

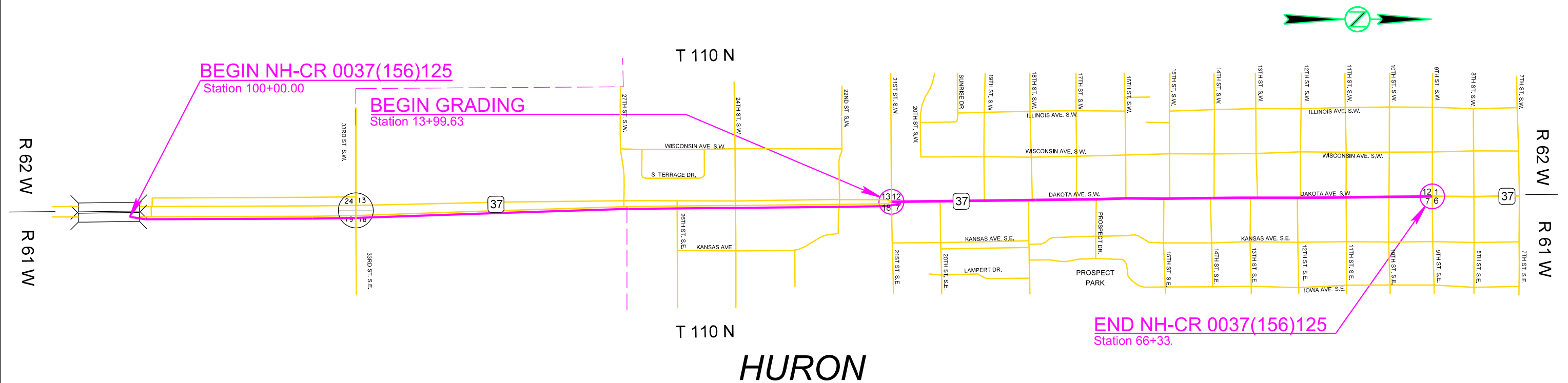
SECTION L: LIGHTING AND SIGNAL PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L1	L61

Plotting Date: 03/16/2026

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SECTION L ESTIMATE OF QUANTITIES

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BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1520	Remove Signal Equipment	Lump Sum	LS
110E1530	Remove Signal Pole Footing	12	Each
110E1540	Remove Luminaire Pole Footing	29	Each
110E5100	Salvage Luminaire Pole	6	Each
110E5105	Salvage Luminaire	24	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
110E7230	Remove Pedestrian Push Button for Reset	3	Each
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	10	Each
635E2000	Pedestal Signal Pole	2	Each
635E2120	Signal Pole with 20' Mast Arm and Luminaire Arm	2	Each
635E2122	Signal Pole with 20' and 45' Mast Arms with Luminaire Arm	1	Each
635E2125	Signal Pole with 25' Mast Arm and Luminaire Arm	1	Each
635E2138	Signal Pole with 35' and 45' Mast Arms with Luminaire Arm	2	Each
635E2140	Signal Pole with 40' Mast Arm and Luminaire Arm	1	Each
635E2145	Signal Pole with 45' Mast Arm and Luminaire Arm	2	Each
635E2150	Signal Pole with 50' Mast Arm and Luminaire Arm	1	Each
635E2155	Signal Pole with 55' Mast Arm and Luminaire Arm	1	Each
635E2160	Signal Pole with 60' Mast Arm and Luminaire Arm	1	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	44	Each
635E4030	3 Section Vehicle Signal Head	47	Each
635E4050	5 Section Vehicle Signal Head	2	Each
635E4090	4 Section Directional Vehicle Signal Head	20	Each
635E5020	2' Diameter Footing	300.0	Ft
635E5035	3.5' Diameter Footing	149.0	Ft
635E5301	Type 1 Electrical Junction Box	16	Each
635E5302	Type 2 Electrical Junction Box	13	Each
635E5303	Type 3 Electrical Junction Box	4	Each
635E5400	Electrical Service Cabinet	6	Each
635E5430	Traffic Signal Controller	4	Each
635E5515	Battery Backup System for Traffic Signal	5	Each
635E5520	Video Detection System	4	Each
635E5560	Emergency Vehicle Preemption Unit	4	Each
635E5570	Optical Detector	16	Each
635E5880	Accessible Pedestrian Signal	32	Each
635E5910	Pedestrian Push Button Pole	24	Each
635E5922	Pedestrian Signal Head with Countdown Timer	32	Each
635E5930	Pedestrian Crossing Sign	24	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7500	Remove and Reset Luminaire Pole	22	Each
635E7510	Remove and Reset Signal Pole	3	Each
635E7530	Relocate Signal Equipment	Lump Sum	LS
635E8110	1" Rigid Conduit, Schedule 40	645	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E8120	2" Rigid Conduit, Schedule 40	5,515	Ft
635E8140	4" Rigid Conduit, Schedule 40	65	Ft
635E8150	5" Rigid Conduit, Schedule 40	15	Ft
635E8220	2" Rigid Conduit, Schedule 80	1,255	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,220	Ft
635E9010	1/C #0 AWG Copper Wire	50	Ft
635E9014	1/C #4 AWG Copper Wire	1,320	Ft
635E9016	1/C #6 AWG Copper Wire	17,470	Ft
635E9018	1/C #8 AWG Copper Wire	12,000	Ft
635E9024	1/C #14 AWG Copper Wire	2,660	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	6,040	Ft
635E9503	3/C #14 AWG Copper Tray Cable, K2	485	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1,790	Ft
635E9505	5/C #14 AWG Copper Tray Cable, K2	855	Ft
635E9506	6/C #14 AWG Copper Tray Cable, K2	55	Ft
635E9510	10/C #14 AWG Copper Tray Cable, K2	1,705	Ft
635E9525	25/C #14 AWG Copper Tray Cable, K2	3,085	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	2,860	Ft

SUPPLYING AS BUILT PLANS

If the traffic signal system(s) or roadway lighting system(s) 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 Traffic Design Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

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:

Stacy.Bartlett@state.sd.us
Ryley.Rapp@state.sd.us

ON-SITE INSPECTION

An on-site inspection of the traffic signals will be conducted before acceptance of the project once the traffic signals are completed and operational. The on-site inspection will be conducted by the Project Engineer or Region Traffic Engineer with the Contractor, and the Traffic Design Engineer present.

REMOVE SIGNAL POLE FOOTING

The footings of existing signal poles EA1-EA4, EB1, EB3, EC1, EC3, ED1-ED4 will be removed by the Contractor to a minimum of 2 feet below the ground

surface. Restoration of the disturbed area will be to the satisfaction of the Engineer.

All costs for removing the footings of the existing signal poles will be incidental to the contract unit price per each for “Remove Signal Pole Footing”.

SALVAGE SIGNAL EQUIPMENT

The existing signal equipment identified on the plans will be salvaged and delivered to the City of Huron by the Contractor. The Contractor will notify the city 5 days before the delivery of the salvaged signal equipment for a time and location of delivery. The city contact is Brett Runge at (605) 530-9607.

Any equipment damaged during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

All costs for work involved in the salvage and delivery of the existing signal equipment will be incidental to the contract lump sum price for “Salvage Signal Equipment”.

REMOVE AND RESET PEDESTRIAN PUSH BUTTONS AND POLES

Existing pedestrian push button poles EPA6-EPA8 will be removed and reset as EPA6-EPA8 due to the installation of new storm sewer on the east side of 21st street.

Pedestrian pushbuttons and equipment damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

All cost for removal and reset of the pedestrian push button poles and equipment, and re-hooking up to the traffic signal controller to ensure buttons are operational will be incidental to the contract lump sum for “Relocate Signal Equipment”.

REMOVE AND RESET SIGNAL POLES AND SIGNAL EQUIPMENT AT 27TH STREET

Existing signal poles EF1-EF2 (27th Street) will be taken down to reduce loading on the footings during the construction of the storm sewer along the east side of SD37. Signal poles will be reinstalled on the existing footing and returned to working operation after completion of the storm sewer work and all necessary backfilling.

Signal equipment damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

All cost for the disconnecting and removal of the signal equipment, removal and resetting of the signal poles, and reinstallation of all the signal equipment will be incidental to the lump sum cost for “Remove and Reset Signal Pole”.

See Section C for information pertaining to temporary traffic control while poles are down.

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	NH-CR 0037(156)125	L2	L61

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REMOVE AND RESET SIGNAL POLE AND SIGNAL EQUIPMENT AT 21ST STREET

Existing signal pole EA5 (21ST Street) will be taken down to reduce loading on the footings during the construction of the storm sewer along the east side of SD37. Signal pole will be reinstalled on the existing footing and returned to working operation after completion of the storm sewer work and all necessary backfilling.

Signal equipment damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

All cost for removal and resetting of the signal poles will be incidental to the contract unit price for each “Remove and Reset Signal Pole”.

SIGNAL POLES

The pole fabricator will be responsible for determining the diameter, length, and number of anchor bolts.

Signal poles will have rotatable mast arms.

Luminaire extension(s) will have a 50-foot mounting height with 8-foot arm.

TABLE OF FOOTING DATA

Site Designation	Footing Diameter	* Footing Depth	**Spiral Diameter	**Spiral Length	Vertical Reinforcement
A2, C3	2' - 0"	6' - 0"	1' - 8"	44' - 3"	8-#7 x 5' - 6"
REL1-REL18, L1-L10, B2, B4, C5, REL25	2' - 0"	9' - 0"	1' - 8"	60' - 0"	8-#7 x 8' - 6"
C2, D2, D4	3' - 6"	11' - 0"	3' - 2"	133' - 6"	18-#8 x 10' -6"
A3, A4, C1, D3	3' - 6"	12' - 0"	3' - 2"	143' - 6"	18-#8 x 11' -6"
A1, D1	3' - 6"	13' - 0"	3' - 2"	153' - 6"	18-#8 x 12' -6"
B1, B3, C4	3' - 6"	14' - 0"	3' - 2"	163' - 3"	18-#8 x 13' -6"

* Footing depth will be below ground level.

** The size of all spirals will be #3.

SUBSURFACE

Soils along the project corridor consist of clay sand to silty sand. Groundwater was encountered at a depth of 5.8 feet during the soils investigation conducted in August 2022.

Groundwater and caving soils are likely to be encountered during the installation of the cylindrical footings. Concrete placement operations should closely follow excavation procedures. The longer the excavations are left open, the more likely caving may occur. Operations should be sequenced so that concrete placement operations closely follow excavation procedures but at a minimum placed the same working day.

If caving soils are encountered, it may be necessary to use casing or drilling fluids to maintain an open excavation. Casing will be of sufficient strength to withstand handling and installation procedures. Casing material may consist of Sonotube, corrugated metal pipe, PVC, smooth metal pipe or any other material as approved by the Engineer. Drilling fluids can be water or other slurries as approved by the Engineer. Concrete placed through drilling fluids will be tremied.

ELECTRICAL SERVICE

The Contractor will be responsible for coordinating the installation of the electrical services and connection to the electrical service. The Contractor will contact the utility company at least 2 weeks prior to needing the electrical service installed.

Contact:

Kirby Wicks
Northwestern Energy
605-668-4602
605-353-7609

All cost for contacting the utility company and coordinating the electrical service installations and all hookup fees will be incidental to the contract unit price per each for “Electrical Service Cabinet.”

ELECTRICAL SERVICE CABINET

An externally mounted receptacle and accompanying enclosure will not be required at electrical service cabinets.

METER SOCKETS FOR TRAFFIC SIGNALS

The meter sockets provided for traffic signals by the Contractor will be a 200-amp, positive by-pass.

PEDESTAL SIGNAL POLES

Pedestal signal poles may be aluminum. Aluminum poles will conform to the following requirements:

Aluminum will conform to ASTM B221, Alloy 6061, and Temper T6.

Poles will be round with a minimum outside pole diameter of 4 inches, and the pole assembly will have a square, cast aluminum base with aluminum access door. The base will conform to the breakaway requirements of NCHRP 350 or MASH. A grounding lug will be provided in the base.

The pole to base connection will be a threaded connection; threads will be 8 TPI, NPT. A collar (integral or non-integral) to prevent wind-induced loosening of pole will be provided. All bolt and connection threads will be coated with a commercially available anti-seize compound intended for use in aluminum-to-aluminum and steel-to-aluminum connections.

The pole finish will either be brushed satin or spun. The top of the pole will be sealed by the traffic signal head mounting hardware or by an aluminum cap.

Measurement and payment for aluminum poles will be as specified in Specifications Section 635.

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SIGNAL BACKPLATES

All new vehicle signal heads will have backplates with retroreflective border. The vehicle signal head backplates will have a factory applied 3-inch-wide yellow retroreflective border. Sheeting for the border will be Type XI or Type IX in conformance with ASTM D4956. Backplates will be polycarbonate, aluminum, or aluminum-composite. Minimum material thicknesses are:

Polycarbonate, 0.10-inch
Aluminum, 0.06-inch
Aluminum-Composite, 0.08-inch

Signal backplates will extend not less than 5 inches from the edge of the signal head at the top, bottom, and sides. The bottom of the backplate on vehicle signal faces mounted directly above pedestrian signal indications will be sized to permit the separate adjustment of the vehicle and pedestrian signal indication and may be less than 4 inches.

All costs involved with furnishing and installing backplates with retroreflective border for the new vehicle signal heads will be incidental to the contract unit price per each for “3 Section Vehicle Signal Head”, “4 Section Directional Vehicle Signal Head”, and “5 Section Vehicle Signal Head”.

TRAFFIC SIGNAL CONTROLLER

The new Traffic Signal Controllers will be Econolite Cobalt or EOS.

The Contractor is responsible for programming controllers with the signal timings provided in these plans.

Controllers and flashers are not required to have dimming capability.

Anchor bolts for traffic signal cabinets may have hooked ends.

All costs for the detector units necessary to operate the signal as shown in these plans, constructing the concrete pad and footing, GPS clock, materials, labor, and furnishing and installing the controller cabinet will be incidental to the contract unit price per each for “Traffic Signal Controller”.

VIDEO DETECTION SYSTEM

The video detection system will be Autoscope AIS-IV:

Product	Manufacturer
Autoscope AIS-IV or Vision	Econolite Anaheim, CA 92807 Phone: 1-714-630-3700 www.econolite.com

All cabling and hardware necessary to make the detection system operational will be incidental to the contract unit price per each for “Video Detection System”.

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REMOTE COMMUNICATION SYSTEMS

The Remote Communication System (RCS) for the Traffic Signals and ITS Devices will provide a secure, cellular communications system for traffic signal cabinets and cabinet-resident ITS devices, enabling remote monitoring, diagnostics, and operational access through a cloud-hosted platform. This equipment will be compatible, and will have a matched component system, with the existing Cloud-Based ATMS operated in Sturgis by the SDDOT. The RCS will support on-demand and/or live video streaming via cellular communications and will provide secure passthrough communication to allow remote connectivity to third-party, IP-addressable devices located within the cabinet. The RCS will support web services that enable agency users to access installed thick-client traffic management applications hosted within a secure remote desktop environment. The RCS will additionally be capable of supporting traffic management and/or signal control software hosted in the cloud, including integration capabilities for central traffic signal control and management platforms using secure communications methods.

An RCS will be installed in each traffic signal controller cabinet. The RCS in-field hardware will be equipped with built-in cellular modems, which support 4G LTE communication. The RCS will automatically update the central monitoring platform in real-time upon detecting significant events or changes. The RCS will offer a web-based monitoring platform, accessible via any standard web browser. No additional software will be permitted. The RCS will feature a mobile-friendly platform design, with real-time fault alerts and status updates. The RCS's mapping platform will be easily configurable and remotely accessible, enabling real-time adjustments for improved system optimization. The RCS will include remote power cycle capabilities for intersection units, allowing system administrators to remotely reset or power down/up devices as needed to ensure system integrity and quick response to operational issues. The RCS will include hyperlinks for IP-addressable devices in the traffic cabinet within the monitoring platform, simplifying access to device-specific information and controls.

The RCS will support remote front panel display capabilities for traffic signal controllers, allowing remote observation and control over traffic signal operations. The system will support Econolite, Siemens, McCain, Intelight, Trafficware, and PEEK at minimum. The RCS will be compatible with leading traffic signal controller central systems, including Centracs, Tactics, MaxTime, MaxView, ATMS.now, and Transparity. The RCS will support integration with battery backup systems (BBS), enabling monitoring of power-related status and faults and supporting continuity of communications during power outages. The RCS will be camera agnostic and will support integration with IP-addressable video cameras from multiple manufacturers without requiring proprietary camera hardware.

The RCS will retrieve and display real-time Signal Phase and Timing (SPaT) data from traffic signal controllers, when supported by the controller. Signal indications will be represented by directional arrows colored to match the active signal phase on each approach, with sub-second resolution. The RCS will display detailed signal timing parameters when viewing an individual intersection, including cycle length, offset, split times, and plan numbers, when supported by the traffic controller. The RCS will provide a color-coded Traffic Signal State Indicator to display the following controller operating modes: Coordinated, Preemption Active, Transition, and Free Operation. The RCS will allow users to toggle between local and master cycle timers at each intersection. These live countdown timers will reflect active coordination and support verification of offset and timing plan synchronization. The RCS will incorporate Google Maps traffic overlays to display live roadway congestion and incident data on the monitoring platform. The RCS will provide Time–Space Diagram functionality for signalized corridors to support visualization of progression, coordination performance, and traffic flow over time. The Time–

Space Diagram will be viewable through the monitoring platform and will support user selection of corridor limits, direction, and time range.

The RCS will ensure data integrity and privacy through secure VPN connectivity and encrypted communication channels between field devices, hosted services, and the central monitoring platform. The RCS will support IPsec tunneling to enable secure encrypted communications between field devices, cloud-hosted services, and agency networks. The RCS will adhere to industry-standard cybersecurity practices, including HTTPS/TLS secure. The RCS field hardware will be NEMA TS2 certified. All remote access to field devices and hosted applications will occur through authenticated and encrypted connections. The RCS will support role-based user access control, allowing administrators to define permissions based on user roles and responsibilities. All operational and system data collected and transmitted by the RCS will remain the property of the Agency. The RCS monitoring platform functions will be accessible using an Application Programming Interface (API). The RCS will offer a 10-year connectivity and support plans, including full hardware warranty coverage and over-the-air software and security updates. The RCS hardware will be covered under a no questions asked warranty for the duration of the active connectivity and support plan, allowing for replacement of failed hardware without fault attribution or return analysis requirements.

All cost for installation of the RCS and ensuring it works as intended will be incidental to the contract unit price per each for “Traffic Signal Controller”.

BATTERY BACKUP CABINET

The Contractor will supply cabinets with concrete pad and footing for housing the battery backup system for traffic signal systems at the intersections of:

- SD37 & 27TH Street
- SD37 & 21ST Street
- SD 37 & 18TH Street
- SD 37 & 14TH Street
- SD 37 & 9TH Street

The 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.”

MULTICONDUCTOR CONTROL CABLE FOR SIGNAL CIRCUITS

The Conductor Jackets for the multiconductor control cables will be color coded in accordance with ICEA S-73-532 Table E2.

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ACCESSIBLE PEDESTRIAN SIGNAL

The work will consist of furnishing and installing accessible pedestrian signals (APS). Each APS will consist of an interactive vibrotactile pedestrian push button with speaker, an informational sign, a latching light emitting diode (LED) indicator light, a solid-state electronic control board, a power supply, wiring, and all necessary mounting hardware. The operation and performance of the APS units will meet the requirements of the current edition of the MUTCD and the applicable sections of NEMA Standards Publication TS-2.

The APS units will be capable of supporting a minimum of 16 push button stations.

The traffic signal cabinet must have four dedicated load switches for the pedestrian phases. If the traffic signal cabinet does not have four dedicated load switches for the pedestrian phases, then the Contractor will furnish and install the necessary number of load switches. All costs associated with furnishing and installing any additional load switches will be incidental to the contract unit price per each for “Accessible Pedestrian Signal”.

All mounting fasteners will be stainless steel; all threads will be coated with anti-seize compound meeting the requirements of USA Dept. of Defense specification MIL-PRF-907F.

The push button component of APS will meet the requirements of Section 985.1 S of the Specifications except that all housings and external hardware will be aluminum, powder coated yellow.

The APS control unit will include capability to monitor the push buttons and pedestrian signal head displays. Conflicts will cause the channel to be powered off.

The APS control unit will include capability to monitor communications with the push buttons. Communication faults will automatically reset the control unit.

Two licensed copies of any APS programming software will be furnished. All software programming, firmware updates, and audio message programming of the APS will be through USB port or Ethernet connection.

All costs for furnishing and installing the accessible pedestrian signal including labor, materials, and equipment, will be incidental to the contract unit price per each for “Accessible Pedestrian Signal”.

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PEDESTRIAN PUSH BUTTON POLE

Pedestrian push button poles will be aluminum and will conform to the following requirements:

Aluminum will conform to ASTM B221, Alloy 6061, and Temper T6.

Poles will be round with a minimum outside pole diameter of 4 inch, and the pole assembly will have a square, cast aluminum base with aluminum access door. The base will conform to the breakaway requirements of MASH.

The pole to base connection will be a threaded connection; threads will be 8 TPI, NPT. All bolt and connection threads will be coated with a commercially available anti-seize compound intended for use in aluminum-to-aluminum and steel-to-aluminum connections.

The pole finish will either be brushed satin or spun. The top of the pole will be sealed by an aluminum cap.

Anchor bolts for pedestrian push button poles may have hooked ends.

REMOVE LUMINAIRE POLE FOOTING

The footings of existing luminaire poles EL1-EL25, EB2, EB4, EC2, and EC4 will be removed by the Contractor to a minimum of 2 feet below the ground surface. Restoration of the disturbed area will be to the satisfaction of the Engineer.

All costs for removing the footings of the existing luminaire poles will be incidental to the contract unit price per each for "Remove Luminaire Pole Footing".

SALVAGE LUMINAIRE POLES

The existing luminaire poles EL19-EL24 on the plans will be salvaged and delivered to the City of Huron by the Contractor. The Contractor will notify the city 5 days before the delivery of the luminaire poles for a time and location of delivery. The city contact is Brett Runge at (605) 530-9607.

Any equipment damaged during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

All costs for work involved in the salvage and delivery of the luminaire poles will be incidental to the contract unit price per each "Salvage Luminaire Pole".

SALVAGE LUMINAIRES

The existing luminaire fixtures on poles EL1-EL24 on the plans will be salvaged and delivered to the City of Huron by the Contractor. The Contractor will notify the city 5 days before the delivery of the luminaire poles for a time and location of delivery. The city contact is Brett Runge at (605) 530-9607.

Any damage to the luminaires during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

All costs for work involved in the salvage and delivery of the luminaire will be incidental to the contract unit price per each "Salvage Luminaire".

REMOVE AND RESET LUMINAIRE POLES

Existing luminaire poles EL1-EL18, and EL25 will be removed and reset as REL1-REL18, and REL25 as shown on the plan sheets.

Existing luminaire poles EB2, EB4 will be removed and reset as B2 and B4 as shown on the plan sheets.

Existing luminaire poles EC4 will be removed and reset as C5 as shown on the plan sheets.

Shop drawing records show that the existing anchor bolts are 1-1/4" inch X 48" inch with a bolt circle diameter of 17" inch, and a 4" inch bolt projection. The replacement anchor bolts will be in conformance with the Specifications. The poles were originally installed with Project 0037(88)124. See shop drawing sheets (Special Details) at the end of these plans. Pole manufacturer information:

Millerbernd Manufacturing
P.O. Box 98
Winsted, MN 55395
Phone: (320) 485-2111

Luminaire poles damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

Existing festoon wires and 2/C pole and bracket cable will be replaced in each reset pole. Cost for removing and replacing of wires will be incidental to the contract unit price for "2/C #10 AWG Copper Pole & Bracket Cable" and "1/C #14 AWG Copper Wire".

All costs involved with removing and resetting the existing luminaire poles including new anchor bolts with associated hardware, will be incidental to the contract unit price per each for "Remove and Reset Luminaire Pole".

LUMINAIRE POLES

Luminaire poles L1 to L10 will have a mounting height of 50 foot with 8-foot arms.

The pole fabricator will be responsible for determining the diameter, length, and number of anchor bolts.

Luminaire poles will be designed to include loadings created by banners that are 30 inches wide by 80 inches long, mounted 15 feet from the top of footing to the bottom of the banner and will be able to support decorations that are 30lbs with 5'x5' dimensions.

Luminaire poles L1 to L10 will have a convenience duplex festoon outlet receptacle (15-amp, 3 wire) suitable for outdoor use. Festoon will be placed 90° counterclockwise to the pole arm. Cost for the festoon outlet receptacle and installing the outlet to the pole will be incidental to the contract unit price per each "Breakaway Base Luminaire Pole with Arm". Cost for all #14 wire and installation of wire to ensure the outlet is operational will be incidental to "1/C #14 AWG Copper Wire".

LUMINAIRES

The lighting design used the following parameters to provide 1.1 and greater average maintained foot-candles and uniformity ratios of 3:1 (average maintained to minimum maintained foot-candles) and 5:1 (maximum to minimum maintained foot candles):

Pole Setback: 8 feet
Lamp Loss Factor (LLF): 0.8
Width of Lighted Area: 60 feet
Luminaire Cycle Length: 340 feet
Configuration: Staggered
Mounting Height: 50 feet
Arm Length 8 feet

The following luminaire will be used for this project:

a.) AEL Autobahn ATB2-P602-MVOLT-R3-P7-PCLL

JUNCTION BOX JL3 (26th Street)

Wires going into the footing of existing luminaire pole EL25 will be disconnected and pulled back in each direction. After the footing for EL25 is removed, junction box JL3 will then be placed at the location of existing luminaire footing. The existing conduits that entered the footing of EL25 will be modified to go into junction box JL3. Once the junction box is placed all wires will be repulled to the junction box and connections made to re-energize the luminaires. All costs for pulling back wires, modifying conduit to enter JL3, repulling wires, and reconnecting wires will be incidental to the cost unit price for "Type 1 Electrical Junction box".

WIRE SPLICING FOR LIGHTING

All wire splices for lighting will be made using TE Connectivity GTAP connectors, NSI Industries Polaris Blue connectors, or an approved equal.

EXISTING FIBER OPTIC CABLE

Existing fiber optic cable, and the conduit and junction boxes it exists in (EFJ1-EJF8), from 14th Street to 21st Street will be retained. The existing fiber optic cable will be disconnected from each of the existing traffic signal controllers and pulled back to the nearest existing junction box. The Contractor will carefully coil the existing fiber optic cable in the nearest existing junction box.

Any damage to the existing fiber optic cable during the disconnecting, pulling back, coiling, and storing in the existing junction box will be repaired or replaced by the Contractor at no cost to the State.

All costs for the work associated with the existing fiber optic cable disconnecting, pulling back, coiling, and storing in the existing junction box nearest to the existing traffic signal controller will be incidental to the contract lump sum price "Miscellaneous Electrical".

CONDUIT AND CABLE QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L6	L61

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Location to Location		Rigid Conduit					Rigid Conduit					Copper Wire					Copper Tray Cable, K2					Preemption Cable					Pole and Bracket Cable											
		Schedule 40					Schedule 80					#14 AWG					(Not a bid Item)																					
		1"	2"		4"	5"		2"	3"				1/C #8 AWG Ft	1/C #6 AWG Ft	1/C #4 AWG Ft	1/C #0 AWG Ft	1/C #14 AWG Ft		2/C	3/C	4/C	5/C	10/C	25/C	6/C						2/C #10 AWG Ft							
SD 37 & 21st Street		Ft	Ft		Ft	Ft		Ft	Ft				Ft	Ft	Ft	Ft	Ft		Ft	Ft	Ft	Ft	Ft	Ft	Ft		Ft											
Exist Elec. Service	JA1		15									110	110																									
Controller	JA1				15								110					290					110	180			145											
	JA1											220												75			75											
	JA1		25																				30															
	JA1							105				330						220					110	110			110											
	JA1		EPA1	10														15																				
	JA1		EPA2	25														30																				
	JA2		A3		10							45											15	15			15											
	JA2		EPA3	10														15																				
	JA2		EPA4	25														30																				
	JA1		JA4					165				510						680					340	340			340											
	JA4		EA5		20							65											25	25			25											
	JA4		EPA7	10														15																				
	JA4		EPA8	15														20																				
	JA4		JA3					110				375						250					125	125			125											
	JA4		A4		20																		35	35			35											
	JA4		EPA5	15														25																				
	JA4		EPA6	15														25																				
Poles																																						
A1	Signal Pole																				90	90			35		45			65								
A2	Pedestal Pole																		35			20			20													
A3	Signal Pole																		35		40	90				45			65									
A4	Signal Pole																		35		120	110				45			65									
EA5	Removed and Reset Signal Pole																		35		105	80				45			65									
EPA1	Ped. Pushbutton																	10																				
EPA2	Ped. Pushbutton																	10																				
EPA3	Ped. Pushbutton																	10																				
EPA4	Ped. Pushbutton																	10																				
EPA5	Ped. Pushbutton																	10																				
EPA6	Ped. Pushbutton																	10																				
EPA7	Ped. Pushbutton																	10																				
EPA8	Ped. Pushbutton																	10																				
Subtotal:		125	150	0	0	15	0	380			0	1,655	220	0	0	0		1,695	140	355	390	760	935	55		1,050				260								

Plotted From - TRPR17199

File - ...lpj\thead06\JA1TableConduit.dgn

Plotting Date: 03/16/2026

File - ... \prj\bead06JA\TableConduit.dgn

CONDUIT AND CABLE QUANTITIES

Plotting Date: 03/16/2026

Location to Location		Rigid Conduit		Rigid Conduit		Copper Wire					Copper Tray Cable, K2						Preemption Cable				Pole and Bracket Cable																	
		Schedule 40		Schedule 80					#14 AWG											(Not a bid Item)																		
		1"	2"		4"	5"		2"	3"				1/C #8 AWG	1/C #6 AWG	1/C #4 AWG	1/C #0 AWG	1/C #14 AWG		2/C	3/C	4/C	5/C	10/C	25/C	6/C						2/C #10 AWG							
Ft		Ft		Ft	Ft		Ft	Ft				Ft	Ft	Ft	Ft	Ft		Ft	Ft	Ft	Ft	Ft	Ft	Ft		Ft					Ft							
HWY 37 & 14th Street																																						
Elec. Service	JC5		20									65	65																									
JC5	Secondary Disc.		145									450	450																									
Secondary Disc.	Controller		10										30																									
Secondary Disc.	JC3		20									65																										
Controller	JC3				25													210		30			55	105			105											
JC3	C4		25																				30	30			60											
JC3	PC5	20																25																				
JC3	PC6	15																15																				
JC3	JC4							65				205						140						70														
JC4	C5		20									65											25															
JC4	PC7	20																25																				
JC4	PC8	25																30																				
JC3	JC2							120				375						500		125			125	250			250											
JC2	C3		20																				25															
JC2	PC3	20																25																				
JC2	PC4	25																30																				
JC2	JC1							70				225						150				75	75	75			150											
JC1	C1		45									140											50	50			50											
JC1	C2		20									65															25											
JC1	PC1	30																35																				
JC1	PC2	20																25																				
Poles																																						
C1	Signal Poles																		30	135	40					55					65							
C2	Signal Poles																			40							65											
C3	Pedestal Sig. Pole																		30	15	15																	
C4	Signal Pole																		30	210	45					65												
C5	Luminaire Pole																		30	15	15																	
PC1	Ped Push Pole																	10																				
PC2	Ped Push Pole																	10																				
PC3	Ped Push Pole																	10																				
PC4	Ped Push Pole																	10																				
PC5	Ped Push Pole																	10																				
PC6	Ped Push Pole																	10																				
PC7	Ped Push Pole																	10																				
PC8	Ped Push Pole																	10																				
Subtotal:		175	325	0	25	0		0	255			0	1,655	545	0	0	0	0	1,290	120	595	190	335	630	0		760					260						

1:200
Plot Scale -
Plotted From - TRPR17199

CONDUIT AND CABLE QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L9	L61

Plotting Date: 03/16/2026

Location to Location		Rigid Conduit					Rigid Conduit					Copper Wire					Copper Tray Cable, K2					Preemption Cable					Pole and Bracket Cable										
		Schedule 40					Schedule 80					#14 AWG					(Not a bid Item)																				
		1"	2"		4"	5"		2"	3"			1/C #8 AWG Ft	1/C #6 AWG Ft	1/C #4 AWG Ft	1/C #0 AWG Ft	1/C #14 AWG Ft		2/C Ft	3/C Ft	4/C Ft	5/C Ft	10/C Ft	25/C Ft	6/C Ft						2/C #10 AWG Ft							
HWY 37 & 9th Street		Ft	Ft		Ft	Ft		Ft	Ft									Ft	Ft	Ft	Ft	Ft	Ft	Ft		Ft											
Elect. Service	JD5		20								65	65																									
JD5	Secondary Disc.		125								390	390																									
Secondary Disc.	Controller		10									40																									
Controller	JD1				20													170					45	85			85										
JD1	D1		15								45												15	155			15										
JD1	PD1	30																35																			
JD1	PD2	20																25																			
JD1	JD2								65									140						70			70										
JD2	D2		15								50													15													
JD2	PD3	15																15																			
JD2	PD4	20																25																			
JD1	JD4								115			355						475					120	240			240										
JD4	D4		15								50													15			15										
JD4	PD7	15																15																			
JD4	PD8	25																30																			
JD4	JD3								60			190						130					65	65			5										
JD3	D3		10								35							30					15	15			15										
JD3	PD5	25																30																			
JD3	PD6	15																15																			
Poles																																					
D1	Signal Pole																		30	160	55					65					65						
D2	Signal Pole																		30	50	15					50					65						
D3	Signal Pole																		30	190	45					70					65						
D4	Signal Pole																		15	50	15					45					65						
PD1	Ped Push Pole																	10																			
PD2	Ped Push Pole																	10																			
PD3	Ped Push Pole																	10																			
PD4	Ped Push Pole																	10																			
PD5	Ped Push Pole																	10																			
PD6	Ped Push Pole																	10																			
PD7	Ped Push Pole																	10																			
PD8	Ped Push Pole																	10																			
Subtotal:		165	210	0	20	0		0	240			0	1,180	495	0	0	0		1,215	105	450	130	260	660	0		675				260						

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Plot Scale - 1:200

Plotted From - TRPR17199

Plotting Date: 03/16/2026[illegible]

CONDUIT AND CABLE QUANTITIES

Plotting Date: 03/16/2026

Location to Location		Rigid Conduit				Rigid Conduit				Copper Wire					Copper Tray Cable, K2					Preemption Cable				Pole and Bracket Cable													
		Schedule 40				Schedule 80									#14 AWG					(Not a bid Item)																	
		1"	2"		4"	5"		2"	3"				1/C #8 AWG Ft	1/C #6 AWG Ft	1/C #4 AWG Ft	1/C #0 AWG Ft	1/C #14 AWG Ft		2/C Ft	3/C Ft	4/C Ft	5/C Ft	10/C Ft	25/C Ft	6/C Ft						2/C #10 AWG Ft						
Poles		Ft	Ft		Ft	Ft		Ft	Ft										Ft	Ft	Ft	Ft	Ft	Ft	Ft		Ft										
REL1	Luminaire Pole																95														65						
REL2	Luminaire Pole																95														65						
REL3	Luminaire Pole																95														65						
REL4	Luminaire Pole																95														65						
REL5	Luminaire Pole																95														65						
REL6	Luminaire Pole																95														65						
REL7	Luminaire Pole																95														65						
REL8	Luminaire Pole																95														65						
REL9	Luminaire Pole																95														65						
REL10	Luminaire Pole																95														65						
REL11	Luminaire Pole																95														65						
REL12	Luminaire Pole																95														65						
REL13	Luminaire Pole																95														65						
REL14	Luminaire Pole																95														65						
REL15	Luminaire Pole																95														65						
REL16	Luminaire Pole																95														65						
REL17	Luminaire Pole																95														65						
REL18	Luminaire Pole																95														65						
L1	Luminaire Pole																95														65						
L2	Luminaire Pole																95														65						
L3	Luminaire Pole																95														65						
L4	Luminaire Pole																95														65						
L5	Luminaire Pole																95														65						
L6	Luminaire Pole																95														65						
L7	Luminaire Pole																95														65						
L8	Luminaire Pole																95														65						
L9	Luminaire Pole																95														65						
L10	Luminaire Pole																95														65						
Remove and Reset at 26th ST																																					
JL3	REL25		15												50																						

