



Department of Transportation

Rapid City Region Office

2300 Eglin Street

P.O. Box 1970

Rapid City, SD 57709-1970

Phone: 605/394-2244

FAX: 605/394-1904

May 18, 2015

ADDENDUM NO. 2

RE: May 21, 2015 Rapid City Region Office Informal Letting
000P-492 & 000N-492, Oglala Lakota County
Lighting Repair

TO WHOM IT MAY CONCERN:

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

PROPOSAL:

- Replace the DOT-123 with the attached DOT-123.

PLANS:

- Replace plan sheets 2 thru 7 with attached plans sheets.

Sincerely,

John Rehorst
Region Design Engineer

**SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL**

DOT-123
(5/05)

CODE	PRE	PROJECT ROUTE	AGR	MAINT UNIT	CONTROL REFERENCE	AFE	FUNCTION	BEGIN MRM	END MRM
		000P		492		I3nr	2490		
		000N		492		I3nt	2490		

CITY AND /OR COUNTY Oglala Lakota County

BUDGET SOURCE FY15 Cont. Maint.

FINALS ENGINEER REVIEW REQUIRED YES NO

REGION MATERIALS CERTIFICATION REQUIRED YES NO

CERTIFIED INSPECTORS/TESTERS REQUIRED YES NO

TO BE INSTALLED ON THE CM&P YES NO

TYPE, PURPOSE AND LOCATION OF WORK Lighting Repair near Pine Ridge

ESTIMATE OF QUANTITIES AND COST

BID ITEM NUMBER	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	000P-492 PCN i3nr				
009E0010	Mobilization	Lump Sum	LS		
250E0010	Incidental Work	Lump Sum	LS		
460E0300	Breakout Structural Concrete	0.1	CuYd		
462E0100	Class M6 Concrete	0.2	CuYd		
480E0100	Reinforcing Steel	35	Lb		
481E0507	No. 7 Rebar Splice	8	Each		
634E0010	Flagging	30	Hour	\$23.55	\$706.50
634E0100	Traffic Control	1080	Unit		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
635E0040	Breakaway Base Luminaire Pole w/Arm, 40' Mount Height	1	Each		
635E3340	Roadway Luminaire, 400 watt with photoelectric cell	1	Each		
635E5020	2' Diameter Footing	8	Ft		
635E5920	Pedestrian Signal Head	1	Each		
635E7510	Remove and Reset Luminaire Pole	6	Each		
635E8120	2" Rigid Conduit, Schedule 40	40	Ft		
900E2024	Miscellaneous Work, Electrical	Lump Sum	LS		
900E2030	Miscellaneous Work	16	Site		
	000N-492 PCN i3nt				
009E0010	Mobilization	Lump Sum	LS		
250E0010	Incidental Work	Lump Sum	LS		
634E0010	Flagging	30	Hour	\$23.55	\$706.50
634E0100	Traffic Control	1080	Unit		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
635E0040	Breakaway Base Luminaire Pole w/Arm, 40' Mount Height	2	Each		
635E3340	Roadway Luminaire, 400 watt with photoelectric cell	1	Each		
635E5020	2' Diameter Footing	44	Ft		
635E7510	Remove and Reset Luminaire Pole	6	Each		
635E8120	2" Rigid Conduit, Schedule 40	160	Ft		
900E2024	Miscellaneous Work, Electrical	Lump Sum	LS		
900E2030	Miscellaneous Work	10	Site		
	TOTAL				

This document is for information only. Do not use for bidding purposes.

CONTRACTORS PROPOSAL STATEMENT

The undersigned does hereby agree to furnish the labor and/or material in the quantities, at the unit price, for the purpose and in the place all in accordance with attached provisions upon approval of this Proposal by the State Transportation Commission. This document becomes the contract when signed by the Contractor and a Department of Transportation Representative. The Contractor agrees to provide services in compliance with the Americans with Disabilities Act of 1990. The Contractor agrees to provide a certificate of insurance prior to commencing work, for liability coverage for the duration of the work as per the current edition of the SDDOT Standard Specifications for Roads and Bridges.

