

GENERAL CIVIL CONSTRUCTION

1. THE CONTRACTOR IS RESPONSIBLE TO COMPLETE ALL ASPECTS OF THE WORK AS NOTED IN THE CONTRACT. THE CONTRACT DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE TECHNICAL SPECIFICATIONS AND OTHER CONTRACT INFORMATION. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND TECHNICAL SPECIFICATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSULTANT.
2. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS ON THE CONTRACT AND REPORT AND DISCREPANCY TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
3. THE CONTRACT'S GEOTECHNICAL REPORT SHALL GOVERN APPLICABLE ASPECTS OF THE CIVIL WORK AS APPROPRIATE, UNLESS OTHERWISE NOTED.
4. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE, BASED ON AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND DEMARCATÉ THE FIELD LOCATION OF ALL UTILITIES PRIOR TO COMMENCING THE WORK. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF EXISTING UTILITIES AND ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT. UTILITY LOCATES ARE TO BE RENEWED AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND HAVING ON SITE, A COPY OF THE ONTARIO BUILDING CODE, ONTARIO PROVINCIAL STANDARDS, THE LOCAL MUNICIPAL SPECIFICATIONS, AND THE LOCAL UTILITY SERVICES SPECIFICATIONS RELEVANT TO THIS CONTRACT.
5. THE CONTRACTOR SHALL PROVIDE AS-CONSTRUCTED DRAWINGS OF ALL SITE SERVICE INSTALLATION WORKS, INCLUDING KEY SURVEY POINTS AND INFORMATION, COORDINATED WITH THE SITE CONTROL.
6. ALL WATER, SEWER, AND STORMWATER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST PROVINCIAL STANDARDS AND REGULATIONS. THE SERVICE OWNER/OPERATOR'S STANDARDS SHALL TAKE PRECEDENCE OVER OPSD, UNLESS NOTED OTHERWISE.
7. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES WELL IN ADVANCE OF PIPE LAYING IN ORDER TO ENSURE POSITIVE DRAINAGE AS REQUIRED.
8. AS REQUIRED FOR THE WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING THE SUPPLY, INSTALLATION AND REMOVAL OF ALL NECESSARY SIGNAGE, DELINEATORS, MARKERS AND BARRIERS. ALL SIGNS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS IN THE ONTARIO TRAFFIC MANUAL, BOOK 7, TEMPORARY CONDITIONS, AS AMENDED.
9. THE CONTRACTOR IS RESPONSIBLE TO RESTORE, REPAIR, AND/OR REPLACE ANY FEATURES ON SITE DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THE WORK. ANY/ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO PRE-EXISTING CONDITIONS OR AS INDICATED ON THE CONTRACT DRAWINGS.
10. LIMITS OF GRADING MAY VARY FROM THOSE INDICATED, DEPENDING ON THE FIELD CONDITIONS. CONTRACTOR TO COMPLETE GRADING TO THE EXTENT REQUIRED FOR STABLE SLOPES AND PERMANENT RESTORATION OF DISTURBED CONDITIONS.
11. ANY FEATURES THAT ARE IN SUSCEPTIBLE OF BEING UNDERMINED ARE TO BE SUPPORTED ACCORDINGLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE UTILITY POLES BRACED TO THE SATISFACTION OF THE APPROPRIATE UTILITY, AND UNDERGROUND SERVICES SUPPORTED, AS REQUIRED. ALL COSTS ASSOCIATED WITH THE SUPPORTING OF THE WORK SHALL BE CARRIED BY THE CONTRACTOR.
12. REFER TO GEOTECHNICAL REPORT FOR BURIED SERVICE TRENCH BEDDING AND COVER REQUIREMENTS AND FROST PROTECTION. EQUIVALENT INSULATION SHALL BE IN ACCORDANCE WITH GEOTECHNICAL REPORT, OR OBC DIV. B, 1-7.3.2.4.(1) AS AMENDED, IN THE ABSENCE OF GEOTECHNICAL RECOMMENDATION. EQUIVALENT INSULATION SHALL HAVE A UCS OF 35PSI MIN. AND BE INSTALLED CONTINUOUS.
13. ALL NEW WATER, SEWER, AND STORMWATER SERVICES, AND CONNECTIONS TO EXISTING ARE TO BE FLUSHED AND/OR VACUUMED CLEAN PRIOR TO ANY TESTING OF SERVICES, AND PRIOR TO SUBSTANTIAL PERFORMANCE.
14. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MANAGEMENT OF WATER, DEWATERING, SURFACE WATER, PRECIPITATION, AND ANY OTHER WATER CONTROLS NECESSARY FOR THE COMPLETION OF THE WORK. ANY DEWATERING OR TEMPORARY REMOVAL OF WATER FROM THE WORK SHALL BE APPROPRIATELY FILTERED AND CONTROLLED PRIOR TO RELEASE TO THE ENVIRONMENT. ANY PERMITS REQUIRED FOR WATER MANAGEMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
15. REFER TO MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR ANY SERVICES AT/WITHIN BUILDING PERIMETER.

WATER SUPPLY

1. REFER TO CIVIL AND/OR MECHANICAL DRAWINGS FOR ANY WATER SERVICE REQUIREMENTS. ALL WORK TO MEET AUTHORITY REQUIREMENTS.
2. THE INSTALLATION OF ANY EQUIPMENT ASSOCIATED WITH THE WATER SUPPLY SHALL MEET THE REQUIREMENTS OF APPLICABLE LEGISLATION AND AUTHORITIES HAVING JURISDICTION.

EROSION & SEDIMENTATION CONTROL

1. ALL TEMPORARY CONTROL DEVICES ARE TO BE PLACED BEFORE CONSTRUCTION COMMENCES, AND MAINTAINED DURING THE COURSE OF THE WORK. CONTROL DEVICES SHALL BE INSPECTED REGULARLY, AND MAINTAINED AS REQUIRED. DAMAGED DEVICES SHALL BE REPLACED WITHOUT DELAY TO ENSURE PROTECTION OF SITE VALUES.
2. THE CONTRACTOR IS TO CONSTRUCT A MUDMAT AT ANY/ALL DEDICATED CONSTRUCTION ENTRANCES, MAINTAINED AS REQUIRED DURING THE CONSTRUCTION PERIOD. ANY SOIL OR DEBRIS TRACKED OFF-SITE SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
3. ALL MANHOLES, CATCHBASINS, OR OTHER STRUCTURES WITH OPENINGS TO SURFACE WATER FLOW SHALL BE PROTECTED FROM SILTATION DURING THE COURSE OF CONSTRUCTION.
4. ANY SOIL STOCKPILES SHALL BE COVERED FOR EROSION CONTROL AND CONTAINED FOR SEDIMENTATION CONTROL DURING THE COURSE OF THE WORK OR DURING ANY WORK STOPPAGES.
5. CONTROL DEVICES SHALL BE REMOVED ONLY ONCE ALL CONSTRUCTION HAS BEEN COMPLETED, ALL VEGETATION HAS BEEN RE-ESTABLISHED, AND PRIOR TO THE END OF THE CONTRACT WARRANTY PERIOD.

SEWERS

1. MUNICIPAL STANDARDS FOR SEWERS SHALL TAKE PRECEDENCE OVER CIVIL SPECIFICATIONS UNLESS NOTED OTHERWISE.
2. SEWER PIPING SHALL BE PVC SDR-35 AND SHALL CONFORM TO CSA B182.2 AND SHALL HAVE INTEGRAL LOCKED-IN GASKET BELL AND SPIGOT JOINTS, UNLESS NOTED OTHERWISE.
3. SEWERS SHALL BE INSULATED AND/OR HEAT TRACED WHERE DEPTH OF INSTALLATION IS LESS THAN FROST PROTECTION DEPTH NOTED IN GEOTECHNICAL REPORT.
4. STORMWATER PIPING TO BE INSULATED ONLY IN LOCATIONS SHOWN ON DRAWINGS.
5. INCLUDE BACKFLOW PREVENTION VALVES ON ALL BUILDING SEWERS AS PER OBC.

CONCRETE

1. THE CONTRACT'S STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL SUPERCEDE THE CIVIL DRAWINGS AND SPECIFICATIONS WITH RESPECT TO CONCRETE WORKS, UNLESS NOTED OTHERWISE.
2. CONCRETE MATERIALS AND METHODS OF CONSTRUCTION TO CONFORM TO CSA A23.1. REFER TO STRUCTURAL DRAWINGS.
3. CONCRETE TESTING TO CONFORM TO CSA A23.2. REFER TO STRUCTURAL DRAWINGS.
4. NON-REINFORCED EXTERIOR SIDEWALKS, CURBS, AND OTHER FLATWORKS TO BE EXPOSURE CLASS C-2; MINIMUM 32MPa AT 28 DAYS, MAXIMUM WATER TO CEMENT RATIO OF 0.45, 20M AGGREGATE WITH 5-8% ENTRAINED AIR, BROOM FINISH.
5. REINFORCED EXTERIOR CONCRETE WORK TO BE EXPOSURE CLASS C-1; MINIMUM 35MPa AT 28 DAYS, MAXIMUM WATER TO CEMENT RATIO OF 0.40, 20M AGGREGATE WITH 5-8% ENTRAINED AIR, BROOM FINISH.

ASPHALT PAVING

1. NEW ASPHALT PAVING SHALL BE AS NOTED IN GEOTECHNICAL REPORT. ENSURE ALL MATERIAL AND BASE SURFACES ARE NOT FROZEN PRIOR TO PLACEMENT.
2. ALL EXISTING ASPHALT EDGES SHALL BE SAW CUT CLEAN PRIOR TO ANY NEW ASPHALT PAVING JOINING, ROUT AND SEAL EDGES WHERE REQUIRED.
3. BEVEL ASPHALT PAVING EDGES ADJACENT TO GRANULAR SURFACES. SEAL INTERFACES OF ASPHALT TO CONCRETE & OTHER FEATURES ACCORDINGLY.
4. KEEP VEHICULAR TRAFFIC AND OTHER HEAVY LOADS OFF NEW PAVING FOR 24 HOURS MINIMUM. REPAIR ANY AREAS OF DAMAGE AS REQUIRED AT CONTRACTOR'S COST.
5. PAVEMENT MARKINGS/PAINTING SHALL CONFORM TO OPS5 710.

SITE RESTORATION

1. ALL AREAS OF SITE REQUIRING REVEGETATION SHALL BE RESTORED IN ACCORDANCE WITH MUNICIPAL STANDARDS.
2. ANY/ALL AREAS DISTURBED DURING CONSTRUCTION TO BE RESTORED ACCORDINGLY.

GEOTECHNICAL

1. SITE SPECIFIC GEOTECHNICAL INFORMATION HAS BEEN PROVIDED BY GHD IN THEIR "GEOTECHNICAL INVESTIGATION REPORT PROPOSED NEW FIRE HALL BUILDING - 988 COUNTY ROAD 10, MILLBROOK, ONTARIO", DATED MARCH 17, 2022.
2. SITE SPECIFIC GEOTECHNICAL INFORMATION HAS BEEN UPDATED BY GHD IN THEIR "ADDENDUM #1 - GEOTECHNICAL INVESTIGATION REPORT PROPOSED NEW FIRE HALL BUILDING - 988 COUNTY ROAD 10, MILLBROOK, ONTARIO", DATED APRIL 8, 2022.

ENVIRONMENTAL

1. THE CONTRACTOR IS RESPONSIBLE TO MANAGE ANY SOIL MATERIALS DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH O. REG. 406/19, ON-SITE AND EXCESS SOIL MANAGEMENT, AS AMENDED. REFER TO ENVIRONMENTAL AND/OR GEOTECHNICAL REPORTS ASSOCIATED WITH THE WORK. ALL ASSOCIATED COSTS TO BE INCLUDED IN THE BID PRICE.

PERMITTING & APPROVALS

1. UNLESS OTHERWISE NOTED OR PROVIDED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR IS RESPONSIBLE TO APPLY FOR, PAY FOR, SECURE, AND ADHERE TO ALL RELEVANT PERMITS AND/OR APPROVALS FROM ANY AUTHORITY HAVING JURISDICTION AS APPLICABLE TO THE WORK.

SURVEY

1. PROPERTY SURVEY OBTAINED BY ELLIOTT AND PARR JOB "21-19-339.01" DATED NOVEMBER 1, 2021. TOPOGRAPHIC DATA OBTAINED FROM BENINGER LAND SURVEYORS JOB "26985 CAVAN 86" DATED JULY 23, 2015.

SIGNAGE & MARKINGS

1. SITE SIGNAGE AND OTHER SUCH MARKINGS AND INDICATORS SHALL BE AS PER THE CONTRACT DRAWINGS AND AUTHORITIES HAVING JURISDICTION.
2. SIGNAGE AND MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE LEGISLATION UNLESS OTHERWISE NOTED.
3. SIGNAGE AND MARKINGS MAY BE INSTALLED ON PERMANENT SITE FIXTURES INSTEAD OF STANDARD POSTS ONLY WITH OWNER'S APPROVAL.



