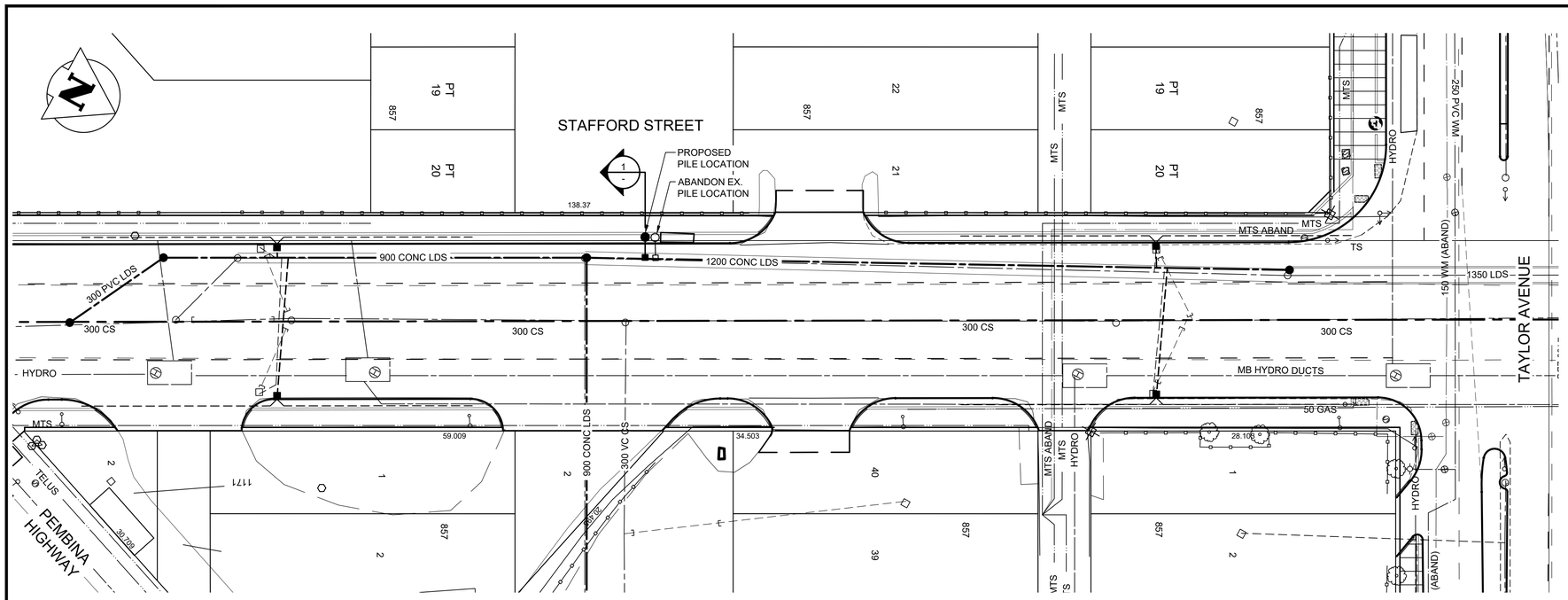
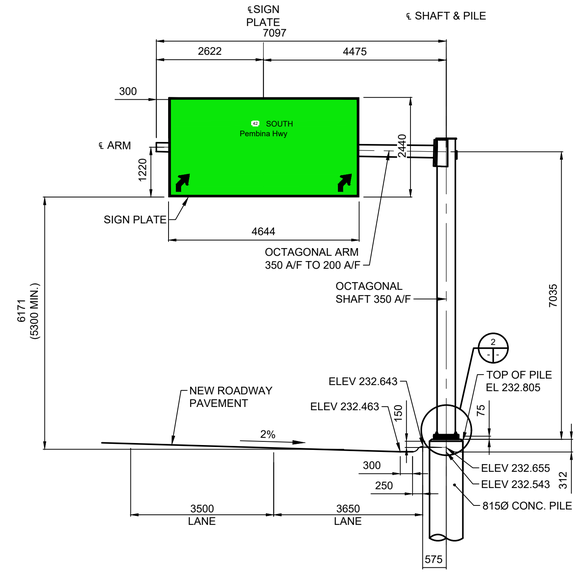




