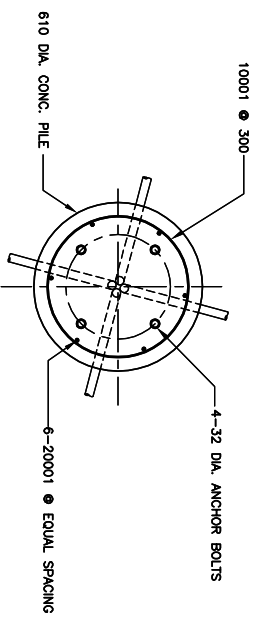
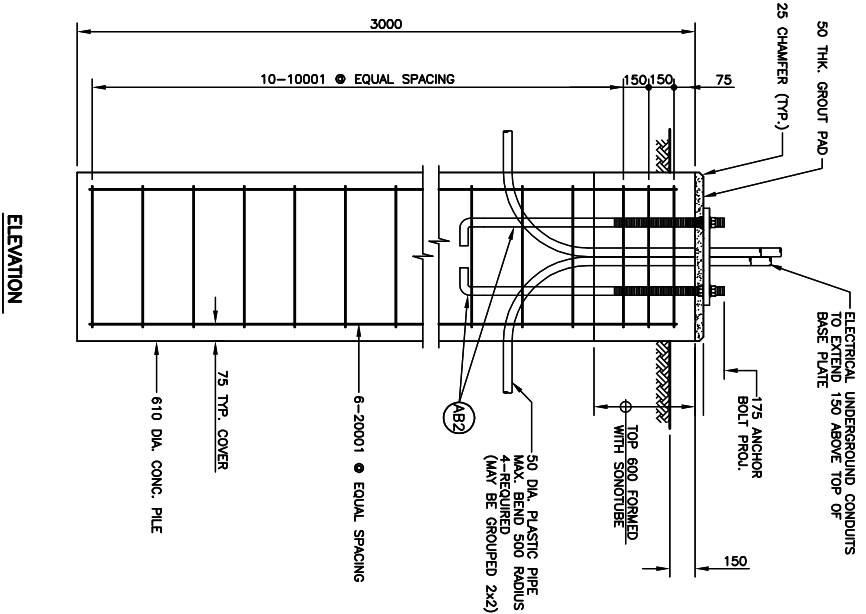


ANCHOR BOLTS LAYOUT



PLAN / CONCRETE SECTION



ELEVATION

FOUNDATION DETAIL
N.T.S.

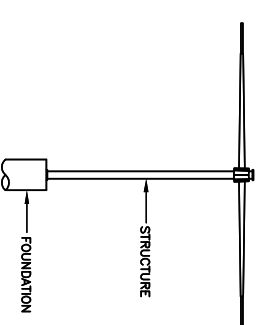
GENERAL NOTES:

CONCRETE FOUNDATION PILES

- PRIOR TO DRILLING PILES, CONTRACTOR SHALL ENSURE THERE ARE NO CONFLICTING SURFACE OR SUBSURFACE UTILITIES.
- DRILL PILES TO INDICATED DEPTHS ENSURING THAT SHAPTS ARE DRY AND FREE OF DEBRIS UNTIL CONCRETE IS PLACED.
- CONCRETE
 - CSA A23.1 EXPOSURE CLASS S--1
 - COMPRESSIVE STRENGTH ϕ 28 DAYS = 35 MPa
 - AIR CONTENT: CATEGORY 1
- NOTIFY THE OWNER AND TESTING FIRM A MINIMUM OF TWENTY FOUR HOURS PRIOR TO COMMENCEMENT TO CONCRETE OPERATIONS.
- REFER TO SPECIFICATIONS FOR CONCRETE TESTING REQUIREMENTS.
- REINFORCING STEEL TO BE GRADE 400W, DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT CONFORMING TO CSA G30.18.
- ANCHOR BOLTS, NUTS AND WASHERS WILL BE SUPPLIED BY THE DEPARTMENT AND SET BY THE CONTRACTOR.
- THE ANCHOR BOLTS SHALL BE ALIGNED WITH A TOP SETTING TEMPLATE MATCHING THE BOLT HOLE LAYOUT. THE SETTING TEMPLATE SHALL BE FIELD IN PLACE BY THE NUTS SUPPLIED WITH THE BOLTS. PLACEMENT OF ANCHOR BOLTS WITHOUT THE SETTING TEMPLATE WILL NOT BE PERMITTED.

