

**HIGHWAY LIGHTING DATA**

108-11  
08-20-85

**ELECTRICAL SERVICE:**

CEDAR FALLS UTILITIES PROVIDES SECONDARY SERVICE (120/240 VOLTS SINGLE PHASE) TO THE CONTROL STATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ANY CONTACTS WITH THE UTILITY COMPANY IF NECESSARY.  
PH: 1-319-268-5280

**ROADWAY LUMINAIRES:**

HIGH-PRESSURE SODIUM, 150 WATT A.N.S.I./I.E.S. GLARE-CONTROL RATINGS SHALL BE "FULL CUTOFF" WITH APPROVED SOCKET POSITIONS AND REFRACTORS. ALL BALLASTS TO BE CONNECTED FOR 240 VOLTS.  
ALL ROADWAY LIGHTING POLES SHALL BE CONNECTED TO THE CIRCUIT GROUND. CONNECTION POINT SHALL BE ABOVE THE TRANSFORMER BASE.  
AT EACH LIGHTING UNIT PHASE-TAP CONNECTIONS SHALL BE MADE WITH 5 AMPERE FUSES IN THE TRANSFORMER BASE.

**ESTIMATED LIGHTING QUANTITIES**

100-1A  
07-15-97

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUAN.
1	2401-6745356	REMOVAL OF CONCRETE FOOTINGS OF LIGHT POLES	EACH	3	
2	2401-6750001	REMOVALS, AS PER PLAN	LS	1	
3	2523-0000200	ELECTRICAL CIRCUITS	LF	692	
4	2523-0000310	HANDHOLES AND JUNCTIONS BOXES	EACH	1	
5	2523-6765009	REMOVE AND REINSTALL LIGHT POLE AND LUMINAIRE	EACH	3	
6	2599-9999005	REMOVE AND REINSTALL STOP BEACON	EACH	1	
7	2599-9999005	REMOVE AND REINSTALL NEW LUMINAIRES AND LAMPS	EACH	3	

04-15-08

213-1

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project.

It shall be the contractor's responsibility to ensure that areas (including haul roads) selected for waste or disposal not impact 1) culturally sensitive sites or graves or 2) wetlands or "Waters of the U.S.", including streams or stream banks below the "ordinary high water mark", without an approved U.S. Army Corps of Engineers Section 404 Permit.

