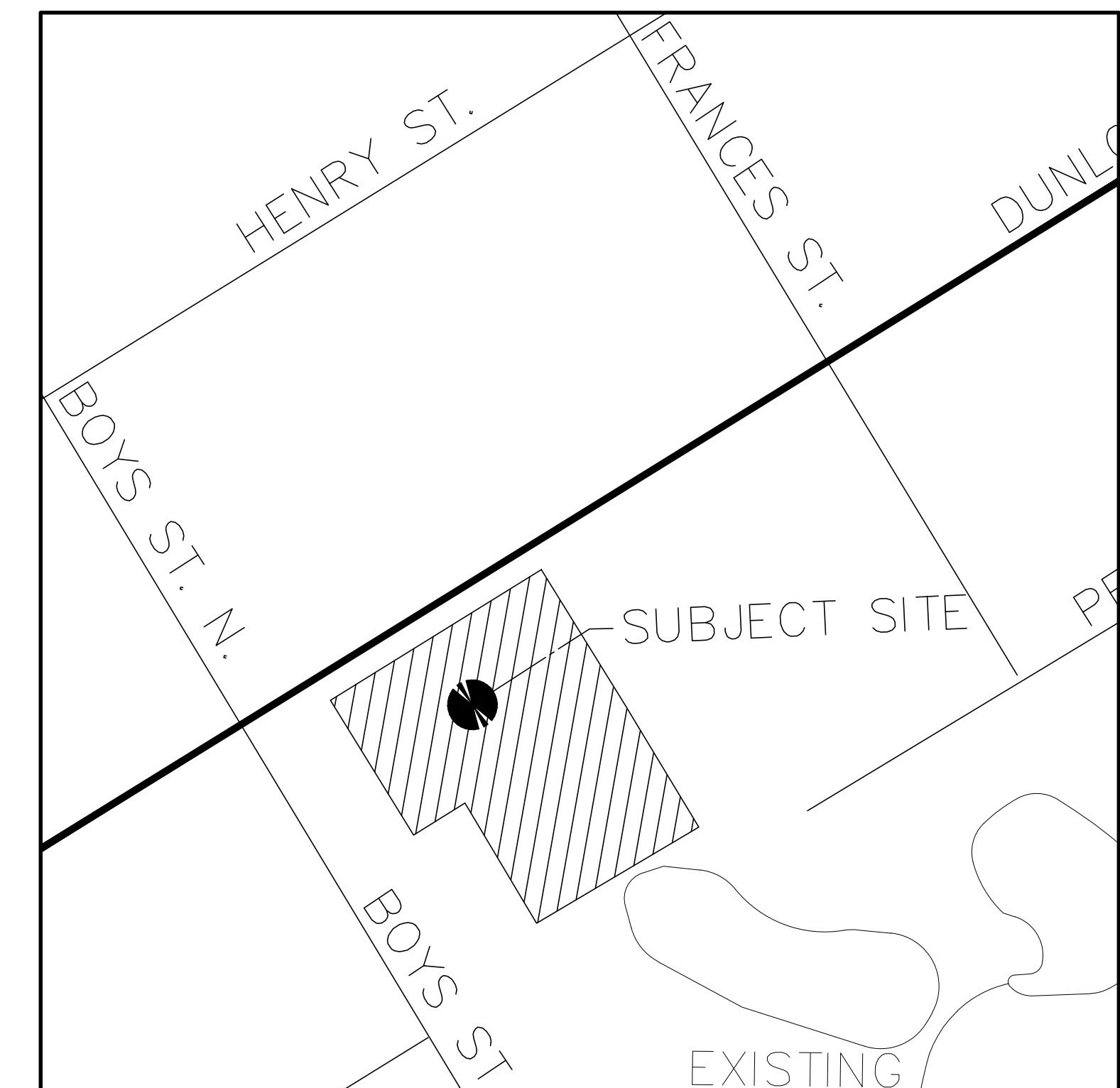


12081.01
GRAY - APARTMENT BUILDING
233, 237, 241, & 245 DUNLOP STREET WEST
BARRIE, ONTARIO

DRAWING LIST

ND-1	NOTES AND DETAILS
ND-2	NOTES AND DETAILS
SS-1	SITE SERVICING PLAN
SG-1	SITE GRADING PLAN
STM-1	PRE-DEVELOPMENT STORM CATCHMENT PLAN
STM-2	POST-DEVELOPMENT STORM CATCHMENT PLAN
PS-1	SITE PARKING AND SIGNAGE PLAN
EPR-1	ENVIRONMENTAL PROTECTION AND REMOVALS PLAN



MUNICIPALITY

CITY OF BARRIE
70 COLLIER ST.
BARRIE, ON
L4M 4T5

CLIENT

MDM DEVELOPMENTS
190 HOTCHKISS ST.
GRAVENHURST, ON
P1P 1H6



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1. DRAWINGS

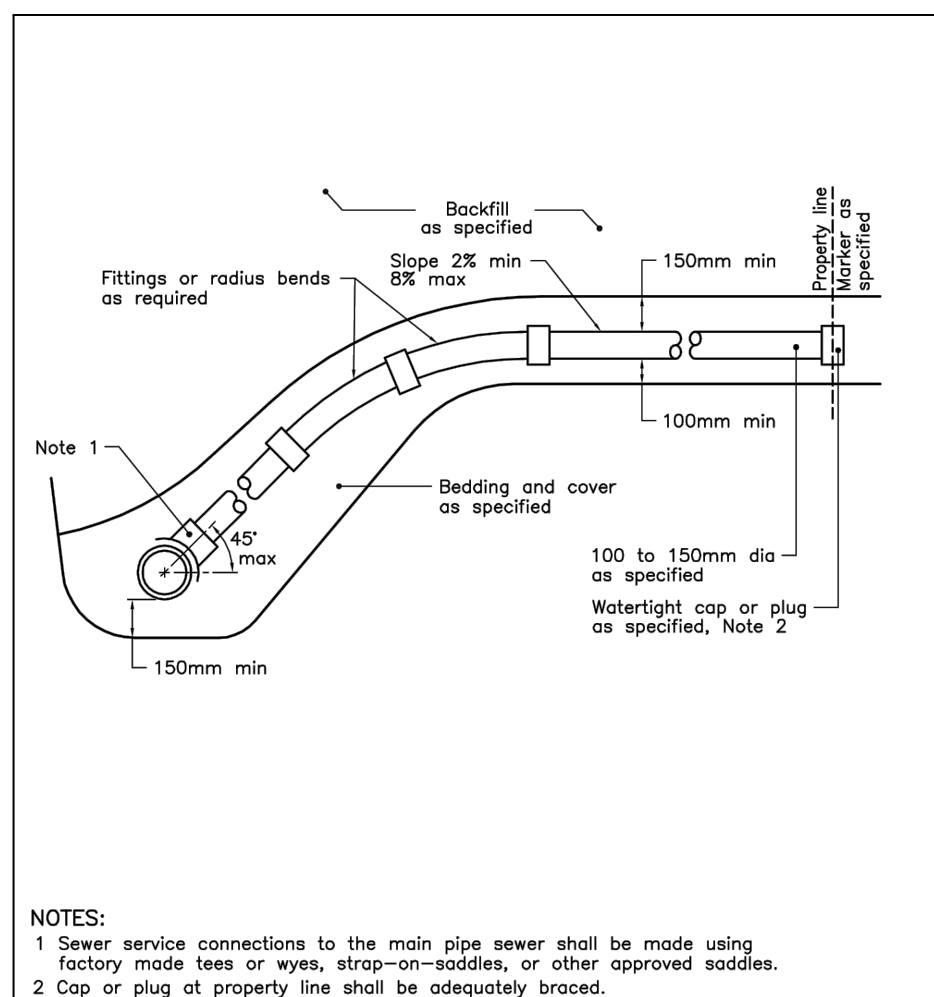
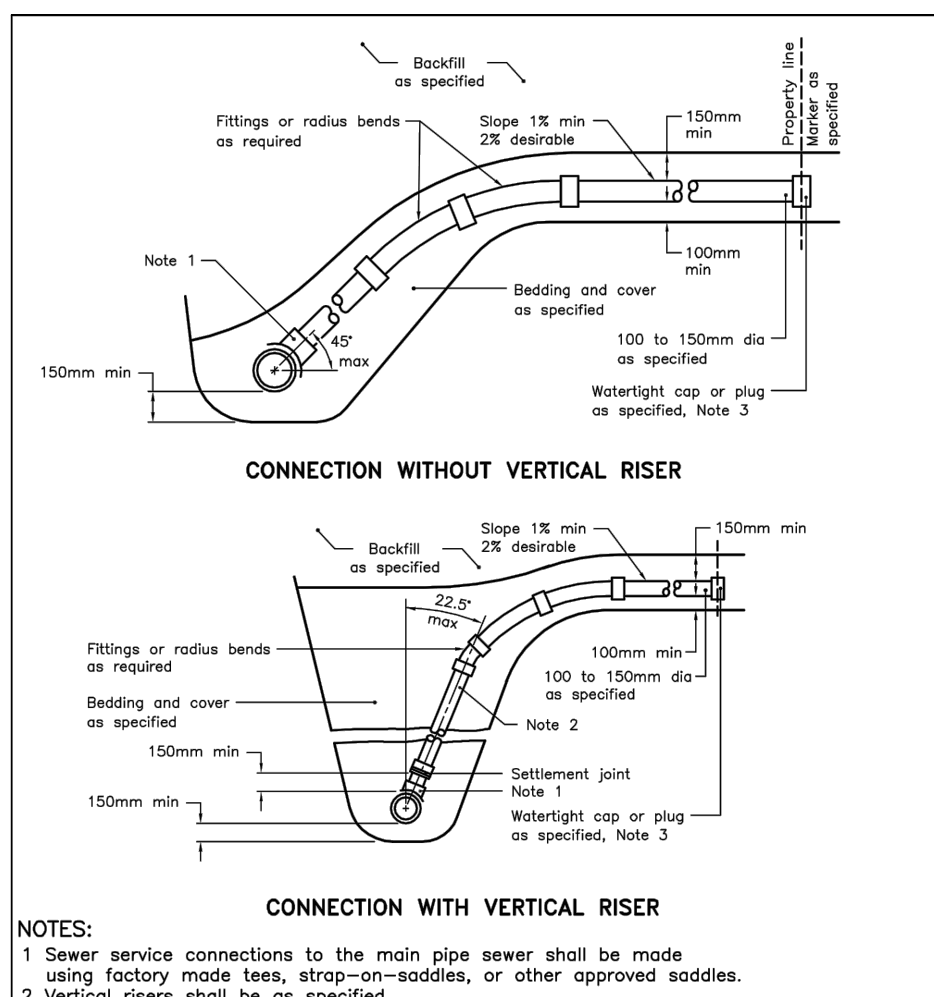
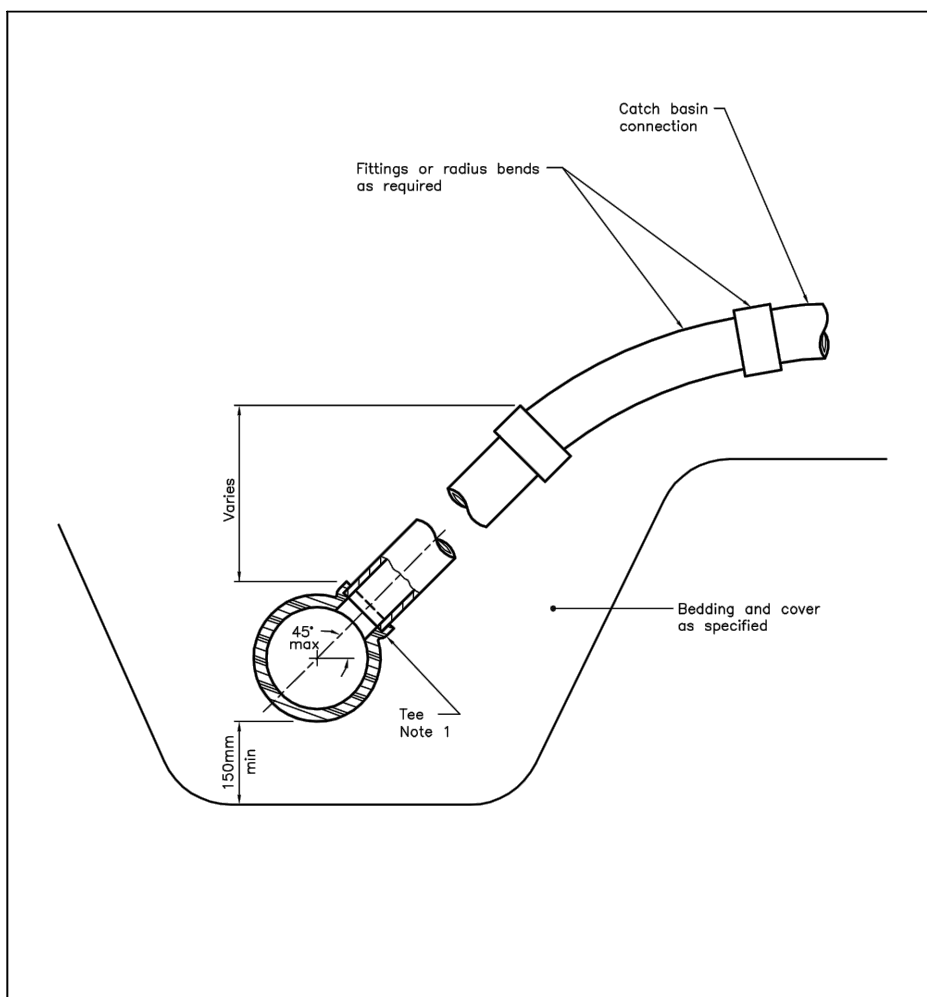
- ## 2. SANITARY

