

CONTRACT DRAWINGS  
CONTRACT NO. 2018-4023  
BOOK 2 OF 2  
ADDENDUM NO. 1

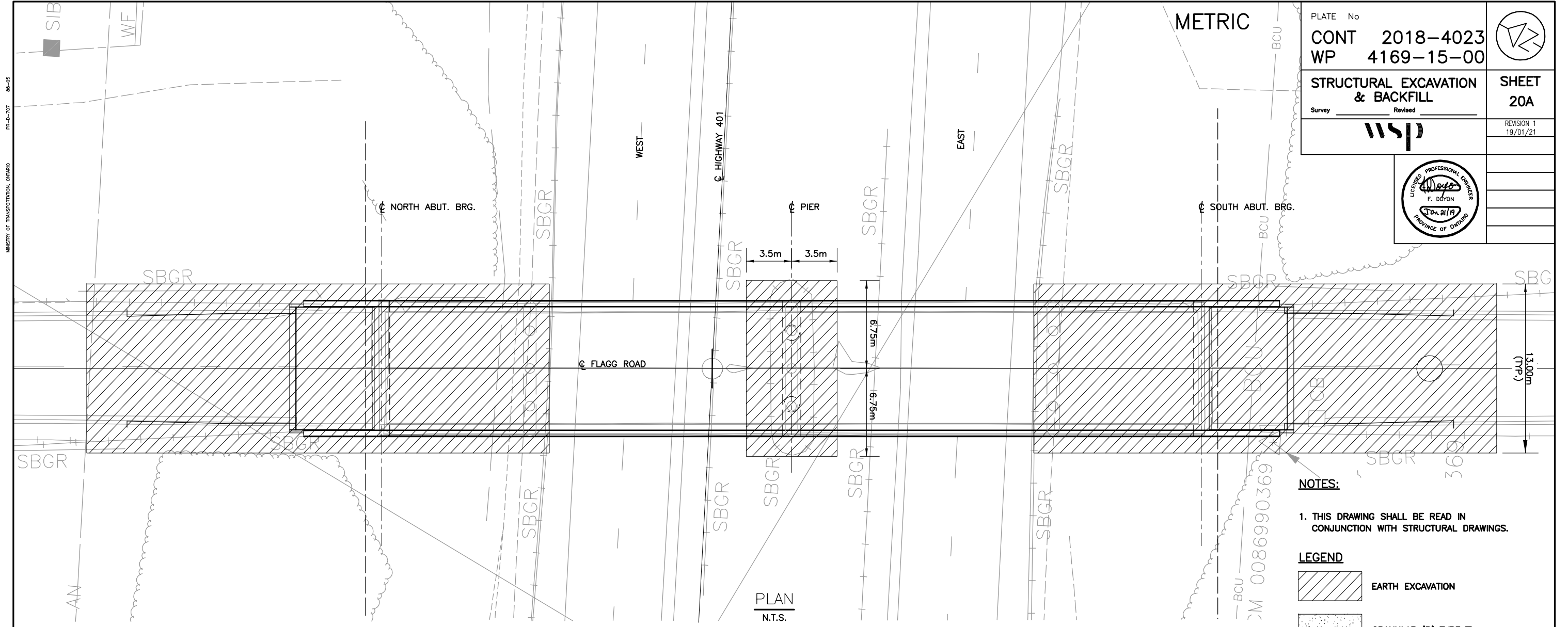


PLATE No  
**CONT 2018-4023**  
**WP 4169-15-00**

**STRUCTURAL EXCAVATION & BACKFILL**

Survey \_\_\_\_\_ Revised \_\_\_\_\_

**WSP**

REVISION 1  
19/01/21

PROFESSIONAL SOCIETY  
 F. DOYON  
 2018/1/18  
 PROVINCE OF ONTARIO

