

GENERAL NOTES

- I. **MEASUREMENTS**
 - A. ALL DIMENSIONS ARE IN METRES, EXCEPT PIPE DIAMETERS, WHICH ARE IN MILLIMETRES, UNLESS SPECIFIED OTHERWISE.
2. **GENERAL**
 - A. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).
 - B. ORDER OF PRECEDENCE OF STANDARD DRAWINGS IS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).
 - C. LOCATION OF EXISTING SERVICES ARE NOT GUARANTEED. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
 - D. A ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE ENGINEERING DEPARTMENT PRIOR TO THE COMMENCEMENT OF WORK WITHIN ANY CITY RIGHT-OF-WAY.
 - E. A TOPSOIL PERMIT IS REQUIRED FROM THE ENGINEERING DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EARTH WORKS ON THE SITE.
 - F. NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY.
 - G. GRANULAR MATERIAL, USED FOR BACKFILL, SHALL BE PLACED IN LAYERS 150mm IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
 - H. ALL DISTURBED AREAS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY ENGINEERING DEPARTMENT.
 - I. ALL SILT CONTROL AND EROSION PROTECTION DEVICES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE CITY ENGINEERING DEPARTMENT.
 - J. ALL SITE ALTERATION ACTIVITIES MUST COMPLY WITH SITE ALTERNATION BY-LAW 2014-100.
 - K. IN THE EVENT EXCESS FILL IS TO BE REMOVED AND TAKEN TO A RECEIVING SITE, WRITTEN DOCUMENTATION IS REQUIRED CONFIRMING THAT THE FILL QUANTITY AND QUALITY IS ACCEPTABLE FOR THE RECEIVING SITE. CONFIRMATORY SAMPLE RESULTS ARE REQUIRED DEMONSTRATING THAT THE FILL QUALITY MEETS THE STANDARDS SET OUT IN THE SOIL, GROUNDWATER AND SEDIMENT STANDARDS REFERENCED IN O. REG 153/04, WITH RESPECT TO ALL CONTAMINANTS IN THE FILL.
 - L. A SPILL CLEAN-UP PLAN MUST BE IN PLACE AND ALL SPILLS SHALL BE REPORTED TO THE MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE SPILLS ACTION CENTRE AT 1-800-268-6060.
 - M. ANY DOWATERING - A DISCHARGE AGREEMENT MUST BE APPROVED BY ENVIRONMENTAL SERVICES PRIOR TO ANY DISCHARGE TO THE STORM OR SANITARY SEWER (AS PER SEWER USE BY-LAW 2012-172). DETAILS ARE TO BE PROVIDED PERTAINING TO THE DOWATERING SAMPLING PROGRAM AS WELL AS A COMPLETE DOWATERING PLAN INCLUDING BUT NOT LIMITED TO:
 - A) DAILY VOLUMES B) DISCHARGE LOCATIONS (STORM/SANITARY) C) DURATION OF TREATMENT METHODS TO ENSURE COMPLIANCE WITH SEWER USE BY-LAW 2012-172 AND PROVINCIAL WATER QUALITY OBJECTIVES (PWQO) E) COPY OF A VALID MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE APPROVALS.
 - N. SEDIMENT AND EROSION CONTROL DEVICES ON SITE ARE TO BE INSPECTED ON A REGULAR BASIS, AS WELL AS, AFTER EVERY RAIN EVENT AND MUST BE REPAIRED AS NECESSARY TO PREVENT ANY OFF-SITE ENVIRONMENTAL IMPACTS. FREQUENT OBSERVATIONS OF CATCHBASINS SHOULD BE CONDUCTED.

ROADS

- A. CONCRETE CURB TO COMPLY WITH OPSD STANDARDS.
- B. SIDEWALKS TO COMPLY WITH OPSD-310.010.
- MINIMUM THICKNESS AS FOLLOWS:
 - COMMERCIAL/INDUSTRIAL DRIVEWAY 200mm (REINFORCEMENT AS PER OPSD IF REQUIRED)
 - WHEN NO DRIVEWAY IS PRESENT, 125mm.
- C. NATIVE SUBGRADE SHALL HAVE A CROSSFALL OF 3% AND THE MATERIAL SHALL BE APPROVED BY A SOILS CONSULTANT AND IS SUBJECT TO APPROVAL BY THE DIRECTOR OF ENGINEERING.
- D. NATIVE SUBGRADE TO BE COMPACTED TO MINIMUM 98% STANDARD PROCTOR MAXIMUM DRY DENSITY AND SHALL BE PROOF ROLLED.
- E. GRADE AND CROSS FALL ADJUSTMENT OF MAINTENANCE HOLE AND CATCH BASIN FRAMES WILL BE MADE USING PRODUCTS SPECIFICALLY MANUFACTURED FOR THAT PURPOSE. THE TOP ADJUSTMENT UNIT OF ALL CATCH BASIN AND MAINTENANCE HOLES PER BSD-41.
- F. ADJUSTMENT UNITS MUST BE CERTIFIED TO MEET ALL PERTINENT OPSD, CSA, ASTM AND MTO-DSM LIST, OR OTHER INDUSTRY GUIDELINES FOR MATERIALS, PERFORMANCE AND USE AS APPLICABLE.
- G. ADJUSTMENT UNITS AND JOINTS WILL BE SEALED AND OR PARGED IN COMPLIANCE WITH MANUFACTURERS SPECIFICATIONS AND GUIDELINES.
- H. MORTAR IS USED FOR LEVELING OF PRECAST UNITS ONLY. THE THICKNESS OF MORTAR WILL BE 10mm TO FILL ALL VOIDS CREATED BY IRREGULARITIES IN THE PRECAST UNITS TO ENSURE AN EVEN SURFACE ONLY.
- I. NON-COMPRESSIBLE BACK FILL WILL BE USED DURING REBUILDING, ADJUSTING, OR ANY OTHER APPLICABLE CATCH BASIN OR MAINTENANCE HOLE WORKS.
- J. **PAVEMENT STRUCTURES**
 - PARKING LOT PAVEMENT STRUCTURE
 - 40mm HL3 SURFACE COURSE ASPHALIC CONCRETE
 - 50mm HL8 BASE COURSE ASPHALIC CONCRETE
 - 150mm 19mm CRUSHER RUN LIMESTONE AS BASE COURSE
 - 250mm GRANULAR 'B' OR 50mm CRUSHER RUN LIMESTONE AS SUBBASE COURSE
 - DRIVEWAY/FIRE ROUTE PAVEMENT STRUCTURE
 - 40mm HL3 SURFACE COURSE ASPHALIC CONCRETE
 - 80mm HL8 BASE COURSE ASPHALIC CONCRETE
 - 150mm 19mm CRUSHER RUN LIMESTONE AS BASE COURSE
 - 350mm GRANULAR 'B' OR 50mm CRUSHER RUN LIMESTONE AS SUBBASE COURSE

- A. SEWERS SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD-802.010, (GRAN. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD-802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING, OR
- B. MAXIMUM DEFLECTION FROM COMBINED LIVE AND DEAD LOADING SHALL NOT EXCEED ANY C.S.A., O.P.S. OR MANUFACTURERS RECOMMENDED SPECIFICATIONS.
- C. PVC, CONCRETE AND PROFILE WALL PVC SEWERS SHALL HAVE RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO CONFORM TO ALL APPLICABLE CURRENT C.S.A. SPECIFICATIONS.