PROPOSED START DATE May 21, 2015 OVERALL COMPLETION DATE November 20, 2015

SUBSCRIBED AND SWORN TO BEFORE ME THE
____ DAY OF _____, 20____

SIGNATURE _____
COMPANY _____
ADDRESS _____

NOTARY – My Commission Expires _____ FED. TAX ID NUMBER _____

RECOMMENDED FOR APPROVAL:
CONSTRUCTION/MAINTENANCE ENGR. DATE

REGION ENGINEER DATE

DIRECTOR OF OPERATIONS DATE

APPROVED FOR THE TRANSPORTATION COMMISSION

NAME _____ TITLE _____ DATE _____

APPROVED as per Federal Highway Stewardship Provisions this _____ day of _____, 20____

PROJECT DEVELOPMENT ENGINEER

This document is for information only. Do not use for bidding purposes.

ESTIMATE OF QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000P-492 & 000N-492	2	21

Revised 5/14/15 jpr

PCN I3NR – US 18, PCN i3NR

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
460E0300	Breakout Structural Concrete	0.1	CuYd
462E0100	Class M6 Concrete	0.2	CuYd
480E0100	Reinforcing Steel	35	Lb
480E0507	No. 7 Rebar Splice	8	Each
634E0010	Flagging	30.0	Hour
634E0100	Traffic Control	1,080	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	1	Each
635E3340	Roadway Luminaire, 400 Watt with Photoelectric Cell	1	Each
635E5020	2' Diameter Footing	8.0	Ft
635E5920	Pedestrian Signal Head	1	Each
635E7500	Remove and Reset Luminaire Pole	6	Each
635E8120	2" Rigid Conduit, Schedule 40	40	Ft
900E2024	Miscellaneous Work, Electrical	Lump Sum	LS
900E2030	Miscellaneous Work	16	Site

PCN I3NT – SD 407, PCN i3NT

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
634E0010	Flagging	30.0	Hour
634E0100	Traffic Control	1,080	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	2	Each
635E3340	Roadway Luminaire, 400 Watt with Photoelectric Cell	1	Each
635E5020	2' Diameter Footing	44.0	Ft
635E7500	Remove and Reset Luminaire Pole	6	Each
635E8120	2" Rigid Conduit, Schedule 40	160	Ft
900E2024	Miscellaneous Work, Electrical	Lump Sum	LS
900E2030	Miscellaneous Work	10	Site

SCOPE OF WORK

Work on this project involves a wide range of repairs to various types of luminaire and signal poles. Repairs consist of installing nuts, bolts and washers, replacing covers, bases, anchor systems and removing and resetting of numerous poles.

SEQUENCE OF OPERATIONS

The Contractor shall complete all work within one specific location before beginning work at another location.

Luminaire poles and luminaire heads shall remain in service during hours of darkness. Necessary repairs shall not take the luminaire out of service during the nighttime hours. The exception to this would be the luminaire pole footing extension which requires removal of the luminaire pole for several days to allow the concrete to obtain required strength. The luminaire pole shall be operational within 5 calendar days of the concrete obtaining required strength.

Repairs to signal poles shall be accomplished during non-peak hours of 7 PM to 6 AM if the repairs require the traffic signal to be taken out of service. Intersection shall be signed in all 4 directions with stop signs and all 4 way, plaques.

GENERAL NOTES

1. The Contractor shall adequately support the luminaire poles/mast arms and the signal poles/mast arms during the repair process. Any damage caused to the poles, mast arms, pole bases, or any other component of the luminaire and signals shall be repaired or replaced by the Contractor at his expense. The Engineer shall have final approval of any repairs or replacements that are required.

2. Any damage caused by the contractor to the surrounding vegetated surface, will be repaired to the satisfaction of the engineer at no cost to the State.

ORIGINAL SHOP PLANS

The SDDOT has the original shop plans for the luminaire poles on file. The SDDOT will make these original shop plans available to the Contractor for bidding purposes if requested. Please submit requests for original shop plans to Tim.Wicks@state.sd.us

Original shop plans will be provided in PDF format.

TABLE OF FOOTING DATA**PCN I3NR**

Site Designation	Footing Diameter	*Footing Depth	**Spiral Diameter	**Spiral Length	Vertical Reinforcement
L65880013	2' 0"	8' 0"	1' 8"	54' 9"	8 #7 x 7' 6"

PCN I3NT

Site Designation	Footing Diameter	*Footing Depth	**Spiral Diameter	**Spiral Length	Vertical Reinforcement
L65610003	2' 0"	7' 0"	1' 8"	49' 6"	8 #7 x 6' 6"
L65610013	2' 0"	7' 0"	1' 8"	49' 6"	8 #7 x 6' 6"
L65610019	2' 0"	7' 0"	1' 8"	49' 6"	8 #7 x 6' 6"
L65610021	2' 0"	7' 0"	1' 8"	49' 6"	8 #7 x 6' 6"
L65610034	2' 0"	8' 0"	1' 8"	54' 9"	8 #7 x 7' 6"
L65610036	2' 0"	8' 0"	1' 8"	54' 9"	8 #7 x 7' 6"

REMOVING EXISTING FOOTING

All costs associated with the removal of existing footings for the installation of new footings shall be incidental to the contract unit price per foot for 2' Diameter Footing.

