

NOTES:

EXISTING SERVICES AND UTILITIES

- 1. THE LOCATION OF EXISTING SERVICES AND UTILITIES, AS SHOWN, IS APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF SAME, AND REPAIR OF ANY DAMAGES AS A RESULT OF CONSTRUCTION.
2. THE EXISTING SANITARY AND WATER SERVICES ARE TO BE EXTENDED TO 2.0 m BEYOND THE PROPERTY LINE AS PER CITY OF BARRIE STANDARDS. SEE DETAILS DRAWING 3160-DET1.
3. THE DEPTH OF THE EXISTING WATERMAIN ALONG COX MILL ROAD IS TO BE CONFIRMED BY THE CONTRACTOR IN THE FIELD.

TOPOGRAPHIC SURVEY

TOPOGRAPHIC SURVEY INFORMATION COMPLETED BY DINO ASTRIS SURVEYING LTD., SEPTEMBER 5, 2016. CONTOURS SHOWN REPRESENT EXISTING TOPOGRAPHIC INFORMATION AT THE TIME OF THE SURVEY. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE EXISTING CONDITIONS SHOWN ON THE GRADING DRAWING ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER NOT LESS THAN FORTY EIGHT (48) HOURS PRIOR TO ANY SITE WORKS COMMENCING.

EXISTING INFRASTRUCTURE INFORMATION

EXISTING INFRASTRUCTURE INFORMATION FOR COX MILL ROAD PER CITY OF BARRIE DRAWINGS 2005-30-PP2 (COX MILL ROAD STA 0+15 TO 0+300) AND WMI & ASSOCIATES LTD. DRAWING 09-078-P1, LOVERS HARBOUR, COX MILL ROAD, PLAN & PROFILE STA 0+280 TO 0+360 (AS BUILT).

BENCHMARK

ELEVATIONS SHOWN ARE GEODETIC AND ARE DERIVED FROM CITY OF BARRIE CONTROL MONUMENT 0312080007, HAVING AN ELEVATION OF 221.079 m.

AS BUILT INFORMATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL AS BUILT INFORMATION, AND SHALL PROVIDE THAT INFORMATION TO THE ENGINEER FOLLOWING THE COMPLETION OF SITE WORKS.

ROAD WORKS

A RIGHT-OF-WAY ACTIVITY PERMIT IS REQUIRED FROM THE CITY OF BARRIE PRIOR TO THE COMMENCEMENT OF ANY WORK WITHIN ANY CITY OF BARRIE RIGHT-OF-WAY.

WELL DECOMMISSIONING

ANY EXISTING WELLS ON THE PROPERTY ARE TO BE DECOMMISSIONED BY A LICENSED WELL CONTRACTOR AS PER ONTARIO REGULATION 903.

TREE REMOVAL

EXISTING TREES ON PROPERTY ARE TO BE REMOVED TO FACILITATE PROPOSED SITE GRADING AND SERVICING WORKS. ANY TREE REMOVAL(S) WITHIN THE CITY OF BARRIE RIGHT-OF-WAY ARE TO BE CONFIRMED WITH CITY OF BARRIE STAFF PRIOR TO CONSTRUCTION COMMENCING.

GRANULAR MATERIALS

- 1. ALL IMPORTED GRANULAR MATERIALS SHALL COMPLY WITH OPSS.MUNI.314 (NOVEMBER 2016).
2. GRANULAR MATERIALS USED AS GRANULAR BASE AND SUBBASE SHALL BE COMPACTED TO 100% S.P.M.D.D.
3. ANY WATER OBTAINED FROM THE CITY OF BARRIE FOR USE IN COMPACTION SHALL BE UNDER AGREEMENT AND METHODS CONTROLLED BY THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ARRANGEMENTS WITH THE CITY OF BARRIE REGARDING WATER USE.

ASPHALT

- 1. ALL ASPHALT CONSTRUCTION TO COMPLY WITH OPSS.MUNI.316 (NOVEMBER 2017). ASPHALT REINSTATEMENT ON COX MILL ROAD TO MATCH EXISTING ROAD CONDITIONS.
2. DRIVEWAY ASPHALT STRUCTURE:
- 50mm (MINIMUM) HL3 ASPHALT
- 200mm (MINIMUM) GRANULAR 'A'