Plot Scale - 1:200

Plotted From - TRPR17199

SIGNAL LAYOUT

SD HWY 37 & 27th STREET

REMOVE AND RESET AT SOUTHERN END OF PROJECT

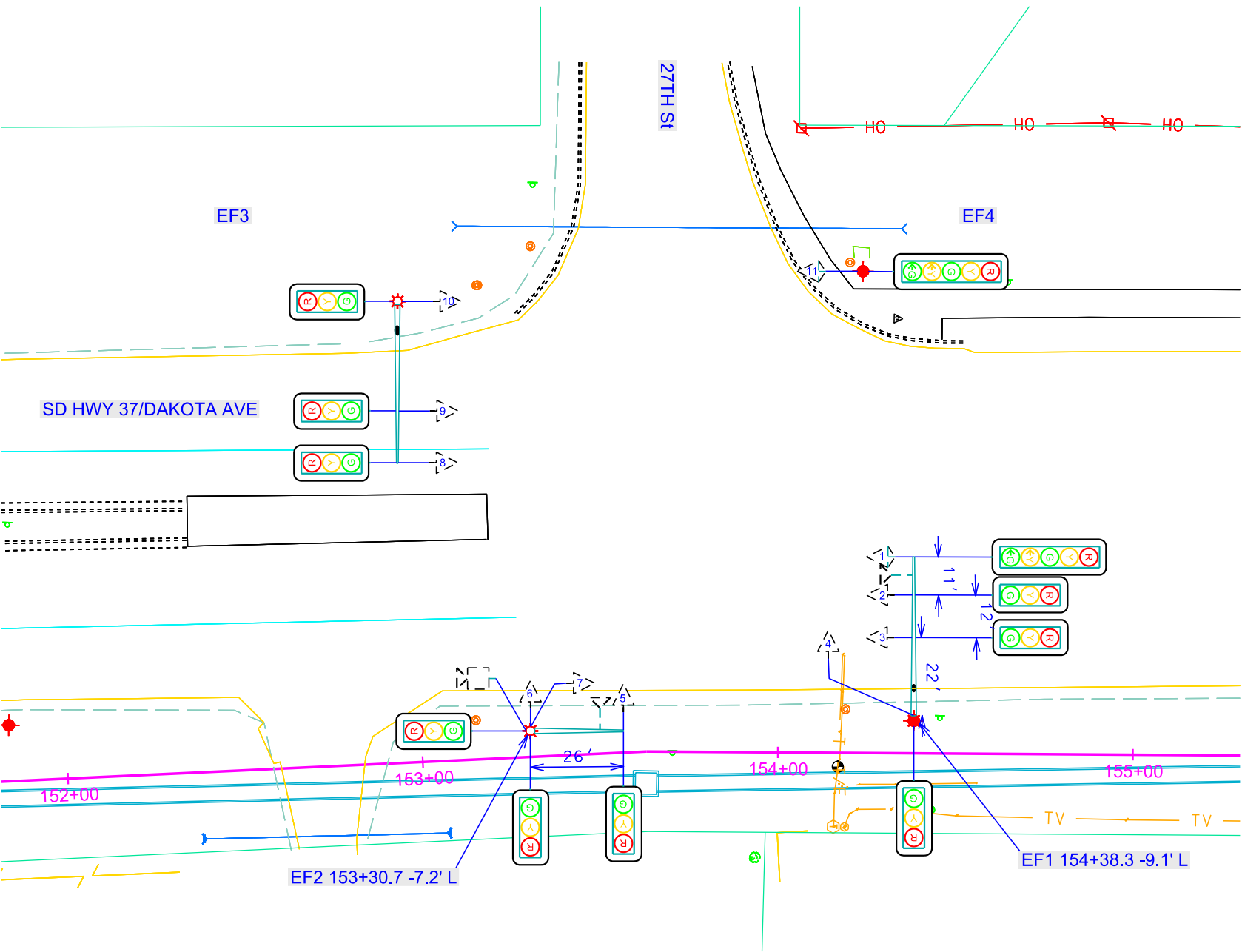
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L12	L61
Plotting Date:		03/16/2026	



EXISTING ITEMS	
KEY	ITEM
	Breakaway Base Luminaire Pole w/8' Arm 50' Mounting Height (EF4)
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (EF1,EF3)
	Signal Pole w/25' Mast Arm (EF2)
	Roadway Luminaire, LED with P.E. (EF1,EF3,EF4)
	3 Section Vehicle Signal Head (2-10)
	5 Section Vehicle Signal Head (1,11)
	Video Radar Detector
	Optical Detector

REMOVE AND RESET SIGNAL POLE	
KEY	ITEM
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (EF1)
	Signal Pole w/25' Mast Arm (EF2)
	Roadway Luminaire, LED with P.E. (EF1)
	5 Section Vehicle Signal Head (1)
	3 Section Vehicle Signal Head (2-7)
	Video Radar Detector
	Optical Detector

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove and Reset Signal Pole (EF1,EF2)	2	EACH
	Battery Backup System for Traffic Signal	1	EACH



EXISTING SIGNAL LAYOUT
SD HWY 37 & 21st STREET

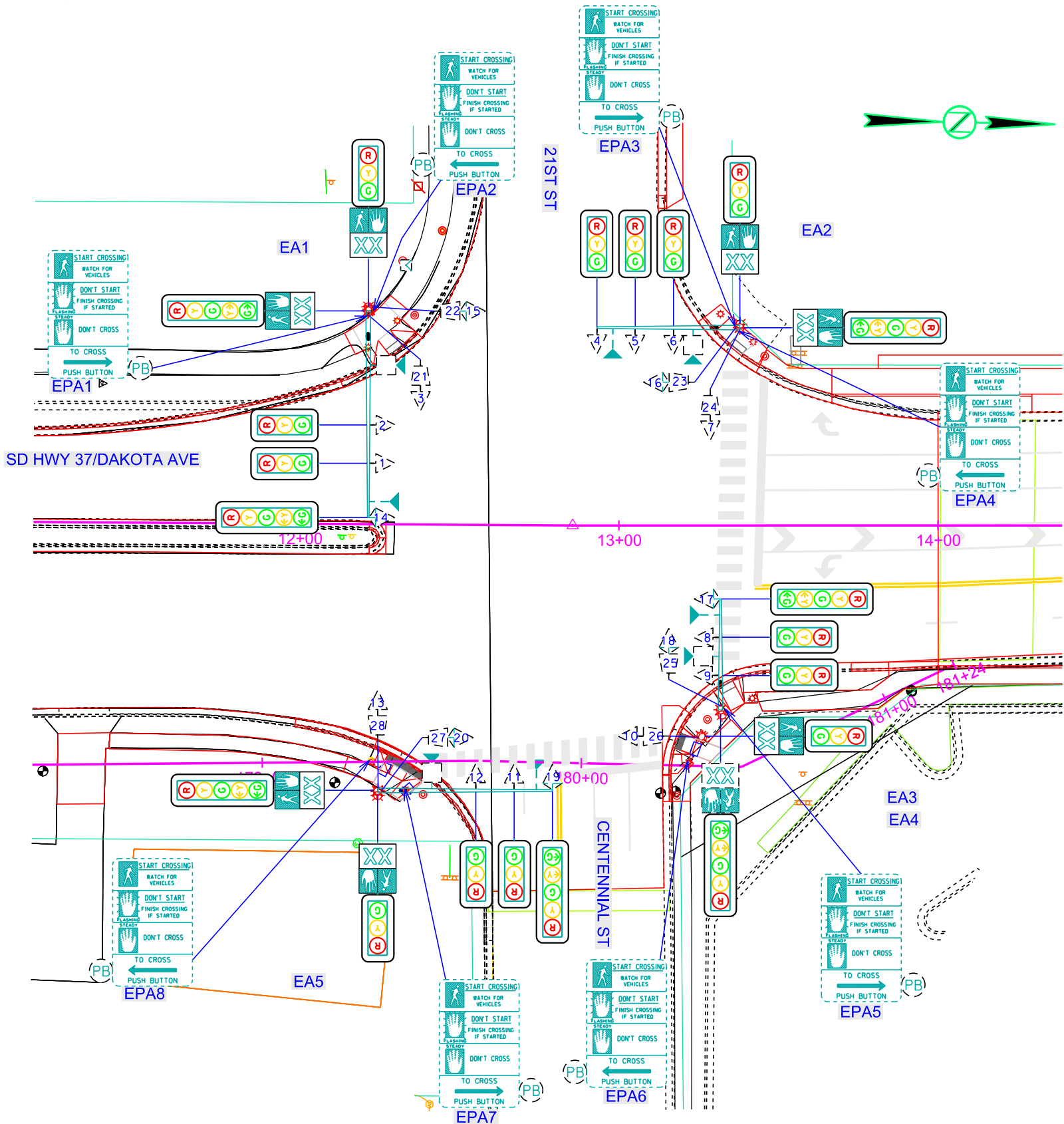
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L13	L61

Plotting Date: 03/16/2026

SALVAGE SIGNAL EQUIPMENT	
KEY	ITEM
	3 Section Vehicle Signal Head (1-13)
	5 Section Vehicle Signal Head (14-20)
	Video Detection Camera (And Video Detection System)
	Pedestal Signal Pole (EA4)
	Signal Pole w/65' Mast Arm & 8' Lumin Arm (EA1)
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (EA2)
	Signal Pole w/35' Mast Arm & 8' Lumin Arm (EA3)
	Traffic Signal Controller
	Roadway Luminaire, 400w with P.E. (EA1,EA2,EA3,EA5)
	Video Detection Camera
	Emergency Vehicle Preemption Unit (4-Channel)
	Optical Detector
	Accessible Pedestrian Signal
	Pedestrian Signal Head w/Countdown Timer (21-28)

RELOCATE SIGNAL EQUIPMENT			
KEY	ITEM	EST QUANT	UNIT
	Remove and Reset Pedestrian Push Button Pole (EPA6-EPA8)	3	EACH

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Signal Pole Footing (EA1-EA4)	4	EACH
	Remove and Reset Signal Pole (EA5)	1	EACH
	Salvage Signal Equipment	LUMP SUM	LS
	Relocate Signal Equipment	LUMP SUM	LS



SIGNAL LAYOUT

SD HWY 37 & 21st STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L14	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Pedestal Signal Pole (A2)	1	EACH
	Signal Pole w/45' Mast Arm & 8' Lumin Arm (A3,A4)	2	EACH
	Signal Pole w/60' Mast Arm & 8' Lumin Arm (A1)	1	EACH
	Roadway Luminaire, LED with P.E. (A1,A3-A5)	4	EACH
	3 Section Vehicle Signal Head (9-19)	11	EACH
	4 Section Directional Vehicle Signal Head (1-8)	8	EACH
	5 Section Vehicle Signal Head (20-21)	2	EACH
	Pedestrian Signal Head w/Countdown Timer (22-29)	8	EACH
	Emergency Vehicle Preemption Unit (4-Channel)	1	EACH
	Optical Detector	4	EACH
	Accessible Pedestrian Signal	8	EACH
	Reset Existing Pedestrian Push Button Pole (EPA6-EPA8) (Incidental to "Relocate Signal Equipment")	3	EACH

EXISTING ITEMS	
KEY	ITEM
	Pedestrian Push Button Pole (EPA1-EPA5)
	Pedestrian Crossing Sign R10-3e (Left -3 /Right -2)

A1 11+81.5 -44.7' L
A2 12+11.9 -61.3' L

SD HWY 37/DAKOTA AVE

EPA8 12+23.1 -74.5' R

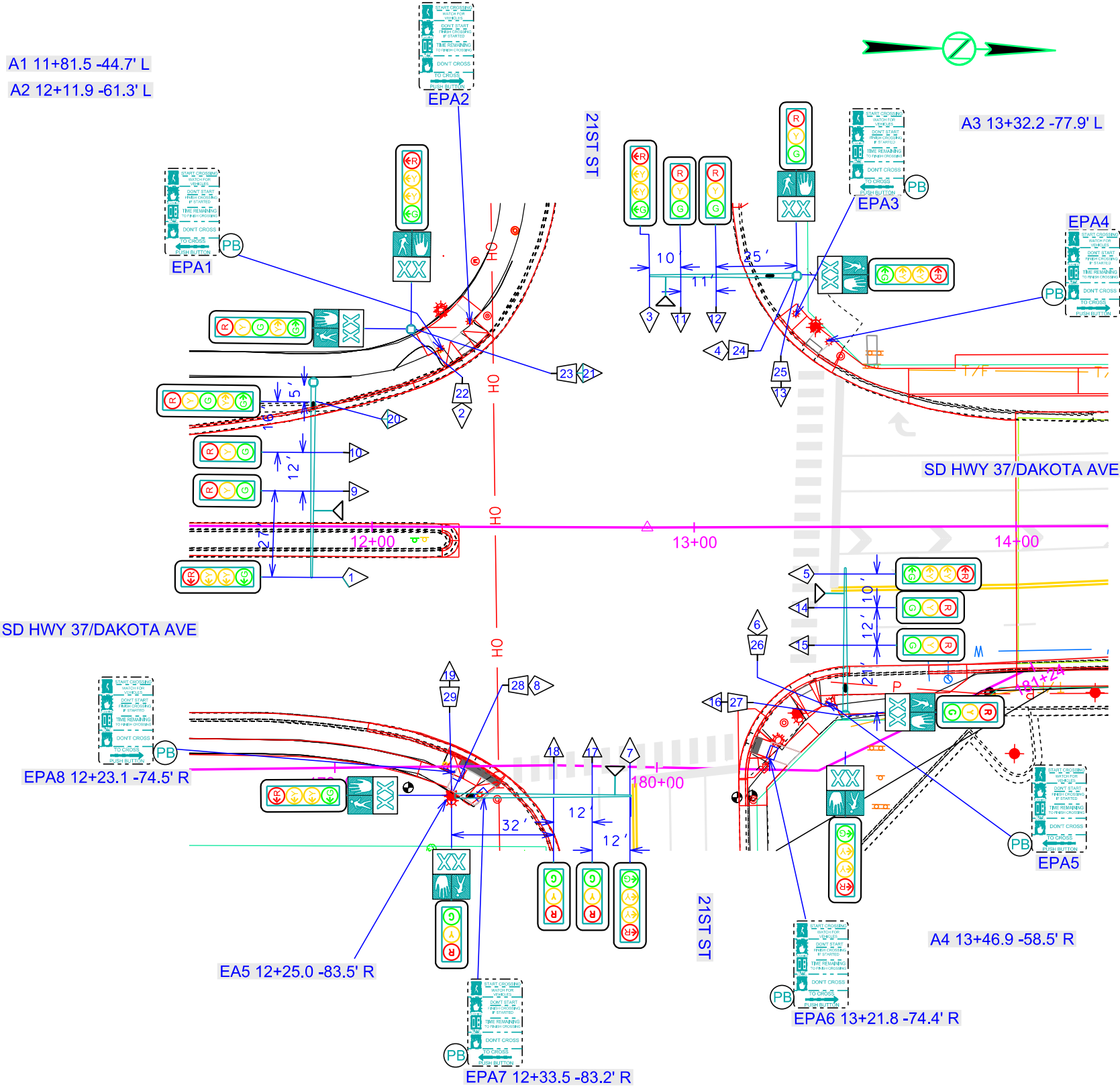
EA5 12+25.0 -83.5' R

EPA7 12+33.5 -83.2' R

A3 13+32.2 -77.9' L

A4 13+46.9 -58.5' R

EPA6 13+21.8 -74.4' R



EXISTING SIGNAL LAYOUT

SD HWY 37 & 18TH STREET

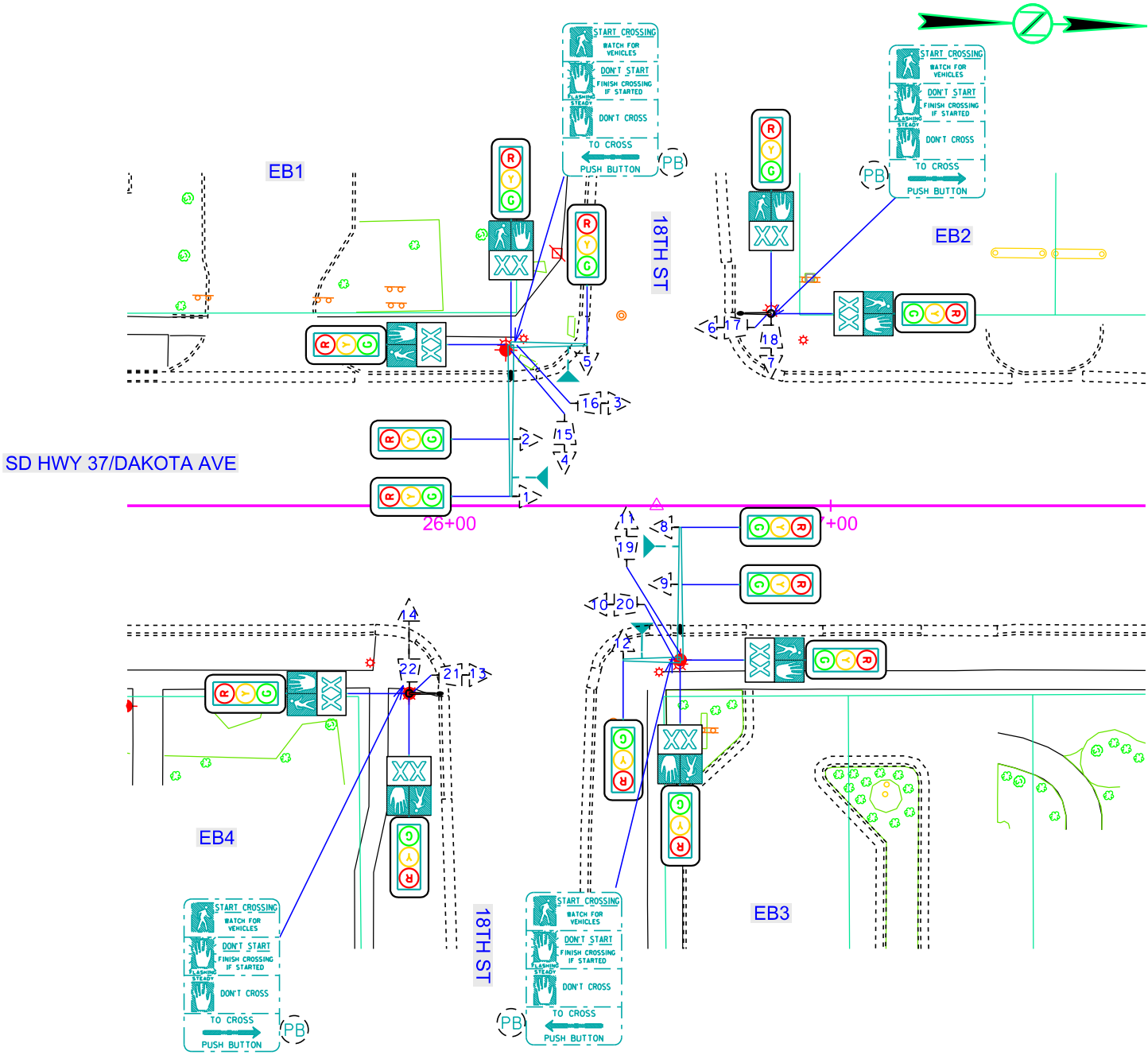
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L15	L61

Plotting Date: 03/16/2026

SALVAGE ITEMS	
KEY	ITEM
	Signal Pole w/20' & 40 Mast Arm & 8' Lumin Arm (EB1)
	Signal Pole w/15' & 35 Mast Arm & 8' Lumin Arm (EB3)
	Traffic Controller
	3 Section Vehicle Signal Head (1-14)
	Pedestrian Signal Head w/Countdown Timer (15-22)

REMOVE SIGNAL EQUIPMENT	
KEY	ITEM
	Optical Detector
	Pedestrian Crossing Sign R10-3e (Left -2 /Right - 2)
	Roadway Luminaire, 250w with P.E. (EB1-EB4)
	Pedestrian Push Button

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Signal Equipment	LUMP SUM	LS
	Salvage Signal Equipment	LUMP SUM	LS
	Remove Signal Pole Footing (EB1,EB3)	2	EACH
	Remove Luminaire Pole Footing (EB2,EB4)	2	EACH
	Remove and Reset Breakaway Base Luminaire Pole w/8' Arm (EB2,EB4)	2	EACH



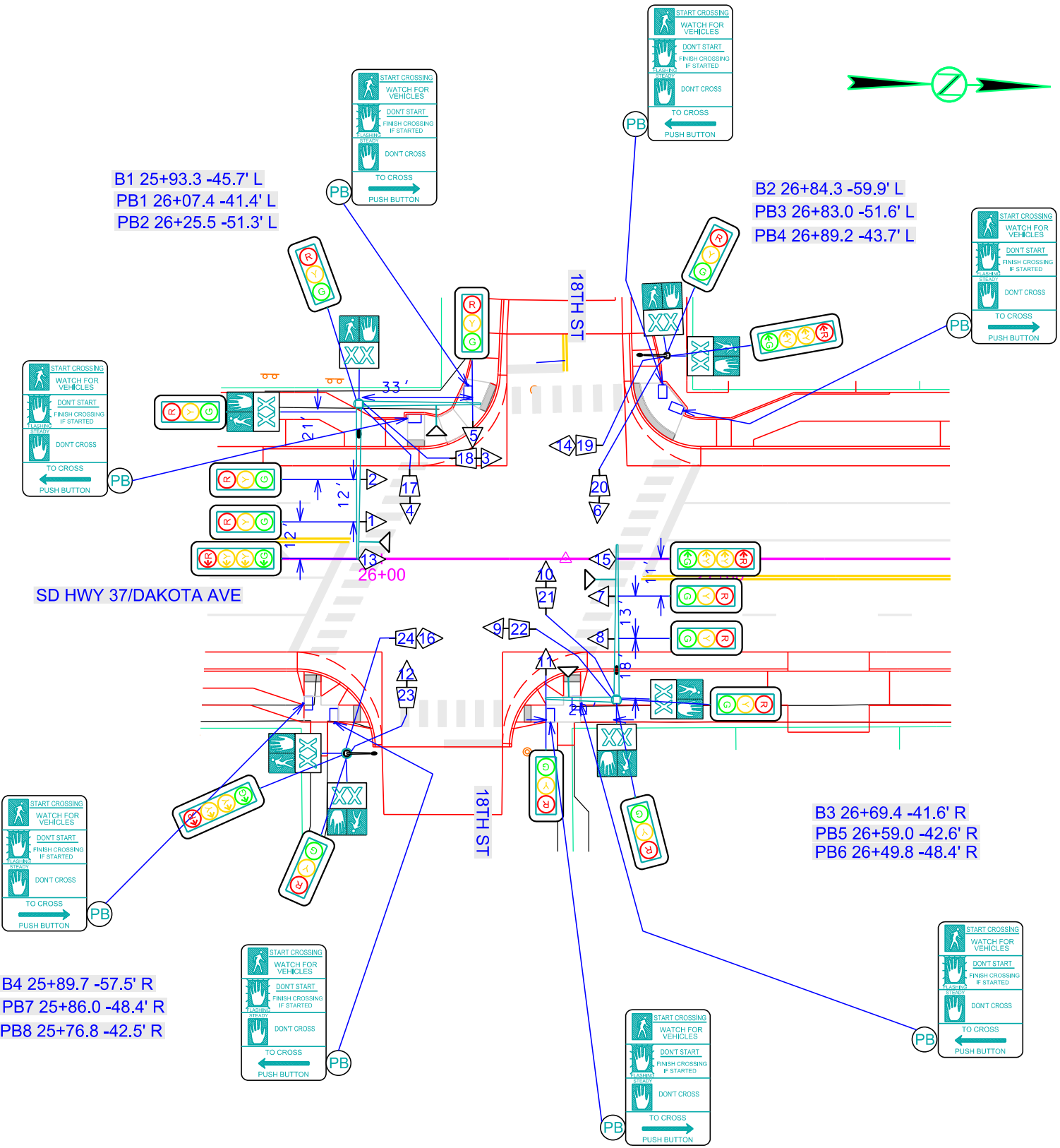
SIGNAL LAYOUT

SD HWY 37 & 18th STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L16	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove and Reset Breakaway Base Luminaire Pole w/8' Arm, 50' Mounting Height (B2,B4)	2	EACH
	Signal Pole w/35' Mast Arm and w45' Mast Arm & 8' Lumin Arm (B1)	1	EACH
	Signal Pole w/20' Mast Arm and w45' Mast Arm & 8' Lumin Arm (B3)	1	EACH
	Roadway Luminaire, LED with P.E. (B1,B2,B3,B4)	4	EACH
	3 Section Vehicle Signal Head (1-12)	12	EACH
	4 Section Directional Vehicle Signal Head (13-16)	4	EACH
	Emergency Vehicle Preemption Unit (4-Channel)	1	EACH
	Optical Detector	4	EACH
	Accessible Pedestrian Signal	8	EACH
	Pedestrian Push Button Pole (PB1-PB8)	8	EACH
	Pedestrian Signal Head w/Countdown Timer (17-24)	8	EACH
	Pedestrian Crossing Sign R10-3e (Left -4 / Right -4)	8	EACH



EXISTING SIGNAL LAYOUT

SD HWY 37 & 14TH STREET

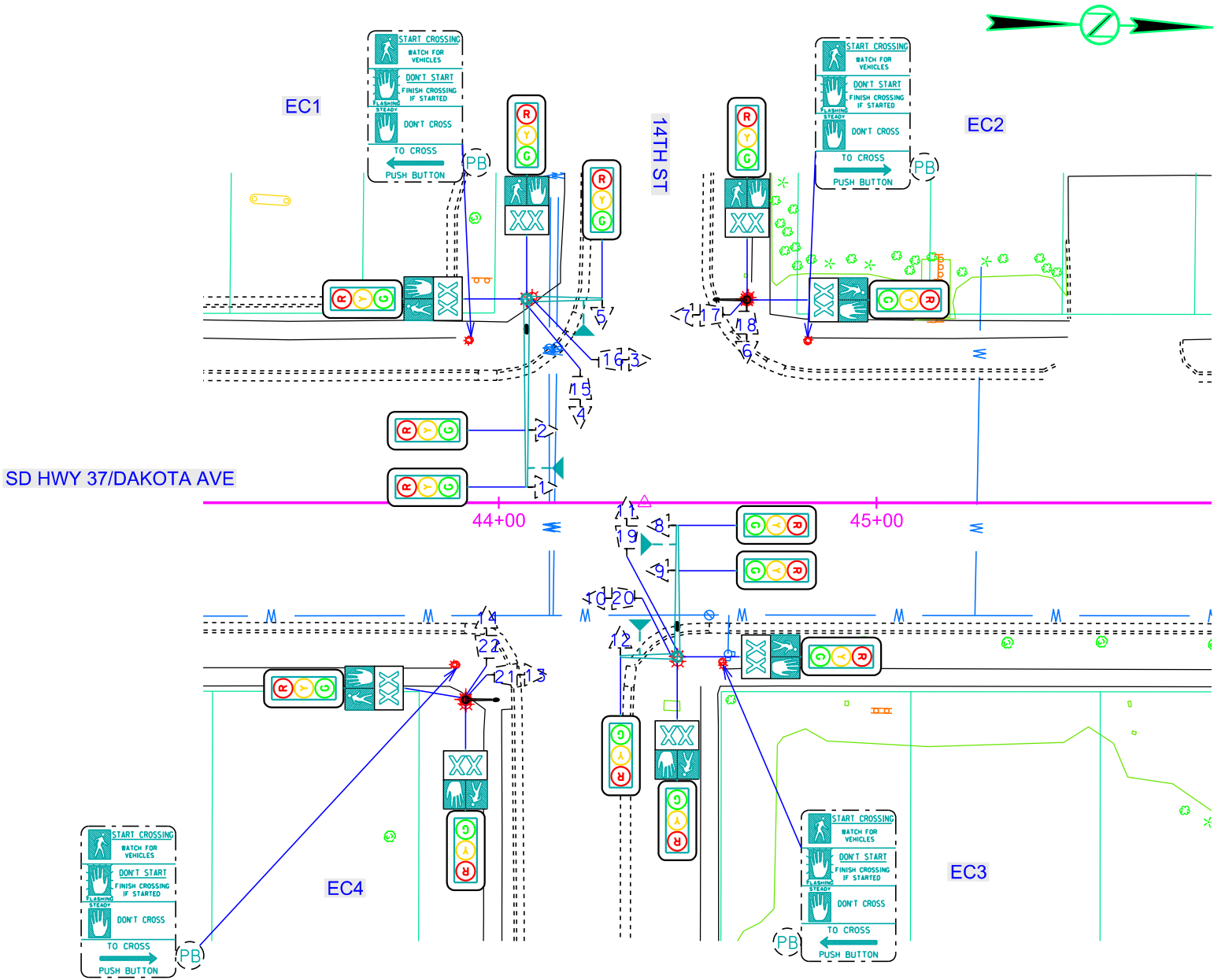
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L17	L61

Plotting Date: 03/16/2026

SALVAGE SIGNAL EQUIPMENT	
KEY	ITEM
	Signal Pole w/20' & 50 Mast Arm & 8' Lumin Arm (EC1)
	Signal Pole w/15' & 35 Mast Arm & 8' Lumin Arm (EC3)
	Traffic Controller
	3 Section Vehicle Signal Head (1-14)
	Pedestrian Signal Head w/Countdown Timer (15-22)

REMOVE SIGNAL EQUIPMENT	
KEY	ITEM
	Roadway Luminaire, 250w with P.E. (EC1-EC4)
	Optical Detector
	Pedestrian Crossing Sign (Left - 2/Right - 2)
	Pedestrian Push Button
	Breakaway Base Luminaire Pole w/8' Arm (EC4)

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Signal Equipment	LUMP SUM	LS
	Salvage Signal Equipment	LUMP SUM	LS
	Remove Signal Pole Footing (EC1,EC3)	2	EACH
	Remove Luminaire Pole Footing (EC2,EC4)	2	EACH
	Remove and Reset Breakaway Base Luminaire Pole w/8' Arm (EC2)	1	EACH



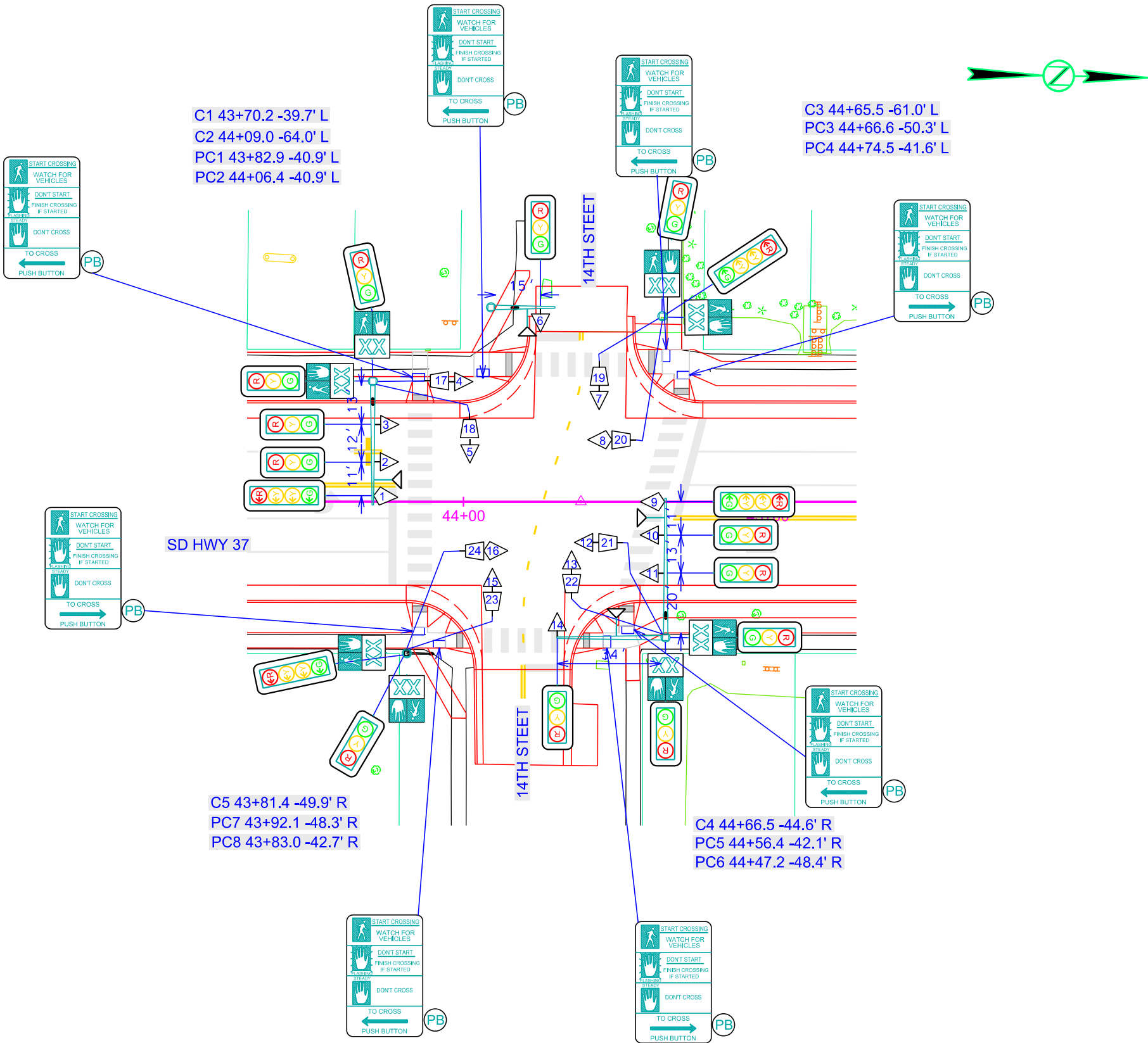
SIGNAL LAYOUT

SD HWY 37 & 14th STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L18	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Pedestal Signal Pole (C3)	1	EACH
	Remove and Reset Breakaway Base Luminaire Pole w/8' Arm, 50' Mounting Height (C5(EC2 from Existing Items))	1	EACH
	Signal Pole w/40' Mast Arm & 8' Lumin Arm (C1)	1	EACH
	Signal Pole w/20' Mast Arm & 8' Lumin Arm (C2)	1	EACH
	Signal Pole w/35' Mast Arm and w45' Mast Arm (C4)	1	EACH
	Roadway Luminaire, LED with P.E. (C1,C2,C4,C5)	4	EACH
	3 Section Vehicle Signal Head (2-7,10-15)	12	EACH
	4 Section Directional Vehicle Signal Head (1,8,9,16)	4	EACH
	Emergency Vehicle Preemption Unit (4-Channel)	1	EACH
	Optical Detector	4	EACH
	Accessible Pedestrian Signal	8	EACH
	Pedestrian Push Button Pole (PC1-PC8)	8	EACH
	Pedestrian Signal Head w/Countdown Timer (17-24)	8	EACH
	Pedestrian Crossing Sign R10-3e (Left -5 /Right -3)	8	EACH