SANITARY SEWERS

- A. SEWERS SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD-802.010, (GRAN. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD-802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING, OR
- B. MAXIMUM DEFLECTION FROM COMBINED LIVE AND DEAD LOADING SHALL NOT EXCEED ANY C.S.A., O.P.S. OR MANUFACTURERS RECOMMENDED SPECIFICATIONS.
- C. PVC, CONCRETE AND PROFILE WALL PVC SEWERS SHALL HAVE RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO CONFORM TO ALL APPLICABLE CURRENT C.S.A. SPECIFICATIONS.

- D. MAINTENANCE HOLES TOPS (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACED. ALL ADJUSTMENT WILL BE ACCORDANCE WITH BSD-N2.

- E. CONTRACTOR TO PROVIDE COMPLETE SANITARY SEWER VIDEO REPORT UPON COMPLETION.

STORM SEWERS

- A. ALL STORM SEWERS SHALL BE CONCRETE PIPE PER A.S.T.M. C76-19 OR CM-ES OR PVC PIPE PER A.S.T.M. 03034-74 SDR 35 SPEC. ALL STORM SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD 802.010 (GRANULAR 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD 802.030 OR 802.031 CLASS B (GRANULAR 'A' BEDDING MATERIAL) FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING. ALL MANHOLES SHALL BE 1200mm PRECAST CONCRETE AS PER OPSD STANDARD 701.01 UNLESS OTHERWISE NOTED. ALL CATCHBASIN AND CATCHBASIN MANHOLES SHALL HAVE A MINIMUM 0.30m SUMP AND BE PROVIDED WITH A FRAME AND COVER PER MUNICIPAL STANDARDS.
- B. THE SERVICE CONNECTION MANHOLES FOR STORM SEWER SERVICES INSTALLED AT STREETLINE SHALL BE BENCHED BY THE CONTRACTOR TO THE SATISFACTION OF THE GOVERNING AUTHORITY.
- C. ALL DOUBLE AND SINGLE CATCHBASINS SHALL BE INSTALLED PER OPSD STANDARDS 705.01 AND 705.02 RESPECTIVELY. ALL CONNECTIONS TO THE MAINLINE SEWERS SHALL BE MADE PER OPSD 705.01 THREE 3.0m LONG PVC SUB-DRAINS SHALL BE INSTALLED RADIALLY AT ALL SITE CATCHBASINS, DOUBLE CATCHBASINS AND CATCHBASIN MANHOLES. SUBDRAINS SHALL BE PRE-WRAPPED WITH GEOTEXTILE FILTER FABRIC AND INSTALLED 0.30m BELOW SUBGRADE ELEVATION SURROUNDED BY ACCEPTABLE GRANULAR FILTER MEDIUM.
- D. ALL CATCHBASINS AND MANHOLES TO RECEIVE GRANULAR BACKFILL TO A MINIMUM THICKNESS OF 300 mm. GRANULARS TO BE WRAPPED IN GEOTEXTILE FABRIC TO A DEPTH OF 1 m FROM UNDERSIDE OF ASPHALT SURFACE DOWNWARDS TO PREVENT INFILTRATION OF FINE SOIL INTO GRANULAR BACKFILL.
- E. CONTRACTOR TO PROVIDE COMPLETE STORM SEWER VIDEO REPORT UPON COMPLETION.

WATERMAIN

- A. CONTRACTOR SHALL INFORM THE CITY OF BARRIE ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF THEIR INTENTIONS TO WORK.
- B. OPERATION OF FIRE HYDRANTS AND VALVES ON POTABLE WATER BY OTHER THAN ENGINEERING DEPARTMENT IS PROHIBITED BY BY-LAW I-88 AS AMENDED BY BY-LAW 99-290. THE CITY WILL SWAB, PRESSURE TEST, CHLORINATE AND FLUSH ALL NEW WATERMANS.
- C. MINIMUM COVER OVER WATERMAIN TO BE 1.7M. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAIN AND SEWERS TO BE 2.5M. WHERE WATERMAIN CONFLICTS WITH SEWER PIPES, DEFLECT WATERMAIN HORIZONTALLY OR VERTICALLY WHILE PROVIDING A MINIMUM OF 0.5M CLEARANCE BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM DEPTH OF COVER AT ALL TIMES.
- D. IF WATERMAIN SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OPSD 802.010 (GRANULAR 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD 802.030 OR 802.031 CLASS B (GRANULAR 'A' BEDDING MATERIAL, GRANULAR 'A' OR SELECT NATIVE COVER MATERIAL FOR RIGID PIPE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING, OR
- * ALTERNATIVE EMBEDMENT MATERIAL - SAND MEETING GRADATION REQUIREMENTS OF OPS 1004.05.05 COMPACTED TO 95% PROCTOR DENSITY. GEOTECHNICAL CERTIFICATION OF MATERIAL AND COMPACTION TESTING MUST BE PROVIDED EVERY 150 METRES. THE COMPACTION TESTING MUST INCLUDE THE ENTIRE EMBEDMENT ENVELOPE (HAUNCHES, BEDDING AND TOP OF PIPE).
- E. CONCRETE THRUST BLOCKS ARE TO BE INSTALLED AT ALL TEES, BENDS, HYDRANTS, END OF MAINS AND CONNECTIONS 100mm AND LARGER AS PER OPSD 103.010 AND 103.020. RESTRAINING DEVICES MAY BE REQUIRED IN ADDITION TO STANDARD CONCRETE THRUST BLOCKS WHERE SOIL CONDITIONS WARRANT.

- G. RESTRAINING WILL BE REQUIRED ON ALL FIRE HYDRANTS.

- H. NEW WATERMANS TO BE PVC DR18 CL150, OR DUCTILE IRON CL52.

- I. TRACING WIRE (No.2 TWO STRANDED COPPER) TO BE INSTALLED ON THE TOTAL LENGTH OF ALL NON-METALLIC WATERMAIN AND BROUGHT UP AT EACH HYDRANT AND CONNECTED TO FLANGE BOLT.

- J. CONTRACTOR TO INSTALL CHLORINATION TAIL JUST BEFORE TAPPING VALVE TO FACILITATE CHLORINATING SERVICE, TO BE REMOVED AFTER TESTING.

- K. WHEN DISINFECTING NEW WATER LINES, THE DISCHARGE OF SUPER CHLORINATED WATER MUST BE TREATED TO COMPLETELY ELIMINATE ANY SOURCES OF CHLORINE PRIOR TO DISCHARGING TO THE NATURAL ENVIRONMENT. SAMPLE VERIFICATION MUST BE COMPLETED TO ENSURE NO RESIDUAL CHLORINE IS DETECTED. RECORD MUST BE RETAINED FOR ONE YEAR AND PROVIDED TO THE CITY UPON REQUEST.

