

P.A. SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2005-037L	COOK	45	24
STA. 2,021+00.00		TO STA. 2,365+00.00		
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT

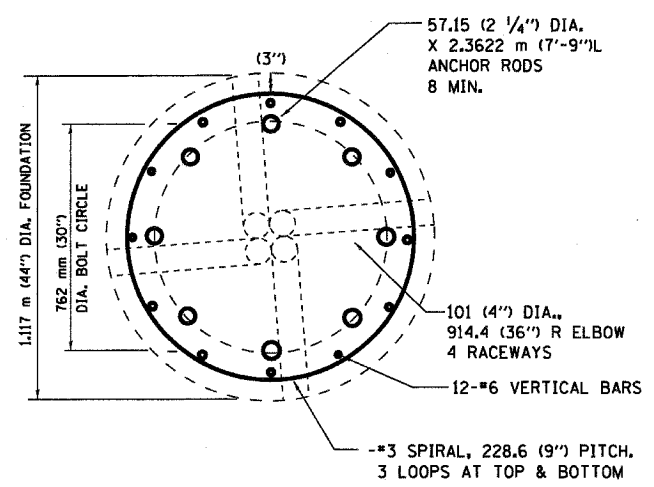
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**LIGHT TOWER FOUNDATION DEPTH "D"**

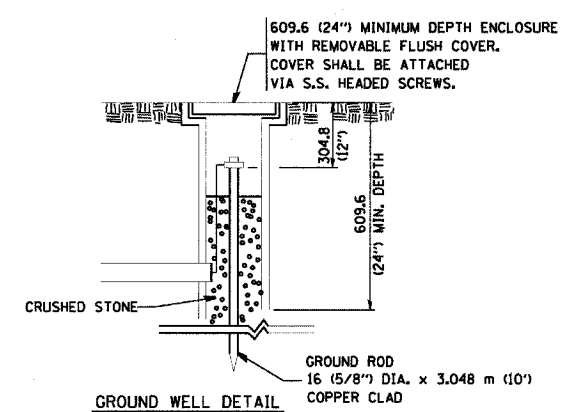
MOUNTING HEIGHT	SOIL CONDITIONS					
	SOFT CLAY Qu = 0.375 TON/SQ. FT	MEDIUM CLAY Qu = 0.75 TON/SQ. FT	STIFF CLAY Qu = 1.50 TON/SQ. FT	LOOSE SAND φ = 34°	MEDIUM SAND φ = 37.5°	DENSE SAND φ = 40°
27m (90 ft)	8.779m (29 ft)	6.035m (20 ft)	4.389m (15 ft)	4.389m (15 ft)	3.840m (13 ft)	3.429m (12 ft)
30m (100 ft)	9.754m (32 ft)	6.706m (22 ft)	4.877m (16 ft)	4.877m (16 ft)	4.267m (14 ft)	3.81m (13 ft)
33m (110 ft)	10.719m (35 ft)	7.377m (24 ft)	5.365m (18 ft)	5.365m (18 ft)	4.694m (15 ft)	4.191m (14 ft)
36m (120 ft)	11.705m (38 ft)	8.046m (26 ft)	5.652m (19 ft)	5.652m (19 ft)	5.120m (17 ft)	4.572m (16 ft)

**DESIGN NOTES**

- (1) ALL DIMENSIONS IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
- (2) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (3) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (4) THE TOP OF THE FOUNDATION TO 450 (18") BELOW GRADE SHALL BE FORMED.
- (5) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (6) THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (7) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725(GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (8) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (9) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (10) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.

