

# 440 ESSA ROAD

CITY OF BARRIE  
COUNTY OF SIMCOE



MUNICIPALITY

CITY OF BARRIE  
70 COLLIER STREET  
P.O. BOX 400  
BARRIE, ONTARIO, L4M 4T5

DEVELOPER

ONE URBAN DEVELOPMENTS INC.  
28 RIVALDA ROAD  
TORONTO, ON M9M 2M3

DEVELOPER'S ENGINEER



57 JOHN STREET WEST  
P.O. Box 1011  
BRADFORD, ON L3Z 2B4  
905-952-3111 T  
WWW.CFCROZIER.CA

LANDSCAPE ARCHITECT

STUDIO TLA  
20 CHAMPLAIN BOULEVARD, SUITE 102  
TORONTO, ON M3H 2Z1

MASTER LEGEND

EXISTING FEATURES (EX.)

	EX. CONTOUR
	EX. GRADE
	EX. TREELINE
	EX. WATERCOURSE
	EX. DITCH
	EX. WATERMAIN
	EX. WATER SERVICE
	EX. FIRE HYDRANT & VALVE
	EX. SANITARY SEWER & MANHOLE
	EX. SANITARY FORCEMAIN
	EX. SANITARY SERVICE
	EX. STORM SEWER & MANHOLE
	EX. STORM CATCHBASIN
	EX. STORM DOUBLE CATCHBASIN
	EX. STORM CATCHBASIN MANHOLE
	EX. STORM DOUBLE CATCHBASIN MANHOLE
	EX. GAS MAIN
	EX. BELL LINE
	EX. BELL PEDESTAL
	EX. CABLE TELEVISION PEDESTAL
	EX. HYDRO POLE
	EX. LIGHT STANDARD
	EX. SIGN
	EX. BUILDING
	EX. BENCHMARK NUMBER & LOCATION
	EX. BOREHOLE NUMBER & LOCATION

PROPOSED FEATURES (PR.)

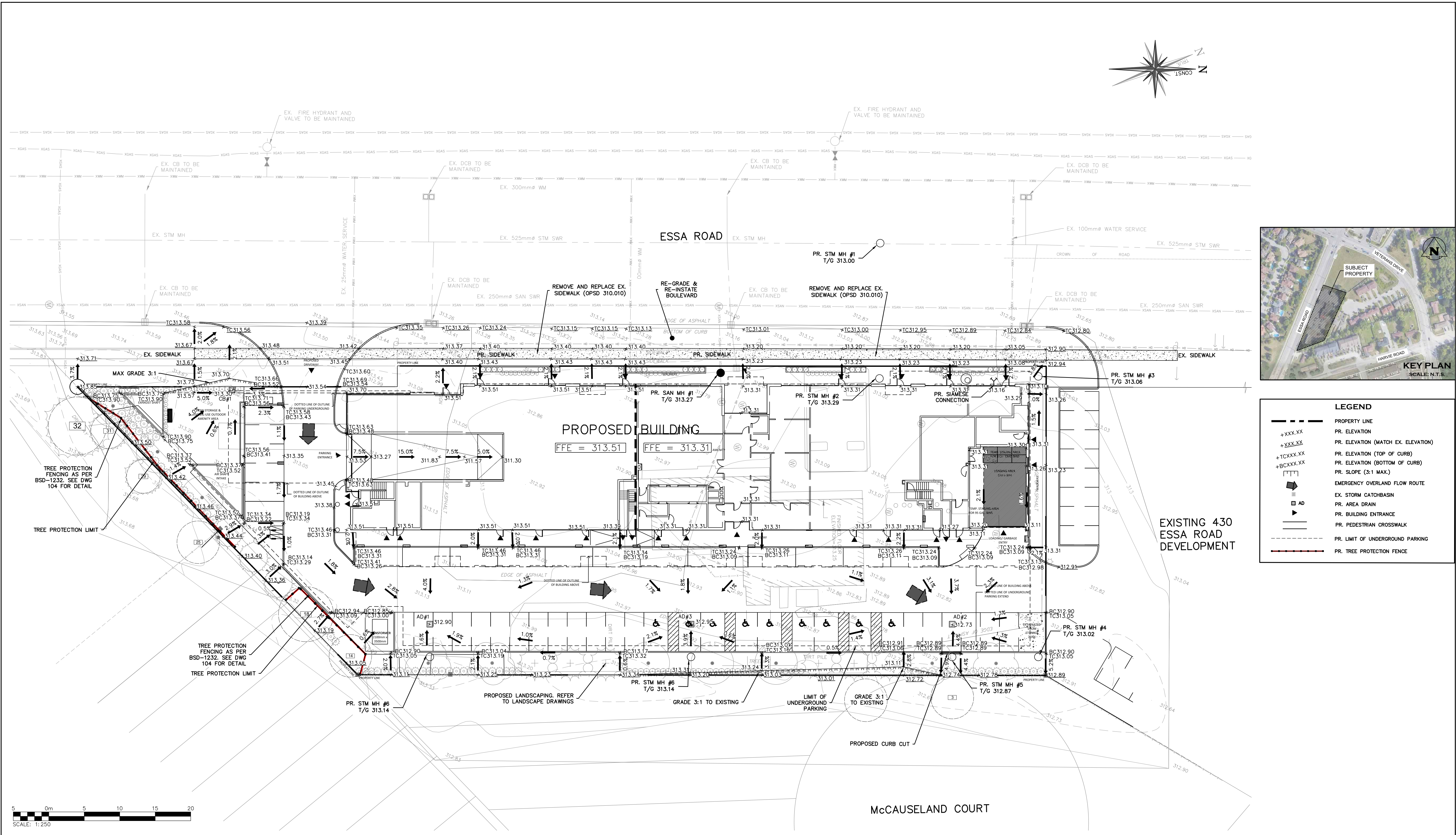
	PR. PROPERTY LIMITS
	PR. ELEVATION
	PR. ELEVATION (MATCH EX. ELEVATION)
	PR. SWALE & SLOPE
	PR. DITCH DRAINAGE
	PR. WATERMAIN & VALVE
	PR. WATER SERVICE
	PR. FIRE HYDRANT & VALVE
	PR. WATER VALVE CHAMBER
	PR. WATER QUALITY TESTING STATION
	PR. SANITARY SEWER & MANHOLE
	PR. SANITARY FORCEMAIN
	PR. SANITARY SERVICE
	PR. SANITARY CATCHMENT
	PR. CATCHMENT AREA ID
	PR. AREA (ha)
	PR. POPULATION (3.5 p.p.u.)
	PR. STORM SEWER & MANHOLE
	PR. CATCHBASIN
	PR. DOUBLE CATCHBASIN
	PR. CATCHBASIN MANHOLE
	PR. DOUBLE CATCHBASIN MANHOLE
	PR. STORM CATCHMENT
	PR. CATCHMENT AREA ID
	PR. RUNOFF COEFFICIENT
	PR. DRAINAGE AREA (ha)
	PR. CURB CUT
	PR. CANADA POST COMMUNITY MAIL BOX
	PR. TRANSFORMER
	PR. STOP SIGN
	PR. NAME SIGN
	PR. NO PARKING SIGN
	PR. FENCE
	PR. BUILDING ENVELOPE
	PR. LIGHT DUTY SILT FENCE
	PR. HEAVY DUTY SILT FENCE
	PR. STRAW BALE CHECK FLOW
	PR. ROCK CHECK DAM
	PR. SLOPE (3:1 MAX.)
	PR. TREE PRESERVATION AREA
	PR. TOPSOIL STOCKPILE LOCATION