REINSTATEMENT

- 1. ALL DISTURBED AREAS ARE TO BE REINSTATED.
2. A MINIMUM OF 200mm OF SCREENED, FRIABLE TOPSOIL FREE OF STONES, STICKS, AND OTHER DEBRIS, SHALL BE PLACED PRIOR TO THE PLACEMENT OF SOD. ALL TOPSOIL SHALL CONFORM TO OPSS 802 (NOVEMBER 2010) AND THE CITY OF BARRIE LOT GRADING AND DRAINAGE STANDARDS AND DESIGN MANUAL, JUNE 16, 2016. THE CONTRACTOR SHALL ARRANGE FOR TESTING OF IMPORTED TOPSOIL AT THE SOURCE SITE PRIOR TO IMPORTATION TO THE SITE. ALL TOPSOIL MUST MEET THE ACCEPTABLE TOPSOIL PARAMETERS NOTED IN THE CITY OF BARRIE LOT GRADING AND DRAINAGE STANDARDS AND DESIGN MANUAL, JUNE 16, 2016, TABLE 1 - ACCEPTABLE TOPSOIL PARAMETERS.
3. ALL SOD SHALL CONFORM TO OPSS.MUNI.803 (APRIL 2016) AND THE CITY OF BARRIE LOT GRADING AND DRAINAGE STANDARDS AND DESIGN MANUAL, JUNE 16, 2016. AFTER PLACEMENT, SOD SHALL BE ROLLED TO ENSURE NO AIR POCKETS EXIST, AND ALL SOD HAS GOOD CONTACT WITH THE TOPSOIL. SOD IS TO BE WATERED BY THE CONTRACTOR FOR A SUFFICIENT AMOUNT OF TIME TO ENSURE THAT THE SOD IS ALIVE AND VIABLE.

SERVICE CROSSINGS & SERVICE SPACING

SEWER PIPES AND STRUCTURES ARE TO BE SEPARATED FROM WATER SERVICES AND MAINS BY A MINIMUM DISTANCE OF 250mm HORIZONTALLY, AND 500mm VERTICALLY, FROM OUTSIDE WALL TO OUTSIDE WALL.

WHERE STORM/SANITARY/WATERMAIN CROSSINGS OCCUR, PIPE SEWERS SHALL BE INSTALLED SUCH THAT PIPE JOINTS ARE A MINIMUM OF 240mm FROM THE OUTSIDE WALL OF WATERMANS OR SERVICES, MEASURED HORIZONTALLY FROM THE SPRING LINE.

WATERMANS ARE TO PASS ABOVE SEWERS WHERE POSSIBLE. MINIMUM SEPARATION TO ALLOW PROPER PIPE BEDDING AND STRUCTURAL SUPPORT, AS WELL AS SUFFICIENT COVER TO FINISHED GRADE. OTHERWISE, WATERMAIN IS TO BE DEFLECTED UNDER SEWERS WITH A MINIMUM OF 500mm SEPARATION FROM OUTSIDE OF SEWER PIPE TO OUTSIDE OF WATERMAIN PIPE.

EXISTING SITE DRAINAGE AND EROSION PROTECTION

ALL WORKS ARE TO BE ORGANIZED TO MAINTAIN EXISTING SITE DRAINAGE. THIS MAY INCLUDE BUT NOT BE LIMITED TO CONSTRUCTION OF TEMPORARY SWALES, TEMPORARY CULVERT EXTENSIONS, TEMPORARY CULVERT ADDITIONS, ETC.

ALL EXISTING DRAINAGE STRUCTURES IN THE AREA OF WORK ARE TO BE PROTECTED FROM SILTATION BY INSTALLING A SILTSACK ON THE EXISTING CATCH BASIN.

UNDERGROUND WORKS

DURING INSTALLATION OF PIPED SERVICES (SANITARY, WATER) THE OPEN ENDS OF ALL PIPES IN TRENCHES ARE TO BE FILTER WRAPPED OR CAPPED AT THE END OF EACH WORK DAY TO PREVENT SEDIMENTATION IN THE EVENT OF A PRECIPITATION EVENT.

CATCH BASIN GRATES

INSTALL SILTSACK ON EXISTING AND PROPOSED CATCH BASIN GRATES (AS NOTED). SILTSACKS TO BE MAINTAINED THROUGHOUT CONSTRUCTION, AND SILTSACKS ARE TO REMAIN IN PLACE UNTIL THE SITE HAS BEEN REINSTATED.

PERIMETER SILTATION FENCE & HOARDING

PERIMETER OF WORKS TO BE DELINEATED WITH SILTATION FENCING. WHERE HOARDING OR EXISTING CHAIN LINK FENCE IS IN THE SAME LOCATION, HOARDING AND CHAIN LINK CAN BE USED TO SUPPORT SILTATION FENCING. IN OTHER LOCATIONS, T-BARS AND WIRE FENCE TO BE USED TO SUPPORT FILTER FABRIC PER CITY OF BARRIE DETAIL BSD-1233

EROSION AND SILTATION CONTROLS INSTALLATION - ORDER OF OPERATIONS

- 1) INSTALL SILTSACK ON EXISTING CATCH BASIN GRATES
2) INSTALL PERIMETER SILTATION FENCING

FOLLOWING INSTALLATION, SITE CIVIL ENGINEER TO INSPECT AND CONFIRM CONTROLS ARE IN PLACE CORRECTLY PRIOR TO BEGINNING SITE ALTERATION WORKS.

MAINTENANCE OF EROSION CONTROL MEASURES

ALL SILTATION AND EROSION CONTROL MEASURES ARE TO BE INSPECTED ON AT AT LEAST A WEEKLY BASIS AND MAINTAINED AS NECESSARY. THE CONTRACTOR IS TO MAINTAIN A STOCKPILE OF SILTATION FENCING AND SUPPORT FENCING, T-BARS ETC ON HAND TO BE ABLE TO RAPIDLY ADDRESS REQUIRED MAINTENANCE.