EXISTING SIGNAL LAYOUT

SD HWY 37 & 9th STREET

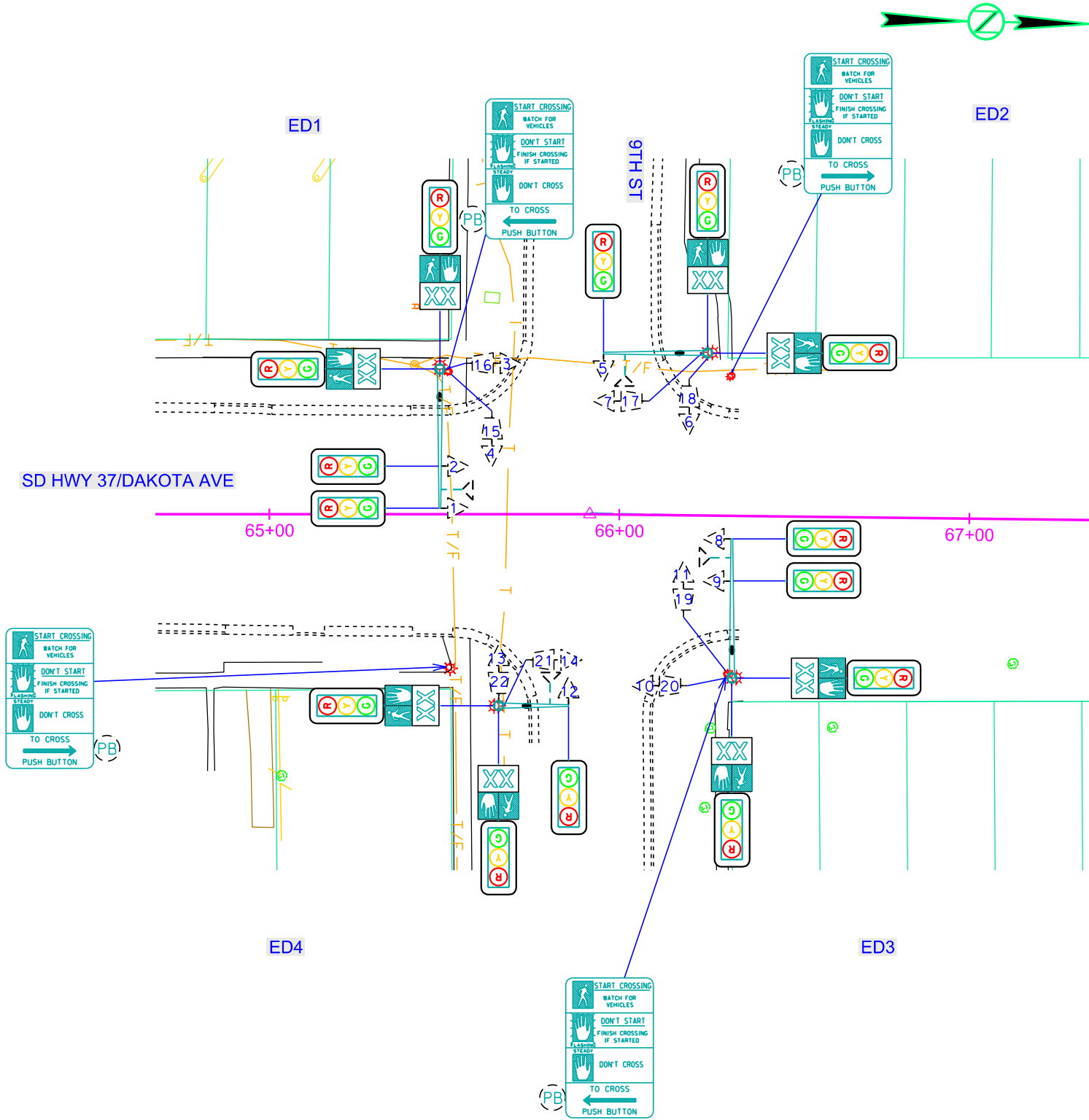
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L19	L61

Plotting Date: 03/16/2026

SALVAGE SIGNAL EQUIPMENT	
KEY	ITEM
	Signal Pole w/40' Mast Arm & 8' Lumin Arm (ED1,ED3)
	Signal Pole w/30' Mast Arm & 8' Lumin Arm (ED2)
	Signal Pole w/20' Mast Arm & 8' Lumin Arm (EC4)
	Traffic Controller
	3 Section Vehicle Signal Head (1-14)
	Pedestrian Signal Head w/Countdown Timer (15-22)

REMOVE SIGNAL EQUIPMENT	
KEY	ITEM
	Roadway Luminaire, 250w with P.E. (ED1-ED4)
	Optical Detector
	Pedestrian Push Button
	Pedestrian Crossing Sign (Left - 2/Right - 2)

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Signal Equipment	LUMP SUM	LS
	Salvage Signal Equipment	LUMP SUM	EACH
	Remove Signal Pole Footing (ED1-ED4)	4	EACH



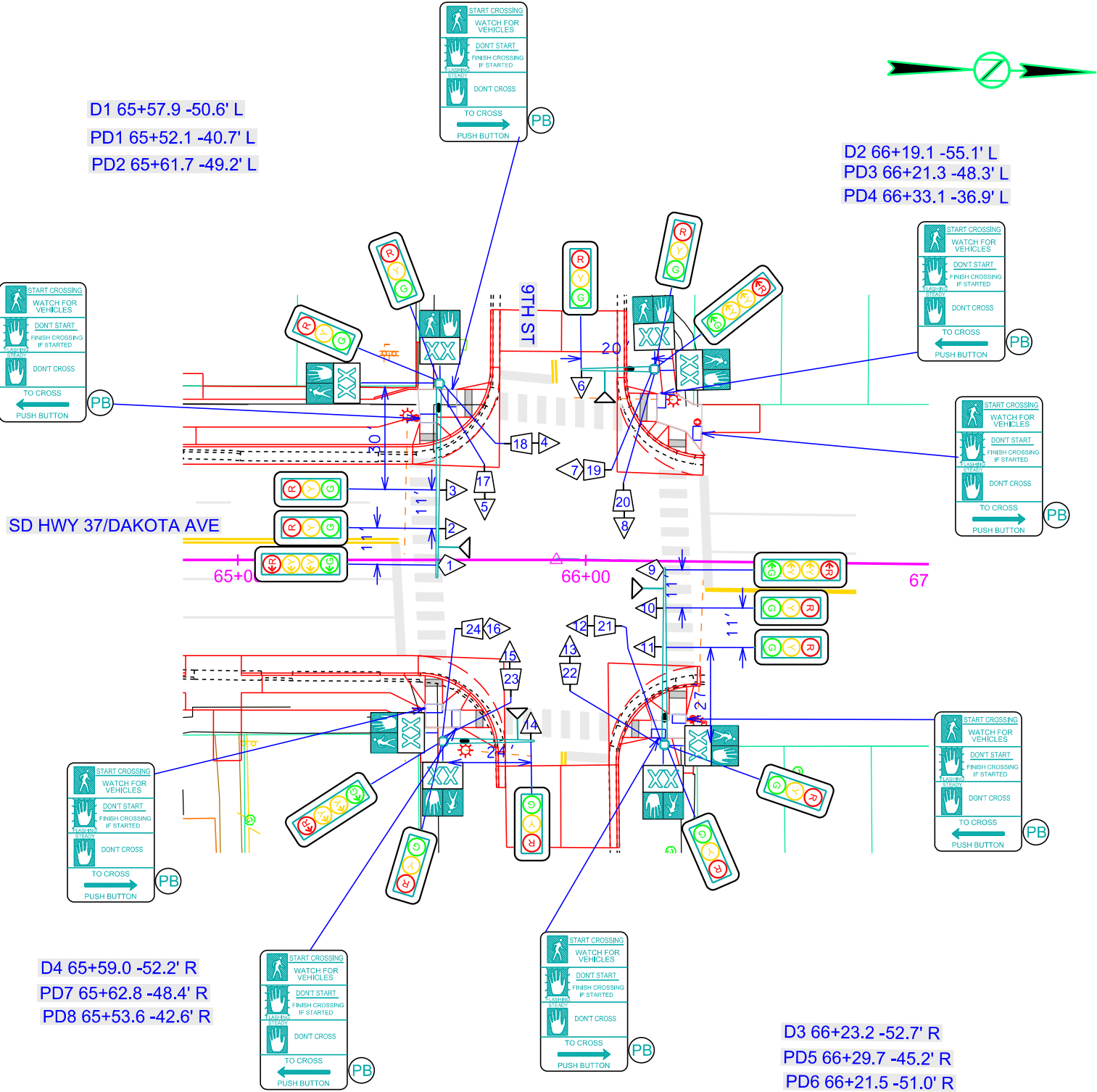
SIGNAL LAYOUT

SD HWY 37 & 9th STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L20	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Signal Pole w/55' Mast Arm & 8' Lumin Arm (D1)	1	EACH
	Signal Pole w/20' Mast Arm & 8' Lumin Arm (D2)	1	EACH
	Signal Pole w/25' Mast Arm & 8' Lumin Arm (D4)	1	EACH
	Signal Pole w/50' Mast Arm & 8' Lumin Arm (D3)	1	EACH
	Roadway Luminaire, LED with P.E. (D1-D4)	4	EACH
	3 Section Vehicle Signal Head (2-6,8,10-15)	12	EACH
	4 Section Directional Vehicle Signal Head (1,7,9,16)	4	EACH
	Emergency Vehicle Preemption Unit (4-Channel)	1	EACH
	Optical Detector	4	EACH
	Accessible Pedestrian Signal	8	EACH
	Pedestrian Push Button Pole (PA1-PA8)	8	EACH
	Pedestrian Signal Head w/Countdown Timer (17-24)	8	EACH
	Pedestrian Crossing Sign R10-3e (Left -4 /Right -4)	8	EACH



Plot Scale - 1"=40'

Plotted From - TRPR17199

CONDUIT LAYOUT

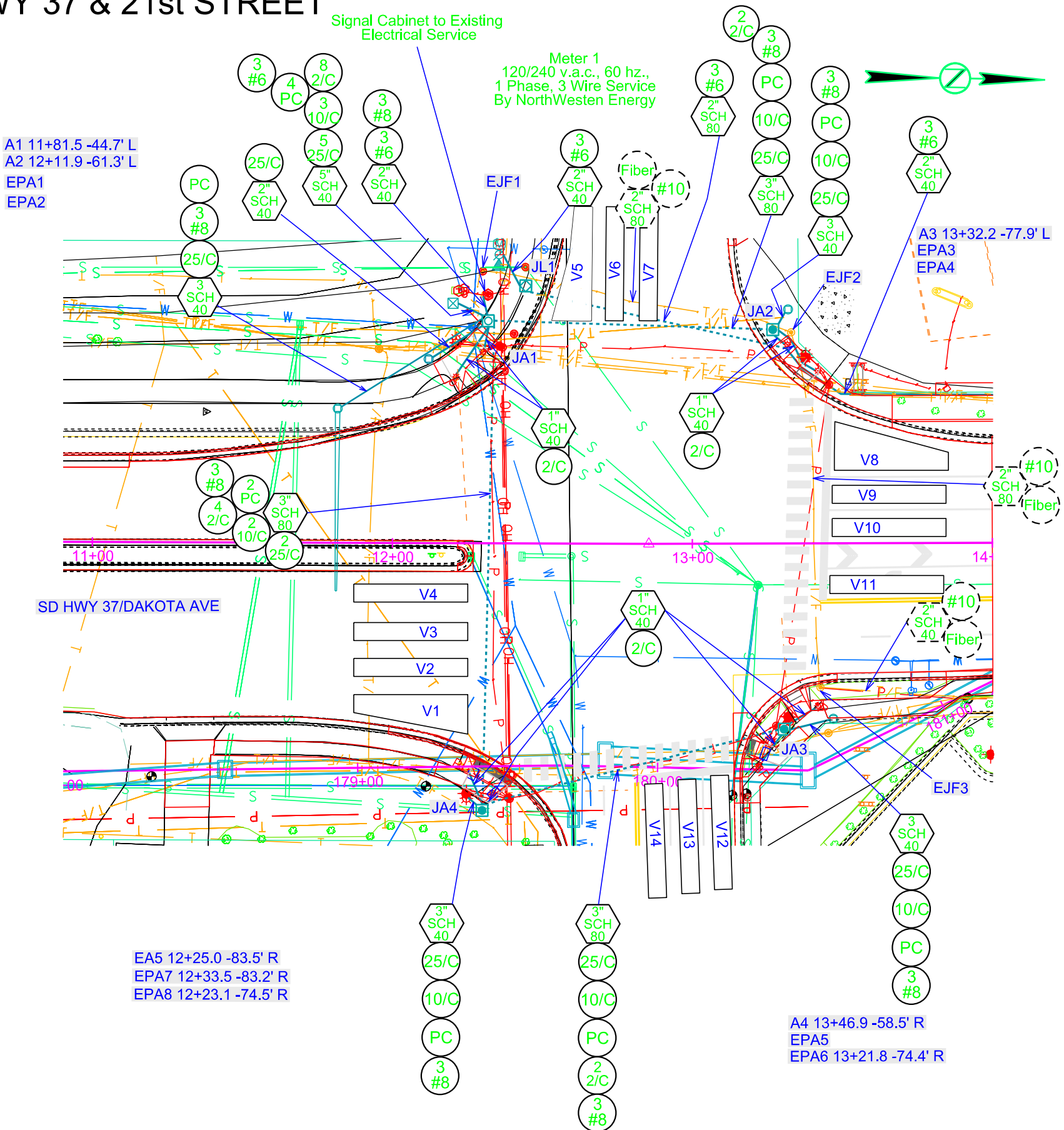
SD HWY 37 & 21st STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L21	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
○	2" Diameter Footing (A2)	6	FT
○	3.5" Diameter Footing (A1, A3-A4)	37	FT
■	Type 2 Electrical Junction Box (JA2-JA4)	3	EACH
■	Type 3 Electrical Junction Box (JA1)	1	EACH
☑	Traffic Signal Controller	1	EACH
	Remote Communication System (Incidental to Traffic Signal Controller)	1	EACH
	Video Detection System	1	EACH
□	Video Detection Zones (V1-V14) Not a Bid Item	14	EACH
	Battery Backup System for Traffic Signal	1	EACH
1" SCH 40	1" Rigid Conduit, Schedule 40	125	FT
2" SCH 40	2" Rigid Conduit, Schedule 40	150	FT
3" SCH 80	3" Rigid Conduit, Schedule 80	380	FT
5" SCH 40	5" Rigid Conduit, Schedule 40	15	FT
#8	1/C #8 AWG Copper Wire	1655	FT
#6	1/C #6 AWG Copper Wire	220	FT
2/C	2/C #14 AWG Copper Tray Cable, K2	1695	FT
3/C	3/C #14 AWG Copper Tray Cable, K2	140	FT
4/C	4/C #14 AWG Copper Tray Cable, K2	355	FT
5/C	5/C #14 AWG Copper Tray Cable, K2	390	FT
6/C	6/C #14 AWG Copper Tray Cable, K2	55	FT
10/C	10/C #14 AWG Copper Tray Cable, K2	760	FT
25/C	25/C #14 AWG Copper Tray Cable, K2	935	FT
PC	Preemption Cable (Not a Bid Item)	1050	FT
	2/C #10 AWG Copper Pole & Bracket Cable	260	FT

EXISTING ITEMS	
KEY	ITEM
*	Pedestrian Pushbutton Pole (EPA1-EPA5)
M	Electrical Service for Signal Controller (Reusing existing service)
⊙	Electrical Junction Box, 18" (EJF1-EJF8)
2" SCH 40	2" Rigid Conduit, Schedule 40
2" SCH 80	2" Rigid Conduit, Schedule 80
#10	1/C #10 AWG Copper Wire
Fiber	48 Strand Fiber Optic Cable



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Plot Scale - 1:40

Plotted From - TRPR17199

CONDUIT LAYOUT

SD HWY 37

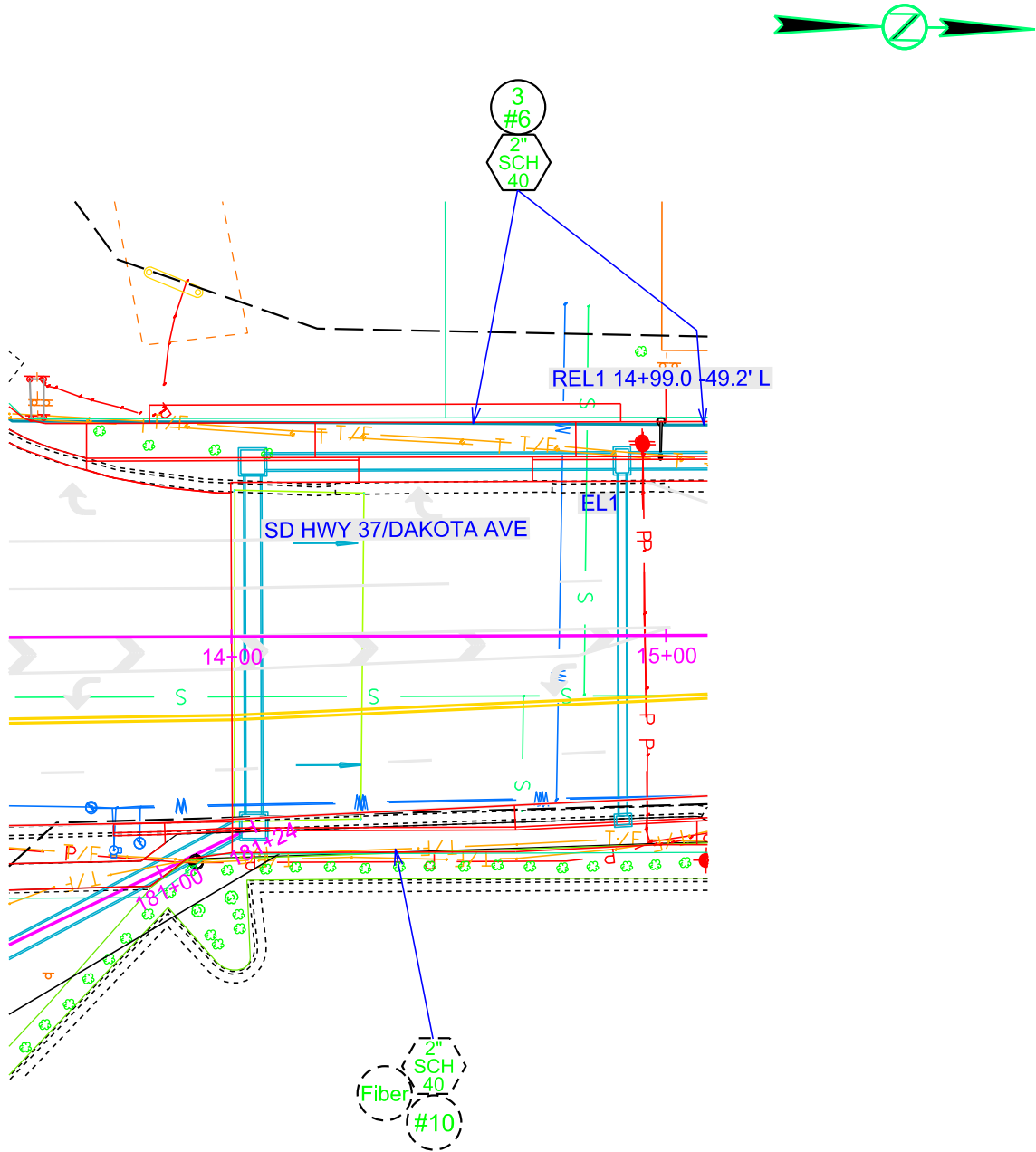
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L22	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Luminaire Pole Footing (EL1-EL25)	25	EACH
	Salvage Luminaire Pole (EL19-EL24)	6	EACH
⚡	Remove and Reset Breakaway Base Luminaire Pole w/8' Arm, 50' Mounting Height (REL1-REL18, REL25)	19	EACH
⚡	Breakaway Base Luminaire Pole w/8' Arm 50' Mounting Height (L1-L10)	10	EACH
•	Roadway Luminaire, LED with P.E. (REL1-REL18,L1-L10)	28	EACH
○	2' Diameter Footing (REL1-REL18, REL25, L1-L10)	261	FT
⌚	Type 1 Electrical Junction Box (JL1-JL16)	16	EACH
▲	Electrical Service Cabinet	3	EACH
⌀	Galvanized Steel Utility Pole Not a Bid Item	3	EACH
Ⓜ	Meter Socket Not a Bid Item	3	EACH
2" SCH 40	2" Rigid Conduit, Schedule 40	4745	FT
2" SCH 80	2" Rigid Conduit, Schedule 80	1255	FT
#8	1/C #8 AWG Copper Wire	6210	FT
#6	1/C #6 AWG Copper Wire	16115	FT
#4	1/C #4 AWG Copper Wire	1320	FT
#0	1/C #0 AWG Copper Wire	50	FT
	1/C #14 AWG Copper Wire (Festoon Wiring)	2660	FT
	2/C #10 AWG Copper Pole & Bracket Cable	1820	FT

EXISTING ITEMS	
KEY	ITEM
⊙	Electrical Junction Box, 18" (EJF1-EJF8)
2" SCH 40	2" Rigid Conduit, Schedule 40
2" SCH 80	2" Rigid Conduit, Schedule 80
#10	1/C #10 AWG Copper Wire
Fiber	48 Strand Fiber Optic Cable

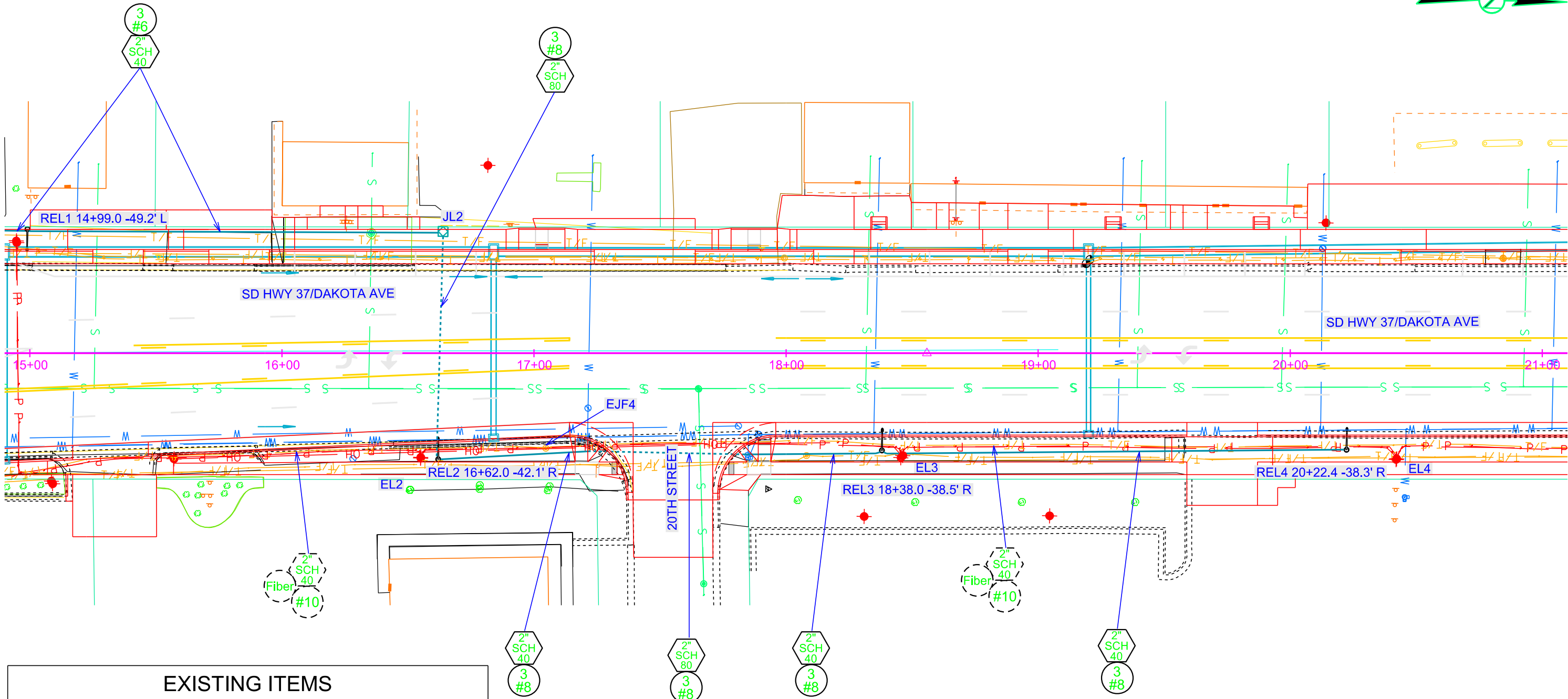
21ST STREET



CONDUIT LAYOUT
SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L23	L61

Plotting Date: 03/16/2026



EXISTING ITEMS

KEY	ITEM
	Electrical Junction Box, 18\" (EJF1-EJF8)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable

Plot Scale - 1:40

Plotted From - TRPR17199

Plot Scale - 1"=40'

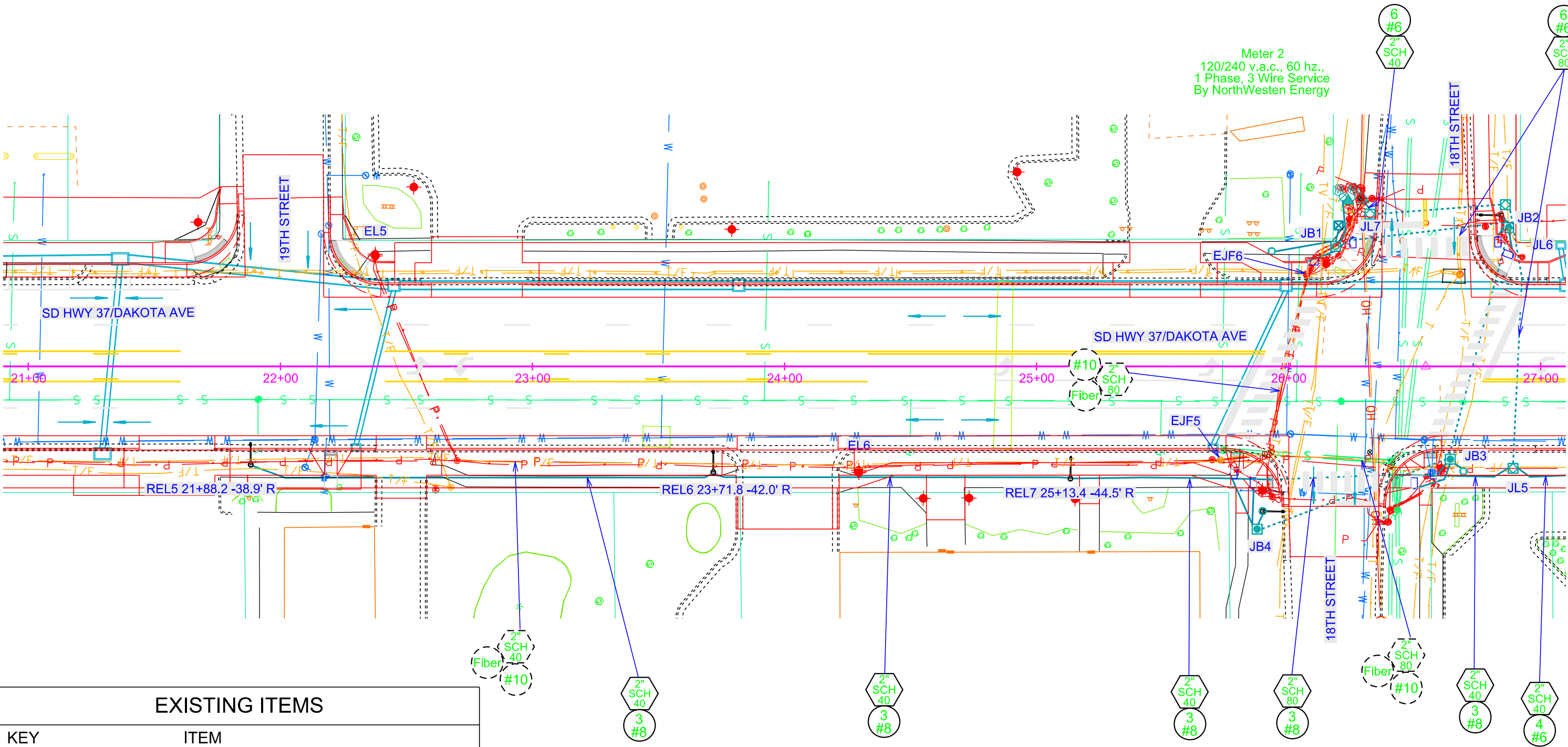
Plotted From - TRPR17199

CONDUIT LAYOUT

SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L24	L61

Plotting Date: 03/16/2026



EXISTING ITEMS	
KEY	ITEM
	Electrical Junction Box, 18" (EJF1-EJF8)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable

Plot Scale - 1:40

Plotted From - TRPR17199

CONDUIT LAYOUT

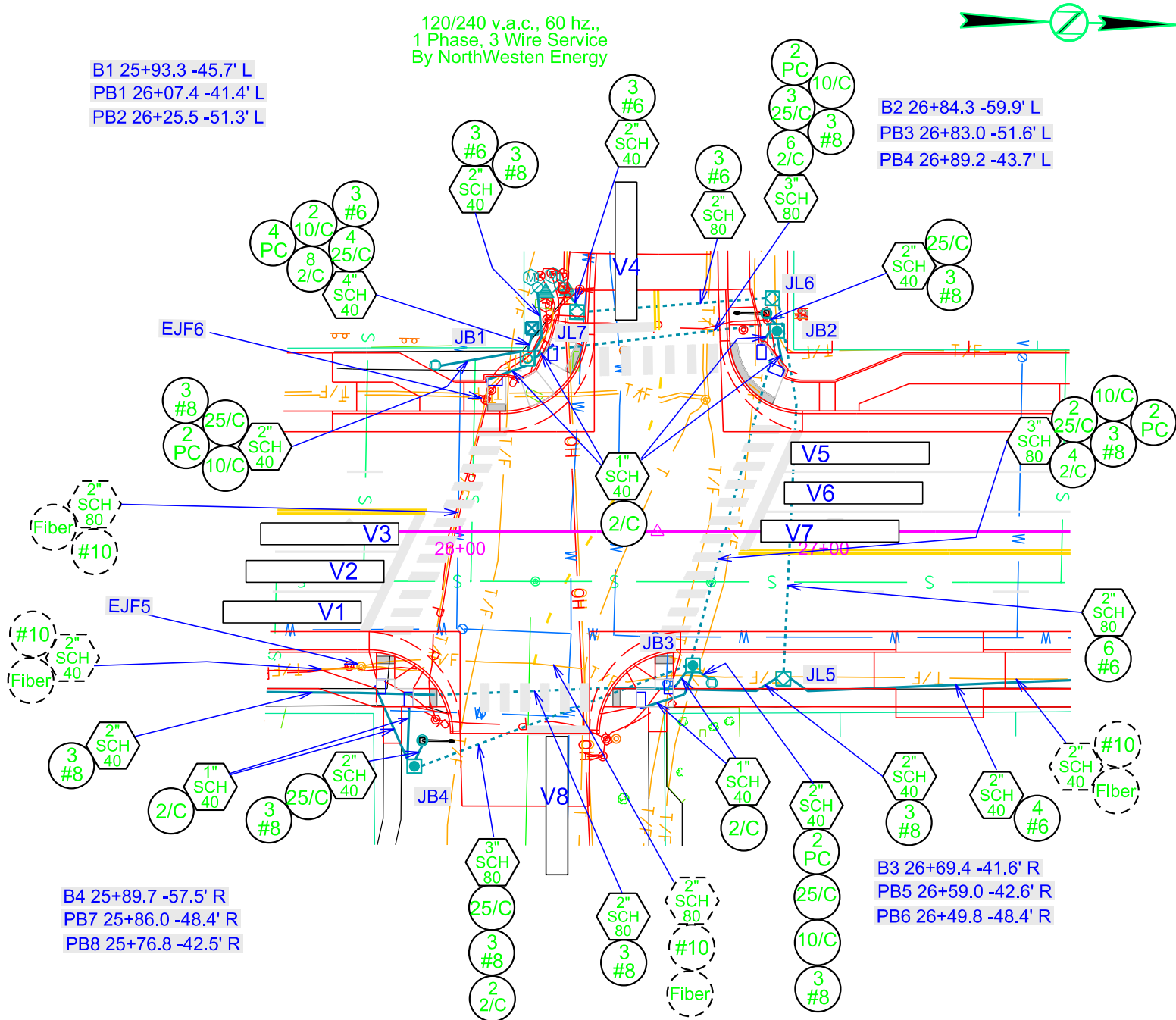
SD HWY 37 & 18th STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L25	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST	UNIT
	2' Diameter Footing (B2,B4)	18	FT
	3.5' Diameter Footing (B1,B3)	28	FT
	Type 2 Electrical Junction Box (JB2-JB4)	3	EACH
	Type 3 Electrical Junction Box (JB1)	1	EACH
	Electrical Service Cabinet	1	EACH
	Galvanized Steel Utility Pole Not a Bid Item	1	EACH
	Meter Socket Not a Bid Item	1	EACH
	Traffic Signal Controller	1	EACH
	Remote Communication System (Incidental to Traffic Signal Controller)	1	EACH
	Battery Backup System for Traffic Signal	1	EACH
	Video Detection System	1	EACH
	Video Detection Zones (V1-V8) Not a Bid Item	8	EACH
	1" Rigid Conduit, Schedule 40	180	FT
	2" Rigid Conduit, Schedule 40	85	FT
	4" Rigid Conduit, Schedule 40	20	FT
	3" Rigid Conduit, Schedule 80	345	FT
	1/C #8 AWG Copper Wire	1300	FT
	1/C #6 AWG Copper Wire	95	FT
	2/C #14 AWG Copper Tray Cable, K2	1840	FT
	3/C #14 AWG Copper Tray Cable, K2	120	FT
	4/C #14 AWG Copper Tray Cable, K2	390	FT
	5/C #14 AWG Copper Tray Cable, K2	145	FT
	10/C #14 AWG Copper Tray Cable, K2	350	FT
	25/C #14 AWG Copper Tray Cable, K2	860	FT
	2/C #10 AWG Copper Pole & Bracket Cable	260	FT
	Preemption Cable (Not a Bid Item)	895	FT

EXISTING ITEMS	
KEY	ITEM
	Electrical Junction Box, 18" (EJF1-EJF8)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable



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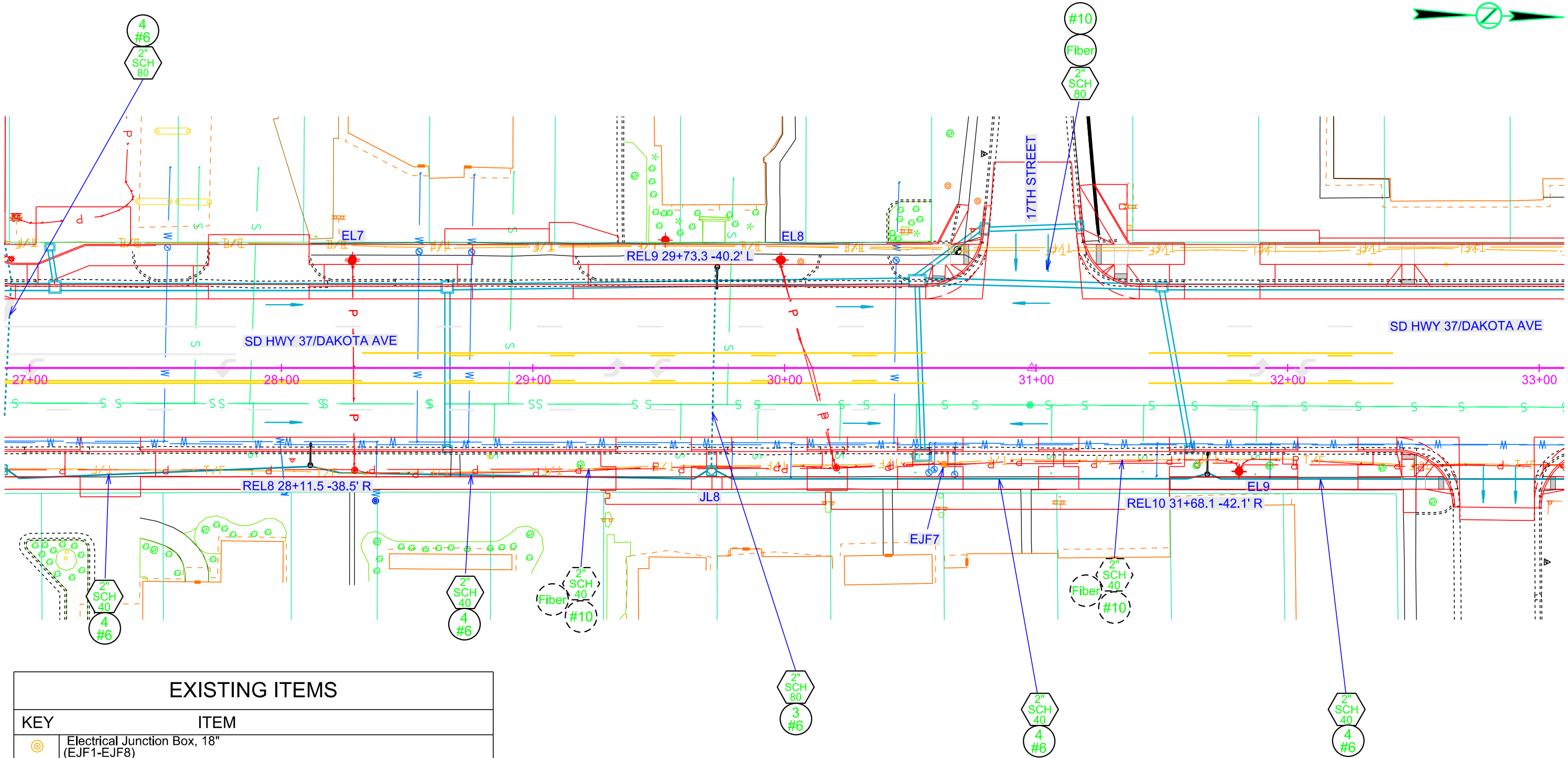
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Plotted From - TRPR17199

CONDUIT LAYOUT

SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L26	L61

Plotting Date: 03/16/2026



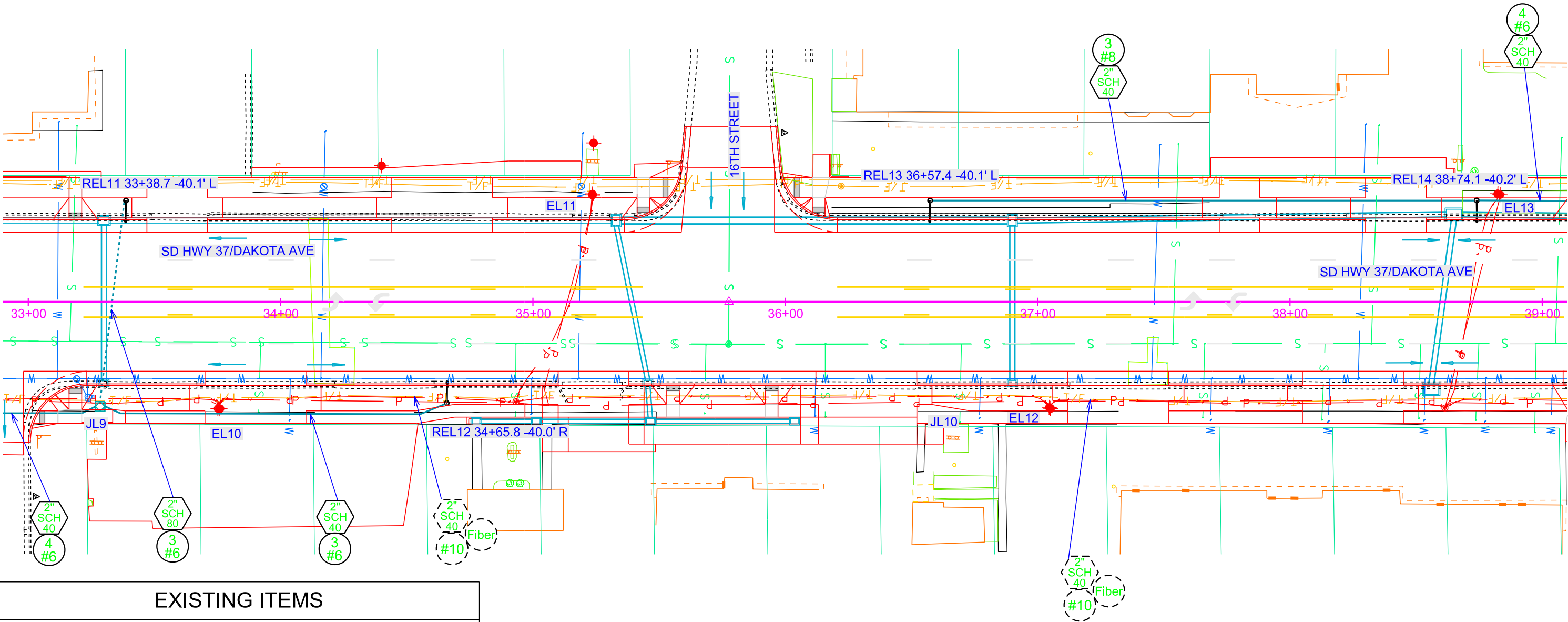
EXISTING ITEMS

KEY	ITEM
	Electrical Junction Box, 18" (EJF1-EJF8)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable

CONDUIT LAYOUT
SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L27	L61

Plotting Date: 03/16/2026



EXISTING ITEMS

KEY	ITEM
	Electrical Junction Box, 18\" (EJF1-EJF8)
	2\" Rigid Conduit, Schedule 40
	2\" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable

Plot Scale - 1:40

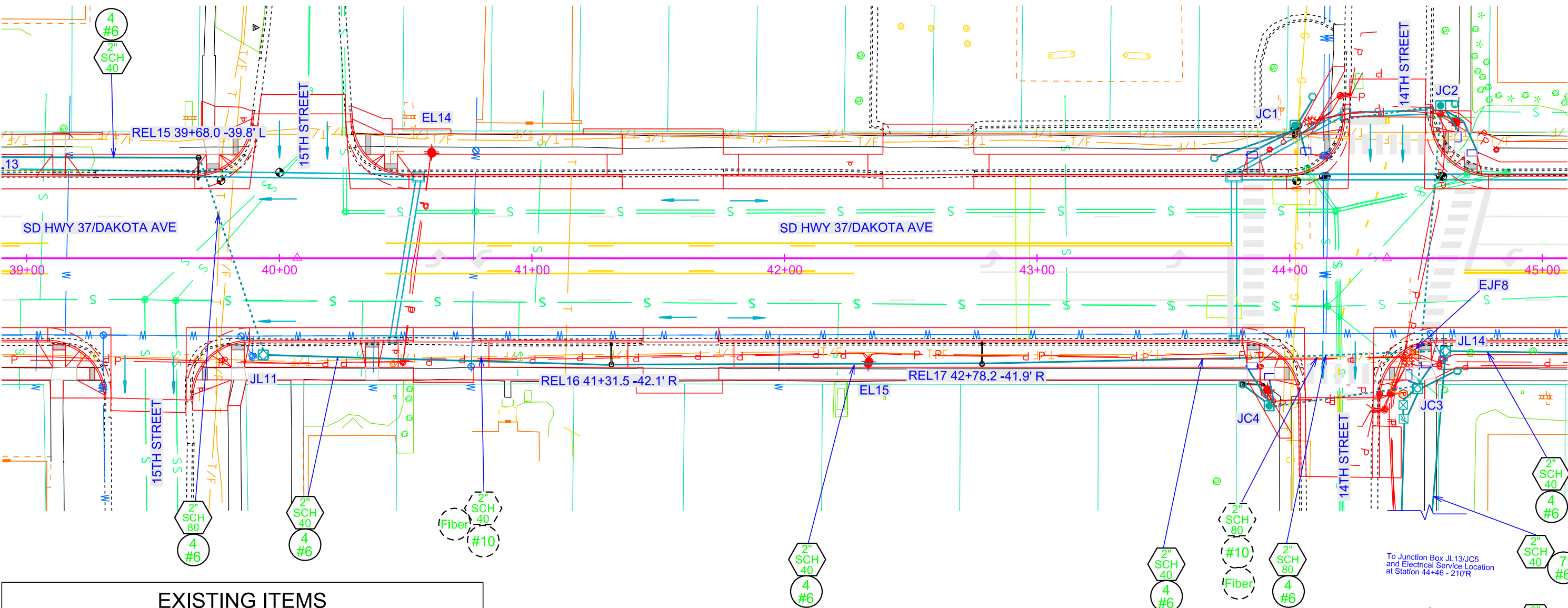
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CONDUIT LAYOUT
SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L28	L61

Plotting Date: 03/16/2026



EXISTING ITEMS	
KEY	ITEM
	Electrical Junction Box, 18" (EJF1-EJF8)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable

To Junction Box JL13/JC5 and Electrical Service Location at Station 44+46 - 210'R

120/240 v.a.c., 60 hz.,
1 Phase, 3 Wire Service
By NorthWestern Energy

Plot Scale - 1"=40'

Plotted From - TRPR17199

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L29	L61

Plotting Date: 03/16/2026

EXISTING ITEMS	
KEY	ITEM
	Electrical Junction Box, 18" (EJF1-EJF8)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #10 AWG Copper Wire
	48 Strand Fiber Optic Cable



Plot Scale - 1:40

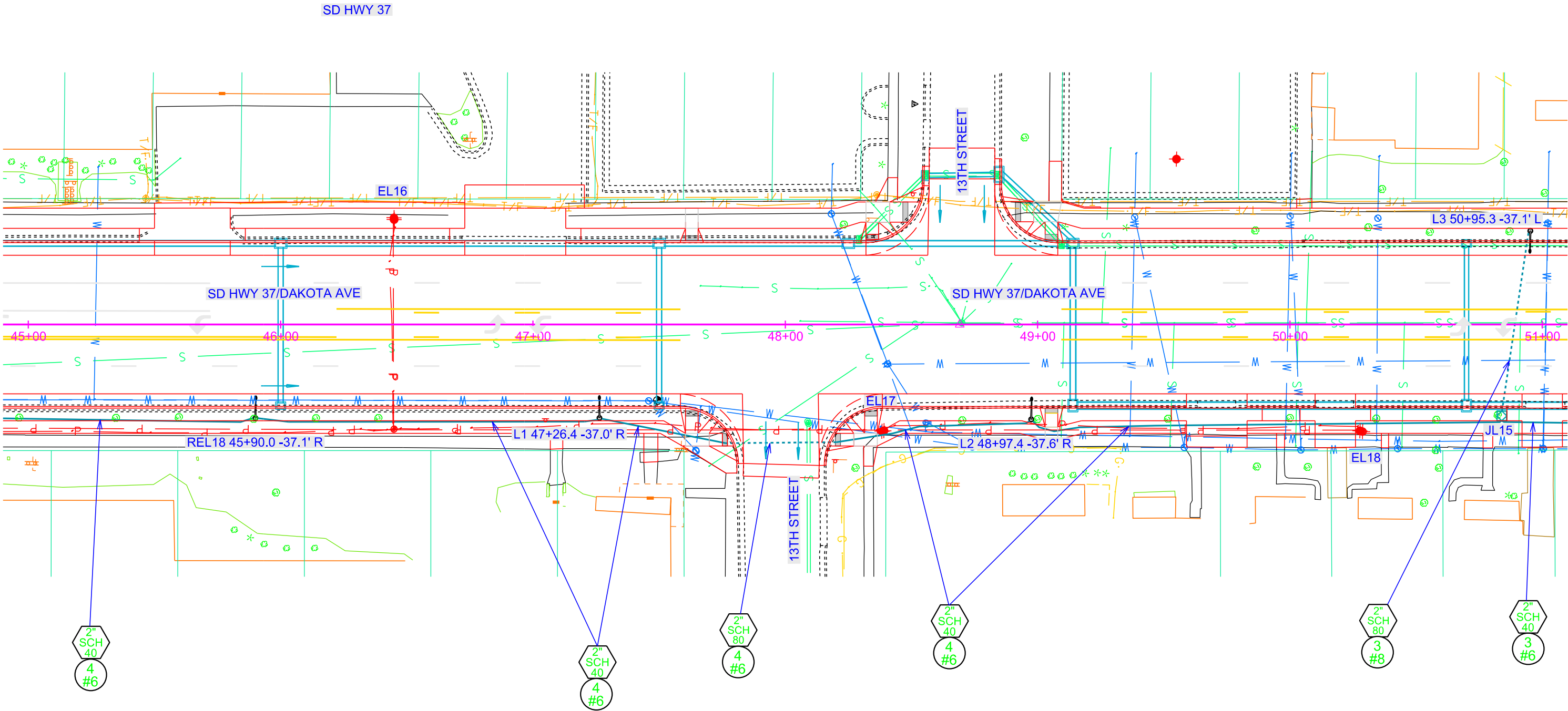
Plotted From - TRPR17199

CONDUIT LAYOUT

SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L30	L61

Plotting Date: 03/16/2026



CONDUIT LAYOUT

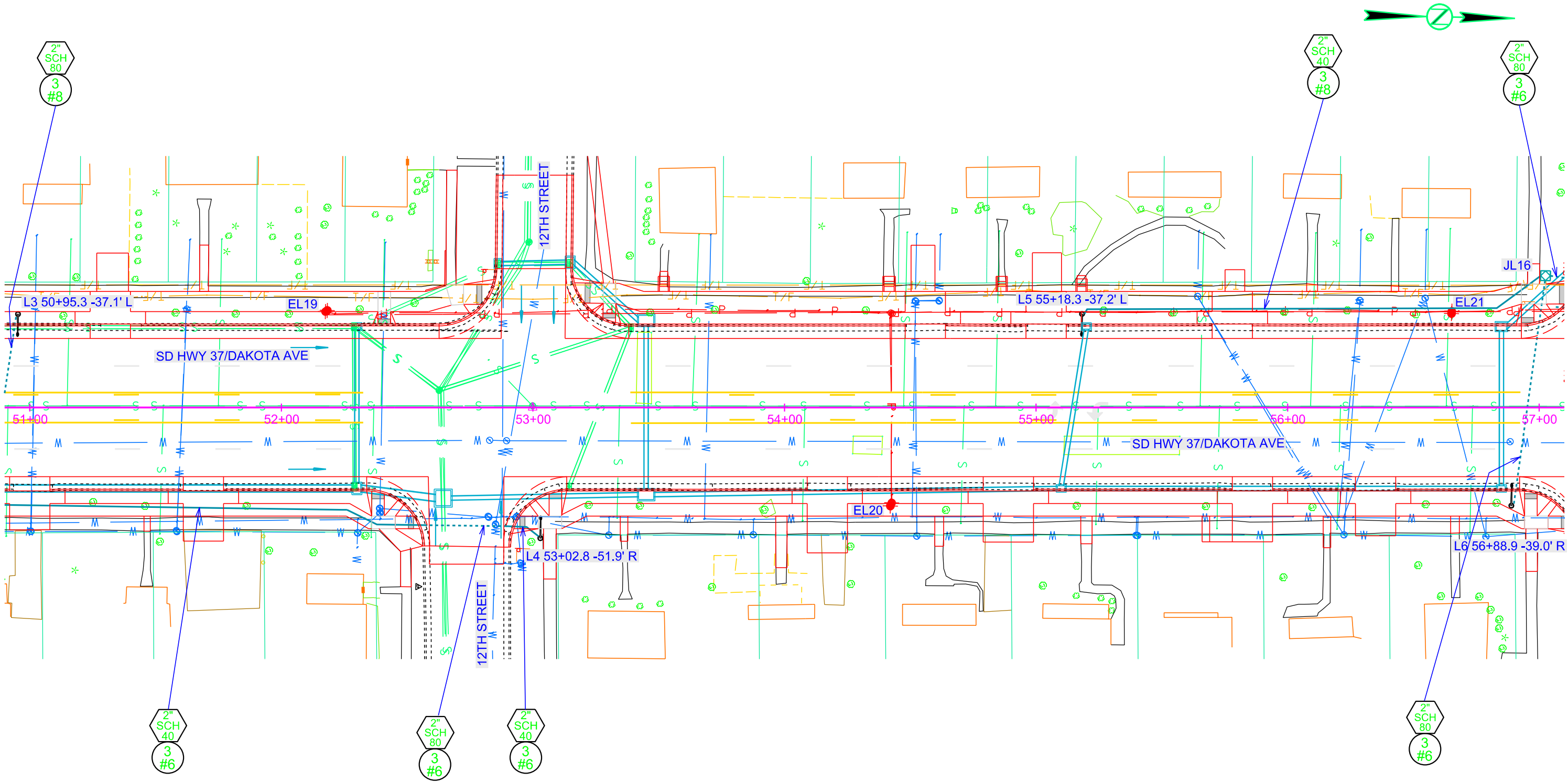
SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L31	L61

Plotting Date: 03/16/2026

Plot Scale - 1"=40'

Plotted From - TRPR17199

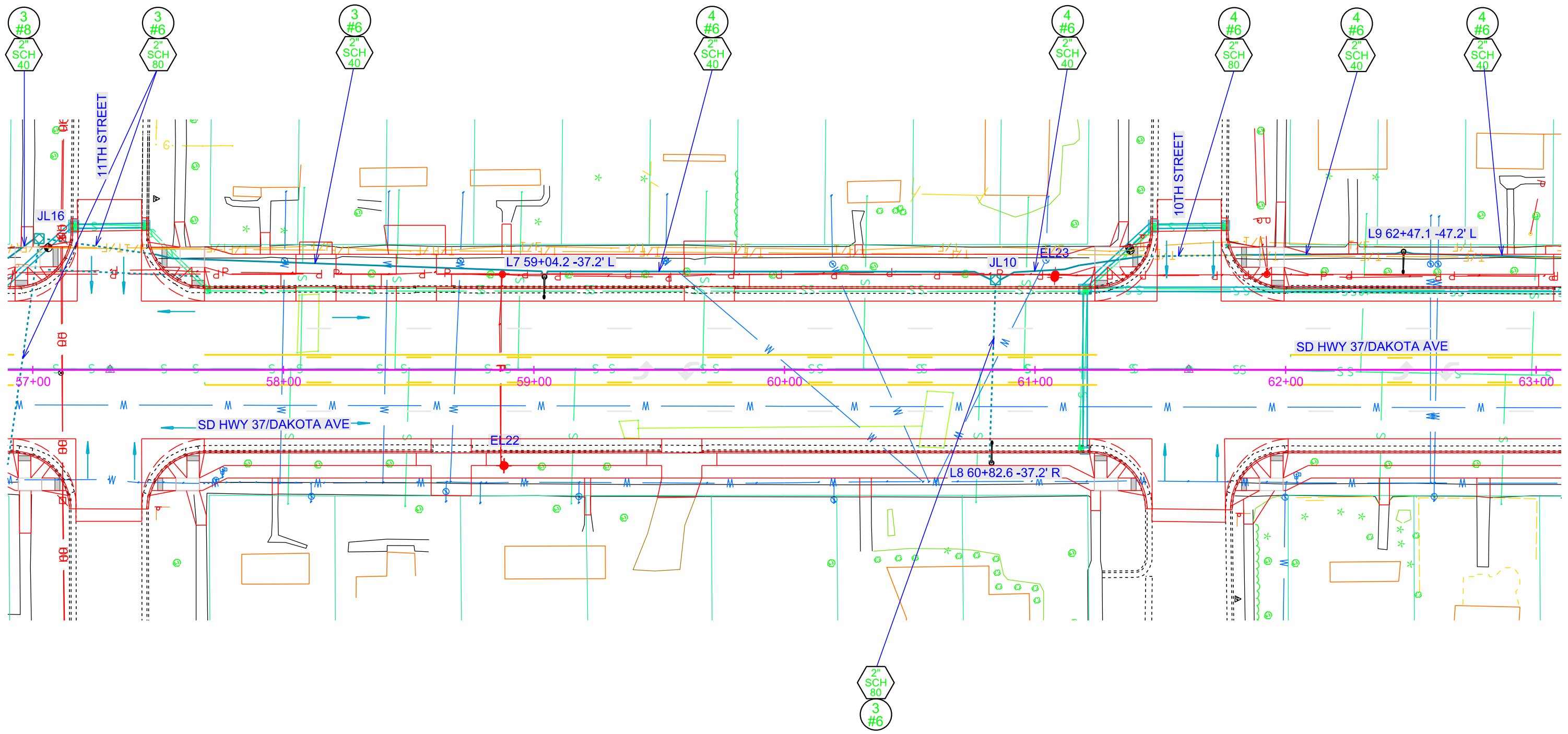


CONDUIT LAYOUT

SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L32	L61

Plotting Date: 03/16/2026



Plot Scale - 1"=40'

Plotted From - TRPR17199

CONDUIT LAYOUT

SD HWY 37

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L33	L61

Revised 6/02/2026 - RR

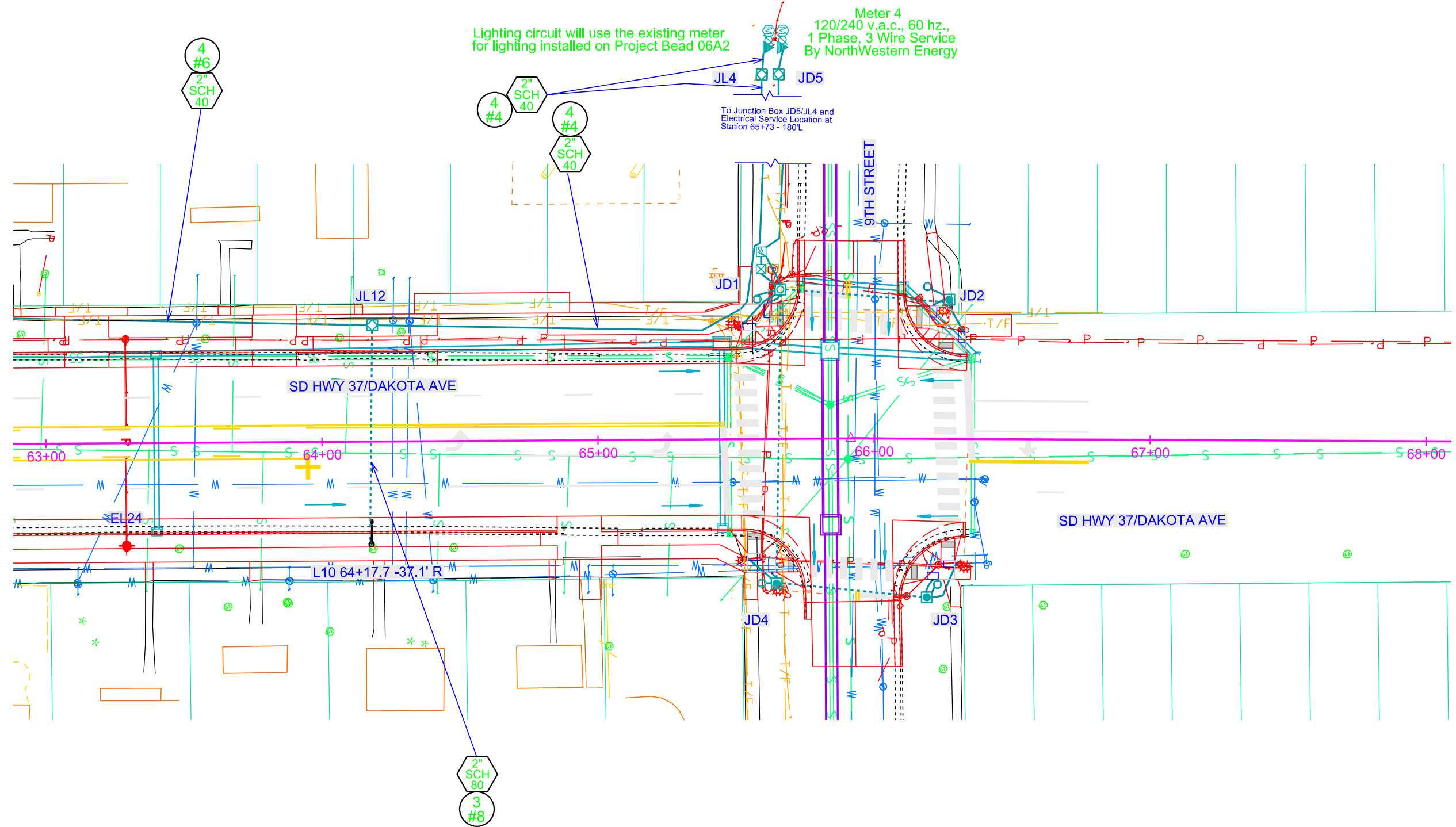


Lighting circuit will use the existing meter for lighting installed on Project Bead 06A2

Meter 4
120/240 v.a.c., 60 hz.,
1 Phase, 3 Wire Service
By NorthWestern Energy

JL4 JD5

To Junction Box JD5/JL4 and
Electrical Service Location at
Station 65+73 - 180'L



Plot Scale - 1:40

Plotted From - TRPR17199

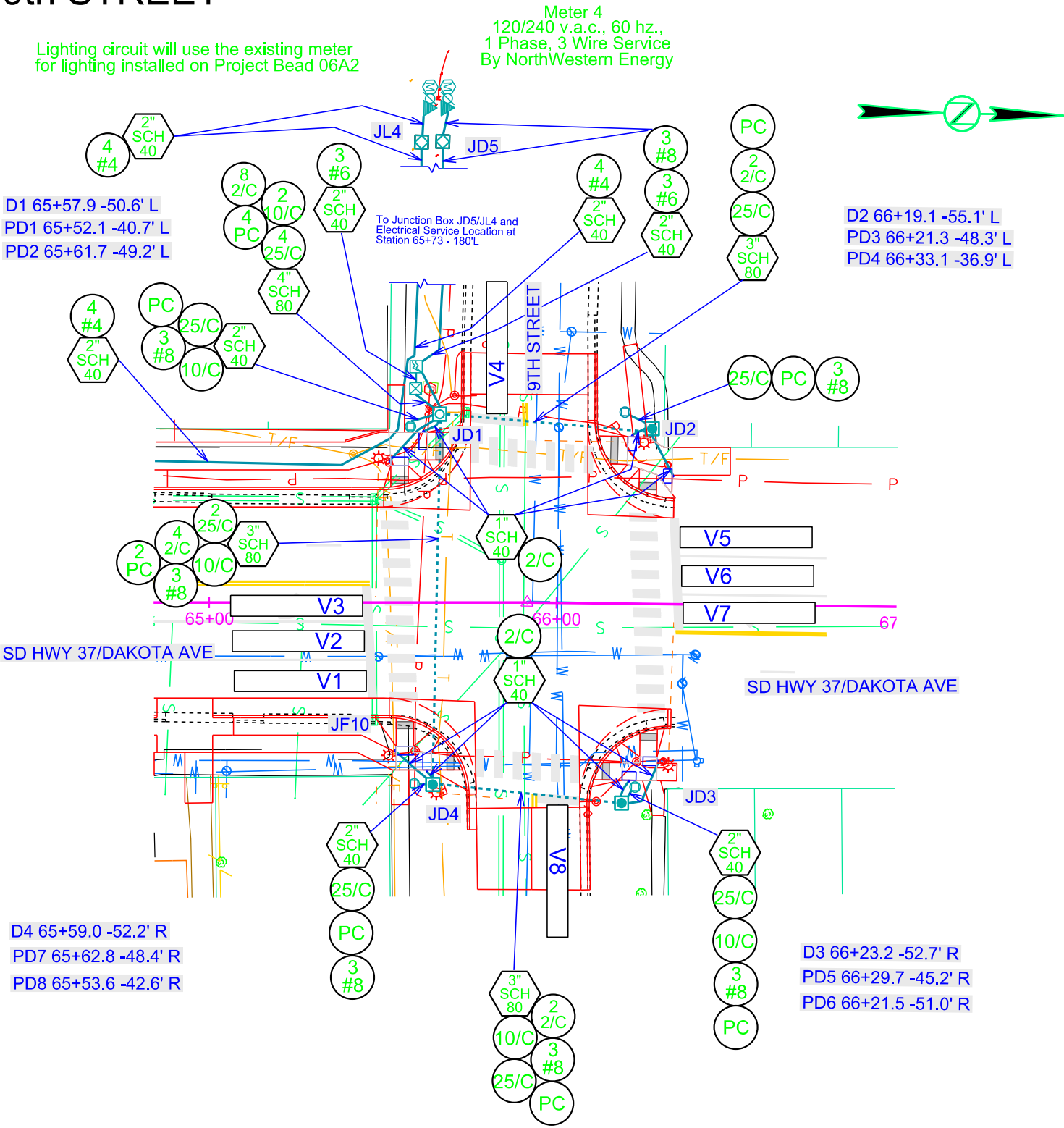
CONDUIT LAYOUT

SD HWY 37 & 9th STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L34	L61

Plotting Date: 03/16/2026

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST	UNIT
	3.5' Diameter Footing (D1-D4)	47	FT
	Type 2 Electrical Junction Box (JD2-JD5)	4	EACH
	Type 3 Electrical Junction Box (JD1)	1	EACH
	Electrical Service Cabinet	1	EACH
	Galvanized Steel Utility Pole Not a Bid Item	1	EACH
	Meter Socket Not a Bid Item	1	EACH
	Traffic Signal Controller	1	EACH
	Remote Communication System (Incidental to Traffic Signal Controller)	1	EACH
	Battery Backup System for Traffic Signal	1	EACH
	Video Detection System	1	EACH
	Video Detection Zones (V1-V8) (Not a Bid Item)	8	EACH
	1" Rigid Conduit, Schedule 40	165	FT
	2" Rigid Conduit, Schedule 40	210	FT
	4" Rigid Conduit, Schedule 40	20	FT
	3" Rigid Conduit, Schedule 80	240	FT
	1/C #8 AWG Copper Wire	1180	FT
	1/C #6 AWG Copper Wire	495	FT
	2/C #14 AWG Copper Tray Cable, K2	1215	FT
	3/C #14 AWG Copper Tray Cable, K2	105	FT
	4/C #14 AWG Copper Tray Cable, K2	450	FT
	5/C #14 AWG Copper Tray Cable, K2	130	FT
	10/C #14 AWG Copper Tray Cable, K2	260	FT
	25/C #14 AWG Copper Tray Cable, K2	660	FT
	2/C #10 AWG Copper Pole & Bracket Cable	260	FT
	Preemption Cable (Not a Bid Item)	675	FT



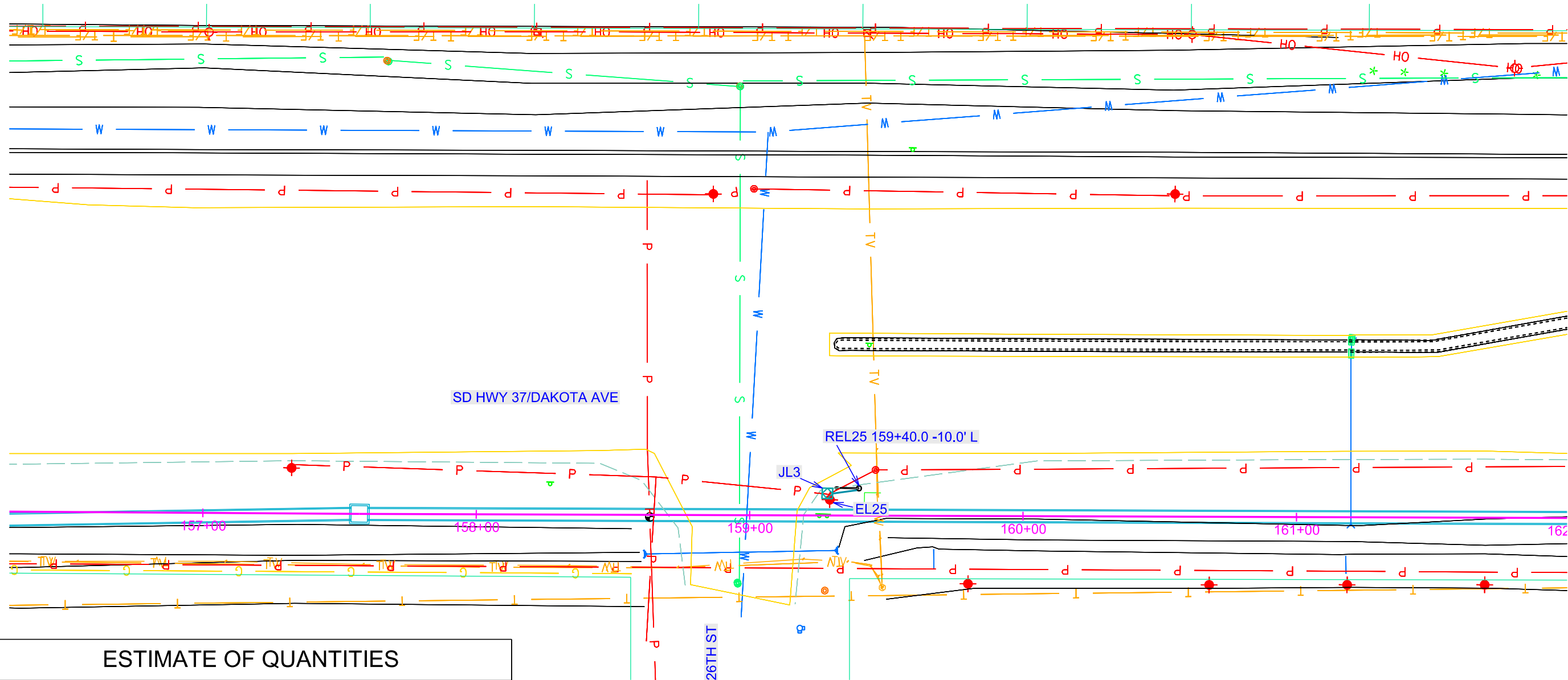
CONDUIT LAYOUT

SD HWY 37 & 26th STREET

REMOVE AND RESET AT SOUTHERN END OF PROJECT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L35	L61

Plotting Date: 03/16/2026



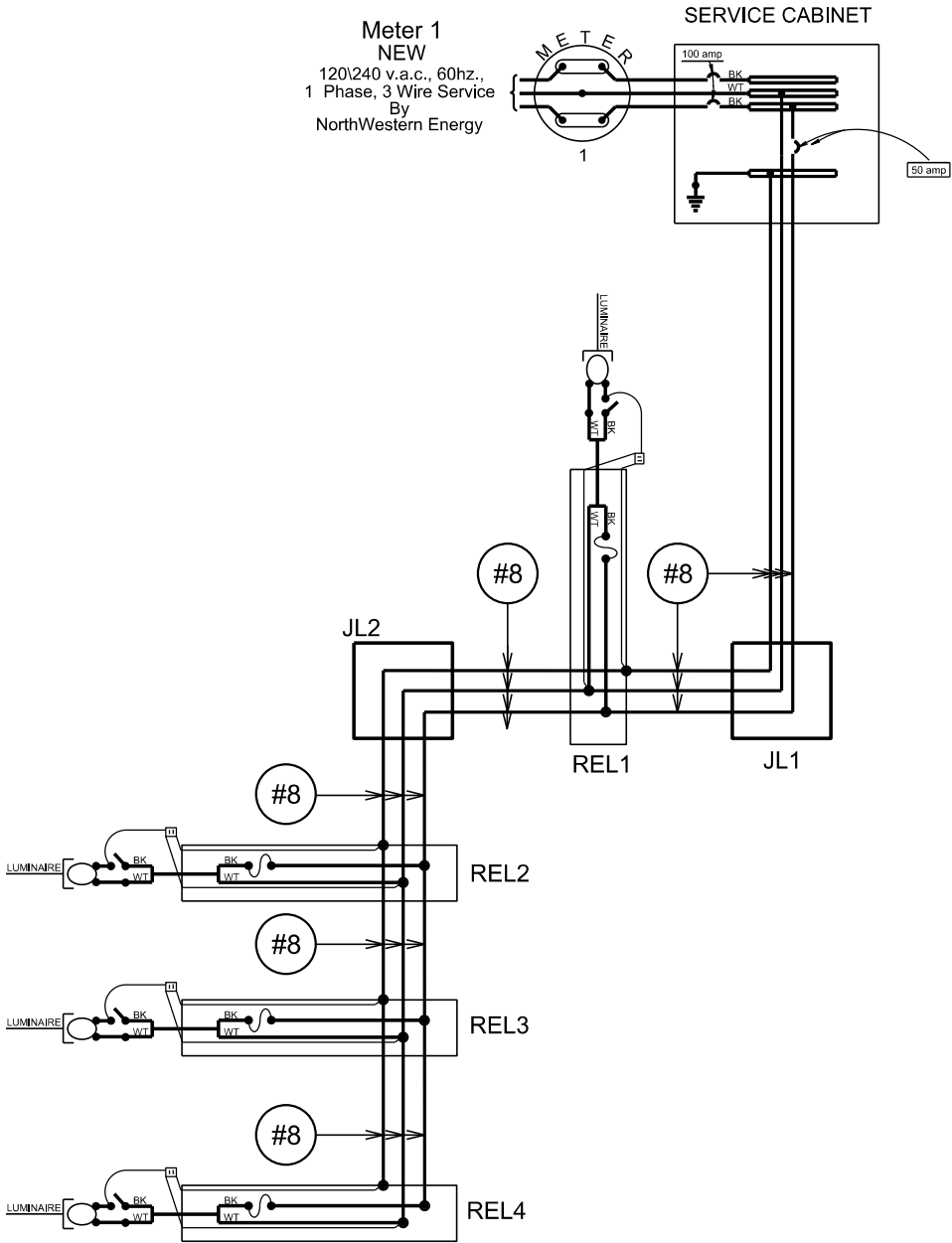
ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Luminaire Pole Footing (EL25)	1	EACH
	Remove and Reset Breakaway Base Luminaire Pole w/8' Arm (REL25)	1	EACH

NOTE:
All circuits shall be bonded in accordance with the NATIONAL ELECTRICAL CODE.
Quantities for bonding conductors are not included in these plans.

