

September 16, 2024

ADDENDUM NO. 2

RE: Item #1, September 18, 2024 Letting - NH-CR-EM 0018(195)103, PCN 04FC, 06N3, Oglala Lakota County - Urban Grading, Curb & Gutter, Storm Sewer, Lighting, PCC Surfacing, ADA, Signal

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: Please remove the Index of Special Provisions and replace with attached Index of Special Provisions revised 9/16/24.

Please remove the "List of Utilities" and replace with the "List of Utilities", revised 9/16/24.

Utility Note 4. Nebraska Public Power, bullets 3 and 7 were revised.

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were removed:

Bid Item 635E8240 "4" Rigid Conduit, Schedule 80"

PLANS: Please destroy sheet A3, B10, L2, L4, L11, L19, L20, L27, and L28 and replace with the enclosed sheets, dated 9/16/24.

Sheet A3: Bid Item 635E8240 "4" Rigid Conduit, Schedule 80" was removed.

Sheets B10 & L4: CONDUIT UNDER INDIAN HEALTH ROAD AT STATION 25+02.81 and ELECTRICAL SERVICE WITH METER SOCKET AT STATION 116+65.45 notes were revised.

Sheet L2: Bid Item 635E8240 "4" Rigid Conduit, Schedule 80" was removed.

Sheet L11: CONDUIT AND CABLE QUANTITIES was revised.

Sheets L19, L27 & L28: CONDUIT LAYOUT was revised. JP1, JP2 and conduit under Indian Health Rd was removed.

Sheet L20: Bid Item "4" Rigid Conduit, Schedule 80" was removed from the table and drawing.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/cj

CC: Todd Seaman, Rapid City Region Engineer
Bruce Schroeder, Custer Area Engineer

REV 9/16/24

INDEX OF SPECIAL PROVISIONS

PROJECT NUMBER(S): NH-CR-EM 0018(195)103 PCN: 04FC, 06N3

TYPE OF WORK: URBAN GRADING, CURB & GUTTER, STORM SEWER, LIGHTING, PCC SURFACING, ADA, SIGNAL

COUNTY: UGLALA LAKOTA

The following clauses have been prepared subsequent to the Standard Specifications for Roads and Bridges and refer only to the above described improvement, for which the following Proposal is made.

The Contractor's attention is directed to the need for securing from the Department of Environment & Natural Resources, Foss Building, Pierre, South Dakota, permission to remove water from public sources (lakes, rivers, streams, etc.). The Contractor should make his request as early as possible after receiving his contract, and insofar as possible at least 30 days prior to the date that the water is to be used.

Kara Palmer is the official in charge of the Hot Springs Career Center for Oglala Lakota County.

THE FOLLOWING ITEMS ARE INCLUDED IN THIS PROPOSAL FORM:

Special Provision for Contract Time, dated 8/6/24.

Special Provision for Prosecution and Progress, dated 1/21/21.

Special Provision Regarding Combination Bids, dated 7/29/24.

Special Provision for On-The-Job Training Program, dated 3/10/16.

Special Provision Regarding Section 404 of the Clean Water Act, dated 4/22/24.

Fact Sheet #23.

Special Provision for Indian Employment and Contracting on the Pine Ridge Reservation, dated 7/15/24.

Special Provision for Contractor Furnished Mix Design for PCC Pavement, dated 8/30/18.

Special Provision for PI PCC Pavement Smoothness with 0.2" Blanking Band, dated 11/30/18.

Special Provision for Contractor Staking with Machine Control Grading Option, dated 8/6/24.

List of Utilities, revised 9/16/24.

Special Provision for Acknowledgment and Certification Regarding Article 3, Section 12 of the South Dakota Constitution, dated 8/24/23.

Special Provision for Buy America, dated 5/1/24.

Special Provision for Liability Insurance, dated 4/21/22.

Special Provision for Responsibility for Damage Claims, dated 4/21/22.

Special Provision for Restriction of Boycott of Israel, dated 1/31/20.

Special Provision for Contractor Administered Preconstruction Meeting, dated 12/18/19.

Fuel Adjustment Affidavit, DOT form 208 dated 7/15.

Standard Title VI Assurance, dated 3/1/16.

Special Provision For Disadvantaged Business Enterprise, dated 2/9/24.

Special Provision For EEO Affirmative Action Requirements on Federal and Federal-Aid Construction Contracts, dated 2/5/24.

Special Provision For Required Contract Provisions Federal-Aid Construction Contracts, Form FHWA 1273 (Rev. October 23, 2023), dated 10/18/23.

Required Contract Provisions Federal-Aid Construction Contracts, Form FHWA 1273 (Rev. 10/23/23).

Special Provision Regarding Minimum Wage on Federal-Aid Projects, dated 10/24/19.

Wage and Hour Division US Department of Labor Washington DC. - US Dept. of Labor Decision Number SD20230032, dated 3/10/23.

Special Provision for Supplemental Specifications to 2015 Standard Specifications for Roads and Bridges, dated 9/7/22.

Special Provision for Price Schedule for Miscellaneous Items, dated 12/6/23.

Special Provision Regarding Storm Water Discharge to Waters of the United States Within Indian Reservations, dated 9/7/22.

National Pollutant Discharge Elimination System General Permit for Discharges from Large and Small Construction Activities.
<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-permit.pdf>

THE FOLLOWING UTILITY COMPANIES ARE INVOLVED ON

PROJECT NH-CR-EM 0018(195)103, Oglala Lakota County, PCN 04FC

The Contractor shall contact the following utilities in a sufficient amount of time prior to starting work. The companies will identify their facilities and it is the responsibility of the Contractor and the company to coordinate their work to avoid damage to existing facilities and to allow for relocation of facilities as may be required for grading work:

The following utilities were determined to be involved and were notified that if their facility is located within the existing public Right-of-Way, any adjustment of their facility would have to be accomplished at no cost to the State, **within 90 days from receipt of the notice, unless other arrangements are made with the Area Engineer.**

- (1) Oglala Sioux Tribe Department of Transportation

PO Box 367

Pine Ridge SD 57770

CONTACT: DAVE KELLY, TELE. #605-867-5376

The OSTDOT oversees the BIA and Tribal roads and Tribal pathways. There are some curb inlets and connecting storm sewer near the project limits within BIA Right-of-Way. It is believed the BIA storm system is not within the limits of the project area. Therefore, no relocation/adjustment to the BIA storm system should be necessary. The existing SuAnne Big Crow Trail is located along the north side of US18 from Eastridge Rd to the east end of the project. The Contractor will reset six pathway lights to match the existing.

- (2) Oglala Sioux Tribe Water and Sewer Company

PO Box 1054, E Hwy 18

Pine Ridge SD 57770

CONTACT: ERNIE ABOLD, TELE. #605-867-5804 or CELL 605-454-2990

&

Indian Health Service

PO Box F, 304 1st Ave

Martin SD 57551

CONTACT: JAMES AINSLIE, TELE. #605-865-6561 ext 8

The Company has water mains and services within the public Right-of-Way throughout the project area. The Company along with Indian Health Service has provided Water Main Improvements PCN X06L, in cooperation with the SDDOT and included with the highway project plans. The Contractor will install new water mains, meter pits, services, and appurtenances in accordance with the plans to completely replace the existing water system. The existing water system will remain in service until the new water system (or portions) are operational and then will be abandoned in place. Existing mains, appurtenances, services, meter pits, and connections have been located and shown in the plans based on survey and available as built plans provided by the Company and Indian Health.

The Company and Indian Health Service recently lined most of the sanitary sewer pipes and replaced brick manholes with concrete in Pine Ridge Village. There are manholes and sanitary sewer under the roads located within the project area in public Right-of-Way as shown in the plans and listed herein.