REPLACEMENT PARTS

All replacement parts on this contract shall be obtained from the company that furnished the original luminaire components. Replacement bolts, nuts and washers shall be approved by the pole manufacturer.

Replacement parts shall have the same protective coating as the original components.

The Contractor shall be responsible for furnishing certification for replacement parts per the SDDOT Materials Manual.

ORIGINAL LUMINAIRE POLE SUPPLIER CONTACT INFORMATION**SUPPLIER****Valmont Industries, Inc.**

<http://www.valmont.com/valmont/products/pole-structures>

One Valmont Plaza

Omaha, Nebraska 68154-5215

402-963-1000

Fax: 402-963-1198

SUPPLIER**Millerbernd Manufacturing Company**

http://www.millerberndmfg.com/steel_lighting_poles/

Steve Klobe

Regional Manager ND,SD & MN

Inside Sales

Customer Service

320-485-2111

sklobe@millerberndmfg.com

SUPPLIER**Ameron Pole Products**

<http://www.ameronpoles.com/>

Northwest Regional Sales Office

9661 Dutchess Place

South Jordan, UT 84095

801-631-3650

Fax: 801-657-4505

UTILITIES

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

TRAFFIC CONTROL

Traffic control shall be per the standard plates included in this set of plans. Flaggers shall be utilized as necessary. A lane closure shall be in place if any activity impacts a lane of traffic when applicable. All lanes shall be open to traffic during non-working hours.

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost of this work shall be incidental to the various contract items unless otherwise specified in the plans. Delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

TRAFFIC CONTROL CONTINUED

Storage of vehicles and equipment shall be as near the right-of-way line as possible. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

Work activities during non-daylight hours are subject to prior approval

Work zones for luminaire repair shall not exceed 1500' (4 blocks) in length without prior approval from the Engineer.

Traffic approaching the project from intersecting roadways, streets, and approaches must be adequately accommodated. Major intersections or large commercial entrances may require additional signing, flaggers, and channelizing devices on a temporary basis until work activities pass these areas.

The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than 3 days. If the duration is more than 3 days the signs shall be on fixed location, ground mounted, breakaway supports.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

The Contractor shall accommodate pedestrian traffic, including those with disabilities. Bicycle traffic shall also be accommodated. If work shall impact the sidewalks the Contractor shall accommodate pedestrian traffic while repair work is underway with manned crossing assistance (crossing guards) combined with an accessible path. Payment for crossing guards shall be paid for under the contract item FLAGGING.

Traffic Control units, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in quantities, either more or less. The quantity of traffic control units paid for will be for the greatest number of installations per sign in place at any one time regardless of the number of set-ups on the project. Payment will be for those signs ordered by the Engineer and used on each project PCN.

In some locations work may be accomplished from behind the curb without impeding traffic. Repair locations within the City limits of Deadwood and Lead, may need to be scheduled to accommodate work areas and or special events held within these two locations. Contacts for these locations, are Ron Green @ 605-578-3082, Deadwood and John Bunch @ 605-584-1401, Lead.

ESTIMATE OF SIGN QUANTITIES FOR EACH PCN I3NR & I3NT

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
E5-1a	60" x 48"	EXIT ### WITH 45 DEGREE ARROW (1 or 2 digits)	1	38	38
G20-2	48" x 24"	END ROAD WORK	1	24	24
R1-3P	16" x 18"	ALL WAYS	4	15	60
R1-1	36" x 36"	STOP	4	27	108
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	4	34	136
W3-4	48" x 48"	BE PREPARED TO STOP	4	34	136
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W4-3	48" X 48"	ADDED LANE (SYMBOL)	1	34	34
W5-4	48" X 48"	RAMP NARROWS	1	34	34
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	5	34	170
W20-4	48" x 48"	ONE LANE ROAD #### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED #### FT. OR AHEAD	2	34	68
W20-7	48" x 48"	FLAGGER (SYMBOL)	2	34	68
W21-5	48" x 48"	SHOULDER WORK	2	34	68
TOTAL UNITS					1080