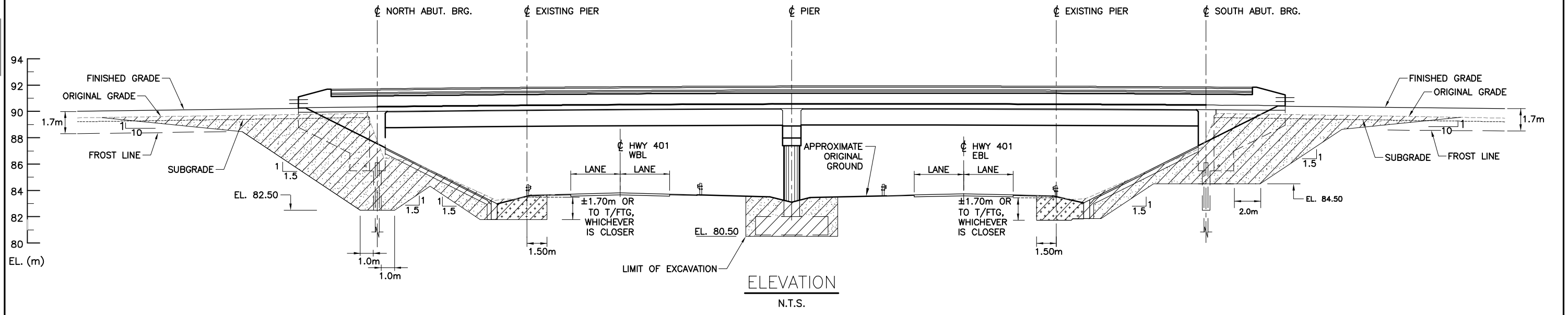
**NOTES:**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH STRUCTURAL DRAWINGS.

**LEGEND**

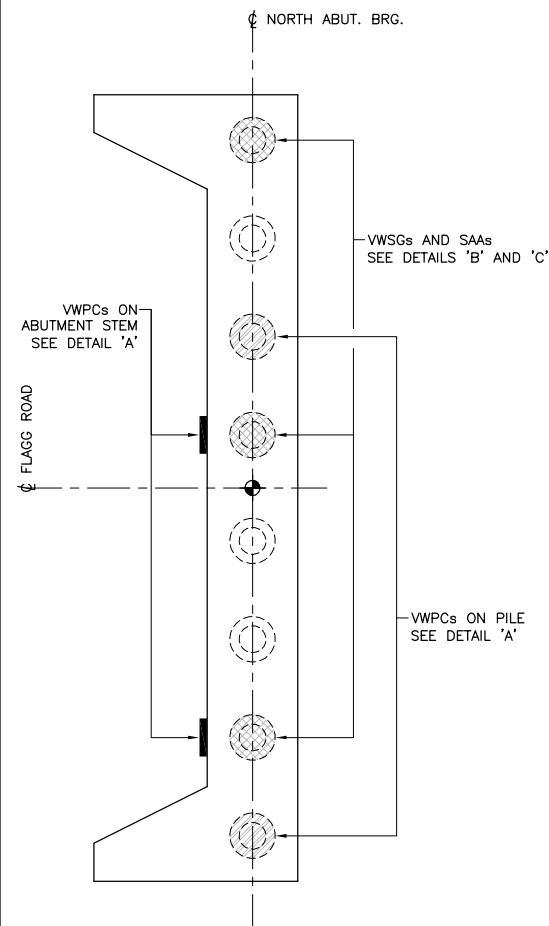
- EARTH EXCAVATION
- GRANULAR 'B' TYPE II
- NATIVE BACKFILL

FILE LOCATION: S:\415010-MEGA-SV\FLAGG ROAD\  
 DRAWING NAME: T3415010T04\_FLAGG\_ROAD.DWG  
 DRAWN BY: R.MANNING  
 REVISION 1  
 10/27/13