- ### 3. WATERMAIN

- #### 4. STORM

5. OTHER

-
- SECTION THROUGH TAPER TOP**
- Reinforce each adjustment unit with a minimum of 1 wire with an end area of at least 150mm². Lap wire 150mm or built weld.
- SECTION THROUGH FLAT CAP**
- Reinforce each adjustment unit with a minimum of 1 wire with an end area of at least 150mm². Lap wire 150mm or built weld.
- SECTION THROUGH CATCH BASIN**
- Round or square frame with grate or cover
- Maintenance hole step Note 1
- Adjustment units for maintenance holes with round openings. Available in sections or continuous units. Use bulby foot between units.
- Taper top
- Flat cap
- Riser section
- Catch basin
- Notes:
- If first step is in an adjustment unit, the adjustment unit shall be of the type manufactured with a step in place.
 - Centre reinforcing in adjustment unit $\pm 10\text{mm}$.
 - Round and square adjustment units are available in sizes of 50, 75, 100, 150, and 300mm.
- A Adjustment units shall not extend beyond the outside edge of the structure.
- B All dimensions are in millimetres unless otherwise shown.
- | | | | |
|---|--|----------|-------|
| ONTARIO PROVINCIAL STANDARD DRAWING | | Nov 2014 | Rev 3 |
| PRECAST CONCRETE ADJUSTMENT UNITS FOR MAINTENANCE HOLES, CATCH BASINS, AND VALVE CHAMBERS | | | |
- OPSD 704.010



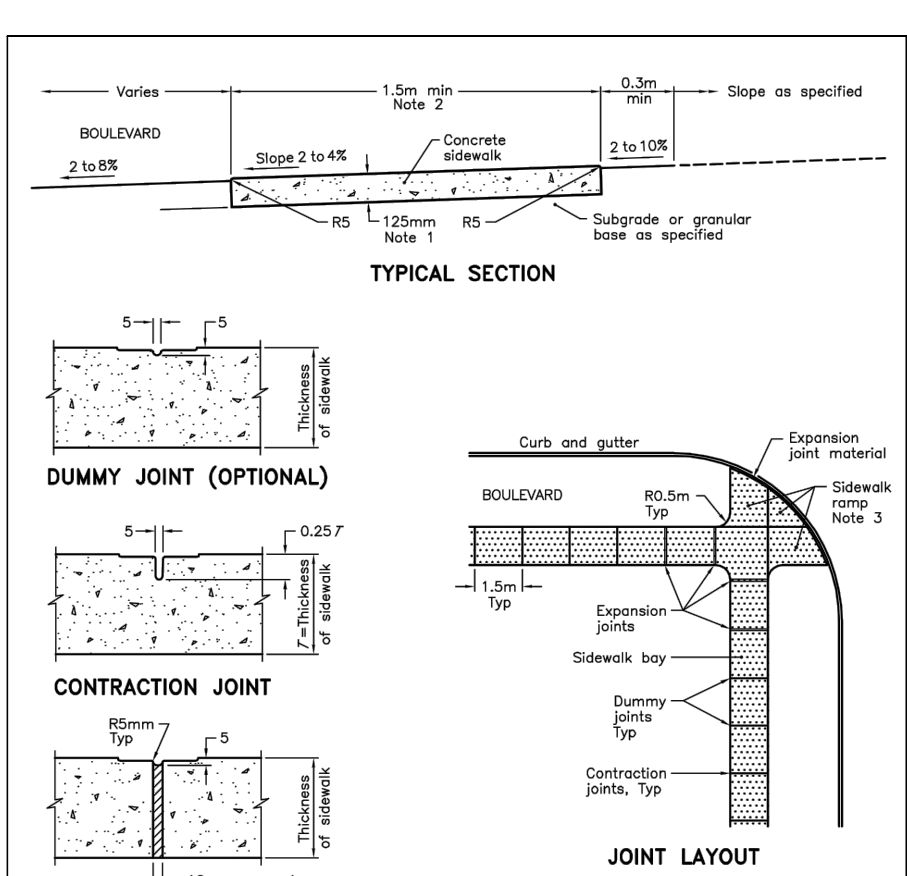
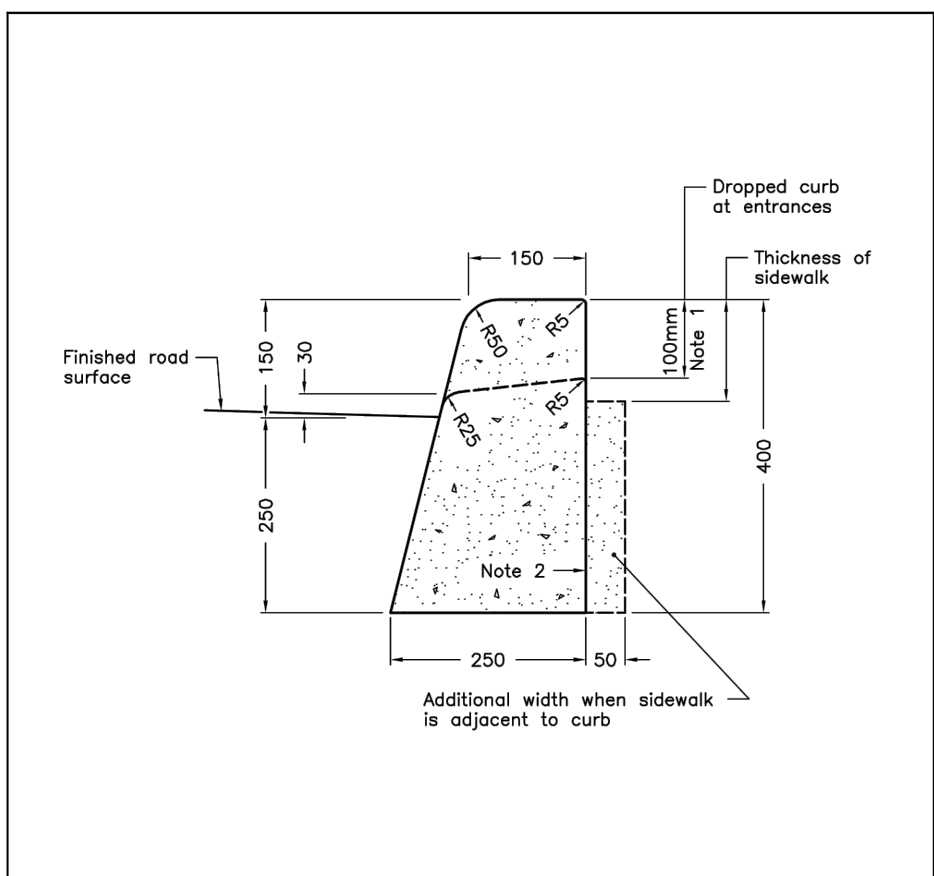
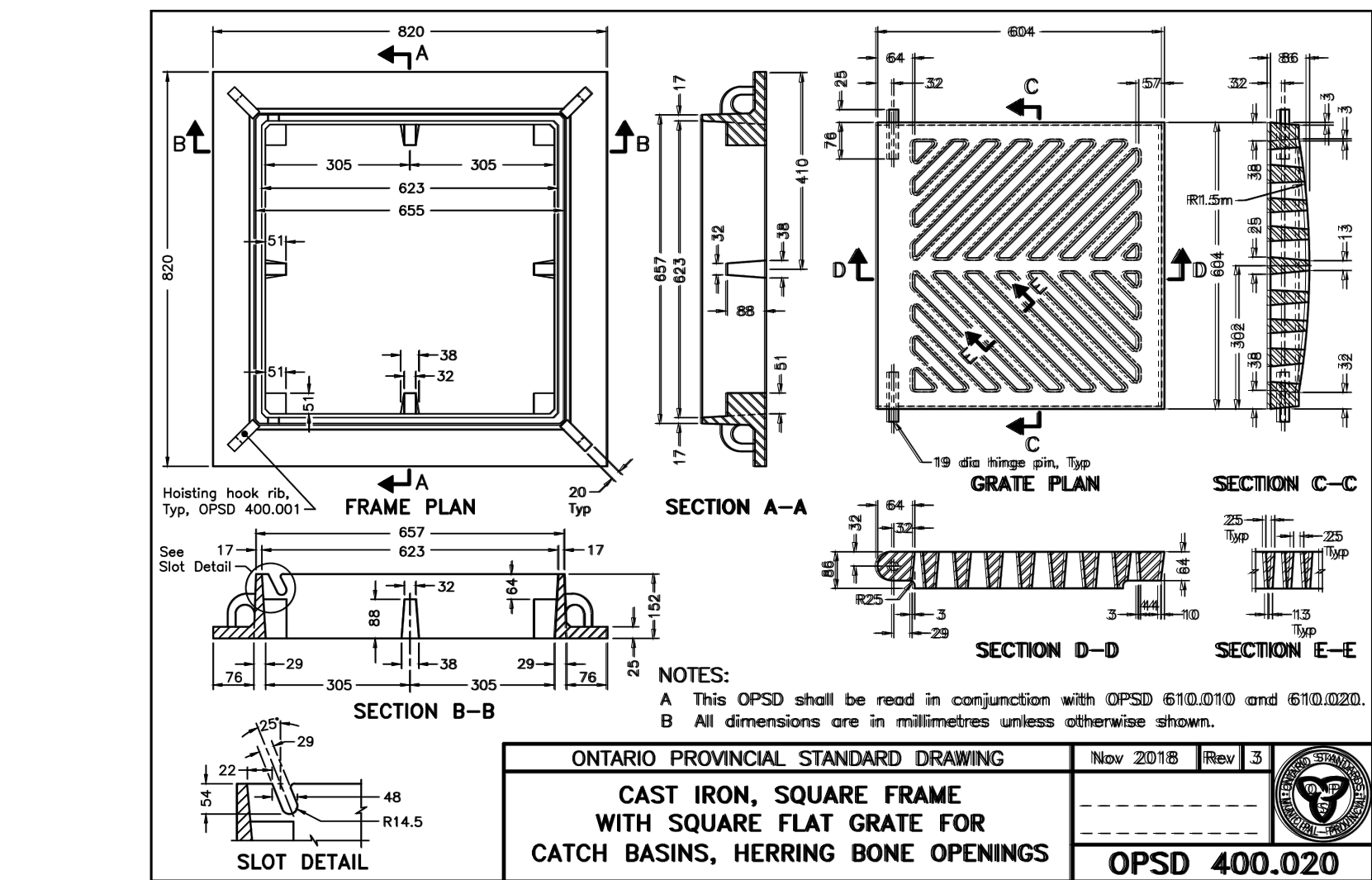
NOTES:

- 1 For catch basin connections 300mm in diameter or less, factory made tees shall be used.
- A For catch basin connections greater than 300mm in diameter, maintenance holes shall be used at the main sewer.
- B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2016	Rev 3	
CATCH BASIN CONNECTION FOR FLEXIBLE MAIN PIPE SEWER				
		OPSD 708.030		

- 3 Cap or plug at property line shall be adequately brooded.
- 4 Maintenance holes shall be used at the main sewer to connect service connections greater than or equal to 200mm.
- 5 For new construction, saddies shall be installed on the main pipe before that pipe is laid.
- 6 Approved cut-in tool shall be used for field made connections.
- 7 All dimensions are in millimetres unless otherwise shown.

A Maintenance holes shall be used at the main sewer to connect service connections greater than or equal to 200mm.	
B For new construction, saddles shall be installed on the main pipe before that pipe is laid.	
C Approved cut-in tool shall be used for field made connections.	
D All dimensions are in millimetres unless otherwise shown.	

