

04-25-14 LETTING ITEM 072

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 70 (I-70)
SECTION 60-13-RA-L

SILVER LAKE REST AREA
RAMP LIGHTING REPLACEMENT
MADISON COUNTY

C-98-002-14

INDEX OF SHEETS

1. COVER SHEET
2. SUMMARY OF QUANTITIES AND GENERAL NOTES
3. 400W HORIZONTAL MOUNT LUMINAIRE PERFORMANCE TABLE AND AND POLE IDENTIFICATION SIGN PANEL DETAILS
- 4-6. LIGHTING REPLACEMENT PLANS

STANDARDS

280001-07	701101-04	701106-02
701400-07	701401-08	701411-08
701428	701456-03	821101
830001-02	836001-02	838001



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

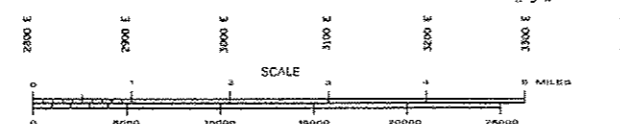
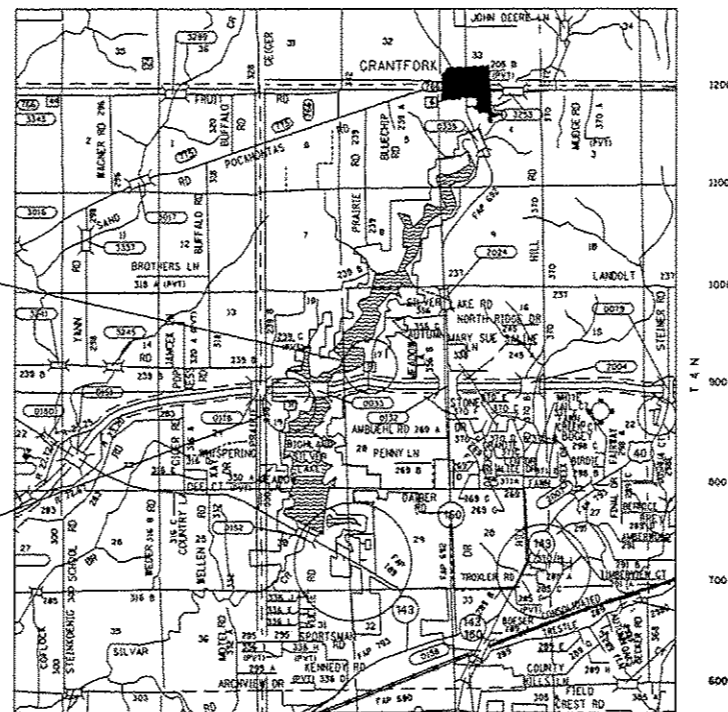
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: P. LEBEAU 618-346-3179
SQUAD LEADER: M. PRESTON 618-346-3143

CONTRACT NO. 76G77

I-70 WESTBOUND SITE
SALINE TOWNSHIP
STA. 1626+00 TO STA.1667+00

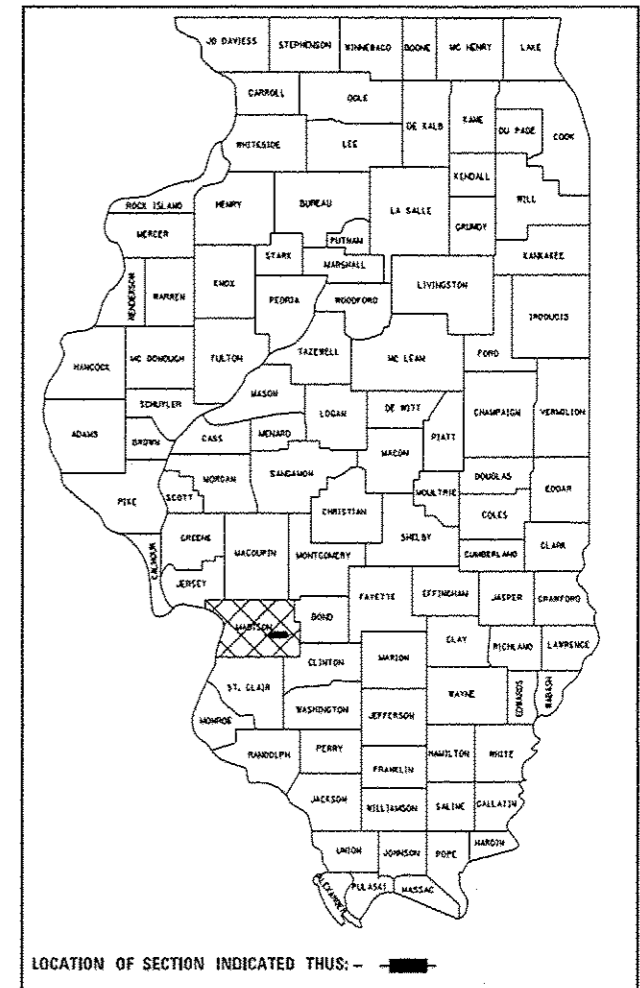
I-70 EASTBOUND SITE
SALINE TOWNSHIP
STA. 1595+00 TO STA.1626+00