Along US18 from US18 and SD407 intersection east to the end of project east of Indian Health Road:

- One section of sanitary sewer pipe from the intersection of US18 and SD407 to a manhole approximately 300-feet east under the right turn lane could not be lined. This section of pipe approximately 300-feet long between the manholes will be replaced by the Contractor as shown in the Water Improvements plans included with the highway plans. There are approximately four laterals which will require reconnection to the new pipe. This portion of the project will be paid by the Company.
- The sanitary sewer continues east under the US18 westbound lane to Whitetail Deer Rd where it intersects sanitary sewer crossing in the center of Whitetail Deer Rd. The Contractor will adjust manhole rims to match the new pavement.
- Sanitary sewer and one manhole is located on Prairie View Ave north of US18 within the area of pavement replacement. The Contractor will adjust the manhole rim to match the new pavement.
- Sanitary sewer and one manhole is located on Irving Rd north of US18 within the area of pavement replacement. The Contractor will adjust the manhole rim to match the new pavement.
- Sanitary sewer crosses US18 highway diagonally from a manhole adjacent to the east curb of Sitting Bull Rd to the south side of US18 approximately 300-feet east of Veteran Ave. The Contractor will use caution when installing the new storm sewer inlet at Station 127+17, left and connecting pipes. The sanitary sewer will be approximately 6 feet lower than the storm inlet invert.
- A sanitary sewer manhole and connecting pipes are located along south side of US18 from Veteran Ave to the east side of Indian Health Road. A new water main will be installed around the sanitary sewer manhole approximately 300-feet east of Veteran Ave. Use caution when working around the existing manhole and connecting sanitary sewer pipes. An existing culvert 150-feet west of Indian Health Rd will be removed and a new culvert will be installed in the same location. The Contractor will use caution when installing the new culvert adjacent to an existing sanitary sewer manhole and over the existing sanitary sewer pipe. Indian Health Rd will be relocated from its current location to approximately 150-feet west. The Contractor will use caution when grading the road over the existing sanitary sewer line.

Along SD407 from Dakota Ave/Cherry Hill Ct north to the US18 and SD407 intersection:

- Sanitary sewer is located east of SD407 from Dakota Ave to the south side of Oglala St. It is located west of the project area and not anticipated to be impacted by the highway project.
- A sanitary sewer line is located from the manhole in the porkchop of the US18 and SD407 intersection to the south along the east side of SD407. It is assumed to be deep and under the new water line to be installed. Indian Health Service could not provide specific information for this line.

Along US18 from the US18 and SD407 intersection north to 100-feet north of the US18 and Whitetail Deer Rd intersection:

- Sanitary sewer is located east of US18 from the porkchop at the US18 and SD407 intersection to Buffalo Berry St. The Contractor will adjust manhole rims to match the new pavement.
- An abandoned sanitary sewer line crosses US18 at Buffalo Berry St. Should the Contractor find the line while installing storm sewer or water main, the line can be removed in the area to accommodate new construction.

- (3) Pine Ridge Service Unit (Hospital), Indian Health Service
PO Box 1201, E. Hwy 18
Pine Ridge SD 57770

CONTACT: CHANCE KNUTSON, TELE. #605-867-3042 or CELL 605-454-6767

The Indian Health Service has roadway lighting along Indian Health Road. The road at intersection with US18 will be realigned and reconnected to US18 approximately 150-feet west of its current location. Two roadway lights will be reset by the Contractor on new foundations along the realigned road.

- (4) Nebraska Public Power
120 Chadron Ave
Chadron NE 69337

CONTACT: JAY THIES, CELL 308-360-0847

Nebraska Public Power – The Company has overhead and underground facilities throughout the project area within the public Right-of-Way and in private easement as shown in the plans and listed herein. Along US18 from US18 and SD407 intersection east to the end of project east of Indian Health Road:

- An overhead electric facility is connected from existing SDDOT roadway light, south side of highway between SD407 and Sioux Nation Ave SE. The Company will remove the facility connected to the roadway light at no cost to the State prior to construction beginning.
- An overhead electric facility crosses the intersection of US18 and Sioux Nation Ave SE/Whitetail Deer Rd. The Company will remove the facility across the intersection at no cost to the State prior to construction beginning.
- The existing service location for the signals at US18 and Cherokee Ave SE/Eastridge Rd intersection is approximately 100 feet north of the north curb of US18 and 150 feet west of Eastridge Rd's west curb. Two secondary services will be installed by the Company after the Contractor installs conduits from the existing service to the new secondary service meter sockets located along the north Right-of-Way of US18 as shown in Section L of the highway plans. The two secondary services will power the signal system and roadway lights separately. The Contractor must submit an Electric Service Design Application (ESDA) for each secondary service through the Company's online system 90 days prior to needing service. The Company will provide specifications for Contractor installed conduit to the new secondary service location. The Contractor is responsible for payment to the Company to install the secondary services along with associated conduits and meter sockets and is incidental to the service cabinet bid item. The cost to the Contractor for each service is \$2,700 to be paid to the Company.
- A power pole is located at the SE quadrant of US18 and Cherokee Ave SE/Eastridge Rd intersection. It is too close to the planned location for a new signal pole and foundation. The Company will remove the power pole at no cost to the State prior to construction beginning.
- An overhead electric facility crosses US18 along the east side of Sitting Bull Rd/Veteran Ave. The proposed road profile is lower than the existing profile, therefore no relocation/adjustment to the Company's facility should be necessary.
- An existing service for roadway lights is located at an existing power pole approximately 100-feet south of US18 adjacent to Veteran Ave with the meter located on the south side of US18 within the public Right-of-Way approximately 100-feet east of Veteran Ave. In the same location as the existing meter, the Contractor will set a new meter socket and electrical service cabinet with secondary disconnect for the new signal system at US18 and Indian Health Rd/ Tribal 93 intersection. The Contractor must submit an Electric Service Design Application (ESDA) through the Company's online system 30 days prior to needing service. The Company will provide service and meter to the new meter socket at no cost to the State.

- Underground power crosses existing Indian Health Road at approximately 4-foot deep. This is a 3-phase 7200/12470 Volt line that is the main feed to the hospital and everything east of Pine Ridge Village. The line is in 4-inch conduit. The Company will relocate the conduit and cables prior to grading work beginning. An agreement for the work is currently being executed with the Company for relocation outside the public Right-of-Way and should be completed by December 2024. The Contractor must contact Jay Thies with the Company to confirm the conduit and cable is relocated prior to beginning work in the area.
- Underground electric lines for the roadway lights within the public Right-of-Way are owned by the State and will be abandoned or removed with grading activities.
- Remaining facilities adjacent to the project serving businesses along US18 are outside the public Right-of-Way and not within the project area. Therefore, no relocation/adjustment to the Company's facilities should be necessary.

Along SD407 from Dakota Ave/Cherry Hill Ct north to the US18 and SD407 intersection:

- The Company has an overhead electric transmission line within the public Right-of-Way along the west side of SD407 and crosses SD407 in two locations, south of the intersection of Spruce St SE and south of the intersection of Oglala St. Work in this area includes removals and installation of new sidewalk, approaches, curb and gutter and water main. The Company will provide temporary support of power poles while work is being done around the bases at no cost to the State. Contact the Company a minimum of one week prior to work at each pole needing support.

Along US18 from the US18 and SD407 intersection north to 100-feet north of the US18 and Whitetail Deer Rd intersection:

- The Company has an overhead transmission line within the public Right-of-Way along the west side of SD407 and US18 and crossing Main St. Removal of existing signals and installation of new signals on the west side of the intersection will need coordination with the Company due to the proximity of signal poles to the overhead transmission line. The Company will assist as needed at no cost to the State to coordinate with the Contractor during construction to ensure safety working adjacent to the transmission line. Contact the Company a minimum of one week prior to work on the signals.
- An existing service for the signal system at US18 and SD407 intersection is located in the northwest quadrant within the public Right-of-Way. In the same location, the Contractor will set a new meter socket and electrical service cabinet for the new signal system. The Contractor must submit an Electric Service Design Application (ESDA) through the Company's online system 30 days prior to needing service. The Company will re-use the existing service and reset the meter to the new meter socket at no cost to the State.
- The Company has an overhead electric transmission line within the public Right-of-Way along the west side of US18. The overhead facility crosses US18 in three locations, south of the intersection of Eagle Feather St, south of the intersection of Buffalo Berry St NE, and approximately 100-feet south of the intersection of Whitetail Deer Rd. Work in this area includes storm sewer removal and installation, water main installation, and installation of new sidewalk, approaches, curb and gutter, and pavement. The Company will provide temporary support of power poles while work is being done around the bases at no cost to the State. Contact the Company a minimum of one week prior to work at each pole needing.