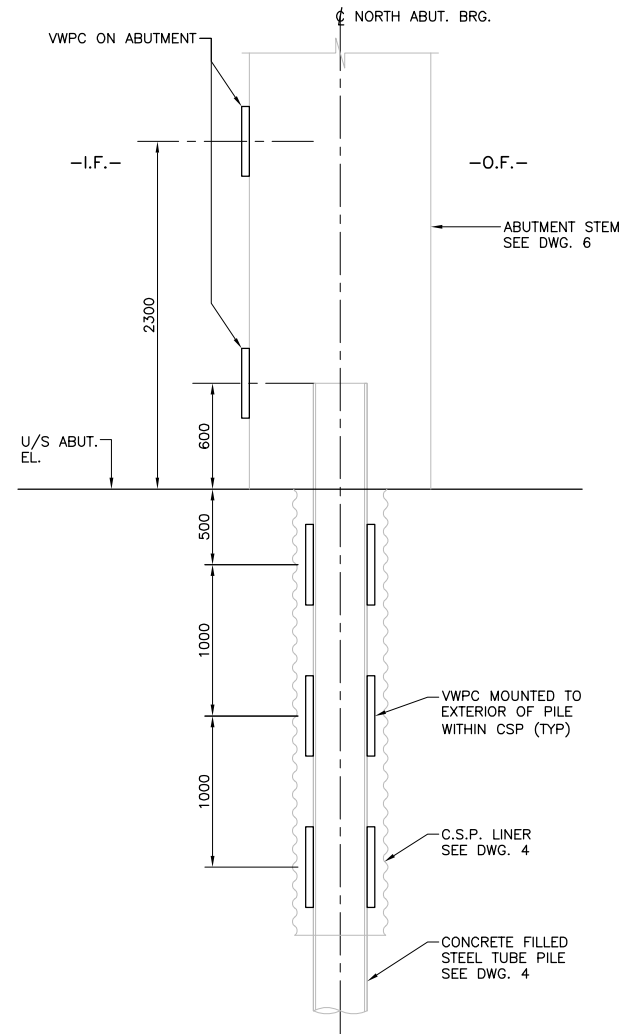


CAD FILE LOCATION AND NAME: M:\3415010 Mega 5 Bridges\CURRENT\SHEETS\Flagg Rd Underpass (SN-31-203)\ADDENDUM-1\_PILE MONITORING SYSTEM 3415010-030-023--PILE\_MONITORING.dwg  
 MODIFIED: 1/23/2019 9:46:29 AM BY: CORAJB  
 DATE PLOTTED: 1/23/2019 9:46:33 AM BY: CORAJB

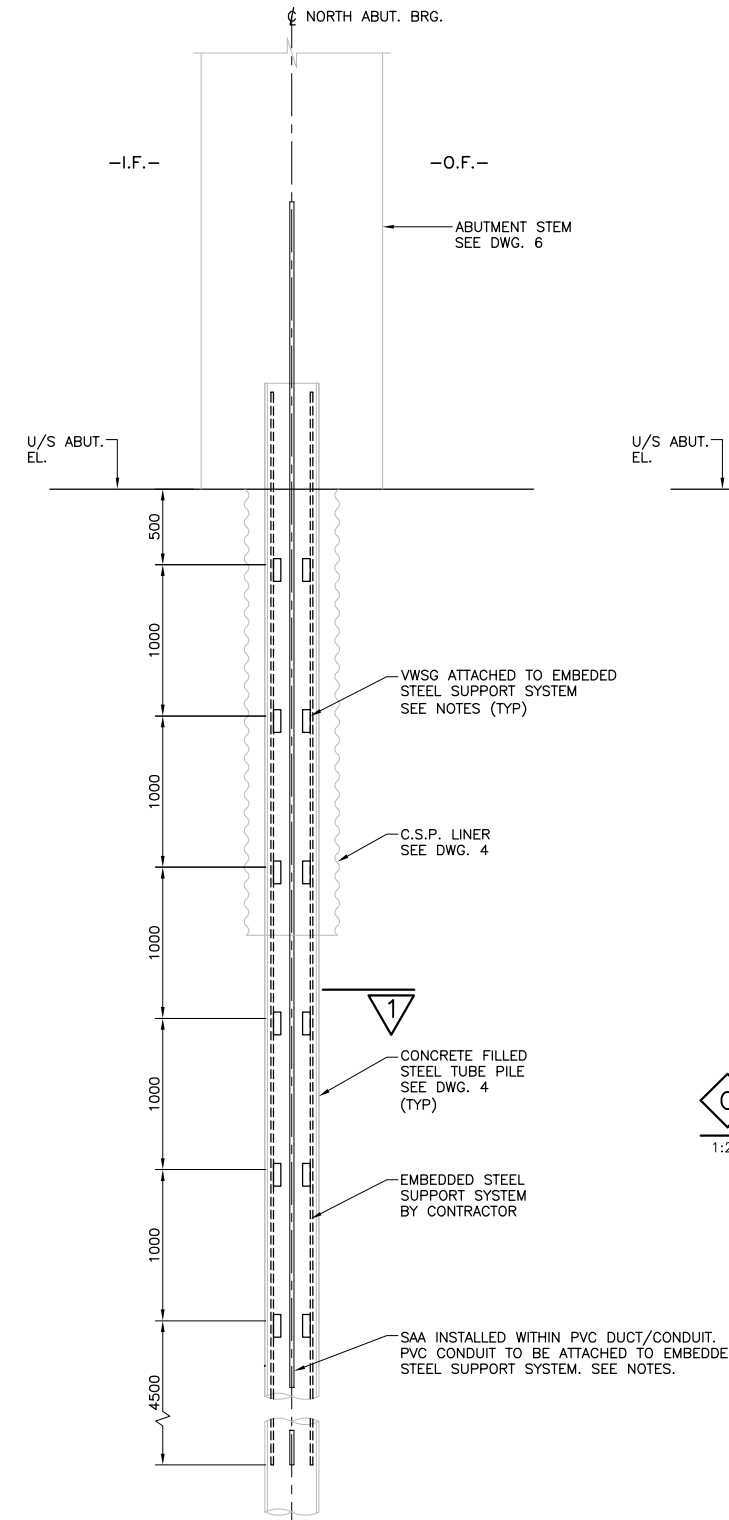
PRE-0-707 88-05  
 MINISTRY OF TRANSPORTATION, ONTARIO



