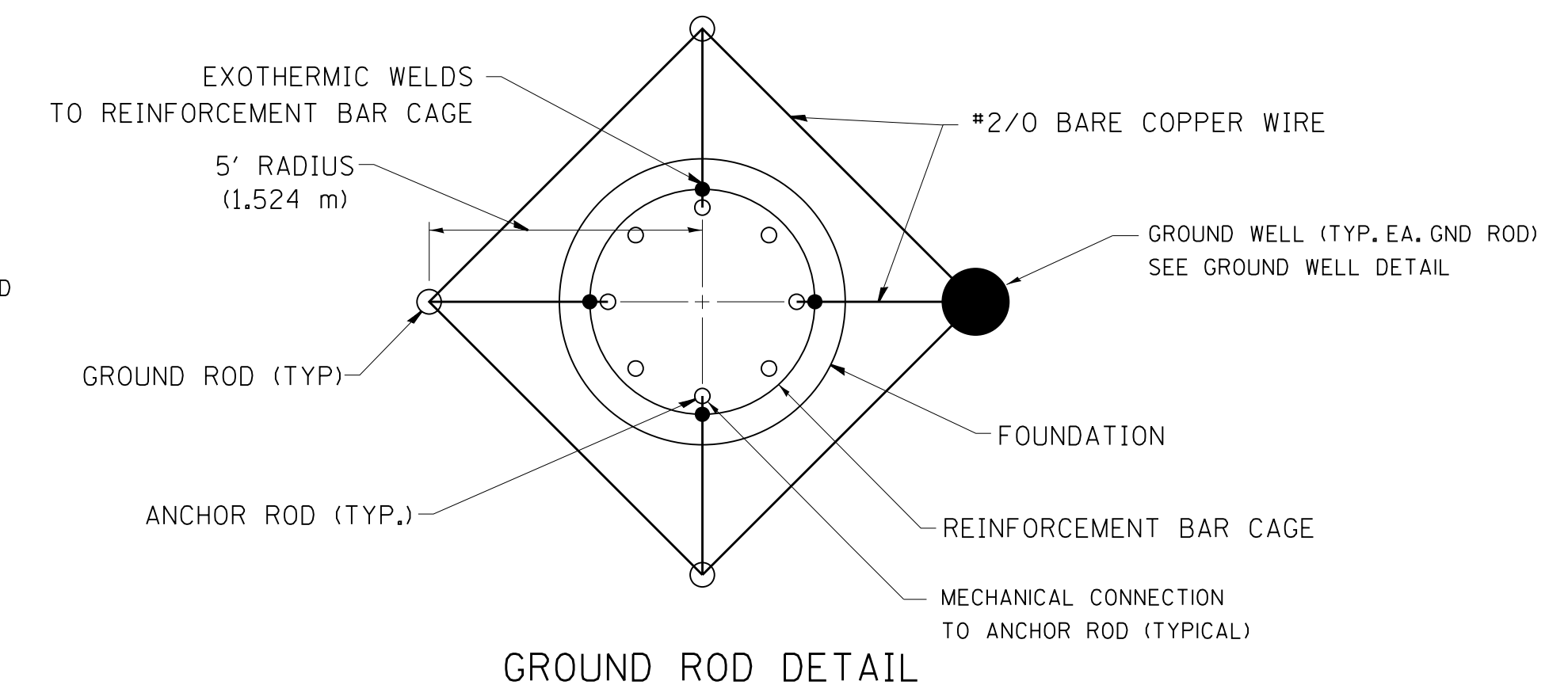
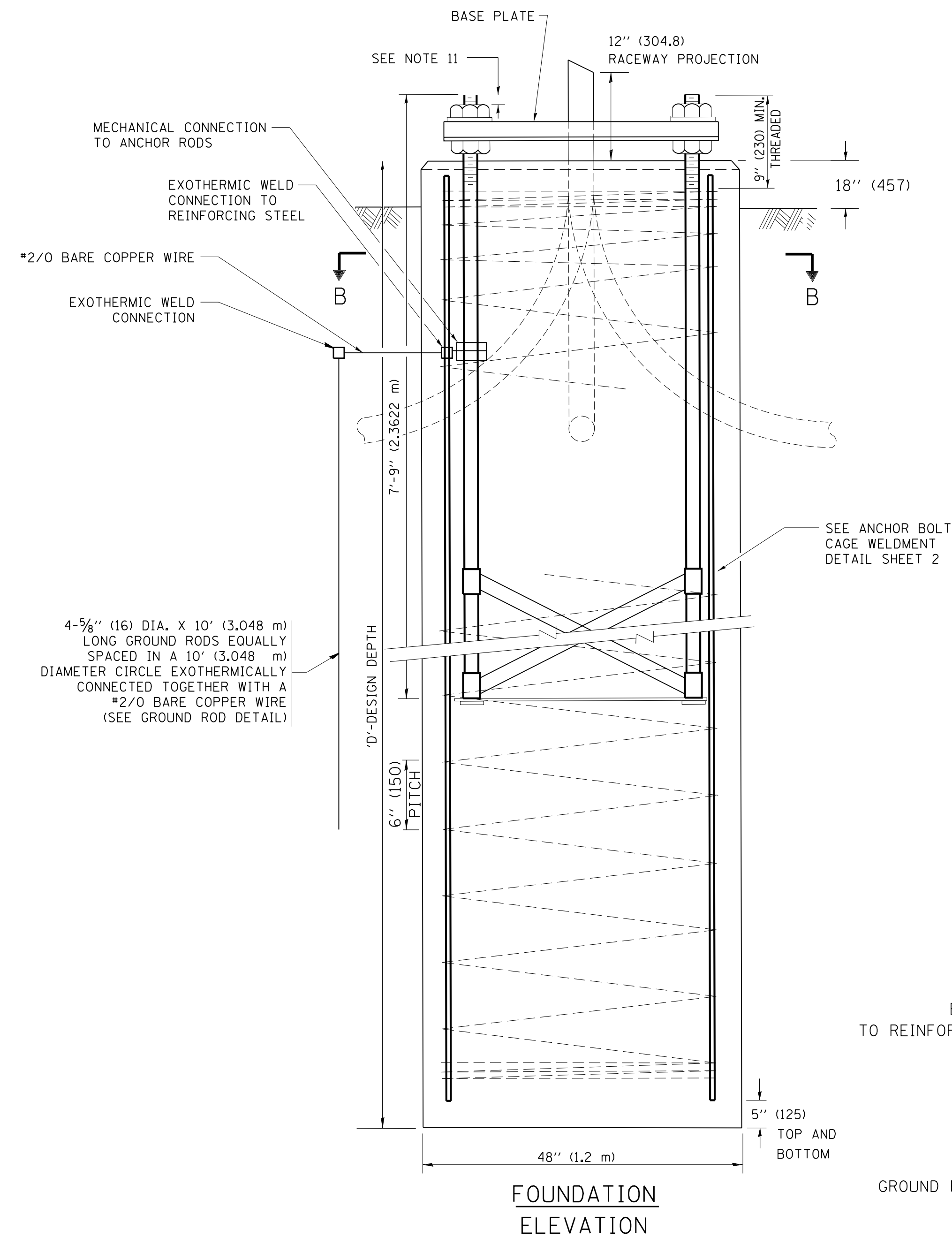
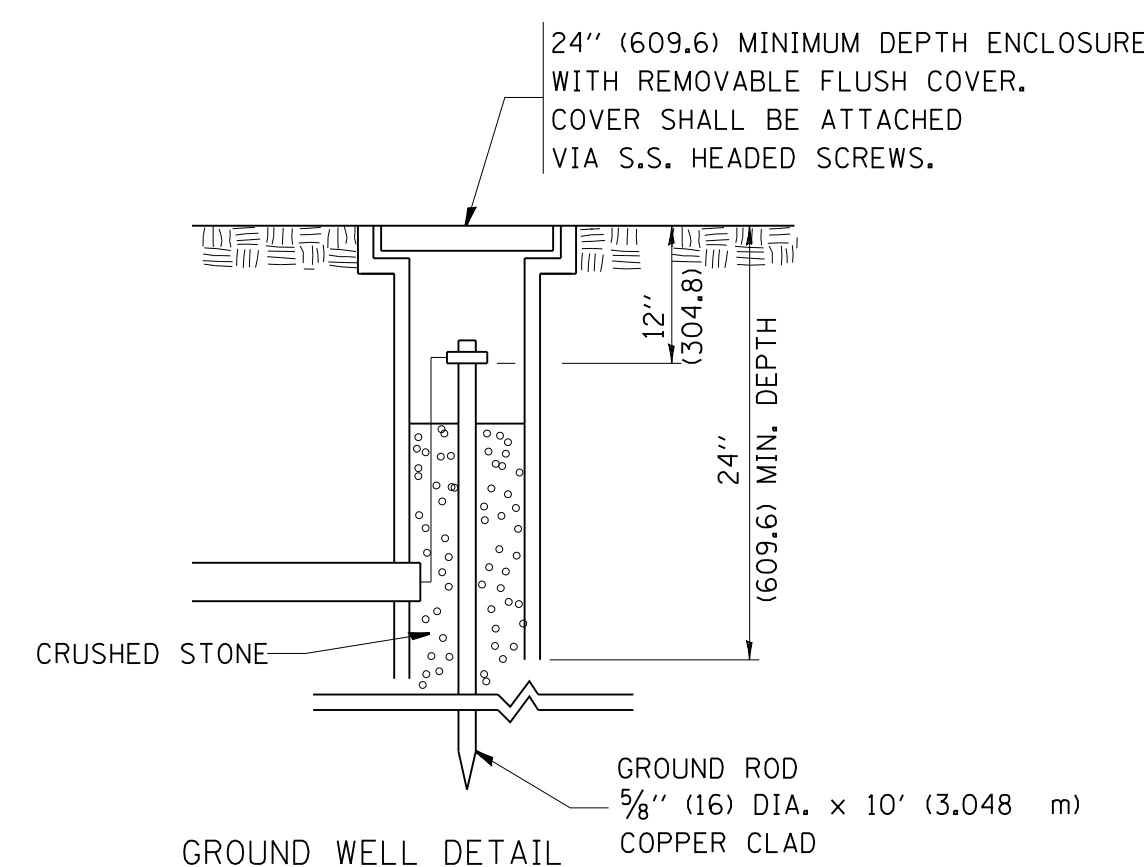
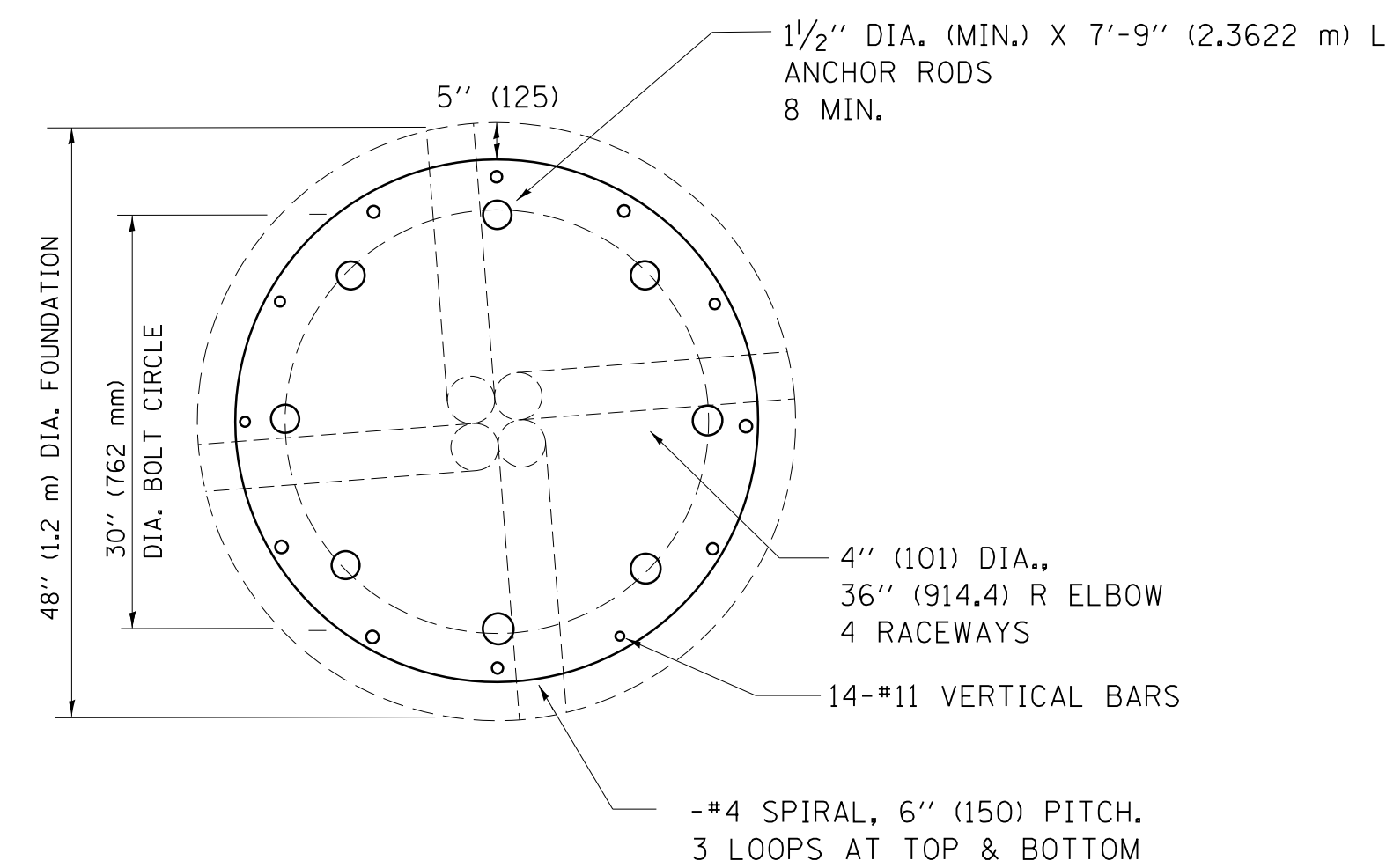


| SOIL CONSISTENCY |            | SHAFT LENGTH ( D ) TABLE            |                             |                   |
|------------------|------------|-------------------------------------|-----------------------------|-------------------|
|                  |            | AVERAGE STRENGTH                    | LIGHT TOWER MOUNTING HEIGHT |                   |
|                  |            | Qu In tsf<br>(Qu In kPa)            | 100 FT.<br>(30 m)           | 110 FT.<br>(34 m) |
| COHESIVE         | SOFT       | <0.5<br>(<50)                       | 22'-6"<br>(6.9 m)           | 24'-0"<br>(7.2 m) |
|                  | MEDIUM     | 0.5 TO 1<br>(50 TO 100)             | 18'-6"<br>(6.9 m)           | 19'-0"<br>(5.8 m) |
|                  | STIFF      | 1 TO 2<br>(100 TO 200)              | 15'-6"<br>(4.7 m)           | 16'-0"<br>(5.5 m) |
|                  | VERY STIFF | 2 TO 4<br>(200 TO 400)              | 13'-6"<br>(4.1 m)           | 14'-0"<br>(4.2 m) |