ABBREVIATIONS - GENERAL

AC	ASPHALT COATED, ASPHALT CURB OR ASPHALT CEMENT
AG	ASPHALT GUTTER
ASTM	ASTM INTERNATIONAL
A S/W	ASPHALT SIDEWALK
BCA	BELL CABLE AERIAL
BCU	BELL CABLE UNDERGROUND
BM	BENCHMARK
BWF	BARBED WIRE FENCE
CB	CATCH BASIN
CBMH	CATCH BASIN/MAINTENANCE HOLE
CC	CONCRETE CURB
C/C	CENTRE TO CENTRE
CC&G	CONCRETE CURB WITH GUTTER
CG	CONCRETE GUTTER
CJ	CONSTRUCTION JOINT
CLF	CHAIN LINK FENCE
CSP	CORRUGATED STEEL PIPE
C S/W	CONCRETE SIDEWALK
C/W	COMES WITH
CWB	CANADIAN WELDING BUREAU
DI	DITCH INLET OR DUCTILE IRON DIAMETER
Ø	DIAMETER
DICB	DITCH INLET CATCH BASIN
EP	EDGE OF PAVEMENT
FL	FENCE LINE
HP	HIGH POINT
HW	HEADWALL
HWL	HIGH WATER LEVEL
HWM	HIGH WATER MARK
HWY	HIGHWAY
HYD	HYDRANT
IB	IRON BAR
MH	MAINTENANCE HOLE
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTRE
OG	ORIGINAL GROUND
OPSD	ONTARIO PROVINCIAL STANDARD DRAWING
OPSS	ONTARIO PROVINCIAL STANDARD SPECIFICATION
PL	PROPERTY LINE
PVC	POLYVINYL CHLORIDE
ROW	RIGHT-OF-WAY
SBGR	STEEL BEAM GUIDE RAIL
T/A	TOP OF ASPHALT
T/C	TOP OF CONCRETE
T/G	TOP OF GRATE
TL	TREELINE
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
W	WATER MAIN
WL	WATER LEVEL
WT	WATER TABLE
WWF	WELDED WIRE FABRIC

LEGEND

MONUMENT FEATURES

- IRON BAR / PROPERTY BAR: ■
- BENCHMARK LOCATION: ΔBM
- SURFACE ELEVATION: EXISTING (e.g., 228.42), PROPOSED (e.g., 228.42)
- SURFACE SLOPE: 2.0%
- SLOPE: [Symbol]
- MAJOR CONTOUR: 230.00
- MINOR CONTOUR: 230.50

RIGHT-OF-WAY FEATURES

- PROPERTY BOUNDARY: [Symbol]
- CITY, TOWN OR VILLAGE BOUNDARY: [Symbol]
- LOT LINE: [Symbol]

MISC. FEATURES

- DIRECTION OF TRAFFIC: [Symbol]
- GEOTECHNICAL BOREHOLE: [Symbol] BH101-17
- RAILWAY: [Symbol]
- WALKWAY, TRAIL, PATH: [Symbol]

CONSTRUCTION FEATURES

- LIGHT DUTY SILT FENCE: [Symbol]
- ASPHALT PAVING: [Symbol]
- BUILDING/STRUCTURE: [Symbol]
- RIP-RAP SLOPE PROTECTION: [Symbol]
- BACKFILL: [Symbol]
- CONCRETE SECTION: [Symbol]
- GRANULAR 'A' AGGREGATE: [Symbol]
- GRANULAR 'B' AGGREGATE: [Symbol]
- ROCK: [Symbol]

DRAINAGE FEATURES

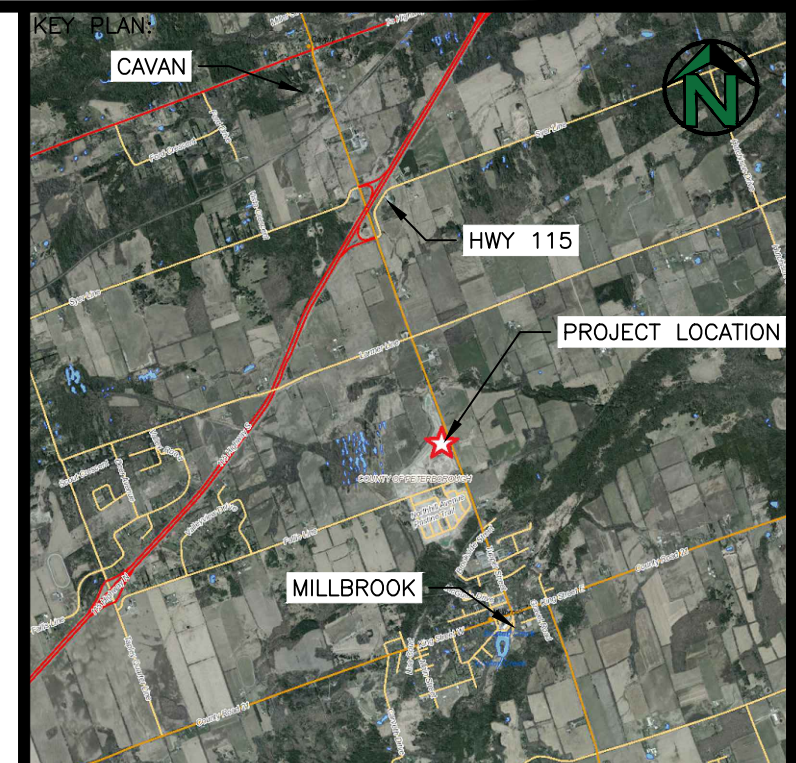
- CATCH BASIN: □ CB
- DITCH INLET: □ DI
- MAINTENANCE HOLE: ○ MH
- CULVERT: [Symbol]
- BOTTOM OF DITCH WITH FLOW: [Symbol]
- STORM SEWER: [Symbol]
- SANITARY SEWER: [Symbol]
- WATERCOURSE: [Symbol]
- WATERBODY: [Symbol]
- WETLAND: [Symbol]
- STORMWATER STORAGE: [Symbol]

BARRIER AND VEGETATION FEATURES

- GATE: [Symbol]
- TREELINE: [Symbol]
- FENCELINE: [Symbol]
- VEGETATED BUFFER AREA: [Symbol]
- GRASSSED AREA: [Symbol]

UTILITY FEATURES

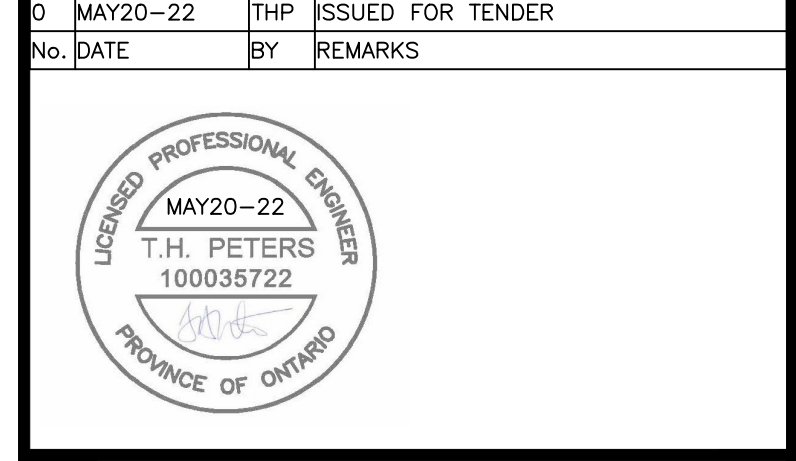
- WATER SUPPLY WELL: [Symbol]
- UTILITY POLE: [Symbol]
- LIGHT STANDARD/LUMINAIRE: ○ LS
- TERMINAL BOX: □ TB
- ANCHOR FOR POLE: [Symbol]
- GAS VALVE: [Symbol]
- WATER VALVE: [Symbol]
- HYDRANT: [Symbol]
- GAS MAIN: [Symbol]
- WATER MAIN: [Symbol]
- FIRE WATER LINE: [Symbol]
- HYDRO CABLE UNDERGROUND: [Symbol]
- UTILITY, OTHER UNDERGROUND: [Symbol]
- OVERHEAD HYDRO: [Symbol]



GENERAL NOTES

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2. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME. THE CONTRACTOR SHALL NOTIFY ALL REQUIRED PARTIES OF ANY INCONSISTENCIES PRIOR TO COMMENCING THE WORK.
3. THE CONTRACTOR SHALL EXAMINE EXISTING SITE CONDITIONS AND REPORT ANY ISSUES PRIOR TO COMMENCING THE WORK.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING THE WORK.
5. THE CONTRACTOR SHALL HAVE THE SOLE RESPONSIBILITY FOR THE DESIGN, ERECTION, OPERATION, MAINTENANCE AND REMOVAL OF TEMPORARY BRACING, SHORING, HOARDING, AND ANY FACILITIES OR METHODS REQUIRED TO KEEP THE CONSTRUCTION SAFE, PLUMB, LEVEL AND IN TRUE ALIGNMENT AT ALL PHASES OF THE WORK UNTIL COMPLETION.

No.	DATE	BY	REMARKS
0	MAY20-22	THP	ISSUED FOR TENDER



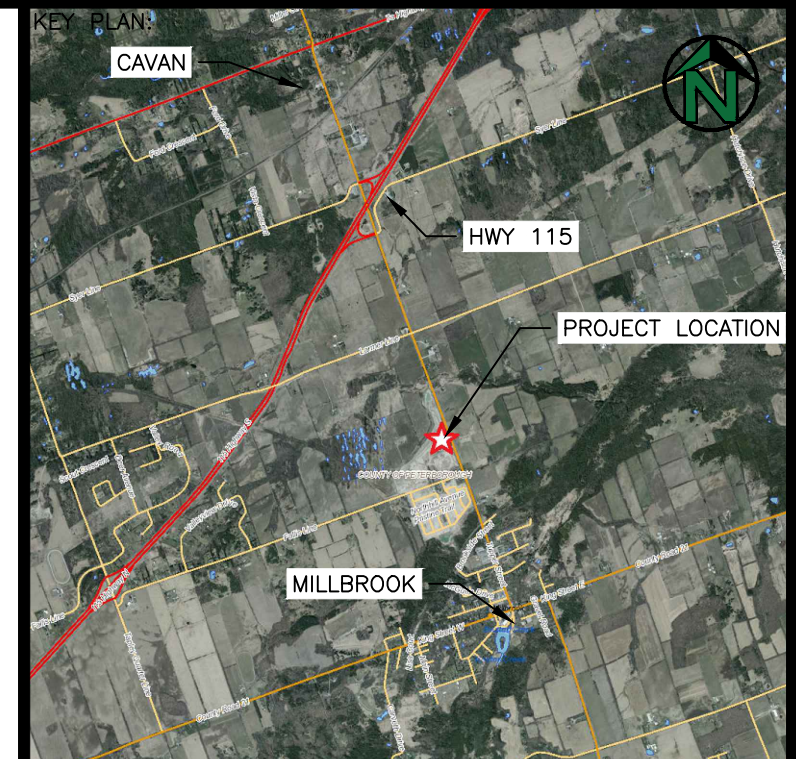
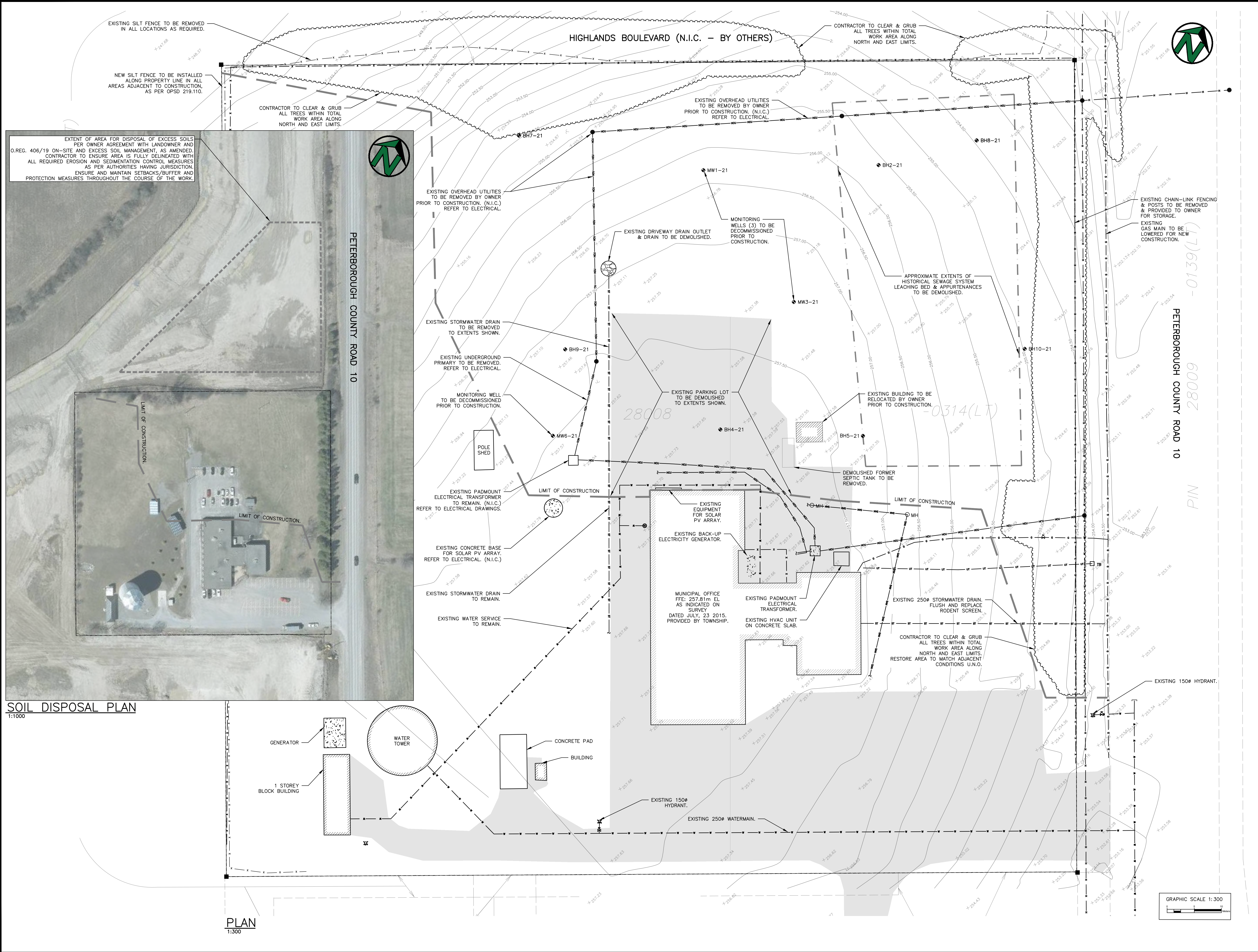
PROJECT:
 NEW FIRE STATION No. 1
 HIGHLANDS BOULEVARD
 MILLBROOK, ON

TITLE:
 CIVIL COVER SHEET
 & NOTES



DESIGNED BY:	DRAWN BY:	APPROVED BY:	DATE:
MAG	MAG	THP	NOV10-21
PROJECT:	164.21.005	PLOT DATE:	MAY19-22

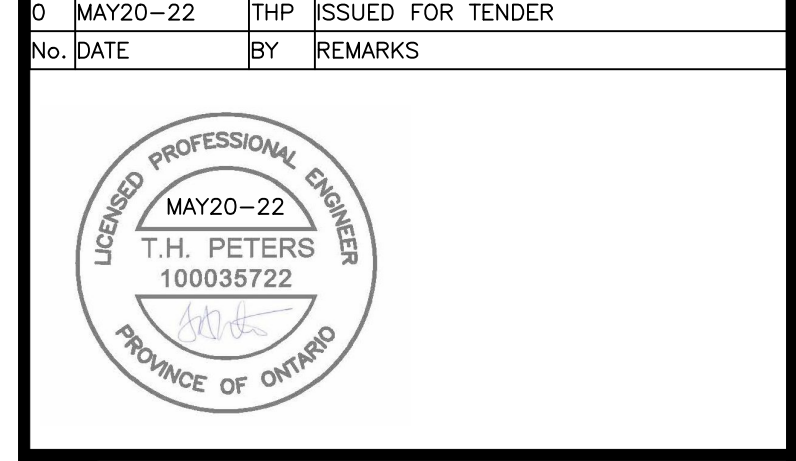
C100



GENERAL NOTES

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No.	DATE	BY	REMARKS
0	MAY20-22	THP	ISSUED FOR TENDER