(6) Golden West Telecommunications
PO Box 411
Wall SD 57790-0411

CONTACT: RYAN CUNY, TELE. #605-428-1125 or CELL 605-864-0613

The Company has telecommunications facilities throughout the project area within the public Right-of-Way as shown in the plans and listed herein. Upon discovery of any cables, the Contractor will contact the Company to identify the cables and ducts. Contact the Company a minimum of 3 working days prior to needing assistance.

Along US18 from US18 and SD407 intersection east to the end of project east of Indian Health Road:

- One (1) copper facility crosses US18 on the east side of US18 and SD407 intersection, most likely abandoned.
- Two (2) 2-inch and two (2) 1-1/4-inch conduit with fiberoptic cables cross US18 on the west side of US18 and Whitetail Deer Rd/Sioux Nation Ave SE intersection. Adjustment of the conduit and fiberoptic will be required by the Company at no cost to the State to avoid new storm sewer.
- Six (6) 1-1/4-inch conduits with fiberoptic cables and one (1) abandoned copper facility are located along the north side of highway embankment from half-way between Irving Rd and Eastridge Rd to the east side of Sitting Bull Rd. The new water line crossing is approximately 7-feet deep and road work is close to existing grade. No adjustments/relocations should be necessary in this location.
- One (1) copper facility crosses US18 approximately 50-feet east of the US18 and Lakota Ave SE intersection, most likely abandoned.
- Two (2) 2-inch and two (2) 1-1/4-inch conduit with fiberoptic cables cross US18 approximately 50-feet east of the US18 and Sitting Bull Rd/Veteran Ave intersection. **One set is a critical connection to the Indian Health Hospital and cannot be damaged.** A minor adjustment of the conduits and fiberoptic cables will be required by the Company at no cost to the State to avoid new storm sewer.
- Two (2) 1-1/4-inch conduits with fiberoptic cables are located along the north side of US18 partially inside public Right-of-Way from the east side of Sitting Bull Rd to the east side of Tribal 93. The highway construction will be filling over the lines, which will not require adjustment/relocation. The conduits cross the new water line and new storm line. Minor adjustments of the conduit by the Company at no cost to the State may be required.
- One (1) direct buried fiberoptic cable is located approximately 60-feet south of US18 centerline along the south side of US18 from the east side of Sitting Bull Rd to the west side of Indian Health Road. Minor adjustment by the Company at no cost to the State at the new water line crossing and storm sewer inlet may be required.
- One (1) direct buried fiberoptic cable is located approximately 100-feet south of US18 centerline along the south side of US18 from approximately 150-feet west of Indian Health Road to a pedestal approximately 50-feet east of Indian Health Road. Relocation will be required by the Company during construction of Indian Health Road. An agreement is in process with the Company for relocation outside the public Right-of-Way and should be completed by August.
- One (1) direct buried fiberoptic cable crosses US18 approximately 50-feet east of Indian Health Road from the north side of US18 to the south side of US18. Relocation will be required by the Company during construction of the ditch on the south side of US18. An agreement is in process with the Company for relocation outside the public Right-of-Way and should be completed by August.

- One (1) direct buried fiberoptic cable and one (1) copper facility (abandoned) along Tribal 93. The highway construction will be filling over the lines, which will not require adjustment/relocation.

Along SD407 from Dakota Ave/Cherry Hill Ct north to the US18 and SD407 intersection:

- One (1) copper facility crosses SD407 on the north side of the SD407 and Dakota Ave/Cherry Hill Ct intersection, most likely abandoned.
- One (1) copper facility along the west side of SD407 from Cherry Hill Ct to Oglala St, most likely abandoned.
- One (1) copper facility crosses SD407 approximately 100-feet south of SD407 and Oglala St intersection, most likely abandoned.
- One (1) copper facility along the east side of SD407 from approximately 100-feet south of SD407 and Oglala St intersection to US18, most likely abandoned.
- One (1) hand hole with fiberoptic cable going west. No adjustments/relocations should be necessary in this location.

Along US18 from the US18 and SD407 intersection north to 100-feet north of the US18 and Whitetail Deer Rd intersection:

- One (1) copper facility crosses US18 approximately 100-feet north of the US18 and SD407 intersection, most likely abandoned.
- One (1) copper facility along the east side of US18 from 150-feet north of the US18 and SD407 intersection to 100-feet north of the US18 and Whitetail Deer Rd intersection, most likely abandoned.
- One (1) 2-inch conduit with fiberoptic cable is located along the west side of US18 from approximately 200-feet north of the US18 and SD407 intersection to the south side of Eagle Feather St. The new water line will cross the facility approximately 50-feet south of Eagle Feather St. Minor adjustment by the Company at no cost to the State at the new water line crossing may be required.
- Three (3) 4-inch conduits with fiberoptic cables are located along the south side of Eagle Feather St. from the hand hole to the west. **This is a critical facility providing service to Pine Ridge Village.** The new waterline will cross the facility near the south edge of Eagle Feather St. Minor adjustment by the Company at no cost to the State at the new water line crossing may be required.
- Three (3) 4-inch conduits with fiberoptic cables are located along the west side of US18 from the hand hole on the south side of Eagle Feather St to the manhole approximately 100-feet north of Eagle Feather St. This facility parallels the existing and new storm sewer trunk line. **This is a critical facility providing service to Pine Ridge Village.** Adjustment by the Company at no cost to the State will be required to enable the removal of existing storm sewer and installation of new storm sewer. The new water line crosses the facility approximately 50-feet south of the facility manhole. Minor adjustment by the Company at no cost to the State will be required during water line installation.
- Four (4) 4-inch conduits and two (2) 2-inch conduits with fiberoptic cables from the manhole approximately 100-feet north of Eagle Feather St to 25-feet south and crossing US18 on the south side of the US18 and Buffalo Berry St intersection. This facility parallels and then crosses the existing and new storm sewer trunk line. **This is a critical facility providing service to Pine Ridge Village.** Adjustment by the Company at no cost to the State will be required to enable the removal of existing storm sewer and installation of new storm sewer.

- Two (2) 1-1/4-inch conduits with fiberoptic cables are located from the back of manhole facility to the west then north. The new water line will cross the facility west of the manhole and approximately 150-feet north of the facility manhole. Minor adjustment by the Company at no cost to the State at the new water line crossings may be required.
- Four (4) 2-inch and five (5) 1-1/4-inch conduits with fiberoptic cables are located along the west side of US18 from the facility manhole north to the end of project approximately 100-feet north of Whitetail Deer Rd. This facility parallels the existing and new storm sewer trunk line. **This is a critical facility providing service to Pine Ridge Village.** Adjustment by the Company at no cost to the State will be required to enable the removal of existing storm sewer and installation of new storm sewer. The new water line crosses the facility approximately 150-feet south of Whitetail Deer Rd. Minor adjustment by the Company at no cost to the State will be required during water line.
- Active copper cables are located between BIA facilities along the west side of US18 on the north and south side of Eagle Feather St. No adjustments/relocations should be necessary in this location.

The requirements relating to Cooperation Between Contractors, as set forth in Section 5.7 of the Standards Specifications for Roads and Bridges, 2015 edition, shall prevail throughout the limits of this project.