- L. ALL SERVICE PIPE MATERIAL MUST BE DUCTILE IRON FROM THE RESTRAINING FLANGE TO A MINIMUM OF 3 METRES OUTSIDE THE FOUNDATION REFER TO PSD-61.

- M. WATER WILL NOT BE AVAILABLE UNTIL SERVICES HAVE BEEN SAMPLED AND PASSES FOR BACTERIOLOGICAL COMPLIANCE.

- N. DOMESTIC WATERMETER TO BE THE SAME SIZE AS DOMESTIC SERVICE SIZE TO HAVE A BYPASS ASSEMBLY, AND TO BE PLACED WITHIN THE MECHANICAL ROOM AS PER CITY OF BARRIE STANDARD BSD-533.

- O. FIRE HYDRANT TO BE INSTALLED AS PER CITY OF BARRIE STANDARD BSD-507 AND TO BE COLOURED RED.

- P. ALL DOMESTIC WATER SERVICES TO BUILDINGS TO HAVE CURB STOP AND BOX OUTSIDE EACH BUILDING.

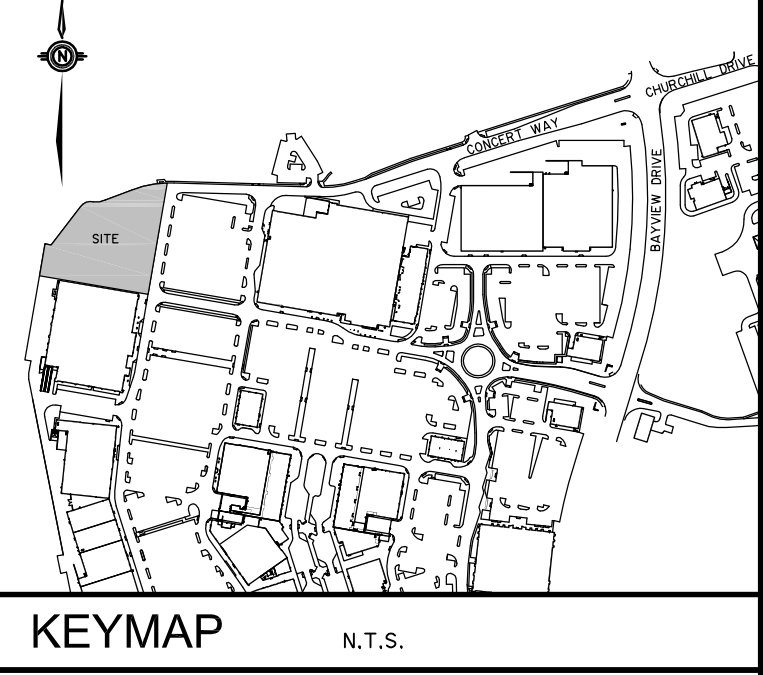
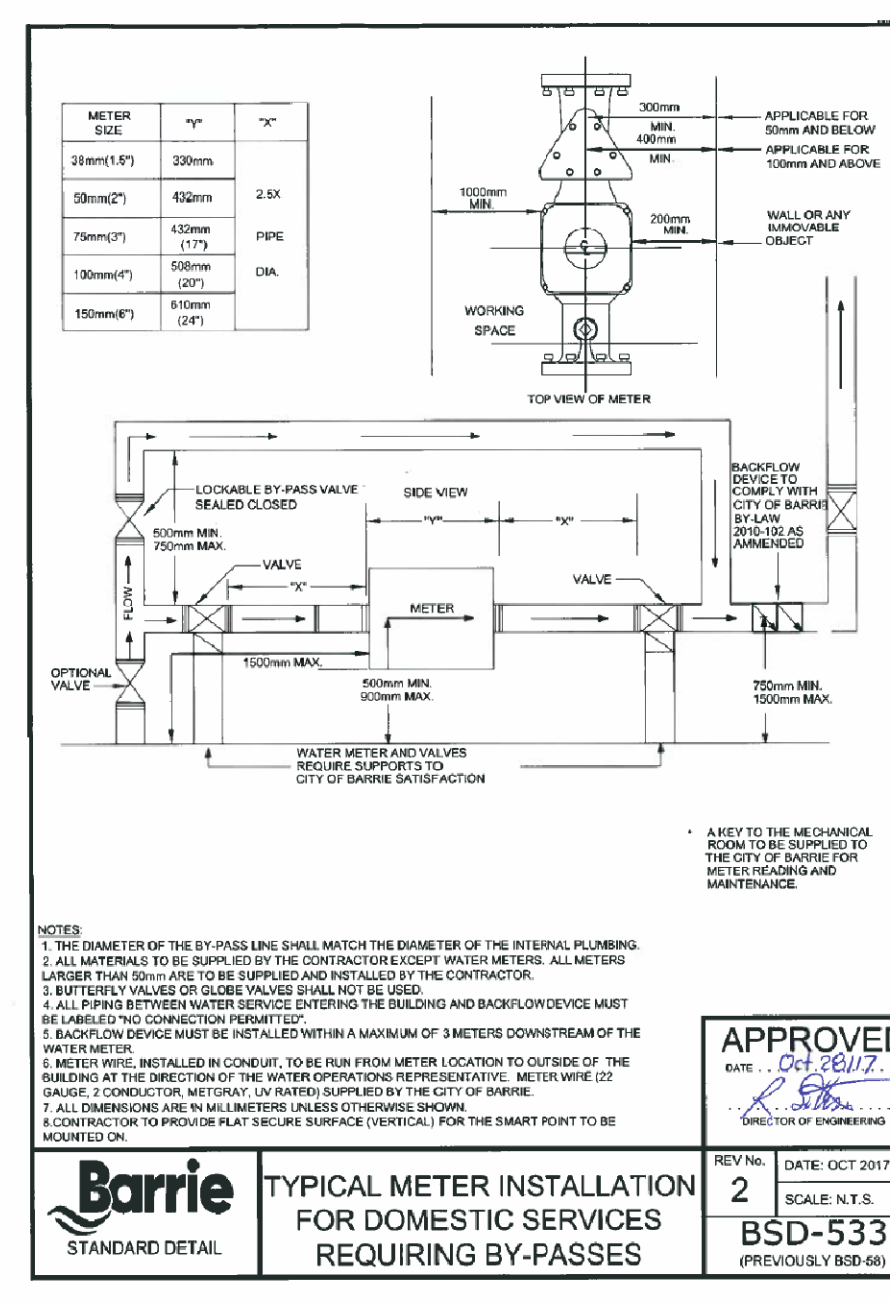