REPLACE LUMINAIRE POLE BASE COUPLERS

The fluted aluminum couplers and skirting at the base of the luminaire pole shall be replaced with Transpo Pole Safe couplers and skirting. The Tables of Luminaire/Signal Repair indicate the luminaire poles which require this coupler and skirting replacement. It shall be the contractor responsibility to verify size of anchor bolts to ensure the correct couplers are purchased. It is anticipated that Model 4100 Transpo Pole Safe couplers, for 1" diameter anchor bolts will be used for replacements on this project.

Couplers and skirting shall be installed per Transpo Pole Safe installation instructions. Installation may require sizing of the anchor bolt projection height, cleaning of the anchor bolt, and cold galvanizing of the anchor bolt. http://www.transpo.com/pdfs/Pole-Safe_Website_Update/Pole_Safe_Design_Book_2013.pdf

All costs associated with furnishing, replacing and installing the couplers and skirting shall be incidental to the contract unit price per each for REMOVE AND RESET LUMINAIRE POLE.

REPLACE BOLT/BOLTS ON BACKSIDE OF MAST ARM

The Tables of Luminaire/Signal Repair indicates signal poles which require the bolts connecting the mast arm and/or anti-rotation bolt on the arm to pole connection to be replaced.

The Contractor shall be responsible for reviewing the original shop plans and providing the proper replacement bolts. Existing washers at the connection may be reused if they are in good condition.

All costs associated with furnishing and replacing the bolt and washers at the mast arm connection to the pole shall be incidental to the contract unit price per site for MISCELLANEOUS WORK. Each signal pole requiring this work shall constitute 1 Site for payment purposes, regardless of the number of bolts requiring replacement.

INSTALL BOLT, NUT AND/OR WASHER

The Tables of Luminaire/Signal Repair indicate the luminaire pole locations which require the installation of bolts, nuts or washers on the base connection or breakaway assembly.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	000P-492 & 000N-492	3	21

Revised 5/14/15 jpr

All costs associated with furnishing and installing bolts, nuts and or washers shall be incidental to the contract unit price per site for MISCELLANEOUS WORK. Each luminaire pole requiring this work shall constitute 1 Site for payment purposes, regardless of the number of nuts and washers installed.

The Contractor shall be responsible for reviewing the original shop plans and working with the original supplier to determine the proper hardware to install at each location.

If the installation of the bolts, nuts or washers requires removal of the luminaire pole from the luminaire base, the Contractor shall be compensated by the contract item REMOVE AND RESET LUMINAIRE POLE in addition to the contract item MISCELLANEOUS WORK.

TIGHTEN BOLT AND/OR NUT

The Tables of Luminaire/Signal Repair indicate the luminaire pole locations which require tightening of bolts and nuts.

Anchor bolts shall be tightened in accordance with Section 635 of the Standard Specifications and the Supplemental Specifications to the Standard Specifications. Transformer bases shall be tightened in accordance with base manufacturer's recommendations.

The Tables of Luminaire/Signal Repair indicate the number of anchor rod nuts that were determined to be loose at the time of inspection. All anchor rod nuts at a pole location requiring anchor rod nuts to be tightened shall be torqued to the proper specifications, regardless of the number of nuts indicated to be loose.

All costs associated with tightening in place nut/nuts shall be incidental to the contract unit price per site for MISCELLANEOUS WORK. Each luminaire pole requiring this work shall constitute 1 Site for payment purposes. If the tightening requires removal of the luminaire pole from the luminaire base, the Contractor shall be compensated by the contract item REMOVE AND RESET LUMINAIRE POLE in addition to the contract item MISCELLANEOUS WORK.

MISCELLANEOUS WORK

The contract item Miscellaneous Work encompasses several items of work as indicated in the various Tables of Luminaire/Signal Repair. Each item of work indicated under the contract item Miscellaneous Work shall constitute one payment of the contract item MISCELLANEOUS WORK. Thus, the Contractor may be compensated several times for the contract item Miscellaneous Work at one pole location.