PROJECT:
**NEW FIRE STATION No. 1
 HIGHLANDS BOULEVARD
 MILLBROOK, ON**

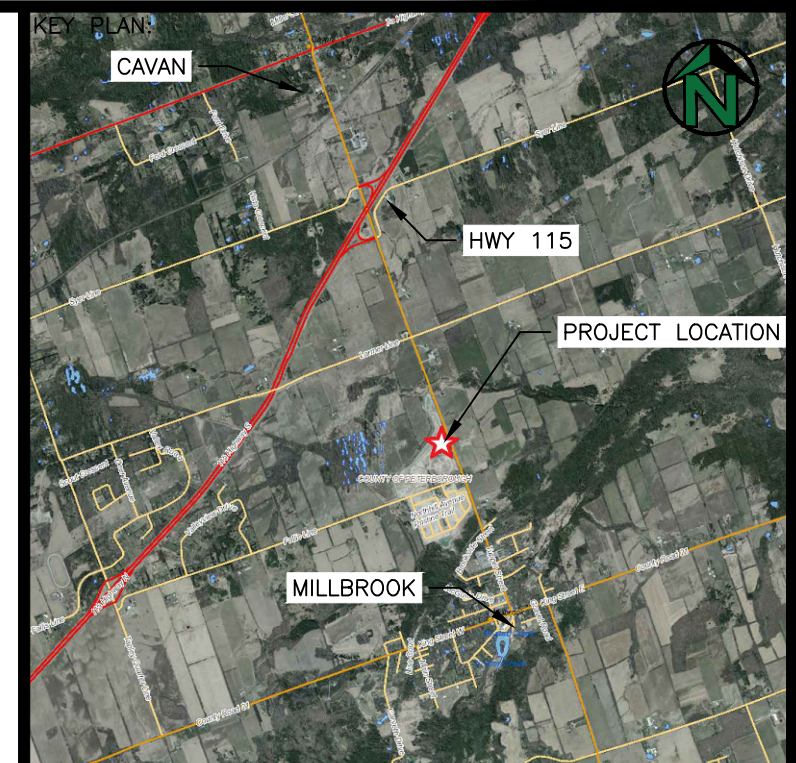
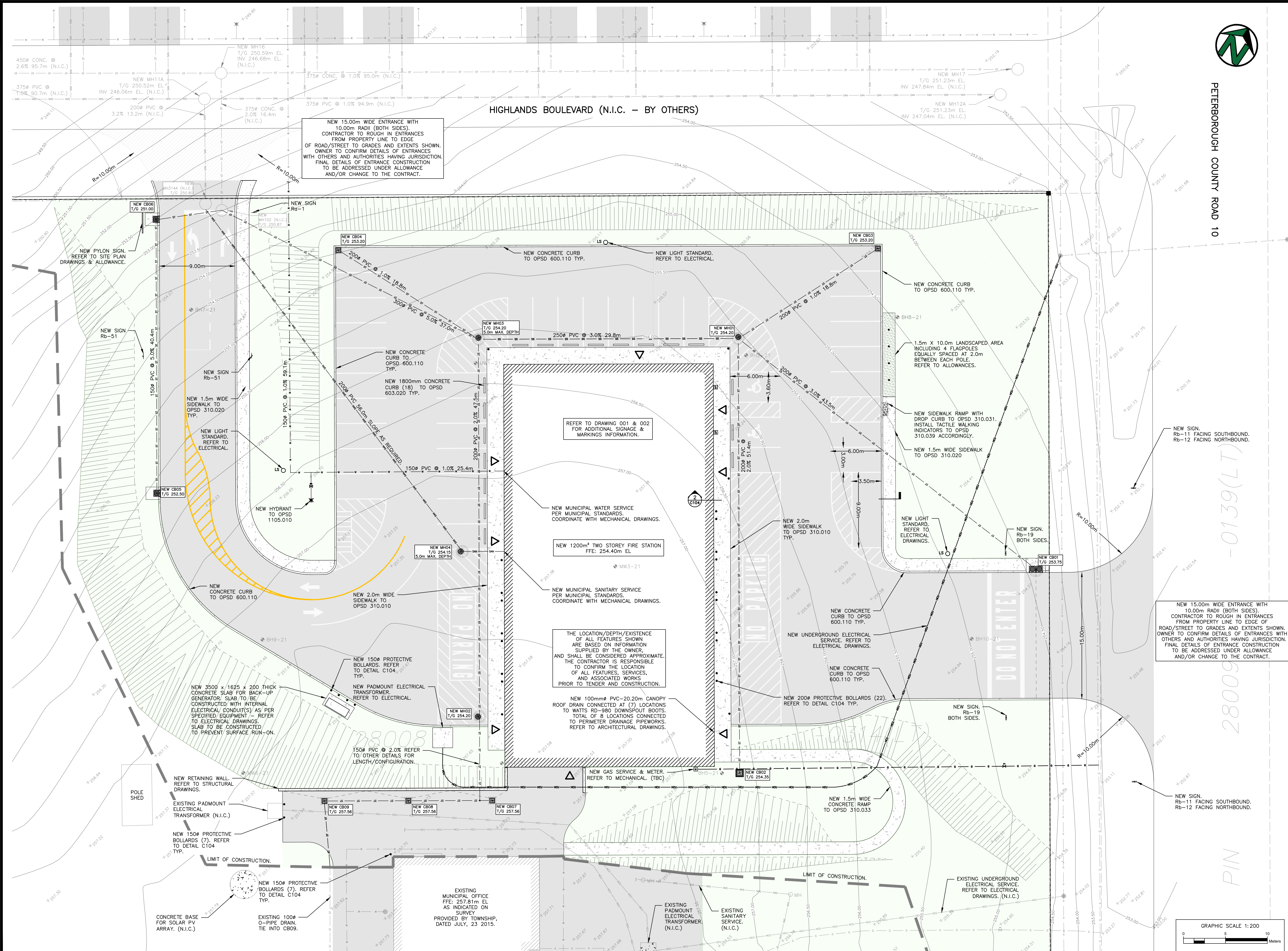
TITLE:
**EXISTING SITE CONDITIONS,
 DEMOLITION, EROSION
 & SEDIMENTATION
 CONTROL PLAN**



DESIGNED BY: MAG DRAWN BY: MAG APPROVED BY: THP DATE: NOV10-21
 PROJECT: 164.21.005 PLOT DATE: MAY19-22

C101

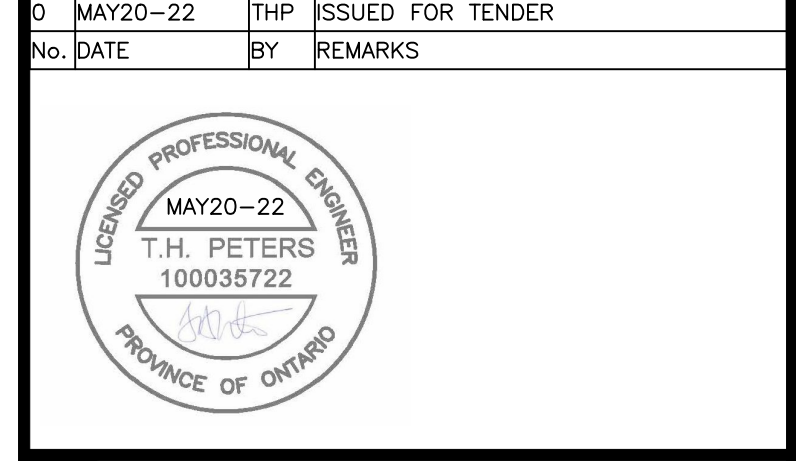
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GENERAL NOTES

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No.	DATE	BY	REMARKS
0	MAY20-22	THP	ISSUED FOR TENDER



CLIENT:
TOWNSHIP OF CAVAN MONAGHAN

PROJECT:
**NEW FIRE STATION No. 1
 HIGHLANDS BOULEVARD
 MILLBROOK, ON**

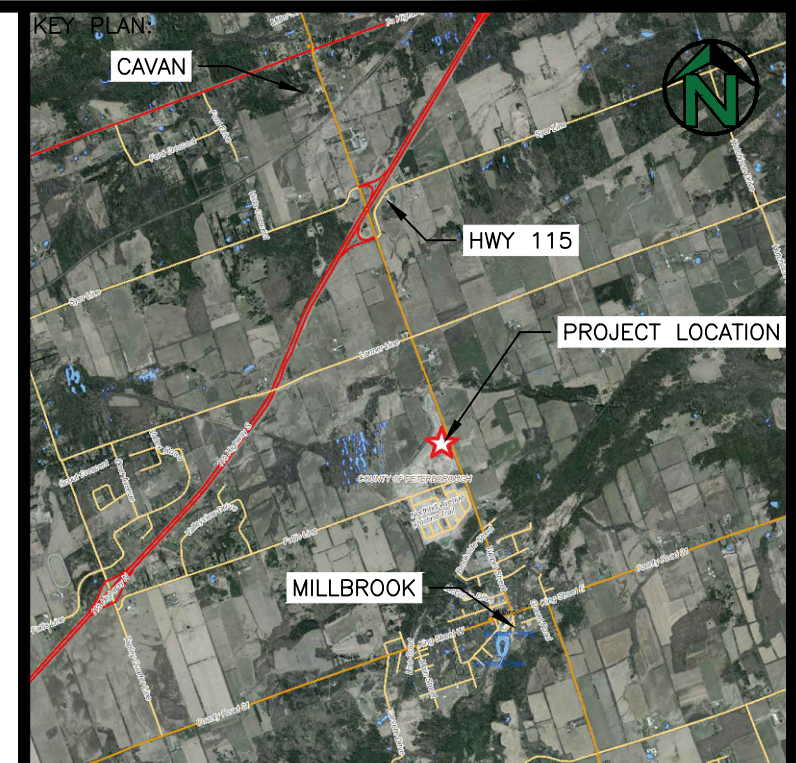
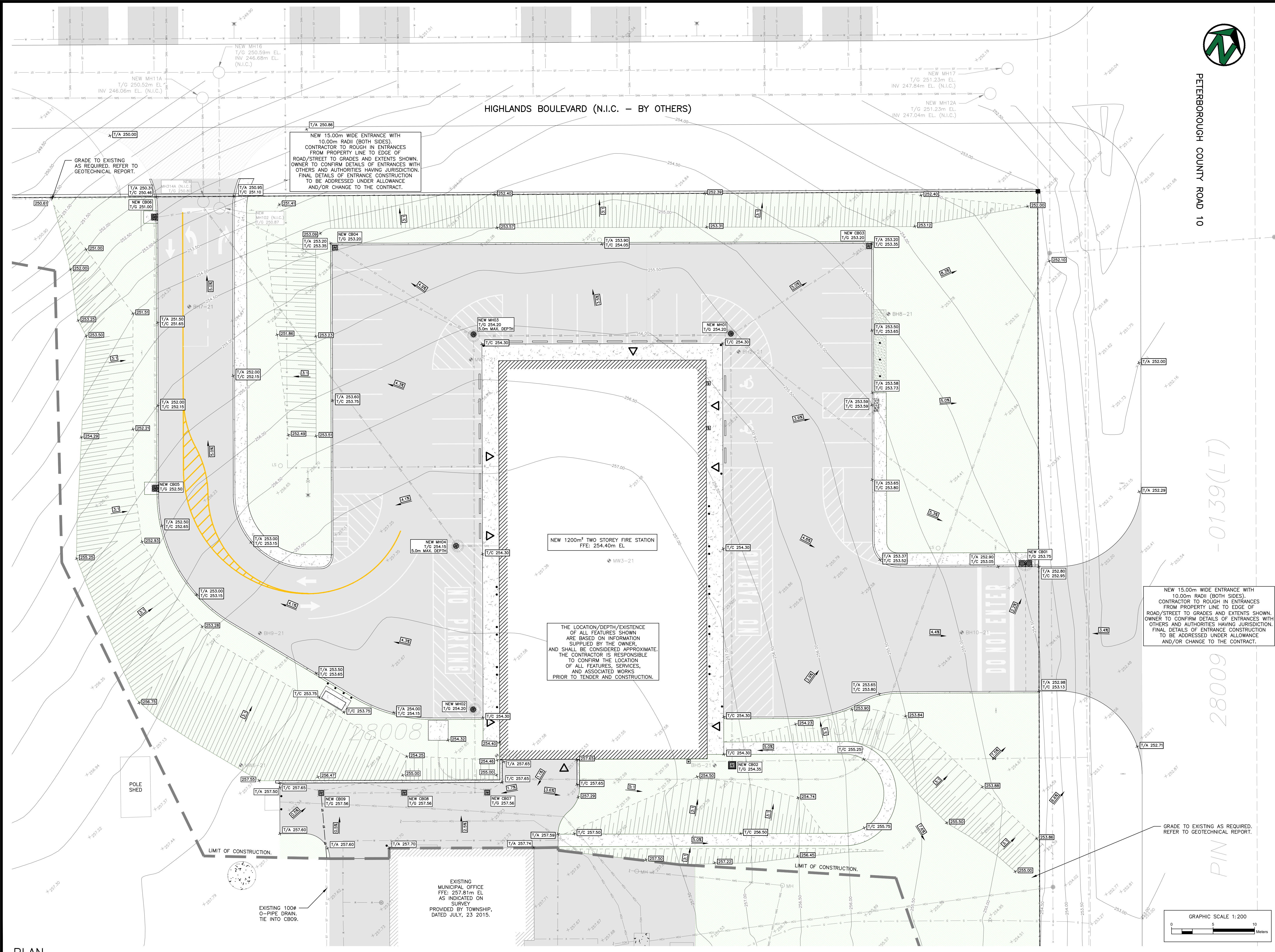
TITLE:
**CIVIL SITE
 SERVICING PLAN**



DESIGNED BY: HSH
 DRAWN BY: MAG
 APPROVED BY: THP
 DATE: NOV10-21

PROJECT: 164.21.005
 PLOT DATE: MAY19-22

C102



GENERAL NOTES

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No.	DATE	THP	ISSUED FOR TENDER
0	MAY20-22	THP	ISSUED FOR TENDER

- 0139(LT)

CLIENT:

PROJECT:

**NEW FIRE STATION No. 1
HIGHLANDS BOULEVARD
MILLBROOK, ON**

TITLE:

**SITE GRADING &
DRAINAGE PLAN**

13 Commerce Court
Brampton, Ontario
613.332.0097
greenview-environmental.ca

DESIGNED BY:	DRAWN BY:	APPROVED BY:	DATE:
HSB	MAG	THP	NOV10-21

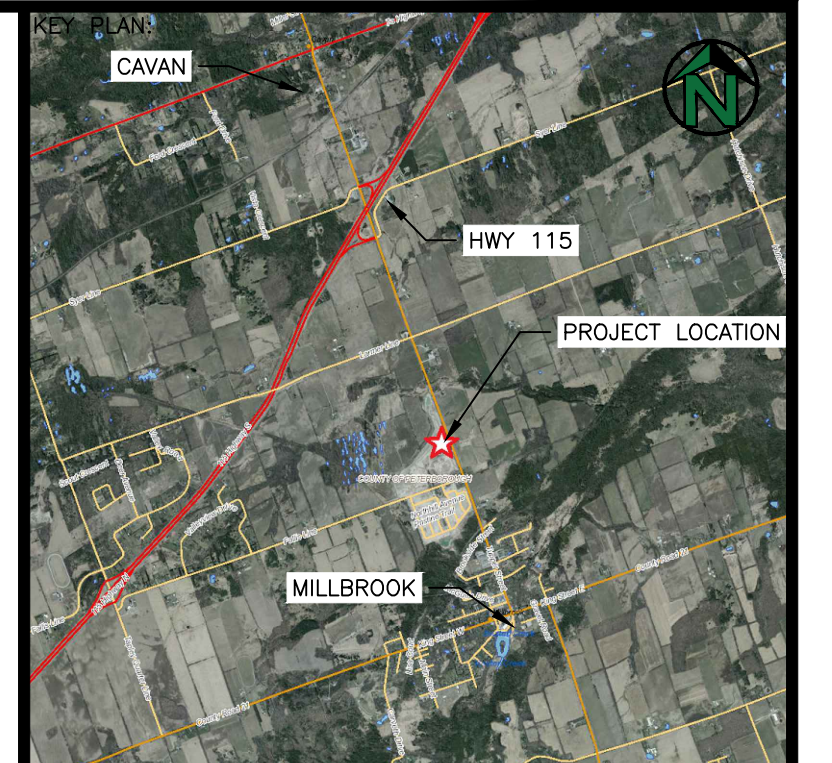
PROJECT: 164.21.005

PLOT DATE: MAY19-22

C103

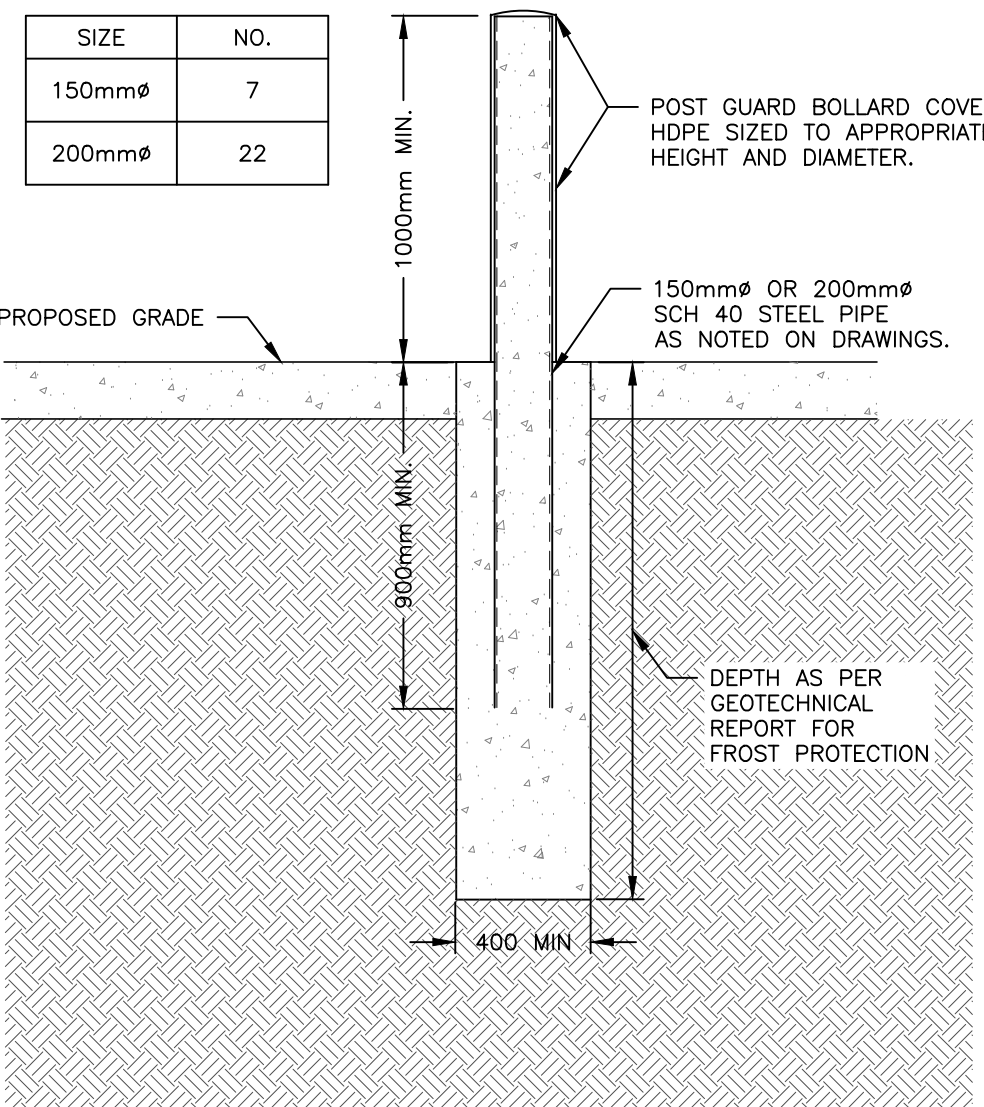
SCHEDULE OF STRUCTURES PER C102

NEW/ EXISTING	I.D.	TYPE	MODEL, OPSD	SURFACE INLET		PIPE OUTLET					PIPE INLET INVERT														
				INVERT	COVER	INVERT	SUMP	TO	DISTANCE	SLOPE (%)	CB01	CB02	CB03	MH01	CB04	C04	MH02	MH03	CB05	CB06	CB07	CB08	CB09	DEPTH TO HIGHEST INVERT	
NEW	CB01	TCI/MH 1.5#	400.082, 401.010, 610.030, 701.011, 703.021	253.58	253.75	251.80	251.50	MH01	43.5	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.77
NEW	CB02	DICB 0.6X0.6 6:1	403.010, 705.030 ALT. A	254.25	254.35	252.72	252.12	MH01	51.4	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.53
NEW	CB03	CB 0.6X0.6	400.020, 705.010 ALT. A	253.20	253.20	251.67	251.07	MH01	19.6	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.53
NEW	MH01	MH 1.2#	401.010, 701.010, 701.030	-	254.20	250.44	250.14	MH03	29.8	3.0	250.49	251.69	251.47	-	-	-	-	-	-	-	-	-	-	-	2.50
NEW	CB07	CB 0.6X0.6	400.020, 705.010 ALT. A	-	257.56	255.90	255.30	MH02	11.2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.53
NEW	CB08	CB 0.6X0.6	400.020, 705.010 ALT. A	-	257.56	255.90	255.30	MH02	18.1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.66
NEW	CB09	CB 0.6X0.6	400.020, 705.010 ALT. A	-	257.56	256.00	255.40	CB08	9.3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONNECTION BY OTHERS
NEW	CB04	CB 0.6X0.6	400.020, 705.010 ALT. A	253.20	-	251.67	251.07	MH03	18.8	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.53
NEW	MH02	MH 1.2#	401.010, 701.010, 701.030	-	254.20	252.20	251.90	MH03	47.5	2.0	-	-	-	-	251.83	-	-	-	-	-	-	-	-	-	2.00
NEW	MH03	MH 1.2#	401.010, 701.010, 701.030	-	254.20	249.50	249.20	CB07	37.0	5.0	-	-	-	249.55	-	251.48	251.27	-	-	-	-	-	-	-	2.71
NEW	CB05	CICB 0.6x0.6	400.082, 401.010, 610.030, 701.010	252.63	252.80	251.27	250.67	CB07	40.4	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.35
NEW	CB06	TCI/MH 1.5#	400.082, 401.010, 610.030, 701.010, 701.030	250.83	251.00	247.60	247.30	OUT	CONNECTION BY OTHERS	-	-	-	-	-	-	-	-	247.65	249.25	-	-	-	-	-	1.57
NEW	MH04	MH 1.2#	401.010, 701.010, 701.030	-	254.15	249.85	249.25	OUT	CONNECTION BY OTHERS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONNECTION TO BUILDING. REFER TO MECHANICAL.

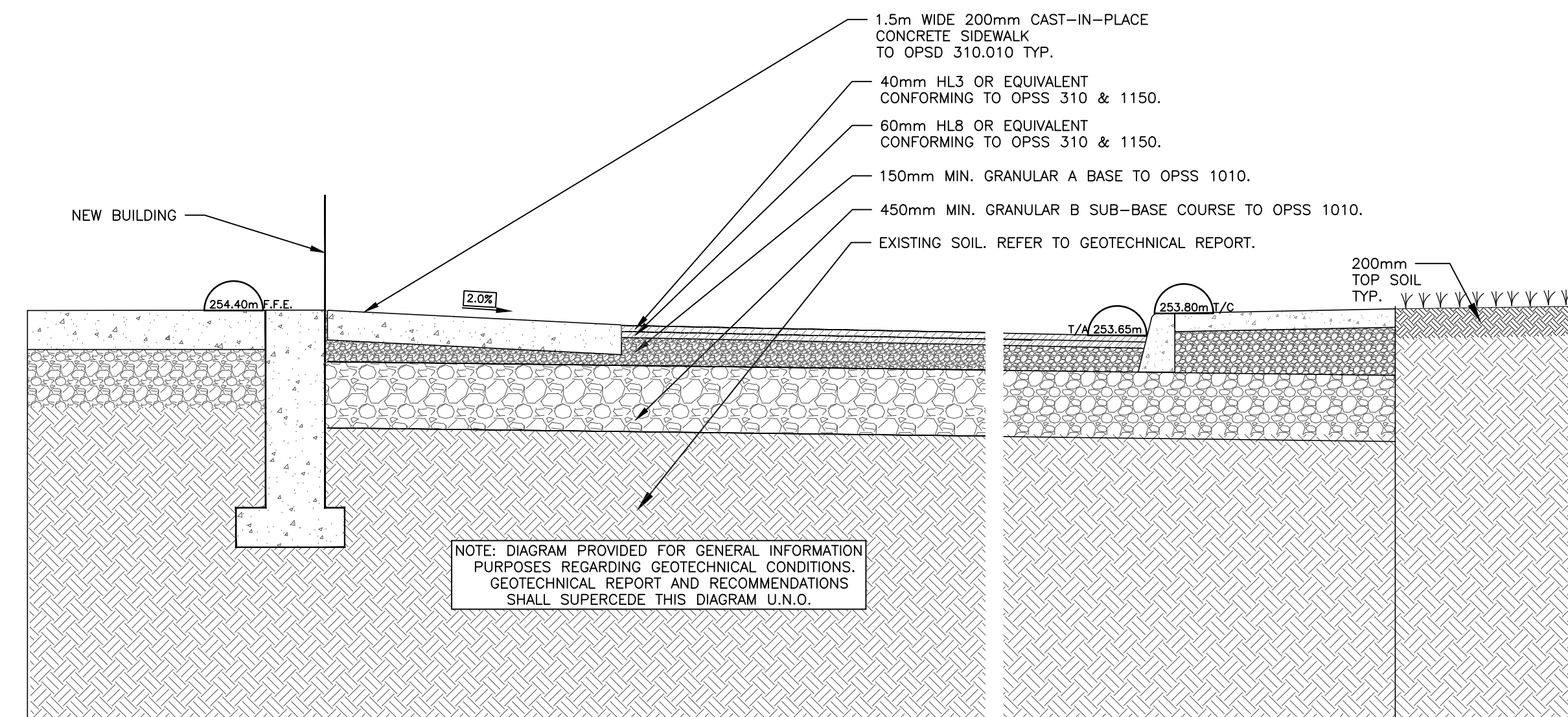


GENERAL NOTES

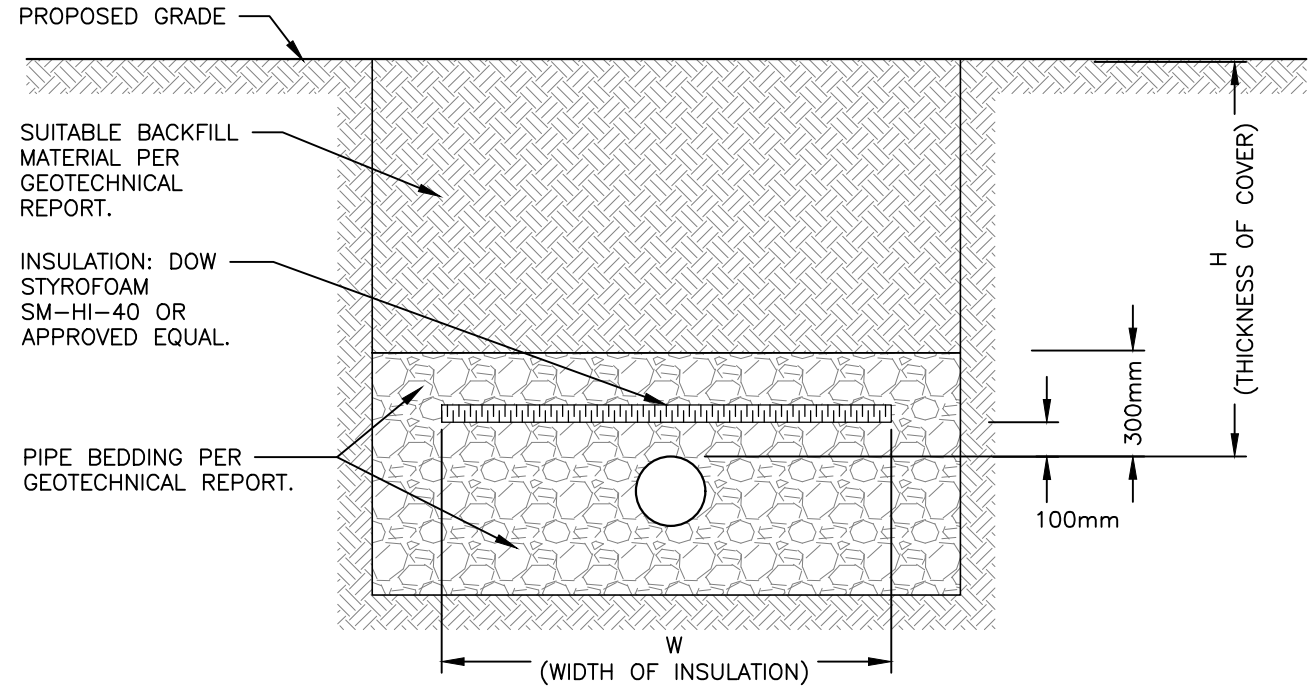
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1 TYPICAL BOLLARD DETAIL
C104 1:20



2 SUBSURFACE EARTHWORKS DIAGRAM TYP.
C104 1:30



3 INSULATION OF PIPES IN SHALLOW TRENCHES
C104 NTS

H (DEPTH OF COVER)	INSULATION THICKNESS	W (WIDTH OF INSULATION)
1500 TO 1800mm	50mm	1200mm + DIAMETER OF PIPE
1200 TO 1500mm	75mm	1800mm + DIAMETER OF PIPE
900 TO 1200mm	100mm	2400mm + DIAMETER OF PIPE

NO PIPE SERVICES SHALL BE BURIED LESS THAN 900MM BELOW PROPOSED FINISHED GRADE. ANY INSTALLATION OF PIPE INSULATION SHALL BE IN CONFORMANCE WITH APPENDIX A-7.3.5.4(1) OF THE OBC UNLESS OTHERWISE SPECIFIED BY ENGINEER.