Section F - Surfacing

PCN 04FC

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	147.9	MGal
260E1010	Base Course	350.0	Ton
260E1030	Base Course, Salvaged	2,888.6	Ton
260E2030	Gravel Cushion, Salvaged	9,092.0	Ton
270E0200	Blend, Haul, and Stockpile Granular Material	14,689.7	Ton
320E1200	Asphalt Concrete Composite	2,330.2	Ton
380E0050	8" Nonreinforced PCC Pavement	15,664.3	SqYd
380E3020	6" PCC Driveway Pavement	23.7	SqYd
380E3040	8" PCC Driveway Pavement	543.1	SqYd
380E6000	Dowel Bar	9,708	Each
380E6110	Insert Steel Bar in PCC Pavement	81	Each

PCN 06N3

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	8.3	MGal
260E1010	Base Course	697.0	Ton
320E1200	Asphalt Concrete Composite	236.0	Ton

Section L – Signal and Lighting Plans

PCN 04FC

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1520	Remove Signal Equipment	Lump Sum	LS
110E1530	Remove Signal Pole Footing	8	Each
110E1540	Remove Luminaire Pole Footing	19	Each
110E5100	Salvage Luminaire Pole	17	Each
110E5105	Salvage Luminaire	17	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	20	Each
635E2000	Pedestal Signal Pole	2	Each
635E2025	Signal Pole with 25' Mast Arm	1	Each
635E2030	Signal Pole with 30' Mast Arm	1	Each
635E2035	Signal Pole with 35' Mast Arm	2	Each
635E2125	Signal Pole with 25' Mast Arm and Luminaire Arm	3	Each
635E2130	Signal Pole with 30' Mast Arm and Luminaire Arm	1	Each
635E2135	Signal Pole with 35' Mast Arm and Luminaire Arm	3	Each
635E2140	Signal Pole with 40' Mast Arm and Luminaire Arm	1	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	28	Each
635E4030	3 Section Vehicle Signal Head	36	Each
635E5020	2' Diameter Footing	164.0	Ft
635E5030	3' Diameter Footing	137.0	Ft
635E5301	Type 1 Electrical Junction Box	16	Each
635E5302	Type 2 Electrical Junction Box	13	Each
635E5303	Type 3 Electrical Junction Box	3	Each
635E5400	Electrical Service Cabinet	2	Each
635E5405	Electrical Service Cabinet with Secondary Disconnect	2	Each
635E5430	Traffic Signal Controller	3	Each
635E5515	Battery Backup System for Traffic Signal	3	Each
635E5530	Preformed Detector Loop	78	Each
635E5562	Siren Emergency Vehicle Preemption System	3	Each
635E5880	Accessible Pedestrian Signal	24	Each
635E5910	Pedestrian Push Button Pole	25	Each
635E5922	Pedestrian Signal Head with Countdown Timer	24	Each
635E5930	Pedestrian Crossing Sign	24	Each
635E5980	Rectangular Rapid Flashing Beacon System	1	Each
635E7500	Remove and Reset Luminaire Pole	8	Each
635E8110	1" Rigid Conduit, Schedule 40	355	Ft
635E8120	2" Rigid Conduit, Schedule 40	5,785	Ft
635E8140	4" Rigid Conduit, Schedule 40	40	Ft
635E8220	2" Rigid Conduit, Schedule 80	1,320	Ft
635E8230	3" Rigid Conduit, Schedule 80	640	Ft
635E9011	1/C #1 AWG Copper Wire	12,980	Ft
635E9012	1/C #2 AWG Copper Wire	6,405	Ft
635E9016	1/C #6 AWG Copper Wire	5,055	Ft

Section L – Signal and Lighting Plans (Cont.)

PCN 04FC

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E9018	1/C #8 AWG Copper Wire	1,440	Ft
635E9024	1/C #14 AWG Copper Wire	1,600	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	3,820	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1,575	Ft
635E9506	6/C #14 AWG Copper Tray Cable, K2	140	Ft
635E9525	25/C #14 AWG Copper Tray Cable, K2	1,700	Ft
635E9600	#16 AWG Copper Twisted Shielded Pair	5,695	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	1,580	Ft

Section M - Pavement Marking

PCN 04FC

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	10,834	Ft
633E0020	Cold Applied Plastic Pavement Marking, 8"	190	Ft
633E0220	Preformed Thermoplastic Pavement Marking, 12"	164	Ft
633E0225	Preformed Thermoplastic Pavement Marking, 24"	1,120	Ft
633E0235	Preformed Thermoplastic Pavement Marking, Arrow	47	Each
633E1220	High Build Waterborne Pavement Marking Paint, 4" White	370	Ft
633E1222	High Build Waterborne Pavement Marking Paint, 4" Yellow	3,712	Ft
633E1252	High Build Waterborne Pavement Marking Paint, 12" Yellow	31	Ft
633E1262	High Build Waterborne Pavement Marking Paint, 24" Yellow	18	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	10,834	Ft
633E5005	Grooving for Cold Applied Plastic Pavement Marking, 8"	190	Ft
633E5010	Grooving for Cold Applied Plastic Pavement Marking, 12"	164	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	1,120	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	47	Each

PCN 06N3

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	410	Ft
633E0225	Preformed Thermoplastic Pavement Marking, 24"	96	Ft
633E0235	Preformed Thermoplastic Pavement Marking, Arrow	2	Each
633E1222	High Build Waterborne Pavement Marking Paint, 4" Yellow	797	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	410	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	96	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	2	Each



04FC – TABLE OF RIPRAP AND DRAINAGE FABRIC

Station	L/R	Class B Riprap (Ton)	Class C Riprap (Ton)	Type B Drainage Fabric (SqYd)
132+48.62	L	59.7		55
225+08.73	L		76.0	61
Totals:		59.7	76.0	116

COLORED CONCRETE FOR BOULEVARDS, MEDIANS AND SIDEWALK ISLAND

The colored concrete will have the integral color Solomon Brick Red #417 or an equal approved by the Engineer.

ColorFlo Liquid Color
Color #417 Brick Red
Solomon Colors, Inc.
www.solomoncolors.com

Brick Red requires a rate of 12.50 pounds of Solomon ColorFlo #417 Red per cubic yard of concrete. The colored concrete must be cured according to the manufacturer's recommendations with two coats of a non-yellowing acrylic curing and sealing compound. The curing and sealing compound will meet ASTM C309. The curing and sealing product will be DECRA-SEAL or an equal approved by the Engineer.

DECRA-SEAL
W.R. Meadows, Inc.
1-800-342-5976
www.wrmeadows.com

White pigmented cure will not be used. The Contractor will protect the colored concrete to ensure white pigmented curing compound will not come in contact with the colored concrete. All costs for furnishing, handling, applying the curing and sealing compound, and liquid integral color, including the materials, equipment, labor, and incidentals necessary will be incidental to the contract unit price for "6" Barrier Type Colored Median PCC Pavement" and "4" Colored Concrete".

SIDEWALK ADJACENT TO BUILDINGS

When placing sidewalk adjacent to buildings, the elevation of the new sidewalk may be either higher or lower than the existing sidewalk. This may require that modification be made to building exteriors such as: removal of siding, installation of flashing, installation of siding, or other necessary modifications. Building modifications will be approved by the Engineer. All costs associated with modifying the buildings for sidewalk placement will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

Sidewalk placed adjacent to building doorways should nearly match the doorway threshold and will have a maximum 1/4-inch vertical rise at the doorway threshold. A sidewalk turning space will be provided at building doorways in accordance with the plans. Sidewalk should ramp or slope down from the turning space to the typical sidewalk as specified in the plans. Additional sidewalk ramp or slope locations may be required. In the plans, the locations without ramps were assumed by the design Engineer as sites that slopes of less than 5 percent could be used from the turning space to the typical sidewalk. The limits of the ramp and steepened sidewalk shown in the plans may need to be adjusted to the actual doorway location and to meet sidewalk slope requirements as specified in the plans.

8" PCC FILLET SECTIONS

Payment for "8" PCC Fillet Section" will be based on plans quantity. If additions or reductions to the area of PCC fillet sections are ordered by the Engineer, payment will be made in accordance with the contract unit price per square yard for "8" PCC Fillet Section".

WOODEN FENCE REMOVAL

Approximately 269 ft of wooden fence will be removed from Sta. 103+25-Lt to 105+89-Lt. The Contractor will take care during removal of the fence to not damage any boards. All damaged boards will be replaced by the Contractor at no cost to the State. The removed fence boards will remain the property of the landowner, and will be returned to the landowner. The Contractor will coordinate with the landowner to determine a location where the removed boards will be hauled to and stored.

All costs for removing the wooden fence, including materials, equipment, labor, incidentals, hauling and storage of boards will be incidental to the contract unit price per foot for "Remove Fence".

CONDUIT UNDER INDIAN HEALTH ROAD AT STATION 25+02.81

Underground power crosses the existing location of Indian Health Road at approximately 24+85-85' Rt and is approximately 4-foot deep. This is a 3-phase 7200/12470 Volt line that is the main feed to the hospital and everything east of Pine Ridge Village. The line is currently in a 4-inch conduit.

Nebraska Public Power will be responsible for relocating the conduit and cables prior to grading. The Contractor must contact Jay Thies (jwthies@nppd.com) of Nebraska Public Power to confirm that the relocation work is complete.