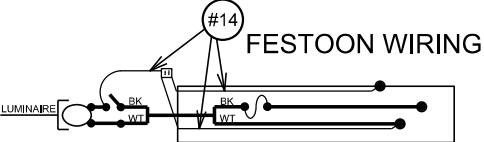
WIRING DIAGRAM

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L36	L61

Plotting Date: 03/16/2026



- LEGEND:
- FUSE: 10 amp.
 - LUMINAIRE: LED
 - PHOTOCELL (TYPICAL OF ALL)

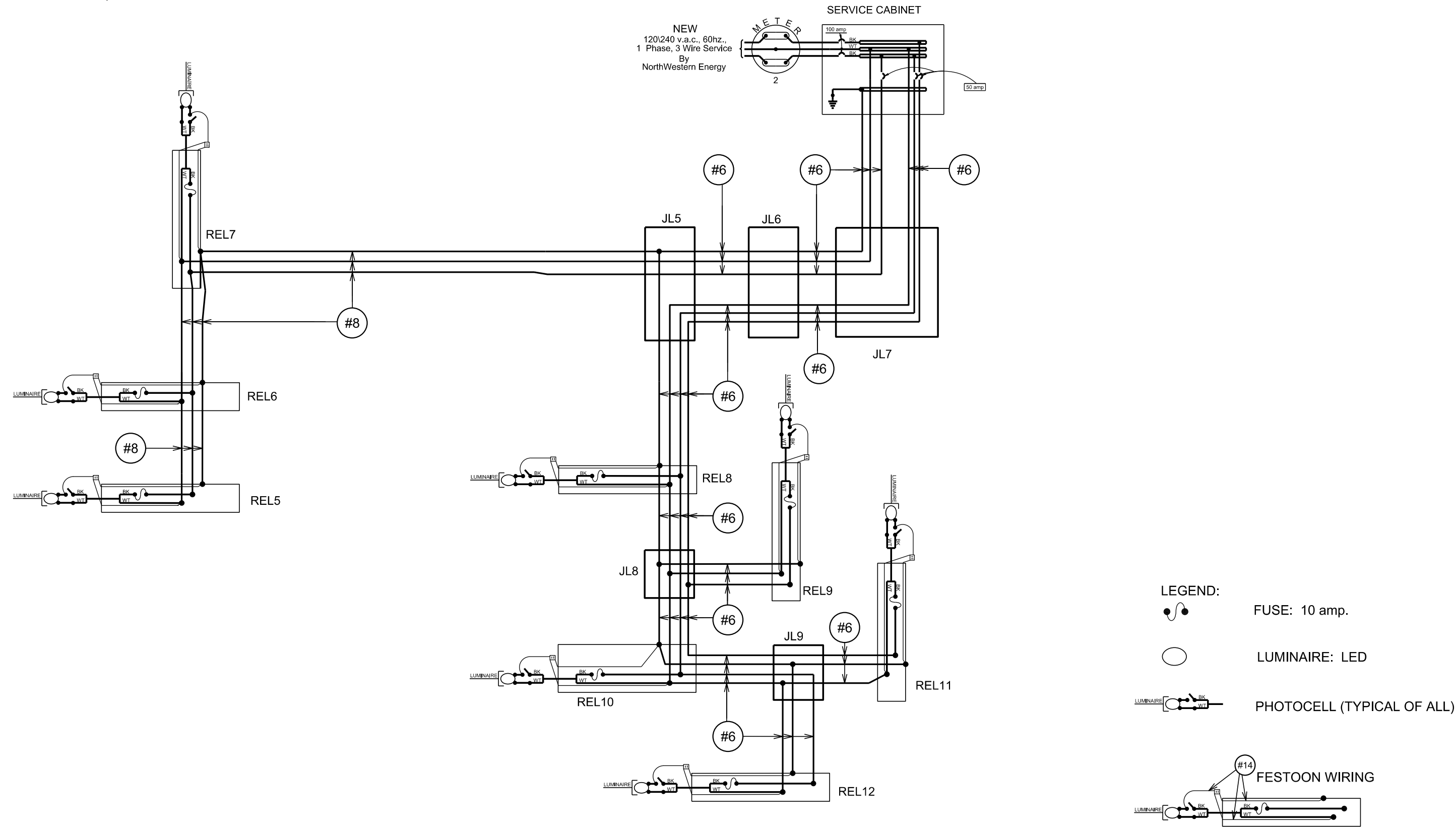


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR 0903(115)131	L37	L61

Plotting Date: 03/16/2026

WIRING DIAGRAM

NOTE:
All circuits shall be bonded in accordance
with the NATIONAL ELECTRICAL CODE.
Quantities for bonding conductors are not
included in these plans.



Plot Scale - 1:40

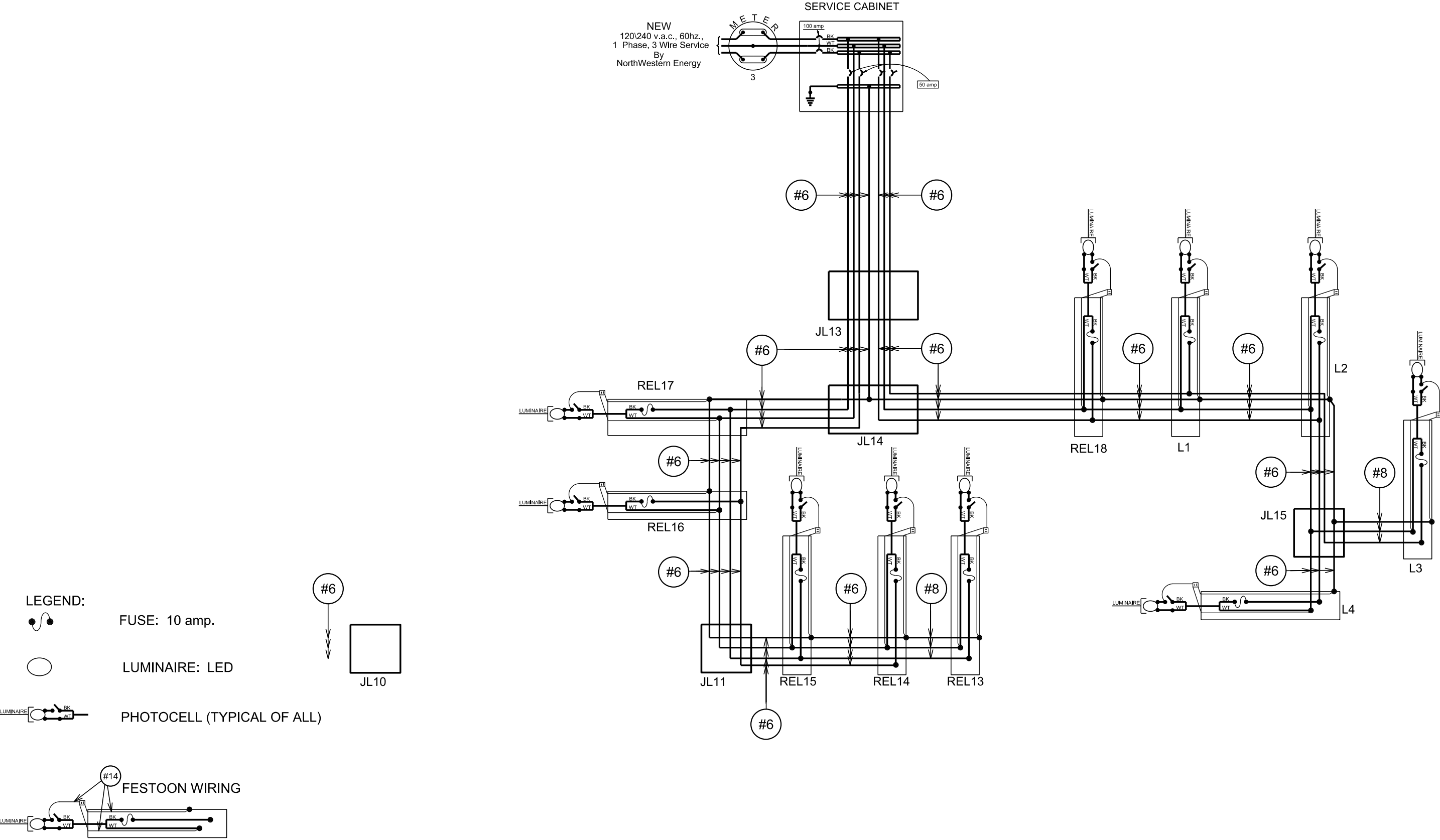
Plotted From - TRPR17199

NOTE:
All circuits shall be bonded in accordance with the NATIONAL ELECTRICAL CODE.
Quantities for bonding conductors are not included in these plans.

WIRING DIAGRAM

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR 0903(115)131	L38	L61

Plotting Date: 03/16/2026



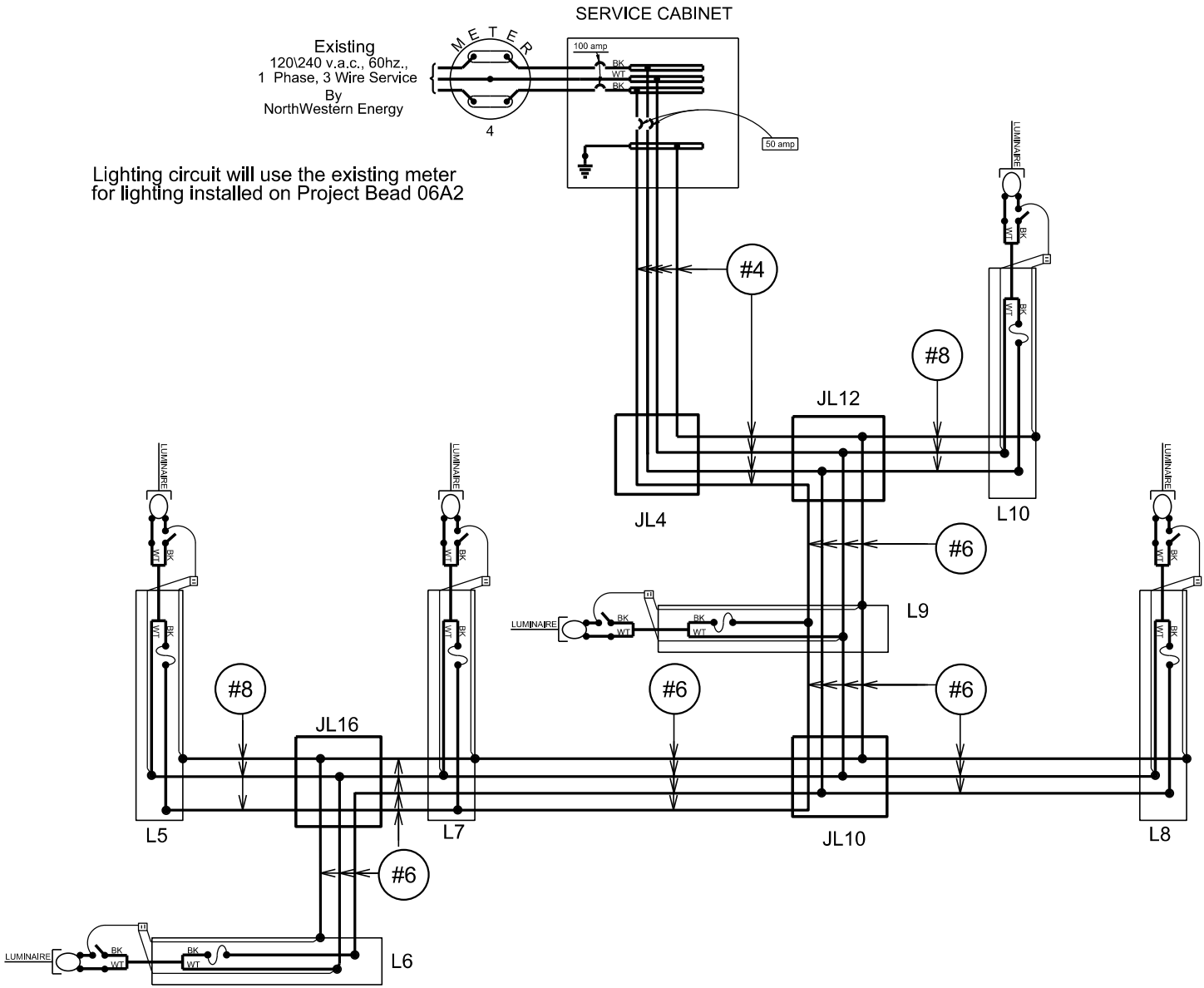
Plotted From: - TRPR17199 Plot Scale: - 1:40

NOTE:
All circuits shall be bonded in accordance with the NATIONAL ELECTRICAL CODE.
Quantities for bonding conductors are not included in these plans.

WIRING DIAGRAM

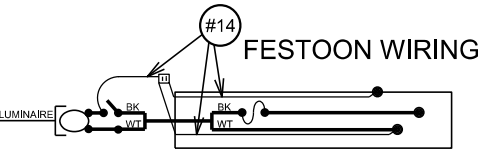
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR 0903(115)131	L39	L61

Plotting Date: 03/16/2026



LEGEND:

-  FUSE: 10 amp.
-  LUMINAIRE: LED
-  PHOTOCELL (TYPICAL OF ALL)



Plot Scale - 1:40

Plotted From - TRPR17199

SIGNAL TIMING

SD HWY 37/DAKOTA AVE & 21st Street

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L40	L61

Plotting Date: 03/16/2026

BASIC INTERVALS								
Phase	1	2	3	4	5	6	7	8
Movement	SBL	NB		EB	NBL	SB	EBL	WB
Lag								
Min Green	5	15		10	5	15	5	10
Extension	2	2		2	2	2	2	2
Max 1	5	25		24	5	25	5	12
Max 2								
Time Before								
Time to Reduce								
Minimum Gap								
Yellow	3	4		4	3	4	3	4
All Red	3	1		1	3	1	3	1
Walk		7		7		7		7
Ped Clearance		28.5		28		28.5		28
Recall		MIN				MIN		
Prog Flash Display		Y		R		Y		R
Start Up Ø		X				X		

PREEMPTION				
Plan	3	4	5	6
Calls Ø	8	4&7	5 & 2	1 & 6
Output	CH13R	CH14R	CH15R	CH16R

WEEKLY PROGRAM							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Timing Plan	2	1	1	1	1	1	2

SPLIT PATTERNS										
	Φ1	Φ2	Φ3	Φ4	Φ5	Φ6	Φ7	Φ8		
Coord Phase		X				X				
Pattern (C/S/O)	Split	Split	Split	Split	Split	Split	Split	Split	Cycle Length	Offset
1/1/1	10.5	22.5		27	11	22	12	15	60	1
2/1/1	11	22		27	12	21	12	15	60	11
3/1/1	11	25		32	12	24	11	21	68	48

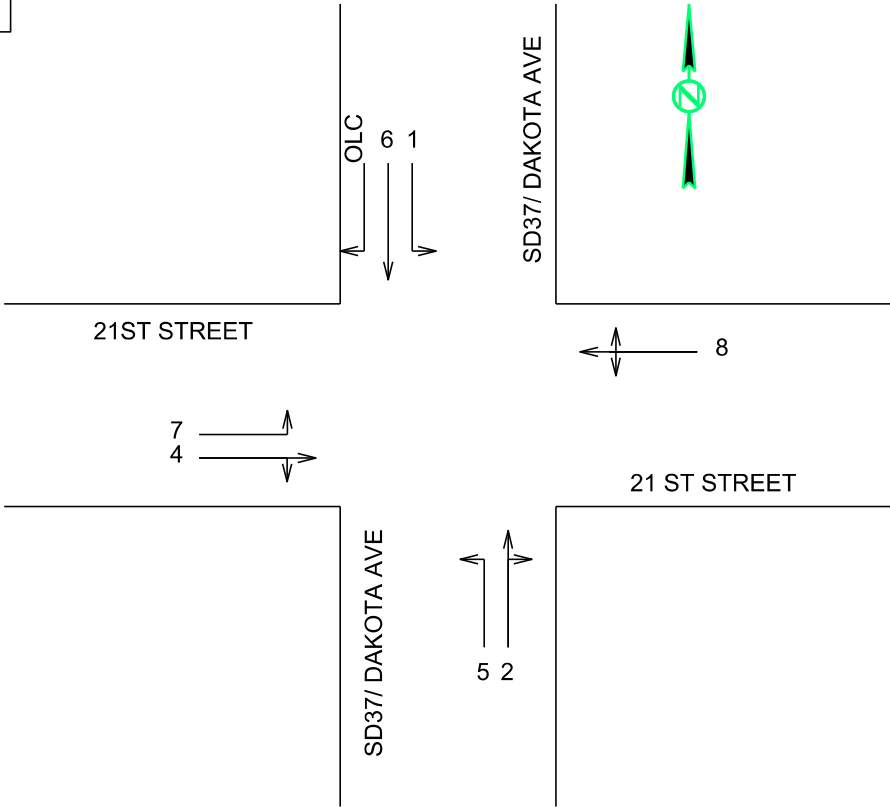
TIMING PLAN 1	
Time of Day (TOD)	Pattern (C/S/O)
6:00-10:30	1/1/1
10:30-14:30	2/1/1
14:30-18:30	3/1/1
18:30-0:00	Max 1
0:00-6:00	Flash

TIMING PLAN 2	
Time of Day (TOD)	Pattern (C/S/O)
06:00-00:00	Max 1
00:00-6:00	Flash

RING AND BARRIER DESIGN			
Φ1		Φ2	
Φ5		Φ6	
		Φ7	
		Φ8	

OVERLAP DEFINITIONS
OLC = 7

DETECTOR TABLE															
Local Detector	Controller Detector #	Phase Called (Call/Call Locking/Extend)												Controller Settings	
		1	2	3	4	5	6	7	8	9	10	11	12	Extend	Delay
V1	1		C/E												10
V2-V3	2		C/E												
V4	3					C/E									
V5-V6	4				C/E										
V7	5							C/E							
V8	6						C/E							10	
V9-V10	7						C/E								
V11	8	C/E													
V12-V14	9								C/E						



Plot Scale - 1"=40'

Plotted From - TRPR17199

SIGNAL TIMING

SD HWY 37/DAKOTA AVE & 18TH ST.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L41	L61

Plotting Date: 03/16/2026

BASIC INTERVALS								
Phase	1	2	3	4	5	6	7	8
Movement		NB		EB		SB		WB
Lag								
Min Green		15		10		15		10
Extension		2		2		2		2
Max 1		31		19		31		19
Max 2								
Time Before								
Time to Reduce								
Minimum Gap								
Yellow		4		4		4		4
All Red		1		1		1		1
Walk		7		7		7		7
Ped Clearance		13		21.5		13		21.5
Recall		MIN				MIN		
Prog Flash Display		Y		R		Y		R
Start Up Ø		X				X		

PREEMPTION				
Plan	3	4	5	6
Calls Ø	8	4	2	6
Output	CH13R	CH14R	CH15R	CH16R

WEEKLY PROGRAM							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Timing Plan	2	1	1	1	1	1	2

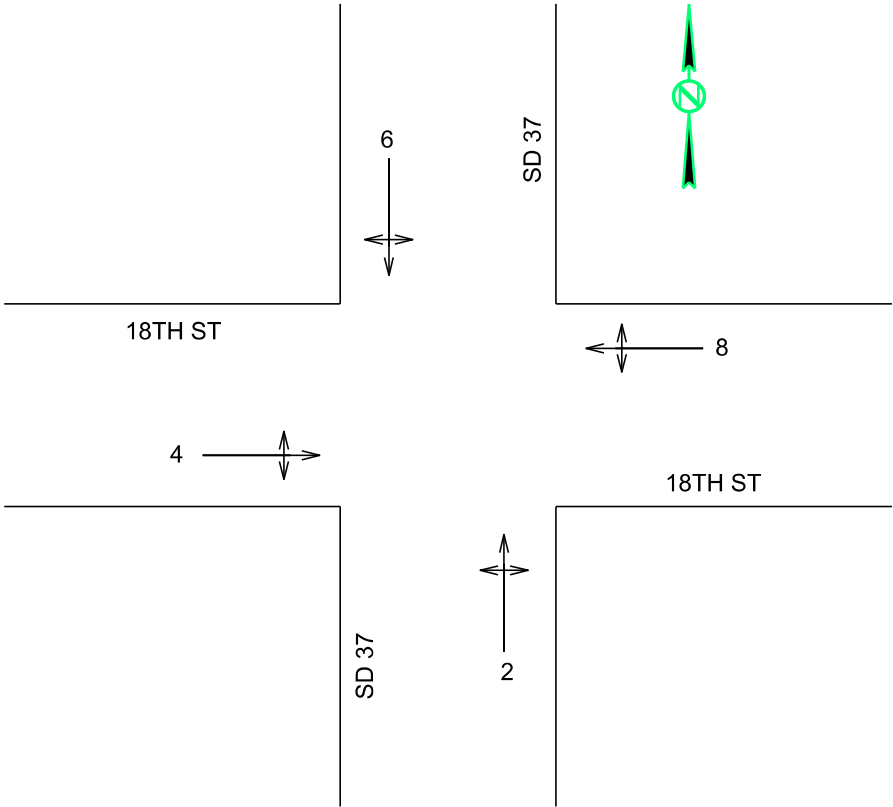
SPLIT PATTERNS										
	Φ1	Φ2	Φ3	Φ4	Φ5	Φ6	Φ7	Φ8		
Coord Phase		X				X				
Pattern (C/S/O)	Split	Split	Split	Split	Split	Split	Split	Split	Cycle Length	Offset
1/1/1		26		34		26		34	60	54
2/1/1		26		34		26		34	60	53
3/1/1		34		34		34		34	68	30

TIMING PLAN 1	
Time of Day (TOD)	Pattern (C/S/O)
6:00-10:30	1/1/1
10:30-14:30	2/1/1
14:30-18:30	3/1/1
18:30-0:00	Max 1
0:00-6:00	Flash

TIMING PLAN 2	
Time of Day (TOD)	Pattern (C/S/O)
06:00-00:00	Max 1
00:00-6:00	Flash

RING AND BARRIER DESIGN			
Φ1	Φ2	Φ3	Φ4
Φ5	Φ6	Φ7	Φ8

DETECTOR TABLE															
Local Detector	Controller Detector #	Phase Called (Call/Call Locking/Extend)												Controller Settings	
		1	2	3	4	5	6	7	8	9	10	11	12	Extend	Delay
V1-V3	1		C/E												
V4	2				C/E										
V5-V7	3						C/E								
V8	4								C/E						



SIGNAL TIMING

SD HWY 37/DAKOTA AVE & 14TH ST

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L42	L61

Plotting Date: 03/16/2026

BASIC INTERVALS								
Phase	1	2	3	4	5	6	7	8
Movement		NB		EB		SB		WB
Lag								
Min Green		15		10		15		10
Extension		2		2		2		2
Max 1		35		15		35		15
Max 2								
Time Before								
Time to Reduce								
Minimum Gap								
Yellow		4		4		4		4
All Red		1		1		1		1
Walk		7		7		7		7
Ped Clearance		11.5		20		11.5		20
Recall		MIN				MIN		
Prog Flash Display		Y		R		Y		R
Start Up Ø		X				X		

PREEMPTION				
Plan	3	4	5	6
Calls Ø	8	4	2	6
Output	CH13R	CH14R	CH15R	CH16R

WEEKLY PROGRAM							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Timing Plan	2	1	1	1	1	1	2

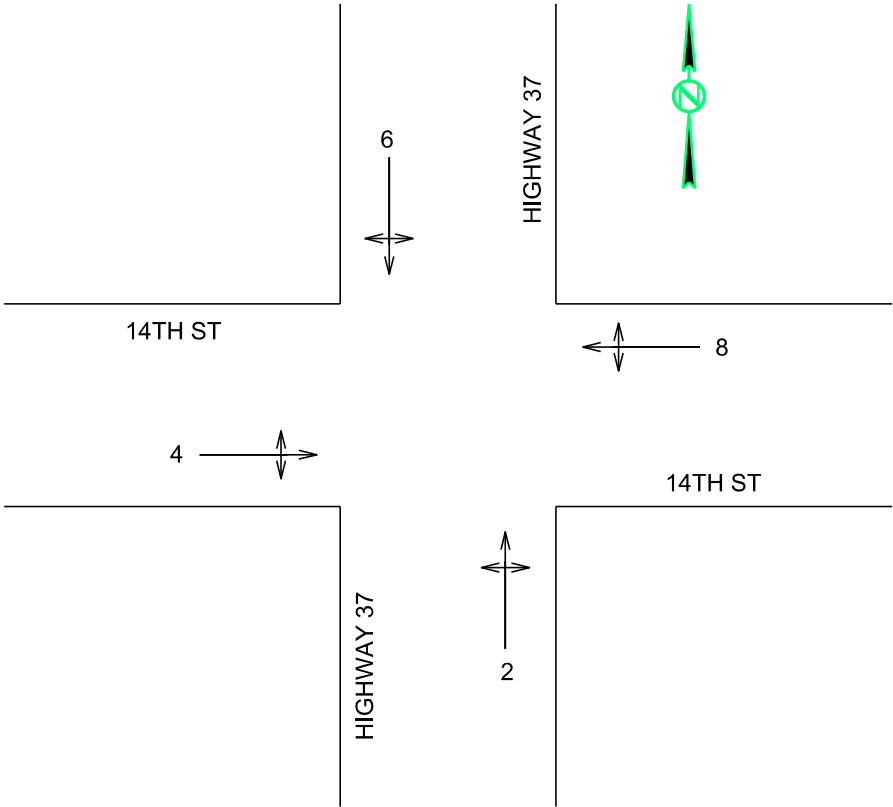
SPLIT PATTERNS										
	Φ1	Φ2	Φ3	Φ4	Φ5	Φ6	Φ7	Φ8		
Coord Phase		X				X				
Pattern (C/S/O)	Split	Split	Split	Split	Split	Split	Split	Split	Cycle Length	Offset
1/1/1		28		32		28		32	60	16
2/1/1		28		32		28		32	60	26
3/1/1		36		32		36		32	68	67

TIMING PLAN 1	
Time of Day (TOD)	Pattern (C/S/O)
6:00-10:30	1/1/1
10:30-14:30	2/1/1
14:30-18:30	3/1/1
18:30-0:00	Max 1
0:00-6:00	Flash

TIMING PLAN 2	
Time of Day (TOD)	Pattern (C/S/O)
06:00-00:00	Max 1
00:00-6:00	Flash

RING AND BARRIER DESIGN			
Φ1	Φ2	Φ3	Φ4
Φ5	Φ6	Φ7	Φ8

DETECTOR TABLE															
Local Detector	Controller Detector #	Phase Called (Call/Call Locking/Extend)												Controller Settings	
		1	2	3	4	5	6	7	8	9	10	11	12	Extend	Delay
V1-V3	1		C/E												
V4	2				C/E										
V5-V7	3						C/E								
V8	4								C/E						



Plot Scale - 1:40

Plotted From - TRPR17199

SIGNAL TIMING

SD37/Dakota Ave / 9th Street

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L43	L61

Plotting Date: 03/16/2026

BASIC INTERVALS								
Phase	1	2	3	4	5	6	7	8
Movement		NB		EB		SB		WB
Lag								
Min Green		15		10		15		10
Extension		2		2		2		2
Max 1		31		19		31		19
Max 2								
Time Before								
Time to Reduce								
Minimum Gap								
Yellow		4		4		4		4
All Red		1		1		1		1
Walk		7		7		7		7
Ped Clearance		13		20		13		20
Recall		MIN				MIN		
Prog Flash Display		Y		R		Y		R
Start Up Ø		X				X		

PREEMPTION				
Plan	3	4	5	6
Calls Ø	8	4	2	6
Output	CH13R	CH14R	CH15R	CH16R

WEEKLY PROGRAM							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Timing Plan	2	1	1	1	1	1	2

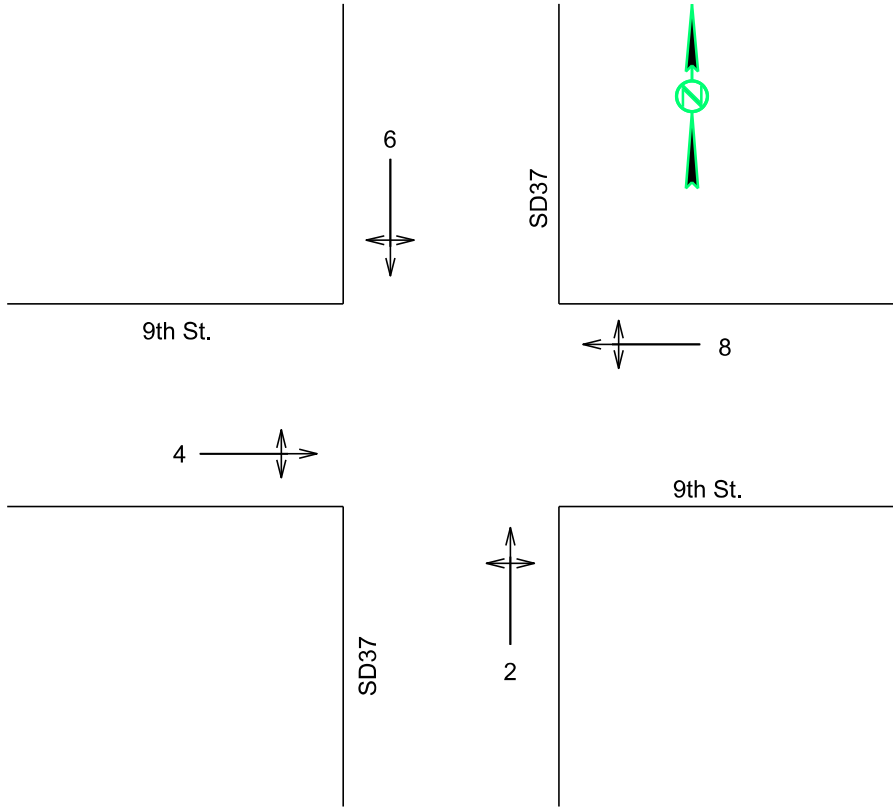
SPLIT PATTERNS										
	Φ1	Φ2	Φ3	Φ4	Φ5	Φ6	Φ7	Φ8		
Coord Phase		X				X				
Pattern (C/S/O)	Split	Split	Split	Split	Split	Split	Split	Split	Cycle Length	Offset
1/1/1		28		32		28		32	60	19
2/1/1		28		32		28		32	60	28
3/1/1		36		32		36		32	68	34

TIMING PLAN 1	
Time of Day (TOD)	Pattern (C/S/O)
6:00-10:30	1/1/1
10:30-14:30	2/1/1
14:30-18:30	3/1/1
18:30-0:00	Max 1
0:00-6:00	Flash

TIMING PLAN 2	
Time of Day (TOD)	Pattern (C/S/O)
06:00-00:00	Max 1
00:00-6:00	Flash

RING AND BARRIER DESIGN			
Φ1	Φ2	Φ3	Φ4
Φ5	Φ6	Φ7	Φ8

DETECTOR TABLE															
Local Detector	Controller Detector #	Phase Called (Call/Call Locking/Extend)												Controller Settings	
		1	2	3	4	5	6	7	8	9	10	11	12	Extend	Delay
V1-V3	1		C/E												
V4	2				C/E										
V5-V7	3						C/E								
V8	4								C/E						



Plot Scale - 1:200
Plotted From - TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L44	L61

Plotting Date: 03/16/2026

POLE: A1 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Brown/Black	BLACK	N	1	1
1R	Red/Black	RED	RA	1	1
1Y	Orange/Black	ORANGE	YA	1	1
9Y	Yellow/Black	YELLOW	FYA	1	1
1G	Blue/Black	BLUE	GA	1	1
6R	Brown/Red	RED	R	9	6
6Y	Orange/Blue	ORANGE	Y	9	6
6G	Red/Blue	BLUE	G	9	6
N	Black/Blue	BLACK	N	9	6
6R	Yellow/Red	RED	R	10	6
6Y	Orange/Red	ORANGE	Y	10	6
6G	Blue/Red	BLUE	G	10	6
N	Black/Red	BLACK	N	10	6
N	Black	BLACK	R	20	6
6R	Red	RED	Y	20	6
6Y	Orange	ORANGE	Y	20	6
6G	Blue	BLUE	G	20	6
15Y	Yellow	YELLOW	YA	20	OLC
15G	Brown	BROWN	GA	20	OLC
	Yellow/Blue				
	Brown/Blue				
	Black/Orange				
	Red/Orange				
	Blue/Orange				
	Yellow/Orange				