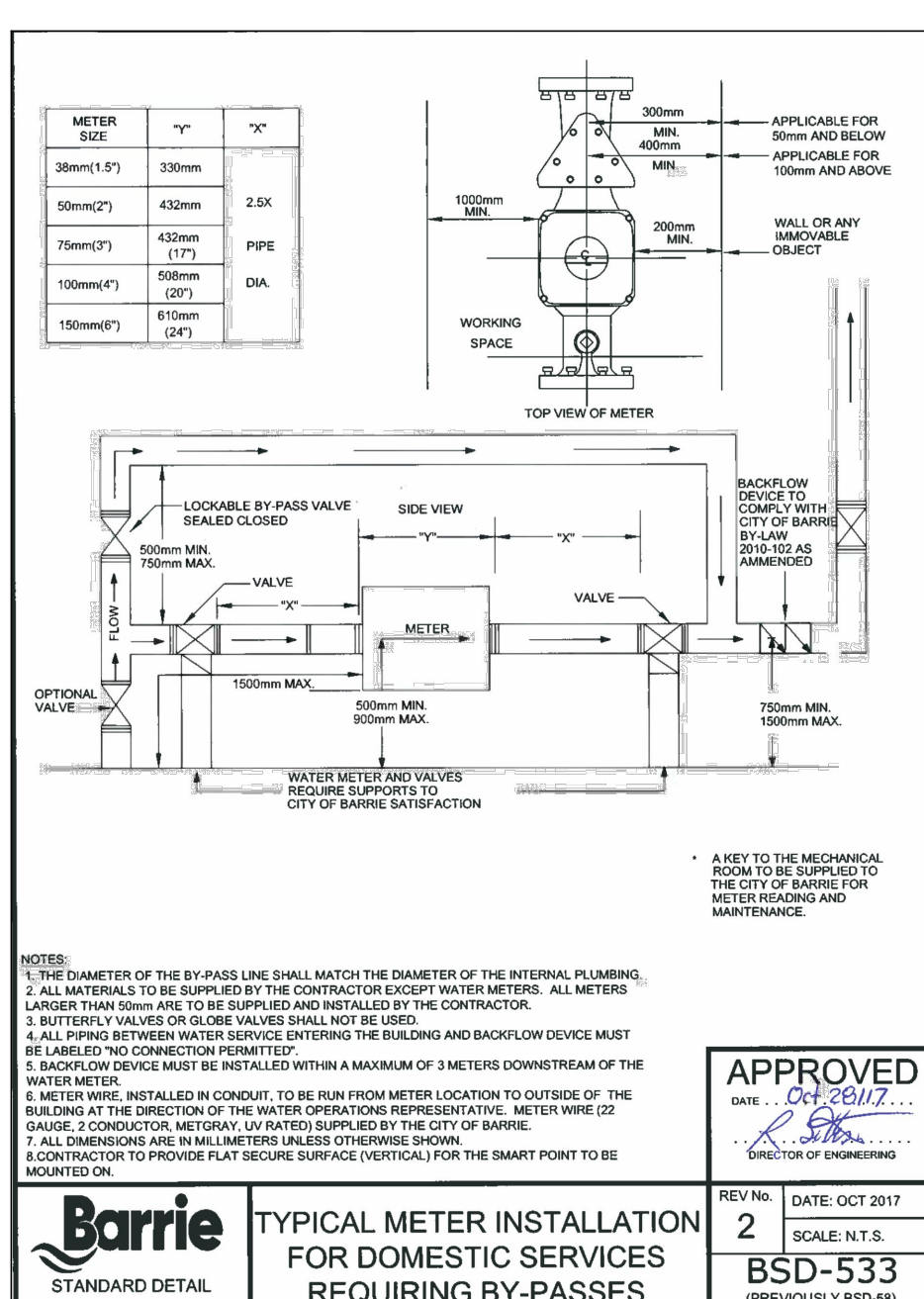
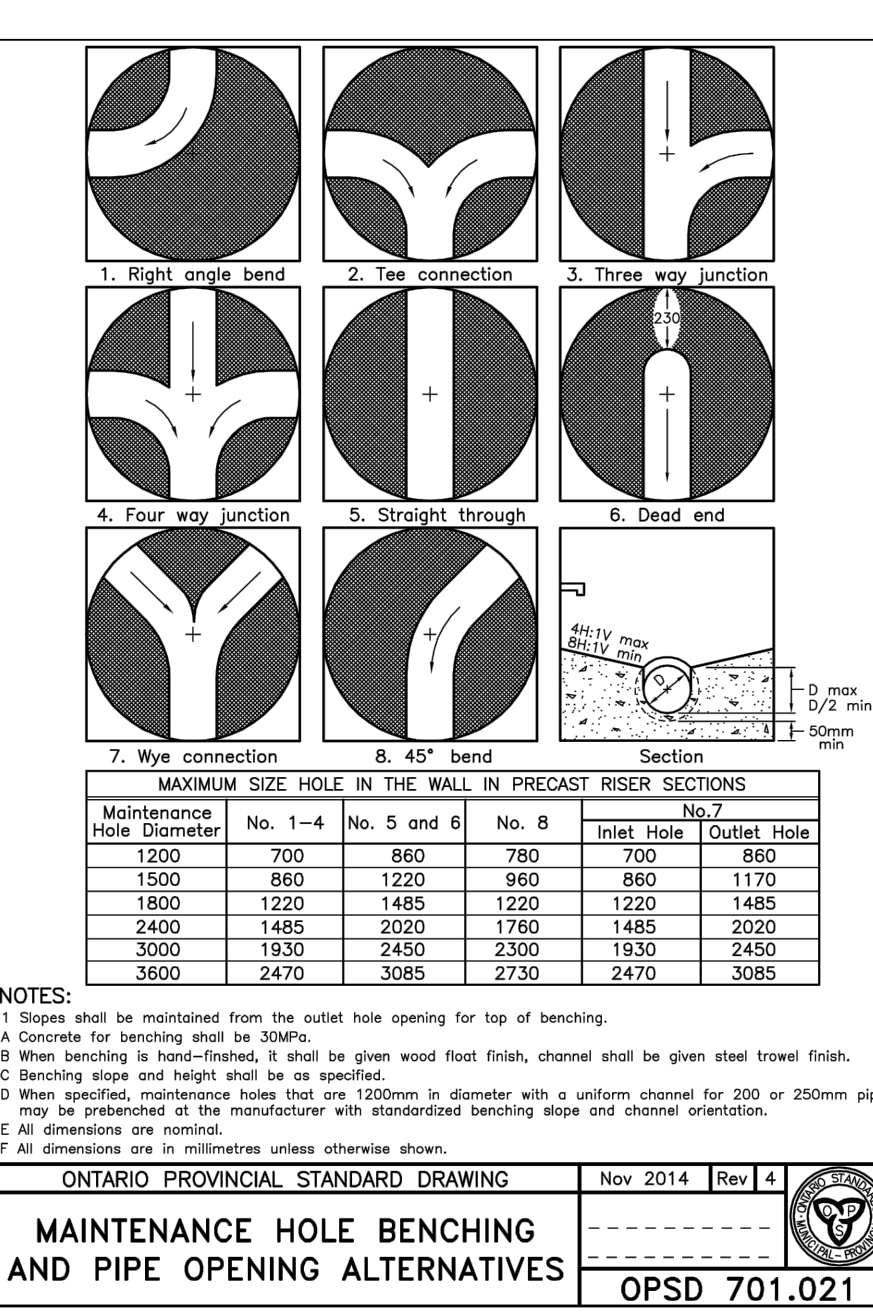
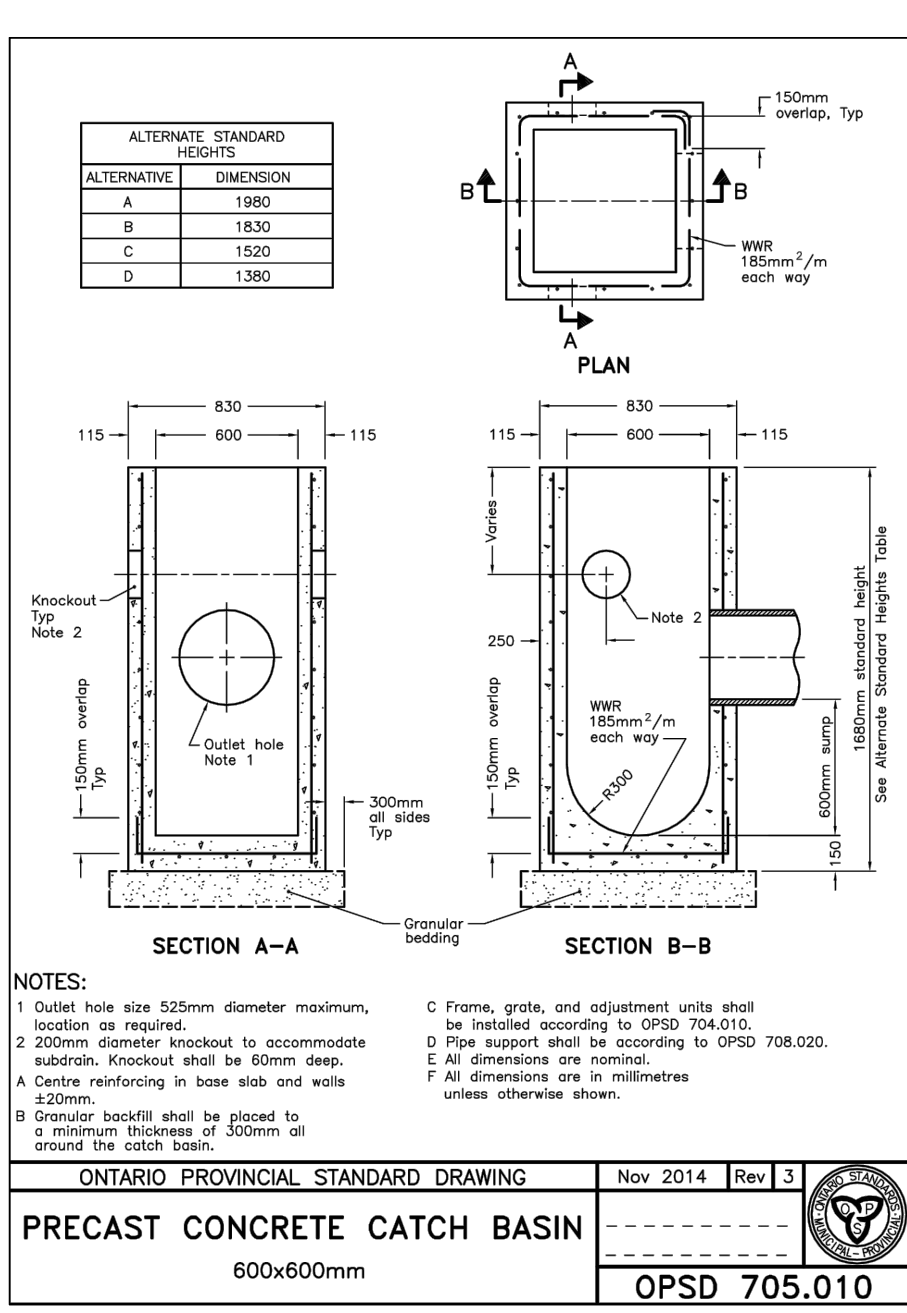


NOTES:

- When sidewalk is continuously adjacent, the dropped curb at entrances shall be reduced to 75mm.
- For sloping procedure a 5% batter is acceptable.
- Treatment at entrances shall be according to OPSD 351.010.
- Outlet treatment shall be according to the OPSD 610 Series.
- The transition from one curb type to another shall be a minimum length of 3.0m, except in conjunction with guide rail where it shall be according to the OPSD 900 Series.
- All dimensions are in millimetres unless otherwise shown.

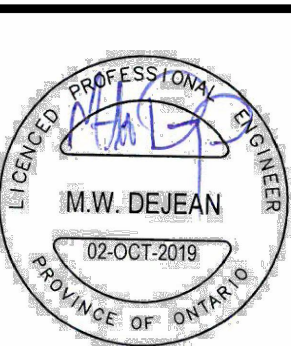
ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2012	Rev 2	
CONCRETE BARRIER CURB		OPSD 600.110		

EXPANSION JOINT	
NOTES:	
1 Sidewalk thickness at residential driveways and adjacent to curb shall be 150mm.	
At commercial and industrial driveways, the thickness shall be 200mm.	
2 Sidewalk width shall be as when specified.	
3 This CPSD shall be read in conjunction with CPSD 310.030, 310.031, 310.032, 310.033 and 310.039.	
A All dimensions are in millimetres unless otherwise shown.	
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015 <i>Rev</i> 2
CONCRETE SIDEWALK	
	CPSD 310.010



	1.	AS PER FIRST SUBMISSION COMMENTS	10/02/19	JPE
	NO.	REVISION NOTE	DATE	BY

BENCHMARK:
HORIZONTAL
MTO MONUMENT 031202040221 MONUMENT CAP IS LOCATED ON THE NORTHEAST CORNER OF DUNLOP ST. W AND EZZLES ST BETWEEN THE SIDEWALK AND THE PROPERTY LINE.
MTO MONUMENT 031202080222 MONUMENT CAP IS LOCATED ON THE SE CORNER OF INNISFILL ST AND VESPERA ST, 18.5M FROM ELEVATION OF INNISFILL ST AND APPROXIMATELY 1.3M FROM CENTERLINE OF VESPERA ST.
VERTICAL
MTO MONUMENT 011931145555 ELEVATION 228.735 BARRIE FUNDAMENTAL BENCH-MARK IN QUEENS PARK, 12.2 M NORTHWEST OF CURB AT NORTHEAST SIDE OF PARKSIDE DRIVE, 1.8 M NORTHEAST OF BOUNDARY BETWEEN PARK AND RAIL GROUNDS. TABLET IN TOP.
MTO MONUMENT 0119341119 ELEVATION 232.095 BARRIE FEDERAL BUILDING, AT CORNER OF COLLIER AND OWEN STREETS, TABLET IN EAST SIDE OF CONCRETE FOUNDATION WALL, IN CENTRE OF WALL, 1.5 M FROM ELEVATION OF COLLIER IN WALL, 7.0 M FROM SOUTHEAST CORNER OF BUILDING, 30 CM BELOW BRICK RIDGING.



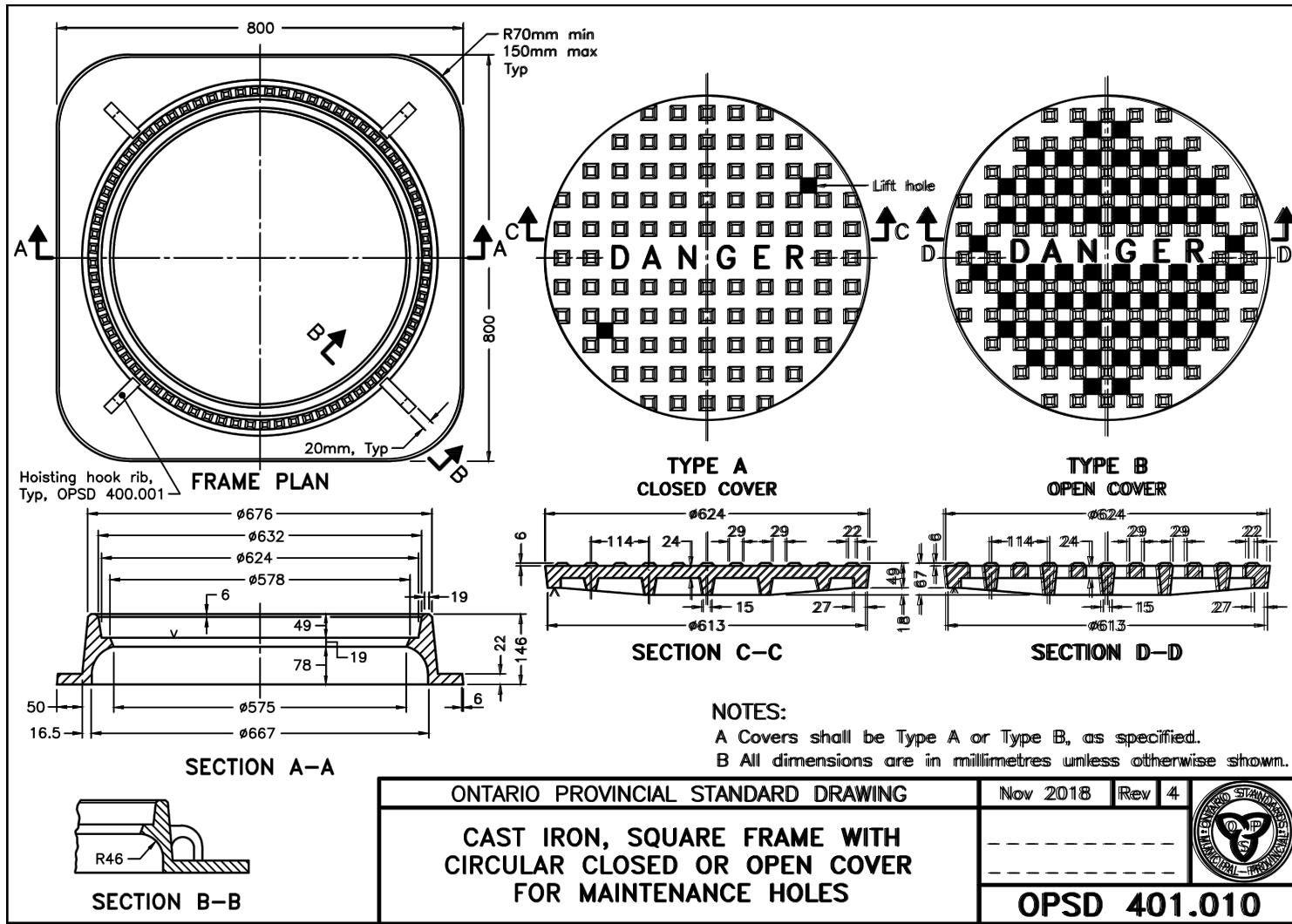
MDM DEVELOPMENTS
233 DUNLOP STREET WEST
CITY OF BARRIE

NOTES & DETAILS



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PEARSONENG.COM PH 705 719 4378

DESIGNED BY	TA/MJWP	HORIZ SCALE	PROJECT #	12081.01
DRAWN BY	MJWP	VERT SCALE	DRAWING #	ND-1
CHECKED BY	MWD	DATE	APRIL 2019	REVISION # 1



CROSS SECTION NOTES:

1.0 FINISHED SURFACE
1.1 FINISHED ROAD SURFACE (ASPHALT, CONCRETE, ETC.)
1.2 FINISHED ROAD SURFACE (ASPHALT, CONCRETE, ETC.)

