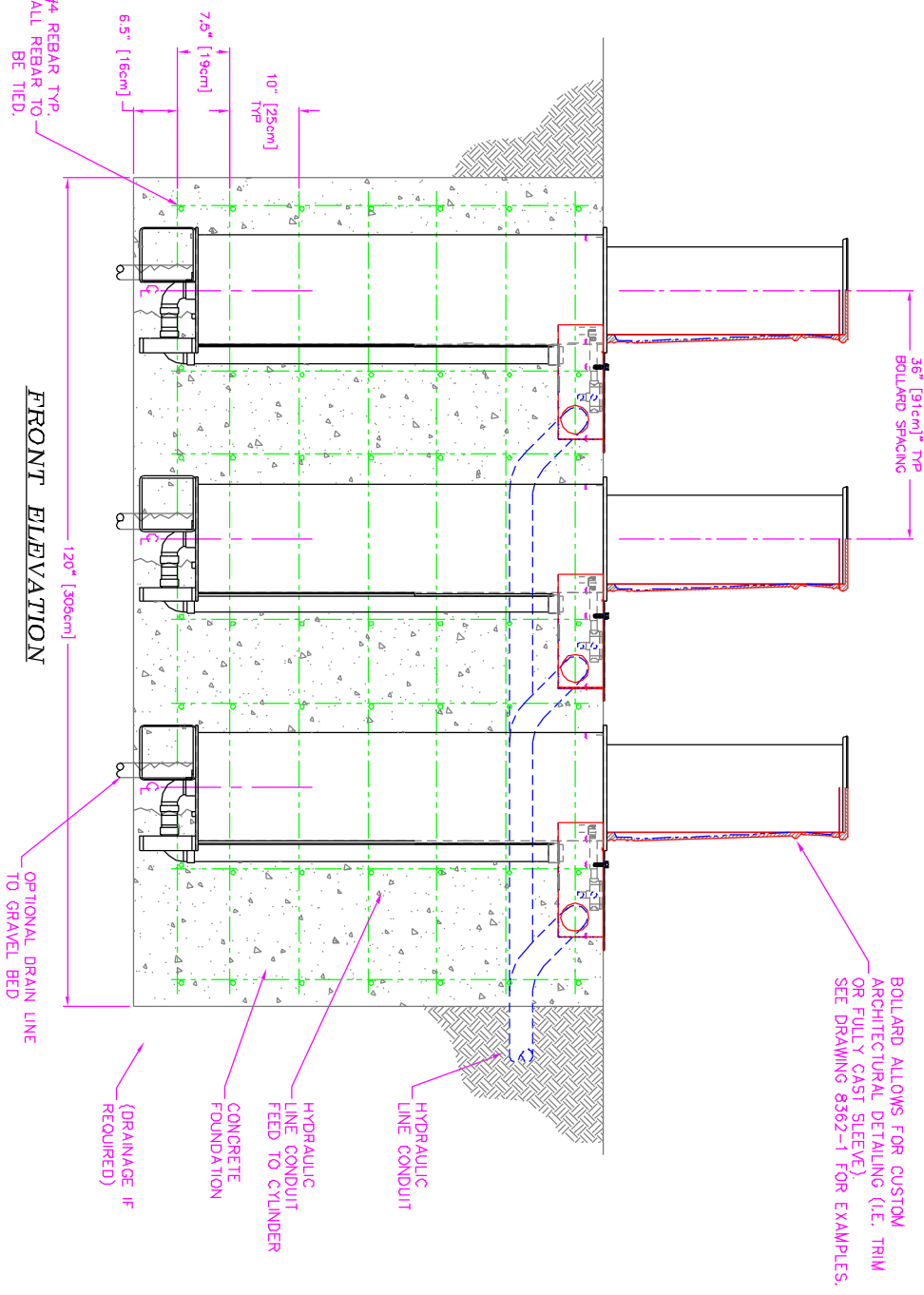
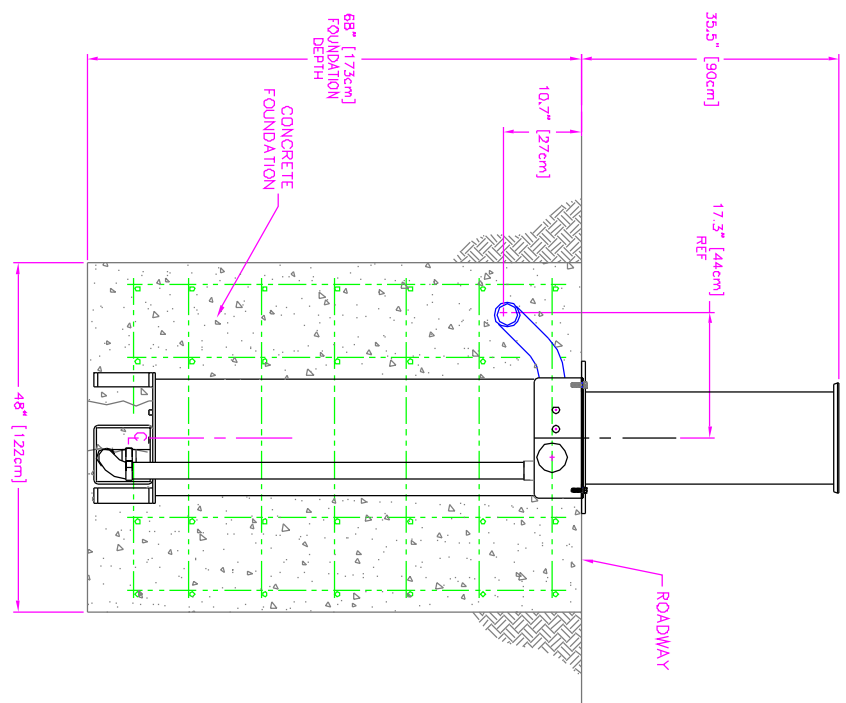


