAGRAM (for reference only)

TOTAL SHEETS STATE OF SHEET 000P-469





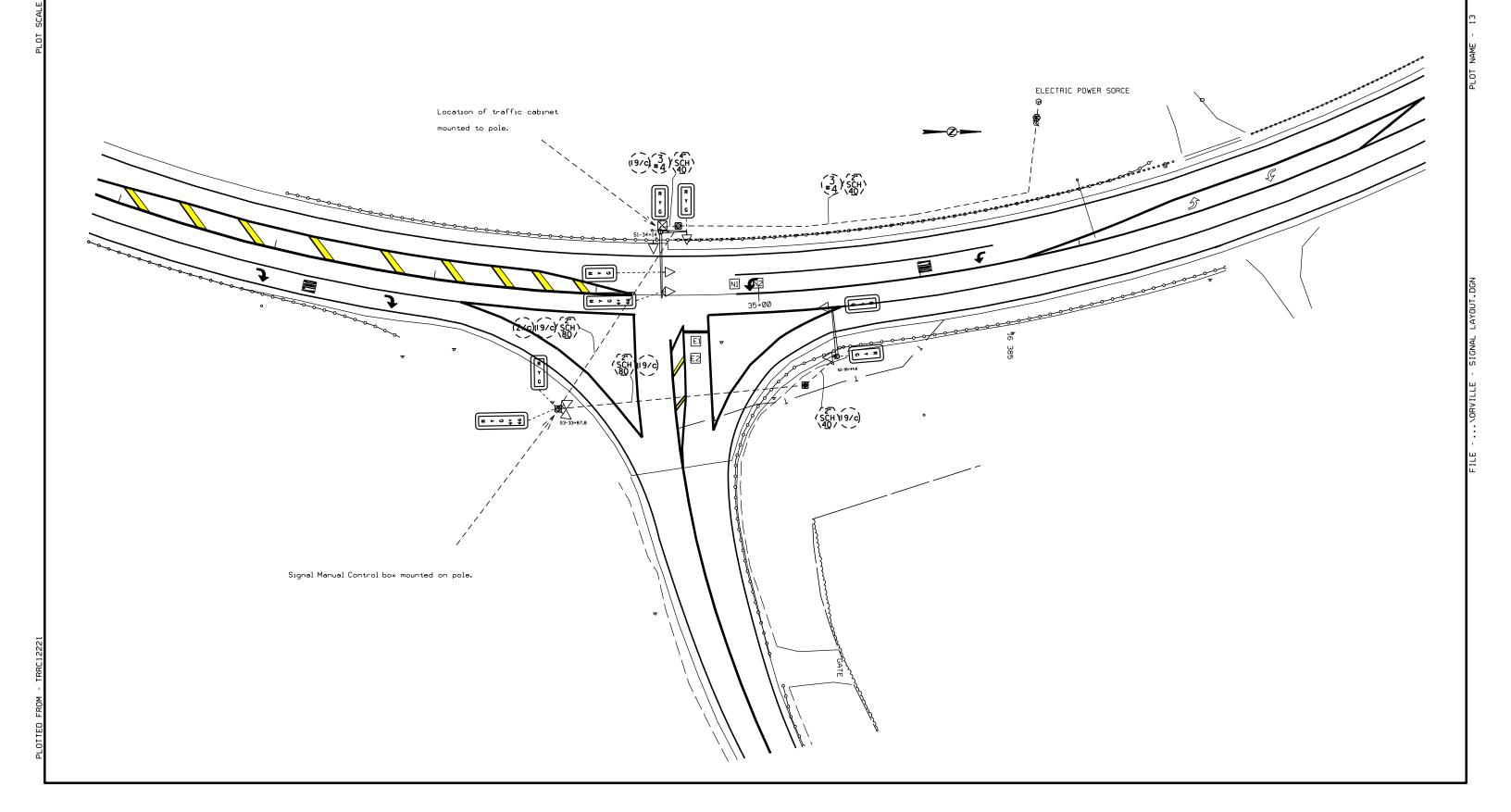
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US16/385 & SD 244 (OREVILLE JUNCTION) SIGNAL LAYOUT

EXISTING LAYOUT: FOR REFERENCE ONLY



SIGNAL TIMING

US 16 /385/ MAIN ST & RAILROAD AVE

NO	N TOU	RIST S	EASO	N BASI	CINTE	RVALS		
Phase	1	2	3	4	5	6	7	8
Movement		NB				SB		WB
Lag								
Min Green		7				7		7
Extension		3				3		3
Max 1		20				20		15
Max 2		20				20		15
Time Before								
Time to Reduce								
Minimum Gap								
Yellow		4				4		3
A ll Red		2				2		2
Walk								7
Ped Clearance								16
Recall		MIN				MIN		
Prog Flash Display		Υ				Υ		R
Start Up Ø		Х				Х		