REMOVE AND RESET LUMINAIRE POLE

If repair work requires the removal of the luminaire pole from the pole base, the contract item REMOVE AND RESET LUMINAIRE POLE shall be paid to the Contractor in addition to any of the other contract items such as MISCELLANEOUS WORK. The Engineer shall have final authority as to when the contract item Remove and Reset Pole is paid for. Removal of the luminaire pole to make repairs to the pole or replace parts on the pole generally will not constitute removal and resetting of pole.

REPLACE / REPAIR / SECURE HAND HOLE COVERS

The Tables of Luminaire/Signal Repair indicate the luminaire pole locations which require repairs and or reattachment of the hand hole access covers.

If an access cover is not presently attached to the hand hole access, or the access cover is damaged, the Contractor shall furnish and install a new access cover. Replacement covers shall be pre-approved before use.

If the present attachment for the access cover is damaged and/or does not adequately secure the access cover in place, the Contractor shall be responsible for preparing and implementing a plan that adequately secures the access cover and still allows for easy removal of the access cover. Theft deterrent covers may be a potential option if the present covers and attachments are significantly damaged. The repair plan shall be approved by the Engineer prior to implementation.

All replacement materials shall have the same surface finish as the original part. If any component has the protective galvanizing damaged, the damaged area shall be repaired as per the Repair Galvanized Coating notes within these plans.

All costs associated with furnishing and installing an access cover and/or making repairs to allow for the securing of an access cover shall be incidental to the contract lump sum price for MISCELLANEOUS WORK, ELECTRICAL.

REPLACE POLE CAP

The Tables of Luminaire/Signal Repair indicate the luminaire pole locations which require installation of a luminaire pole cap. The Repair Comments in the Tables of Luminaire/Signal Repair indicate some locations where only the pole cap set screw needs to be replaced.

All costs associated with furnishing and installing a new pole cap or furnishing and installing a new pole cap set screw shall be incidental to the contract lump sum price for MISCELLANEOUS WORK, ELECTRICAL. There will be no additional compensation to the Contractor if the Repair Comments in the Tables of Luminaire/Signal Repair indicate to replace the set screw and the Contractor is required to furnish and install a new pole cap to complete the repair.

REPLACE SIGNAL HEAD BACKPLATE

The Tables of Luminaire/Signal Repair indicate the signal pole locations which require installation of a signal head backplate.

All costs associated with furnishing and installing a new signal head backplate shall be incidental to the contract lump sum price for MISCELLANEOUS WORK, ELECTRICAL.

REPAIR GALVANIZED COATING

The Tables of Luminaire/Signal Repair indicate the luminaire poles which require repair to the galvanized pole or mast arm surface.

The galvanizing repairs shall be in compliance with ASTM A 780 specifications for Zinc-rich Paint.

The steel surface shall be cleaned of all rust, scale, oil, grease and foreign matter prior to coating. The galvanizing product shall be applied according to the product application instructions.

The Contractor shall furnish the Engineer with the Zinc-rich Paint product name, application instructions and documentation that the product complies with ASTM A 780 for Paints Containing Zinc Dust.

All costs associated with repairing the galvanized surface shall be incidental to the contract lump sum price for INCIDENTAL WORK.

ANCHOR BOLT COVERS

The Tables of Luminaire/Signal Repair indicate the luminaire poles which require replacement of damaged or missing die cast anchor bolt nut covers.

All replacement materials shall have the same surface finish as the original part. If any component has the protective galvanizing damaged the damaged area shall be repaired as per the Repair Galvanized Coating notes within these plans.

All costs associated with furnishing and installing new die cast anchor bolt nut covers shall be incidental to the contract unit price per each for ANCHOR BOLT COVER..

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor shall submit shop drawings and catalog cuts in accordance with Section 985 of the Standard Specifications or in Adobe PDF format.

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

Pete.Longman@state.sd.us

BREAKAWAY BASES

The Tables of Luminaire/Signal Repair indicate the locations which require installation of a new breakaway bases.

A statement is required, signed by a Professional Engineer registered in the State of South Dakota, certifying that the breakaway base devices meet the design requirements, including breakaway and structural adequacy, of the "AASHTO Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals". The physical testing procedures outlined in Section 8 of the Fifth Edition of the Aluminum Association's "Specifications for Aluminum Structures" may be used to establish service limits for structural adequacy certification of aluminum breakaway transformer bases. If requested, test data of production samples to support the certification shall be provided.

All costs associated with furnishing and installing a new Breakaway Base Assembly shall be incidental to the contract unit price per site for MISCELLANEOUS WORK. Each luminaire pole requiring this work shall constitute 1 Site for payment purposes.