GROSS LENGTH = 7200 FT. = 1.3636 MILE
NET LENGTH = 7200 FT. = 1.3636 MILE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-13-RA-L	MADISON	6	1
ILLINOIS			CONTRACT NO. 76G77	

D-98-004-14



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 2 20 13
Jeffrey Kain
DEPUTY DIRECTOR OF HIGHWAYS, REGION FIVE ENGINEER

March 21 20 14
John D. Baranzelli
ENGINEER OF DESIGN AND ENVIRONMENT

March 21 20 14
Omer Osman
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION
400W HORIZONTAL MOUNT LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS

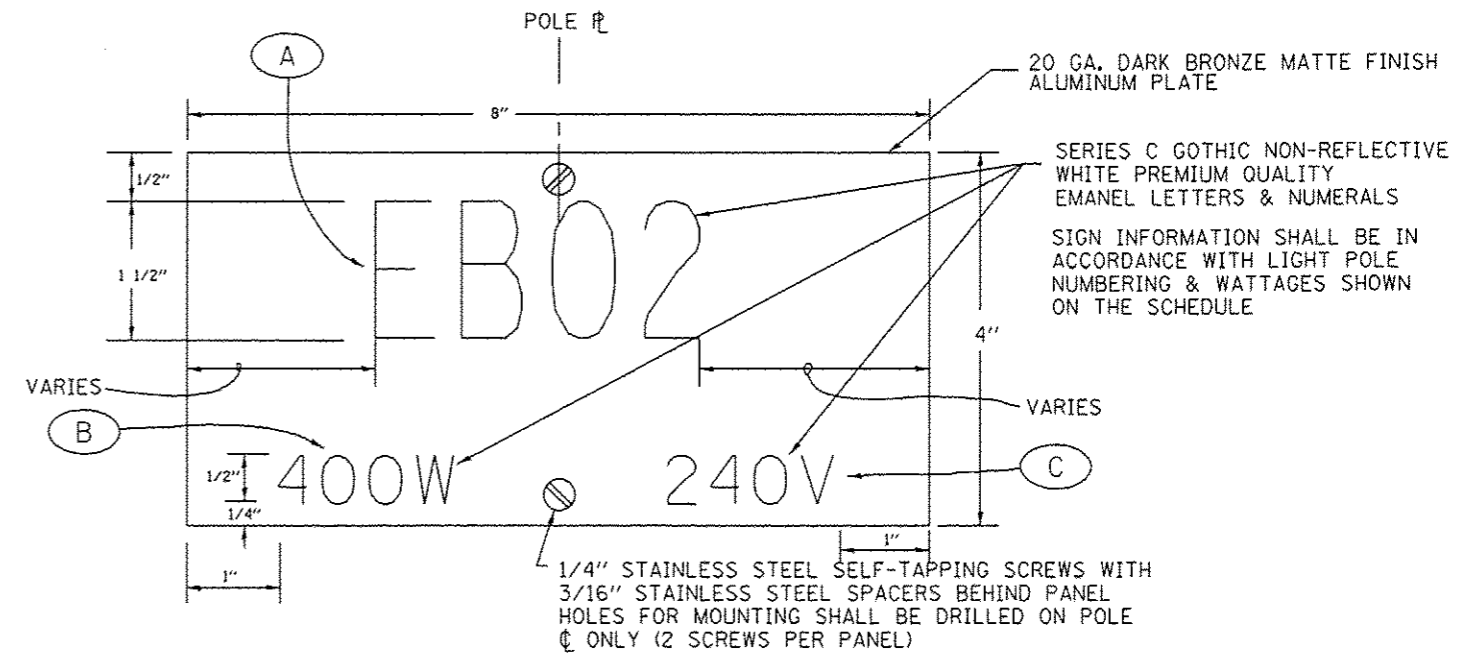
ROADWAY DATA:	Pavement Width	16 FT
	Number Of Lanes (In Direction Of Travel)	1
	Median Width	N/A
	IES Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA:	Mounting Height	50 FT
	Most Arm Length	15 FT
	Pole Set-Back From Edge Of Pavement	30 FT
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	50000
	IES Vertical Distribution	M
	IES Control of Distribution	FC
	IES Lateral Distribution	2
	Total Light Loss Factor	0.684
LAYOUT DATA:	Spacing	280 FT
	Configuration	One Side
	Luminaire Overhang Over Edge Of Pavement Lane	-15 FT