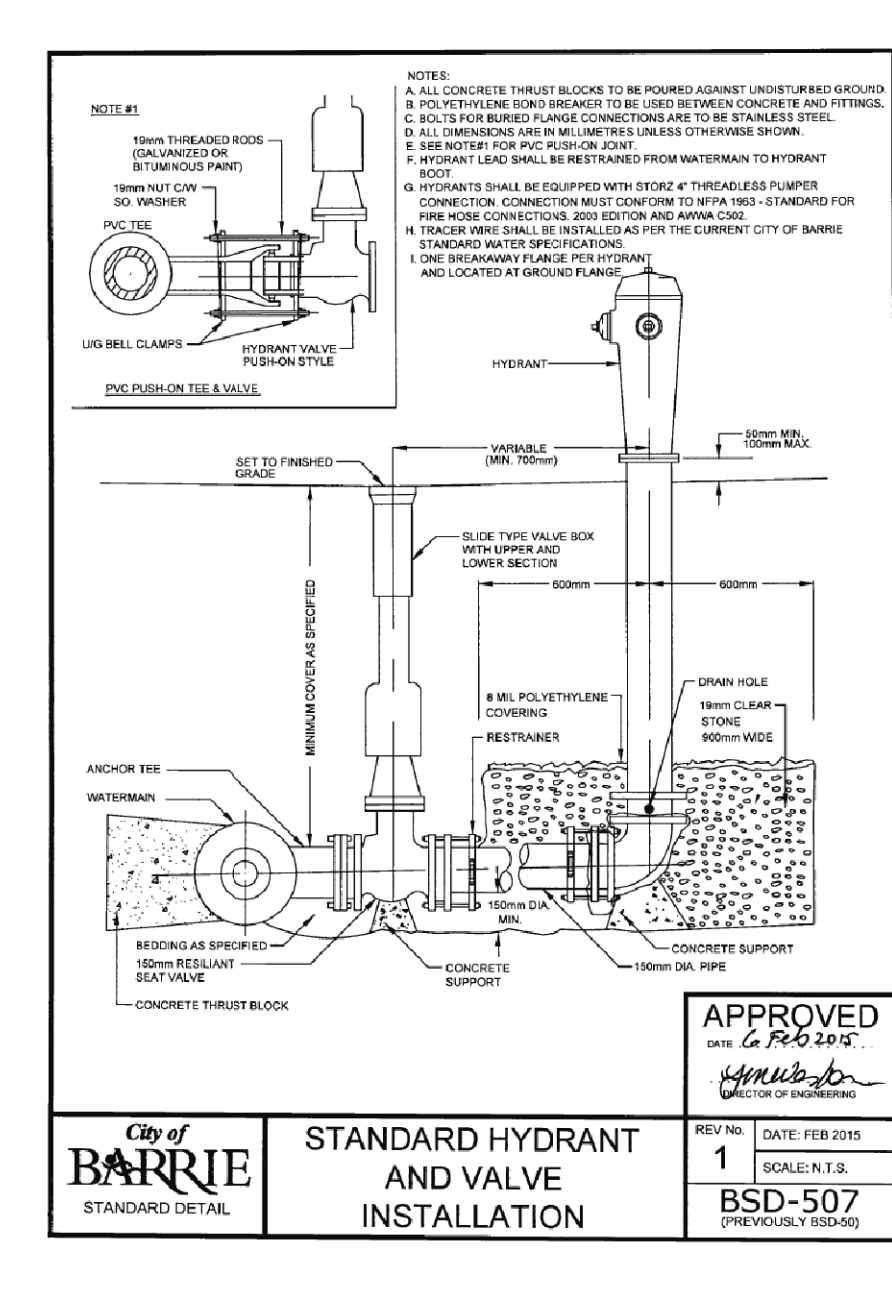
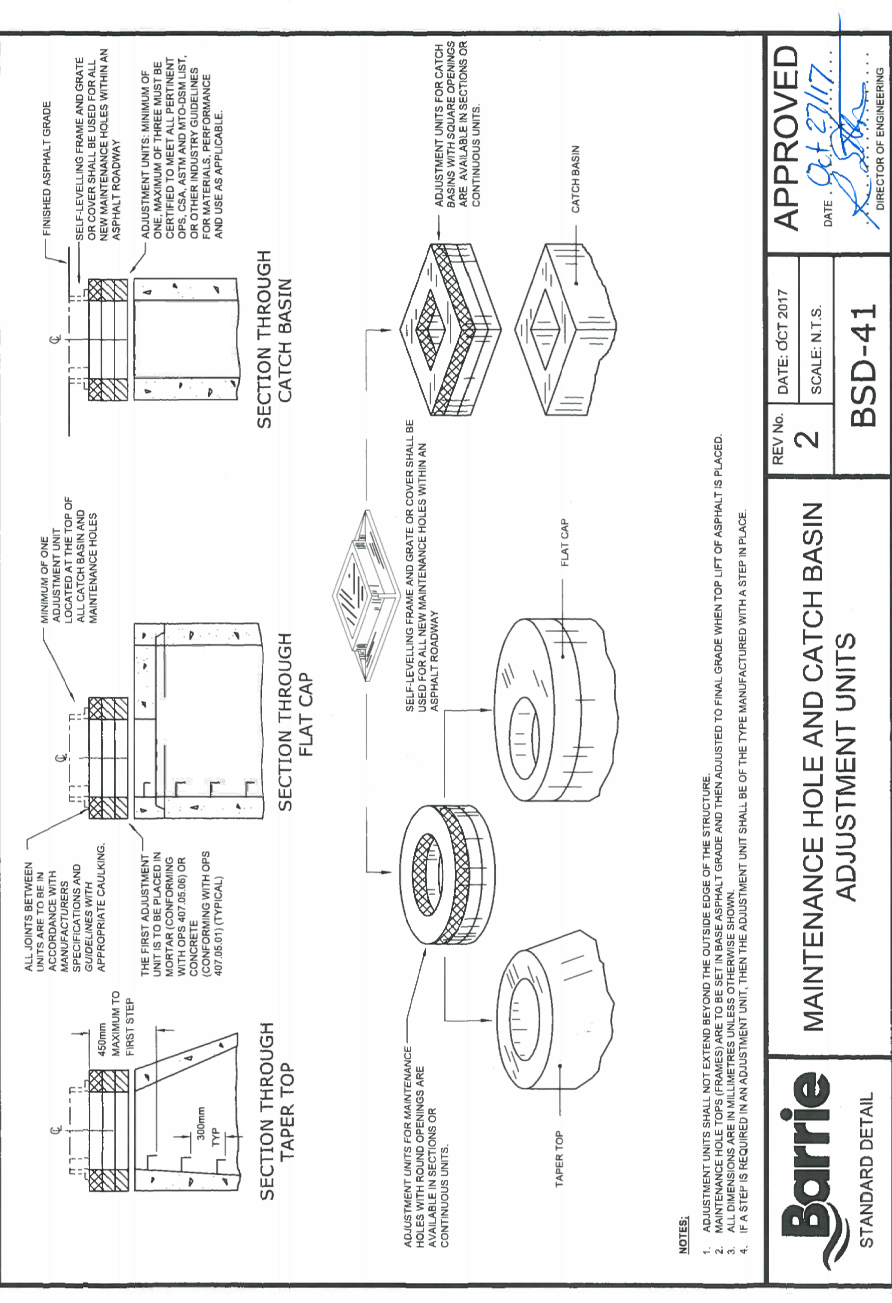
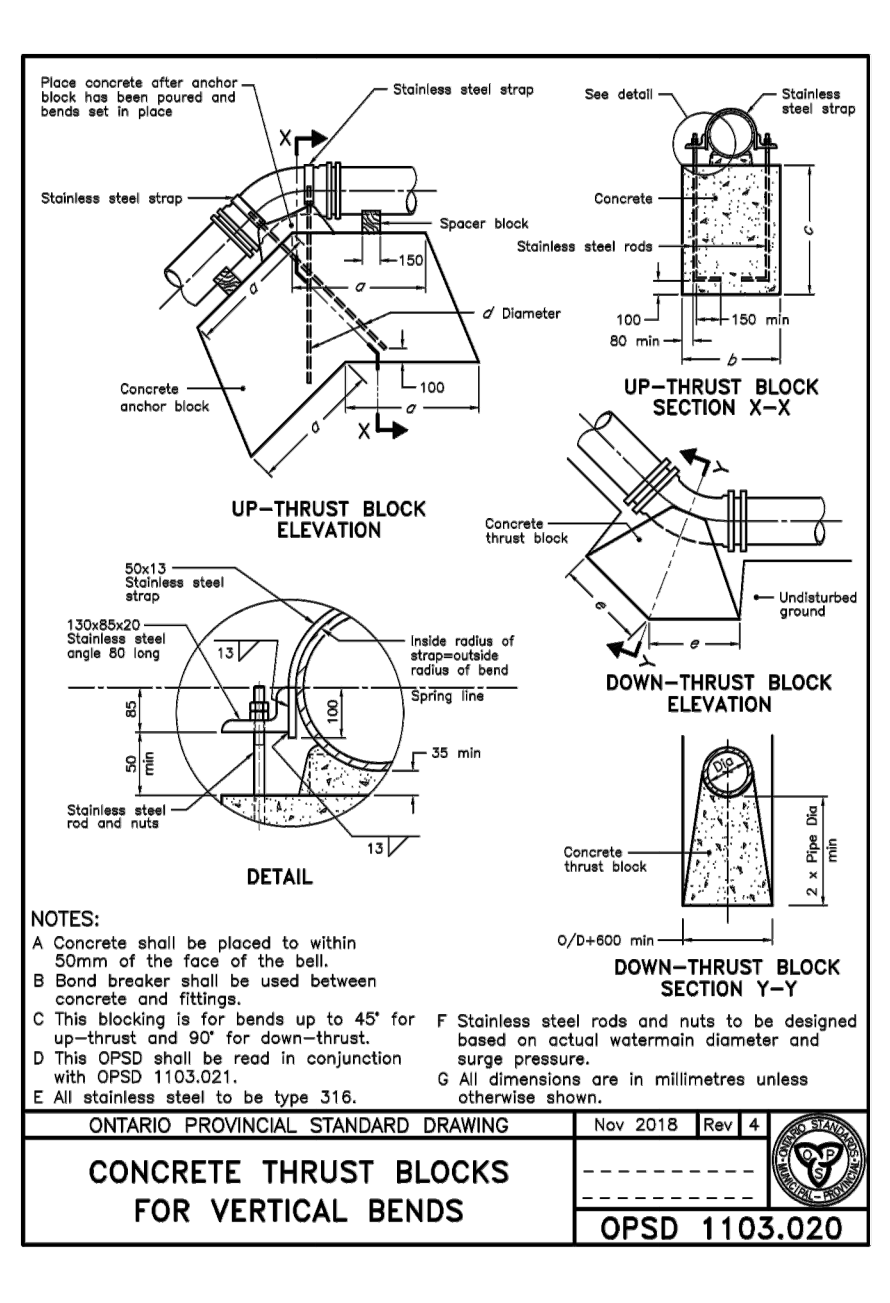
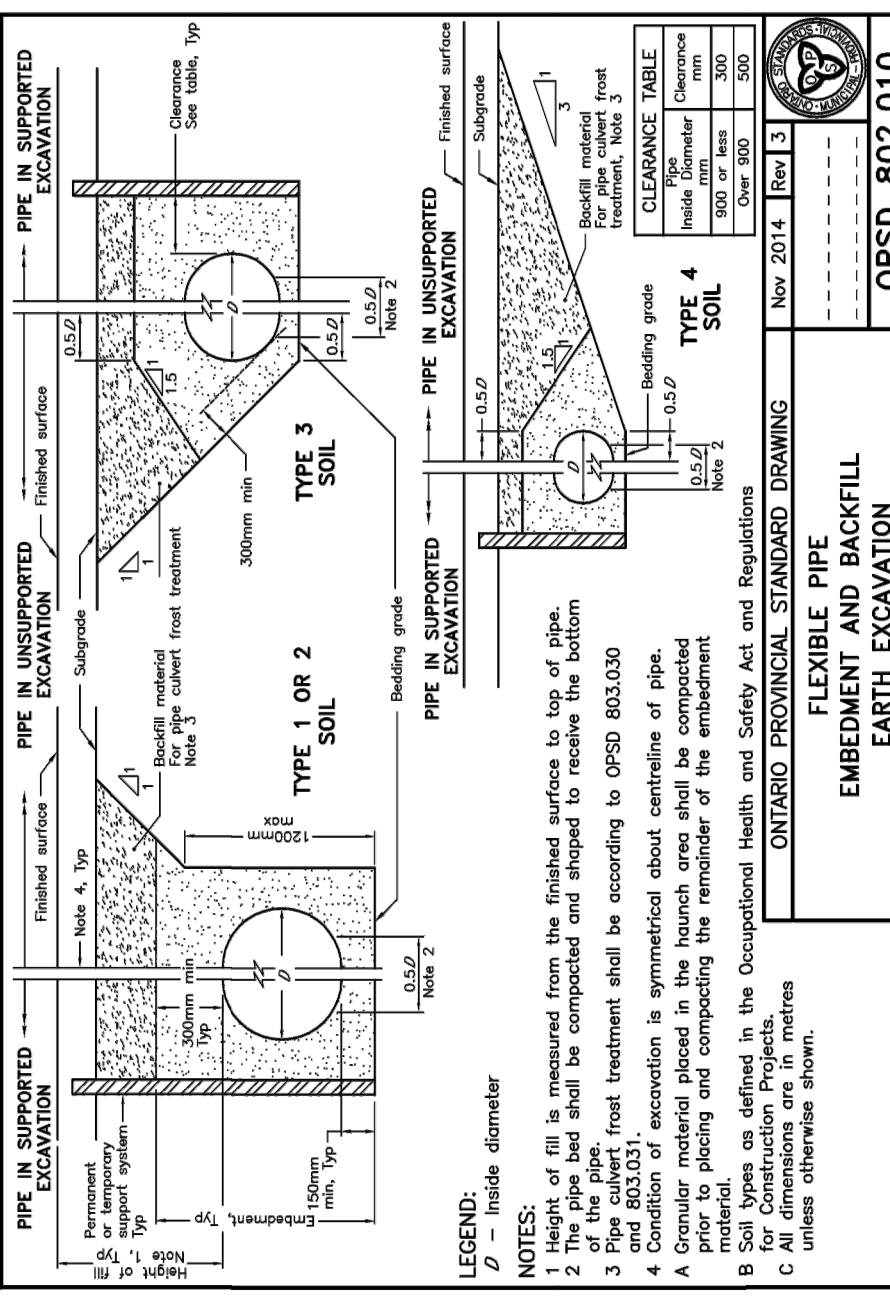
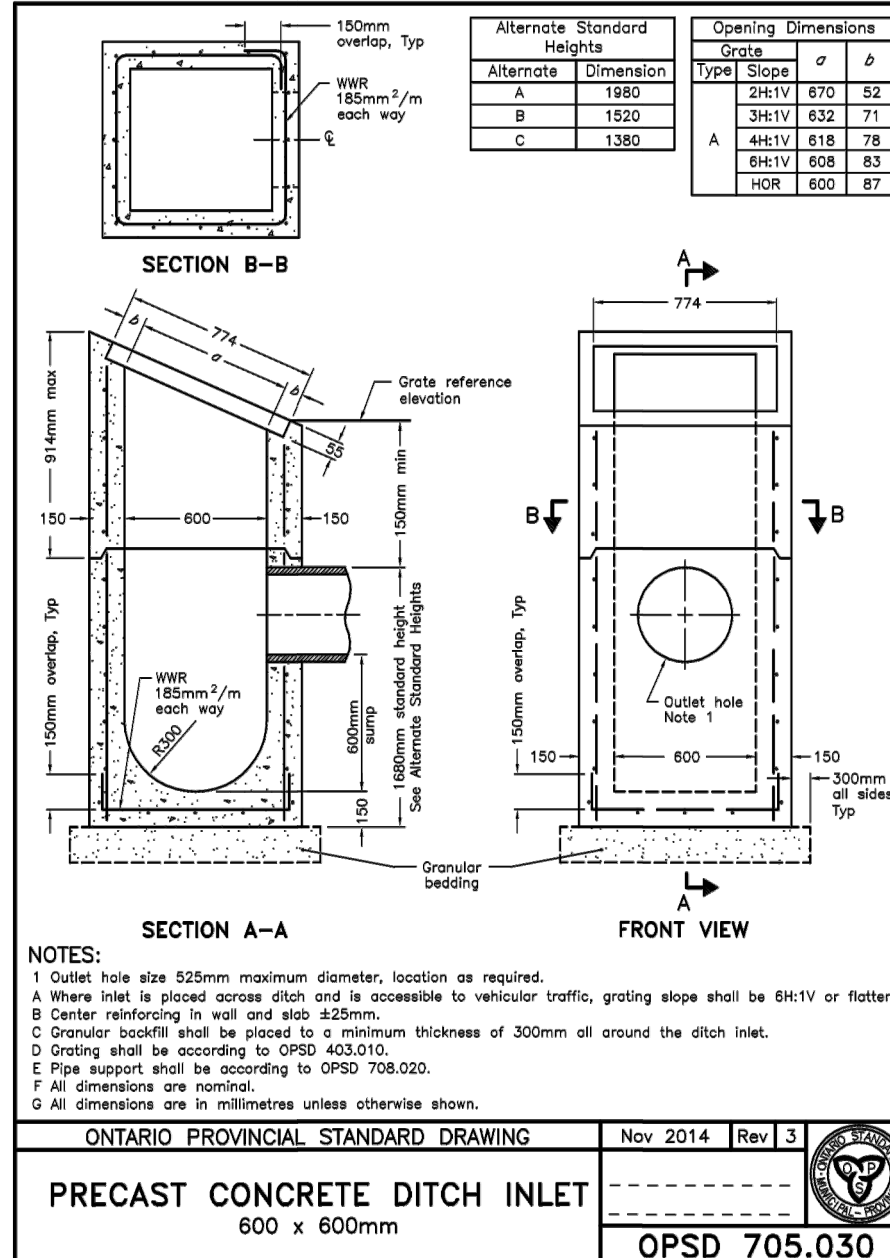