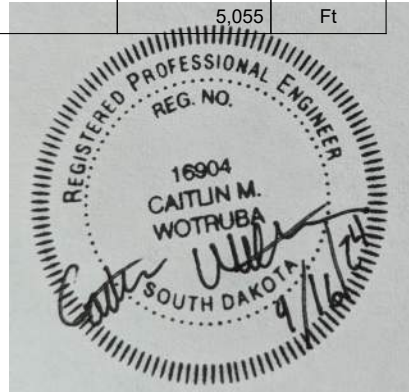
ELECTRICAL SERVICE WITH METER SOCKET AT STATION 116+65.45

The Contractor is responsible for contacting Nebraska Public Power 90 days prior to needing service with meter. Payment for Nebraska Public Power service installation will be required of Contractor and is incidental to the electrical service cabinet. Contractor to install 1 – 2" Schedule 40 PVC conduit from the power pole to each meter socket location shown on the plans for the signal and lighting services.



SECTION L ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1520	Remove Signal Equipment	Lump Sum	LS
110E1530	Remove Signal Pole Footing	8	Each
110E1540	Remove Luminaire Pole Footing	19	Each
110E5100	Salvage Luminaire Pole	17	Each
110E5105	Salvage Luminaire	17	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	20	Each
635E2000	Pedestal Signal Pole	2	Each
635E2025	Signal Pole with 25' Mast Arm	1	Each
635E2030	Signal Pole with 30' Mast Arm	1	Each
635E2035	Signal Pole with 35' Mast Arm	2	Each
635E2125	Signal Pole with 25' Mast Arm and Luminaire Arm	3	Each
635E2130	Signal Pole with 30' Mast Arm and Luminaire Arm	1	Each
635E2135	Signal Pole with 35' Mast Arm and Luminaire Arm	3	Each
635E2140	Signal Pole with 40' Mast Arm and Luminaire Arm	1	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	28	Each
635E4030	3 Section Vehicle Signal Head	36	Each
635E5020	2' Diameter Footing	164.0	Ft
635E5030	3' Diameter Footing	137.0	Ft
635E5301	Type 1 Electrical Junction Box	16	Each
635E5302	Type 2 Electrical Junction Box	13	Each
635E5303	Type 3 Electrical Junction Box	3	Each
635E5400	Electrical Service Cabinet	2	Each
635E5405	Electrical Service Cabinet with Secondary Disconnect	2	Each
635E5430	Traffic Signal Controller	3	Each
635E5515	Battery Backup System for Traffic Signal	3	Each
635E5530	Preformed Detector Loop	78	Each
635E5562	Siren Emergency Vehicle Preemption System	3	Each
635E5880	Accessible Pedestrian Signal	24	Each
635E5910	Pedestrian Push Button Pole	25	Each
635E5922	Pedestrian Signal Head with Countdown Timer	24	Each
635E5930	Pedestrian Crossing Sign	24	Each
635E5980	Rectangular Rapid Flashing Beacon System	1	Each
635E7500	Remove and Reset Luminaire Pole	8	Each
635E8110	1" Rigid Conduit, Schedule 40	355	Ft
635E8120	2" Rigid Conduit, Schedule 40	5,785	Ft
635E8140	4" Rigid Conduit, Schedule 40	40	Ft
635E8220	2" Rigid Conduit, Schedule 80	1,320	Ft
635E8230	3" Rigid Conduit, Schedule 80	640	Ft
635E9011	1/C #1 AWG Copper Wire	12,980	Ft
635E9012	1/C #2 AWG Copper Wire	6,405	Ft
635E9016	1/C #6 AWG Copper Wire	5,055	Ft



BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E9018	1/C #8 AWG Copper Wire	1,440	Ft
635E9024	1/C #14 AWG Copper Wire	1,600	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	3,820	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1,575	Ft
635E9506	6/C #14 AWG Copper Tray Cable, K2	140	Ft
635E9525	25/C #14 AWG Copper Tray Cable, K2	1,700	Ft
635E9600	#16 AWG Copper Twisted Shielded Pair	5,695	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	1,580	Ft

SUPPLYING AS BUILT PLANS

If the traffic signal systems or roadway lighting systems 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.

Adobe PDF submittals will be sent to the following email addresses:

Stacy.Bartlett@state.sd.us
Tonya.Huber@kljeng.com

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 and EB1-EB4 will be removed by the Contractor to a minimum of 2' 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".

REMOVE LUMINAIRE POLE FOOTING

The footings of existing luminaire poles EL1-EL17, EP20 & EP21 will be removed by the Contractor to a minimum of 2' 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 POLE

Existing luminaire poles EL1-EL17 will be salvaged and delivered to the City of Allen by the Contractor. The Contractor will notify the City 5 days before the delivery of the salvaged luminaire poles. The City contact is Oglala Sioux Tribe Department of Transportation at (605)-867-5376. The poles will be delivered to:

Allen Maintenance Yard
Allen, SD

Poles 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 luminaire poles will be incidental to the contract unit price per each for "Salvage Luminaire Pole".

SALVAGE LUMINAIRE

Existing luminaires on poles EL1-EL17 will be salvaged and delivered to the OST DOT by the Contractor. The Contractor will notify the City 5 days before the delivery of the salvaged luminaires. The City contact is Oglala Sioux Tribe Department of Transportation at (605)-867-5376. The luminaires will be delivered to:

OSTDOT Office
Pine Ridge Village, SD

Luminaires 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 luminaires will be incidental to the contract unit price per each for "Salvage Luminaire".

SALVAGE SIGNAL EQUIPMENT

The complete existing traffic controller cabinets along with LED displays from the signal heads will be salvaged and delivered to the South Dakota DOT Rapid City Region by the Contractor. The Contractor will notify the SD DOT Rapid City Region 5 days before the delivery of the salvaged signal equipment. The SD DOT Rapid City Region contact is Nick Wuebben at (605) 394-2221. The equipment will be delivered to:

SD DOT Rapid City Region
South Yard
5801 S Hwy 79
Rapid City, SD 57701

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".

ELECTRICAL SERVICE WITH METER SOCKET AT STATION 116+65.45

The Contractor is responsible for contacting Nebraska Public Power 90 days prior needing service with meter. Payment for Nebraska Public Power service installation will be required of Contractor and is incidental to the electrical service cabinet. Contractor to install 1 - 2" Schedule 40 PVC conduit from the power pole to each meter socket location shown on the plans for the signal and lighting services.

CONDUIT UNDER INDIAN HEALTH ROAD AT STATION 25+02.81

Underground power crosses the existing location of Indian Health Road at approximately 24+85-85' Rt and is approximately 4-foot deep. This is a 3-phase 7200/12470 Volt line that is the main feed to the hospital and everything east of Pine Ridge Village. The line is currently in a 4-inch conduit.

Nebraska Public Power will be responsible for relocating the conduit and cables prior to grading. The Contractor must contact Jay Thies (jwthies@nppd.com) of Nebraska Public Power to confirm that the relocation work is complete.

ELECTRICAL SERVICE CABINET WITH SECONDARY DISCONNECT

The electrical service cabinet will be a standard electrical service cabinet located adjacent to the power source.

The Contractor will install a NEMA 3R rainproof, 60 amp rated, non-fused safety switch (with lock) adjacent to the traffic signal cabinet. The secondary disconnect will be mounted on a galvanized steel post in accordance with standard plate 635.41.

METER SOCKETS FOR TRAFFIC SIGNALS

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

TRAFFIC SIGNAL CONTROLLER

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, materials, labor, and furnishing and installing the controller cabinet 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 US Hwy 18 and SD Hwy 407 intersection, US Hwy 18 and Eastridge Road Intersection, and US Hwy 18 and Indian Health Road Intersection. The cabinets will be an aluminum NEMA 3R type. The cabinet will have a thermostatically controller 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.

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."

ACCESSIBLE PEDESTRIAN SIGNAL

The work will consist of furnishing and installing accessible pedestrian signals (APS). Each APS will consist of an interactive vibrotactile pedestrian pushbutton 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 MUTCD Sections 4E.08 to 4E.13. 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.

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.

ACCESSIBLE PEDESTRIAN SIGNAL (Continued)


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"

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		NH-CR-EM 0018(195)103 P 0407(05)01	L4	L43

Rev. 9/16/2024 CMW

PEDESTRIAN PUSH BUTTON POLE

Pedestrian 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 MASH. A grounding lug will be provided in the base.