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (EAve)	0.60 fc
	Uniformity Ratio, (EAve/EMin)	3.0
LUMINANCE:	Average Luminance, (LAve)	0.40 Cd/m ²
	Uniformity Ratios: (LAve/LMin)	3.5
	(LMax/LMin)	6.0
	Maximum Velling Luminance Ratio: (Lv/LAve)	0.3



TYPICAL POLE IDENTIFICATION SIGN PANEL
(NOT TO SCALE)

SCHEDULE OF LIGHT TOWER & LIGHT POLE IDENTIFICATION SIGN PANELS





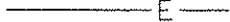

MESSAGE AREA					
(A)	(B)	(C)	(A)	(B)	(C)
EB 1	8-X-400W	240V	WB 1	8-X-400W	240V
EB 2	400 W	240V	WB 2	400 W	240V
EB 3	400 W	240V	WB 3	400 W	240V
EB 4	400 W	240V	WB 4	400 W	240V
EB 5	400 W	240V	WB 5	400 W	240V
EB 6	400 W	240V	WB 6	400 W	240V
EB 7	400 W	240V	WB 7	400 W	240V
EB 8	400 W	240V	WB 8	400 W	240V
			WB 9	400 W	240V
			WB 10	400 W	240V
			WB 11	400 W	240V