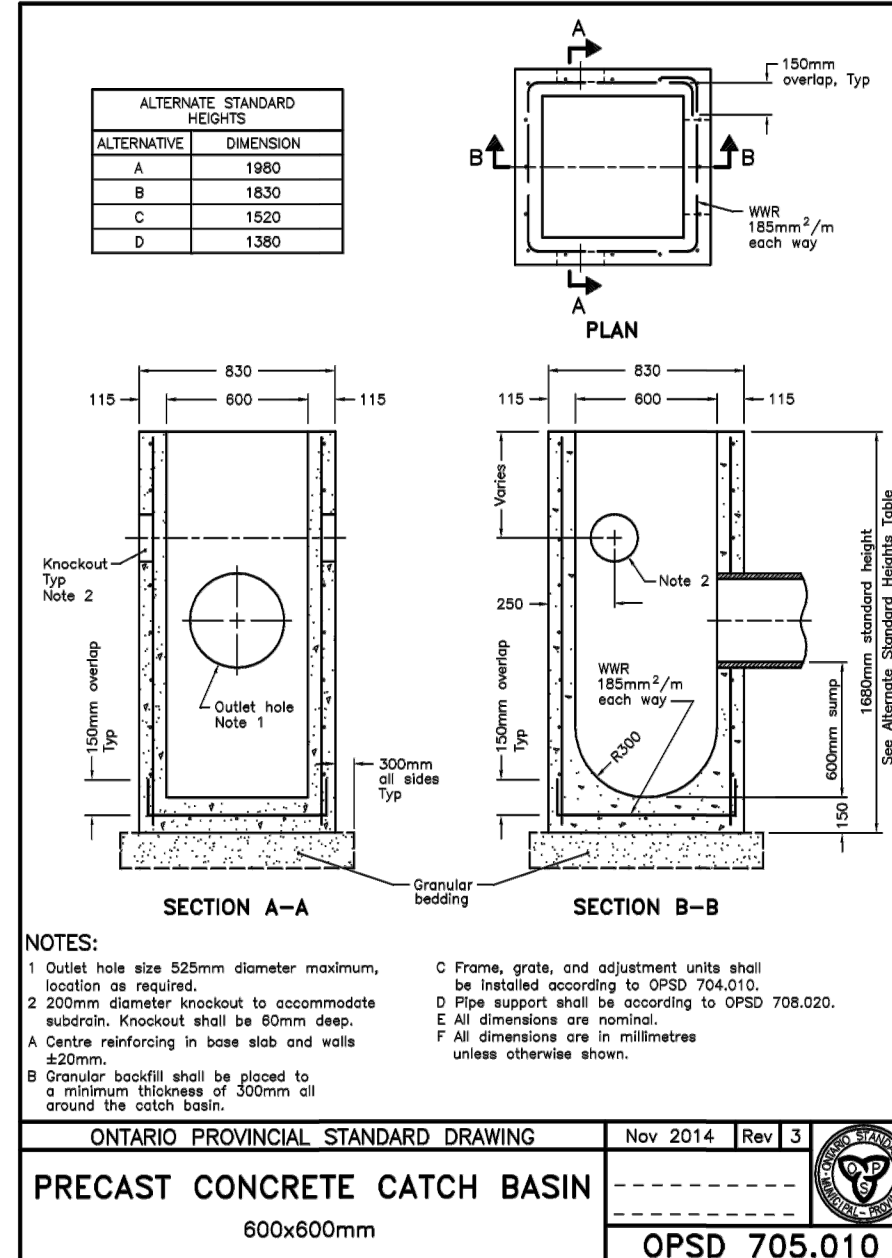
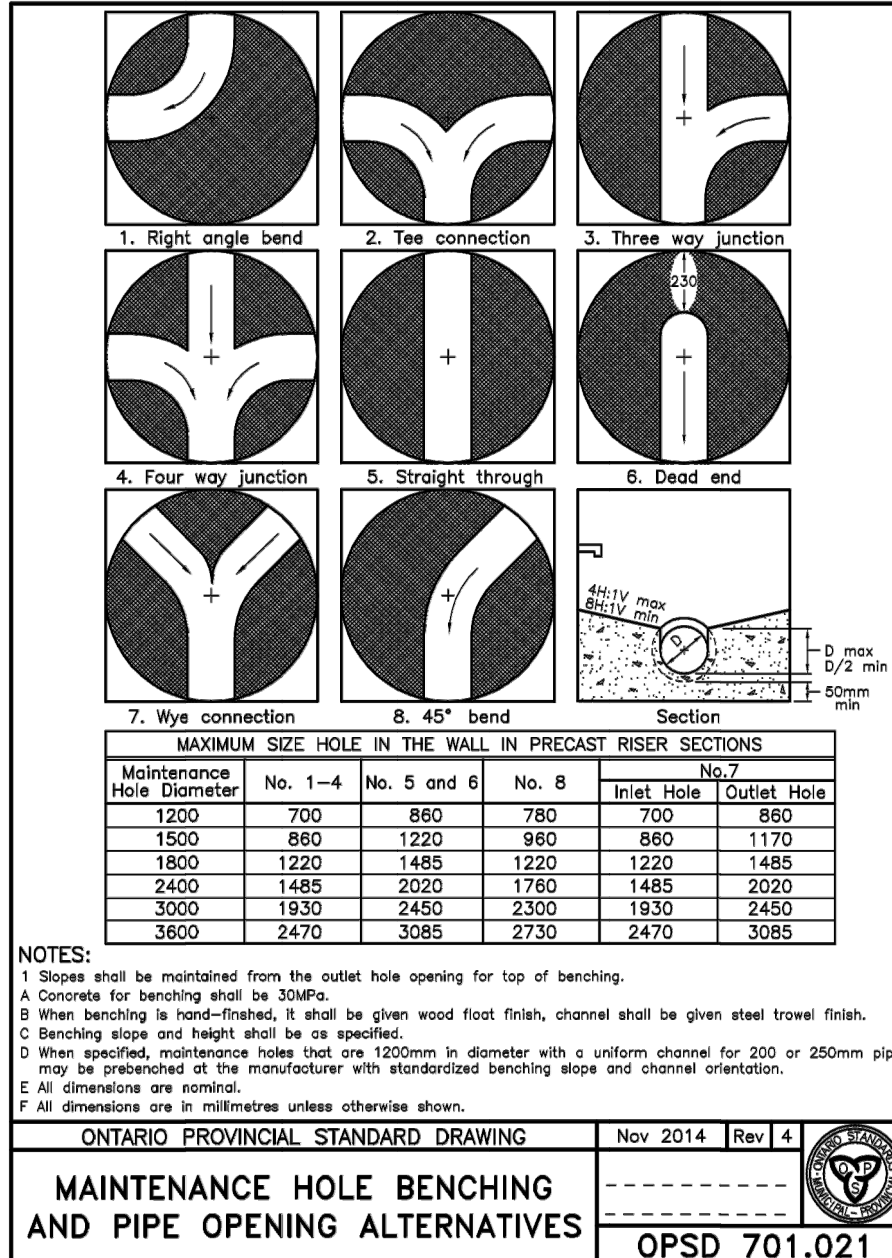
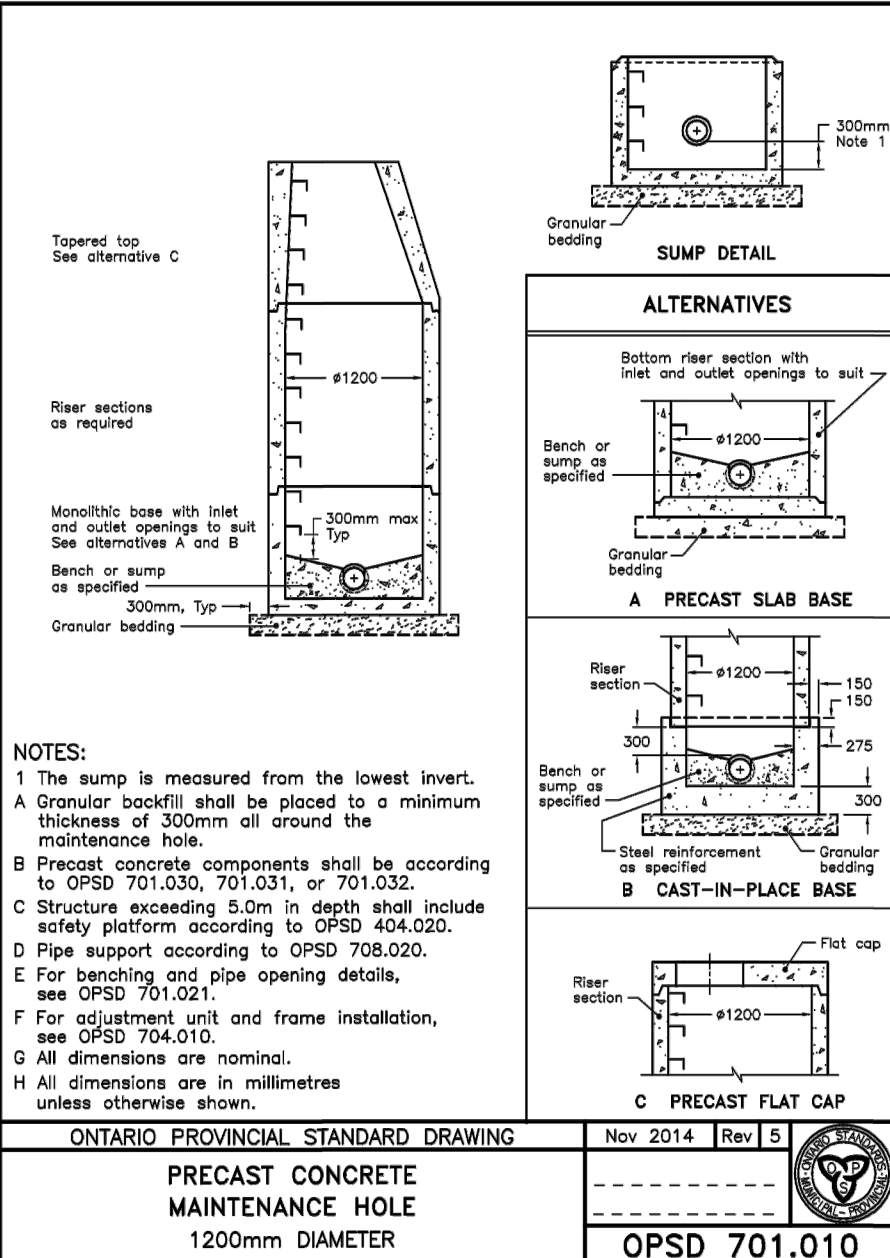
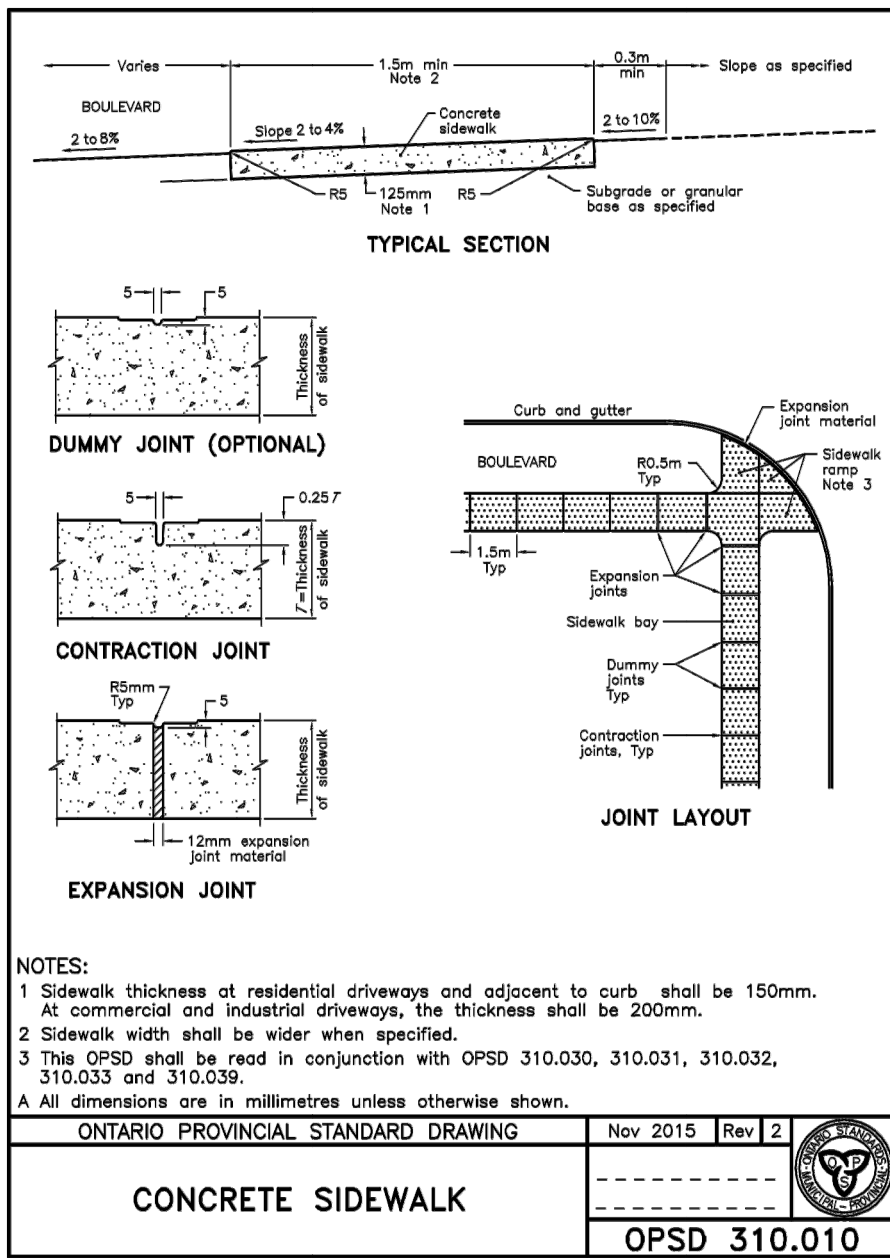
- Q. THE WATER SERVICE RISERS ENTERING THE BUILDING SHALL BE BUILT AS PER BSD-505.