AREA ROADS ARE TO BE KEPT CLEAN OF DEBRIS AND MUD BEING TRACKED BY VEHICLES EXISTING THE SITE. SWEEPING TO BE DONE DAILY AND/OR MORE FREQUENTLY AS DIRECTLY BY THE ENGINEER AND COB STAFF.

ALL AREAS THAT REMAIN DISTURBED AFTER 30 DAYS ARE TO BE STABILIZED TO PREVENT EROSION AND SEDIMENT FROM LEAVING THE SITE.

CONTINGENCY PLAN FOR EROSION AND SILTATION CONTROLS

IN THE EVENT OF A FAILURE OF EROSION AND SILTATION CONTROL MEASURES:

- 1. ANY SPILLED SEDIMENT IS TO BE IMMEDIATELY COLLECTED AND REMOVED.
2. CONTROL MEASURES ARE TO BE REPAIRED AND RETURNED TO THEIR ORIGINAL CONFIGURATION.
3. ANY DAMAGE TO NEIGHBORING PROPERTIES CAUSED BY A SPILL OF SEDIMENT OR CLEAN UP OF SAME IS TO BE REPAIRED IMMEDIATELY AFTER CLEANUP. ALL AFFECTED AREAS TO BE RETURNED TO THE ORIGINAL CONDITION OR BETTER.

LOW IMPACT DEVELOPMENT ("LID") MEASURES

LID MEASURES (i.e. SOAKAWAY PITS) ARE NOT TO BE USED AS SEDIMENT CONTROL DEVICES.

DEWATERING

ANY DEWATERING REQUIRED ON THE SITE SHALL BE CONDUCTED IN A MANNER IN ORDER TO PREVENT THE DISCHARGE OF SEDIMENT OFF OF THE SITE. METHODS SUCH AS PUMPING FROM A FILTER SUMP, DISCHARGING TO A SEDIMENT BAG, ETC. ARE TO BE EMPLOYED.

SANITARY SEWERS

- 1. PIPE
- SIZES AS SHOWN.
- ALL PVC PIPE SHALL BE DR-28.
- BEDDING AND BACKFILL FOR ALL PVC PIPE SHALL BE OPSS 802.010.
- BEDDING SHALL BE GRANULAR 'A', OR AS RECOMMENDED AND APPROVED BY THE GEOTECHNICAL ENGINEER AND THE CITY OF BARRIE.
- ALTERNATIVE PIPE BEDDING FOR WET CONDITIONS SHALL CONSIST OF FILTER WRAPPED CLEAR STONE, OR ALTERNATIVE AS RECOMMENDED BY A GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF BARRIE.
- BACKFILL SHALL BE SUITABLE NATIVE MATERIAL OR IMPORTED GRANULAR MATERIAL COMPACTED TO 95% SPDD, OR AS RECOMMENDED AND APPROVED BY THE TOWN OF INNISFIL.
- OPSS.MUNI.410 (NOVEMBER 2015).

WATER SERVICE

- 1. ALL WATER DISTRIBUTION PER OPSS.MUNI.441 (NOVEMBER 2016) AND CITY OF BARRIE STANDARDS.
2. PIPE
- POLYETHYLENE CSA B137.1 SERIES 200, C/W #12 STRANDED COPPER TRACER WIRE (PE PIPE). TRACER WIRE TO BE INSTALLED ON THE TOTAL LENGTH OF THE SERVICE MAINS AND BROUGHT UP AT CURB STOPS.
- BEDDING SHALL BE "SAND", OR AS RECOMMENDED AND APPROVED BY A GEOTECHNICAL ENGINEER AND THE CITY OF BARRIE.
- ALTERNATIVE PIPE BEDDING FOR WET CONDITIONS SHALL CONSIST OF FILTER WRAPPED CLEAR STONE, OR ALTERNATIVE AS RECOMMENDED BY A GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF BARRIE.
- BACKFILL SHALL BE SUITABLE NATIVE MATERIAL OR IMPORTED GRANULAR MATERIAL COMPACTED TO 95% SPDD, OR AS RECOMMENDED AND APPROVED BY THE CITY OF BARRIE.
- MINIMUM COVER AT 1.7 metres.

TESTING

- 1. STORM AND SANITARY SEWERS
- INITIAL TESTING SHALL COMPRISE CCTV INSPECTION PER OPSS.MUNI.409 (NOVEMBER 2017). THE RESULTS FROM THE CCTV INSPECTION AND VISUAL INSPECTION ON SITE BY THE ENGINEER MAY WARRANT FURTHER TESTING AS SPECIFIED IN OPSS.MUNI.410 (NOVEMBER 2015). THE CONTRACTOR SHALL PROVIDE ALL TESTING REQUIRED BY THE CITY OF BARRIE TO PROVE THE SYSTEM AT NO ADDITIONAL COST TO THE CONTRACT.
2. WATER SERVICES
- ALL WATER SERVICES SHALL BE TESTED IN ACCORDANCE WITH CITY OF BARRIE STANDARDS AND THE ONTARIO BUILDING CODE.