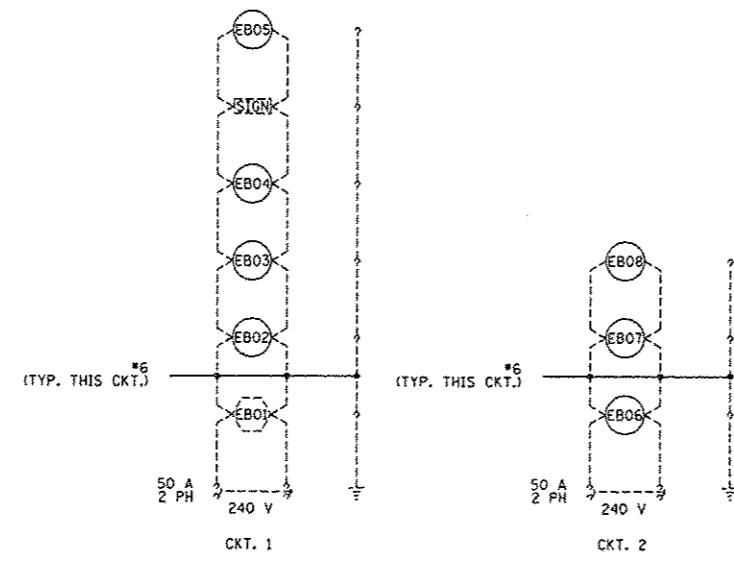
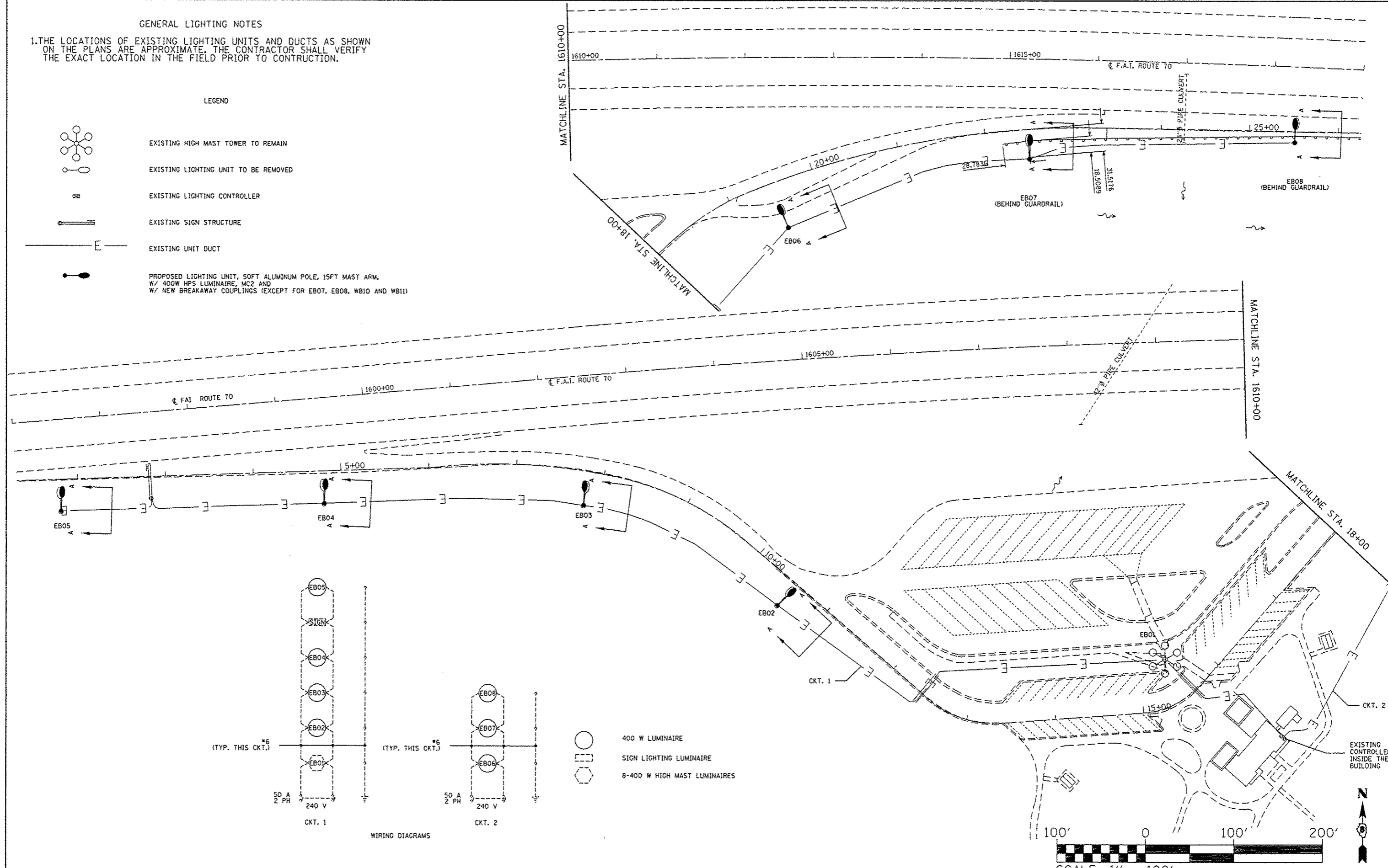
POLE IDENTIFICATION SIGN PANEL DETAILS




GENERAL LIGHTING NOTES

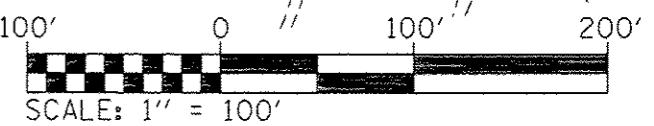
1. THE LOCATIONS OF EXISTING LIGHTING UNITS AND DUCTS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION IN THE FIELD PRIOR TO CONSTRUCTION.