2.0 TOP COVER
2.1 SUITABLE COMPACTABLE FILL:
PLACED FOR READY TO BE PLACED PRACTICES AND COMPACTED TO MIN. 95% STD. PROCTOR DENSITY.
2.2 SUITABLE MATERIAL FOR ROAD BASE:
ENGINEER OF RECORD TO SPECIFY ROAD BASE MATERIALS. 24" (610 mm) MIN. COVERAGE FROM TOP OF STORMTANK™ TO FINISHED SURFACE (SEE DETAIL FOR LOAD RATING).

3.0 NON-WOVEN GEOTEXTILE FABRIC (BRIAR 110N OR APPROVED EQUAL):
COMPLETE WRAP ISOLATING SOIL TO STONE INTERFACE.

4.0 NON-WOVEN GEOTEXTILE FABRIC (BRIAR 110N OR APPROVED EQUAL):
MIN. 12" (305 mm) THICK LAYER OF 1/2" (12.5 mm) ANGULAR, CLEAN, CRUSHED STONE (ASTM D675) 8.5" (215 mm) FREE OF LUMPS & DEBRIS. ROLLED OR PLATE TAMPED.

5.0 NON-WOVEN GEOTEXTILE FABRIC (BRIAR 110N OR APPROVED EQUAL):
COMPLETE WRAP ISOLATING MODULES TO STONE INTERFACE.

6.0 NON-WOVEN GEOTEXTILE FABRIC (BRIAR 110N OR APPROVED EQUAL):
COMPLETE WRAP ISOLATING MODULES TO LIMER INTERFACE.

7.0 IMPERMEABLE LINER:
ENGINEER OF RECORD TO SPECIFY LINER (SEE DETAIL "A").

8.0 NON-WOVEN GEOTEXTILE FABRIC (BRIAR 110N OR APPROVED EQUAL):
COMPLETE WRAP ISOLATING LINER TO STONE INTERFACE.

9.0 LEVELING BED:
MIN. 6" (152 mm) THICK LAYER OF 1/2" (12.5 mm) ANGULAR, CLEAN, CRUSHED STONE (ASTM D675) 8.5" (215 mm) FREE OF LUMPS & DEBRIS. ROLLED OR PLATE TAMPED.

10.0 PREPARED SUB-GRADE (BASE):
EXCAVATION TO BE SMOOTH LEVEL (1/4" (6.3 mm) FREE OF LUMPS & DEBRIS. COMPACTED TO 95% STANDARD PROCTOR DENSITY TO MEET EXISTING MIN. REQUIRED SOIL BEARING CAPACITY IN ALL SATURATION CONDITIONS.

11.0 SIDE BACKFILL:
MIN. 12" (305 mm) PERIMETER LAYER OF 1/2" (12.5 mm) ANGULAR, CLEAN, CRUSHED STONE (ASTM D675) 8.5" (215 mm) FREE OF LUMPS & DEBRIS. ROLLED OR PLATE TAMPED.

12.0 STAKING PINS:
2 STAKING PINS REQUIRED BETWEEN LAYERS OF MODULES IN A STACKED SYSTEM.

ASSEMBLY NOTES:

GENERAL NOTES:

1. ENGINEER OF RECORD TO SPECIFY SUB-GRADE DESIGN AND VERIFY THAT SUB-GRADE BEARING CAPACITY MEETS OR EXCEEDS THE REQUIRED SOIL BEARING CAPACITY OF THE STORMTANK™ SYSTEM FOR ALL SATURATION CONDITIONS FOR THE PROJECT. DESIGN TO BE BASED ON REFERENCED BENTWOOD DOCUMENT "REQUIRED SOIL BEARING CAPACITY" TABLES.

2. ENGINEER OF RECORD TO CONFORM CONFORMANCE TO MANUFACTURER'S ALLOWABLE PROXIMITY TO OTHER STRUCTURES.

3. A VIBRATORY ROLLER MAY ONLY BE USED IF THE COMPACTED BACKFILL IS GREATER THAN 24" (610 mm) THICK OR FOR ASPHALT INSTALLATION.