The pole 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 with 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.

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

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.

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.



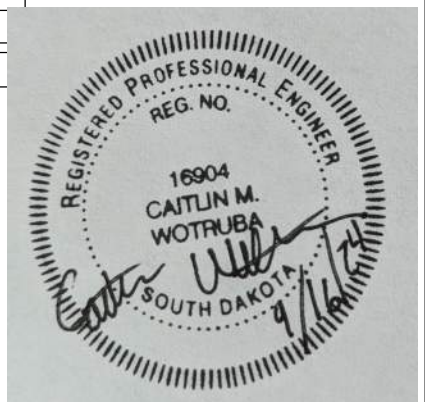
CONDUIT AND CABLE QUANTITIES

Plot Scale - \$\$\$scale\$\$\$

Plotted From - \$\$\$username\$\$\$

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Location to Location		Rigid Conduit						Copper Wire					AWG Copper Cable, K2				Twisted Shielded Pair		Pole and Bracket Cable		Preemption Cable Not a Bid Item
		Schedule 40			Schedule 80								#14 AWG								
		1"	2"	4"	2"	3"	4"	1/C #1 AWG	1/C #2 AWG	1/C #6 AWG	1/C #8 AWG	1/C #14 AWG	2/C	4/C	6/C	25/C	#16 AWG	2/C #10 AWG		Ft	
		Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft		
LUMINAIRE POLES (LIGHTING)																					
LUMINAIRE POLE	L1									80										55	
LUMINAIRE POLE	L2									80										55	
LUMINAIRE POLE	L3									80										55	
LUMINAIRE POLE	L4									80										55	
LUMINAIRE POLE	L5									80										55	
LUMINAIRE POLE	L6									80										55	
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LUMINAIRE POLE	L8									80										55	
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LUMINAIRE POLE	L14									80										55	
LUMINAIRE POLE	L15									80										55	
LUMINAIRE POLE	L16									80										55	
LUMINAIRE POLE	L17									80										55	
LUMINAIRE POLE	L18									80										55	
LUMINAIRE POLE	L19									80										55	
LUMINAIRE POLE	L20									80										55	
LIGHTING SUBTOTAL			3,665		1,025					12,980	2,755			1,440	1,600					1,100	
TOTAL		355	5,785	40	1,320	640				12,980	6,405	5,055	1,440	1,600	3,820	1,575	140	1,700	5,695	1,580	2,320



CONDUIT LAYOUT

US HWY 18 & INDIAN HEALTH RD



STATE OF
SOUTH
DAKOTA

PROJECT
EM-NH-CR 0018(195)103
P 0407(00)01

SHEET
L19

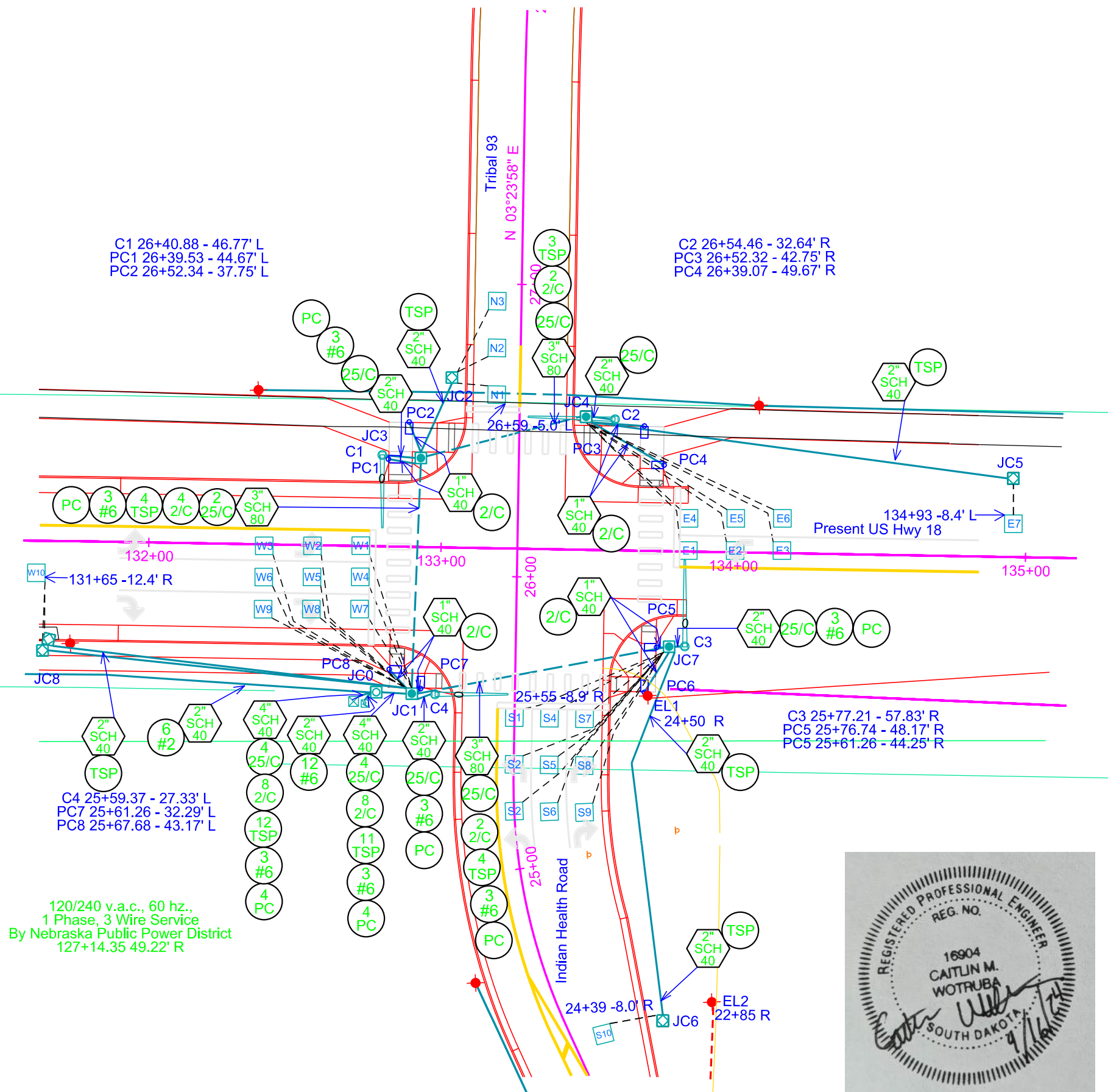
TOTAL
SHEETS
L43

Plotting Date: 9/16/2024

Rev. 9/16/2024 CMW

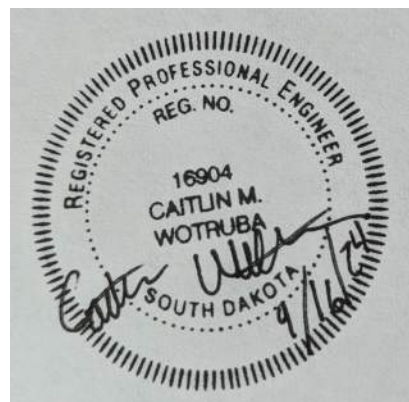
Plot Scale - 1"=40'

Plotted From - Caitlin M. Wotruba



ESTIMATE OF QUANTITIES

KEY	ITEM	EST QUANT	UNIT
○	3' Diameter Footing (C1-C4)	46	FT
⊠	Type 1 Electrical Junction Box (JC2, JC5, JC6 & JC8)	4	EACH
⊠	Type 2 Electrical Junction Box (JC1, JC3, JC4, & JC7)	4	EACH
⊠	Type 3 Electrical Junction Box (JC0)	1	EACH
⊗	Galvanized Steel Utility Pole Not a Bid Item	1	EACH
▲	Electrical Service Cabinet w/Secondary Disconnect	1	EACH
⊠	Secondary Disconnect (Cost included in Electrical Service Cabinet)	1	EACH
⊠	Meter Socket Not a Bid Item	1	EACH
⊠	Traffic Signal Controller	1	EACH
	Battery Backup System for Traffic Signal	1	EACH
□	Preformed Detector Loop (E1-E7, W1-W10, N1-N3, S1-S10)	30	EACH
○	1" Rigid Conduit, Schedule 40	125	FT
○	2" Rigid Conduit, Schedule 40	1080	FT
○	4" Rigid Conduit, Schedule 40	20	FT
○	3" Rigid Conduit, Schedule 80	230	FT
○	#2	3650	FT
○	#6	1605	FT
○	2/C	1310	FT
○	4/C	660	FT
○	25/C	600	FT
○	TSP	2070	FT
	2/C #10 AWG Copper Pole & Bracket Cable	180	FT
○	Preemption Cable Not a Bid Item	525	FT