1 - ELEVATION SECTION
OVERHEAD SIGN SUPPORT STRUCTURE NO. S_796
SCALE 1:75

PILE CONSTRUCTION NOTES

1. REINFORCING STEEL
   - CSA G30.12 GR. 400W
   - VERTICAL BARS FULL LENGTH OF PILE
   - HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A767

2. ANCHORS BOLTS
   ASTM F1554. GR. 55 (380 MPA)
   8-1.5" DIA. (38 DIA.) x 1956 LG. ANCHOR BOLTS
   THREADED BOTH ENDS (560 TOP & 100 BOT.)
   EACH BOLT C/W 4-A563 HEAVY HEX AND 2 PLATE WASHERS (SEE PLATE WASHER DETAIL).
   ANCHOR BOLTS HOT DIP GALVANIZED
   FULL LENGTH AFTER FABRICATION IN ACCORDANCE WITH ASTM F2329.
   B.C.D.=BOLT CIRCLE DIAMETER TO CENTER OF BOLT GROUP.

3. ANCHOR BOLTS SHALL BE ALIGNED WITH TEMPORARY STEEL TEMPLATE. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATE WILL NOT BE PERMITTED.

4. CONTRACTOR SHALL REMOVE THE BASE TEMPLATE, NUTS AND FORM, FOLLOWING A MINIMUM 24 HOUR CONCRETE CURING PERIOD.

5. FOLLOWING INSTALLATION OF THE STEEL STRUCTURE, TIGHTEN THE LOWER LEVELING NUTS AND TOP NUTS TO A SNUG-TIGHT CONDITION, FOLLOWED BY $\frac{1}{3}$ NUT ROTATION (+20deg,-0deg) OF THE TOP NUTS.

6. FORM TOP OF PILE WITH A TUBULAR FORM (SONOTUBE):
   1m FOR DRILLED SHAFTS
   1.5m FOR HYDRO-EXCAVATED SHAFTS

7. ANCHOR BOLTS SHALL BE TIGHTENED USING A STAR PATTERN TIGHTENING SEQUENCE.

8. CONCRETE MIX DESIGN
   PROPORTIONING OF FINE AGGREGATE, COARSE AGGREGATE, CEMENT, WATER, AND AIR ENTRAINING AGENT SHALL BE SUCH THAT CONCRETE HAVING THE FOLLOWING REQUIRED STRENGTH AND WORKABILITY IS OBTAINED:
   - i) CLASS OF EXPOSURE: S-1
   - ii) MINIMUM COMPRESSIVE STRENGTH AT 56 DAYS = 35 MPa
   - iii) MAXIMUM WATER/CEMENT RATIO = 0.4
   - iv) AIR CONTENT: CATEGORY 1 PER TABLE 4 OF CSA A23.1-19 (5-8%)
   - v) CEMENT - IN ACCORDANCE WITH CSA A23.1-19

9. NEW PILE TO BE INSTALLED 1.0m CLEAR FROM EXISTING PILE.

10. BREAK EXISTING PILE 0.9m BELOW FINAL GRADE.

11. INSTALL NEW TL-2 CRASH CUSHION.

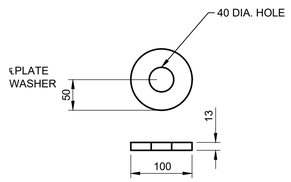
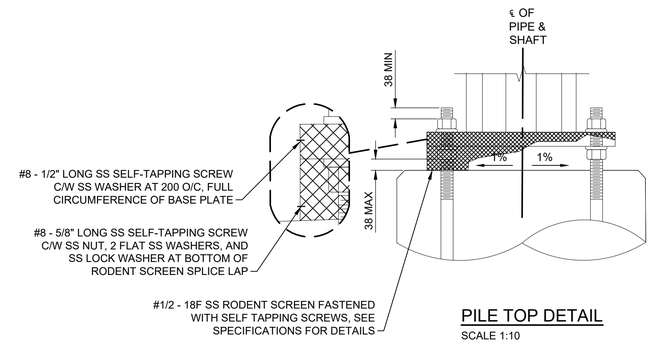
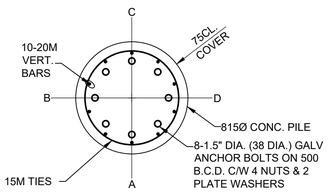