4. FOR DETAILED INSTALLATION INSTRUCTIONS, REFER TO BENTWOOD DOCUMENT "SITE PREPARATION AND INSTALLATION INSTRUCTIONS".

Project Name
STORMTANK™
Title

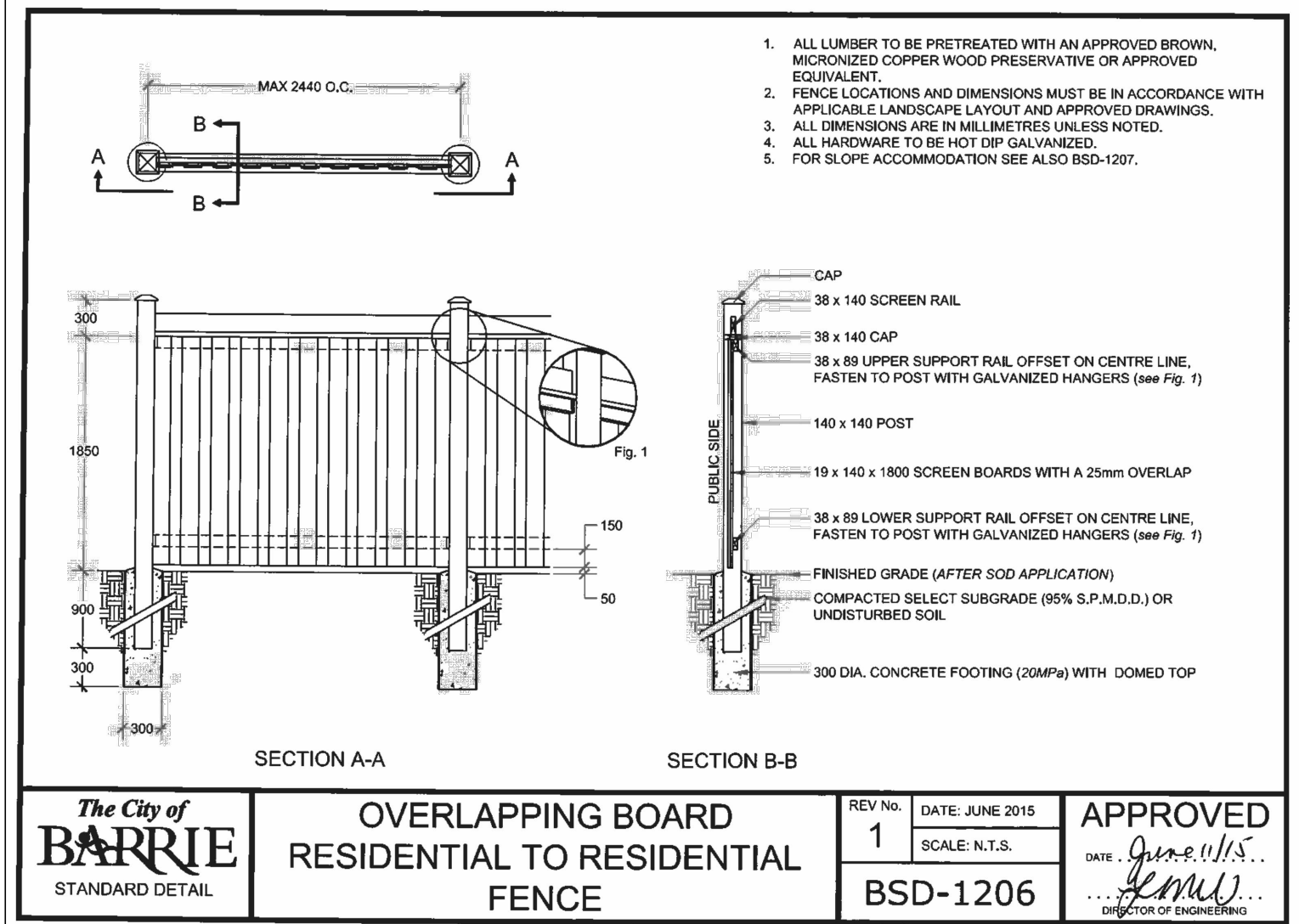
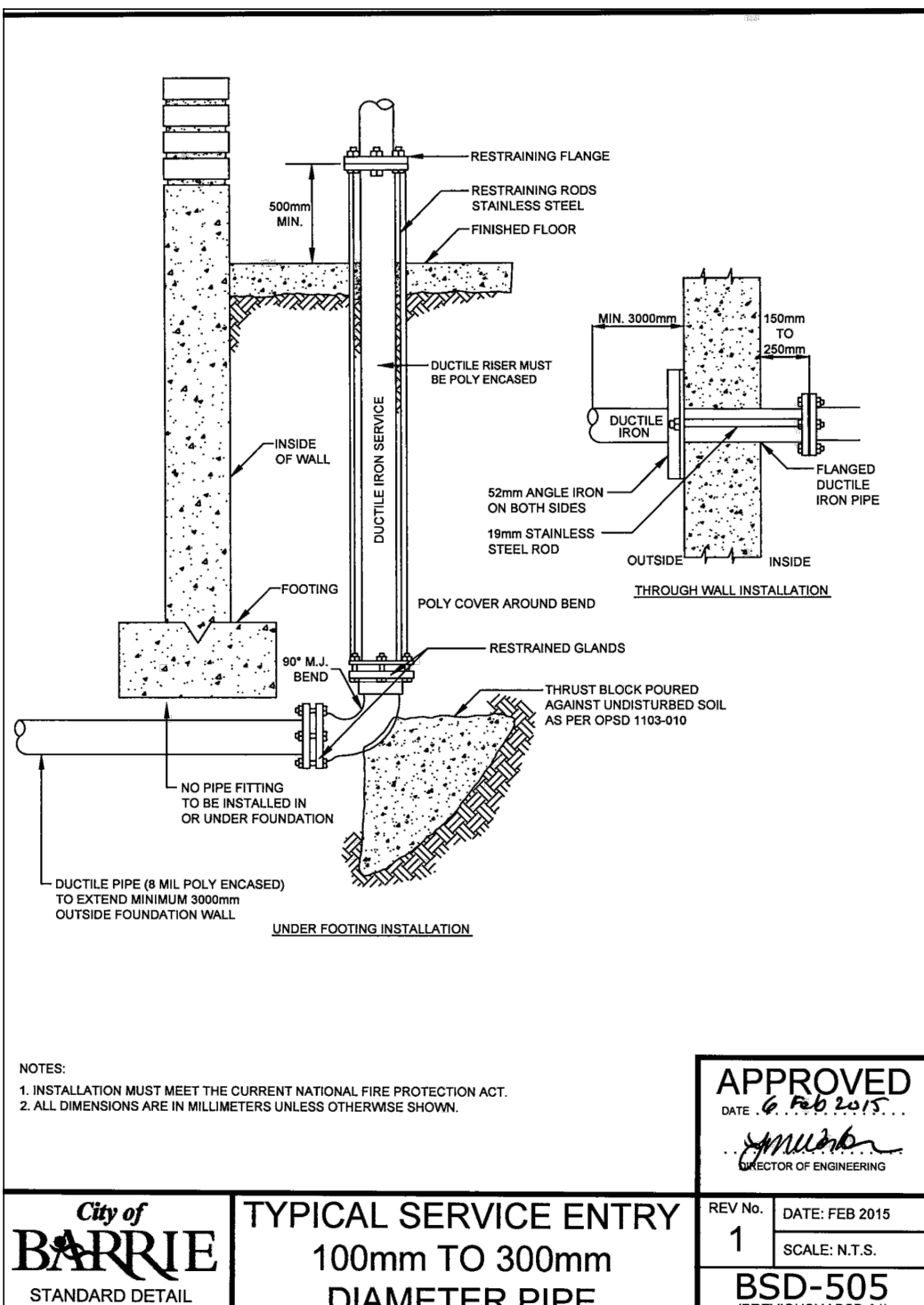
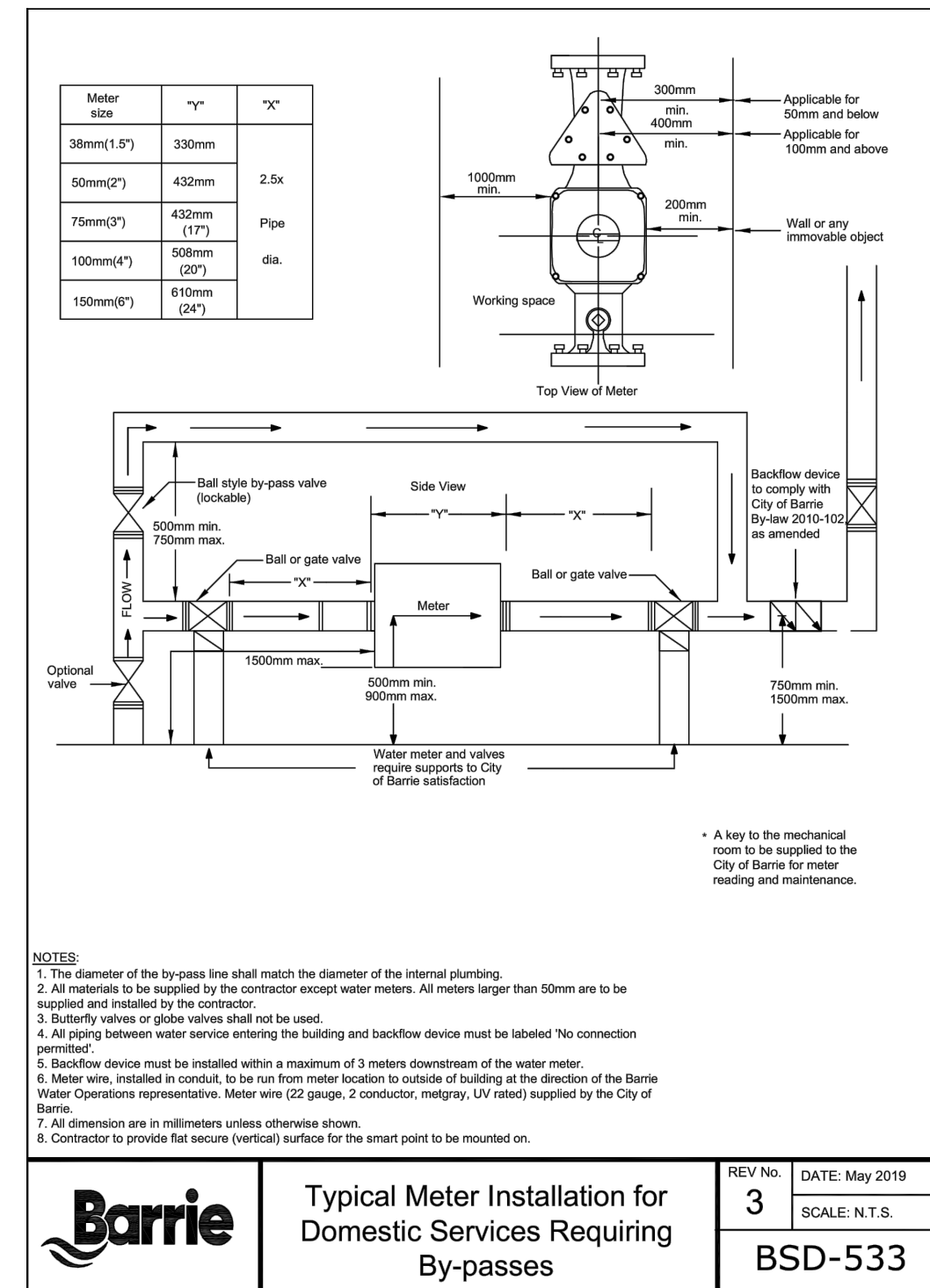
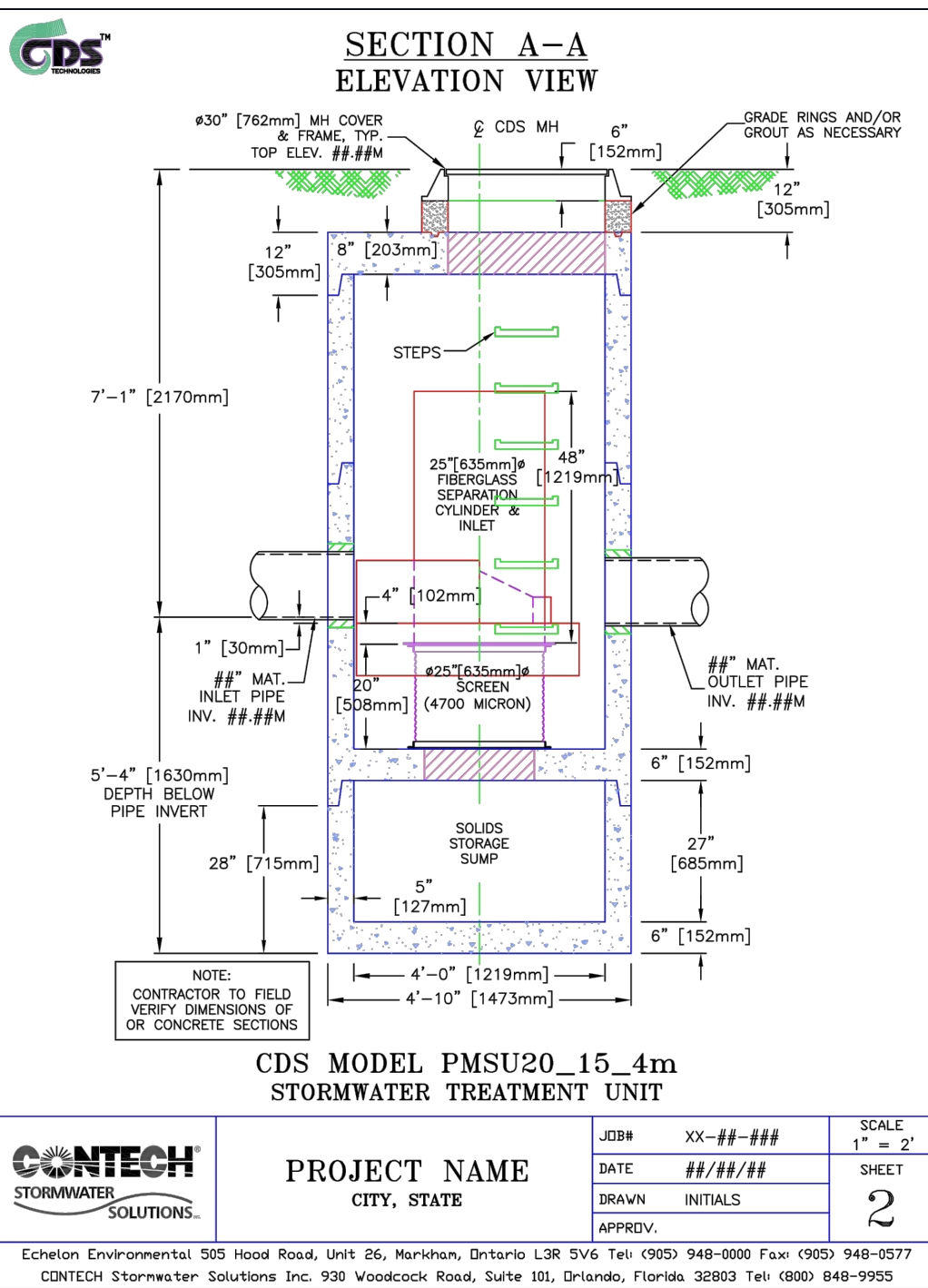
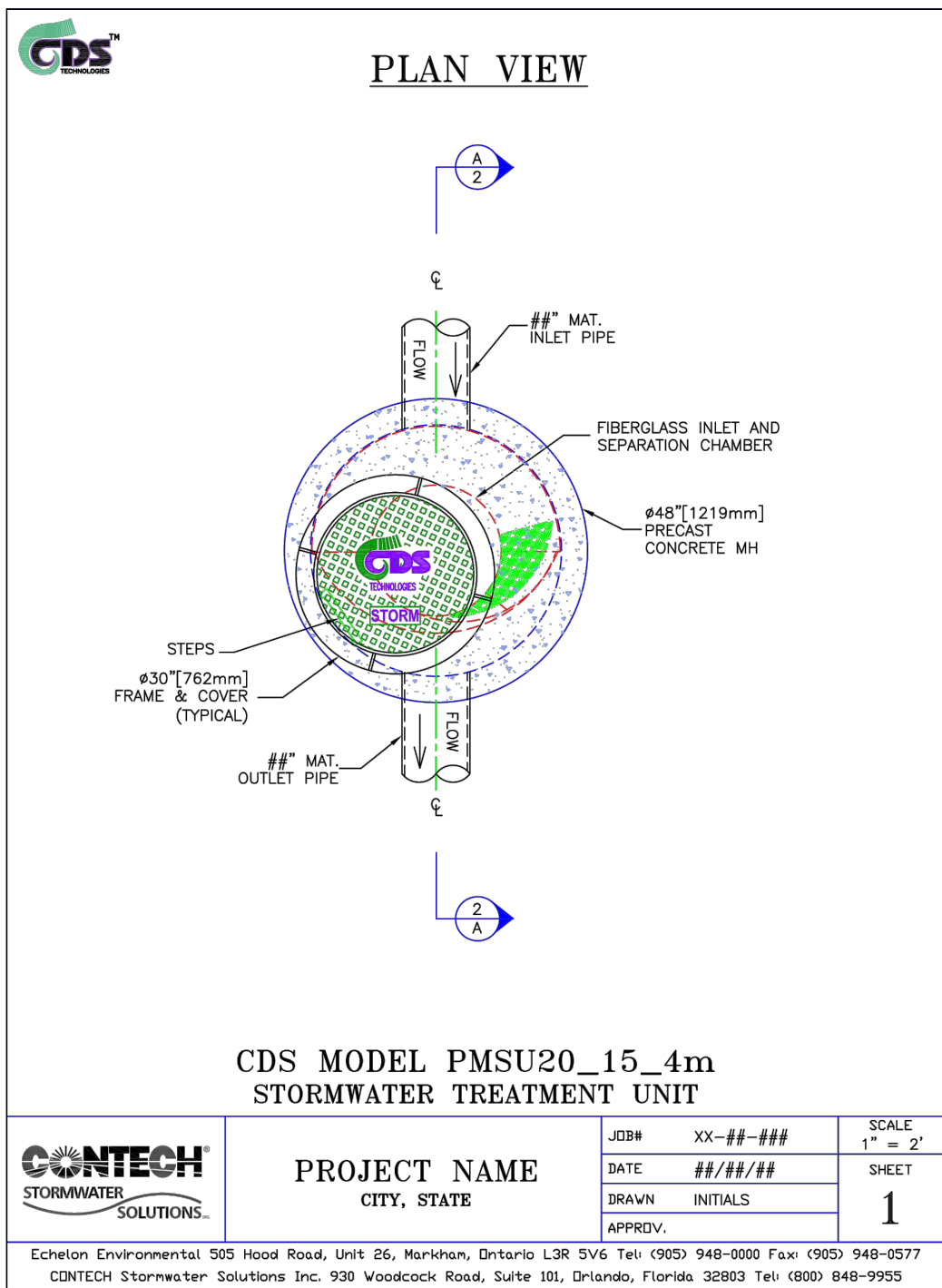
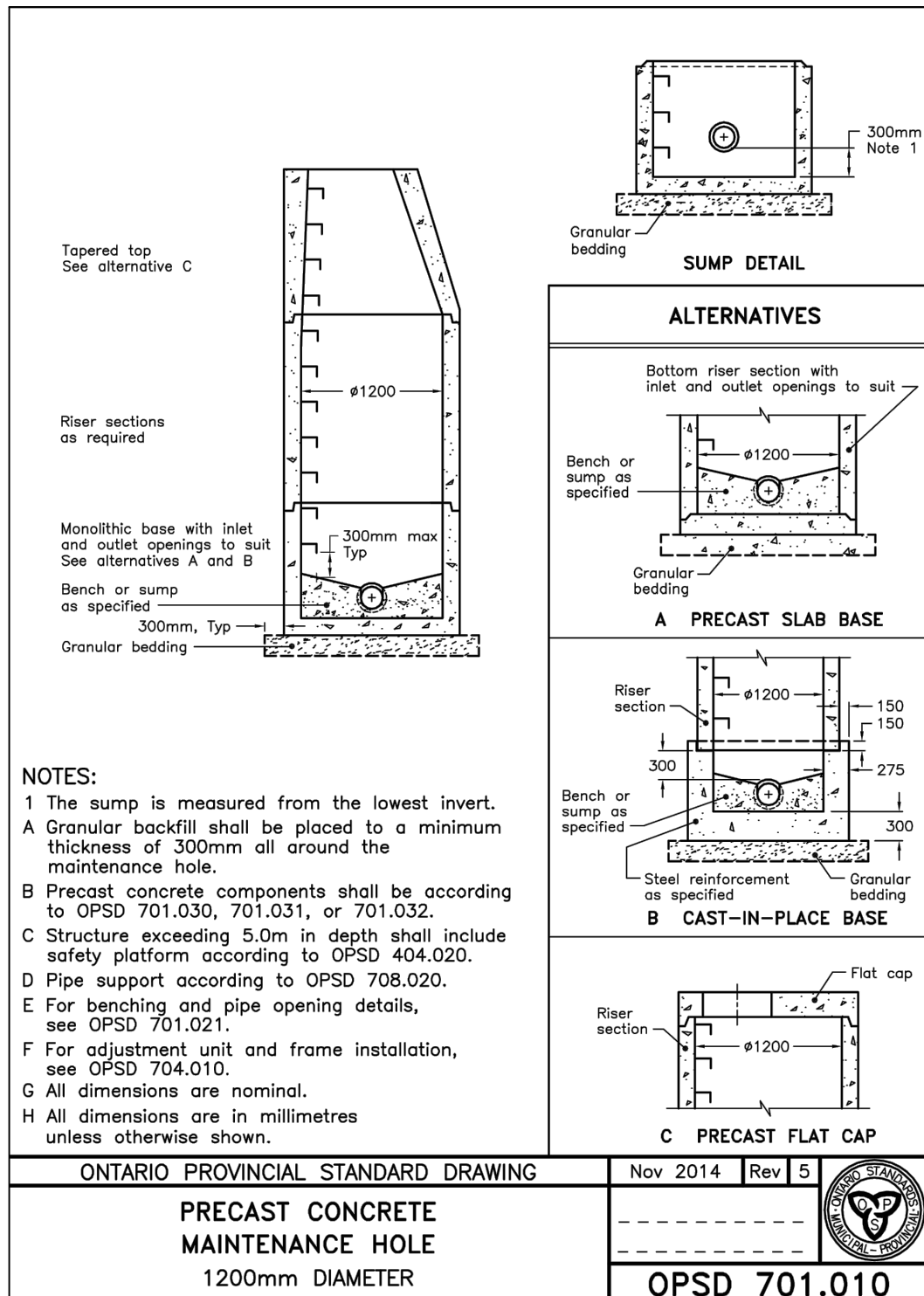
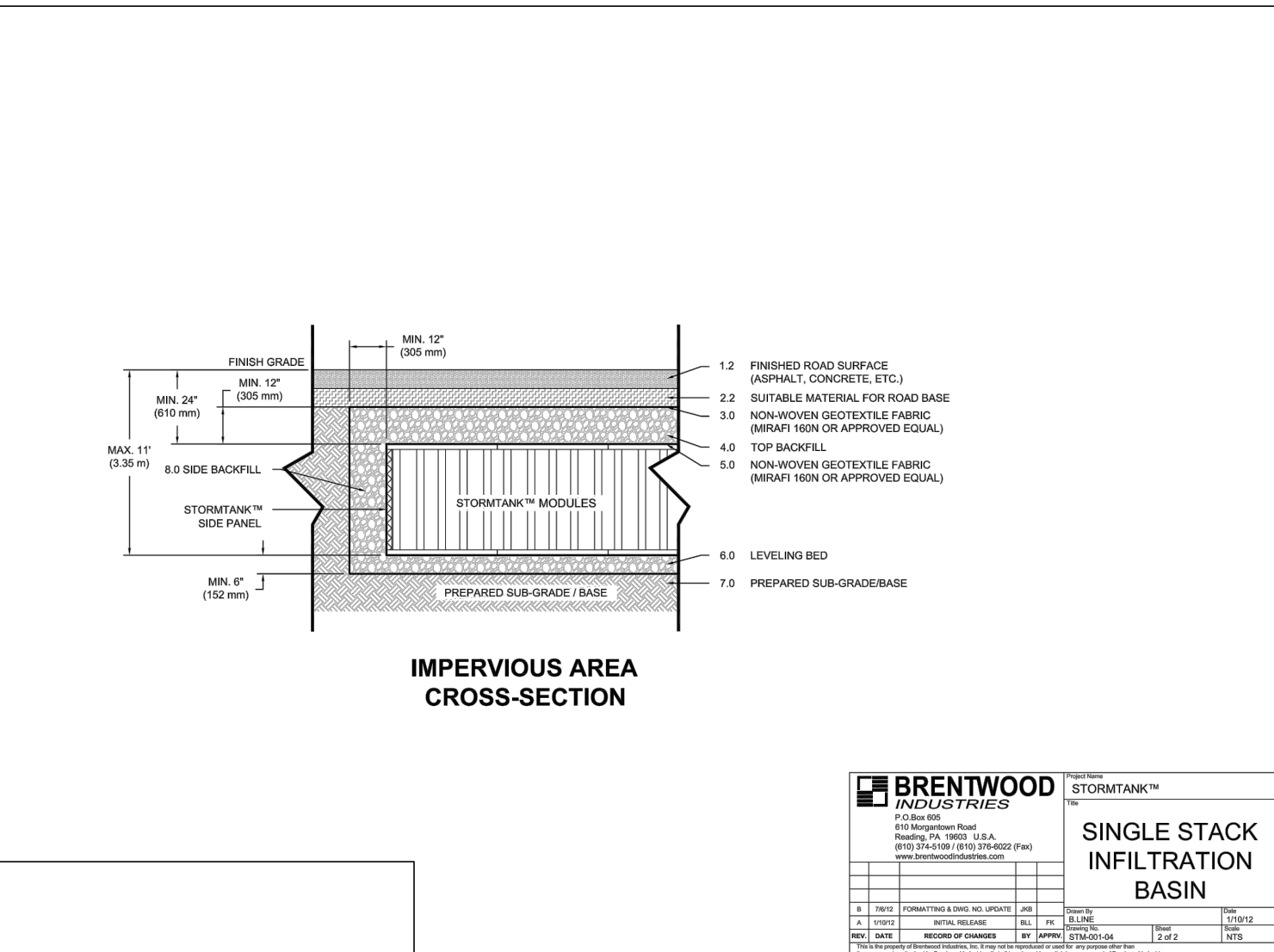
STANDARD NOTES