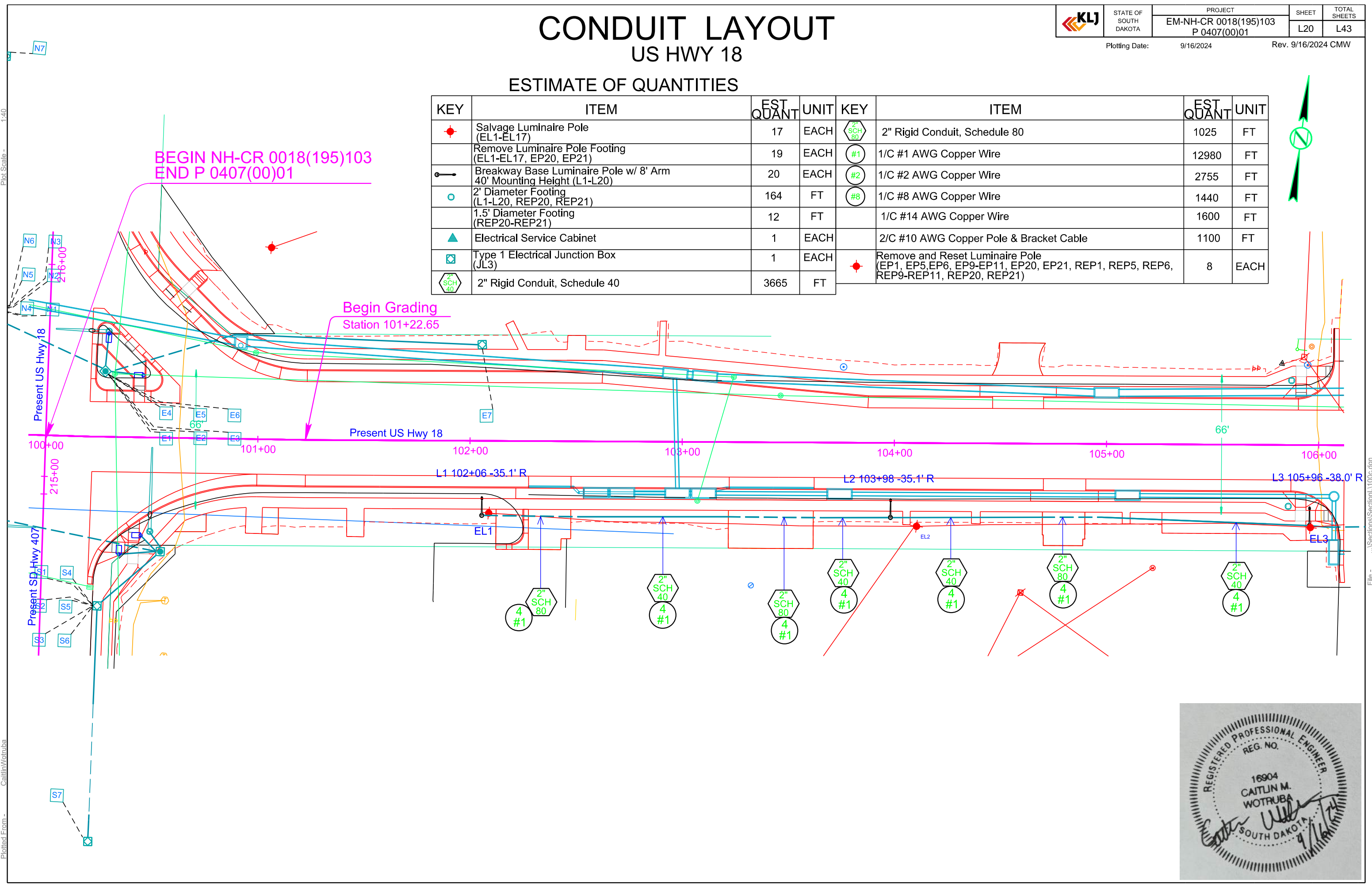
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CONDUIT LAYOUT

US HWY 18

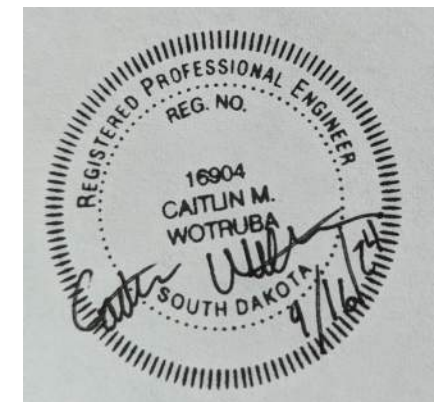
ESTIMATE OF QUANTITIES

KEY	ITEM	EST QUANT	UNIT	KEY	ITEM	EST QUANT	UNIT
◆	Salvage Luminaire Pole (EL1-EL17)	17	EACH	2" SCH 80	2" Rigid Conduit, Schedule 80	1025	FT
	Remove Luminaire Pole Footing (EL1-EL17, EP20, EP21)	19	EACH	(#1)	1/C #1 AWG Copper Wire	12980	FT
⚡	Breakway Base Luminaire Pole w/ 8' Arm 40' Mounting Height (L1-L20)	20	EACH	(#2)	1/C #2 AWG Copper Wire	2755	FT
○	2' Diameter Footing (L1-L20, REP20, REP21)	164	FT	(#8)	1/C #8 AWG Copper Wire	1440	FT
	1.5' Diameter Footing (REP20-REP21)	12	FT		1/C #14 AWG Copper Wire	1600	FT
▲	Electrical Service Cabinet	1	EACH		2/C #10 AWG Copper Pole & Bracket Cable	1100	FT
☒	Type 1 Electrical Junction Box (JL3)	1	EACH	◆	Remove and Reset Luminaire Pole (EP1, EP5, EP6, EP9-EP11, EP20, EP21, REP1, REP5, REP6, REP9-REP11, REP20, REP21)	8	EACH
2" SCH 40	2" Rigid Conduit, Schedule 40	3665	FT				