PLAN VIEW



FRONT ELEVATION



END ELEVATION

>>>ALL DIMENSIONS ARE REFERENCE<<<<  
>>>DIMENSIONS ARE IN INCH[CM]<<<<

**CONCRETE NOTES & RECOMMENDED SPECIFICATIONS:**

1. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE.
2. FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS, PROVIDED THE SIDES OF THE EXCAVATION ARE STABLE, WHERE CAVING OCCURS, PROVIDE SHORING. TYPE AND METHOD OF SHORING SHALL BE AT CONTRACTOR'S OPTION.
3. THE EXCAVATION SHALL BE KEPT DRY AT ALL TIMES. GROUND WATER, IF ENCOUNTERED, SHALL BE PUMPED FROM THE EXCAVATION.
4. CONCRETE SHALL BE LABORATORY DESIGNED, MACHINE MIXED, PRODUCING 3,000 PSI (20.68 MPa) AT 28 DAYS.
5. CEMENT SHALL BE TESTED PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE II ONLY.
6. AGGREGATES SHALL CONFORM TO ASTM C33 & B GRADE PER STANDARD SPECIFICATIONS. MAXIMUM SIZE OF AGGREGATE SHALL BE 1-1/2 INCHES (38mm).
7. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 (60,000 PSI OR 413.7MPa).
8. HOOKS AND BENDS SHALL CONFORM TO A318 LATEST REVISION, INSIDE DIAMETER OFF HOOKS AND BENDS SHALL BE AT LEAST SIX (6) BAR DIAMETERS.
9. PROVIDE SPACER BARS, CHAIRS, SPREADERS, BLOCKS, ETC. AS REQUIRED TO POSITIVELY HOLD THE STEEL IN PLACE BEFORE CONCRETE IS POURED.
10. CONCRETE SHALL BE CONVEYED FROM THE MIXER TO FINAL DEPOSIT BY METHODS THAT WILL PREVENT SEPARATION OR LOSS OF MATERIALS.
11. CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY SUITABLE MEANS DURING PLACEMENT AND SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIXTURES AND CORNERS OF FORMS.
12. CONCRETE SHALL BE MAINTAINED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST SEVEN (7) DAYS AFTER PLACEMENT. ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER.
13. WHERE EXTERIOR WALL FACE REQUIRES SHORING AND/OR FORMING, THE FORMS SHALL BE SUBSTANTIAL AND SUFFICIENTLY TIGHT TO PREVENT LEAKAGE. FORMS SHALL NOT BE REMOVED UNTIL THE CONCRETE IS SEVEN (7) DAYS OLD.
14. BACKFILLING SHALL BE DONE BY DEPOSITING AND TAMPING INTO PLACE CLEAN SAND OR POURING LEAN CONCRETE, TO 95% COMPACTION. WATER JETTING SHALL NOT BE ALLOWED.
15. CONDUITS AND PIPES OF ALUMINIUM SHALL NOT BE ALLOWED.
16. CONSTRUCTION JOINTS NOT INDICATED ON THE DRAWINGS SHALL NOT BE ALLOWED. WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF THE CONCRETE SHALL BE THOROUGHLY CLEANED AND ALL LAITANCE AND STANDING WATER REMOVED.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT AREAS AGAINST DAMAGE AND SHALL REPAIR OR PATCH ALL DAMAGED AREAS TO MATCH EXISTING IMPROVEMENTS.
18. CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA CLEAN AT ALL TIMES AND AT COMPLETION OF WORK, REMOVE ALL SUPPLIES MATERIALS, EQUIPMENT AND DEBRIS AND LEAVE THE PREMISES IN A CLEAN CONDITION ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE.

REV.	DESCRIPTION	DATE	APPROVED BY	DATE
A	ECO #2003-126	10/23/03		
B	ECO #2004-008	01/14/04		

3 BOLLARD ARRAY FOUNDATION SPECIFICATION MODEL DSC701 BOLLARD DRAWING NO. 90441-3 SCALE 1:1/2 (D SIZE) SHEET 1 OF 1	DELTA SCIENTIFIC CORPORATION 24901 WEST AVE. SUITE 400 VALENCIA, CA 91355 U.S.A. (661) 257-1800 FAX (661) 257-0817
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