NO.	DATE	BY	REMARKS
0	MAY20-22	THP	ISSUED FOR TENDER



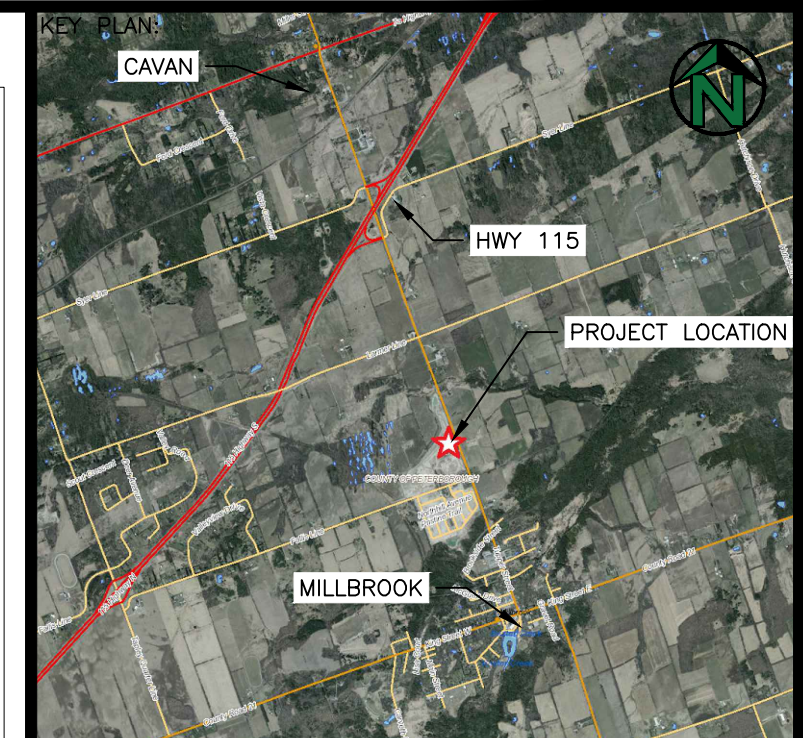
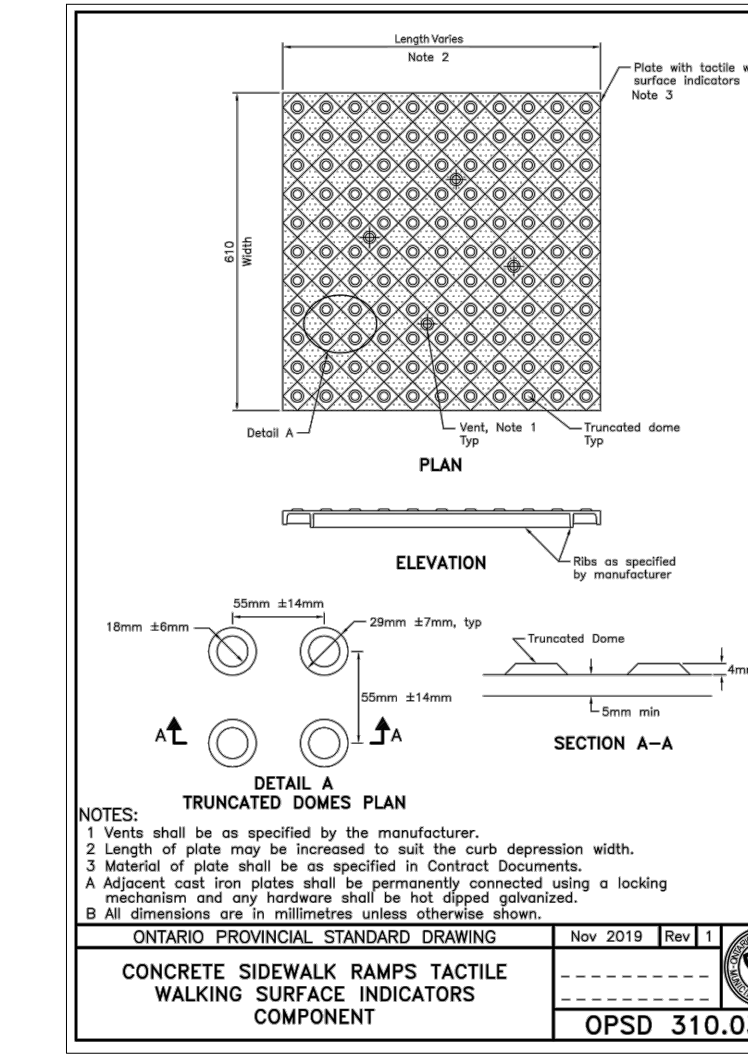
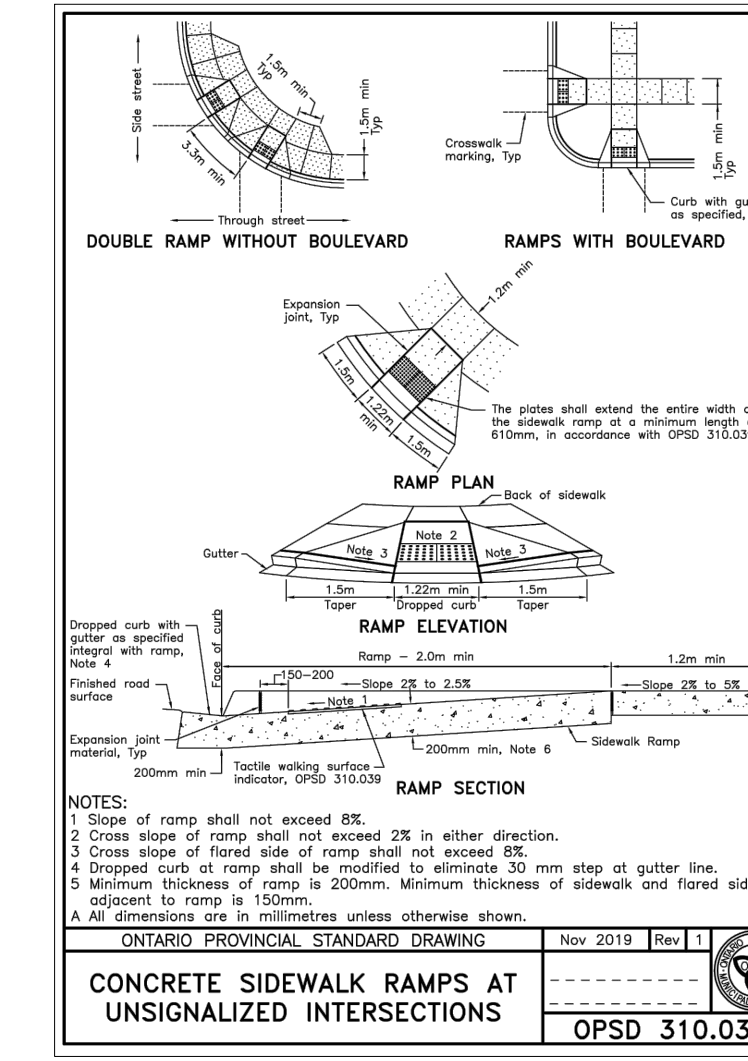
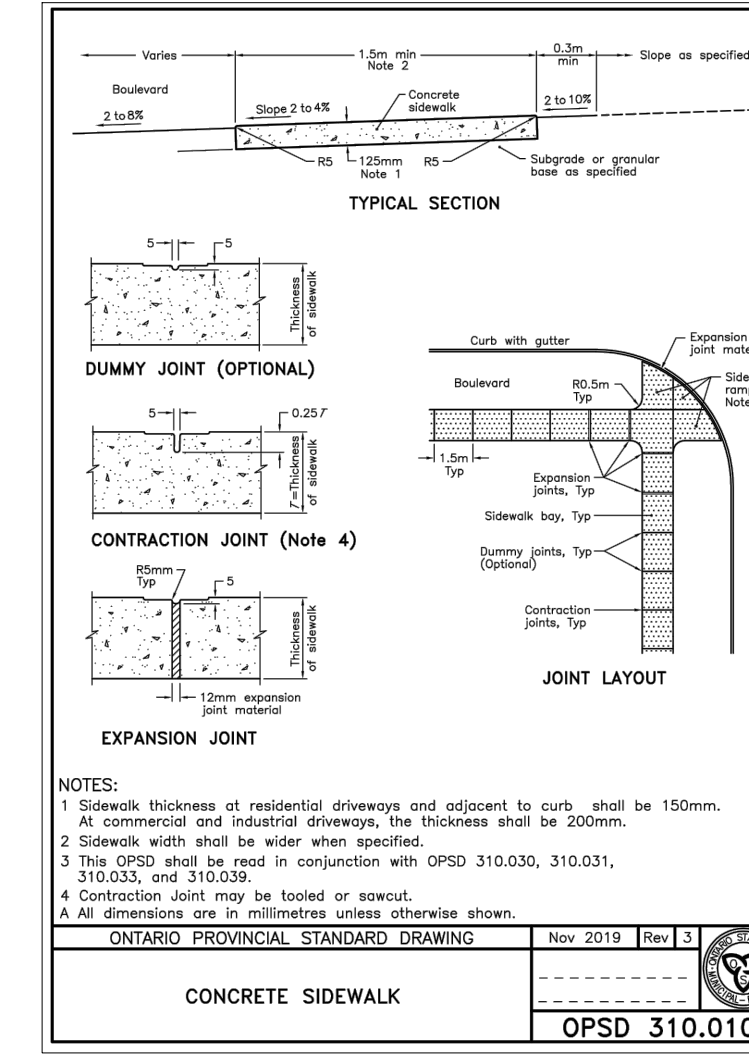
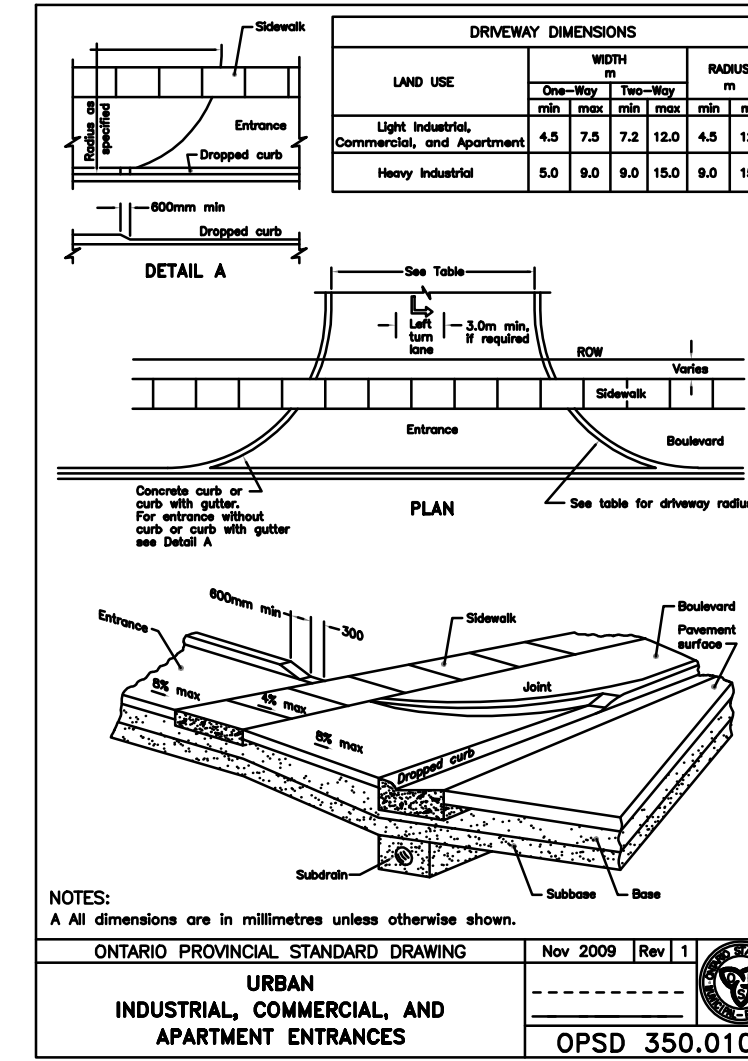
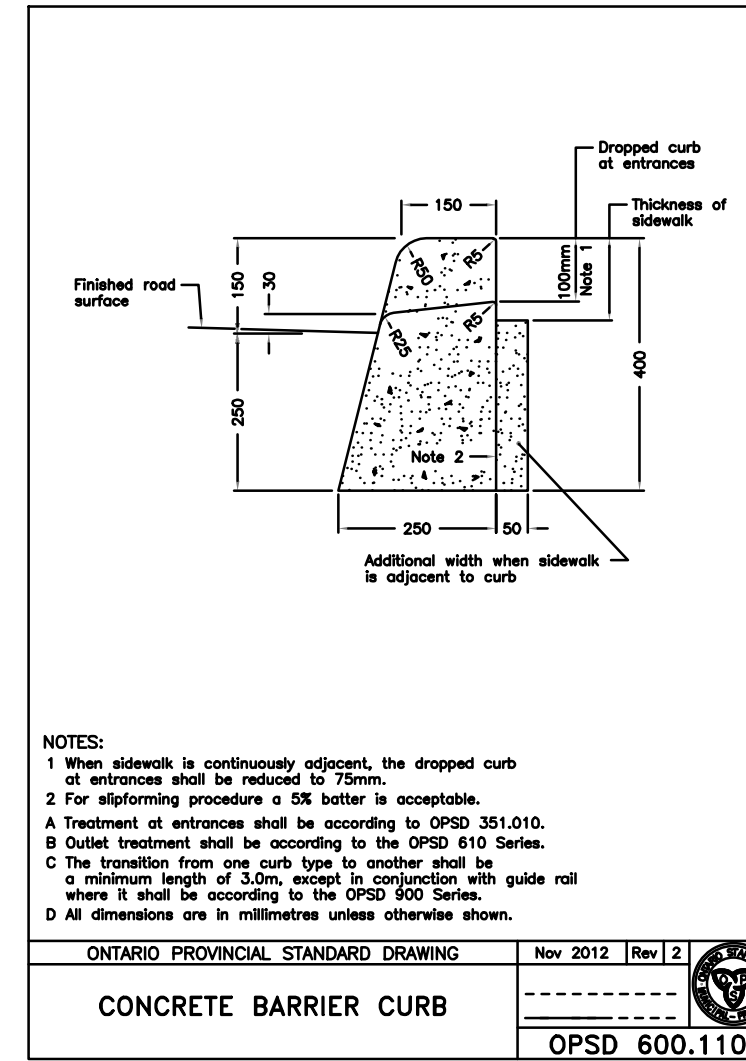
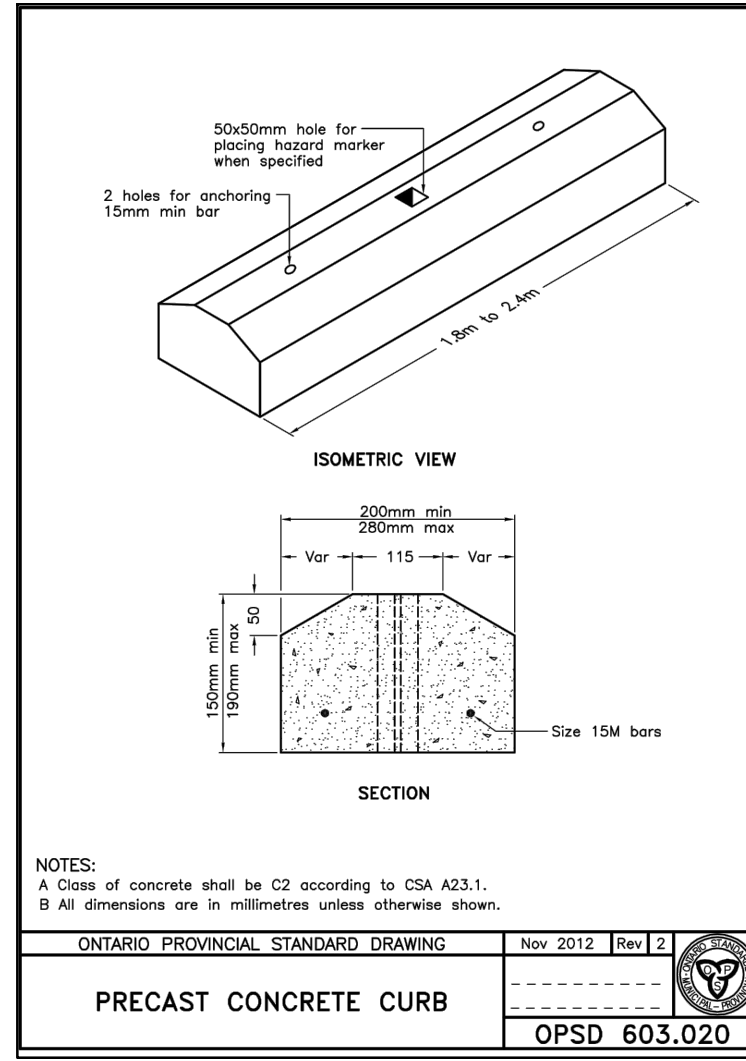
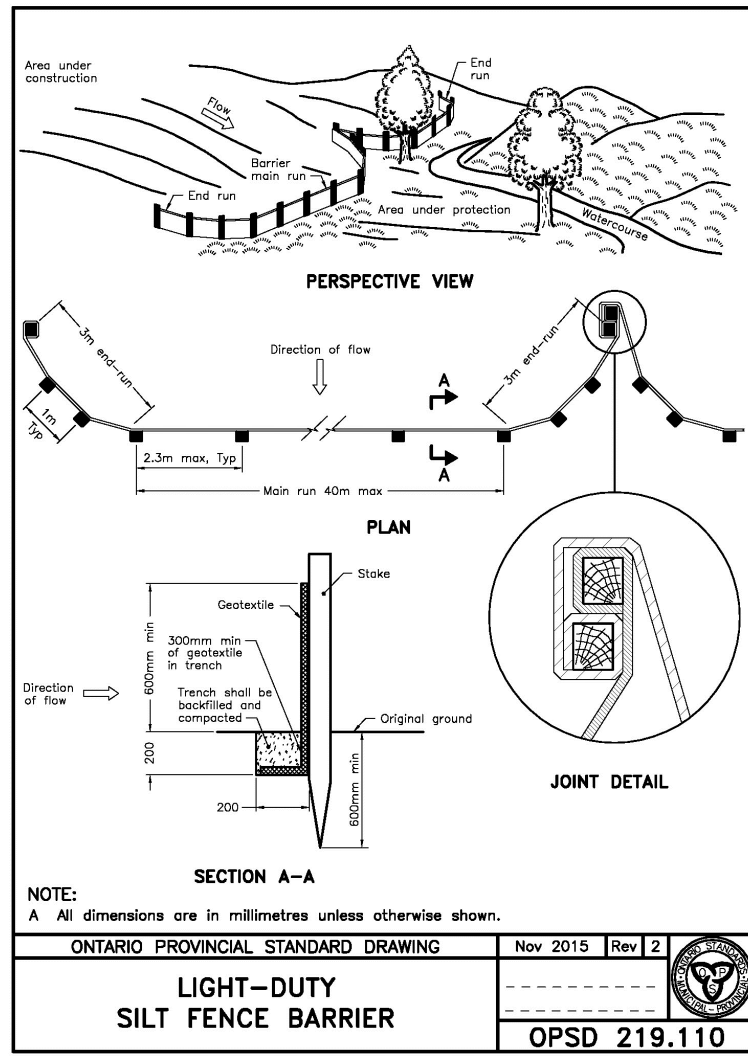
PROJECT:
NEW FIRE STATION No. 1
HIGHLANDS BOULEVARD
MILLBROOK, ON