POLE: A2 CABLE SIZE: 25/C

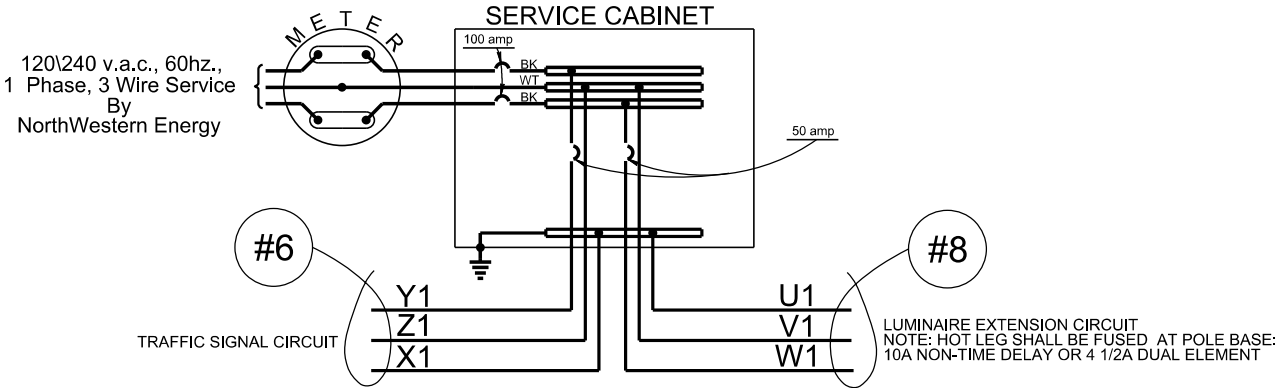
CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
3R	Red/Black	RED	RA	2	3
3Y	Orange/Black	ORANGE	YA	2	3
10Y	Yellow/Black	YELLOW	FYA	2	3
6R	Red	RED	R	21	6
6Y	Orange	ORANGE	Y	21	6
6G	Blue	BLUE	G	21	6
N	Black	BLACK	N	21	6
15Y	Yellow	YELLOW	YA	21	OLC
15G	Brown	BROWN	GA	21	OLC
N	Brown/Black	BLACK	N	22	4P
10R	Black/Red	RED	DW	22	4P
10G	Blue/Red	BLUE	W	22	4P
N	Black/Blue	BLACK	N	23	6P
11R	Red/Blue	RED	DW	23	6P
11G	Orange/Blue	BLUE	W	23	6P
	Blue/Black				
	Orange/Red				
	Yellow/Red				
	Brown/Red				
	Yellow/Blue				
	Brown/Blue				
	Black/Orange				
	Red/Orange				
	Blue/Orange				
	Yellow/Orange				

POLE: A3 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
3R	Red/Black	RED	RA	3	3
3Y	Orange/Black	ORANGE	YA	3	3
10Y	Yellow/Black	YELLOW	FYA	3	3
N	Black	BLACK	N	4	5
5R	Red	RED	RA	4	5
5Y	Orange	ORANGE	YA	4	5
11Y	Yellow	YELLOW	FYA	4	5
5G	Blue	BLUE	GA	4	5
N	Brown/Black	BLACK	N	11	8
8G	Blue/Red	BLUE	G	11	8
8R	Black/Red	RED	R	11	8
8Y	Orange/Red	ORANGE	Y	11	8
8R	Red/Blue	RED	R	12	8
8Y	Orange/Blue	ORANGE	Y	12	8
8G	Yellow/Blue	BLUE	G	12	8
N	Black/Blue	BLACK	N	12	8
8R	Red/Orange	RED	R	13	8
8Y	Blue/Orange	ORANGE	Y	13	8
8G	Brown/Blue	BLUE	G	13	8
N	Black/Orange	BLACK	N	13	8
	Brown				
	Blue/Black				
	Yellow/Red				
	Brown/Red				
	Yellow/Orange				

POLE: A3 CABLE SIZE: 10/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Black	BLACK	N	24	6P
11R	Red	RED	DW	24	6P
11G	Blue	BLUE	W	24	6P
12R	Red/Black	RED	N	25	8P
N	Orange/Black	BLACK	DW	25	8P
12G	Blue/Black	BLUE	W	25	8P
	Orange				
	Yellow				
	Brown				
	Yellow/Black				



1:200
Plot Scale -
Plotted From -
TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L45	L61

Plotting Date: 03/16/2026

POLE: A4 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Black	BLACK	N	6	7
7R	Red	RED	RA	6	7
7Y	Orange	ORANGE	YA	6	7
12Y	Yellow	YELLOW	FYA	6	7
7G	Blue	BLUE	GA	6	7
N	Yellow/Black	BLACK	N	14	2
2G	Blue/Black	BLUE	G	14	2
2R	Red/Black	RED	R	14	2
2Y	Orange/Black	ORANGE	Y	14	2
2R	Black/Red	RED	R	15	2
2Y	Orange/Red	ORANGE	Y	15	2
2G	Blue/Red	BLUE	G	15	2
N	Brown/Black	BLACK	N	15	2
2R	Brown/Red	RED	R	16	2
2Y	Orange/Blue	ORANGE	Y	16	2
2G	Yellow/Blue	BLUE	G	16	2
N	Black/Blue	BLACK	N	16	2
N	Black/Orange	BLACK	N	26	8P
12R	Red/Orange	RED	DW	26	8P
12G	Blue/Orange	BLUE	W	26	8P
	Brown				
	Yellow/Red				
	Red/Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: A4 CABLE SIZE: 10/C

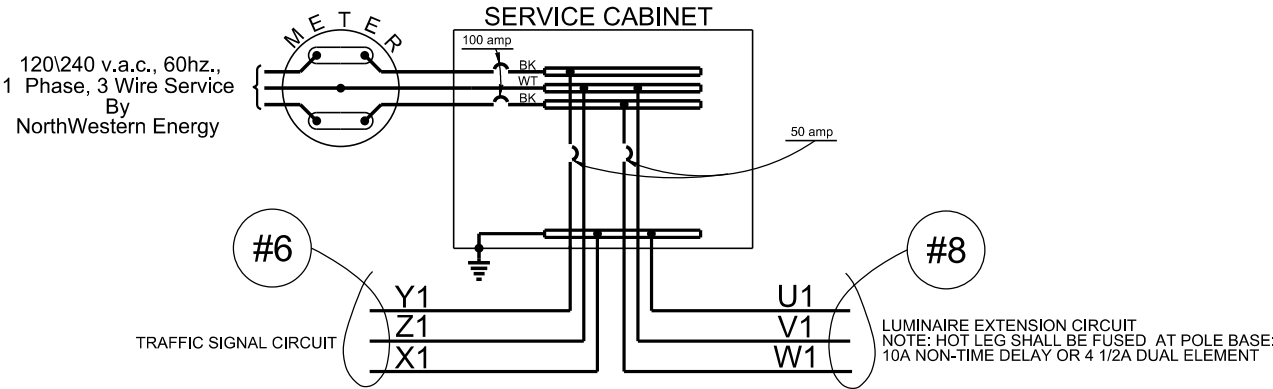
CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Black	BLACK	N	5	5
5R	Red	RED	RA	5	5
5Y	Orange	ORANGE	YA	5	5
11Y	Yellow	YELLOW	FYA	5	5
5G	Blue	BLUE	GA	5	5
N	Orange/Black	BLACK	N	27	2P
9R	Red/Black	RED	DW	27	2P
9G	Blue/Black	BLUE	W	27	2P
	Brown				
	Yellow/Black				

POLE: A5 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Black	BLACK	N	7	7
7R	Red	RED	RA	7	7
7Y	Orange	ORANGE	YA	7	7
12Y	Yellow	YELLOW	FYA	7	7
7G	Blue	BLUE	GA	7	7
N	Yellow/Black	BLACK	N	17	4
4G	Blue/Black	BLUE	G	17	4
4R	Red/Black	RED	R	17	4
4Y	Orange/Black	ORANGE	Y	17	4
4R	Black/Red	RED	R	18	4
4Y	Orange/Red	ORANGE	Y	18	4
4G	Blue/Red	BLUE	G	18	4
N	Brown/Black	BLACK	N	18	4
4R	Brown/Red	RED	R	19	4
4Y	Orange/Blue	ORANGE	Y	19	4
4G	Red/Blue	BLUE	G	19	4
N	Black/Blue	BLACK	N	19	4
N	Black/Orange	BLACK	N	29	4P
10R	Red/Orange	RED	DW	29	4P
10G	Blue/Orange	BLUE	W	29	4P
	Brown				
	Yellow/Red				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: A5 CABLE SIZE: 10/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Black	BLACK	N	8	1
1R	Red	RED	RA	8	1
1Y	Orange	ORANGE	YA	8	1
9Y	Yellow	YELLOW	FYA	8	1
1G	Blue	BLUE	GA	8	1
N	Orange/Black	BLACK	N	28	2P
9R	Red/Black	RED	DW	28	2P
9G	Blue/Black	BLUE	W	28	2P
	Brown				
	Yellow/Black				



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Plot Scale - 1:200
Plotted From - TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L46	L61

Plotting Date: 03/16/2026

POLE: B1 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
6R	Red/Black	RD	R	1	6
6Y	Orange/Black	ORANGE	Y	1	6
6G	Blue/Black	BLUE	G	1	6
N	Yellow/Black	BLACK	N	1	6
6R	Black/Red	RED	R	2	6
6Y	Orange/Red	ORANGE	Y	2	6
6G	Blue/Red	BLUE	G	2	6
N	Brown/Black	BLACK	N	2	6
6R	Yellow/Red	RED	R	3	6
6Y	Orange/Blue	ORANGE	Y	3	6
6G	Yellow/Blue	BLUE	G	3	6
N	Black/Blue	BLACK	N	3	6
8R	Red/Blue	RED	R	4	8
8Y	Yellow/Orange	ORANGE	Y	4	8
8G	Blue/Orange	BLUE	G	4	8
N	Black/Orange	BLACK	N	4	8
N	Black	BLACK	N	13	1
1R	Red	RED	RA	13	1
1Y	Orange	ORANGE	YA	13	1
9Y	Yellow	YELLOW	FYA	13	1
N	Brown/Red	BLACK	N	17	4P
10R	Red/Orange	RED	DW	17	4P
10G	Brown/Blue	BLUE	W	17	4P
	Blue				
	Brown				

POLE: B1 CABLE SIZE: 10/C

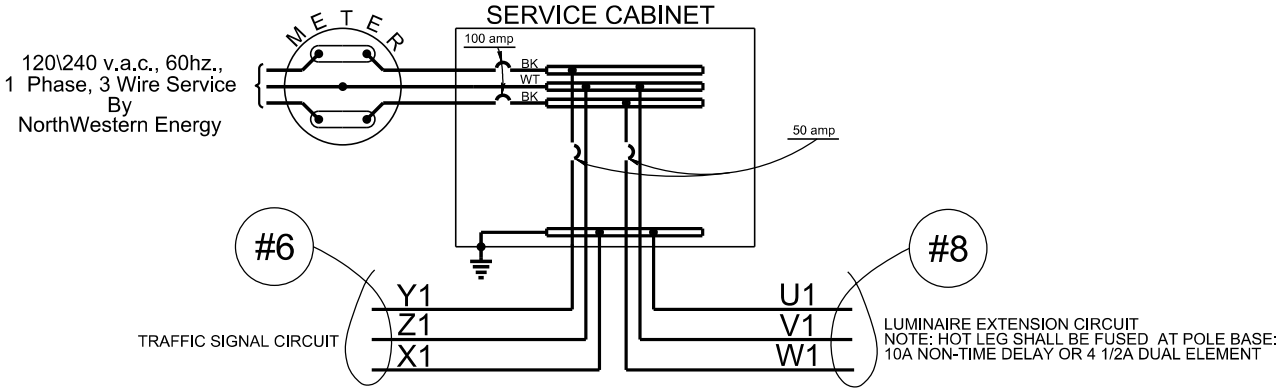
CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
8R	Red	RED	R	5	8
8Y	Orange	ORANGE	Y	5	8
8G	Blue	BLUE	G	5	8
N	Black	BLACK	N	5	8
11R	Red/Black	RED	DW	18	6P
11G	Blue/Black	BLUE	W	18	6P
N	Orange/Black	BLACK	N	18	6P
	Yellow				
	Brown				
	Yellow/Black				

POLE: B2 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
8R	Red/Black	RED	R	6	8
8Y	Orange/Black	ORANGE	Y	6	8
8G	Blue/Black	BLUE	G	6	8
N	Yellow/Black	BLACK	N	6	8
5Y	Orange	ORANGE	Y	14	5
N	Black	BLACK	N	14	5
5R	Red	RED	RA	14	5
11Y	Yellow	YELLOW	FYA	14	5
N	Brown/Black	BLACK	N	19	6P
11R	Black/Red	RED	DW	19	6P
11G	Blue/Red	BLUE	W	19	6P
N	Black/Blue	BLACK	N	20	8P
12R	Orange/Red	RED	DW	20	8P
12G	Orange/Blue	BLUE	W	20	8P
	Blue				
	Brown				
	Yellow/Red				
	Brown/Red				
	Red/Blue				
	Yellow/Blue				
	Brown/Blue				
	Black/Orange				
	Red/Orange				
	Blue/Orange				
	Yellow/Orange				

POLE: B3 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
2R	Red/Black	RED	R	7	2
2Y	Orange/Black	ORANGE	Y	7	2
2G	Blue/Black	BLUE	G	7	2
N	Yellow/Black	BLACK	N	7	2
2R	Black/Red	RED	R	8	2
2Y	Orange/Red	ORANGE	Y	8	2
2G	Blue/Red	BLUE	G	8	2
N	Brown/Black	BLACK	N	8	2
2R	Yellow/Red	RED	R	9	2
2Y	Orange/Blue	ORANGE	Y	9	2
2G	Red/Blue	BLUE	G	9	2
N	Black/Blue	BLACK	N	9	2
5R	Red	RED	R	15	5
5Y	Orange	ORANGE	Y	15	5
N	Black	BLACK	N	15	5
11Y	Yellow	YELLOW	FYA	15	5
N	Black/Orange	BLACK	N	22	2P
9R	Red/Orange	RED	DW	22	2P
9G	Blue/Orange	BLUE	W	22	2P
	Blue				
	Brown				
	Brown/Red				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				



Plot Scale - 1:200
Plotted From - TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L47	L61

Plotting Date: 03/16/2026

POLE: B3 CABLE SIZE: 10/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
4R	Red	RED	R	10	4
4Y	Orange	ORANGE	Y	10	4
4G	Blue	BLUE	G	10	4
N	Black	BLACK	N	10	4
12R	Red/Black	RED	DW	21	8P
12G	Blue/Black	BLUE	W	21	8P
N	Yellow/Black	BLACK	N	21	8P
	Yellow				
	Brown				
	Orange/Black				

POLE: B4 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
4R	Red	RED	R	12	4
4Y	Orange	ORANGE	Y	12	4
4G	Blue	BLUE	G	12	4
N	Black	BLACK	N	12	4
N	Yellow/Black	BLACK	N	16	1
1R	Red/Black	RED	RA	16	1
1Y	Orange/Black	ORANGE	YA	16	1
9Y	Yellow	YELLOW	FYA	16	1
N	Brown/Black	BLACK	N	23	4P
10R	Black/Red	RED	DW	23	4P
10G	Blue/Red	BLUE	W	23	4P
N	Black/Orange	BLACK	N	24	2P
9R	Red/Orange	RED	DW	24	2P
9G	Blue/Orange	BLUE	W	24	2P
	Blue/Black	BLUE			
	Brown				
	Orange/Red				
	Yellow/Red				
	Brown/Red				
	Black/Blue				
	Red/Blue				
	Orange/Blue				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: C1 CABLE SIZE: 25/C

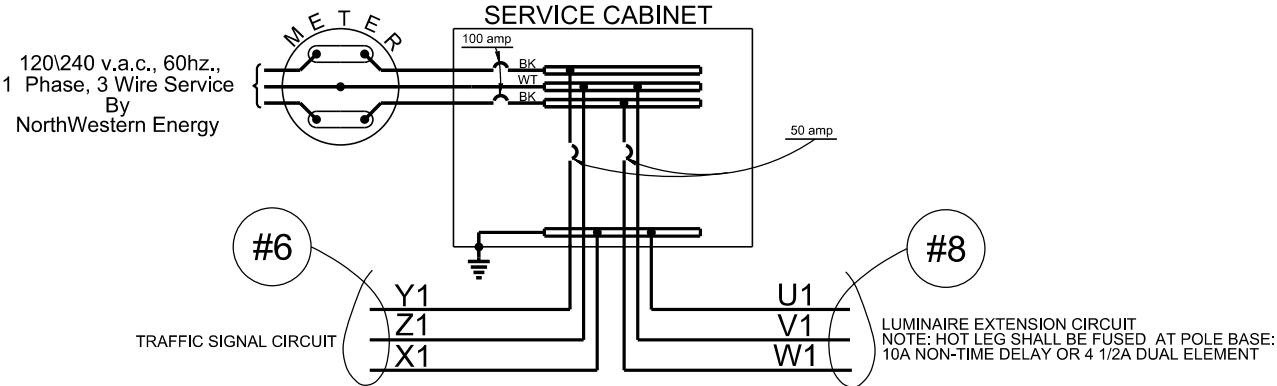
CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
N	Black	BLACK	N	1	1
1R	Red	RED	RA	1	1
1Y	Orange	ORANGE	YA	1	1
9Y	Yellow	YELLOW	FYA	1	1
6R	Red/Black	RED	R	2	6
6Y	Orange/Black	ORANGE	Y	2	6
6G	Blue/Black	BLUE	G	2	6
N	Yellow/Black	BLACK	N	2	6
3R	Black/Red	RED	R	3	6
3Y	Orange/Red	ORANGE	Y	3	6
3G	Blue/Red	BLUE	G	3	6
N	Brown/Black	BLACK	N	3	6
4R	Yellow/Red	RED	R	4	6
4Y	Orange/Blue	ORANGE	Y	4	6
4G	Red/Blue	BLUE	G	4	6
N	Black/Blue	BLACK	N	4	6
N	Black/Orange	BLACK	N	18	4P
10R	Red/Orange	RED	DW	18	4P
10G	Blue/Orange	BLUE	W	18	4P
	Blue	BLUE			
	Brown				
	Brown/Red				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: C1 CABLE SIZE: 10/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
8R	Red	RED	R	5	8
8Y	Orange	ORANGE	Y	5	8
8G	Blue	BLUE	G	5	8
N	Black	BLACK	N	5	8
11R	Red/Black	RED	DW	17	6P
11G	Blue/Black	BLUE	W	17	6P
N	Orange/Black	BLACK	N	17	6P
	Yellow				
	Brown				
	Yellow/Black				

POLE: C2 CABLE SIZE: 4/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
8R	Red	RED	R	6	8
8Y	Orange	ORANGE	Y	6	8
N	Black	BLACK	N	6	8
8G	Blue	BLUE	B	6	8



File - ...prthead06\AWiringTables.dgn

Plot Scale - 1:200
Plotted From - TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L48	L61

Plotting Date: 03/16/2026

POLE: C3 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
8R	Red/Black	RED	R	7	8
8Y	Orange/Black	ORANGE	Y	7	8
8G	Blue/Black	BLUE	G	7	8
N	Yellow/Black	BLACK	N	7	8
N	Black	BLACK	N	8	5
5R	Red	RED	RA	8	5
5Y	Orange	ORANGE	YA	8	5
11Y	Yellow	YELLOW	FYA	8	5
N	Brown/Black	BLACK	N	19	8P
12R	Black/Red	RED	DW	19	8P
12G	Blue/Red	BLUE	W	19	8P
N	Black/Orange	BLACK	N	20	6P
11R	Brown/Red	RED	DW	20	6P
11G	Orange/Blue	BLUE	W	20	6P
	Blue				
	Brown				
	Orange/Red				
	Yellow/Red				
	Black/Blue				
	Red/Blue				
	Yellow/Blue				
	Brown/Blue				
	Red/Orange				
	Blue/Orange				
	Yellow/Orange				

POLE: C4 CABLE SIZE: 25/C

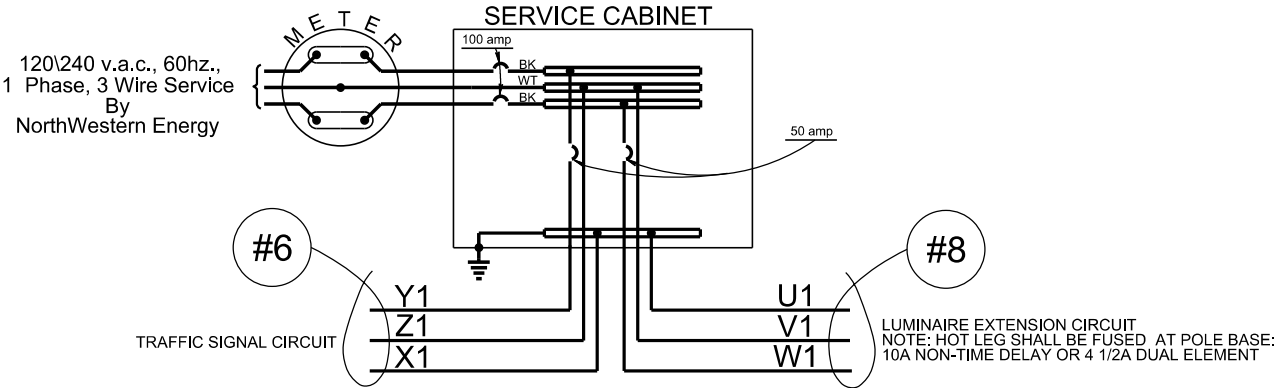
CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
N	Black	BLACK	N	9	5
5R	Red	RED	RA	9	5
5Y	Orange	ORANGE	YA	9	5
11Y	Yellow	YELLOW	FYA	9	5
2R	Red/Black	RED	R	10	2
2Y	Orange/Black	ORANGE	Y	10	2
2G	Blue/Black	BLUE	G	10	2
N	Yellow/Black	BLACK	N	10	2
2R	Black/Red	RED	R	11	2
2Y	Orange/Red	ORANGE	Y	11	2
2G	Blue/Red	BLUE	G	11	2
N	Brown/Black	BLACK	N	11	2
2R	Yellow/Red	RED	R	12	2
2Y	Orange/Blue	ORANGE	Y	12	2
2G	Yellow/Blue	BLUE	G	12	2
N	Black/Blue	BLACK	N	12	2
N	Black/Orange	BLACK	N	21	2P
9R	Red/Orange	RED	DW	21	2P
9G	Blue/Orange	BLUE	W	21	2P
N	Brown	BLACK	N	22	8P
12R	Brown/Red	RED	DW	22	8P
12G	Red/Blue	BLUE	W	22	8P
	Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: C4 CABLE SIZE: 10/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
4R	Red	RED	R	13	4
4Y	Orange	ORANGE	Y	13	4
4G	Blue	BLUE	G	13	4
N	Black	BLACK	N	13	4
4R	Red/Black	RED	R	14	4
4Y	Orange/Black	ORANGE	Y	14	4
4G	Blue/Black	BLUE	G	14	4
N	Yellow/Black	BLACK	N	14	4
	Yellow				
	Brown				

POLE: C5 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
4R	Red/Black	RED	R	15	4
4Y	Orange/Black	ORANGE	Y	15	4
4G	Blue/Black	BLUE	G	15	4
N	Yellow/Black	BLACK	N	15	4
N	Black	BLACK	N	16	1
1R	Red	RED	RA	16	1
1Y	Orange	ORANGE	YA	16	1
9Y	Yellow	YELLOW	FYA	16	1
N	Brown/Black	BLACK	N	23	4P
10R	Black/Red	RED	DW	23	4P
10G	Blue/Red	BLUE	W	23	4P
N	Black/Blue	BLACK	N	24	2P
9R	Yellow/Red	RED	DW	24	2P
9G	Orange/Blue	BLUE	W	24	2P
	Blue				
	Brown				
	Orange/Red				
	Brown/Red				
	Red/Blue				
	Yellow/Blue				
	Brown/Blue				
	Black/Orange				
	Red/Orange				
	Blue/Orange				
	Yellow/Orange				



Plot Scale - 1:200
Plotted From - TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L49	L61

Plotting Date: 03/16/2026

POLE: D1 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
N	Black	BLACK	N	1	1
1R	Red	RED	RA	1	1
1Y	Orange	ORANGE	YA	1	1
9Y	Yellow	YELLOW	FYA	1	1
6R	Red/Black	RED	R	2	6
6Y	Orange/Black	ORANGE	Y	2	6
6G	Blue/Black	BLUE	G	2	6
N	Yellow/Black	BLACK	N	2	6
3R	Black/Red	RED	R	3	6
3Y	Orange/Red	ORANGE	Y	3	6
3G	Blue/Red	BLUE	G	3	6
N	Brown/Black	BLACK	N	3	6
4R	Yellow/Red	RED	R	4	6
4Y	Orange/Blue	ORANGE	Y	4	6
4G	Red/Blue	BLUE	G	4	6
N	Black/Blue	BLACK	N	4	6
N	Black/Orange	BLACK	N	18	6P
11R	Red/Orange	RED	DW	18	6P
11G	Blue/Orange	BLUE	W	18	6P
	Blue				
	Brown				
	Brown/Red				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: D1 CABLE SIZE: 10/C

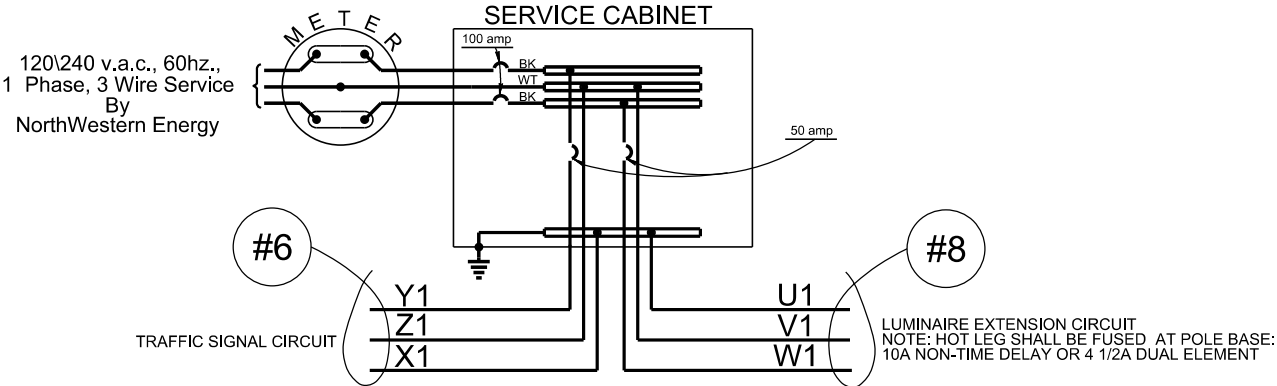
CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
8R	Red	RED	R	5	8
8Y	Orange	ORANGE	Y	5	8
8G	Blue	BLUE	G	5	8
N	Black	BLACK	N	5	8
10R	Red/Black	RED	DW	17	4P
10G	Blue/Black	BLUE	W	17	4P
N	Orange/Black	BLACK	N	17	4P
	Yellow				
	Brown				
	Yellow/Black				

POLE: D2 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
8R	Red	RED	R	6	8
8Y	Orange	ORANGE	Y	6	8
8G	Blue	BLUE	G	6	8
N	Black	BLACK	N	6	8
N	Yellow/Black	BLACK	N	7	5
5R	Red/Black	RED	RA	7	5
5Y	Orange/Black	ORANGE	YA	7	5
11Y	Yellow	YELLOW	FYA	7	7
8R	Black/Red	RED	R	8	8
8Y	Orange/Red	ORANGE	Y	8	8
8G	Blue/Red	BLUE	G	8	8
N	Brown/Black	BLACK	N	8	8
N	Black/Blue	BLACK	N	19	6P
11R	Brown/Red	RED	DW	19	6P
11G	Red/Blue	BLUE	W	19	6P
N	Black/Orange	BLACK	N	20	8P
12R	Red/Orange	RED	DW	20	8P
12G	Blue/Orange	BLUE	W	20	8P
	Blue/Black				
	Brown				
	Yellow/Red				
	Orange/Blue				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				

POLE: D3 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	ø
5R	Red	RED	R	9	5
5Y	Orange	ORANGE	Y	9	5
N	Black	BLACK	N	9	5
11Y	Yellow	YELLOW	FYA	9	5
2R	Red/Black	RED	R	10	2
2Y	Orange/Black	ORANGE	Y	10	2
2G	Blue/Black	BLUE	G	10	2
N	Yellow/Black	BLACK	N	10	2
2R	Black/Red	RED	R	11	2
2Y	Orange/Red	ORANGE	Y	11	2
2G	Blue/Red	BLUE	G	11	2
N	Brown/Black	BLACK	N	11	2
2R	Yellow/Red	RED	R	12	2
2Y	Orange/Blue	ORANGE	Y	12	2
2G	Red/Blue	BLUE	G	12	2
N	Black/Blue	BLACK	N	12	2
N	Black/Orange	BLACK	N	21	2
9R	Red/Orange	RED	DW	21	2
9G	Blue/Orange	BLUE	W	21	2
	Blue				
	Brown				
	Brown/Red				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				



1:200
Plot Scale -
Plotted From -
TRPR17199

TRAFFIC SIGNAL WIRING TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L50	L61

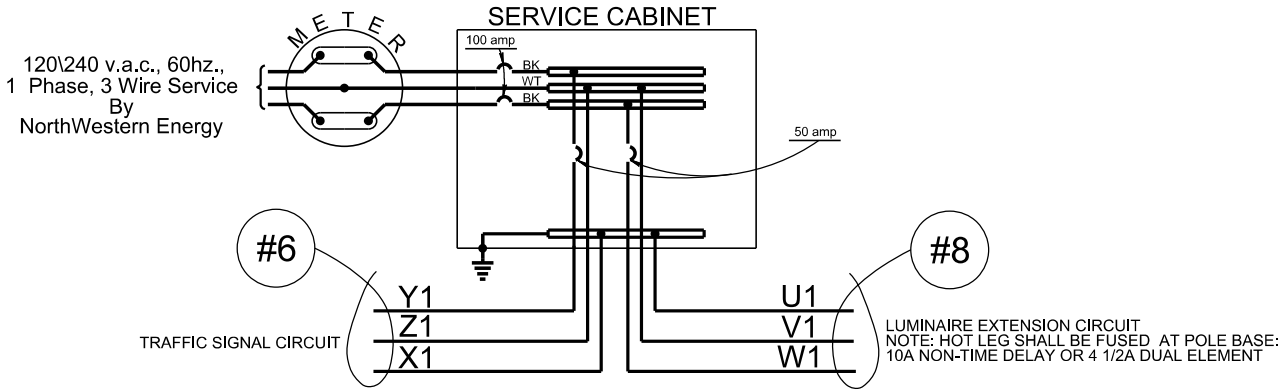
Plotting Date: 03/16/2026

POLE: D3 CABLE SIZE: 10/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
4R	Red	RED	R	13	4
4Y	Orange	ORANGE	Y	13	4
4G	Blue	BLUE	G	13	4
N	Black	BLACK	N	13	4
12R	Red/Black	RED	DW	22	8P
12G	Blue/Black	BLUE	W	22	8P
N	Orange/Black	BLACK	N	22	8P
	Yellow				
	Brown				
	Yellow/Black				

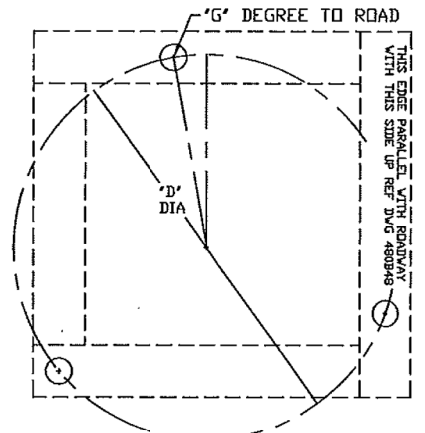
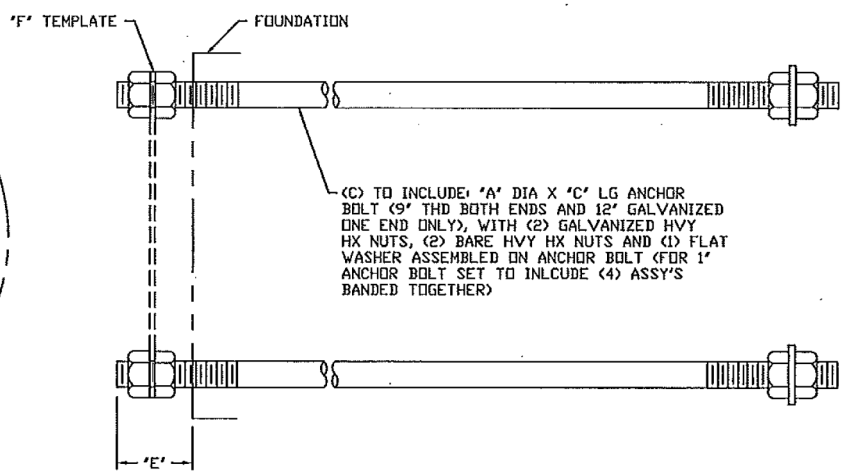
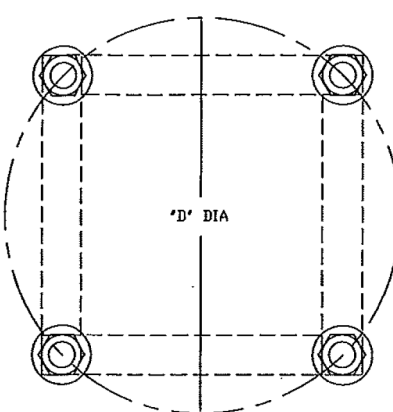
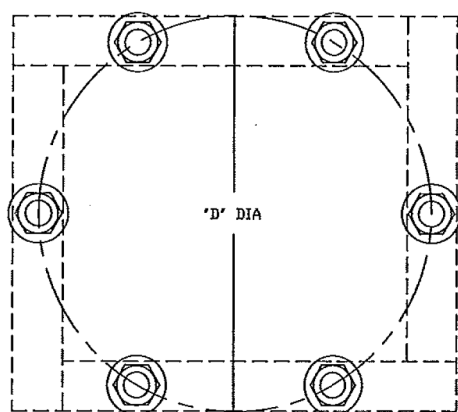
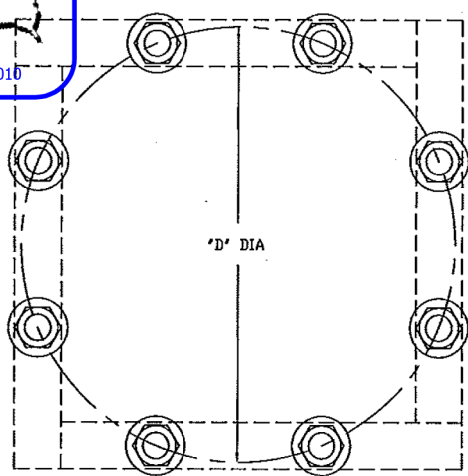
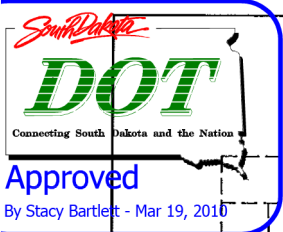
POLE: D4 CABLE SIZE: 25/C

CABINET TERM.	CABLE CONDUCTOR COLOR	POLE COND. COLOR	HEAD TERM.	HEAD NO.	Ø
4R	Red	RED	R	14	4
4Y	Orange	ORANGE	Y	14	4
4G	Blue	BLUE	G	14	4
N	Black	BLACK	N	14	4
4R	Red/Black	RED	R	15	4
4Y	Orange/Black	ORANGE	Y	15	4
4G	Blue/Black	BLUE	G	15	4
N	Yellow/Black	BLACK	N	15	4
N	Brown/Black	BLACK	N	16	1
1R	Black/Red	RED	RA	16	1
1Y	Orange/Red	ORANGE	YA	16	1
9Y	Yellow	YELLOW	FYA	16	1
N	Black/Blue	BLACK	N	23	4P
10R	Yellow/Red	RED	DW	23	4P
10G	Red/Blue	BLUE	W	23	4P
N	Black/Orange	BLACK	N	24	2P
9R	Red/Orange	RED	DW	24	2P
9G	Blue/Orange	BLUE	W	24	2P
	Blue/Red				
	Brown				
	Brown/Red				
	Orange/Blue				
	Yellow/Blue				
	Brown/Blue				
	Yellow/Orange				



