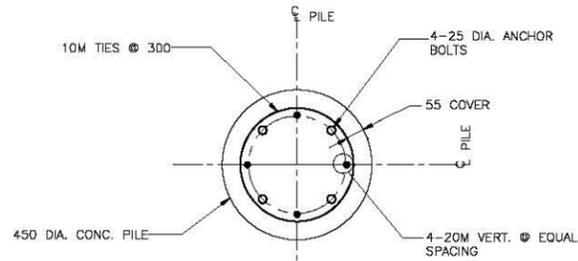
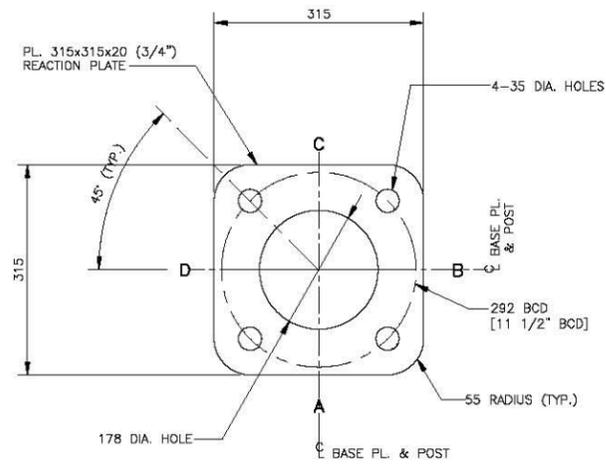


ANCHOR BOLTS LAYOUT

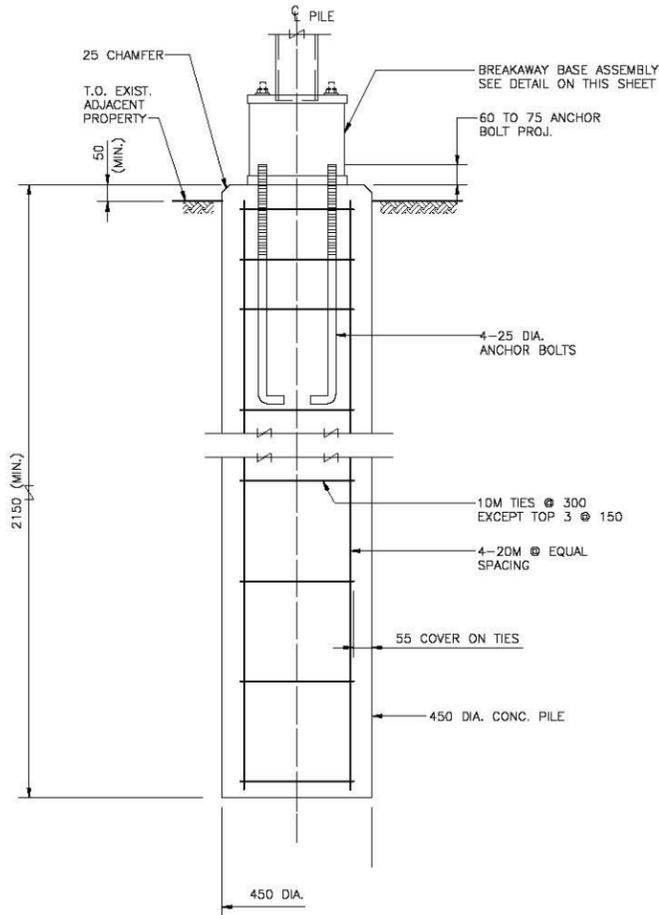


PLAN / CONCRETE SECTION

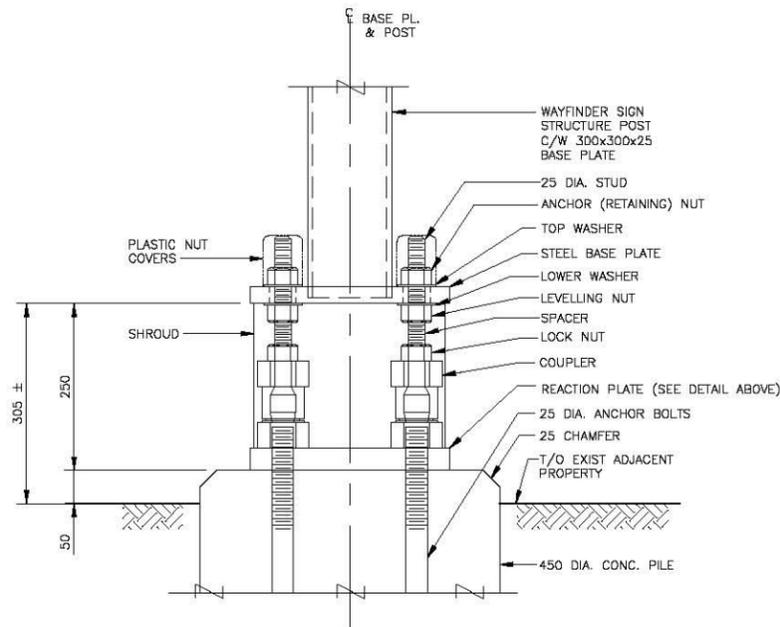


REACTION PLATE DETAIL

1: 5



**ELEVA
FOUNDATION**
1: 10



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, LEVELLING 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.

CONTRACTOR TO CONFIRM ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO CONTRACT ADMINISTRATOR PRIOR TO CONSTRUCTION. LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.



THE CITY OF WINNIPEG
Planning, Property and Development Department
Planning and Land Use Division
Unit 15 - 30 Fort Street, Winnipeg, MB, (R3C 4X5)

DESIGNED BY	S.S.R./A.S.D.	CHECKED BY	S.S.R.
DRAWN BY	N.B.G.	APPROVED BY	
HORIZ. SCALE	As shown		
VERT. SCALE			
DATE	July 2006		

MANAGER,
PARK AND OPEN SPACES DATE

MANAGER,
PLANNING AND LAND USE DIVISION DATE

DRAWING TITLE
**Winnipeg Traffic Wayfinder Sign System -
Installation of posts including pile foundation.**
Concrete Pile Foundation Details
SITE ADDRESS

DRAWING NO.
WF-ST-01
BID OPPORTUNITY NO.