TITLE:
SCHEDULE & DETAILS



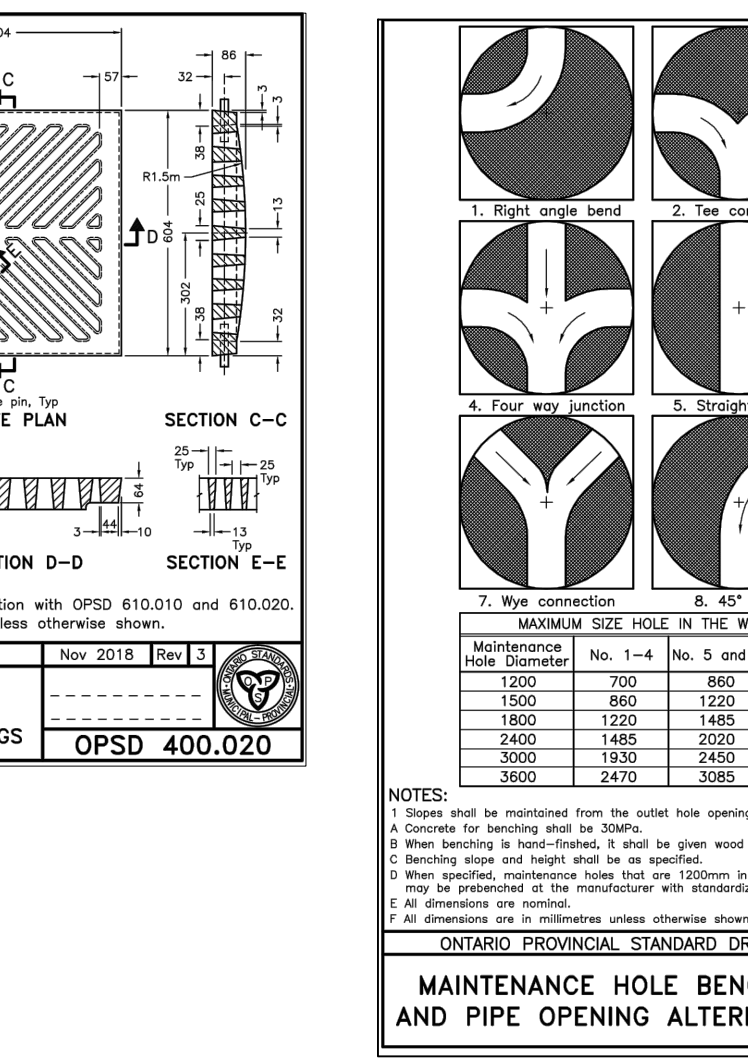
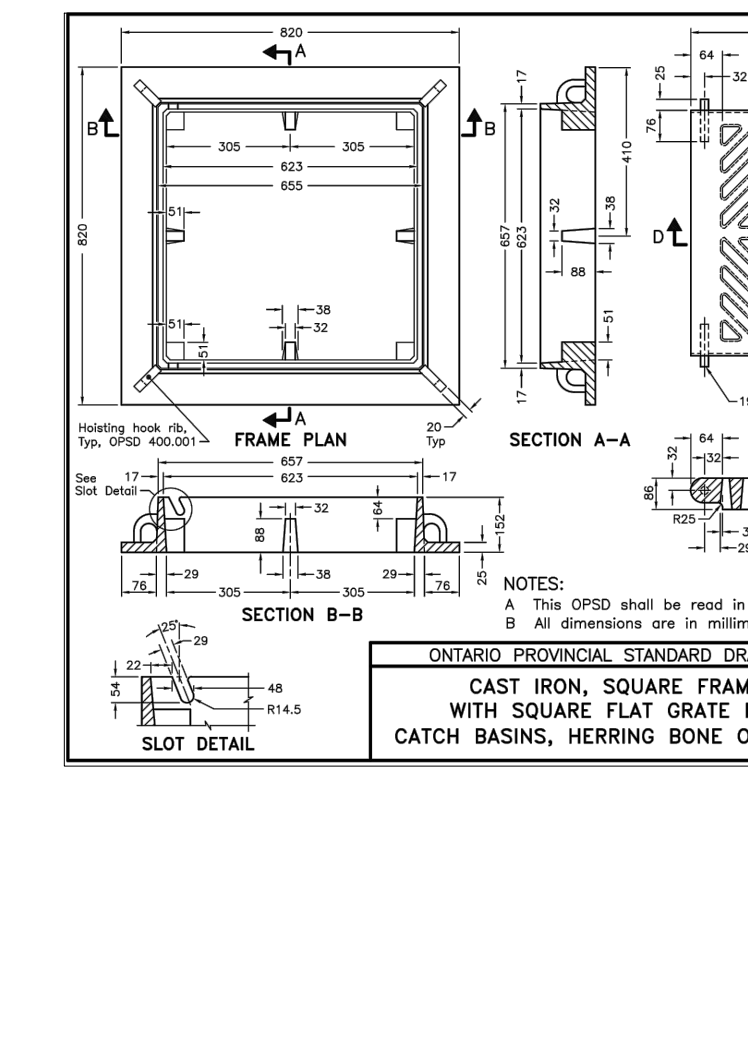
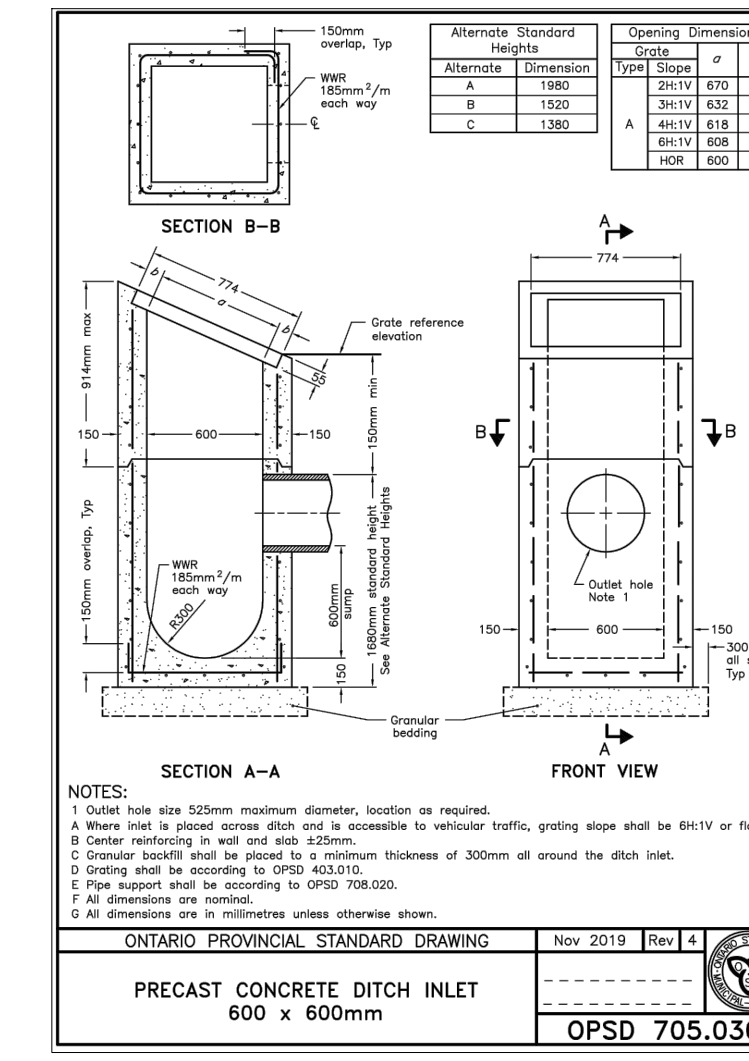
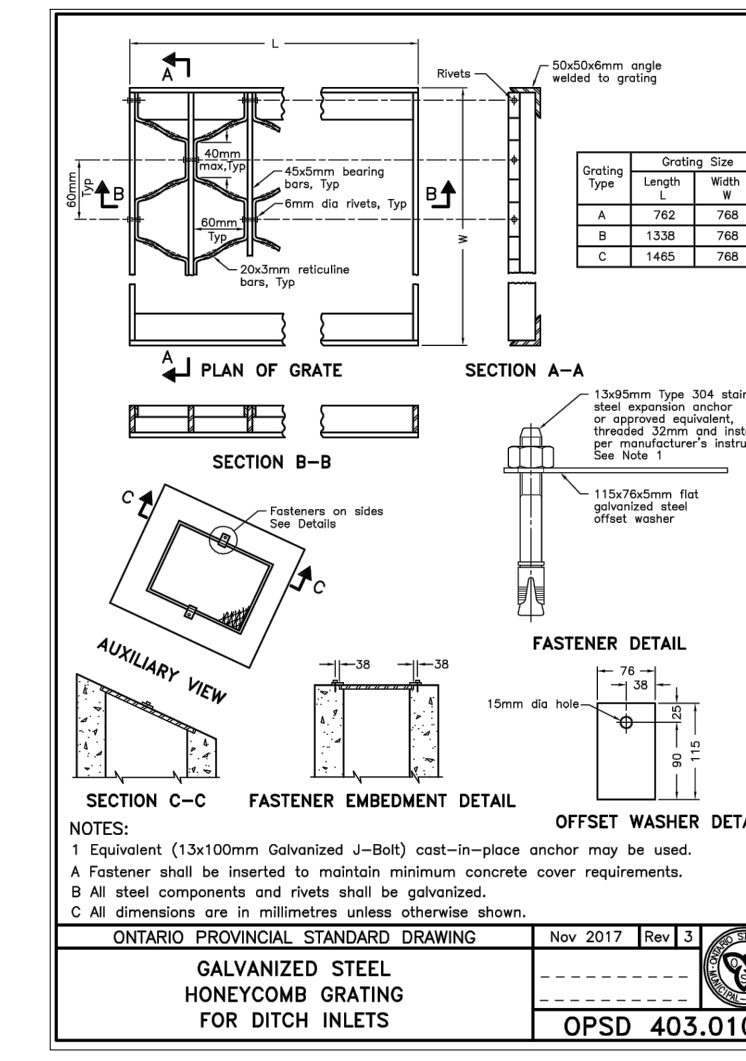
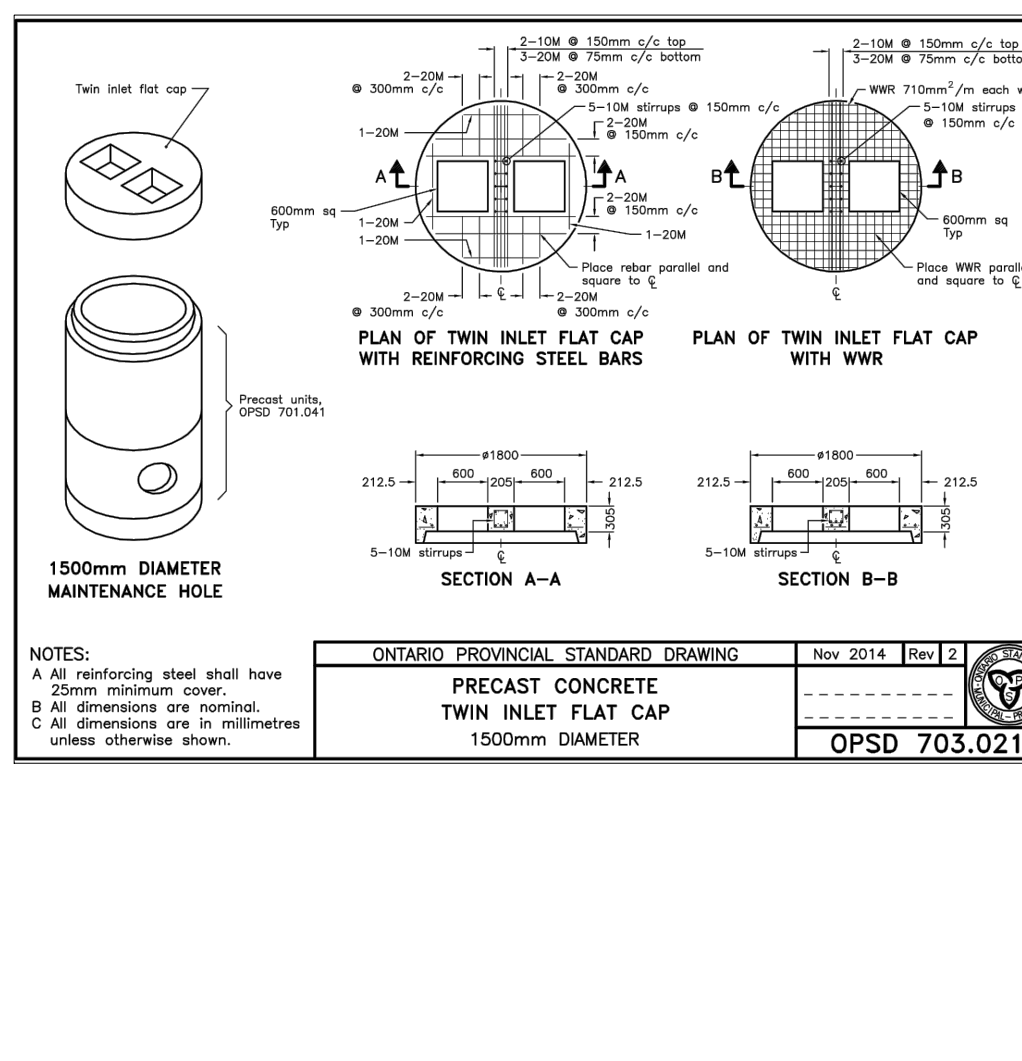
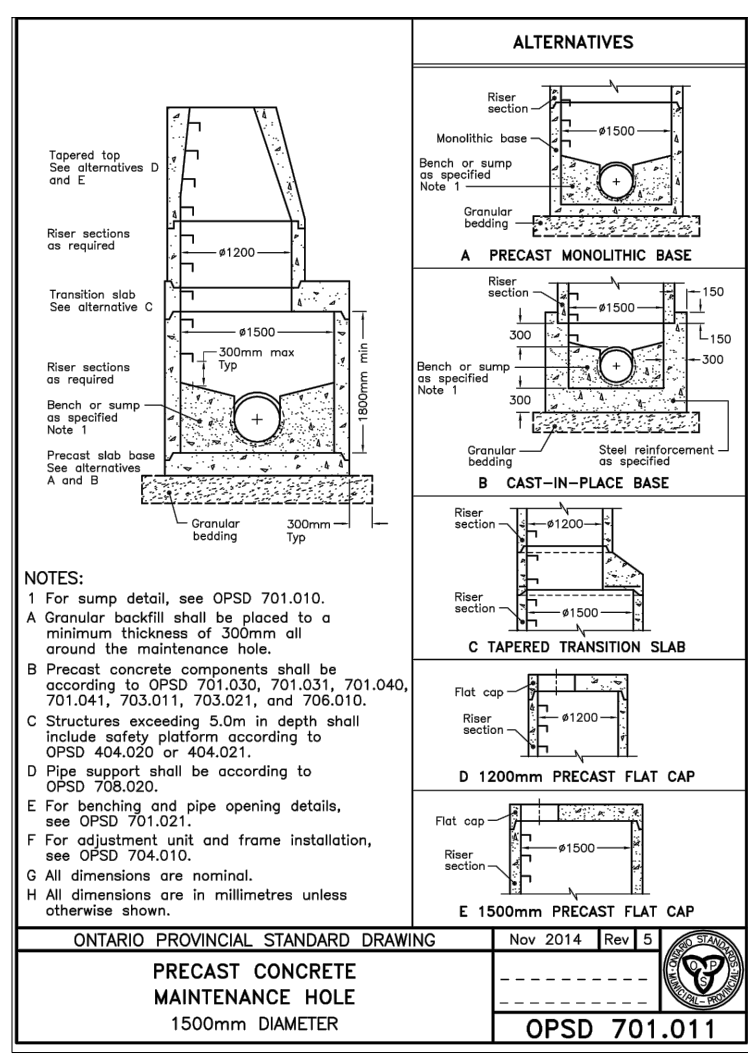
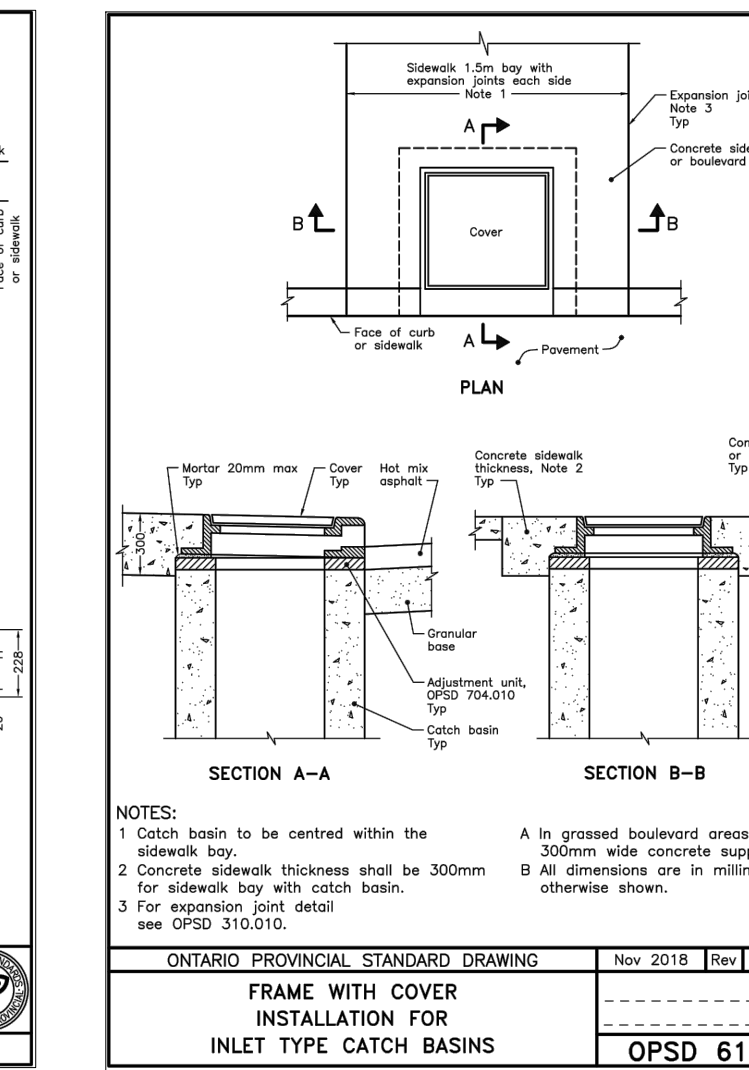