Shop Drawings for Remove and Reset Luminaire Poles

Plotting Date: 03/16/2026



- NOTE:
- ANCHOR BOLT MAT'L - ASTM A449
1" DIA - 92,000 PSI MIN YIELD
1 1/4 & 1 1/2 DIA - 81,000 PSI MIN YIELD
2" DIA - 58,000 PSI MIN YIELD
NUT MAT'L - ASTM A194 GR 2H
FLATWASHER MAT'L - ASTM F436
 - ANCHOR BOLT & NUTS GALVANIZED PER ASTM A153
 - THREAD TO BE CLASS 2A PER AMERICAN
STD. B 1.1 .030 OVER SIZE AFTER GALVANIZING
 - ALL BOLTS ROLLED THREAD
 - NO WELDING IS ALLOWED ON ANCHOR BOLTS
 - GALVANIZED HEAVY HEX NUTS PER
A194 GR 2H (.030 OVER SIZE)
 - BARE HEAVY HEX NUTS PER A194 GR 2H

For Poles shown
on Dwg's
10B347
10B337
(NOTE: Max. 4" projection)

460B110-21		1 1/4-7	48"	(3) ASSY'S 460A204-2	18 1/2	4"	460B182	10"
460B110-20		2-4 1/2	96"	(6) ASSY'S 460A204-4	21'	8"	460B136-7	---
460B110-19		1 1/2-6	60"	(8) ASSY'S 460A204-3	28'	6 1/2	460B165-4	---
460B110-18		1-8	40"	(1) SET 460A204-1	9 1/2	4"	460B131-3	---
460B110-17		2-4 1/2	96"	(4) ASSY'S 460A204-4	25'	8"	460B139-6	---
460B110-16		2-4 1/2	96"	(4) ASSY'S 460A204-4	26 1/2	8"	460B139-8	---
460B110-15		2-4 1/2	96"	(4) ASSY'S 460A204-4	23'	8"	460B139-7	---
460B110-14		1 1/2-6	60"	(6) ASSY'S 460A204-3	22'	6 1/2	460B136-1	---
460B110-13		1 1/4-7	48"	(4) ASSY'S 460A204-2	13.5	4 1/2	460B137-9	---
460B110-12		2-4 1/2	96"	(4) ASSY'S 460A204-4	22'	8"	460B139-5	---
460B110-11		1-8	40"	(1) SET 460A204-1	11'	4"	460B131-8	---
460B110-10		1-8	40"	(1) SET 460A204-1	15'	3"	460B131-20	---
460B110-9		1 1/2-6	60"	(4) ASSY'S 460A204-3	22'	6 1/2	460B138-12	---
460B110-8		1 1/2-6	60"	(4) ASSY'S 460A204-3	20'	6 1/2	460B138-11	---
460B110-7	56	1 1/4-7	48"	(4) ASSY'S 460A204-2	17'	4"	460B137-12	---
460B110-6		1 1/2-6	60"	(4) ASSY'S 460A204-3	17'	6 1/2	460B138-7	---
460B110-5		1 1/2-6	60"	(4) ASSY'S 460A204-3	18'	6 1/2	460B138-8	---
460B110-4		1 1/2-6	60"	(4) ASSY'S 460A204-3	14'	6 1/2	460B138-3	---
460B110-3		1 1/4-7	48"	(4) ASSY'S 460A204-2	17'	4 1/2	460B137-12	---
460B110-2		1-8	40"	(1) SET 460A204-1	12'	4"	460B131-11	---
460B110-1		1-8	40"	(1) SET 460A204-1	15'	4"	460B131-20	---
PART NO	QTY (4/SET)	'A' THD SIZE	'B' BOLT LG	'C' QTY 460A204-	'D' BC	'E' BOLT PROJ	'F' TEMPLATE	'G' DEGREE TO ROAD

NH-PH0037(88)125 HURON SD MMC 35560

REV 7-29-09 CHANGED
FLATWASHER TYPE A TO F436
REV 1-28-02 REV 5-10-01
REV 7-13-95 REV 9-26-94
REV 6-7-95 REV 4-1-94
REV 1-16-95 REV 1-28-94
REV 1-11-95 REV 7-13-93

DWN: FLOYD F.
DATE: 6-29-93
CHK: WADE L.
SCALE: NTS

ANCHOR BOLT CLUSTER TABULATION
(ASTM A449 MATERIAL)

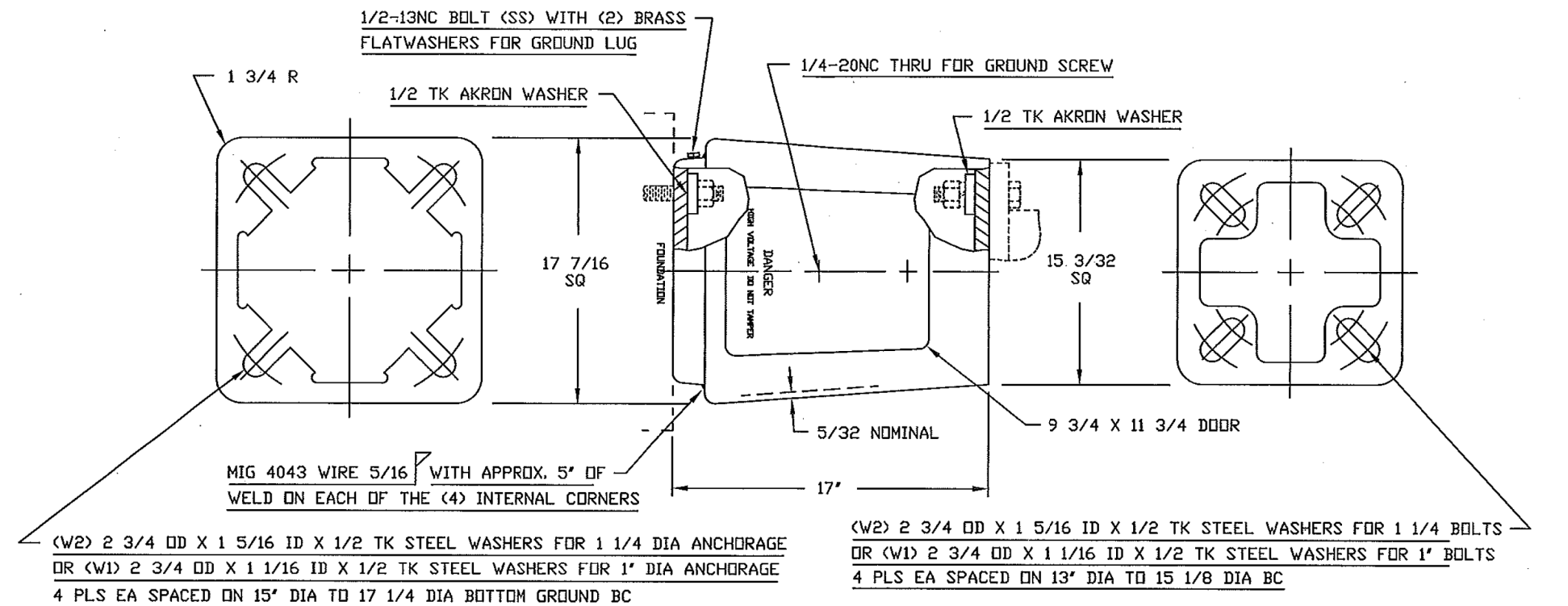
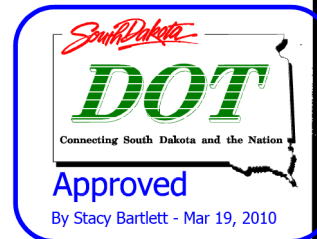
Millerbernd MANUFACTURING CO.
WINSTED, MN

460B110

Shop Drawings for Remove and Reset Luminaire Poles

TB3-17

"BUY AMERICAN"



WHEN ADDITIONAL STATIC LOADING IS REQUIRED ON 15' DIA BC APPLICATIONS USE 5/8 X 2 3/4 X 4 1/4 RECTANGULAR STEEL WASHER UNDER 2 3/4 OD X 1 1/16 ID X 1/2 WASHERS FOR 1' DIA ANCHORAGE GROUND MOUNTING BC

DOOR SUPPLIED WITH OR WITHOUT LOGO, IN ALUMINUM OR PLASTIC, WITH OR WITHOUT HINGE WITH 1/4-20 SS HX SCREW

ALL WASHERS TO BE ZINC MECHANICAL COATED PER ASTM B 695-85 CLASS 50

356 T-6 ALUMINUM ALLOY / SS WHEELABRATED FINISH CHEMICAL AND PHY CERTS TO BE SUPPLIED WITH EACH SHIPMENT

ADHESIVE BREAKAWAY AND CAUTION LABELS TO APPEAR ON INSIDE WALL OPPOSITE DOOR OPENING

ALL STREET LIGHT Poles

TB3-17-P-HD-MOD-2		T-BASE WITH HINGED PLASTIC DOOR, (4) (W1) 1 1/16 ID WASHERS & (4) 1 5/16 ID WASHERS
TB3-17-HD-MOD-1		T-BASE W/O LOGO IN ALUM HINGED DOOR, (8) (W1) 1 1/16 ID WASHERS & (4) 5/8 X 2 3/4 X 4 1/4 RECTANGULAR WASHERS
TB3-17-P-HD-MOD-1		T-BASE WITH HINGED PLASTIC DOOR & (8) (W2) 1 5/16 ID WASHERS
TB3-17-P		T-BASE WITH NON-HINGED PLASTIC DOOR & (8) (W2) 1 5/16 ID WASHERS
TB3-17-HD		T-BASE WITH HINGED ALUM DOOR & (8) (W2) 1 5/16 ID WASHERS
TB3-17-MOD-2		T-BASE WITH NON-HINGED ALUM DOOR, (4) (W1) 1 1/16 ID WASHERS & (4) 5/8 X 2 3/4 X 4 1/4 RECTANGULAR WASHERS
TB3-17-MOD-1		T-BASE WITH NON-HINGED ALUM DOOR, (8) (W1) 1 1/16 ID WASHERS & (4) 5/8 X 2 3/4 X 4 1/4 RECTANGULAR WASHERS
TB3-17	56	T-BASE WITH NON-HINGED ALUM DOOR & (8) (W2) 1 5/16 ID WASHERS
PART NO	QTY	DESCRIPTION
FINISH: BARE NATURAL ALUMINUM		

NH-PH0037(88)125 HURON SD MMC 35560

AKRON FOUNDRY CO.	
1985 AASHTO T-BASE	
1-25-88	TB3-17

REV 4-19-07 CHANGE TB3-17-P-HD-HD WASHERS FROM 1 1/16 TO 1 5/16

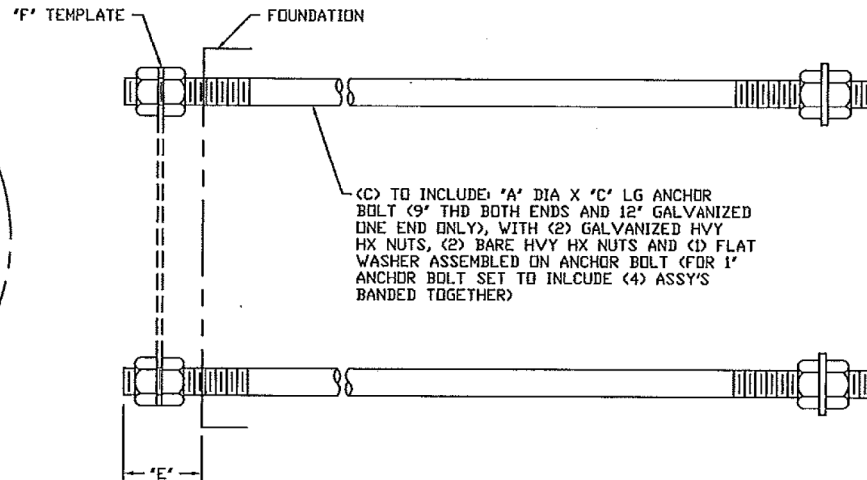
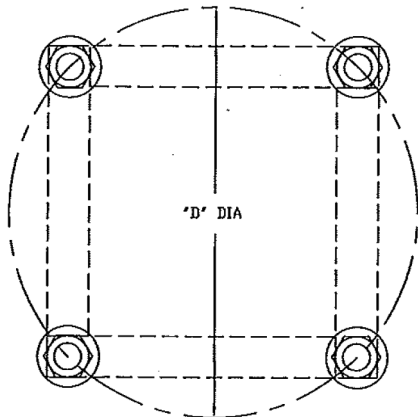
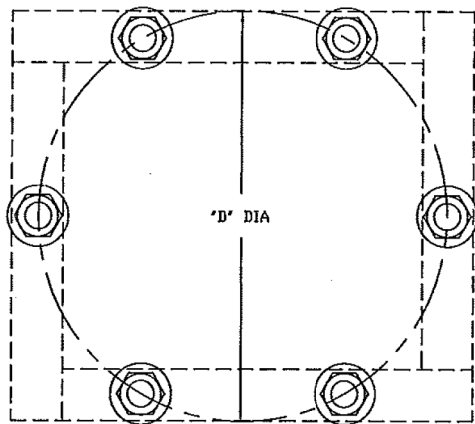
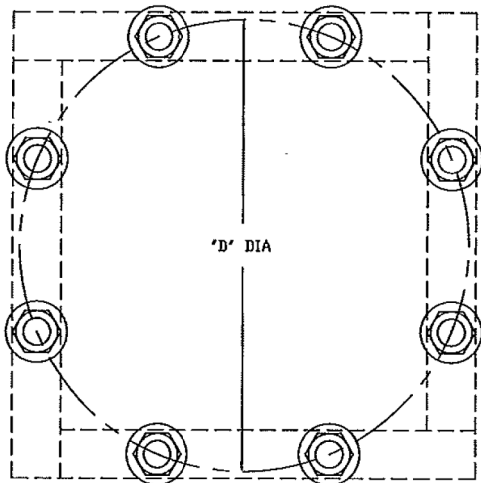
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Plot Scale - 1:200

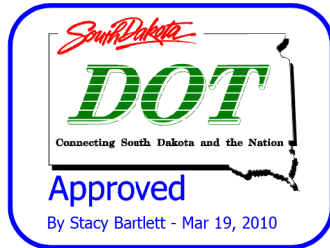
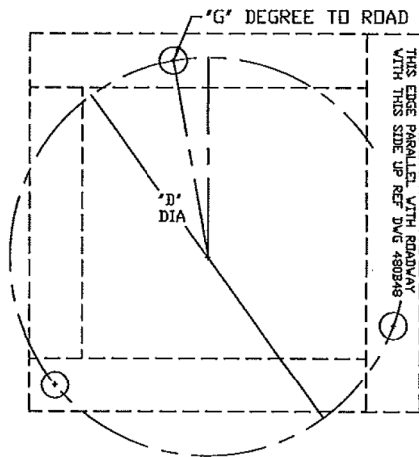
Plotted From - TRPR17199

Plotting Date: 03/16/2026

Shop Drawings for Remove and Reset Signal Poles



(C) TO INCLUDE: 'A' DIA X 'C' LG ANCHOR BOLT (9' THD BOTH ENDS AND 12' GALVANIZED ONE END ONLY), WITH (2) GALVANIZED HVY HX NUTS, (2) BARE HVY HX NUTS AND (1) FLAT WASHER ASSEMBLED ON ANCHOR BOLT (FOR 1' ANCHOR BOLT SET TO INCLUDE (4) ASSY'S BANDED TOGETHER)



ALL SIGNAL Poles, MARKED AS: A THRU N

NOTE:

1. ANCHOR BOLT MAT'L - ASTM A449
1" DIA - 92,000 PSI MIN YIELD
1 1/4 & 1 1/2 DIA - 81,000 PSI MIN YIELD
2" DIA - 58,000 PSI MIN YIELD
NUT MAT'L - ASTM A194 GR 2H
FLATWASHER MAT'L - ASTM F436
2. ANCHOR BOLT & NUTS GALVANIZED PER ASTM A153
3. THREAD TO BE CLASS 2A PER AMERICAN STD. B 1.1 .030 OVER SIZE AFTER GALVANIZING
4. ALL BOLTS ROLLED THREAD
5. NO WELDING IS ALLOWED ON ANCHOR BOLTS
6. GALVANIZED HEAVY HEX NUTS PER A194 GR 2H (.030 OVER SIZE)
7. BARE HEAVY HEX NUTS PER A194 GR 2H

460B110-21		1 1/4-7	48"	(3) ASSY'S 460A204-2	18 1/2	4"	460B182	10"
460B110-20		2-4 1/2	96"	(6) ASSY'S 460A204-4	21"	8"	460B136-7	---
460B110-19		1 1/2-6	60"	(8) ASSY'S 460A204-3	28"	6 1/2	460B165-4	---
460B110-18		1-8	40"	(1) SET 460A204-1	9 1/2	4"	460B131-3	---
460B110-17		2-4 1/2	96"	(4) ASSY'S 460A204-4	25"	8"	460B139-6	---
460B110-16		2-4 1/2	96"	(4) ASSY'S 460A204-4	26 1/2	8"	460B139-8	---
460B110-15		2-4 1/2	96"	(4) ASSY'S 460A204-4	23"	8"	460B139-7	---
460B110-14		1 1/2-6	60"	(6) ASSY'S 460A204-3	22"	6 1/2	460B136-1	---
460B110-13		1 1/4-7	48"	(4) ASSY'S 460A204-2	13.5	4 1/2	460B137-9	---
460B110-12		2-4 1/2	96"	(4) ASSY'S 460A204-4	22"	8"	460B139-5	---
460B110-11		1-8	40"	(1) SET 460A204-1	11"	4"	460B131-8	---
460B110-10		1-8	40"	(1) SET 460A204-1	15"	3"	460B131-20	---
460B110-9	25	1 1/2-6	60"	(4) ASSY'S 460A204-3	22"	6 1/2	460B138-12	---
460B110-8		1 1/2-6	60"	(4) ASSY'S 460A204-3	20"	6 1/2	460B138-11	---
460B110-7		1 1/4-7	48"	(4) ASSY'S 460A204-2	17"	4"	460B137-12	---
460B110-6		1 1/2-6	60"	(4) ASSY'S 460A204-3	17"	6 1/2	460B138-7	---
460B110-5		1 1/2-6	60"	(4) ASSY'S 460A204-3	18"	6 1/2	460B138-8	---
460B110-4		1 1/2-6	60"	(4) ASSY'S 460A204-3	14"	6 1/2	460B138-3	---
460B110-3		1 1/4-7	48"	(4) ASSY'S 460A204-2	17"	4 1/2	460B137-12	---
460B110-2		1-8	40"	(1) SET 460A204-1	12"	4"	460B131-11	---
460B110-1		1-8	40"	(1) SET 460A204-1	15"	4"	460B131-20	---
PART NO	QTY (4/SET)	'A' THD SIZE	'B' BOLT LG	'C' QTY 460A204-	'D' BC	'E' BOLT PROJ	'F' TEMPLATE	'G' DEGREE TO ROAD

NH-PH0037(88)125 HURON SD MMC 35560

REV 7-29-09 CHANGED
FLATWASHER TYPE A TO F436
REV 1-28-02 REV 5-10-01
REV 7-13-93 REV 9-26-94
REV 6-7-95 REV 4-1-94
REV 1-16-95 REV 1-28-94
REV 1-11-95 REV 7-13-93

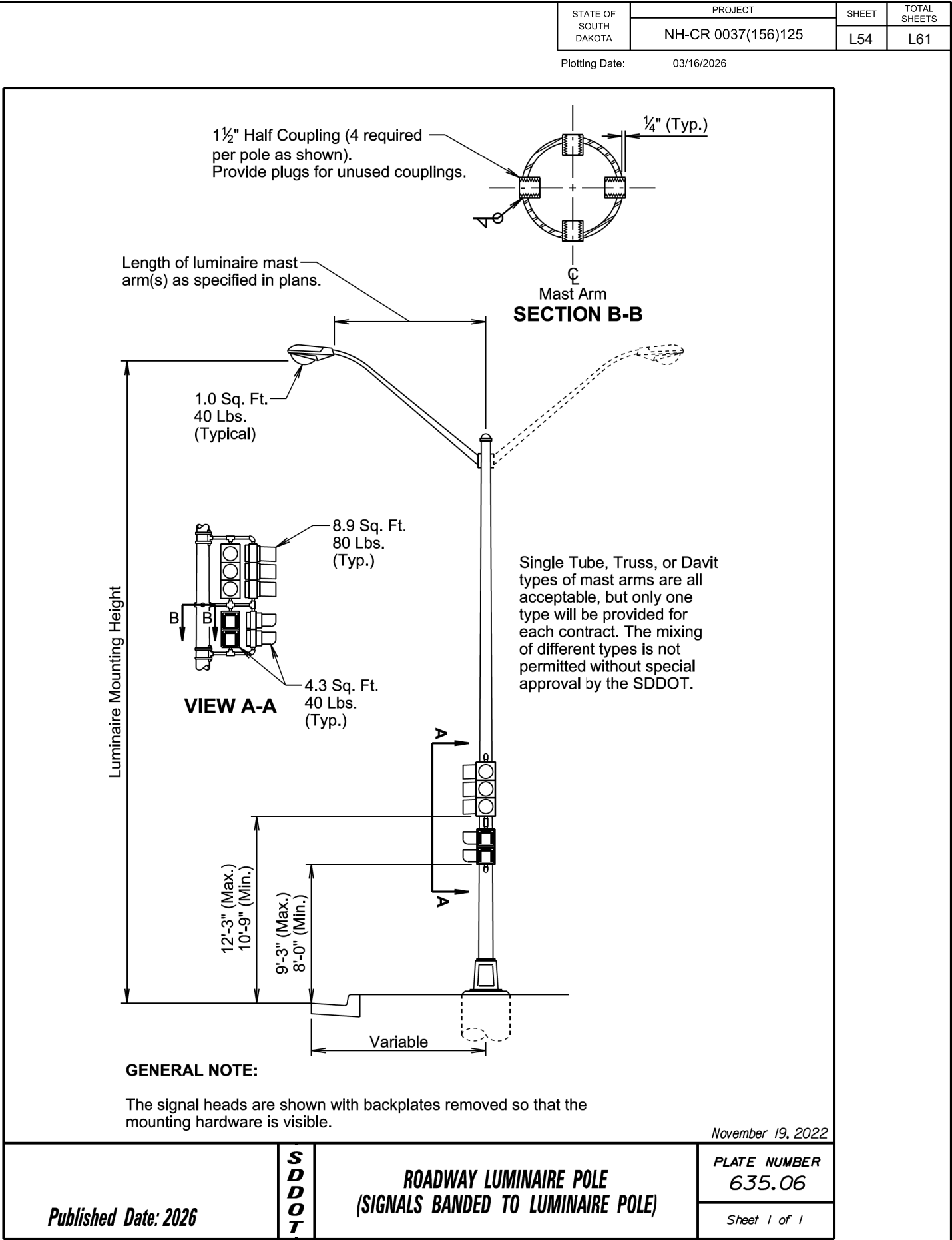
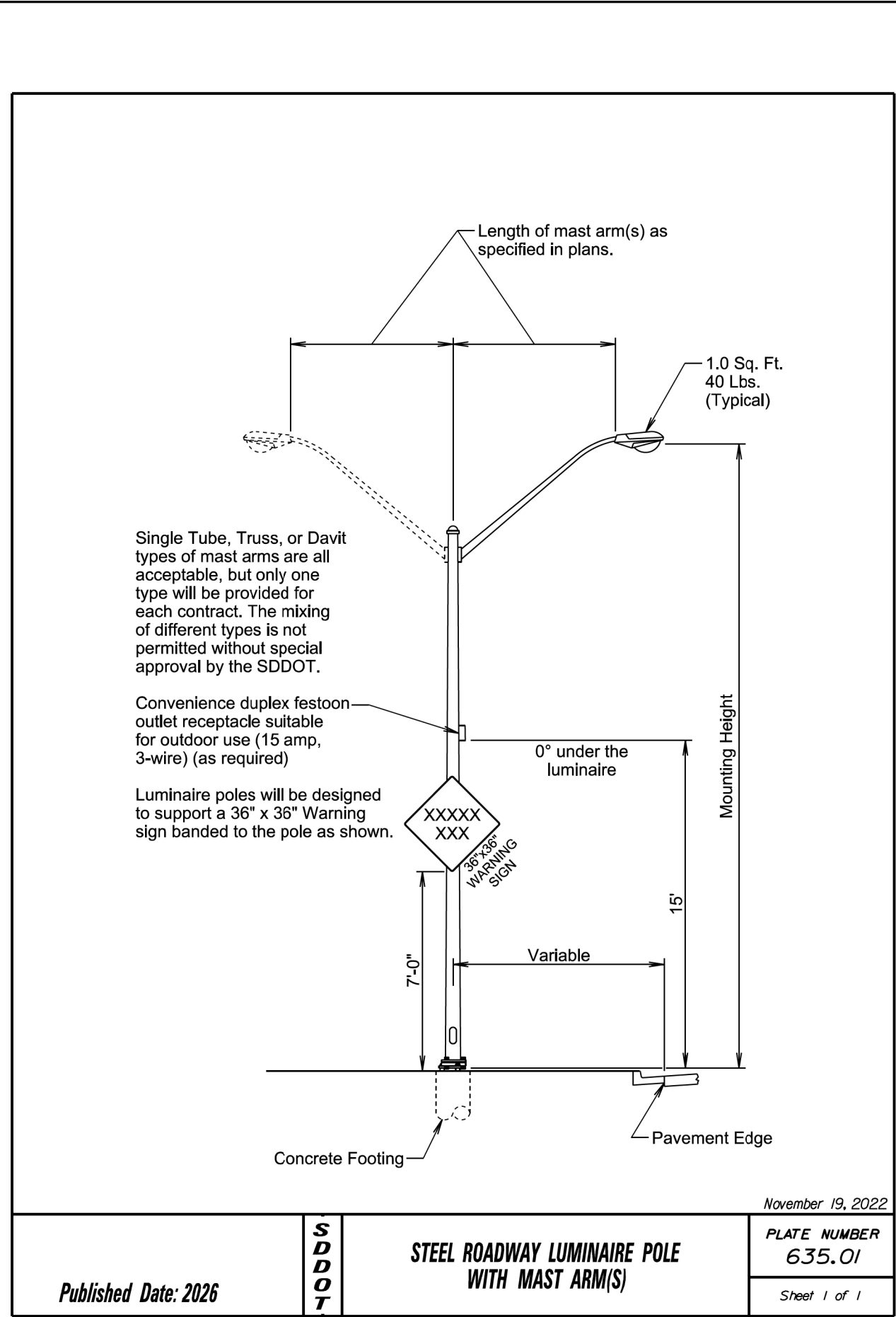
DWN: FLOYD F.
DATE: 6-29-93
CHK: WADE L.
SCALE: NTS

ANCHOR BOLT CLUSTER TABULATION
(ASTM A449 MATERIAL)

Millerbernd MANUFACTURING CO.
WINSTED, MN

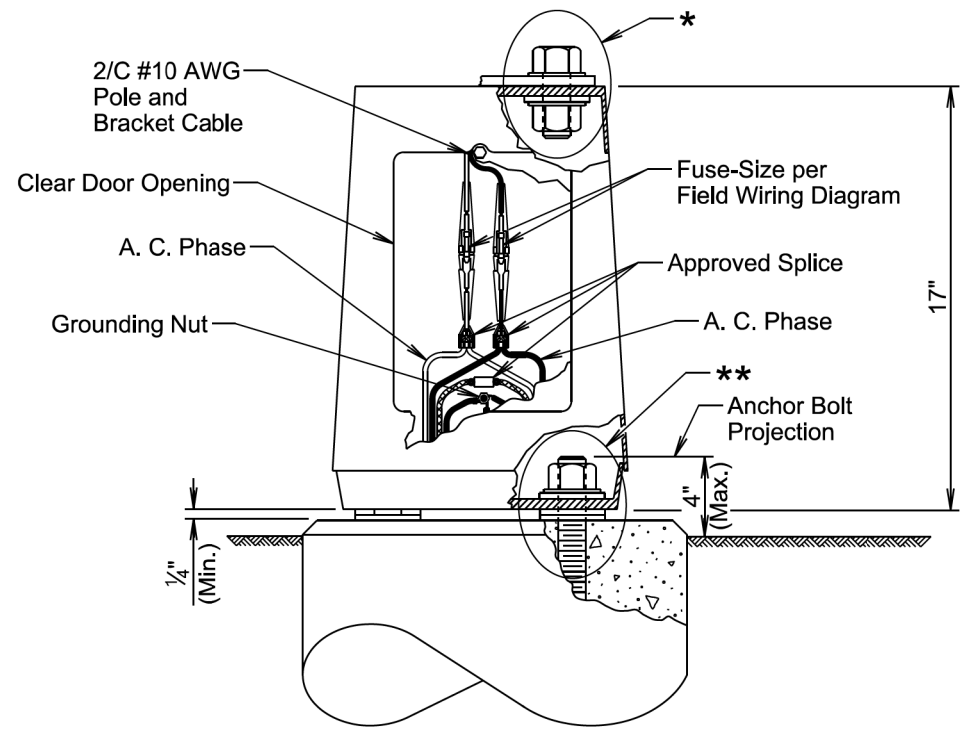
460B110

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0037(156)125	L55	L61

Plotting Date: 03/16/2026



GENERAL NOTES:

Base details are provided for example only and are not intended to be a complete design.

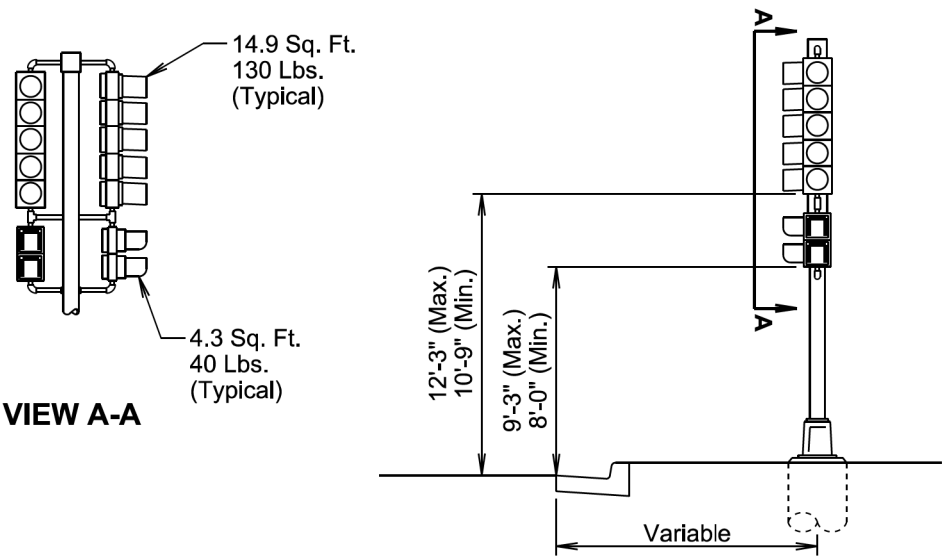
Fused connectors will be breakaway type.

* Hardware connecting the pole to the base will be installed in accordance with the manufacturer's recommendation.

** Hardware connecting the base to the footing will be installed in accordance with the manufacturer's recommendation. The Contractor will install leveling devices in accordance with the manufacturer's recommendation if shimming is necessary to install the light poles plumb and level. The washers and shims will be installed around the anchor bolts.