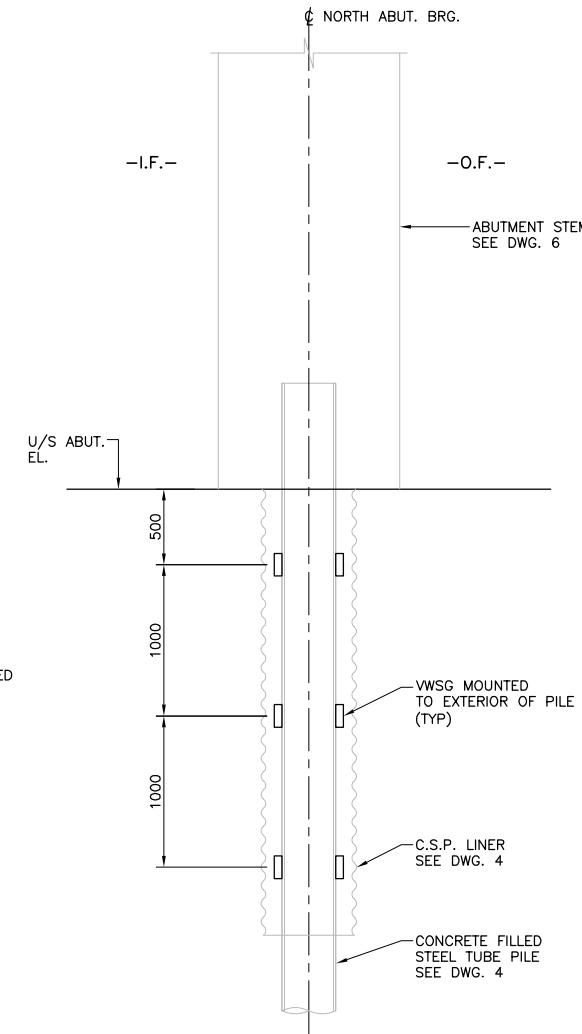
**PROPOSED INSTRUMENTATION LAYOUT**  
1:50 (NORTH ABUTMENT ONLY)



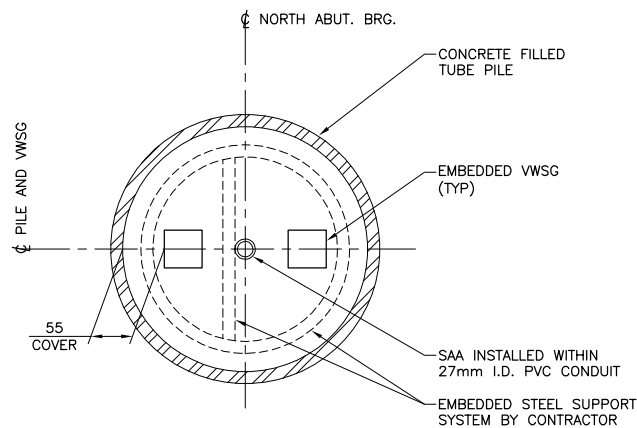
**A**  
1:25  
**VIBRATING WIRE PRESSURE CELLS**