No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

**ESTIMATE REFERENCE INFORMATION**

100-4  
10-29-02

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	ITEM CODE	DESCRIPTION
1	2401-6745356	REMOVE CONCRETE FOOTINGS OF EXISTING LIGHTS AT STATIONS 599+11, 596+76, AND 42013+51 TO 1 FOOT BELOW FINISHED GRADE. ALL REMOVED MATERIALS SHALL BE DISPOSED OF AS PER STD NOTE 213-1. METHOD OF MESUREMENT: THE ENGINEER WILL COUNT THE NUMBER OF CONCRETE FOOTINGS REMOVED. BASIS OF PAYMENT: THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE FOR EACH CONCRETE FOOTING REMOVED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR FURNISHING ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO REMOVE CONCRETE FOOTINGS, AS SPECIFIED.
2	2401-6750001	REMOVE EXISTING HANDHOLES, CABLES, CONDUIT (WHERE EXPOSED), AND OTHER EXISTING PARTS AS APPLICABLE TO THIS PROJECT. ALL REMOVED MATERIALS SHALL BE DISPOSED OF PER STD NOTE 213-1. METHOD OF MESUREMENT: LUMP SUM. BASIS OF PAYMENT: THE CONTRACTOR WILL BE PAID THE LUMP SUM PRICE FOR REMOVAL. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR FURNISHING ALL LABOR, EQUIPMENT, AND MATERIAL TO REMOVE THE MATERIALS, AS SPECIFIED.
3	2523-0000200	BID TO INCLUDE 600 VOLT FUSES AT 5 AMPERES FOR TAP CIRCUIT PROTECTION (Y-1 CONNECTORS) LOCATED IN THE TRANSFORMER BASE HANDHOLES. INCLUDED ARE (6) TYPE Y-1 CONNECTORS AND (4) TYPE L-2 CONNECTORS. ELECTRICAL CIRCUIT LENGTH IS CALCULATED FROM PLAN DIMENSIONS AS THE LINEAR, ONE-WAY LENGTH OF BOTH NEW AND EXISTING EMBEDDED CONDUITS. NO ALLOWANCE HAS BEEN ADDED TO THIS QUANTITY. ALLOWANCES HAVE BEEN ADDED TO ALL WIRE AND CABLE QUANTITIES LISTED IN TAB 108-12.
4	2523-0000310	ALL HANDHOLES TO BE RM-42, TYPE 1.
5	2523-6765009	RELOCATE EXISTING LIGHT POLES TO LOCATIONS AS SHOWN ON P.2. RELOCATED POLES SHALL BE RENOVATED TO INCLUDE NEW ANSI S55SC-150W HPS LUMINAIRE WITH LAMPS. ALL LUMINAIRES SHALL BE TYPE III M. REPLACE ALL #10 AWG POLE WIRING. CONTRACTOR SHALL BE RESPONSIBLE FOR NOT DAMAGING POLE, INCLUDING MAST ARM, SLIP BASE, AND ALL OTHER COMPONENTS. METHOD OF MEASUREMENT: THE ENGINEER WILL COUNT THE NUMBER OF LIGHT POLES REMOVED, RENOVATED AND REINSTALLED. BASIS OF PAYMENT: THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE FOR EACH LIGHT POLE REMOVED, RENOVATED AND REINSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR FURNISHING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO RENOVATE LIGHT POLES AS SPECIFIED.
6	2599-9999005	RELOCATE EXISTING STOP BEACON TO THE LOCATION SHOWN ON P.2. METHOD OF MEASUREMENT: THE ENGINEER WILL COUNT THE NUMBER OF BEACONS REMOVED AND REINSTALLED. BASIS OF PAYMENT: THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE FOR EACH BEACON REMOVED AND REINSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR FURNISHING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO RENOVATE LIGHT POLES AS SPECIFIED.
7	2599-9999005	RENOVATE EXISTING POLES TO INCLUDE NEW ANSI S55SC-150W HPS LUMINAIRE WITH LAMPS. ALL LUMINAIRES SHALL BE TYPE III M. REPLACE ALL #10 AWG POLE WIRING. CONTRACTOR SHALL BE RESPONSIBLE FOR NOT DAMAGING POLE, INCLUDING MAST ARM, SLIP BASE, AND ALL OTHER COMPONENTS. METHOD OF MEASUREMENT: THE ENGINEER WILL COUNT THE NUMBER OF LUMINAIRES RENOVATED AND REINSTALLED. BASIS OF PAYMENT: THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE FOR EACH LUMINAIRE RENOVATED AND REINSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR FURNISHING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO RENOVATE EACH LUMINAIRE AS SPECIFIED.

**TABULATION OF LIGHTING INSTALLATIONS**

108-1  
2-11-00

① RM-39 and RM-47

NO.	STATION	LOCATION			FOOTING TYPE ①	REMARKS
		TYPE	A	E		
XP#3	598+90	1	6	8.5	RM-39	EXISTING UNIT
XP#5	596+45	1	6	8.5	RM-39	EXISTING UNIT
XP#6	42014+00	1	6	8	RM-39	EXISTING UNIT

**TABULATION OF ELECTRICAL DUCTS**

108-2  
08-20-85

LOCATION	CONDUIT TYPE	DIA. Inches	LENGTH Feet	REMARKS
STA 42010+95, 56.5' LT	RIGID PVC	2	264	ROADWAY CROSSING TO HH#3
STA 42012+96, 18' LT	RIGID PVC	2	74	ROADWAY CROSSING TO HH#3
STA 42014+00	RIGID PVC	2	76	ROADWAY CROSSING
CIRCUIT A-3	PLASTIC	2	278	CIRCUIT DUCTS

**TABULATION OF WIRE, CABLE AND CONNECTORS**

108-12  
2-11-00

CIRCUIT NUMBER	RM-40 CONNECTORS								PHASE LINES								GROUND		REMARKS
	TYPE	QUAN. NO.	TYPE	QUAN. NO.	TYPE	QUAN. NO.	TYPE	QUAN. NO.	SIZE A.W.G.	QUAN. L.F.									
A-3	Y-1	6	Y-3	2	L-2	4			10	390			8	1600			6	860	



I hereby certify that this plan was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