In addition to the Breakaway Base Assembly, it requires removal of the luminaire pole from the existing luminaire base and the Contractor shall be compensated by the contract item REMOVE AND RESET LUMINAIRE POLE in addition to the contract item MISCELLANEOUS WORK.

REPAIR CONCRETE FOOTING

The footing to be repaired shall consist of cleaning exposed concrete to the satisfaction of the Engineer and patched with an approved patching material from the Approved Products List. All cost to clean, form and patch footing shall be incidental to the contract unit price for INCIDENTAL WORK.

Due to size of the patch, it is anticipated that the pole and base will not need to be removed to accommodate the repair of the footing.

LUMINAIRES

PCN i3NT - L65610039

The accepted design for the roadway luminaires shall provide 0.78 and greater average maintained foot-candles and a uniformity ratio (average maintained to minimum maintained foot-candles) of 3:1 and less using the following parameters:

Setback:	8.5 Ft.
Lamp Loss Factor (LLF):	0.7
Width of Lighted Area:	26 Ft.
Spacing:	255 Ft.
Configuration:	One-Sided
Mounting Height:	40 Ft.
Lamp:	250W HPS

The following luminaires meet the requirements for this design:

- a.) Hubbell Test No. HP03018.IES Medium, Semi-Cutoff, Type II
- b.) Crouse – Hinds Test No. 0VY2S2E Medium, Semi-Cutoff, Type II

PCN i3NR - L65880007

The accepted design for the roadway luminaires shall provide 0.78 and greater average maintained foot-candles and a uniformity ratio (average maintained to minimum maintained foot-candles) of 3:1 and less using the following parameters:

Setback:	1.0 Ft.
Lamp Loss Factor (LLF):	0.7
Width of Lighted Area:	52 Ft.
Spacing:	225 Ft.
Configuration:	One-Sided
Mounting Height:	40 Ft.
Lamp:	250W HPS

The following luminaires meet the requirements for this design:

- a.) Hubbell Test No. HP03018.IES Medium, Semi-Cutoff, Type II
- b.) Crouse – Hinds Test No. 0VY2S2E Medium, Semi-Cutoff, Type II

Three copies of the isofootcandle charts and utilization curves shall be furnished to the Engineer for approval. The Contractor must get approval from the Engineer prior to installation of the luminaires.

The approved isofootcandle data for each case shall be used to determine the correct socket position at each site. Each luminaire shall be installed with its lamp socket in the proper position and in a level attitude.

Revised 5/14/15 jpr

TABLE OF LUMINAIRE/SIGNAL REPAIR IN OGLALA LAKOTA COUNTY, Project No. 000P-492 - PCN I3NR & Project No. 000P-492 - PCN I3NT

Project No.	Struc #	County	City	Hwy	Location Description	Latitude	Longitude	635E0040 Break-away Base Luminaire Pole with Arm, 40' Mounting Height (Each)	635E3340 Roadway Luminaires, 400 Watt with Photocell (Each)	635E5020 2' Diameter Footing (FT)	635E5920 Pedestrian Signal Head (Each)	635E7500 Remove and Reset Luminaire Pole (Each)	635E8120 2" Rigid Conduit, Schedule 40 (FT)	Extend Footing (Site)	(N.A.B.I.)		INCIDENTAL WORK		MISCELLANEOUS WORK										MISCELLANEOUS WORK, ELECTRICAL		Repair Comments	
																	Repair Galvanizing (Site)	Repair damaged footing (Site)	Remove screw in type footing (Site)	Replace Transformer Base (Site)	Replace Luminaire or traffic Signal Hardware (Site)	Install bolt, nut and/or washer (Site)	Close Luminaire head case and repair (site)	Tighten bolt and/or nut (Site)	Repair/ Secure hand hole covers (Site)	Miscellaneous Electrical (Site)						
Project No. 000N-492, PCN I3NT	L65610003	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.00136	-102.55437			7		1	40							1												Repair or replace original footing and install existing pole on permanent footing. Remove temporary screw in type footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation.
	L65610004	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.00205	-102.55437											1														Repair damaged galvanization on pole.
	L65610010	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.00608	-102.55433																	1								Close luminaire head case. Repair as necessary.
	L65610012	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.00736	-102.55431																		1							Replace broken washer under pole to transformer base bolt.
	L65610013	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.00799	-102.5543	1		7		1	40								1											Repair or replace original footing and install new pole and existing break away base on permanent footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation. Remove temporary screw in type footing. A new pole is needed to properly line up with the break away base.
	L65610016	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.01004	-102.5543																			1						Replace carriage bolts used for pole to transformer base connection with correct hardware.
	L65610019	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.01207	-102.5543				7		1	40								1										Repair or replace original footing and install existing pole on permanent footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation. Remove temporary screw in type footing.
	L65610021	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.01	-102.55				7		1	40								1										Repair or replace original footing and install existing pole on permanent footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation. Remove temporary screw in type footing.
	L65610028	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.01795	-102.55509																		1							Replace transformer base due to damage. Reshape soil around the base of the pole to uncover the footing and provide proper drainage.
	L65610029	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.02	-102.56																				1					Replace broken access panel bolt. Remove tape.
	L65610031	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.02	-102.56																			1						Replace transformer base due to damage. Reshape soil around the base of the pole to uncover the footing and provide proper drainage.
	L65610032	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.02058	-102.55546																					1				Tighten 1 anchor rod nut. Replace missing access panel cover.
	L65610034	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.02	-102.56				8		1												1							Replace transformer base due to damage. Repair or replace original footing and install existing pole and new break away base on permanent footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation.
	L65610036	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.02312	-102.5559				8		1																			Repair or replace original footing and install existing pole on permanent footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation.
L65610039	Oglala Lakota	Pine Ridge	SD407	Pine Ridge	43.02515	-102.55618	1	1																							Replace pole due to damage.	