BEGIN NH-CR 0018(195)103
END P 0407(00)01

Begin Grading
Station 101+22.65




Plot Scale - 1:40

Plotted From - Caitlin Wotruba

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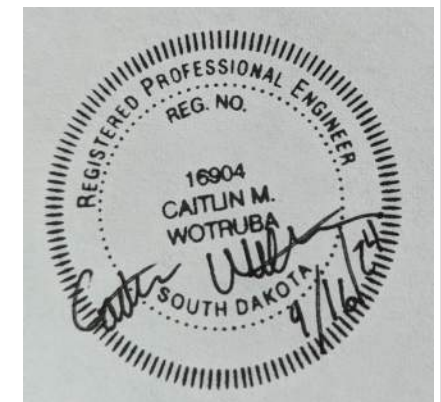
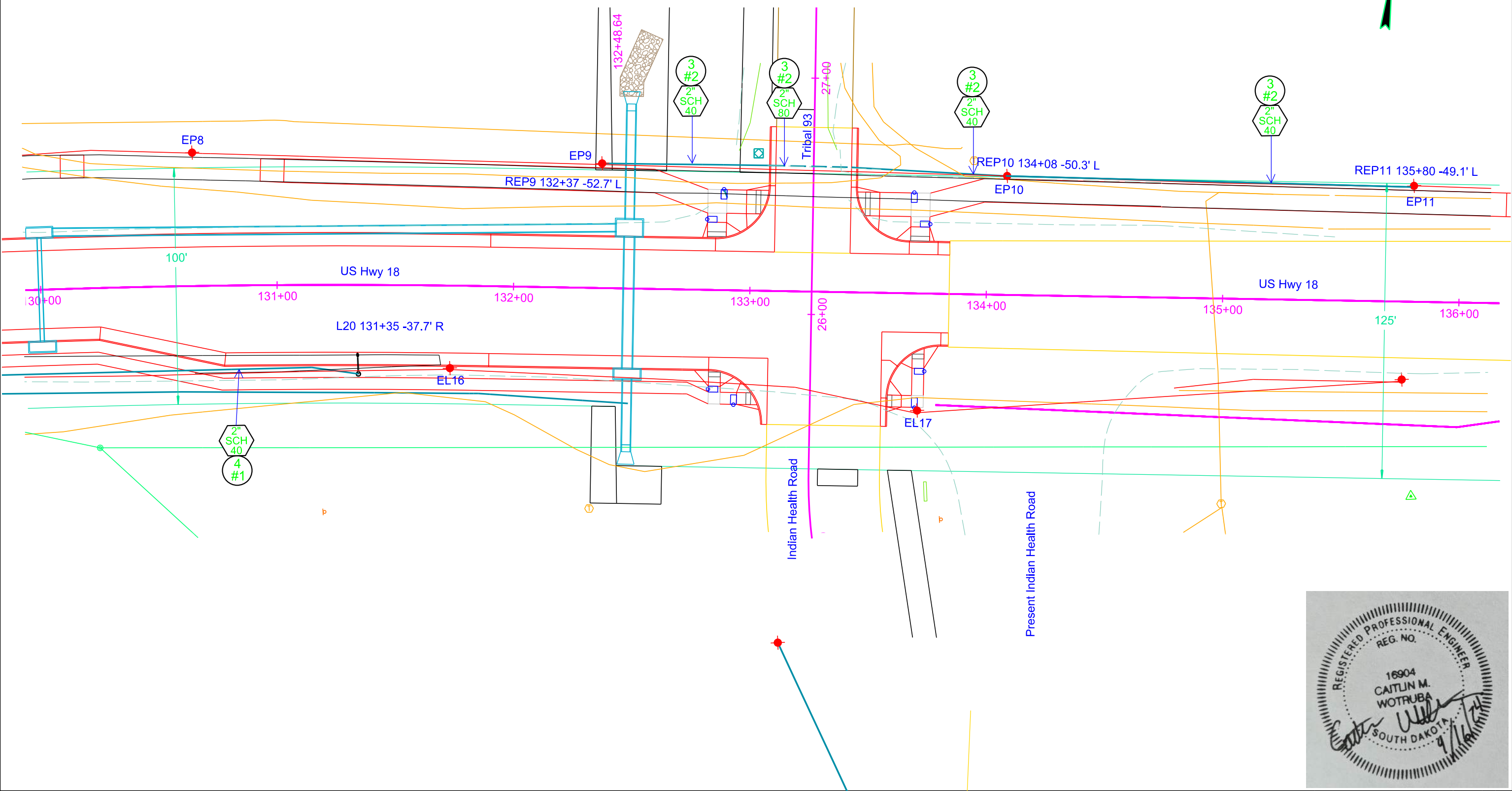
CONDUIT LAYOUT

US HWY 18

 STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	EM-NH-CR 0018(195)103 P 0407(00)01	L27	L43
Plotting Date: 9/16/2024		Rev. 9/16/2024 CMW	




Plotted From: Caitlin Wotruba
 Plot Scale: 1"=40'



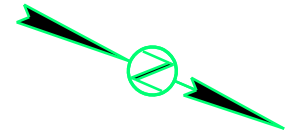
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CONDUIT LAYOUT

INDIAN HEALTH ROAD

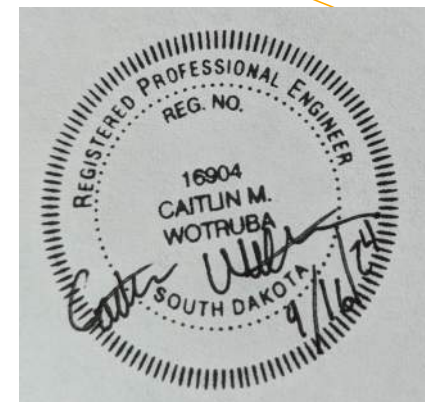
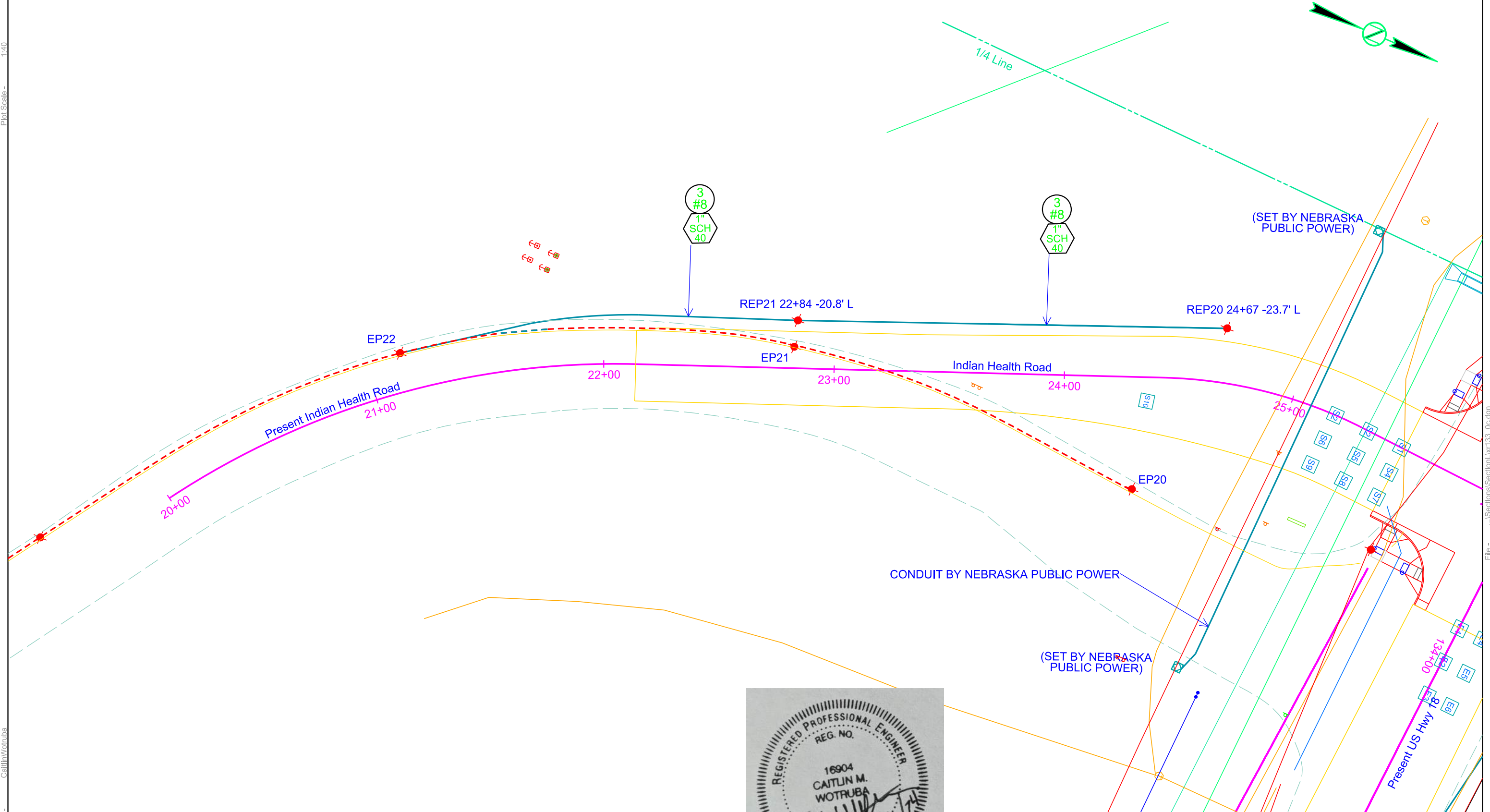
 STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	EM-NH-CR 0018(195)103 P 0407(00)01	L28	L43

Plotting Date: 9/16/2024 Rev. 9/16/2024 CMW



Plot Scale - 1"=40'

Plotted From - Caitlin Wotruba



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