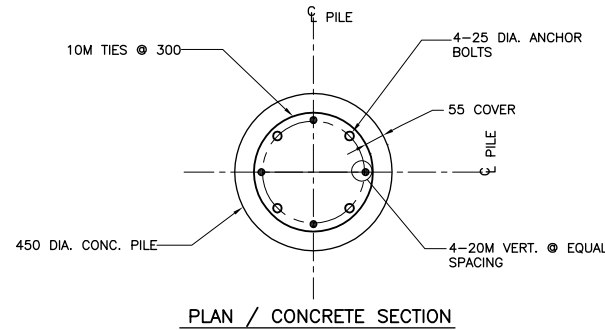
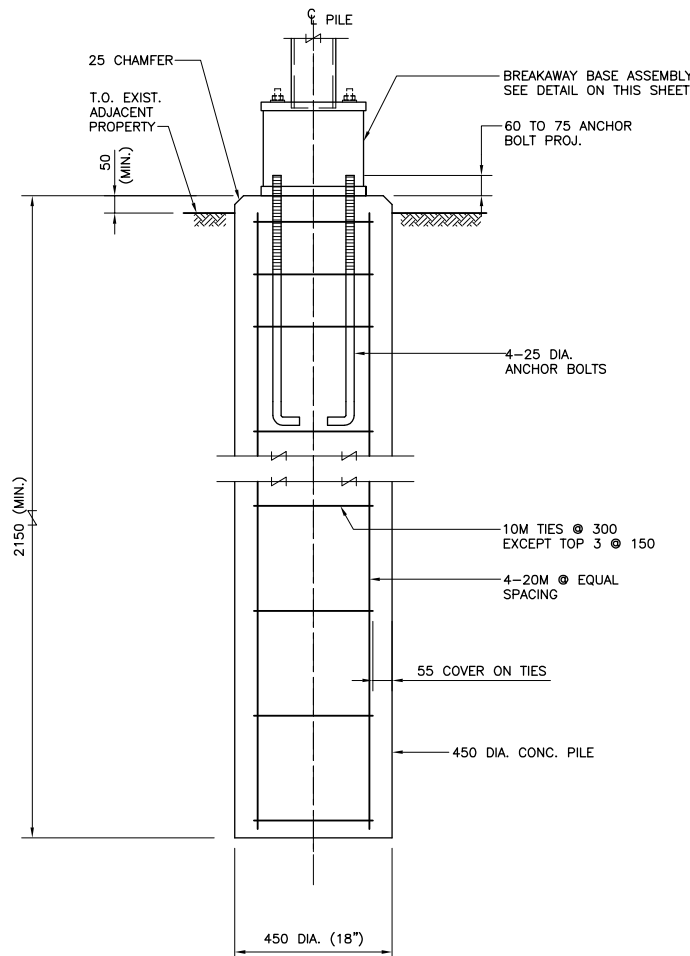