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TABLE OF LUMINAIRE/SIGNAL REPAIR IN OGLALA LAKOTA COUNTY, Project No. 000P-492 - PCN i3NR & Project No. 000P-492 - PCN i3NT

Project No.	Struc #	County	City	Hwy	Location Description	Latitude	Longitude	635E0040 Break-away Base Luminaire Pole with Arm, 40' Mounting Height (Each)	635E3340 Roadway Luminaire, 400 Watt with Photocell (Each)	635E5020 2' Diameter Footing (FT)	635E5920 Pedestrian Signal Head (Each)	635E7500 Remove and Reset Luminaire Pole (Each)	635E8120 2" Rigid Conduit, Schedule 40 (FT)	Extend Footing (Site)	(N.A.B.I.)		INCIDENTAL WORK		MISCELLANEOUS WORK								MISCELLANEOUS WORK, ELECTRICAL		Repair Comments	
																	Repair Galvanizing (Site)	Repair damaged footing (Site)	Remove screw in type footing (Site)	Replace Transformer Base (Site)	Replace Luminaire or traffic Signal Hardware (Site)	Install bolt, nut and/or washer (Site)	Close Luminaire head case and repair (site)	Tighten bolt and/or nut (Site)	Repair/ Secure hand hole covers (Site)	Miscellaneous Electrical (Site)				
Project No. 000P-492, PCN i3NR	L65880001	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.02566	-102.55561											1									1		Repair access panel cover security to the pole. Reshape soil around the base of the pole to uncover the footing and provide proper drainage. Repair damaged galvanization.	
	L65880002	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.02572	-102.55486																				1		Wires coming from luminaire head. The wires on the next pole got cut and they are running power between poles. This is a temporary fix. Please verify this situation has been resolved.	
	L65880007	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.02643	-102.55104	1	1																					Reshape soil around the base of the pole to uncover the footing and provide proper drainage. Replace the pole due to the dent.
	L65880013	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.02724	-102.54638			8		1	40																	Repair or replace original footing and install existing pole on permanent footing. The SDDOT Office of Bridge Design should review the details of the repair prior to implementation. Remove temporary screw in type footing. Replace hardware with proper size and type.
	T65000347	Oglala Lakota	Pine Ridge	US18	US Hwy 18 and SD Hwy 407	43.02575	-102.55631															1					1		Replace the broken traffic signals cowlings. Repair the luminaire housing so that it will close properly.	
	T65000348	Oglala Lakota	Pine Ridge	US18	US Hwy 18 and SD Hwy 407	43.02576	-102.55657				1																			Replace the missing pedestrian head.
	T65000350	Oglala Lakota	Pine Ridge	US18	US Hwy 18 and SD Hwy 407	43.03	-102.56																1			1		Replace the cracked traffic signal cowlings. Tighten the loose top connection on the north facing traffic signal. Replace the missing hand hole cover screw.		
	T65000353	Oglala Lakota	Pine Ridge	US18	US Hwy 18 and E Ridge Loop Rd	43.02669	-102.54978																1						Replace the missing signal port plug.	
	T65000354	Oglala Lakota	Pine Ridge	US18	US Hwy 18 and E Ridge Loop Rd	43.02693	-102.54984																1						Replace the missing and broken traffic signal shrouds.	
	T65000355	Oglala Lakota	Pine Ridge	US18	US Hwy 18 and E Ridge Loop Rd	43.02688	-102.55006																1						Replace the broken signal port plug.	
	L65773008	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.03265	-102.55831						1																	Install washers of proper size and material (ASTM F436 or ASTM F959) under anchor rod nuts.
	L65773009	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.03216	-102.55775						1																	Install washers of proper size and material (ASTM F436 or ASTM F959) under anchor rod nuts.
	L65773011	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.03105	-102.55722						1																	Install washers of proper size and material (ASTM F436 or ASTM F959) under anchor rod nuts. Tighten all anchor rod nuts.
	L65773012	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.03046	-102.5573						1																	Install washers of proper size and material (ASTM F436 or ASTM F959) under anchor rod nuts. Tighten all anchor rod nuts.
L65773014	Oglala Lakota	Pine Ridge	US18	Pine Ridge	43.02952	-102.5571						1																	Install washers of proper size and material (ASTM F436 or ASTM F959) under anchor rod nuts. Tighten all anchor rod nuts.	