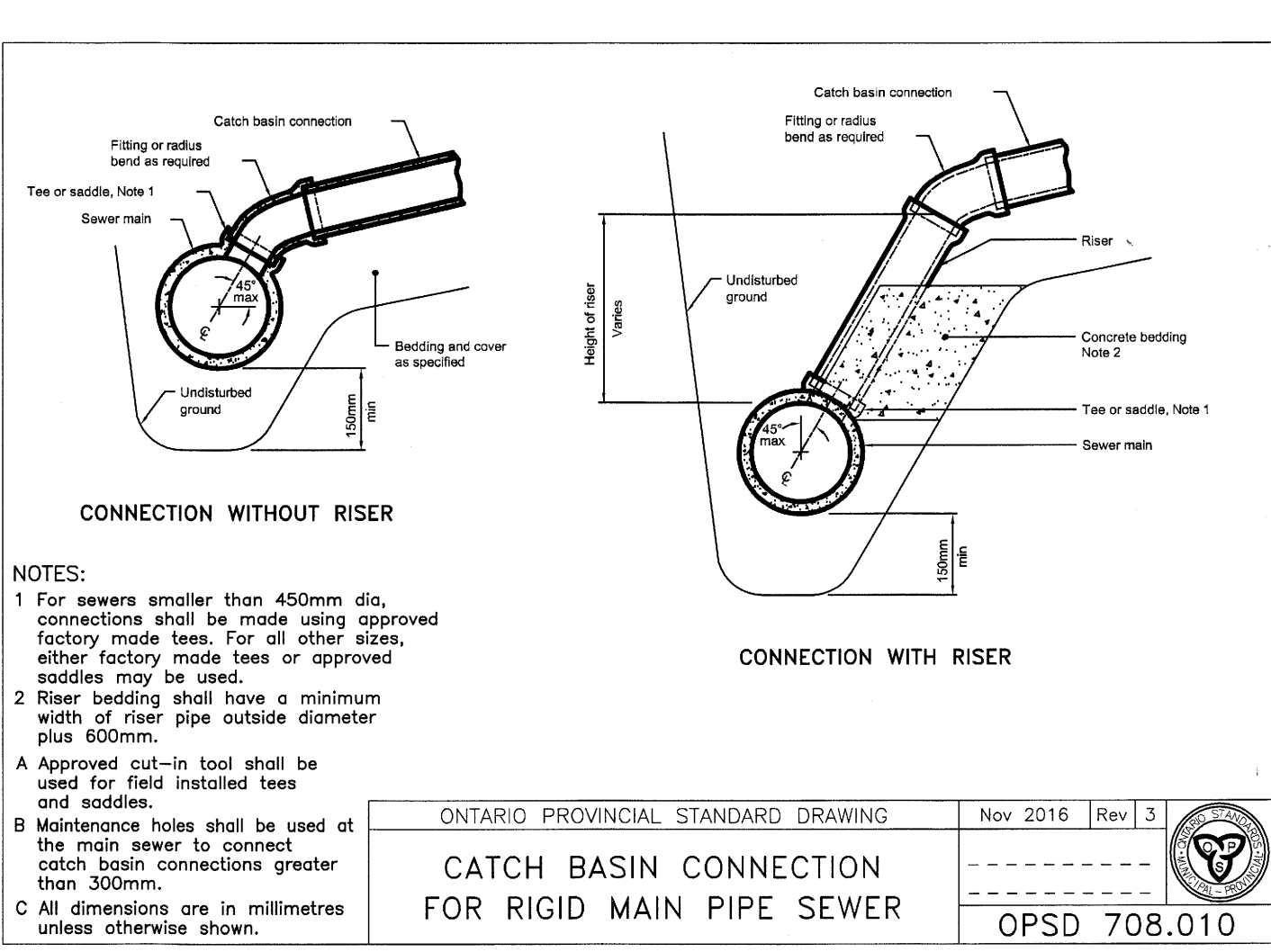


Table with 4 columns: NO., REVISION, APR'D, DATE. Includes City of Barrie Standard information and drawing details for Catch Basin Connection for Rigid Main Pipe Sewer.

Table with 4 columns: NO., REVISION, APR'D, DATE. Includes City of Barrie Standard information and drawing details for General Notes Sanitary Sewers.