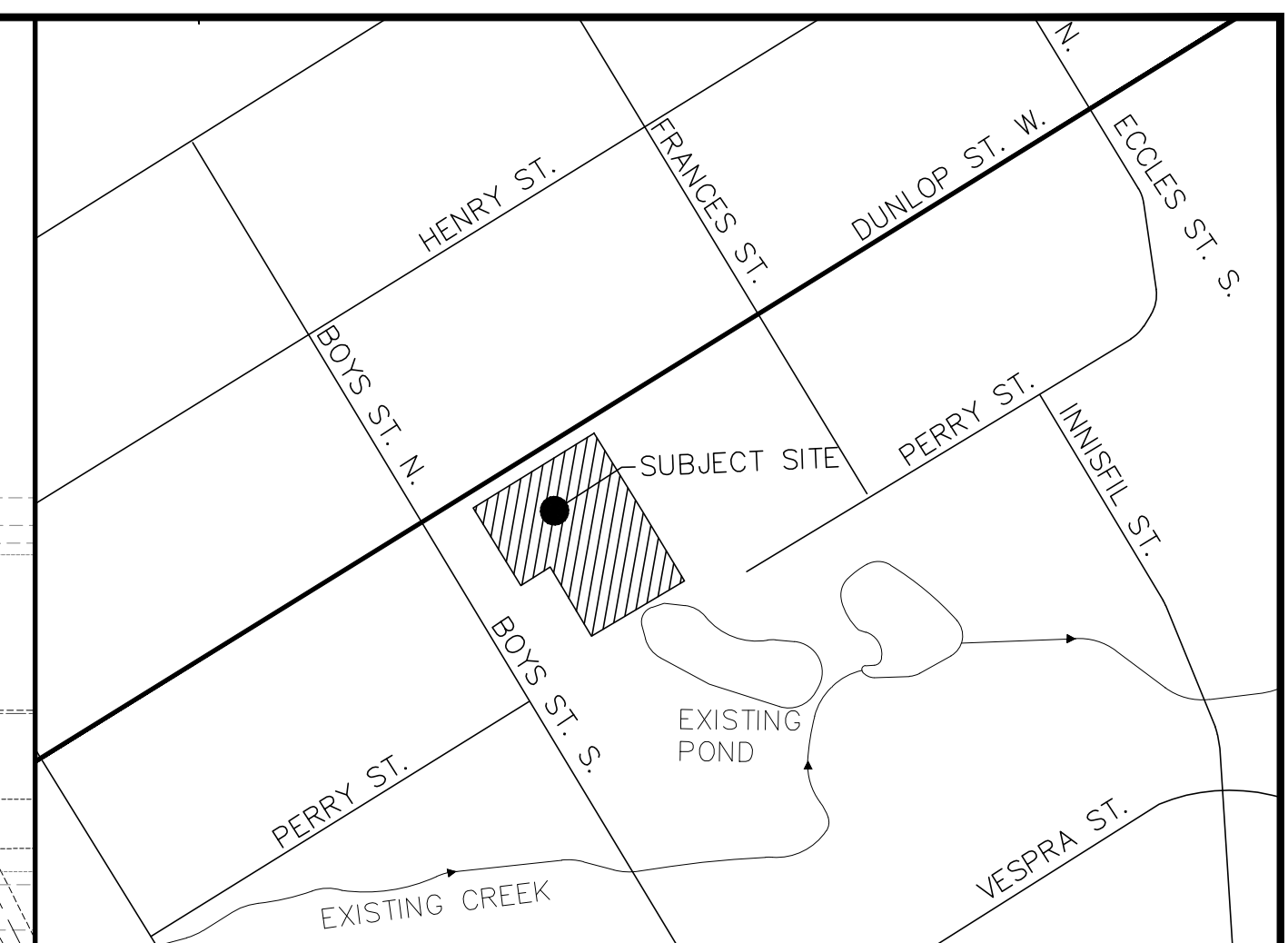
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4	17012	REPAIR RELATIONS	BLK #

Owner Ref. #
1-1-00
Scale
1 of 1
Date
1/10/03
Notes
NTS

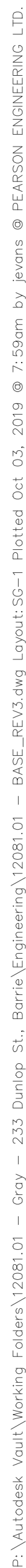
* All DWG. INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. IT IS THE USER'S RESPONSIBILITY TO VERIFY ALL INFORMATION.

STORMTANK™ IS A REGISTERED TRADEMARK OF BRENTWOOD INDUSTRIES, INC.

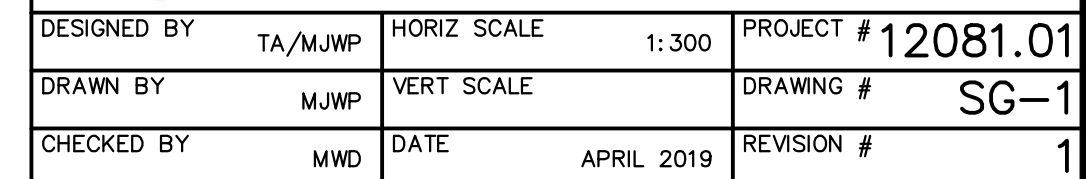




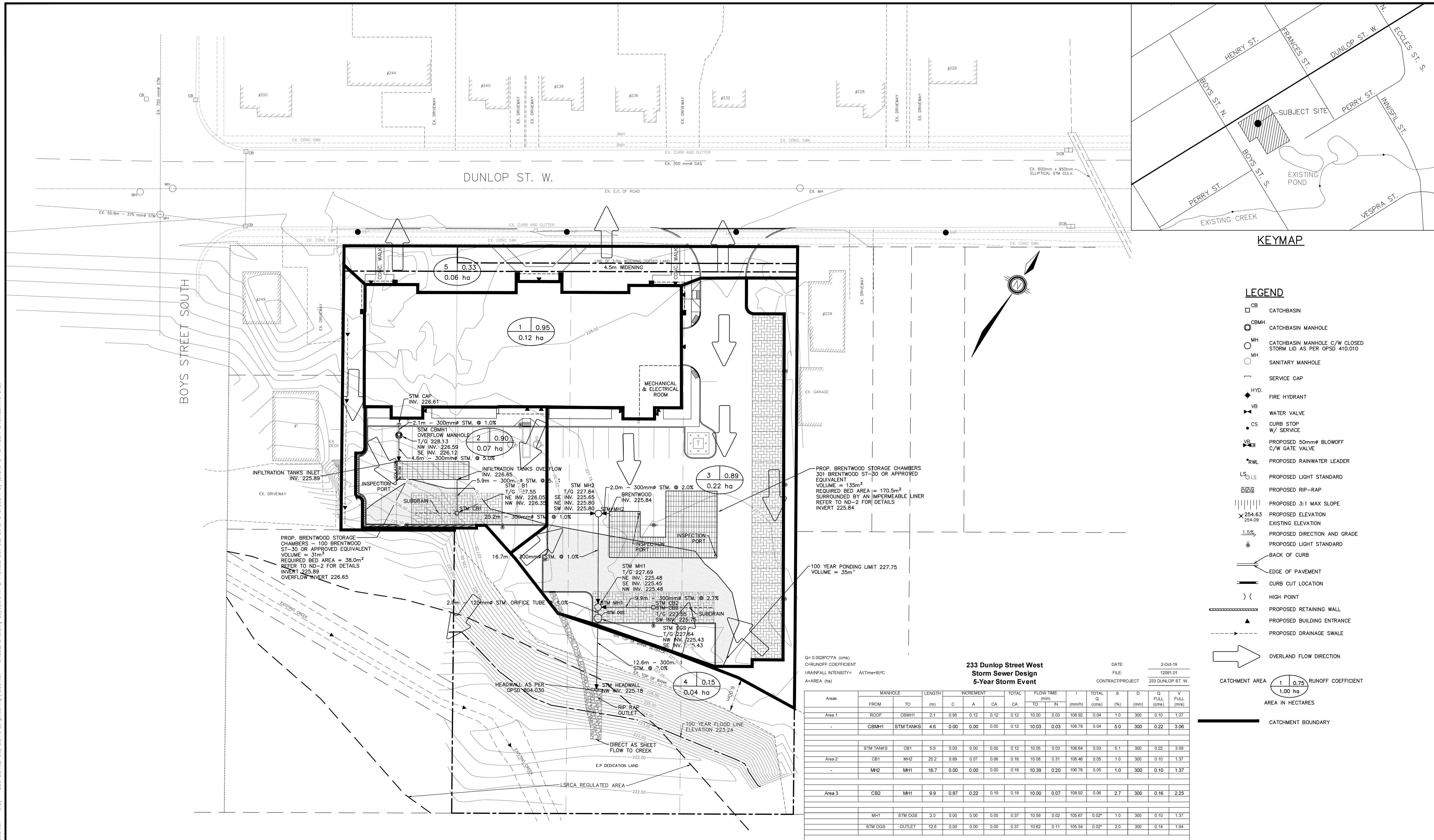
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DRAWN BY	MJWP	VERT SCALE		DRAWING #	SS-1
CHECKED BY	MWD	DATE	APRIL 2019	REVISION #	1



BENCHMARK:
HORIZONTAL
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AND GUYENNE ST BETWEEN THE SIDEWALK AND THE PROPERTY LINE.
MTO MONUMENT 03120080022 MONUMENT CAP IS LOCATED ON THE SE CORNER OF INNISFIL ST AND
VESPERA ST APPROXIMATELY 18.5M FROM ELEVATION OF INNISFIL ST AND APPROXIMATELY 13M FROM
VESPERA ST.
VERTICAL
MTO MONUMENT 01193045555 CENTRATION 228.735 BARRIE FUNDAMENTAL BENCH-MARK IN QUEENS
PARK 1.8 M NORTHEAST OF CURB AT NORTHEAST SIDE OF PARKSIDE DRIVE, 1.8 M NORTHEAST OF
BOUNDARY BETWEEN PARK AND DRILL HALL GROUNDS, TABLET IN TOP.
MTO MONUMENT 0119484119 ELEVATION 230.058 BARRE FEDERAL
BUILDING, AT CORNER OF COLLIER AND OWEN STREETS, TABLET IN EAST SIDE
OF FOUNDATION WALL IN SHED AT FIRST CORNER OF COLLIER AND OWEN ST. BENCH-MARK IN
WALL, 7.0 M NORTH OF SOUTHEAST CORNER OF BUILDING, 3.0 CM BELOW BRICK SIDING.