-	TOURIS	ST SEA	SON B	ASIC II	NTERV.	ALS		
Phase	1	2	3	4	5	6	7	8
Movement		NB				SB		WB
Lag								
Min Green		7				7		7
Extension		3				3		3
Max 1		25				25		15
Max 2		25				25		15
Time Before								
Time to Reduce								
Minimum Gap								
Yellow		4				4		3
All Red		2				2		2
Walk								7
Ped Clearance								16
Recall		MIN				MIN		
Prog Flash Display		Υ				Υ		R
Start Up Ø		Х				Х		

WEEKI	Y PF	ROG	RAM						
Sur	Mon	Tue	Wed	Thu	Fri	Sat			
Plan 1	1	1	1	1	1	1			
TIMING PLAN 1									
111111111111111111111111111111111111111									
Time of Day (TOD) Pattern (C/S/O)									
	Sur Plan 1	Sun Mon g Plan 1 1	Sun Mon Tue g Plan 1 1 1 TIMING PLAN 1	Sun Mon Tue Wed	7 Plan 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sun Mon Tue Wed Thu Fri Plan 1 1 1 1 1 1 TIMING PLAN 1			

0000 - 0600

0600 - 2200

STATE OF SOUTH DAKOTA

Plotting Date:

			ΥE	ARL	Y PF	ROG	RAN	1				
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
TOURIST-SEASON	_	-	_	-	Х	Х	Х	Х	Х	Х	-	_

FLASH FREE PROJECT

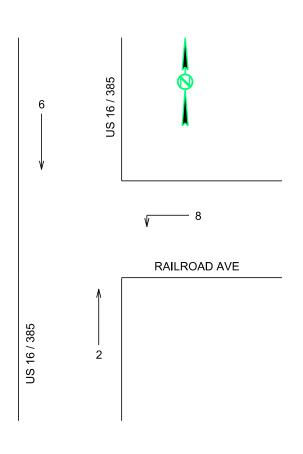
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SHEET

	RING AND BARRIER DESIGN									
Ф1	Ф2	Ф3	Ф4							
Ф5	Ф6	Ф7	Ф8							

	DETECTOR TABLE														
			Phase Called (Call/Call Locking/Extend)										Controlle	Controller Settings	
Local Detector	Controller Detector #	1	2	3	4	5	6	7	8	9	10	11	12	Extend	Delay
S1	1								С						



SIGNAL TIMING

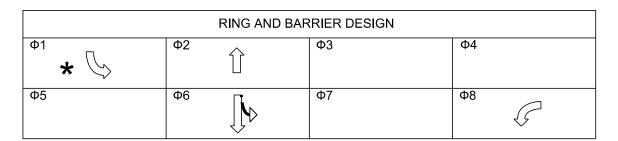
US 16 / 385 & SD 244

BASIC INTERVALS								
Phase	1	2	3	4	5	6	7	8
Movement	SBL	NB				SB		WB
Lag								
Min Green	7	20				20		10
Extension	4							6
Max 1	20	30				30		30
Max 2	40							40
Time Before								
Time to Reduce								
Minimum Gap								
Yellow	4	6				6		4
All Red	2	2				2		2
Walk								
Ped Clearance								
Recall		MAX				MAX		

WEEKLY PROGRAM								
Sun Mon Tue Wed Thu Fri S							Sat	
Timing Plan	1	1	1	1	1	1	1	

TIMING PLAN 1							
Time of Day (TOD)	Pattern (C/S/O)						
0000 - 0600	FLASH						
0600 - 2200	FREE						

YEARLY PROGRAM												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
FLASH	Χ	Χ	Х	Χ	-	ı	ı	1	1	-	Χ	Х



R

Х

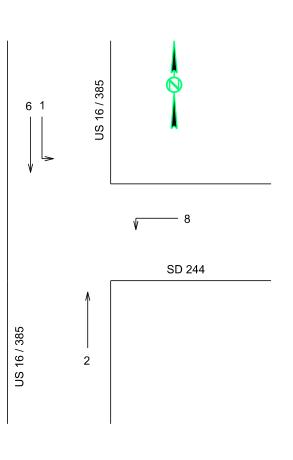
★ Allow controller to back up to serve this phase.

Χ

Prog Flash Display

Start Up Ø

	DETECTOR TABLE														
		Phase Called (Call/Call Locking/Extend)										Controlle	r Settings		
Local Detector	Controller Detector #	1	2	3	4	5	6	7	8	9	10	11	12	Extend	Delay
N1-N2	1	С													
E1-E2	2								C						



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US16/385 SCHOOL SPEED ZONE BEACON INSTALLATION DETAILS





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US16/385 SCHOOL SPEED ZONE BEACON INSTALLATION DETAILS Plotting Date: 10/19/2023



WORK ON SHOULDERS

SDDOT

Published Date: 2024

Spacing of

Signs

(Feet)

Advance Warning Length

Posted

Speed

Prior to

Work

Spacing of

Channelizing

Devices

(Feet)