TOP SETTING TEMPLATE

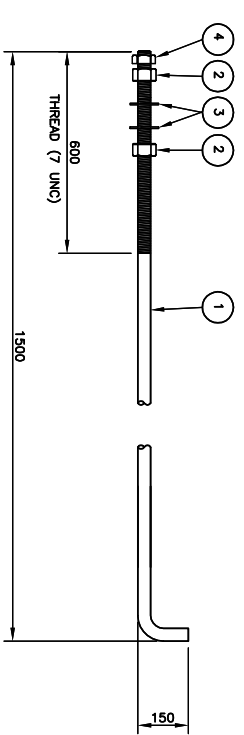
 - TEMPORARY STEEL TEMPLATE LOANED TO THE CONTRACTOR BY THE DEPARTMENT.
 - AFTER COMPLETION OF CONCRETE PILE FOUNDATION WORKS, THE CONTRACTOR SHALL CLEAN THE TEMPLATE BY SANDBLASTING AND RETURN IT TO THE DEPARTMENT.
 - IF THE TEMPLATE IS DAMAGED DURING CONSTRUCTION DUE TO NEGLIGENCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING A NEW 10 mm THICK STEEL TEMPLATE TO THE DEPARTMENT AT HIS OWN EXPENSE.
- SOILS INFORMATION AT SITE IS AVAILABLE FROM THE OWNER.



MEDIUM SERIES DOUBLE CANTILEVER

STRUCTURE FOR MEDIUM SERIES FOUNDATION TYPE F2

LINE NO.	QTY. REQ'D.	DESCRIPTION	SIZE	MATERIAL	REMARKS
1	4	ANCHOR BOLT	32 (1 1/4") DIA. x 1850	G40.21-M-300W GALV. FULL LENGTH	SEE DETAIL BELOW
2	8	HEAVY HEX NUT	32 (1 1/4") DIA.	ASTM A194 GRADE 2H	
3	8	HEAVY WASHER	32 (1 1/4") DIA.	G40.21-M-300W	
4	4	LOCK HEX NUT	32 (1 1/4") DIA.	ASTM A194 GRADE 2H	
5					



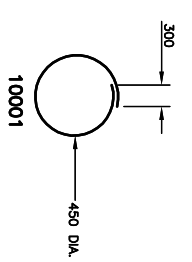
ANCHOR BOLT ASSEMBLY MK. AB2
(STOCK CODE NO.7559)

- NOTES:**
- ANCHOR BOLTS SHALL BE SOLID ROUNDS G40.21-M-300W.
 - ALL PARTS OF ANCHOR BOLT ASSEMBLY SHALL BE HOT DIP GALVANIZED (FULL LENGTH) IN ACCORDANCE WITH ASTM A123-09 (PLUS LATEST REVISIONS) WITH NET RETENTION OF 610 g/m².
 - ALL NUTS SHALL BE TAPPED OVERSIZE PRIOR TO GALVANIZING.
 - ALL NUTS AND WASHERS SHALL BE ASSEMBLED BY THE SUPPLIER PRIOR TO DELIVERY.

BILL OF REINFORCING STEEL

MK. NO.	SIZE	QTY. REQ'D.	LENGTH (mm)	MASS (kg)	LINE NO.
20001	20M	6	2850	41.04	1
10001	10M	12	1715	18.46	2
					3
					4
					5
					6
					7
					8
					9
TOTAL MASS OF REINFORCING STEEL				= 57.50 kg	
TOTAL VOLUME OF CONC. C.I.P. PILES				= 0.880 m ³	10

BENDING DIAGRAM



REVISIONS

DATE	BY	DESCRIPTION

PEDESTRIAN CORRIDOR STRUCTURES
MEDIUM SERIES FOUNDATION TYPE F2
ANCHOR BOLTS, CONC. PILE, & PILE REINFORCEMENT



DILLON CONSULTING
CONSULTANT PROJECT NO. 11-5296

PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
S.S. RIHAL
04/03/2012

Manitoba Infrastructure and Transportation
Traffic Engineering

DESIGN: **SSR**
CHECKED: **JW**
DATE: **AS SHOWN**

RELEASED FOR CONSTRUCTION
BY: **SSR**
COMPONENT NO. **F2**
SHEET No. **F2**



REDUCED DRAWING
N.T.S.