P:\Autodesk Vault\Working Folders\12081.01 - Grey - 233 Dunlop St., Barrie\Engineering\12081.01 - BASE_REV3.dwg Layout-STM-2 Potted Oct 03, 2019 @ 8:00am by jevons @ PEARSON ENGINEERING LTD.



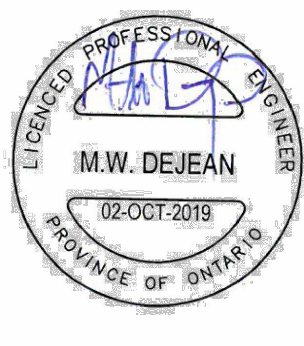
KEYMAP

LEGEND

- CB CATCHBASIN
- CBMH CATCHBASIN MANHOLE
- MH CATCHBASIN MANHOLE C/W CLOSED STORM LID AS PER OPSD 410.010
- MH SANITARY MANHOLE
- SC SERVICE CAP
- HYD. FIRE HYDRANT
- VB WATER VALVE
- CS CURB STOP W/ SERVICE
- VB PROPOSED 50mm BLOWOFF C/W GATE VALVE
- RWL PROPOSED RAINWATER LEADER
- LS PROPOSED LIGHT STANDARD
- PROPOSED RIP-RAP
- PROPOSED 3:1 MAX SLOPE
- 254.63 PROPOSED ELEVATION
- 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- PROPOSED LIGHT STANDARD
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- HIGH POINT
- PROPOSED RETAINING WALL
- PROPOSED BUILDING ENTRANCE
- PROPOSED DRAINAGE SWALE
- OVERLAND FLOW DIRECTION
- CATCHMENT AREA 1 0.75 RUNOFF COEFFICIENT 1.00 ha
- AREA IN HECTARES
- CATCHMENT BOUNDARY

NO.	REVISION NOTE	DATE	BY
1.	AS PER FIRST SUBMISSION COMMENTS	10/02/19	JPE

BENCHMARK:
HORIZONTAL
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MTO MONUMENT 03120080022 MONUMENT CAP IS LOCATED ON THE SE CORNER OF INNISFIL ST AND VESPREA ST APPROXIMATELY 18.5M FROM CENTERLINE OF INNISFIL ST AND APPROXIMATELY 13M FROM CENTERLINE OF VESPREA ST.
VERTICAL
MTO MONUMENT 0011931U4555 ELEVATION 228.735 BARRIE FUNDAMENTAL BENCH-MARK IN QUEENS PARK, 12.2 M NORTHEAST OF CURB AT NORTHEAST SIDE OF PARKSIDE DRIVE, 1.8 M NORTHEAST OF BOUNDARY BETWEEN PARK AND DRILL HALL GROUNDS, TABLET IN TOP.
MTO MONUMENT 0011984U119 ELEVATION 232.085 BARRIE FEDERAL BUILDING, AT CORNER OF COLLIER AND OWEN STREETS, TABLET IN EAST SIDE SMOOTH STONE FOUNDATION WALL, IN CENTRE OF FIRST STONE NORTH OF NOTCH IN WALL, 7.0 M NORTH OF SOUTHEAST CORNER OF BUILDING, 30 CM BELOW BRICK SIDING.



MDM DEVELOPMENTS
233 DUNLOP STREET WEST
CITY OF BARRIE

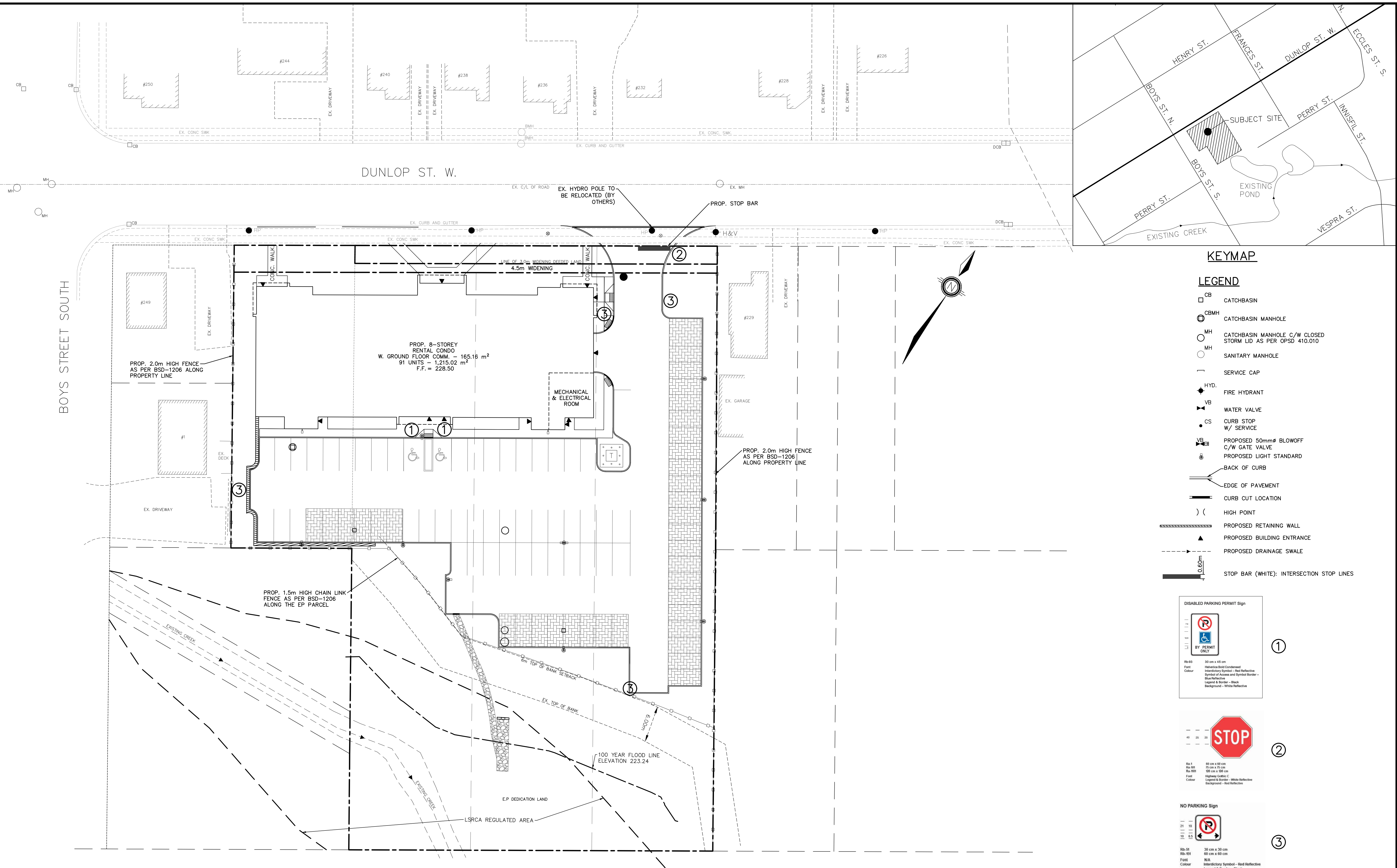
POST-DEVELOPMENT STORM
CATCHMENT PLAN



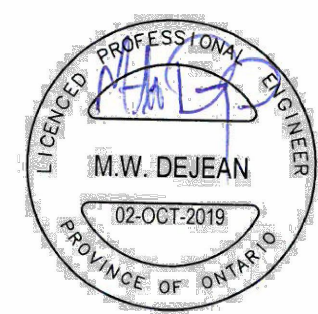
**PEARSON
ENGINEERING LTD.**
PEARSONENG.COM PH. 705.719.4785

DESIGNED BY	TA/MJWP	HORIZ SCALE	1:300	PROJECT #	12081.01
DRAWN BY	MJWP	VERT SCALE		DRAWING #	STM-2
CHECKED BY	MWD	DATE	APRIL 2019	REVISION #	1

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BENCHMARK:
HORIZONTAL
MTO MONUMENT 03120040023 MONUMENT CAP IS LOCATED ON THE NORTHEAST CORNER OF DUNLOP ST. W. AND ECCLES ST. BETWEEN THE SIDEWALK AND THE PROPERTY LINE.
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VERTICAL
MTO MONUMENT 0011931U4555 ELEVATION 228.735 BARRIE FUNDAMENTAL BENCH-MARK IN QUEENS PARK, 12.2 M NORTHEAST OF CURB AT NORTHEAST SIDE OF PARKSIDE DRIVE, 1.8 M NORTHEAST OF BOUNDARY BETWEEN PARK AND DRILL HALL GROUNDS, TABLET IN TOP.
MTO MONUMENT 0011984U119 ELEVATION 232.085 BARRIE FEDERAL BUILDING, AT CORNER OF COLLIER AND OWEN STREETS, TABLET IN EAST SIDE
SMOOTH STONE FOUNDATION WALL, IN CENTRE OF FIRST STONE NORTH OF NOTCH IN WALL, 7.0 M NORTH OF SOUTHEAST CORNER OF BUILDING, 30 CM BELOW BRICK SIDING.



MDM DEVELOPMENTS
233 DUNLOP STREET WEST
CITY OF BARRIE

SITE PARKING AND SIGNAGE PLAN



DESIGNED BY	TA/MJWP	HORIZ SCALE	1:300	PROJECT #	12081.01
DRAWN BY	MJWP	VERT SCALE		DRAWING #	PS-1
CHECKED BY	MWD	DATE	APRIL 2019	REVISION #	1

1.	AS PER FIRST SUBMISSION COMMENTS	10/02/19	JPE
NO.	REVISION NOTE	DATE	BY

1. OVERALL SITE AREA - 0.72 ha
2. EXISTING LAND USE - RESIDENTIAL & VACANT

1. ENGINEER TO BE NOTIFIED PRIOR TO INITIATION OF ANY ON SITE WORKS.
2. SILT FENCE AND CONSTRUCTION ACCESS MATS TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORKS ONSITE.
3. VEGETATION REMOVAL MAY COMMENCE AFTER SILT FENCE IS INSTALLED AND APPROVED BY THE ENGINEER.
4. COMMENCE WITH EARTH EXCAVATION AND SITE SERVICES TO BE REMOVED FROM SITE – NO STOCKPILE.
5. EROSION CONTROL MEASURES TO BE MAINTAINED AS DIRECTED BY THE ENGINEER DURING THE CONSTRUCTION PERIOD.
6. ADDITIONAL CONTROL MEASURES MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
7. ALL DISTURBED GROUND LEFT INACTIVE FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH SEED, SOD, MULCH OR
8. PERMEABLE PAVERS WILL BE CONSTRUCTED ON THE SITE HAS COMPLETED FINAL GRADING WORKS.
9. PERMEABLE PAVERS AND INFILTRATION TANK AREAS NOT TO BE COMPACTED.

1. ALL DISTURBED AREAS THAT HAVE FAILED TO HAVE STABLE GROUND COVER ESTABLISHED BY OCTOBER 30TH SHALL BE PROTECTED WITH A SILTATION CONTROL FENCE OR STRAW MULCH ETC. AND MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION IS COME ESTABLISHED IN THE AREA.
2. ALL WATERING AND MULCHING SHALL BE DISCHARGED TO A VEGETATED AREA AT LEAST 30m FROM ANY WATERCOURSE AND FILTERED. FILTERING METHODS MUST BE APPROVED BY THE SITE ADMINISTRATOR. DISCHARGE TO MUNICIPAL SERVICES MUST BE APPROVED BY THE CITY OF BARRIE PRIOR TO STARTING WORK AND ADHERE TO CITY OF BARRIE STANDARDS.
3. ALL SILTATION CONTROL FENCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF EARTH GRADING ACTIVITIES. SILT FENCE TO BE INSPECTED AND REPAIRED OR REPLACED IF DAMAGED AS DIRECTED BY THE SITE ADMINISTRATOR. SILT CONTROLS TO BE INSPECTED ON A REGULAR BASIS AND AFTER EVERY RAIN EVENT. INSTALLATION SHALL BE TO THE MANUFACTURER'S SUGGESTED SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. ACCORDING TO THE STOCKPILED MATERIALS ON SITE FOR NECESSARY REPAIRS AS A RESULT OF FAILED OR INADEQUATE CONTROL MEASURES. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK, AND AFTER EVERY RAINFALL EVENT.
5. CONTRACTOR SHALL OBTAIN CURRENT COPY AND BECOME FAMILIAR WITH SECTION 577 CONSTRUCTION SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL MEASURES AS WELL AS APPLICABLE MUNICIPAL STANDARDS.
6. THE CONTRACTOR MAY NEED ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES. SUCH MEASURES SHOULD BE PRESENTED IN WRITING FOR APPROVAL OF THE SITE ADMINISTRATOR AND MUST BE APPROVED IN WRITING BY THE CITY OF BARRIE.
7. THE TOPS OF ALL FILTER FABRIC MUST BE A MINIMUM OF 1.0 METRES ABOVE THE GROUND LEVEL AND ATTACHED TO THE FENCE WITH A CONTINUOUS STEEL WIRE. ALTERNATIVELY, THE FILTER FABRIC MUST BE FOLDED OVER THE TOP OF THE FENCE AND ATTACHED TO THE FENCE WITH WIRE LOOPED THROUGH THE FABRIC ON BOTH SIDES OF THE FENCE. FILTER FABRIC SHALL BE SECURED TO THE FENCE WITH WIRE.
8. ALL DISTURBED GROUND LEFT INACTIVE SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, OR COVERING OR OTHER EQUIVALENT CONTROL MEASURES. THIS PERIOD OF INACTIVITY SHALL BE AT THE DISCRETION OF THE CITY OF BARRIE.
9. MANAGING OF EROSION CONTROL SHALL NOT BE USED TO DELAY THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL INSTALL AND MAINTAIN CATCHBASIN SEDIMENT BARRIERS THROUGHOUT THE SITE DURING ALL CONSTRUCTION ACTIVITIES IN ORDER TO TRAP SEDIMENT. REFER TO DETAIL.