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TABLE OF LUMINAIRE/SIGNAL REPAIR IN OGLALA LAKOTA COUNTY, Project No. 000P-492 - PCN i3NR & Project No. 000P-492 - PCN i3NT

Project No.	Struc #	County	City	Hwy	Location Description	Latitude	Longitude	635E0040 Break-away Base Luminaire Pole with Arm, 40' Mounting Height (Each)	635E3340 Roadway Luminaires, 400 Watt with Photoelectric Cell (Each)	635E5020 2' Diameter Footing (FT)	635E5920 Pedestrian Signal Head (Each)	635E7500 Remove and Reset Luminaire Pole (Each)	635E8120 2" Rigid Conduit, Schedule 40 (FT)	Extend Footing (Site)	(N.A.B.I.)		INCIDENTAL WORK		MISCELLANEOUS WORK							MISCELLANEOUS WORK, ELECTRICAL		Repair Comments			
																	Repair Galvanizing (Site)	Repair damaged footing (Site)	Remove screw in type footing (Site)	Replace Transformer Base (Site)	Replace Luminaire or traffic Signal Hardware (Site)	Install bolt, nut and/or washer (Site)	Close Luminaire head case and repair (site)	Tighten bolt and/or nut (Site)	Repair/Secure hand hole covers (Site)	Miscellaneous Electrical (Site)					
Project No. 000P-492, PCN i3NR	L65772003	Oglala Lakota	Oglala	US18	Oglala	43.18808	-102.7426																		1			Tighten 3 anchor rod nuts. Reshape soil around the base of the pole to uncover the footing and provide proper drainage. One luminaire was noted to be on during the day. Check functionality and repair as needed.			
	L65772004	Oglala Lakota	Oglala Lakota	US18	Oglala	43.18807	-102.74206																		1			Reshape soil around the base of the pole to ensure no more than 2" of the footing is exposed. Tighten 4 anchor rod nuts. One luminaire was noted to be on during the day. Check functionality and repair as needed.			
	L65772007	Oglala Lakota	Oglala Lakota	US18	Oglala	43.18801	-102.74091																		1			Reshape soil around the base of the pole to uncover the footing and provide proper drainage. Tighten 3 anchor rod nuts. One luminaire was noted to be on during the day. Check functionality and repair as needed.			
	L65772008	Oglala Lakota	Oglala Lakota	US18	Oglala	43.18789	-102.74033							1												1			One luminaire was noted to be on during the day. Check functionality and repair as needed. Extend footing to match grade elevation.		
Total Project No. 000P-492, PCN i3NR								2	1	44	0	6	160	0	0	0	0	0	1	0	4	3	1	1	1	0	2	0			
Total Project No. 000P-492, PCN i3NR								1	1	8	1	6	40	1	0	0	0	0	1	0	0	0	5	8	0	3	3	4			
Total								3	2	52	1	12	200	1	0	0	0	2	0	4	3	6	9	1	3	5	4				