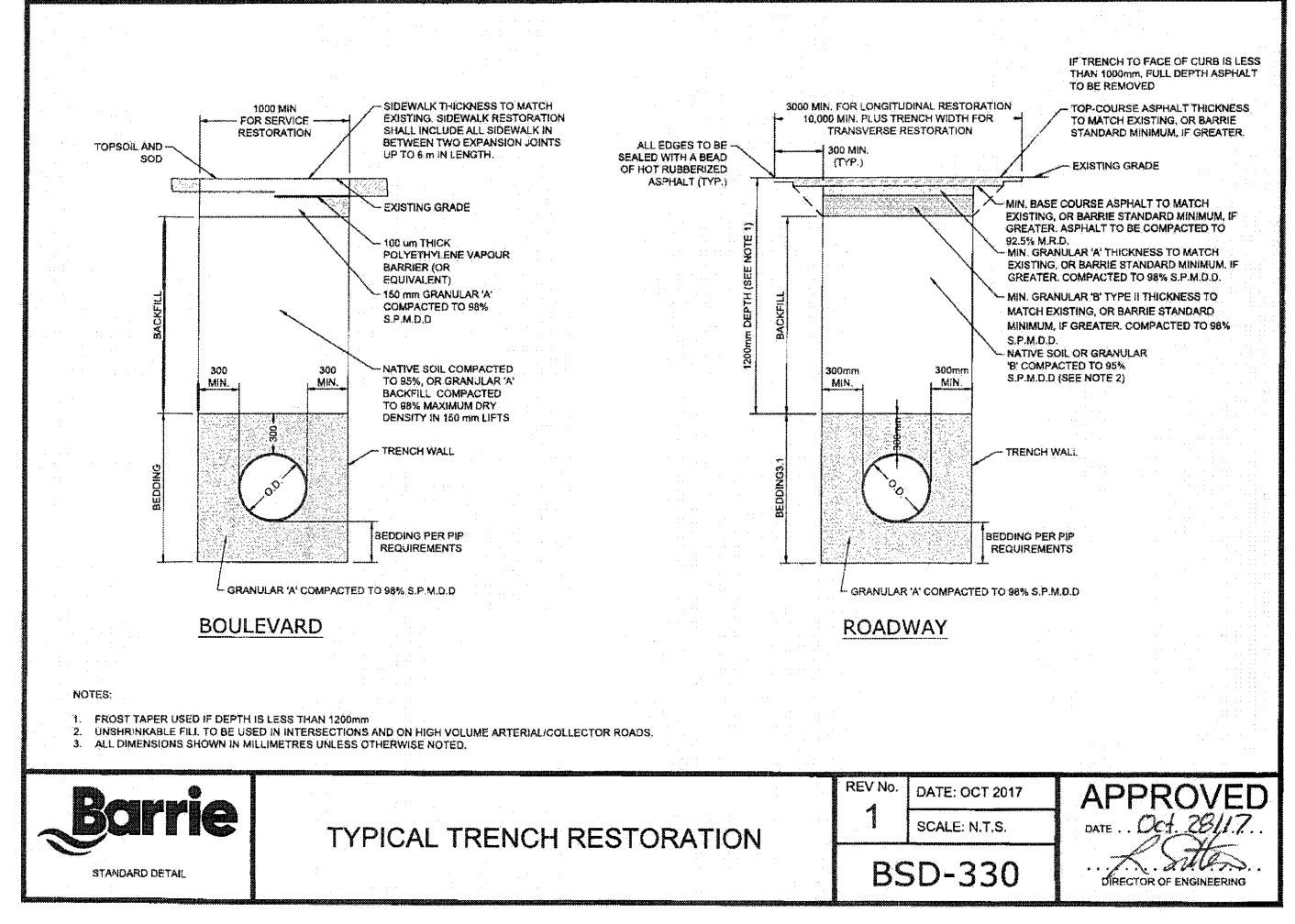


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Table with 4 columns: NO., REVISION, APR'D, DATE. Includes City of Barrie Standard information and drawing details for General Notes - Watermain.