LEGEND

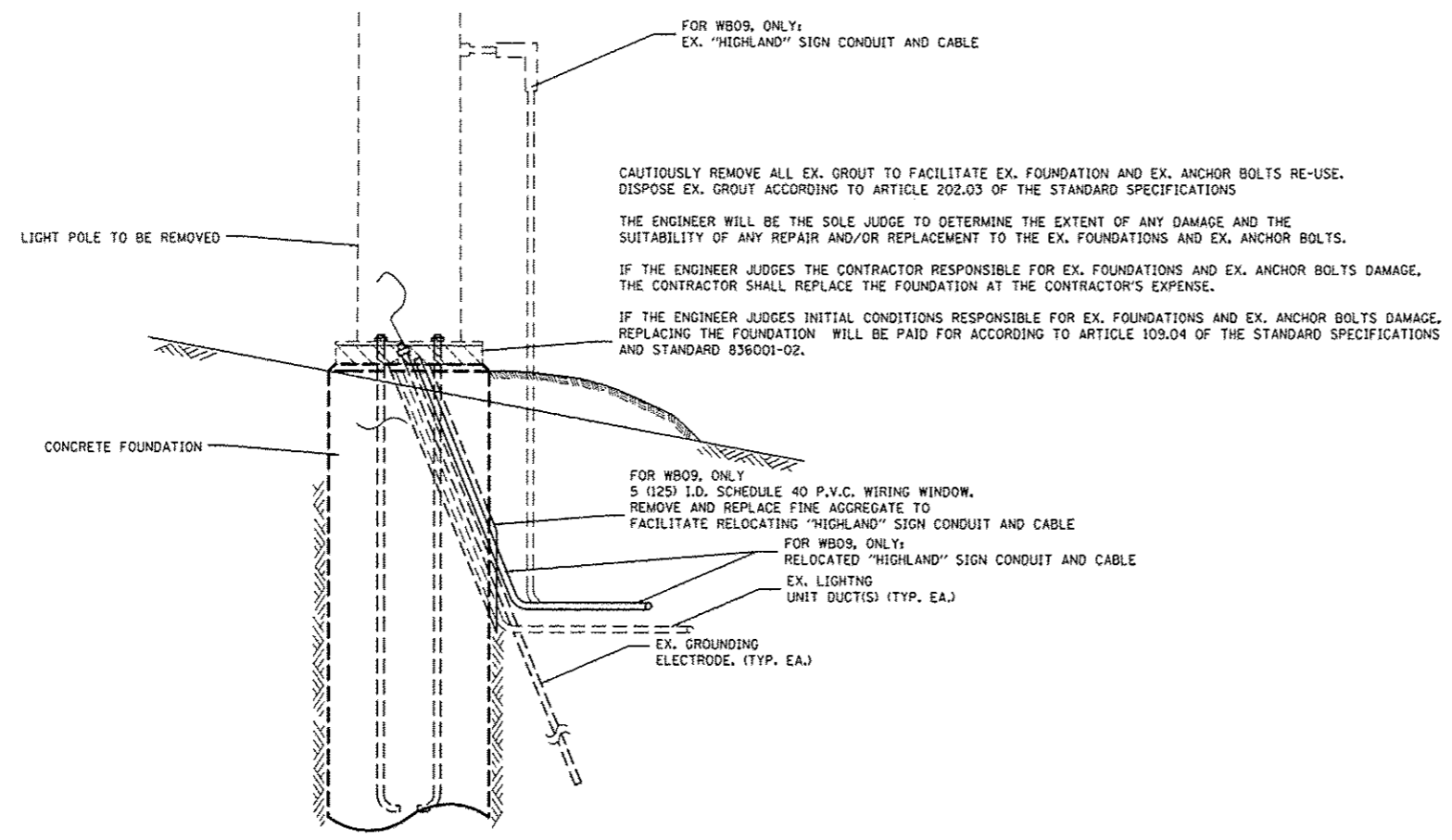
-  EXISTING HIGH MAST TOWER TO REMAIN
-  EXISTING LIGHTING UNIT TO BE REMOVED
-  EXISTING LIGHTING CONTROLLER
-  EXISTING SIGN STRUCTURE
-  EXISTING UNIT DUCT
-  PROPOSED LIGHTING UNIT, 50FT ALUMINUM POLE, 15FT MAST ARM, W/ 400W HPS LUMINAIRE, MC2 AND W/ NEW BREAKAWAY COUPLINGS (EXCEPT FOR EB07, EB08, WB10 AND WB11)