November 19, 2022

<i>Published Date: 2026</i>	S D D O T	ROADWAY LUMINAIRE POLE BREAKAWAY TRANSFORMER BASE	PLATE NUMBER 635.21
			Sheet 1 of 1

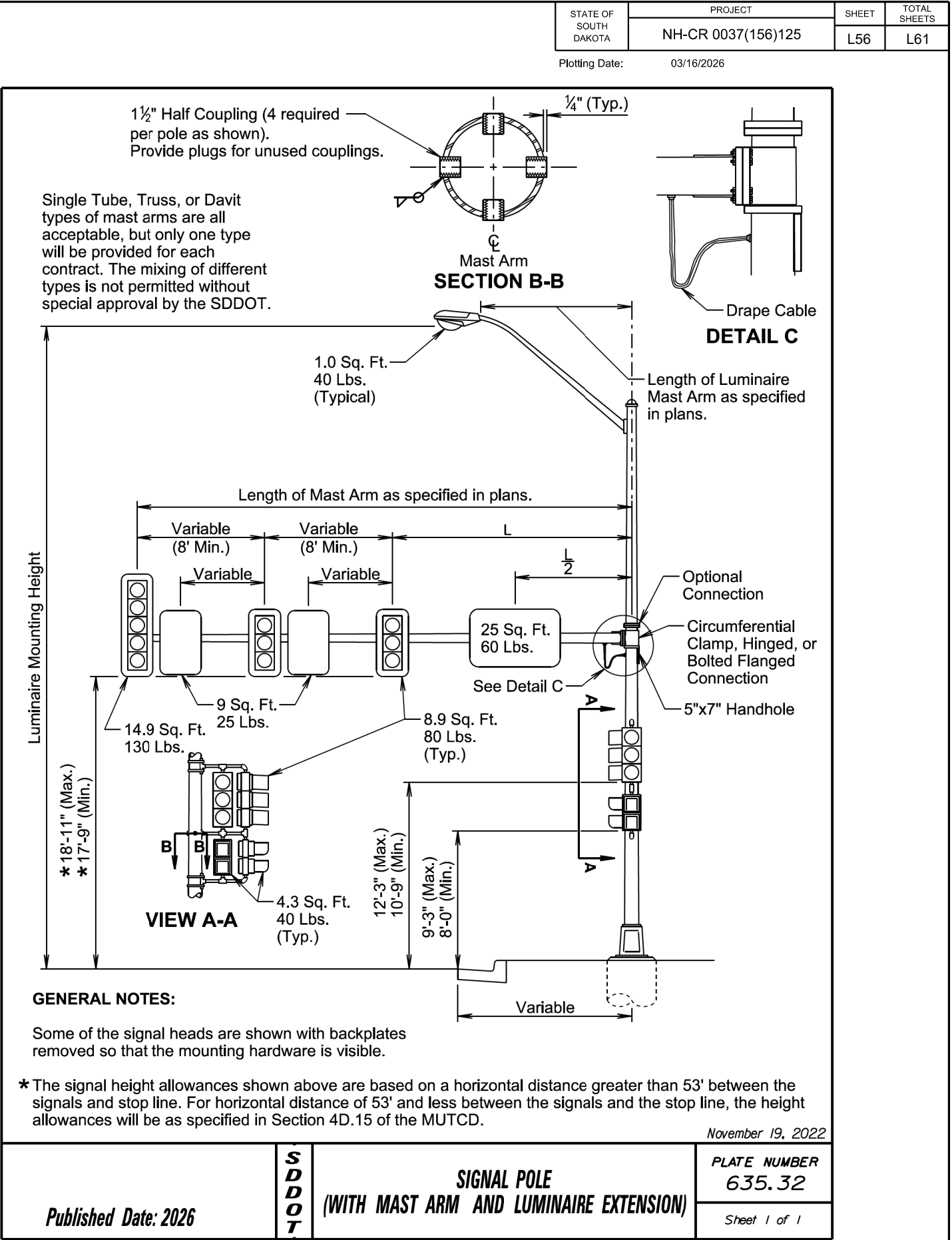
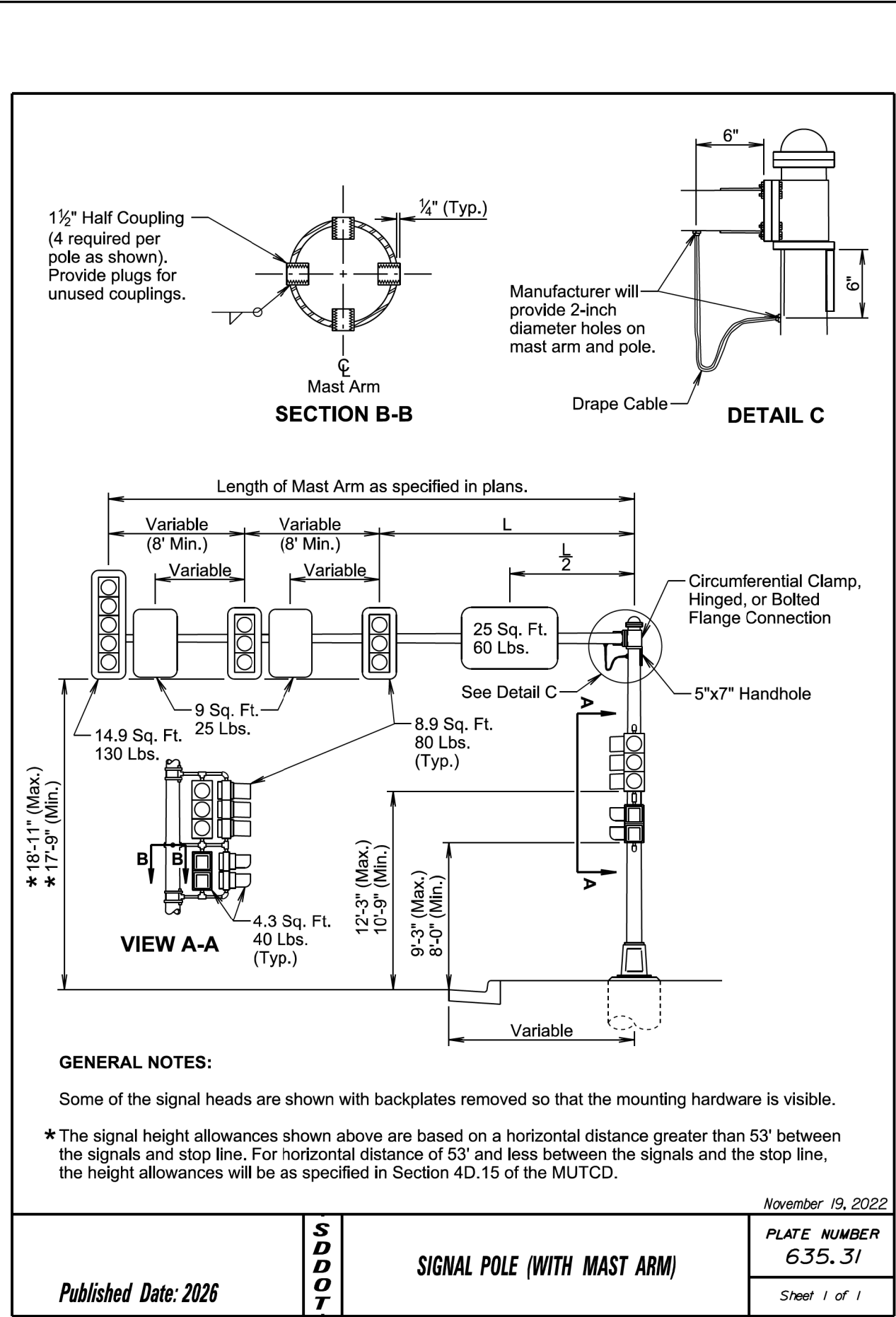


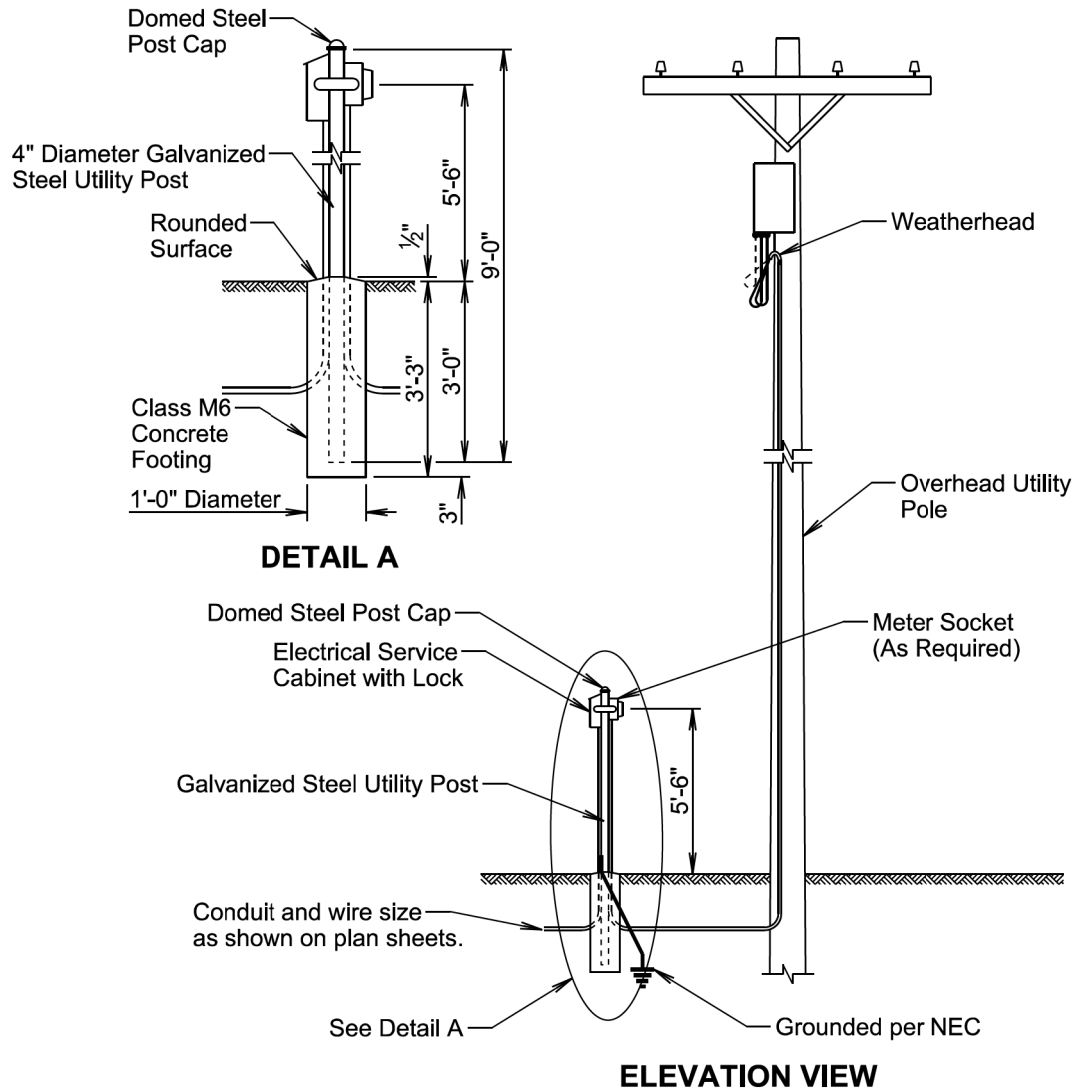
GENERAL NOTE:

The signal heads are shown with backplates removed so that the mounting hardware is visible.

November 19, 2022

<i>Published Date: 2026</i>	S D D O T	SIGNAL POLE (PEDESTAL)	PLATE NUMBER 635.30
			Sheet 1 of 1





GENERAL NOTES:

The concrete for the post footing will be class M6 concrete.

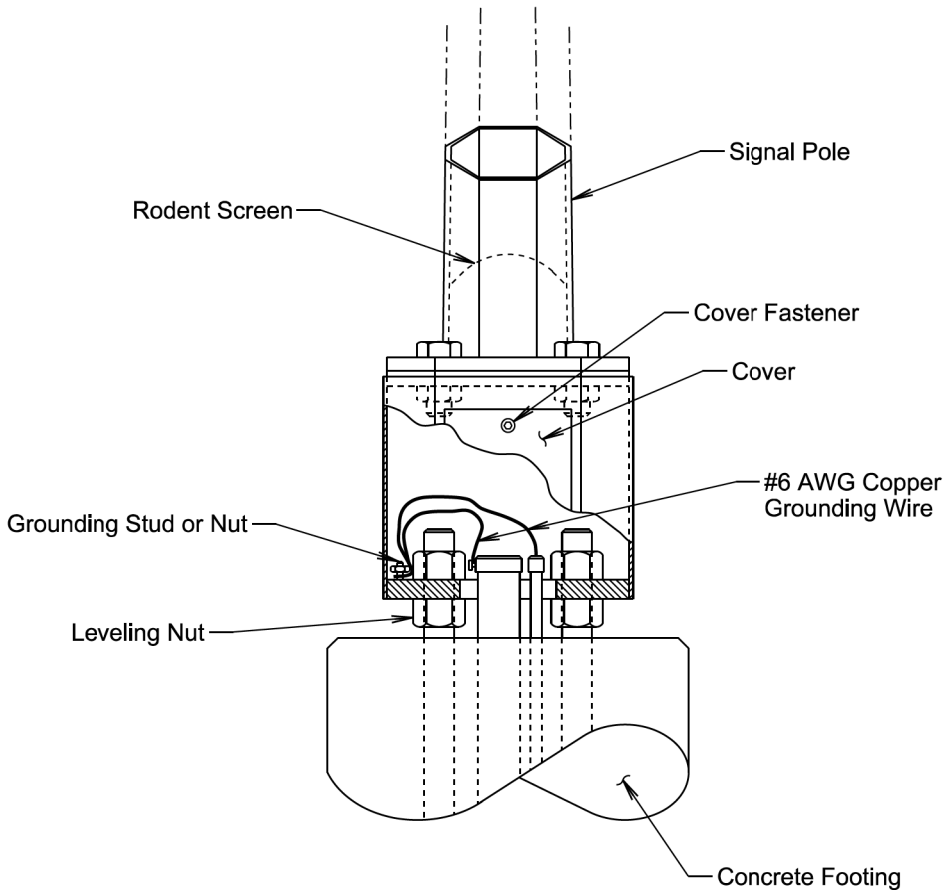
The 4" diameter galvanized steel utility post will be 9' long and will be in conformance with AASHTO Standard Specifications M181. The post will be Type 1 and either Grade 1 or Grade 2. The domed steel post cap will be in conformance with AASHTO Standard Specifications M181 and will be Type 1.

The Contractor will contact and coordinate his/her work with the Utility Companies regarding hookup requirements, fees, materials, and equipment necessary.

All costs for furnishing and installing all materials from the electrical service cabinet to the transformer including labor, equipment, hookup fees, all items within the cabinet, lockable enclosure with receptacle outlet, lock and keys, post, concrete footing, post cap, meter socket if required, conduit, and incidentals will be incidental to the contract unit price per each for "Electrical Service Cabinet".

March 31, 2024

Published Date: 2026	S D D O T	GALVANIZED STEEL UTILITY POST WITH OVERHEAD UTILITY POLE	PLATE NUMBER 635.35
			Sheet 1 of 1



GENERAL NOTES:

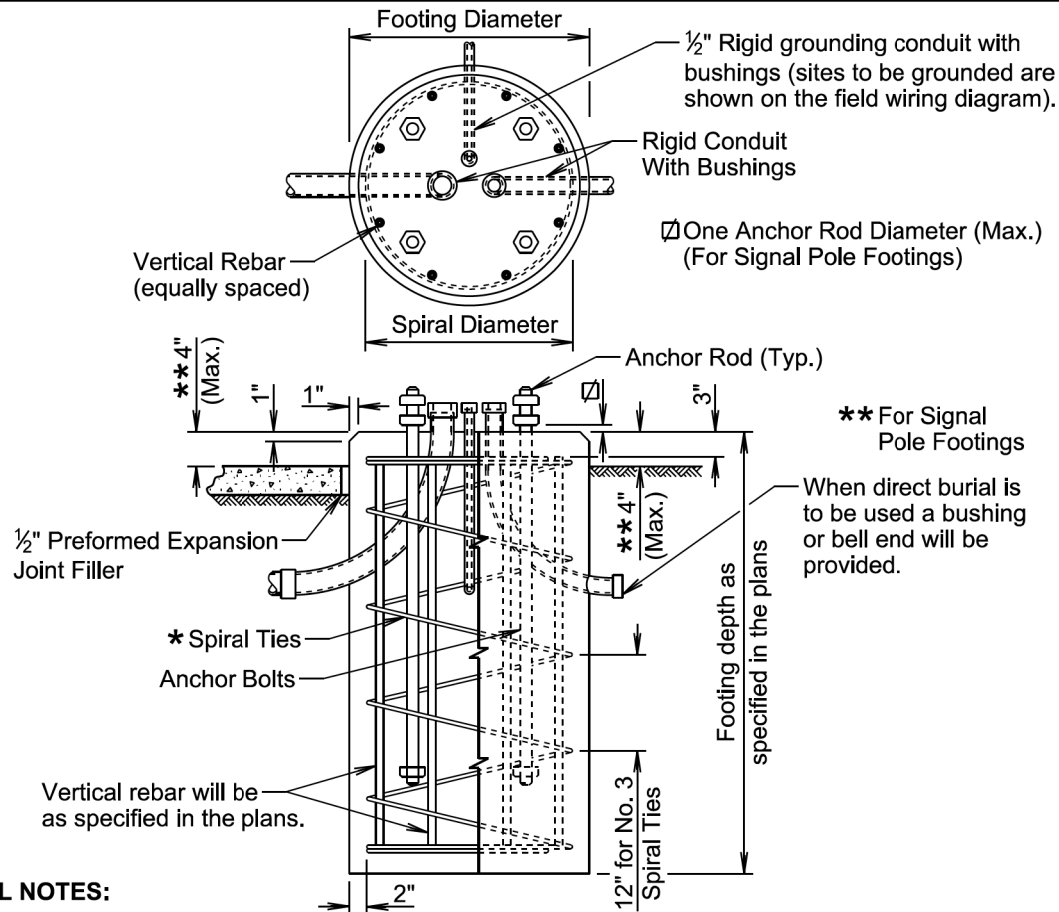
Base details are provided for example only and are not intended to be a complete design.

The Contractor will furnish and install a rodent screen in the signal pole above the tranformer base. The rodent screen will be a galvanized steel mesh with a maximum opening size of ¼ inch. The rodent screen will be friction fitted or installed by other methods approved by the Engineer.

All costs for furnishing and installing the rodent screen including labor, equipment, and materials will be incidental to the contract unit price per each for the corresponding signal pole contract item.

February 14, 2020

Published Date: 2026	S D D O T	TRANSFORMER SIGNAL POLE BASE	PLATE NUMBER 635.50
			Sheet 1 of 1

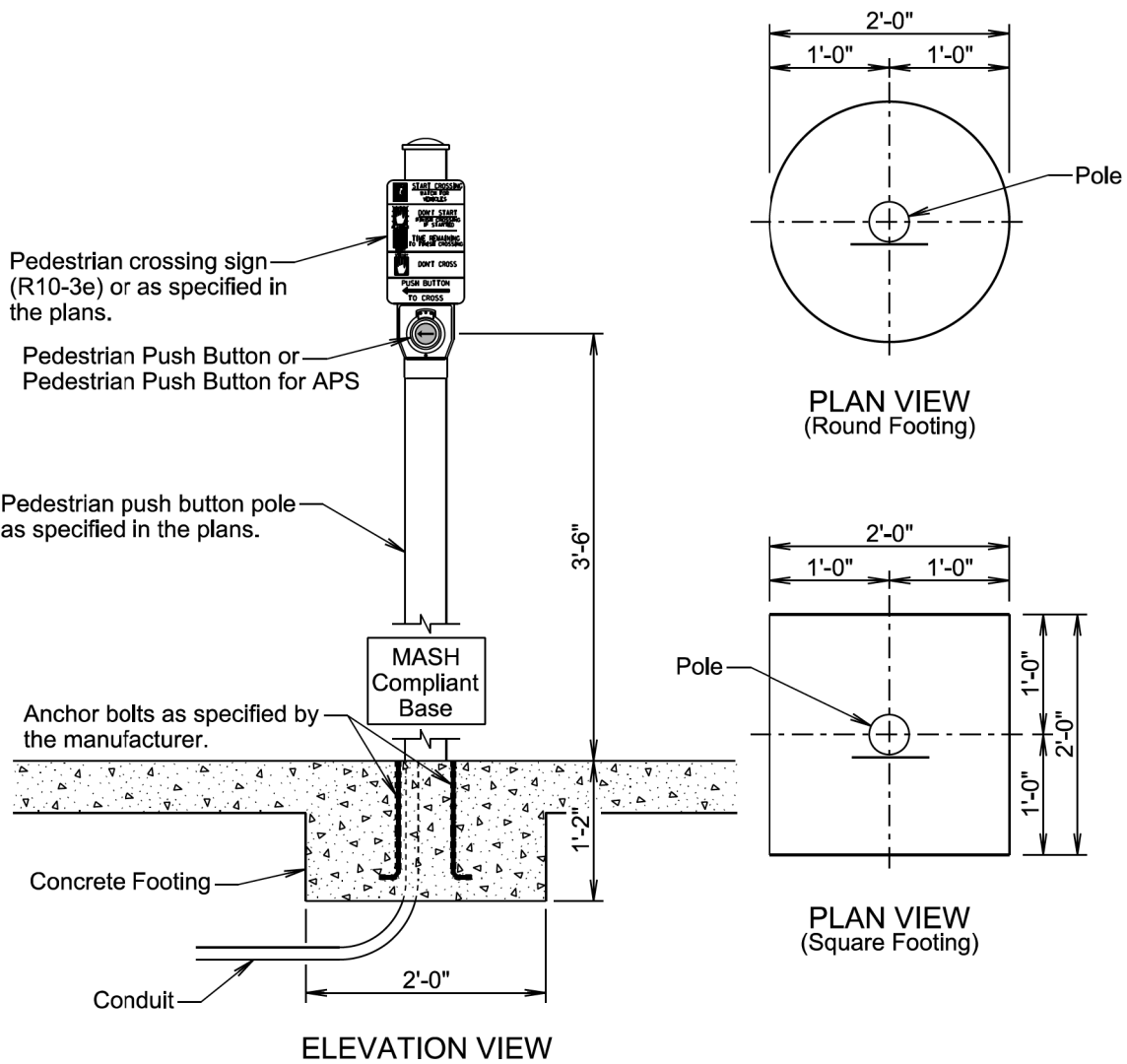


GENERAL NOTES:

- * Circular ties may be used in lieu of the spiral ties. The No. 3 ties will be spaced 12 inches apart except for the top two which will be spaced 6 inches apart. The ties will be lapped 18 inches and the laps will be staggered around the cage.
- Spiral ties will have 1-1/2 extra turns at each end.
- See Section 985 of the Specifications for footing materials.
- Conduits and bushings may project 2½ inches to 6 inches above footing for fixed base poles but will not project above the slip plane or fracture plane for breakaway poles.
- Conduits will be sealed water-tight during all phases of construction until poles are in place.
- The anchor rods will fit inside the reinforcing steel cage. If the anchor rods designed by the Pole Manufacturer do not fit, contact the Office of Bridge Design for footing redesign. No additional payment will be made for the redesigned footing.
- Costs of conduit and conduit bushings shown on footing detail will be incidental to the footing bid item(s).
- The pole will not be installed until the concrete has attained design strength (4000 psi).
- The contour of the area surrounding the breakaway pole will be flat, though not necessarily level for a distance of 5 feet in all directions. The Contractor may be required to provide finish grading at some breakaway pole locations.

November 19, 2022

Published Date: 2026	S D D O T	POLE FOOTING	PLATE NUMBER
			635.55
			Sheet 1 of 1

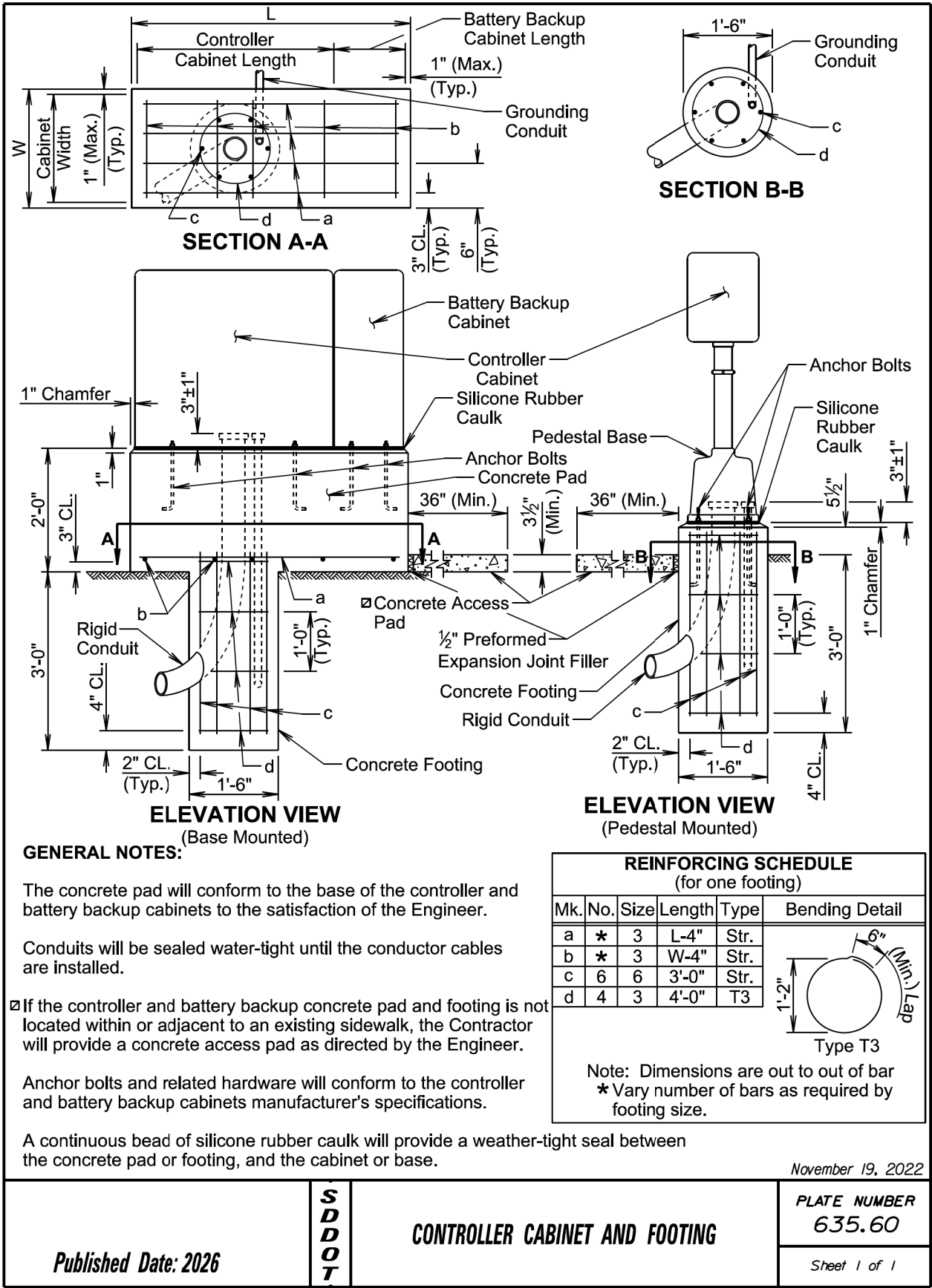
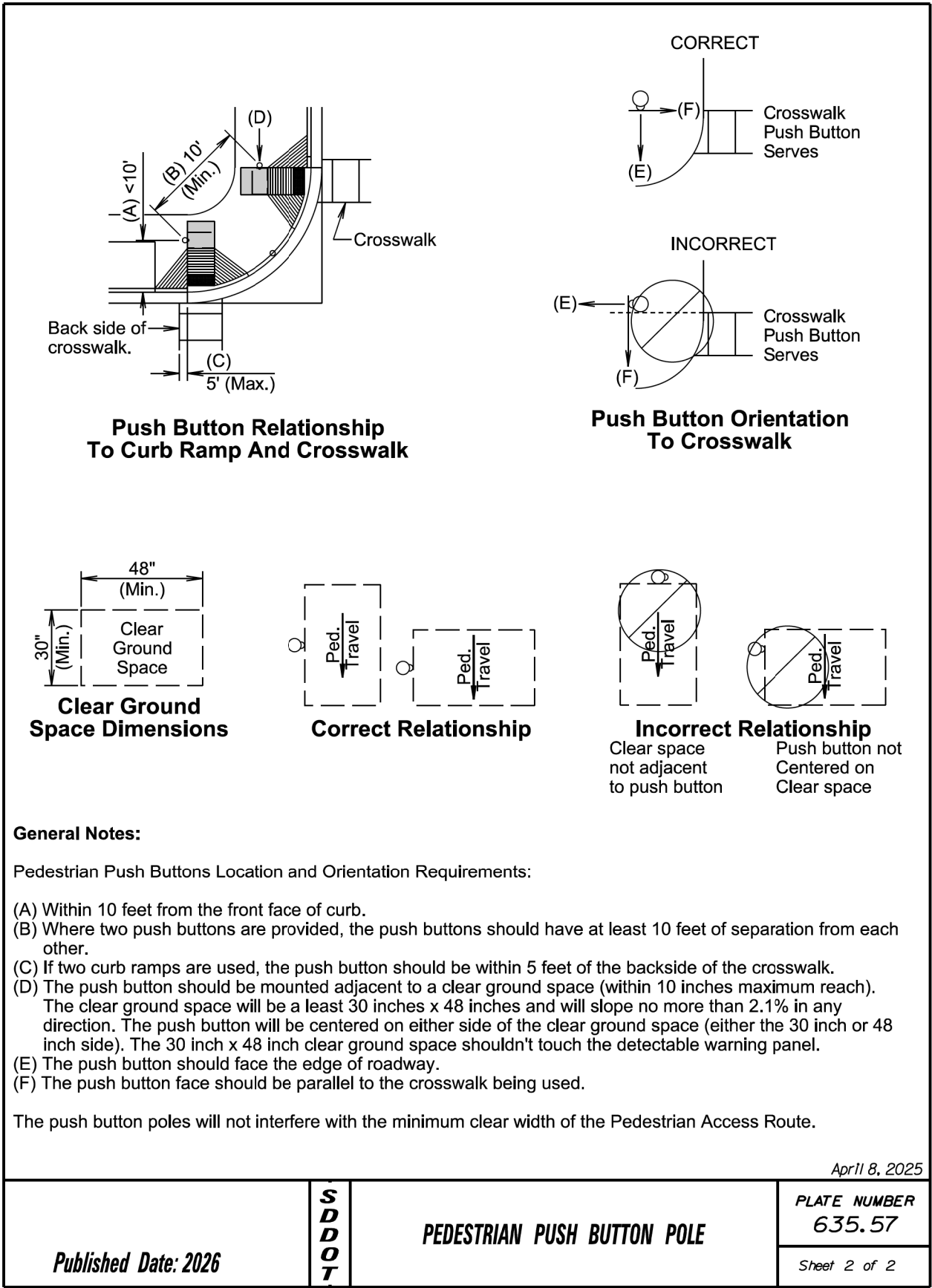


GENERAL NOTES:

- The pedestrian push button pole will be as specified in the plans.
- The Contractor will install either the round or the square concrete footing. For informational purpose, the quantity of concrete for one footing is 0.14 cubic yards for the round footing and 0.17 cubic yards for the square footing.
- The concrete for the footing will be class M6 concrete.
- All costs for furnishing and installing the concrete footing will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk bid item.
- All costs for furnishing and installing the pedestrian push button pole including labor, equipment, and materials including the pole, cap, and the conduit in the footing will be incidental to the contract unit price per each for "Pedestrian Push Button Pole".

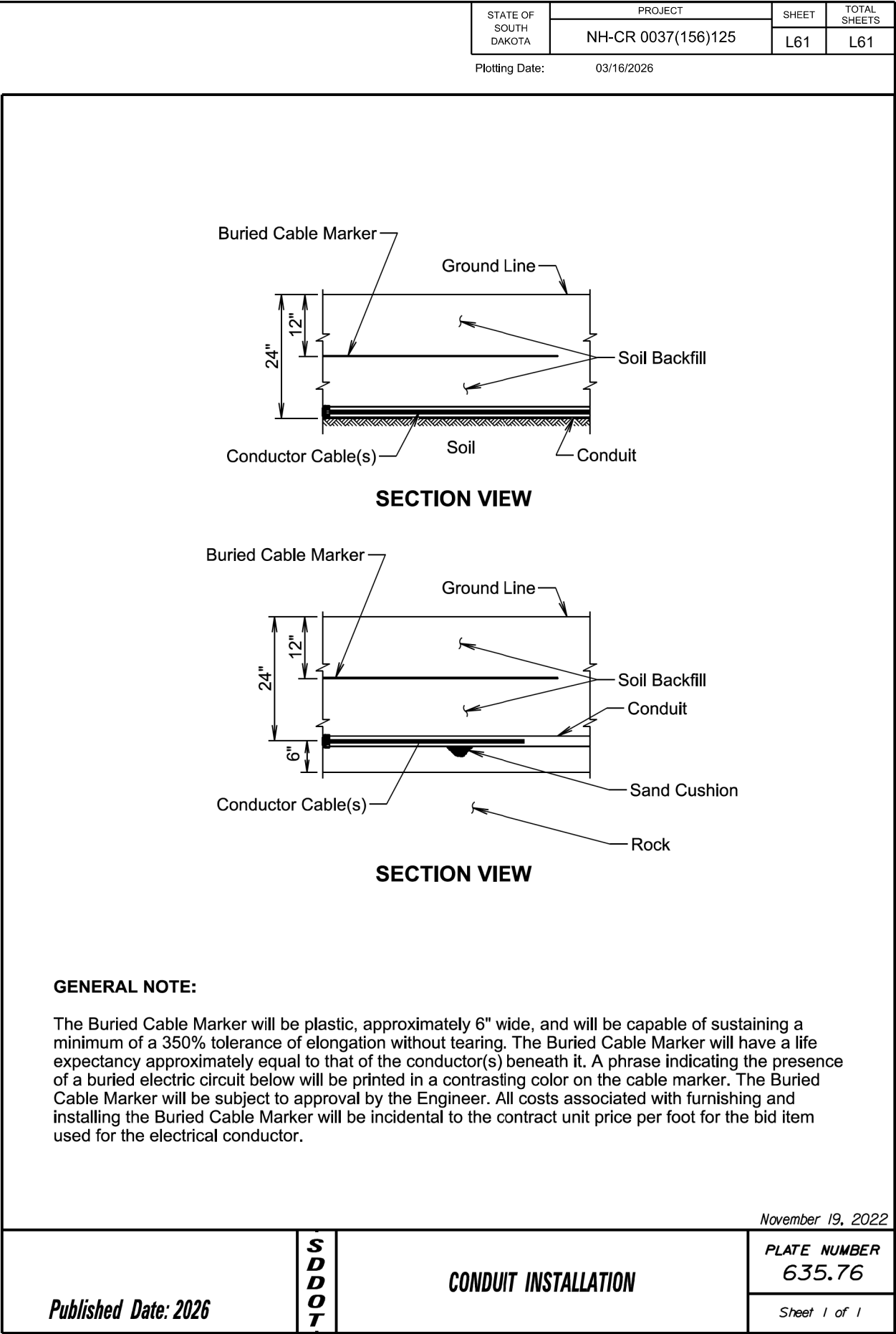
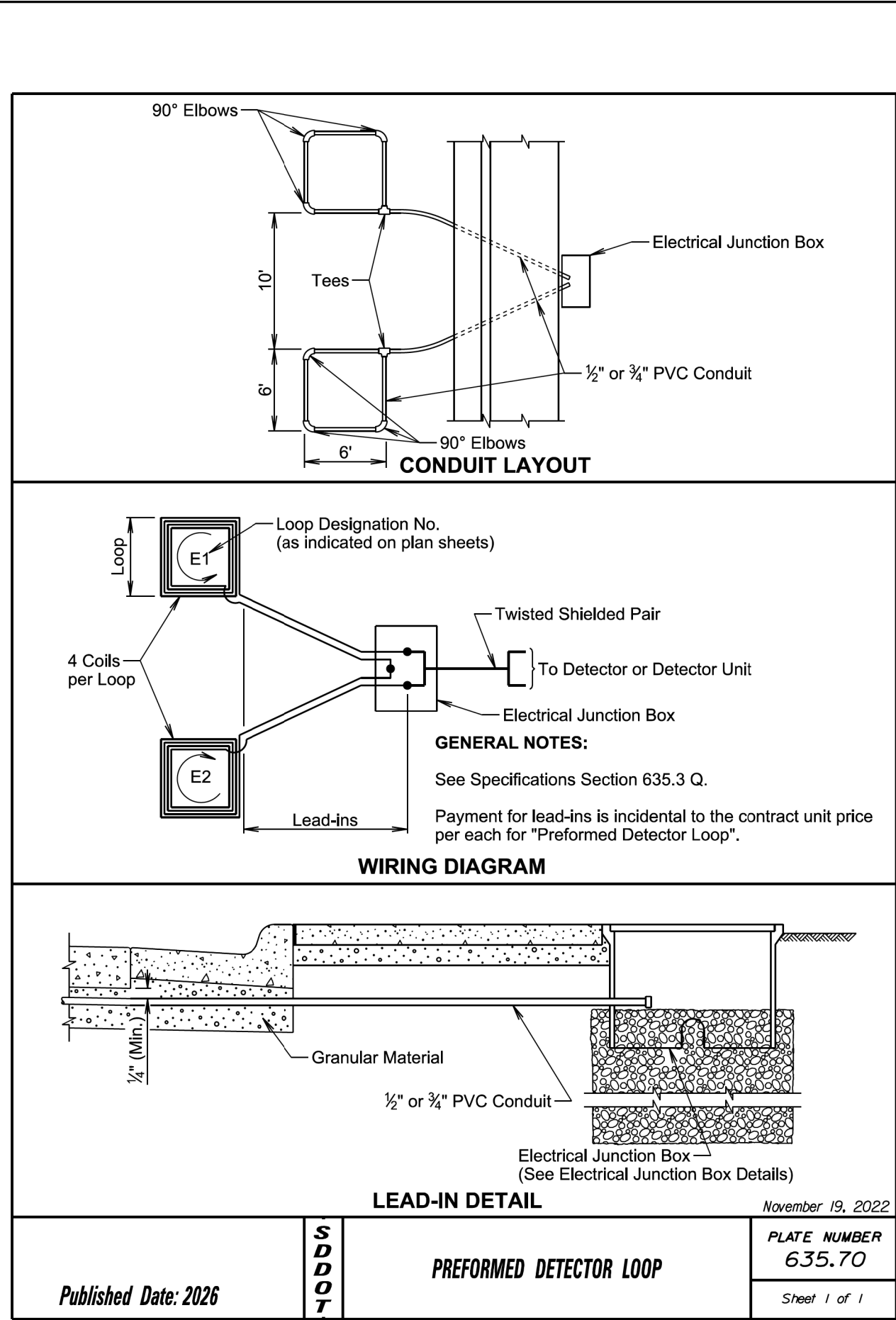
April 8, 2025

Published Date: 2026	S D D O T	PEDESTRIAN PUSH BUTTON POLE	PLATE NUMBER
			635.57
			Sheet 1 of 2



Plot Scale - 1:200

Plotted From - TRPR17199



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