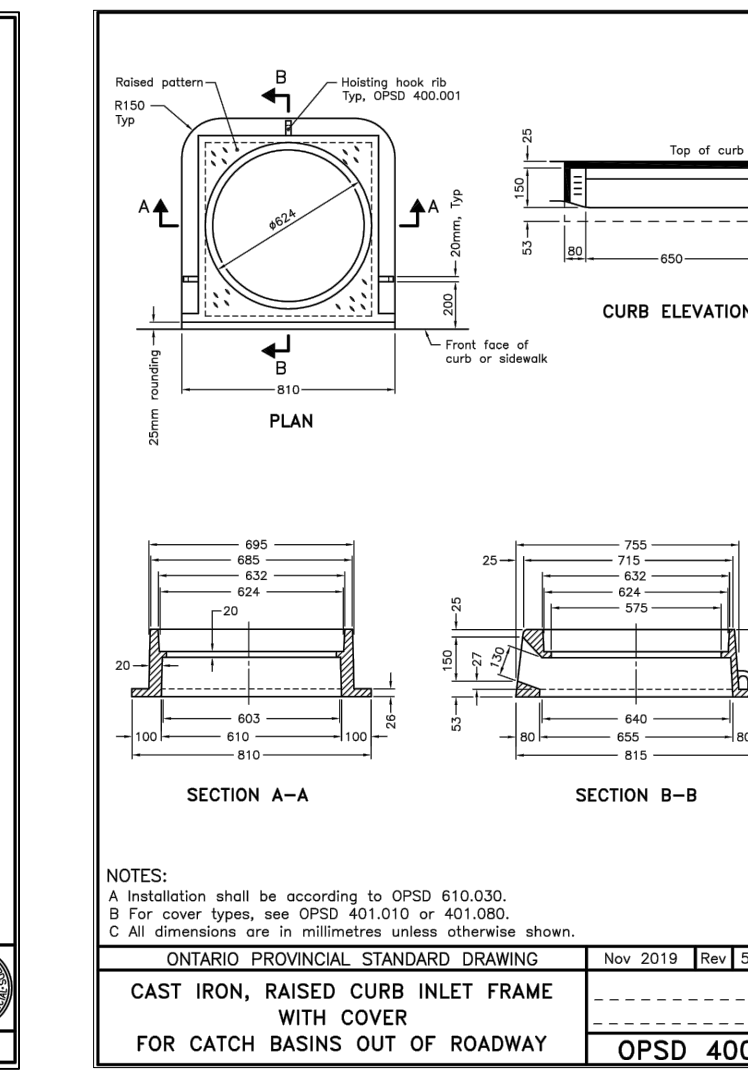
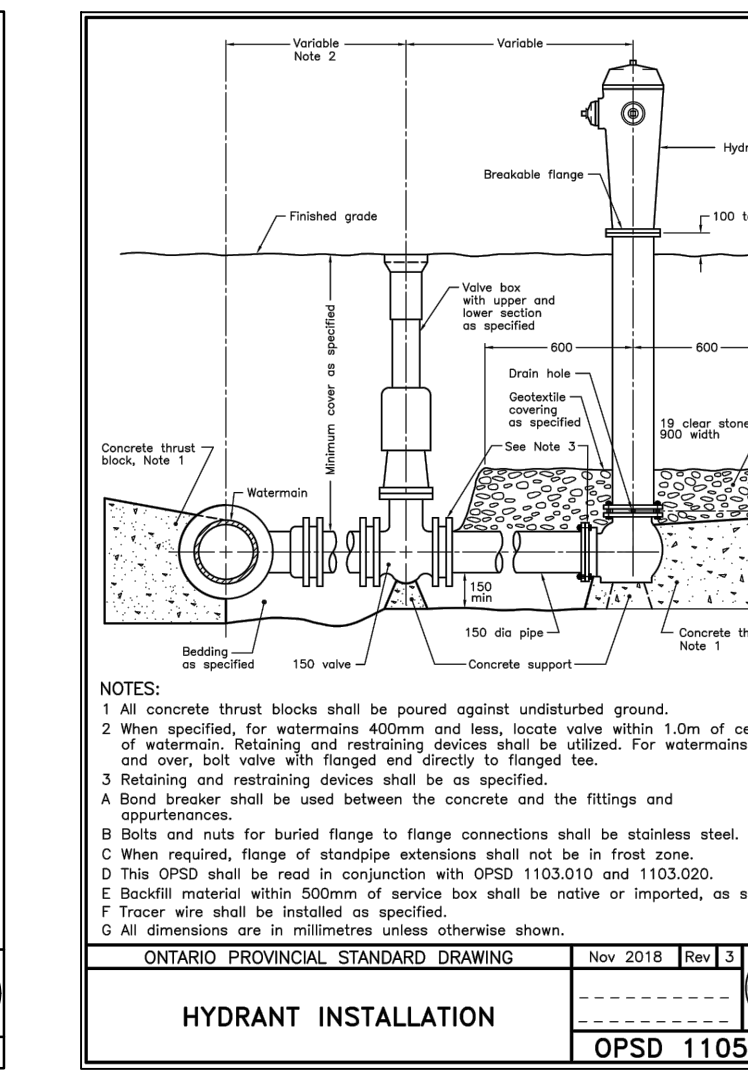
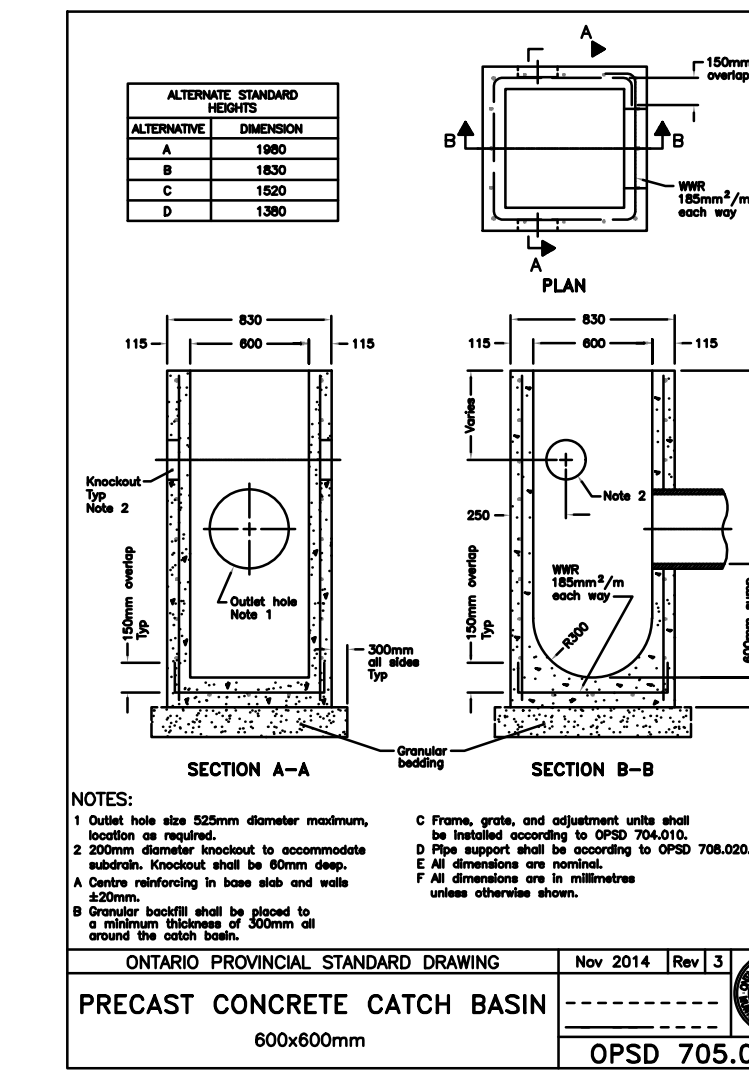
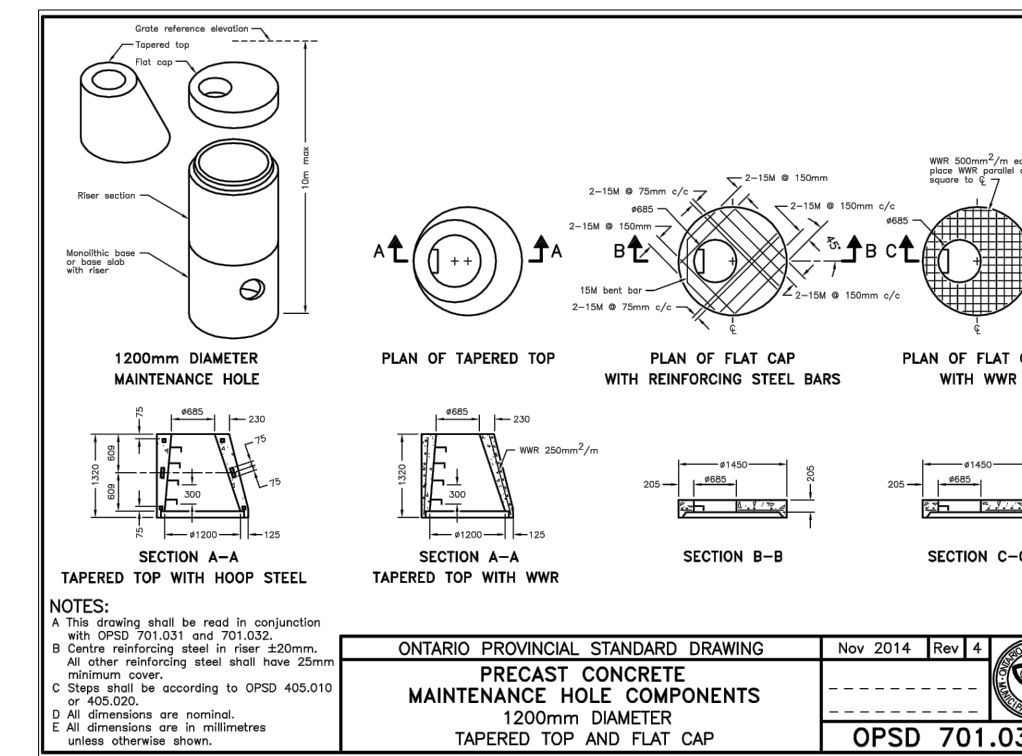
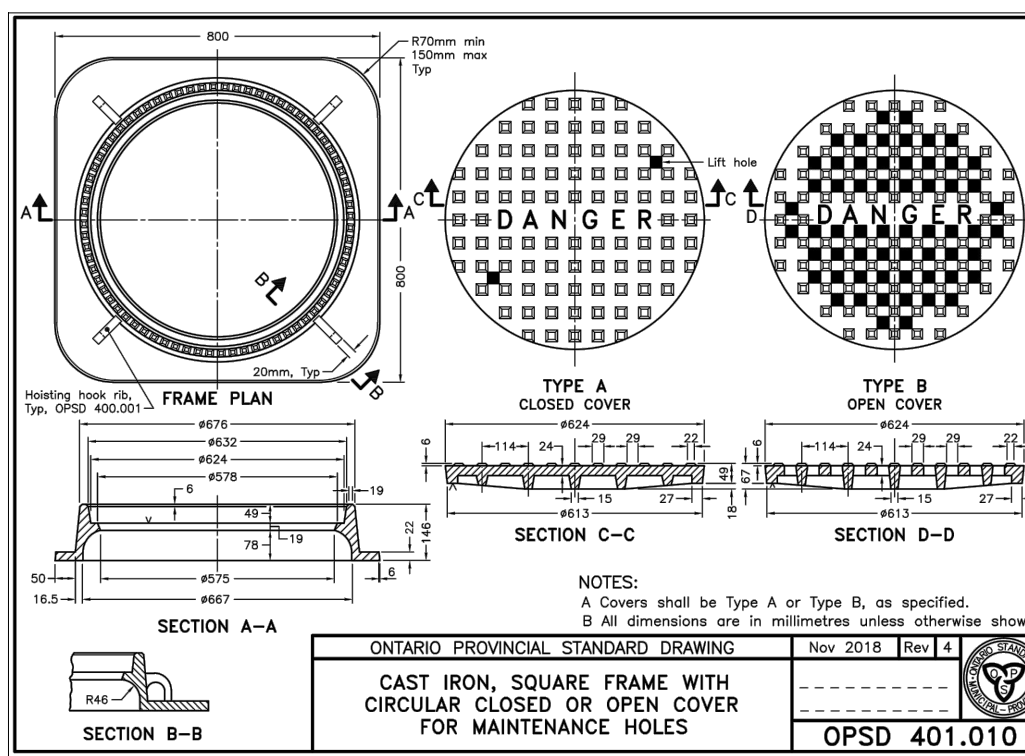
DESIGNED BY: MAG DRAWN BY: MAG APPROVED BY: THP DATE: NOV10-21
PROJECT: 164.21.005 PLOT DATE: MAY19-22