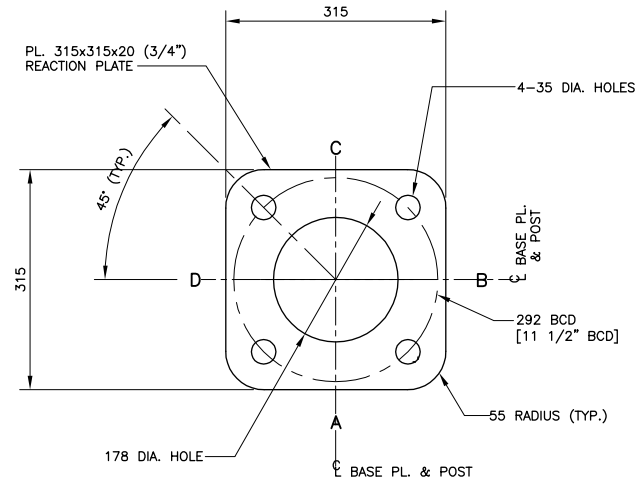
ANCHOR BOLTS LAYOUT



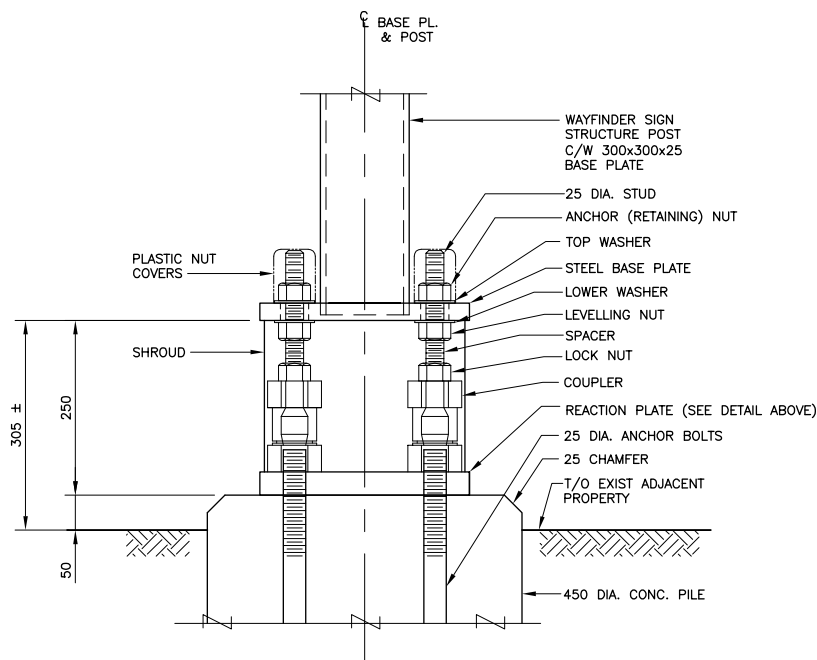
PLAN / CONCRETE SECTION



ELEVATION  
FOUNDATION DETAIL  
1: 10



REACTION PLATE DETAIL  
1: 5



BREAKAWAY BASE ASSEMBLY DETAIL  
1: 5

NOTES:

- REINFORCING STEEL**  
-CSA G30.12 GR. 400W  
-VERTICAL BARS FULL LENGTH OF PILE
- ANCHORS BOLTS**  
-CSA G40.21 GR. 300W  
-4-25 DIA. x 1500 LONG + 150 HOOK  
-TOP 300 THREADED  
-HOT DIP GALVANIZED FULL LENGTH INCL. NUTS + WASHERS
- CONCRETE MIX DESIGN**  
PROPORTIONING OF FINE AGGREGATE, COARSE AGGREGATE, CEMENT, WATER, AND AIR ENTRAINING AGENT SHALL BE SUCH AS YIELD CONCRETE HAVING THE REQUIRED STRENGTH AND WORKABILITY AS FOLLOWS:  
i) MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 35 MPa  
ii) MAXIMUM WATER/CEMENT RATIO = 0.45  
iii) MINIMUM CEMENT CONTENT = 340 kg/m  
iv) SLUMP = 80mm ± 30mm  
v) AGGREGATE: 20mm NOMINAL  
vi) AIR CONTENT: 5.0 TO 8.0 PERCENT  
vii) CEMENT - TYPE HS, HIGH SULPHATE RESISTANT
- TOP RING & ANCHOR BOLT TEMPLATE**  
-CONTRACTOR SHALL USE A STEEL TOP RING FORM FOR ALL PILE INSTALLATIONS. REFER TO STANDARD DWG. ST-116 FOR FABRICATING THE TOP RING FORM SUITABLE FOR 450 (18") DIA. PILES.  
-CONTRACTOR SHALL USE A STEEL ANCHOR BOLT TEMPLATE TO SET THE ANCHOR BOLTS IN THE PILES. REFER TO STANDARD DWG. ST-117 FOR FABRICATING THE TEMPLATE SUITABLE FOR 450 (18") DIA. PILES.
- BREAKAWAY BASE**  
COMPONENTS REQUIRED FOR TYPICAL ASSEMBLY  
-REACTION PLATE ASTM A36 OR EQUAL (HOT-DIP GALV.)  
-30,000 PSI GRAY CAST-IRON COUPLER  
-LOCK NUT, LEVELING NUT & RETAINING NUTS, LOWER WASHER & TOP WASHER ASTM A36 OR EQUAL (HOT DIP GALV.)  
-25 (1") DIA. BUNC STUD-4140 STEEL (HOT DIP GALV.)  
-SPACER-25 (1") DIA. PVC PIPE  
-PLASTIC NUT COVERS- FOR 25 (1") DIA NUTS.  
-SHROUD- #24 U.S. GAUGE, ATTACH WITH 3-#10x3/4" SELF-TAPPING S/S SHEET METAL SCREWS. SHROUD SHALL BE HOT-DIP GALV.
- UNDERGROUND UTILITIES**  
-UNDERGROUND UTILITIES ARE NOT SHOWN.  
-CONTRACTOR SHALL OBTAIN CLEARANCE FROM ALL UTILITY COMPANIES AT EACH PILE LOCATION PRIOR TO PILE CONSTRUCTION.

DRAWING REDUCED  
NOT TO SCALE

B.M. ELEV.	DESIGNED BY S.S.R./A.S.D.				CITY DRAWING NUMBER <b>WF-04-11</b> SHEET 11 OF 11
	DRAWN BY N.B.G.				
	CHECKED BY S.S.R.				
	APPROVED BY				
	HOR. SCALE AS SHOWN	RELEASED FOR CONSTRUCTION	CONSULTANT PROJECT NO. 04-3144-1000	WAYFINDER SIGNS SIGN PLATE OPTION CONCRETE PILE FOUNDATION DETAILS	
	VERTICAL	DATE	DATE		
NO.	REVISIONS	DATE	BY	DATE	SEPT. 2004