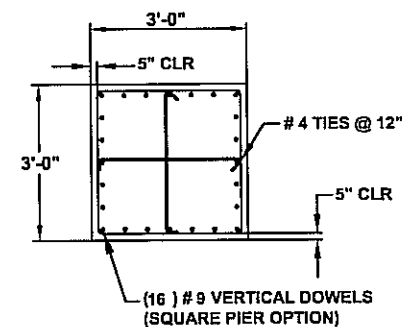


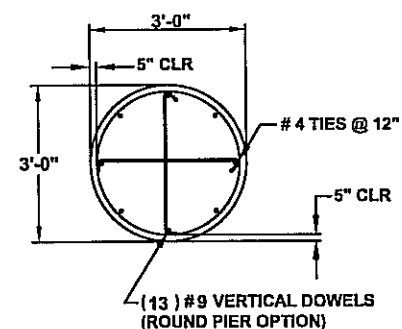
FOUNDATION PLAN

SCALE: N.T.S.



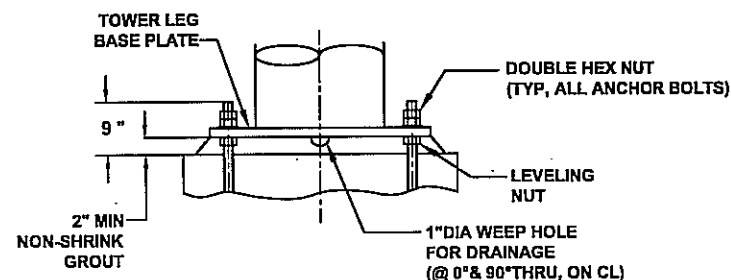
SECTION B-B

SCALE: N.T.S.
(OPTIONAL SQUARE PIER)



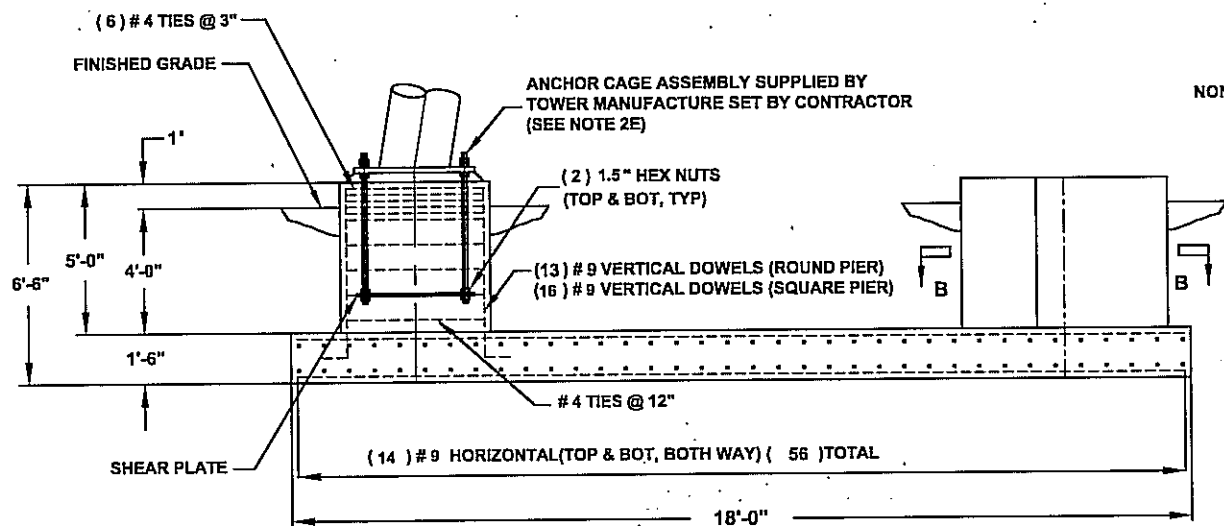
SECTION B-B

SCALE: N.T.S.
(OPTIONAL ROUND PIER)



BASE DETAIL

SCALE: N.T.S.



SECTION "A-A"

SCALE: N.T.S.

GENERAL NOTES:

1) CONCRETE:

- A CONCRETE SHALL CONFORM TO ACI 318-05 SPECIFICATIONS FOR BUILDING STRUCTURAL CONCRETE.
- B ALL CONCRETE SHALL BE MADE WITH STONE AGGREGATE AND SHALL DEVELOPE 4000 PSI MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS.