|                  | HARD       | >4<br>(>400)                        | 12'-0"<br>(3.6 m)           | 12'-6"<br>(3.7 m) |
| GRANULAR         |            | N in BLOWS/FT.<br>(N in BLOWS/0.3m) |                             |                   |
|                  | VERY LOOSE | <5<br>(<5)                          | 18'-0"<br>(5.4 m)           | 18'-6"<br>(5.6 m) |
|                  | LOOSE      | 5 TO 10<br>(5 TO 10)                | 16'-6"<br>(4.9 m)           | 17'-0"<br>(5.1 m) |
|                  | MEDIUM     | 10 TO 25<br>(10 TO 25)              | 15'-6"<br>(5.2 m)           | 16'-0"<br>(5.9 m) |
|                  | DENSE      | 25 TO 50<br>(25 TO 50)              | 15'-0"<br>(4.5 m)           | 15'-6"<br>(4.6 m) |
|                  | VERY DENSE | >50<br>(>50)                        | 14'-0"<br>(4.2 m)           | 14'-6"<br>(4.4 m) |

### DESIGN NOTES

- ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- THE TOP OF THE FOUNDATION TO 18" (450) BELOW GRADE SHALL BE FORMED.
- 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.
- THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- 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.
- ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.
- A MINIMUM OF THREE FULL THREADS SHALL REMAIN EXPOSED AFTER LIGHT TOWER IS INSTALLED.
- ALL GROUNDING INDICATED IN THE PLANS SHALL BE INCLUDED IN THE COST OF THE LIGHT TOWER FOUNDATION AND SHALL NOT BE PAID FOR SEPARATELY.
- CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
- ANCHOR ROD QUANTITY, DIAMETER, AND LENGTH SHALL BE DETERMINED BY THE TOWER MANUFACTURER AND APPROVED BY THE ENGINEER. EACH FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.
- COORDINATE THE ROD CIRCLE DIAMETER OF THE TOWER WITH THE DIAMETER OF THE ANCHOR ROD CAGE.
- THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.



|   |                            |            |                               |
|---|----------------------------|------------|-------------------------------|
| FILE NAME =                                   | USER NAME = bauerd1        | DESIGNED - | REVISED - R. TOMSONS 04-22-02 |
| et:\pw_work\pwwork\bauder1\d0108315\be501.dgn |                            | DRAWN -    | REVISED - R. TOMSONS 03-12-10 |
|   | PLOT SCALE = 50.000' / in. | CHECKED -  | REVISED - R. TOMSONS 09-02-10 |
|   | PLOT DATE = 2/27/2013      | DATE -     | REVISED - R. TOMSONS 02-27-13 |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|  |                         |      |         |
|--|-------------------------|------|---------|
| HIGH MAST LIGHT TOWER                            |                         |      |         |
| 90 FT TO 110 FT (27 m TO 34 m) FOUNDATION DETAIL |                         |      |         |
| SCALE: NONE                                      | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA. |

|                                |         |              |              |           |
|--------------------------------|---------|--------------|--------------|-----------|
| F.A. RTE.                      | SECTION | COUNTY       | TOTAL SHEETS | SHEET NO. |
|                                | BE-501  |              |              |           |
| FED. ROAD DIST. NO. 1 ILLINOIS |         | CONTRACT NO. |              |           |