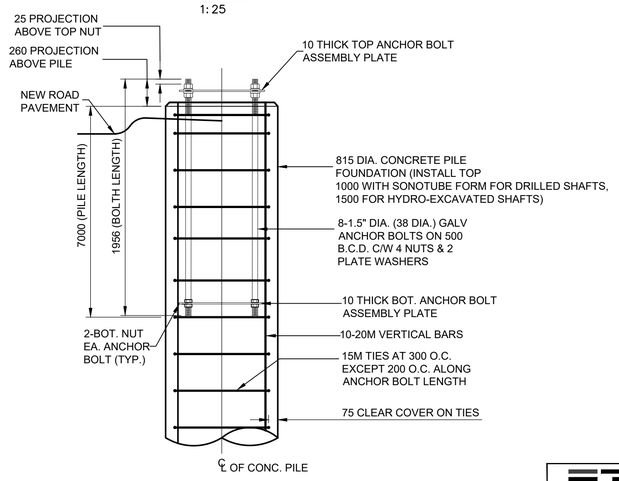
PLATE WASHER DETAIL
SCALE 1:5



PILE TOP DETAIL
SCALE 1:10



PLAN
1: 25



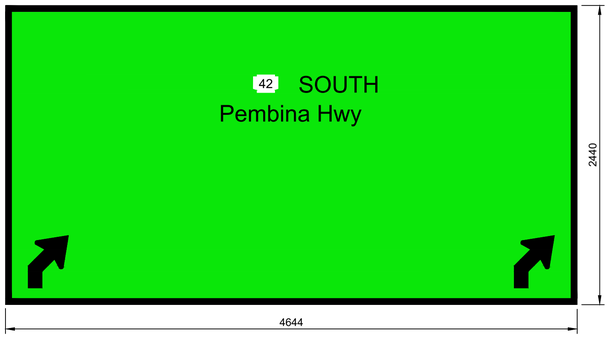
2 - ELEVATION DETAIL
CONCRETE PILE FOUNDATION
SCALE 1:25

WARNING

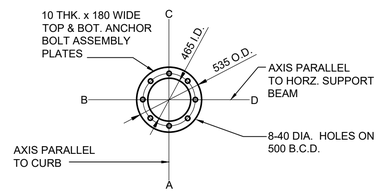
IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 210/72 FOR DETAILS
3) OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES



SIGN PLATE DETAIL
SCALE 1:25



ANCHOR BOLT ASSEMBLY PLATE DETAIL
SCALE 1:25

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301

150 WM	WATERMAIN	150 WM		HYDRO				
	HYDRANT			M.T.S.				
	VALVE			CONCRETE				
300 LDS	LAND DRAINAGE SEWER	300 LDS		ASPHALT				
250 WWS	WASTE WATER SEWER	250 WWS		SIDEWALK				
	MANHOLE			MILL JOINT				
	CATCH BASIN			PROPERTY LINE				
	CURB INLET/CATCH PIT			SURVEY BAR				
	TRANSIT STOP			DITCH				
	CULVERT		(31.334)	ELEVATION	(32.231)			
	GAS			SIDEWALK RAMP				
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE — DATE

NOTE:
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.

B.M.
ELEV.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	22.01.06	K.W.R.

Stantec
500 - 311 Portage Avenue, Winnipeg MB Canada
www.stantec.com

DESIGNED BY	E.M.F.	CHECKED BY	H.M.V.
DRAWN BY	M.K.	APPROVED BY	H.M.V.
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION:	
VERTICAL:			
DATE	2019/07/16	DATE	

PROVINCE OF MANITOBA — H.M. VOGEL — 2022.01.06 — MEMBER 23744 — REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING N0.
S-701

Winnipeg
THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

2019-2023 STAFFORD/TAYLOR/CORYDON TENDER 2
STAFFORD STREET
SB STAFFORD STREET AT PEMBINA HWY
S_796 FABRICATION DETAILS

SHEET 39 OF 53
CAD FILE DRAWING NUMBER 08020s-701-932.dwg
CITY DRAWING NUMBER S 796-2022-01

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