CONCRETE MIX DESIGN:

- C 6-1/2 SACKS MINIMUM PER CUBIC YARD, 5 INCH MIN. / 7 INCH MAX. SLUMP 3/4 INCH MAXIMUM AGGREGATE
- D ALL REINFORCING SHALL BE HIGH STRENGTH DEFORMED BARS, GD 60, ASTM A615-87, WITH 60 KSI MINIMUM YIELD POINT
- E REINFORCEMENT PROTECTION: CONCRETE POURED AGAINST EARTH.
- F ALL BAR LENGTHS ARE NOT DRAWN TO SCALE UNLESS NOTED. NO SPLICING OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR AS AUTHORIZED BY THE STRUCTURAL ENGINEER. LAP SPACES WHERE PERMITTED SHALL BE A MINIMUM OF 40 BAR DIAMETERS UNLESS NOTED.
- G DETAILED BARS IN ACCORDANCE WITH ACI DETAILING MANUL AND ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. FIVE INCH NOMINAL AND THREE INCH MINIMUM CLEARANCE FOR ALL REINFORCEMENT.
- H PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING AT THE POSITIONS SHOWN ON THE PLANS.
- I FORMED PIERS MY BE CONSTRUCTED IN TUBE DIAMETER FORM OR SQUARE FORM.

2) FOUNDATIONS:

- A MAT & PIER FOUNDATIONS DESIGN BASED ON REPORT#: 08G0417 BY: EPC Engineering & Testing OF: Duluth, MN DATED: 12/3/2008 GEOTECHNICAL ENGINEER SHALL OBSERVE AND APPROVE IN WRITING THE ADEQUACY OF FOOTING BOTTOM AND PLACEMENT OF CONCRETE. COPIES OF WRITTEN APPROVAL SHALL BE SENT TO THE TOWER MANUFACTURE (GME), AND TO THE ENGINEERING COMPANY IF REQUIRED. THE CONTRACTOR SHALL BE PROVIDED ADEQUATE ASSISTANCE AND NOTIFICATIONS TO ACCOMPLISH THIS REQUIREMENT.
- B PIER/MAT FOUNDATION SHOULD BEAR ENTIRELY ON COMPETENT SOILS PER GEOTECHNICAL REPORT.
- C ALL STRUCTURAL BACKFILL AT SITE TO BE COMPOSED OF SOIL WITH A MINIMUM DENSITY IN EXCESS OF 110 PCF, WITH LIFTS NOT EXCEEDING 8 INCH-TO-12 INCH. AREA AND EXTENT OF BACKFILL TO BE IN ACCORDANCE WITH RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT.
- D FOUNDATION SUBGRADE SHOULD BE MEET A MINIMUM 95% COMPACTION. IF LEAN CONCRETE IS UTILIZED TO LEVEL FOUNDATIONS SUBGRADE, IT SHOULD BE PLACED PRIOR TO ANCHOR BOLT INSTALLATIONS AND ALLOWED TO CURE FOR SUFFICIENT STRENGTH RESISTANCE TO PRESTRESS ANCHOR LOADS.
- E **CONTRACTOR IS TO VERIFY ANCHOR BOLT PATTERN PRIOR TO CONSTRUCTION AND TO USE SUPPLIED TEMPLATE IN SETTING ANCHOR BOLTS.**
- F CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SAFETY AND PROTECTION OF PUBLIC PERSONAL WHEN PRESENT.
- G FOOTING DESIGN BASED ON ULTIMATE SOIL BEARING PRESSURE OF 3000 PSF AND ALLOWABLE BEARING PRESSURE 1500 PSF PER EIA/TIA-222-G PRESUMPTIVE SOIL RECOMMENDATION.

DESIGN CONCRETE VOLUME:		REACTION LOADS:	
PIER VOLUME:	5.00 CUBIC YARDS	MAX COMPRESSION:	99.15 KIPS
MAT VOLUME:	18.00 CUBIC YARDS	MAX UPLIFT:	95 KIPS
TOTAL VOLUME:	23.00 CUBIC YARDS	MAX SHEAR/LEG:	6.85 KIPS
		AXIAL LOAD:	16.25 KIPS
		STRUCTURAL OTM:	672.8 FT-KIPS
		TOTAL SHEAR @ BASE:	12.67 KIPS

PROFESSIONAL ENGINEER
STAMPED APPROVAL



REVIEWED

By Christopher J. Martin, P.E. at 11:27 am, Oct 12, 2010

Parkland Sanitary Force Main			
PROJECT: 21570			
SITE NUMBER: N/A			
SITE NAME: N/A			
SITE ADDRESS: Douglas County Wisconsin			
DRAWN: XIN	DATE: 10/12/2010	DRW.#:	REV. #
CHECKED: SDH	DATE: 10/12/2010	GM-6520	0

REVISIONS	