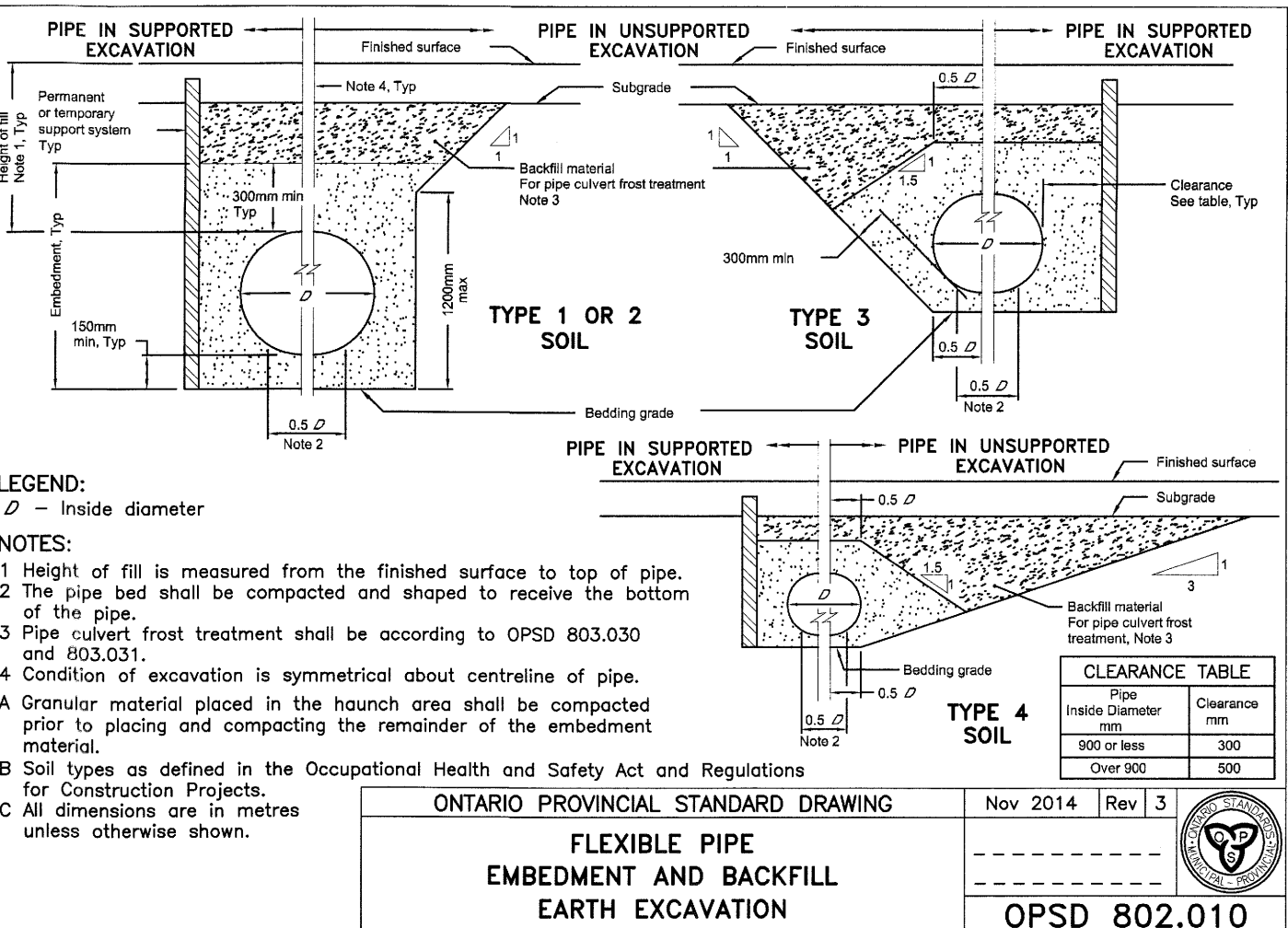
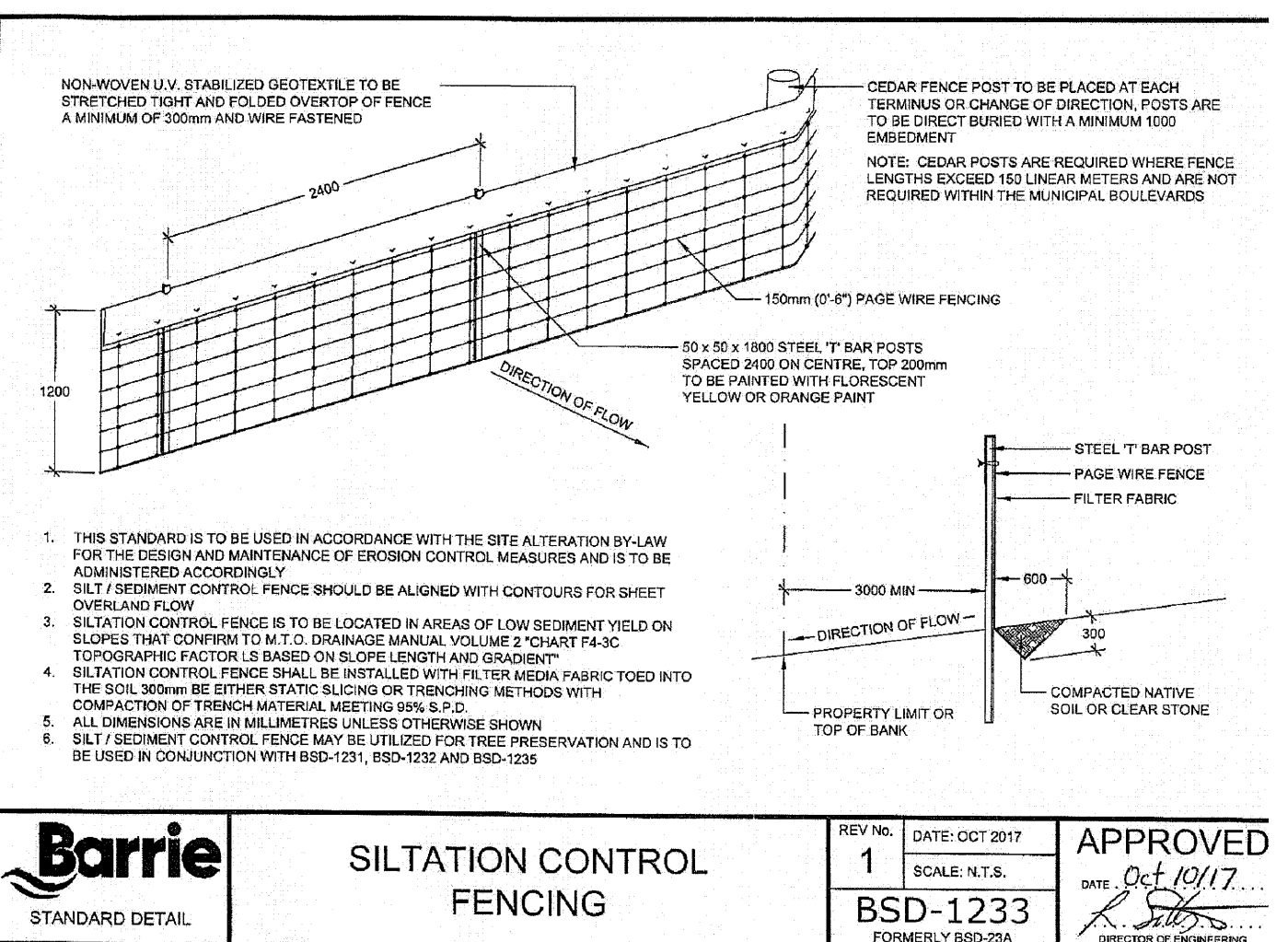