-  400 W LUMINAIRE
-  SIGN LIGHTING LUMINAIRE
-  8-400 W HIGH MAST LUMINAIRES



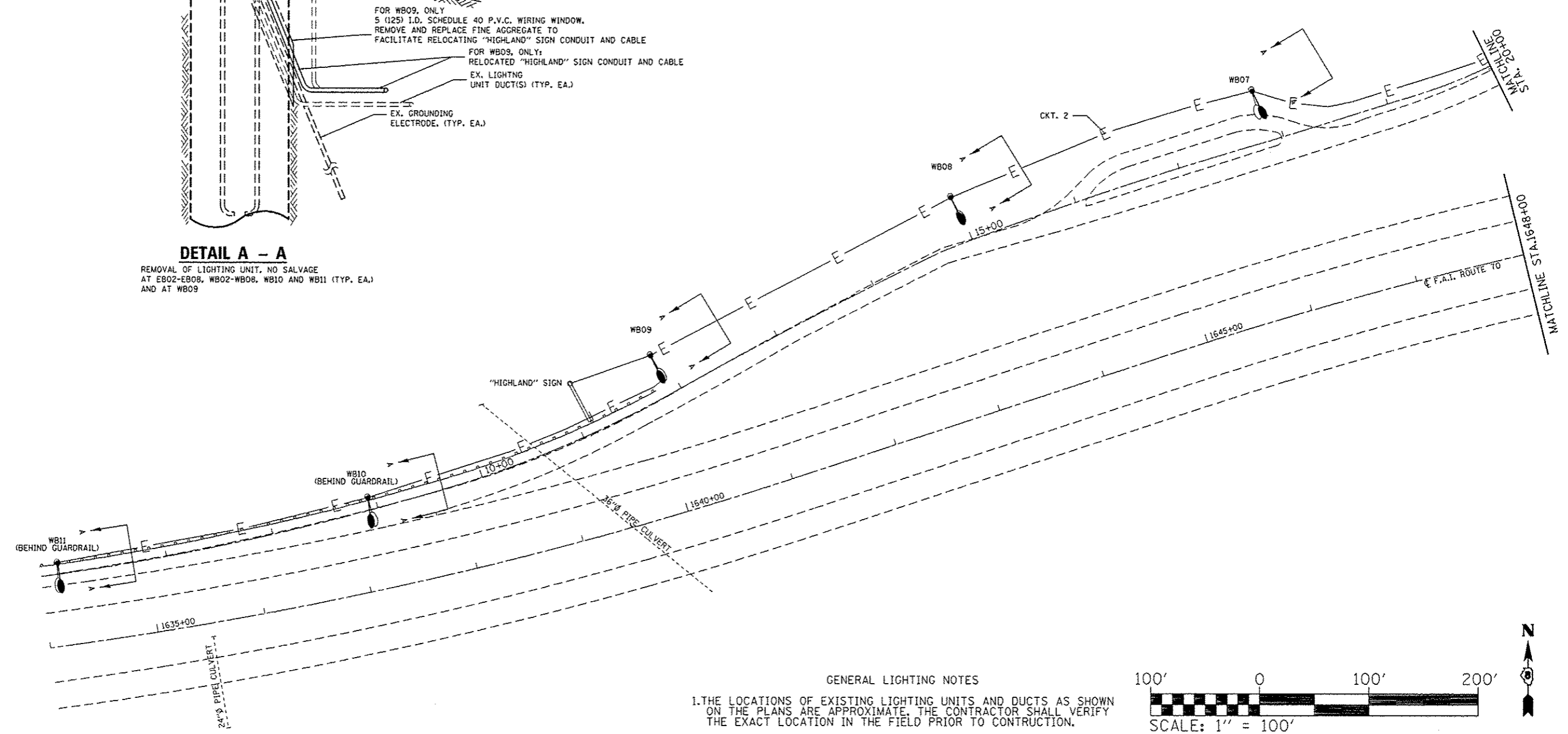
FILE NAME =	USER NAME = prestonm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SILVER LAKE REST AREA EB LIGHTING REPLACEMENT PLAN			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
o:\pwork\p\p\p\prestonm\08352384\d	76g77-shr-light.dgn	DRAWN -	REVISED -		70	60-13-RA-L	MADISON	6	4			
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 76G77							
	PLOT DATE = 12/5/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			