C104



GENERAL NOTES

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No.	DATE	THP	ISSUED FOR TENDER
0	MAY20-22	THP	ISSUED FOR TENDER



CLIENT:
TOWNSHIP OF CAVAN MONAGHAN

PROJECT:
**NEW FIRE STATION No. 1
HIGHLANDS BOULEVARD
MILLBROOK, ON**

TITLE:
OPSD

DESIGNED BY: MAG
DRAWN BY: MAG
APPROVED BY: THP
DATE: NOV10-21



13 Commerce Court
Bancroft, Ontario
613.332.0057
greenview-environmental.ca

PROJECT: 164.21.005
PLOT DATE: MAY19-22

C105

No Right Turn Rb-11

50
500
50
(600)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-11 (8850 x 8850)	B-18	-Must comply with HTA & Regulations.

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type III or IV		
Border Inner / Outer	Black / White	None / Type III or IV		
Text	Black / Red	None / Type III or IV		
Symbol	Black / Red	None / Type III or IV		

No Left Turn Rb-12

50
500
50
(600)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-12 (8850 x 8850)	B-18	-Must comply with HTA & Regulations.

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type III or IV		
Border Inner / Outer	Black / White	None / Type III or IV		
Text	Black / Red	None / Type III or IV		
Symbol	Black / Red	None / Type III or IV		

Do Not Enter Rb-19

50 75
500 750
50 75
(600) (600)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-19 (8850 x 8850)	B-12 B-27	-Must comply with HTA & Regulations.

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type III or IV		
Border Inner / Outer	Black / White	None / Type III or IV		
Text	N/A	N/A		
Symbol	Red	Type III or IV		

Do Not Enter Tab Rb-19t

50 65
80 125
40 70
80 125
50 65
(300) (450)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-19t (8200 x 8200)	B-25b B-15	-For Bilingual version see Rb-19t (B).

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type III or IV	Series "D"	
Border Inner / Outer	Black / White	None / Type III or IV		
Text	Black	None		
Symbol	N/A	N/A		

No Parking Rb-51

25 55
210 100
100 65
200 420
75 125
(300) (600)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-51 (8200 x 8200)	B-6e B-18	-Must comply with HTA & Regulations.

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type I		
Border Inner / Outer	Black / White	None / Type I		
Text	N/A	None		
Symbol	Black / Red	None / Type I		

Except Authorized Vehicles Tab Rb-16t

55
80
50
80
80
55
(450)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-16t (8450 x 8450)	B-15	-For Bilingual version, see Rb-16t (B).

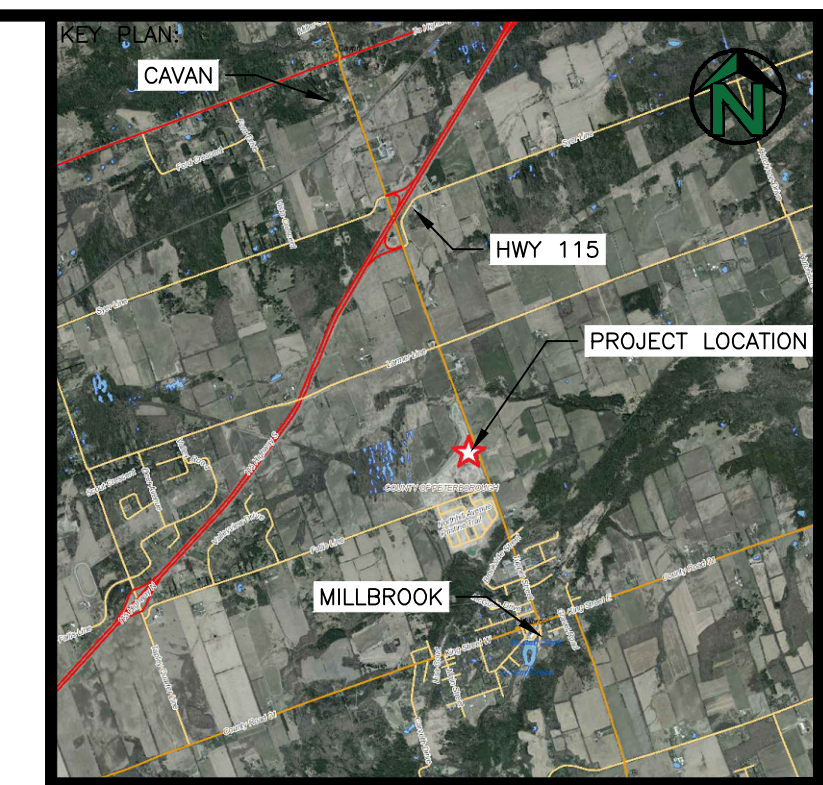
Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type I	Series "C"	
Border Inner / Outer	Black / White	None / Type I		
Text	Black	None		
Symbol	N/A	N/A		

Disabled Parking Permit Rb-93

30
75
150
15
25
30
35
(450)

Sign No. & Cut Image Ref.	Blank	Special Notes
Rb-93 (8300 x 8450)	B-7	-Must comply with HTA and Regulations. -For Bilingual version, see Rb-93 (B).

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type I	Series "C"	
Border Inner / Outer	Black / White	None / Type I		
Text	Black / Red / Blue	None / Type I / Type I		
Symbol	Black / Red / Blue	None / Type I / Type I		



GENERAL NOTES

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WHERE REQUIRED, EACH SIGN SHALL HAVE THE APPROPRIATE COLD-FORMED U-FRANGE POST SYSTEM PER OPSD 990.110 TO A MINIMUM MOUNTING HEIGHT OF 1.5m ABOVE FINISHED GRADE.

Stop Ra-1

200 250 400
200 250 400
200 250 400
(600) (750) (1200)

Sign No. & Cut Image Ref.	Blank	Special Notes
Ra-1 (8850 x 8850)	B-23b B-23 B-41	-Always Bilingual requirements -Must comply with HTA and Regulations.

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	Red	Type III or IV	Series "C"	
Border Inner / Outer	None / White	None / Type III or IV		
Text	White	Type III or IV		
Symbol	N/A	N/A		

Disabled Parking Permit - Van Accessible Tab Rb-093t

200 250 400
(600) (750) (1200)

Sign No.	Blank #	Special Notes
Rb-093t (8150 x 8200)	B-6F	-To be installed with Rb-93 signs in car pool parking lots where van spaces are available.

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	White	Type I	Series "C"	
Border Inner / Outer	Black / White	None / Type I		
Text	Black	None		
Symbol	None	None		

Fire Truck Entrance Right Wc-25R

254
520
254
(750)

Sign No. & Cut Image Ref.	Blank	Special Notes
Wc-25R (8750 x 8750)	B-23a	

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	Yellow	Type I	Series "C"	
Border Inner / Outer	Black / Yellow	None / Type I		
Text	N/A	N/A		
Symbol	Black / Red	None / Type I		

Fire Truck Entrance Tab Wc-25t

50
80
40
80
50
(300)

Sign No. & Cut Image Ref.	Blank	Special Notes
Wc-25t (8200 x 8400)	B-25b	

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	Yellow	Type I	Series "C"	
Border Inner / Outer	Black / Yellow	None / Type I		
Text	Black	None		
Symbol	N/A	N/A		

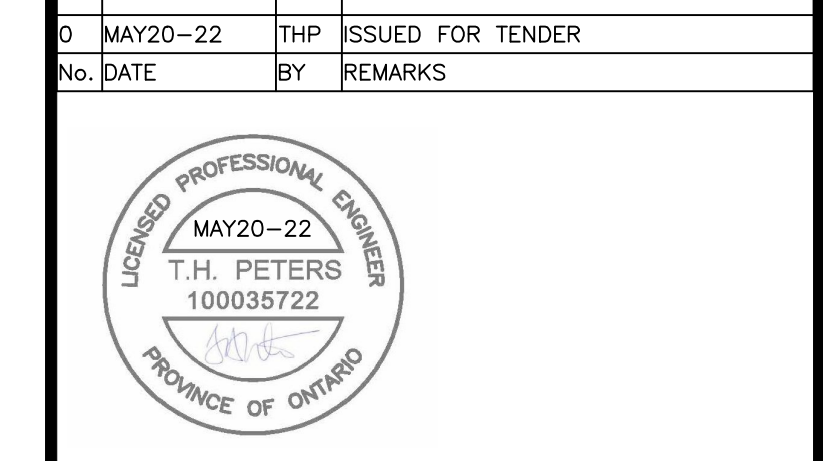
Fire Truck Entrance Left Wc-25L

254
520
254
(750)

Sign No. & Cut Image Ref.	Blank	Special Notes
Wc-25L (8750 x 8750)	B-23a	

Sign Element	Colour	Min. Refl. (ASTM)	Font	All dimensions are shown in mm.
Background	Yellow	Type I	Series "C"	
Border Inner / Outer	Black / Yellow	None / Type I		
Text	N/A	N/A		
Symbol	Black / Red	None / Type I		

No.	DATE	BY	REMARKS
0	MAY20-22	THP	ISSUED FOR TENDER



PROJECT:
NEW FIRE STATION No. 1
HIGHLANDS BOULEVARD
MILLBROOK, ON

TITLE:
SIGNAGE



DESIGNED BY: MAG
DRAWN BY: MAG
APPROVED BY: THP
DATE: NOV10-21
PROJECT: 164.21.005
PLOT DATE: MAY19-22
C106