- R. BOTH THE DOMESTIC AND FIRE SERVICES REQUIRE BACKFLOW PREVENTION DEVICES INSTALLED AS PER CITY OF BARRIE BY-LAW 2017-121.

HORIZONTAL AND VERTICAL CONTROL MONUMENTS

- I. **COMBINED HORIZONTAL AND VERTICAL CONTROL MONUMENTS**

- A. MONUMENT NUMBER: 0019673109
DESCRIPTION: THE HORIZONTAL MONUMENT IS LOCATED ON THE GOVERNMENT DOCK AT THE BOTTOM OF BAYFIELD STREET AT A POINT NEAR WHERE THE DOCK TAKES A DOG-LEED TO THE RIGHT.
- B. MONUMENT NUMBER: 03120080027
DESCRIPTION: LOCATED ON THE NW CORNER OF LIVINGSTONE STREET WEST AND MACDOUGALL DRIVE / MILNE COURT. LOCATED APPROXIMATELY 5m NORTH OF CENTRELINE OF LIVINGSTONE STREET WEST AND APPROXIMATELY 12m WEST OF CENTRELINE OF MACDOUGALL DRIVE.
NOTE: A PROTECTIVE WATER VALVE COVER HAS BEEN PLACED OVER MONUMENT CAP.



BENCHMARK

SITE BENCHMARK IS THE TOP OF THE FIRE HYDRANT DIRECTLY EAST OF THE PROPOSED HOLIDAY INN BUILDING HAVING AN ELEVATION OF 197.18

NOTE : ALL DIMENSIONS AND ELEVATIONS IN METRES UNLESS NOTED OTHERWISE. ALL PIPE SIZES IN MILLIMETRES.

1.	FOR SPA 1ST SUBMISSION	MAG	15/04/19	
No.	REVISIONS TO DRAWING	BY	DATE	APPR.
ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED				

CLIENT	CHAMBERLAIN ARCHITECT SERVICES LIMITED
MUNICIPALITY	CITY OF BARRIE COUNTY OF SIMCOE
PROJECT TITLE	STAYBRIDGE HOLIDAY INN EXPRESS
SHEET TITLE	STANDARD DRAWINGS

DESIGNED	MAG	DRAWN	JPR	CHECKED	MAG
SCALE	1:250	DATE	APRIL 2019	DWG. NUMBER	
PROJECT NUMBER	19:407				

SABOURIN KIMBLE & ASSOCIATES LTD.
CONSULTING ENGINEERS
110 Old Kingston Road
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DESIGNED	MAG	DRAWN	JPR	CHECKED	MAG
SCALE	1:250	DATE	APRIL 2019	DWG. NUMBER	
PROJECT NUMBER	19:407				

19:407

DET