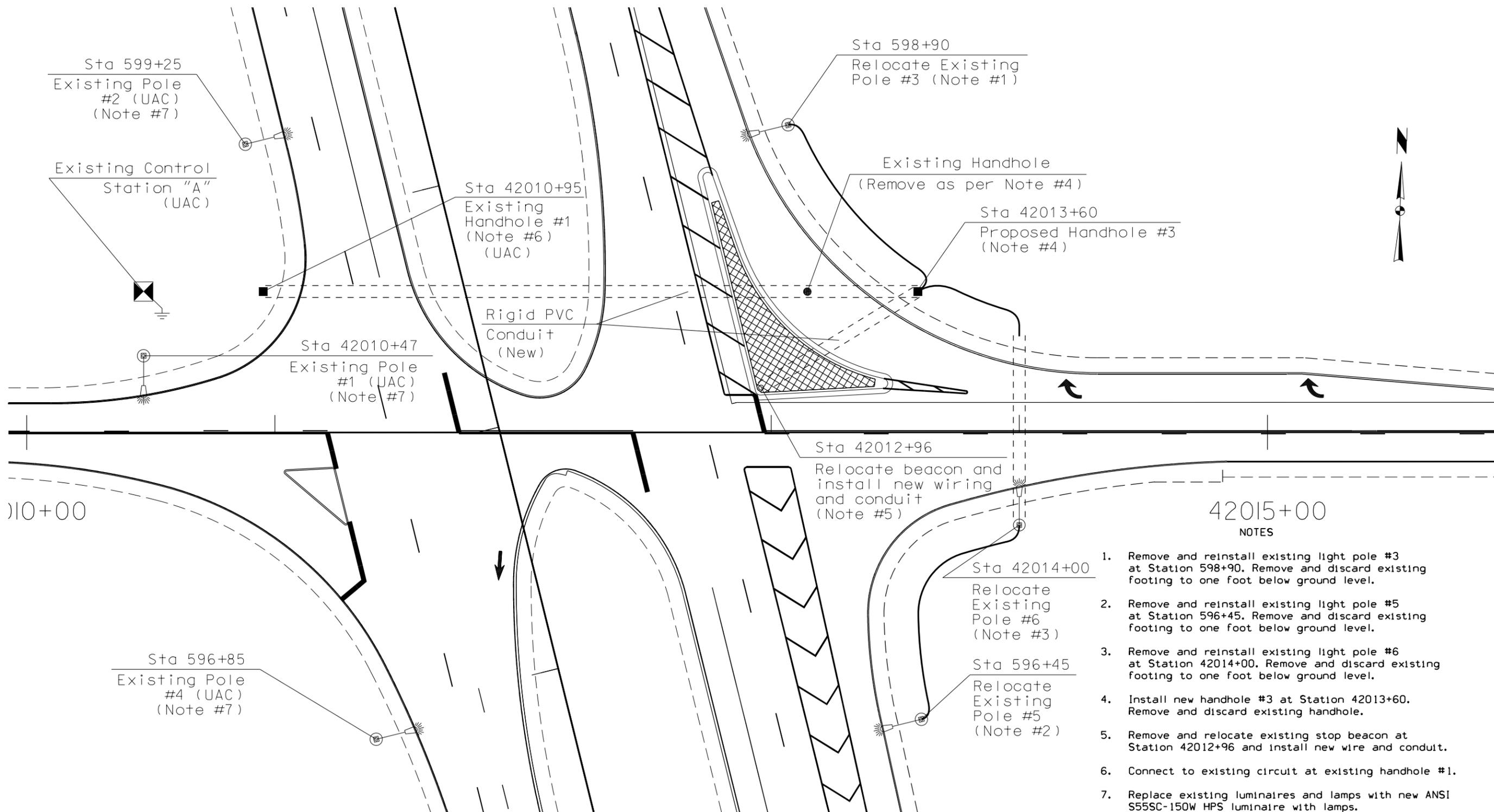
*John M. Narigon* 01/24/11  
Date

Signature: John M. Narigon  
Printed or Typed Name

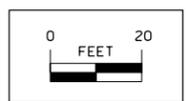
My license renewal date is December 31, 20 11

Pages or sheets covered by this seal: P.1, P.2

GENERAL NOTES AND  
ESTIMATE OF QUANTITIES  
US 218 & Co. Rd. C-57



- 42015+00  
NOTES
1. Remove and reinstall existing light pole #3 at Station 598+90. Remove and discard existing footing to one foot below ground level.
  2. Remove and reinstall existing light pole #5 at Station 596+45. Remove and discard existing footing to one foot below ground level.
  3. Remove and reinstall existing light pole #6 at Station 42014+00. Remove and discard existing footing to one foot below ground level.
  4. Install new handhole #3 at Station 42013+60. Remove and discard existing handhole.
  5. Remove and relocate existing stop beacon at Station 42012+96 and install new wire and conduit.
  6. Connect to existing circuit at existing handhole #1.
  7. Replace existing luminaires and lamps with new ANSI S55SC-150W HPS luminaire with lamps.



HIGHWAY LIGHTING LAYOUT  
US 218 & Co. Rd. C-57

M:\Projects\072180404\TranEng\Lighting\072187205.plt.dgn  
 p1jense2  
 1/24/2011