**B**  
1:25  
**SHAPE ACCELEROMETER ARRAY AND EMBEDDED VIBRATING WIRE STRAIN GAUGES**



**C**  
1:25  
**EXTERNALLY MOUNTED VIBRATING WIRE STRAIN GAUGES**



**1**  
SECTION  
1:5

**LIST OF ABBREVIATIONS**

SAA DENOTES SHAPE ACCELEROMETER ARRAY  
 WVPC DENOTES VIBRATING WIRE PRESSURE CELL  
 WVSG DENOTES VIBRATING WIRE STRAIN GAUGE

DISTRICT	CONT. No. 2018-4023	SHEET
	WP No. 4445-02-01	
	HWY 401 UNDERPASS AT FLAGG ROAD	47
	SITE NO. 31X-0203/B0	
	PILE INSTRUMENTATION AND MONITORING SYSTEM	METRIC

**NOTES:**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS 4 AND 6.
- THE CONTRACTOR SHALL DESIGN A MONITORING SHED TO PROTECT ALL INSTRUMENTS AND EQUIPMENT THAT IS NOT EMBEDDED WITHIN THE STRUCTURE OR ROUTED THROUGH CONDUITS. THE MONITORING SHED SHALL BE LOCATED A MINIMUM OF 10m FROM THE STRUCTURE AND ROADWAYS.
- THE CONTRACTOR SHALL DETERMINE THE APPROPRIATE NUMBER, SIZE, AND LOCATION OF CONDUITS REQUIRED FOR ROUTING THE INSTRUMENT CABLES INTO TRENCHES BETWEEN THE STRUCTURE AND MONITORING SHED IN ACCORDANCE WITH OPSS 603. ALL CONDUITS CONNECTED TO THE STRUCTURE SHALL HAVE WOBBLE JOINTS ADJACENT TO THE STRUCTURE IN ACCORDANCE WITH OPSS 2102.0100 AND 2102.0200.
- THE CONTRACTOR SHALL DESIGN AN EMBEDDED STEEL SUPPORT SYSTEM TO SUPPORT THE WVSG AND SAA WITHIN THE CONCRETE FILLED TUBE PILE AT THE SPECIFIED LOCATIONS.
- THE SAA SHALL BE LOCATED WITHIN A 27mm INNER DIAMETER PVC CONDUIT. THE CONTRACTOR SHALL ENSURE THAT THE CENTROID OF THE SAA IS ALIGNED WITH THE CENTROID OF THE TUBE PILE BEFORE, DURING, AND AFTER CONCRETE PLACEMENT.
- THE SAA SHALL BE POSITIONED SUCH THAT THE SENSORIZED PORTION OF THE INSTRUMENT EXTENDS TO THE TOP OF THE PILE.
- CONCRETE COVER TO EMBEDDED WVSGS WITHIN THE TUBE PILES SHALL BE 55mm.
- ALL INSTRUMENTS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.
- REFER TO GRADING DRAWINGS FOR EXCAVATION LIMITS.

**APPLICABLE STANDARD DRAWINGS:**

- OPSD 2102.0100 UNDERGROUND RIGID DUCT CONNECTION AT CONCRETE STRUCTURE  
 OPSD 2102.0200 UNDERGROUND RIGID DUCT CONNECTION AT CONCRETE STRUCTURE WITHOUT EXPANSION JOINT



DRAWING NOT TO BE SCALED  
100mm ON ORIGINAL DRAWING

REVISIONS	DESCRIPTION

DESIGN MJPM	CHK JM	CODE S6-14	LOAD CL-625-ONT	DATE JAN 2019
DRAWN BG	CHK ZM	SITE 31X-0203/B0		DWG P23