DETAIL A - A
 REMOVAL OF LIGHTING UNIT, NO SALVAGE
 AT E802-E808, WB02-WB08, WB10 AND WB11 (TYP. EA.)
 AND AT WB09

LEGEND

	EXISTING HIGH MAST TOWER TO REMAIN
	EXISTING LIGHTING UNIT TO BE REMOVED
	EXISTING LIGHTING CONTROLLER
	EXISTING SIGN STRUCTURE
	EXISTING UNIT DUCT
	PROPOSED LIGHTING UNIT, SOFT ALUMINUM POLE, 15FT MAST ARM, W/ 400W HPS LUMINAIRE, MC2 AND W/ NEW BREAKAWAY COUPLINGS (UNLESS NOTED OTHERWISE)

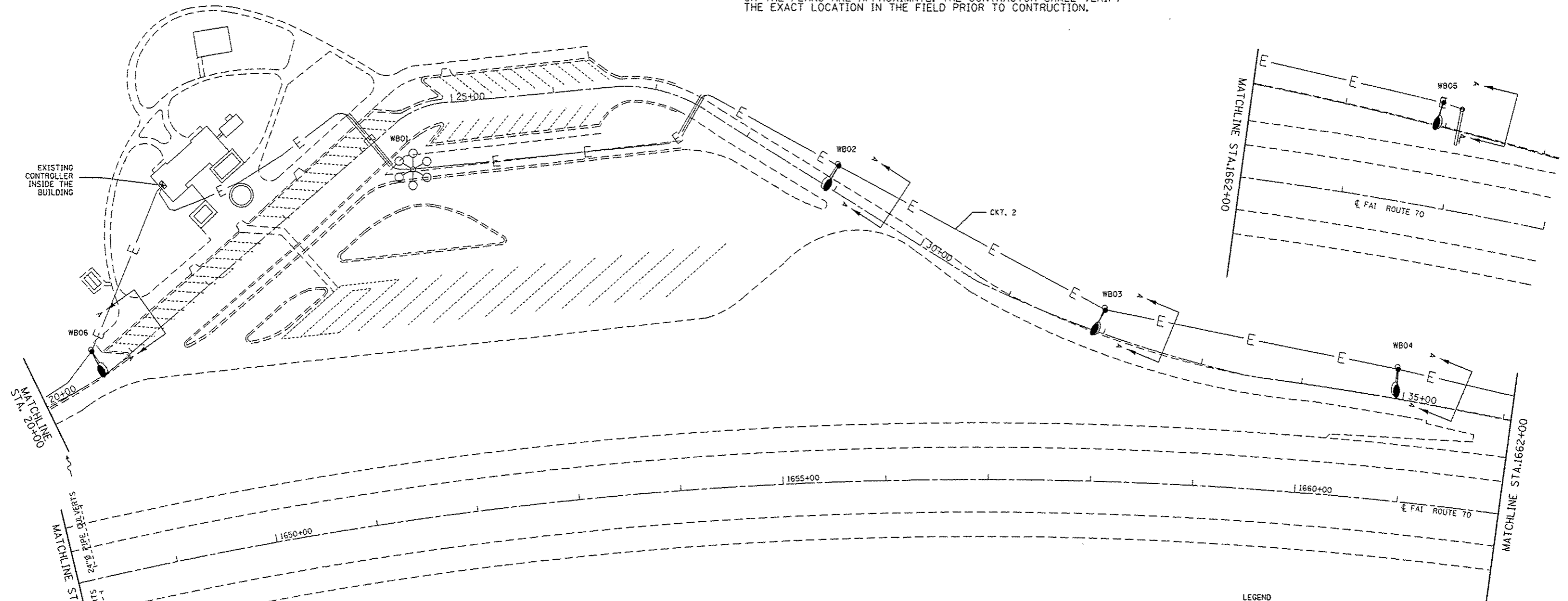


GENERAL LIGHTING NOTES
 1. THE LOCATIONS OF EXISTING LIGHTING UNITS AND DUCTS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION IN THE FIELD PRIOR TO CONSTRUCTION.