January 22, 2021

PLATE NUMBER

634.03

Sheet I of I

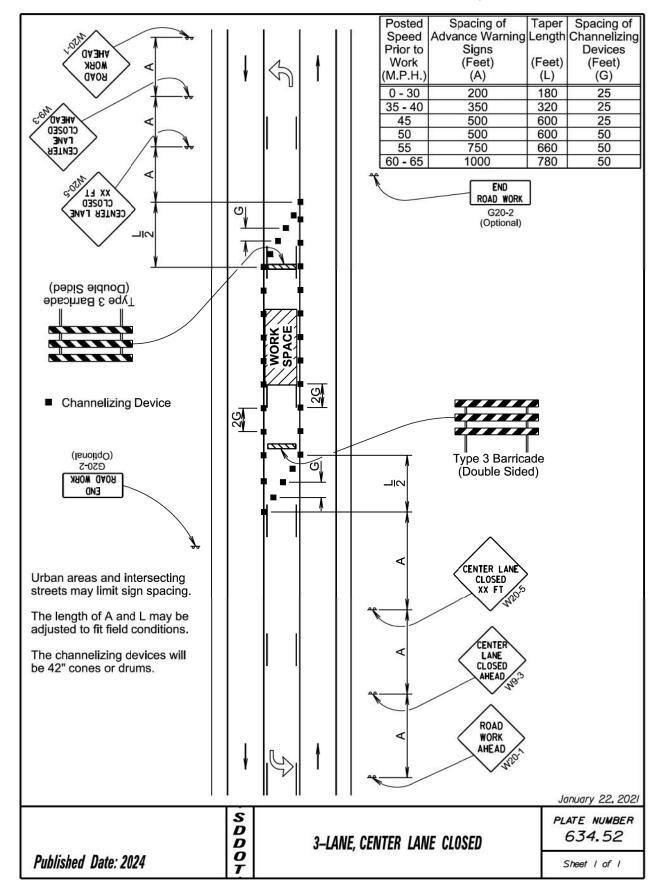
Taper

(Feet)

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A continuous bead of silicone rubber caulk will provide a weather-tight seal between the concrete pad or footing, and the cabinet or base. November 19, 2022 PLATE NUMBER D D O 635.60 CONTROLLER CABINET AND FOOTING Published Date: 2024 Sheet I of I

Battery Backup

Cabinet Length

Battery Backup Cabinet

Controller

Cabinet

Caulk

36" (Min.)

☑ Concrete Access

Pad

Concrete Footing

If the controller and battery backup concrete pad and footing is not d 4 3 4'-0" T3

Silicone Rubber

Anchor Bolts Concrete Pad

1/2" Preformed-

Expansion Joint Filler Concrete Footing-Rigid Conduit

Pedestal Base

36" (Min.)

Grounding Conduit

1" (Max.) (Typ.)

Controller

Cabinet Length

SECTION A-A

1" Chamfer

김

Rigid

are installed.

Conduit

2" CL._

(Typ.)

GENERAL NOTES: (Base Mounted)

1'-6"

ELEVATION VIEW

The concrete pad will conform to the base of the controller and battery backup cabinets to the satisfaction of the Engineer.

Conduits will be sealed water-tight until the conductor cables

located within or adjacent to an existing sidewalk, the Contractor

will provide a concrete access pad as directed by the Engineer.

Anchor bolts and related hardware will conform to the controller

and battery backup cabinets manufacturer's specifications.

1'-6"

SECTION B-B

1'-6"

REINFORCING SCHEDULE (for one footing)

Note: Dimensions are out to out of bar

*Vary number of bars as required by

Mk. No. Size Length Type Bending Detail

ELEVATION VIEW

(Pedestal Mounted)

a * 3 L-4" Str.

b * 3 W-4" Str.

c 6 6 3'-0" Str.

footing size.

Grounding

Anchor Bolts

-Silicone

Rubber

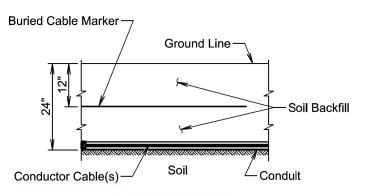
Type T3

Caulk

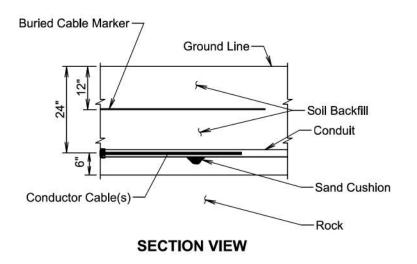
Conduit

PROJECT STATE OF SHEET SOUTH DAKOTA 000P-469 14 14

Plotting Date: 10/17/2023



SECTION VIEW



GENERAL NOTE:

The Buried Cable Marker will be plastic, approximately 6" wide, and will be capable of sustaining a minimum of a 350% tolerance of elongation without tearing. The Buried Cable Marker will have a life expectancy approximately equal to that of the conductor(s) beneath it. A phrase indicating the presence of a buried electric circuit below will be printed in a contrasting color on the cable marker. The Buried Cable Marker will be subject to approval by the Engineer. All costs associated with furnishing and installing the Buried Cable Marker will be incidental to the contract unit price per foot for the bid item used for the electrical conductor.

	20 No. 1807		November 19, 2022
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