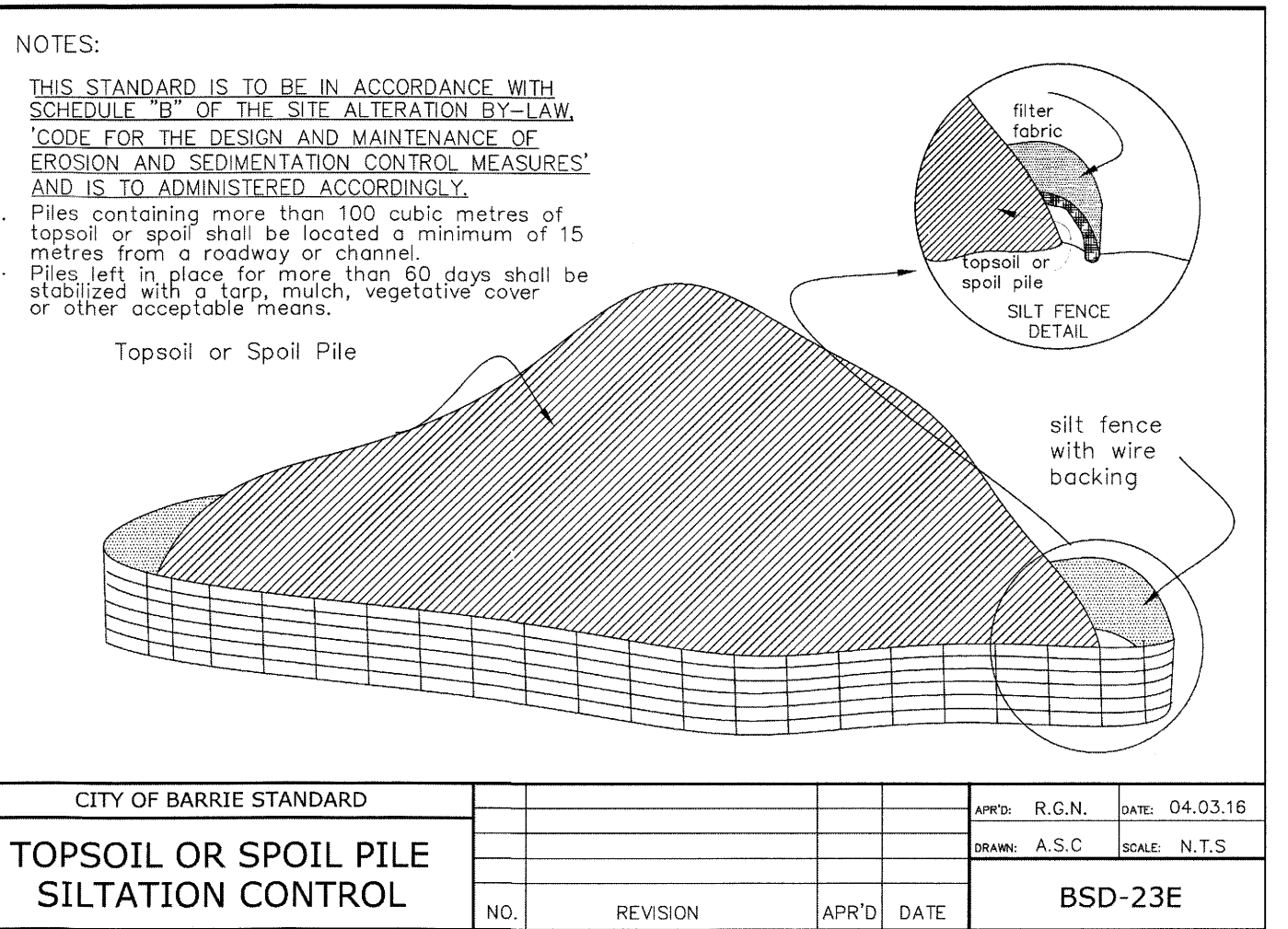


