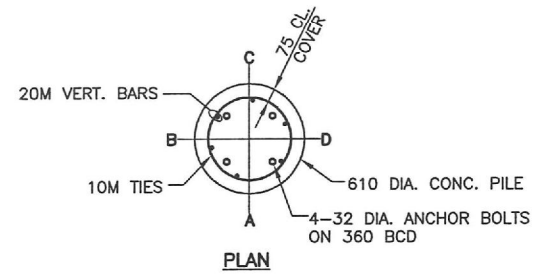
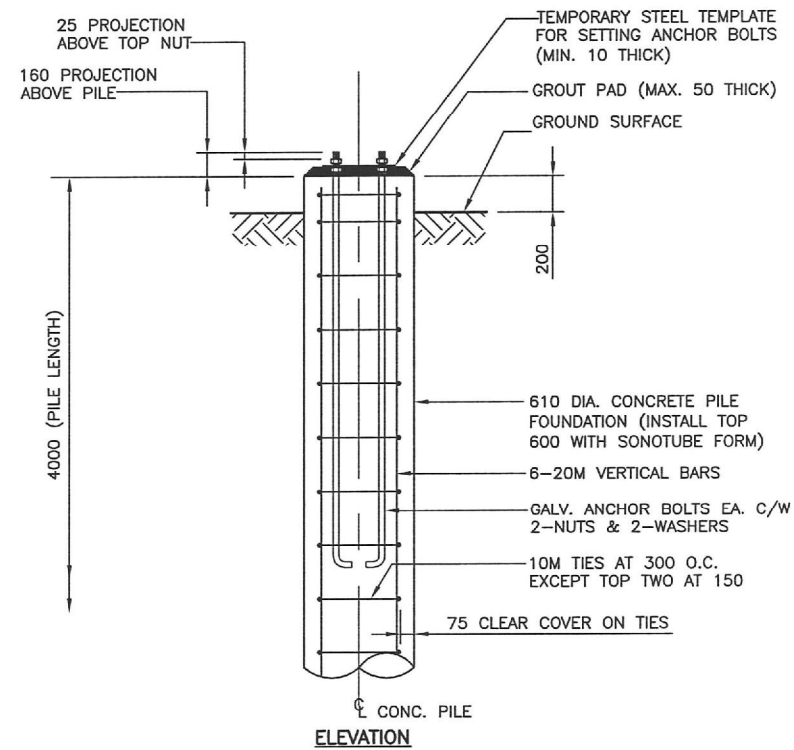


ANCHOR BOLTS LAYOUT



PLAN



ELEVATION

CONCRETE PILE FOUNDATION FOR S759  
NTS

**PILE CONSTRUCTION NOTES**

1. **REINFORCING STEEL**
  - CSA G30.18 400W
  - VERTICAL BARS FULL LENGTH OF PILE
  - HOT DIP GALVANIZED
2. **ANCHORS BOLTS**
  - CSA G40.21 GR. 300W
  - 4-32 DIA. x 1500 LONG + 150 HOOK
  - EACH BOLT C/W 2 NUTS & 2 WASHERS
  - TOP 300 THREADED
  - HOT DIP GALVANIZED FULL LENGTH
3. ANCHOR BOLTS SHALL BE ALIGNED WITH A TEMPORARY STEEL TEMPLATE. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATE WILL NOT BE PERMITTED.
4. TOP OF PILE SHALL BE FORMED WITH A TABULAR FORM (SONOTUBE) AS FOLLOWS:
  - i) FOR BORED PILES, 1.0 m BELOW FINAL GRADE
  - ii) FOR HYDRO-JET EXCAVATED PILES, 1.5 m BELOW FINAL GRADE
5. CONTRACTOR SHALL REMOVE THE BASE TEMPLATE, NUTS AND FORM, FOLLOWING A MINIMUM 24 HOUR CONCRETE CURING PERIOD.
6. **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) CLASS OF EXPOSURE: S-1
  - ii) COMPRESSIVE STRENGTH AT 56 DAYS = 35 MPa
  - iii) WATER/CEMENTING MATERIALS RATIO = 0.4
  - iv) AIR CONTENT: CATEGORY 2 PER TABLE 4 OF CSA A23.1-04 (4-7%)
  - v) CEMENT - TYPE HS OR Hsb HIGH SULPHATE RESISTENT

B.M. ELEV.								<b>THE CITY OF WINNIPEG</b> PUBLIC WORKS DEPARTMENT TRANSPORTATION ENGINEERING DIVISION	
								DESIGNED BY CDW      CHECKED BY MBL	
				DRAWN BY JGW      APPROVED BY		CONSULTANT DRAWING NO.		SHEET 7 OF 8	
0 ISSUED FOR TENDER      12/01/30      JGW				HOR. SCALE: AS SHOWN VERTICAL: AS SHOWN		RELEASED FOR CONSTRUCTION BY:		STRUCTURE NO. S759 FOUNDATION DETAILS	
NO. REVISIONS      DATE      BY				DATE 2012/01/30		DATE			