FILE NAME =	USER NAME = prestonm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SILVER LAKE REST AREA			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pdat\prestonm\10352384\d	6g77-eh-light.dgn	DRAWN -	REVISED -		WB LIGHTING REPLACEMENT PLAN 1 OF 2			70	60-13-RA-L	MADISON	6	5
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 76677		
	PLOT DATE = 12/5/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

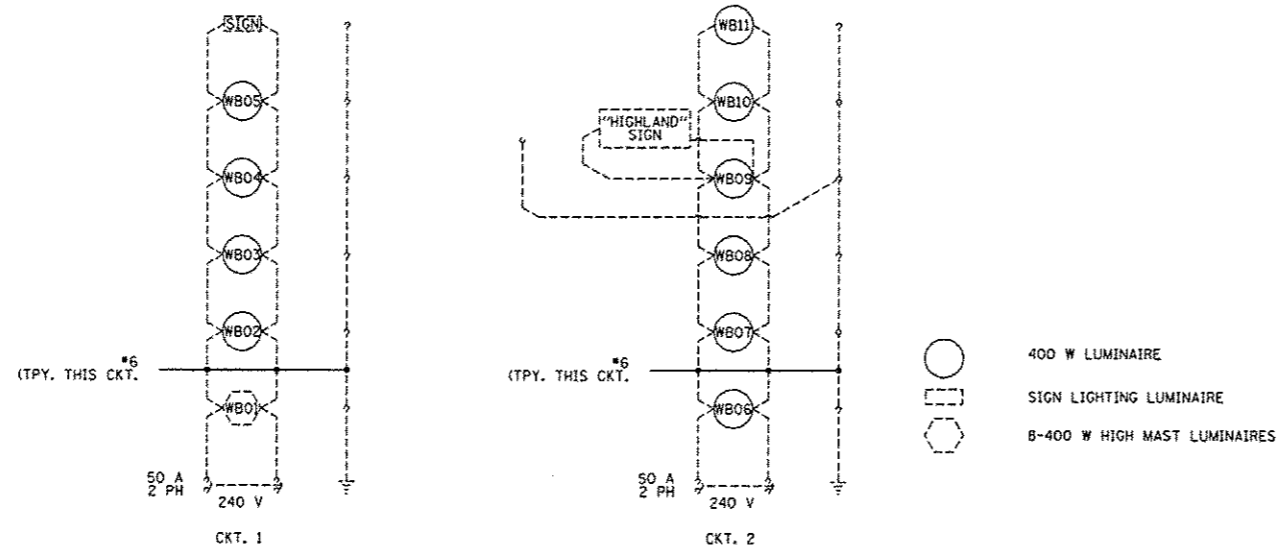
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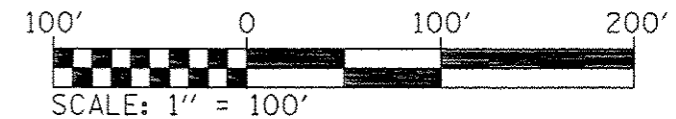


LEGEND

- EXISTING HIGH MAST TOWER TO REMAIN
- EXISTING LIGHTING UNIT TO BE REMOVED
- EXISTING LIGHTING CONTROLLER
- EXISTING SIGN STRUCTURE
- EXISTING UNIT DUCT
- PROPOSED LIGHTING UNIT, SOFT ALUMINUM POLE, 15FT MAST ARM, W/ 400W HPS LUMINAIRE, MC2 AND W/ NEW BREAKAWAY COUPLINGS (UNLESS NOTED OTHERWISE)



WIRING DIAGRAMS



FILE NAME =	USER NAME = prestonm	DESIGNED -	REVISED -
c:\pwork\p\p\prestonm\108352384\1216677-shl-light.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SILVER LAKE REST AREA
WB LIGHTING REPLACEMENT PLAN 2 OF 2

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-13-RA-L	MADISON	6	6
CONTRACT NO. 76677				
ILLINOIS FED. AID PROJECT				