1. TO BE USED UNDER APPROPRIATE DRAINAGE CIRCUMSTANCES, BETWEEN **APRIL** AND **DECEMBER**.
2. WOVEN GEOTEXTILE TO HAVE A MINIMUM EQUIVALENT OPENING SIZE OF 0.15mm AND A MAXIMUM EQUIVALENT OPENING SIZE OF 0.25mm OR A NON WOVEN GEOTEXTILE TO BE CONSIDERED BASED ON SOL PARAMETERS AND SITE CONDITIONS.
3. GEOTEXTILE TO BE REPLACED PERIODICALLY WHEN ACCUMULATED SEDIMENTS INTERFERES WITH DRAINAGE, OR AS DIRECTED BY THE TRANSPORTATION AND WORKS DEPARTMENT



1. SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
2. SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MT. WASHINGTON NATIONAL DESIGN CHART # 1-3.2.
3. SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRICATED INTO THE STANDARD FORMATION OF 300 mm by 300 mm by 300 mm SUCRINE, 100% POLYPROPYLENE, 100% NONWOVEN, 100% FIBER, 100% POLYMER, MEETING 550 MINIMUM PARTICLE DENSITY.
4. STEEL BAR POSTS ARE TO BE SPACED A MAXIMUM DISTANCE OF 2000 mm ON CENTER.
5. PROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAN STONE.
6. GEOTEXTILE FABRIC TO BE COMPRISED OF NON-WOVEN UV STABILIZED MATERIAL FABRIC TO BE FOLDED OVER TOP OF FENCE.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS AVOIDED.
8. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

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 HYD. FIRE HYDRANT
 WB WATER VALVE
 EX.CS EXISTING CURB STOP
 EX.SMH EX. SANITARY MANHOLE
 EX.MH EX. STORM MANHOLE
 EX.CB EX. CATCH BASIN
 EX. SEPTIC BED AREA
 PROP. BIO-RETENTION OR INFILTRATION AREA TO BE FENCED
 EX. OVERLAND FLOW ROUTE
 PROP. OVERLAND FLOW ROUTE
 EX. TREES TO BE REMOVED
 SILT FENCE

EXISTING WELLS AND SEPTIC SYSTEMS ON SITE ARE TO BE IDENTIFIED AND ABANDONED AS PER MINISTRY OF ENVIRONMENT GUIDELINES.

EROSION AND SEDIMENT CONTROL NOTES:		
1.	ALL SEDIMENT CONTROL MEASURES SUCH AS SEDIMENT CONTROL FENCE, TEMPORARY POND, CONSTRUCTION ACCESS MATS, SEDIMENT TRAPS, SWALES AND CHECK DAMS MUST BE INSTALLED PRIOR TO THE COMMENCEMENT OF SITE WORKS.	
2.	SEDIMENT CONTROLS SHOULD BE INSPECTED ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT. REPAIRS TO ESC MEASURES MUST BE COMPLETED IN A TIMELY MANNER TO PREVENT FURTHER EROSION AND SEDIMENTATION.	
3.	ADDITIONAL MATERIALS SUCH AS CLEAR STONE, FILTER FABRIC, PUMPS, HOSES AND SLOTTUX TO BE KEPT ONSITE AT ALL TIMES FOR CONDUCTING REPAIRS TO SEDIMENT TRAPS.	
4.	ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN THREE DAYS ARE TO BE STABILIZED.	
5.	THE STABILIZATION SEED MIXTURE IS TO BE AS SPECIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN.	
6.	THE STABILIZATION SEED MIXTURE IS TO BE APPLIED AT A MINIMUM RATE OF 75 LBS/1000' ENGINEERED CHAINS OR THE ESC MEASURES MAY BE NEEDED AS SITE CONDITIONS CHANGE THROUGHOUT THE CONSTRUCTION PROCESS. THESE RATES MUST REFLECT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD BE COMPLETED BASED ON DIRECTION FROM THE SITE ENGINEER. ADDITIONAL MATERIALS MAY BE REQUIRED AS DIRECTED BY AN ENGINEER THROUGHOUT THE CONSTRUCTION PROCESS.	
7.	THE CONSTRUCTION ENTRANCE MAT IS TO BE INSTALLED AS SPECIFIED ON THE SITE EROSION AND SEDIMENT CONTROL PROCESS.	
8.	SEDIMENT CONTROL FENCE IS TO BE INSTALLED DOWNSCOPE OF ALL DISTURBED AREAS. A DOUBLE ROW OF SEDIMENT CONTROL FENCE IS TO BE INSTALLED SURROUNDING ALL NATURAL HERITAGE FEARS AND AREAS OF CULTURAL INTEREST.	
9.	SEDIMENT CONTROL ENTRANCE MAT IS TO BE INSTALLED AS SPECIFIED ON THE SITE ENGINEER. SEDIMENT CONTROL FENCE IS TO BE AS PER LOCAL STANDARD ESC-0 OR ESC-5 AS A MINIMUM. LIGHT SLOTTUX SEDIMENT CONTROL FENCE IS NOT ACCEPTABLE.	
10.	CUT-OFF SWALES OR DITCHES ARE TO BE INSTALLED AS SHOWN ON THE ESC PLANS AND AS NECESSARY BASED ON CHANGING SITE CONDITIONS TO DIRECT OVERLAND FLOW FROM THE DISTURBED AREA TO THE SEDIMENT TRAP OR POND.	
11.	CHECK DAMS ARE TO BE INSTALLED IN ALL SWALES AND DITCHES IN ACCORDANCE WITH DRAWING SLURRY ESC-2, AS A MINIMUM.	
12.	SEDIMENT TRAP OR POND IS TO BE INSTALLED AS SHOWN ON THE ESC PLANS AND AS NECESSARY BASED ON CHANGING SITE CONDITIONS DURING CONSTRUCTION. IT MAY BE NECESSARY FOR TEMPORARY SWALES TO BE CONSTRUCTED TO DIRECT SITE FLOWS TO THE TEMPORARY SEDIMENT TRAP(S) DURING ROUGH GRADING AND AS CONSTRUCTION PROGRESSES.	
13.	TEMPORARY SEDIMENT POND(S) ARE TO BE CONSTRUCTED AT THE BEGINNING OF SITE GRADING AND IF THE SITE DRAINAGE CHANGES DURING CONSTRUCTION. IT MAY BE NECESSARY FOR TEMPORARY SWALES TO BE CONSTRUCTED TO DIRECT SITE FLOWS TO THE TEMPORARY SEDIMENT POND(S) DURING ROUGH GRADING AND AS CONSTRUCTION PROGRESSES.	
14.	FILL/SPILL STORAGE OR APPROVED EQUIVALENT TO BE INSTALLED DOWNSTREAM FROM SEDIMENT TRAP AND TEMPORARY SEDIMENT POND OUTLETS TO A MINIMUM HEIGHT OF 18" ABOVE FINISHED GRADE.	
15.	IF STOCKPILES ARE USED ON-SITE FOR THE STORAGE OF EXCESS MATERIAL, THEY ARE TO BE IN ACCORDANCE WITH DETAIL DRAWING SLURRY ESC-6 OR BETTER.	
16.	IF STOCKPILES OCCUR DURING CONSTRUCTION, THEY ARE TO BE MAINTAINED COVERED WITH AN APPROVED DRAINAGE PAIL. ADDITIONAL DRAINAGE REQUIREMENTS MAY BE DEEMED NECESSARY AND SHALL BE IMPLEMENTED AS DIRECTED BY THE ENGINEER, CONTRACT ADMINISTRATOR OR LOCAL MUNICIPALITY.	
17.	THE SITE TRAILER IS TO BE LOCATED ONLY AT THE DESIGNATED LOCATION SHOWN ON THE PLANS.	
18.	EQUIPMENT AND HYDROCARBON STORAGE IS TO OCCUR ONLY WITHIN THE DESIGNATED AREA SHOWN ON THE PLANS.	
19.	REFUELLING IS TO TAKE PLACE ONLY WITHIN THE DESIGNATED AREA SHOWN ON THE PLANS AND SHALL BE A MINIMUM OF THIRTY METRES FROM ANY WATER COURSE OR DRAINAGE OR SEDIMENT CONTROL MEASURE.	
20.	AN APPROVED SPILLS MANAGEMENT PLAN IS TO BE KEPT ON SITE.	
21.	ALL OIL AND GREASE CATCHER EQUIPMENT SUCH AS SINKS ARE TO BE MAINTAINED ONSITE FOR IMMEDIATE USE IN THE EVENT OF A SPILL.	
22.	SPILLS ARE TO BE REPORTED IMMEDIATELY TO THE NOCC'S SPILLS ACTION CENTRE AT 1-800-268-6060.	
23.	SPILLS OF OIL OR FUEL SHALL BE REPORTED IMMEDIATELY TO THE NOCC'S SPILLS ACTION CENTRE, INCLUDING ANNOTATION, INCLUDING LOCATION, DUE TO THE RELEASE OF SEDIMENT FROM THE SITE.	
24.	LOW IMPACT DEVELOPMENT (LID) MEASURES ARE NOT TO BE USED AS SEDIMENT CONTROL DEVICES.	
25.	ADDITIONAL SEDIMENT CONTROL DEVICES MAY BE DEEMED NECESSARY AND AS SITE CONDITIONS CHANGE AND SHALL BE INSTALLED AS DIRECTED BY THE SITE ENGINEER, CONTRACT ADMINISTRATOR OR LOCAL MUNICIPALITY.	

				BENCHMARK: HORIZONTAL MTO MONUMENT 031200400223 MONUMENT CAP IS LOCATED ON THE NORTHEAST CORNER OF DUNLOP ST. W AND EGGLES ST BETWEEN THE SIDEWALK AND THE SIDEWALK LINE. MTO MONUMENT 031200800222 MONUMENT CAP IS LOCATED ON THE SE CORNER OF INNISFIL ST AND VESPERA ST APPROXIMATELY 18.5M FROM CENTERLINE OF INNISFIL ST AND APPROXIMATELY 13M FROM CENTERLINE OF VESPERA ST. VERTICAL MTO MONUMENT 0011931U4555 ELEVATION 228.735 BARRIE FUNDAMENTAL BENCH-MARK IN QUEENS PARK, 12.2 M NORTHEAST OF CURB AT NORTHEAST SIDE OF PARKSIDE DRIVE, 1.8 M NORTHEAST OF BOUNDARY BETWEEN PARK AND DRILL HALL GROUNDS, TABLET IN TOP. MTO MONUMENT 0011984U19 ELEVATION 235.066 BARRIE FEDERAL BUILDING, AT CORNER OF COLLIER AND OWEN STREETS, TABLET IN EAST SIDE SMOOTH STONE FOUNDATION WALL, IN CENTRE OF FIRST STONE NORTH OF NOTCH OF WALL BEHIND SOUTH SIDE OF NORTH END OF SOUTHERN CARPORT SIDING.
NO.	AS PER PREVIOUS SUBMISSION COMMENTS	10/02/19	JPE	
1.	AS PER PREVIOUS SUBMISSION COMMENTS			
	PREVISION NOTE	DATE	R/E	

The diagram illustrates the construction access mat for LSRCA ESC-3. It includes two views: a Plan View and an Elevation View.

Plan View: Shows the layout of the access mat (hatched area) relative to an existing roadway and property lines. Key features include:

- EXISTING ROADWAY:** Located at the top and bottom of the plan view.
- INITIAL CULVERT AS NEEDED IN EXISTING DITCHES:** Indicated at the top roadway intersection.
- SEDIMENT CONTROL FENCE AS PER DETAIL LSRCA ESC-4:** Shown along the mat's perimeter.
- MAINTAIN OR ESTABLISH VEGETATIVE BUFFER BEYOND SEDIMENT CONTROL FENCE:** Indicated on the left side.
- 30 m MINIMUM:** Dimension for the buffer zone.
- 100 mm to 200 mm QUARRY STONE WITH APPROPRIATE GEOTEXTILE BASE:** Material specification for the mat.
- 5 m MINIMUM:** Dimension for the mat's width.
- PROPERTY LINE:** Shown on the right side.

Elevation View: Shows the cross-section of the access mat. Key features include:

- 300 mm:** Thickness of the quarry stone layer.
- 100 mm to 200 mm QUARRY STONE WITH APPROPRIATE GEOTEXTILE BASE:** Material specification for the mat.
- INITIAL SEDIMENT CONTROL FENCE AS PER DETAIL LSRCA ESC-4 TO PROPERTY LINE:** Indicated on the right side.
- PROPERTY LINE:** Shown on the right side.

CONSTRUCTION ACCESS MAT

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	SCALE: NTS
LSRCA ESC-3	

	MDM DEVELOPMENTS 233 DUNLOP STREET WEST CITY OF BARRIE	 PEARSON ENGINEERING LTD. PEARSONENG.COM PH. 705.719.4785			
	ENVIRONMENTAL PROTECTION AND REMOVALS PLAN	DESIGNED BY	HORIZ SCALE	PROJECT #	12081.01
		DRAWN BY	VERT SCALE	DRAWING #	EPR-1
		CHECKED BY	DATE	REVISION #	1
	MWD	APRIL 2019			