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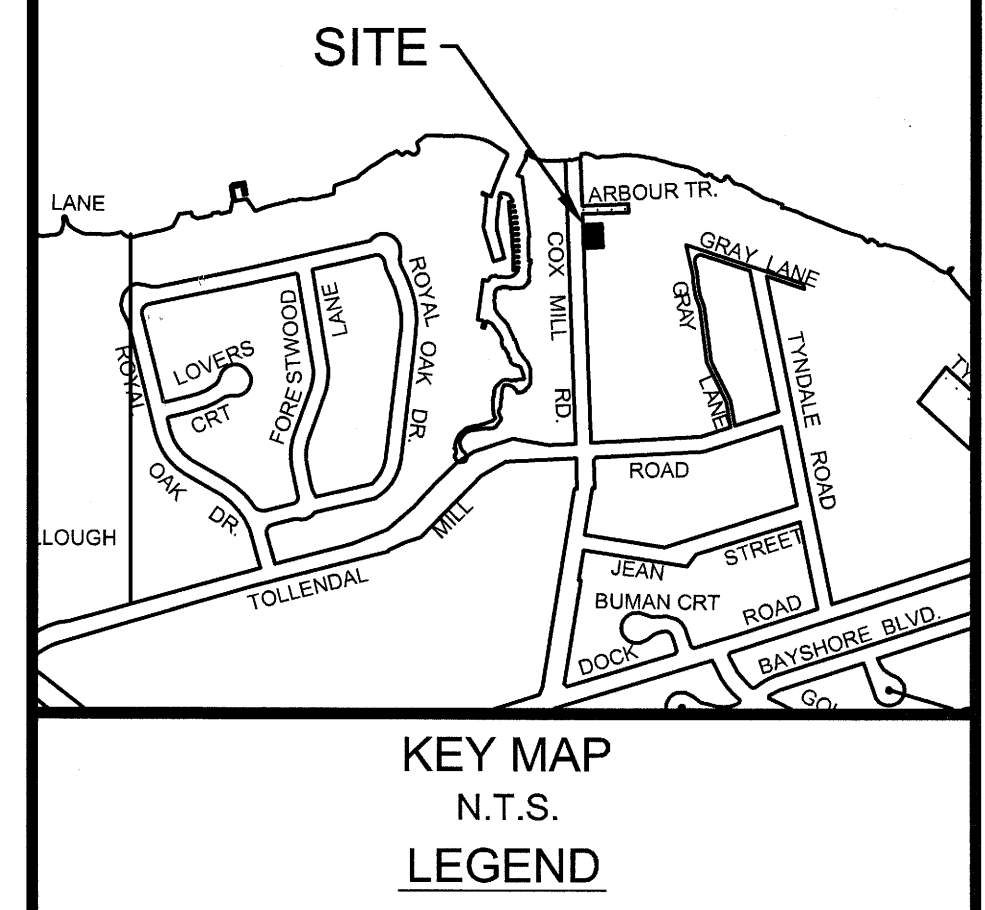
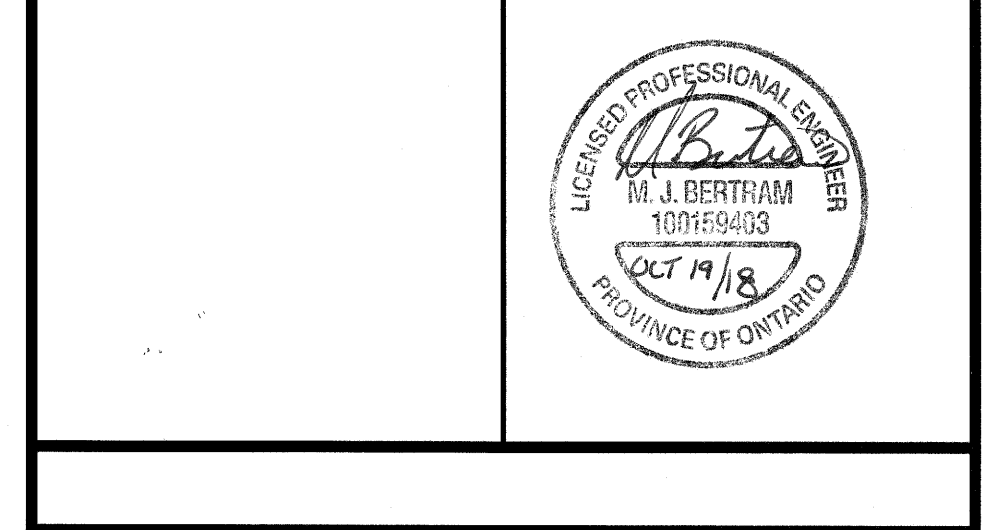


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JANKOV - ZBLA
403 COX MILL ROAD
CITY OF BARRIE

Table with 4 columns: PROJECT NO., DRWG NO., DATE, SCALE. Includes project information for 18-3160.

Table with 4 columns: DRAWN, CHECKED, APPROVED. Includes drawing approval information.

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