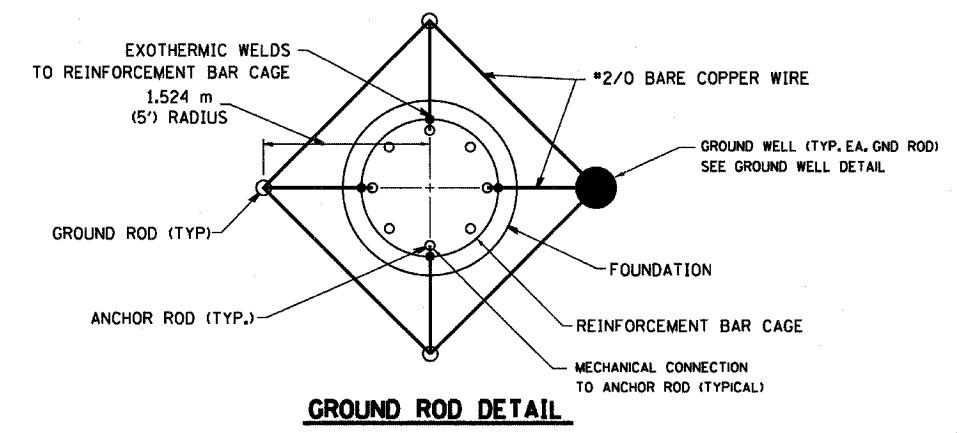
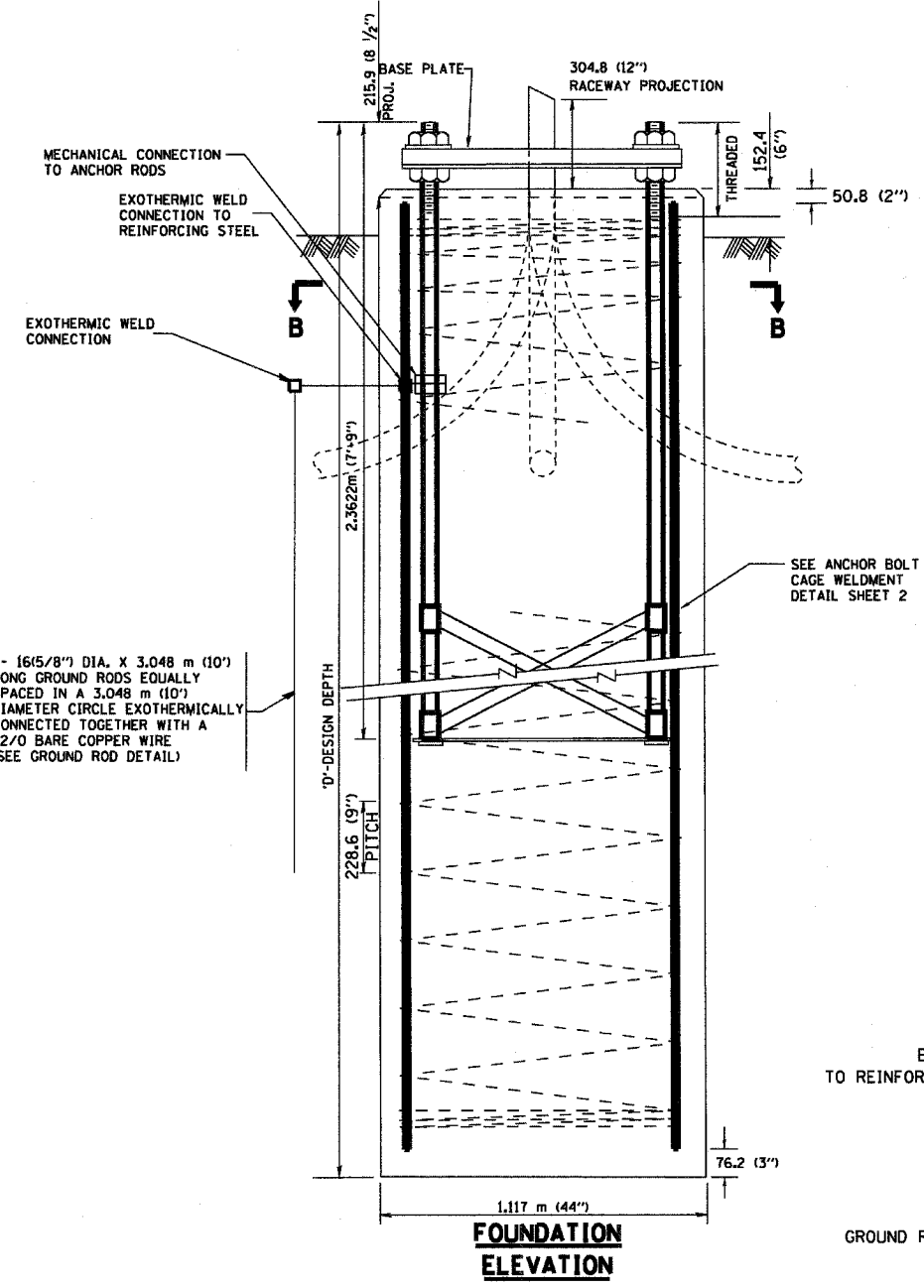


**SECTION-B-B**



**GROUND WELL DETAIL**

4- 16(5/8") DIA. X 3.048 m (10') LONG GROUND RODS EQUALLY SPACED IN A 3.048 m (10') DIAMETER CIRCLE EXOTHERMICALLY CONNECTED TOGETHER WITH A #2/0 BARE COPPER WIRE (SEE GROUND ROD DETAIL)



**GROUND ROD DETAIL**

**FOR INFORMATION ONLY**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BE501

**HIGH MAST LIGHT TOWER**  
27m TO 36m (90FT TO 120FT)  
**FOUNDATION DETAIL**

SHEET 1 OF 2

SCALE: NONE  
DATE 4/13/2005

DRAWN BY  
CHECKED BY