PROJECT No.: 1321-5312  
4TH SPA SUBMISSION









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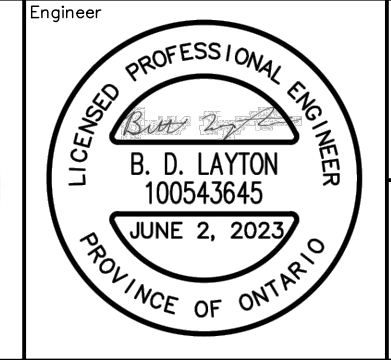
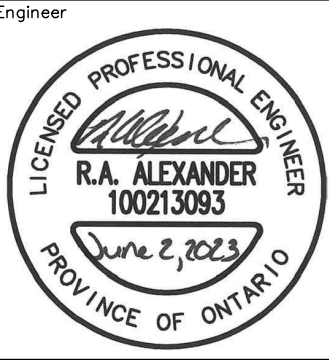
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**TOPOGRAPHIC SURVEY:**  
TOPOGRAPHIC SURVEY PROVIDED BY RUDY MAK SURVEYING LTD.

**BENCHMARK NOTE:**  
SITE BENCHMARK IS THE TOP OF THE IB AT THE SOUTHEAST CORNER HAVING AN ELEVATION OF 312.81



No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR 1ST SUBMISSION SPA	12/22/2020
2	ISSUED FOR 2ND SUBMISSION SPA	04/30/2021
3	ISSUED FOR BLDG PERMIT & SPA SUBMISSION	12/22/2022
4	ISSUED FOR 4TH SUBMISSION SPA	06/02/2023



Project: 440 ESSA ROAD  
CITY OF BARRIE

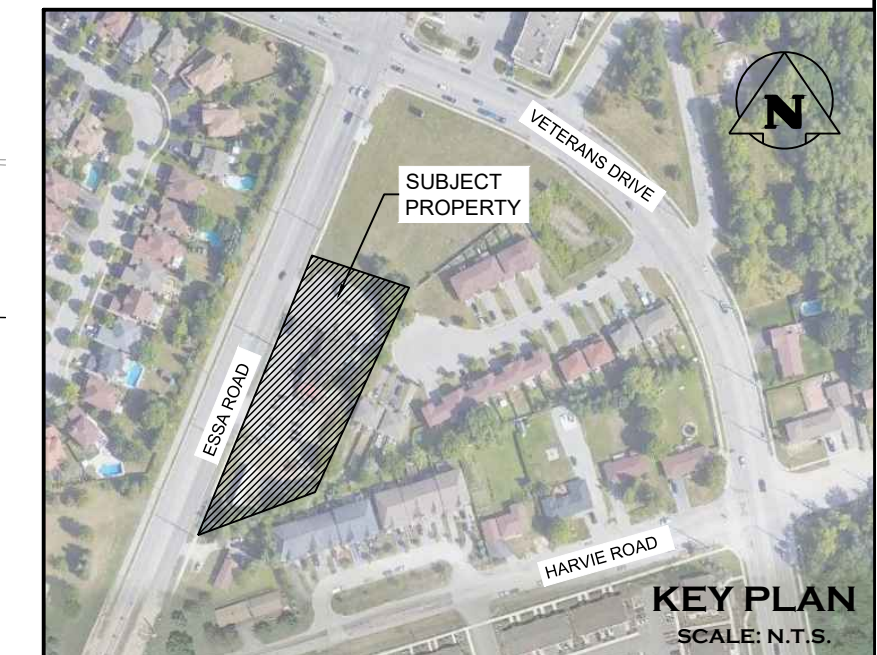
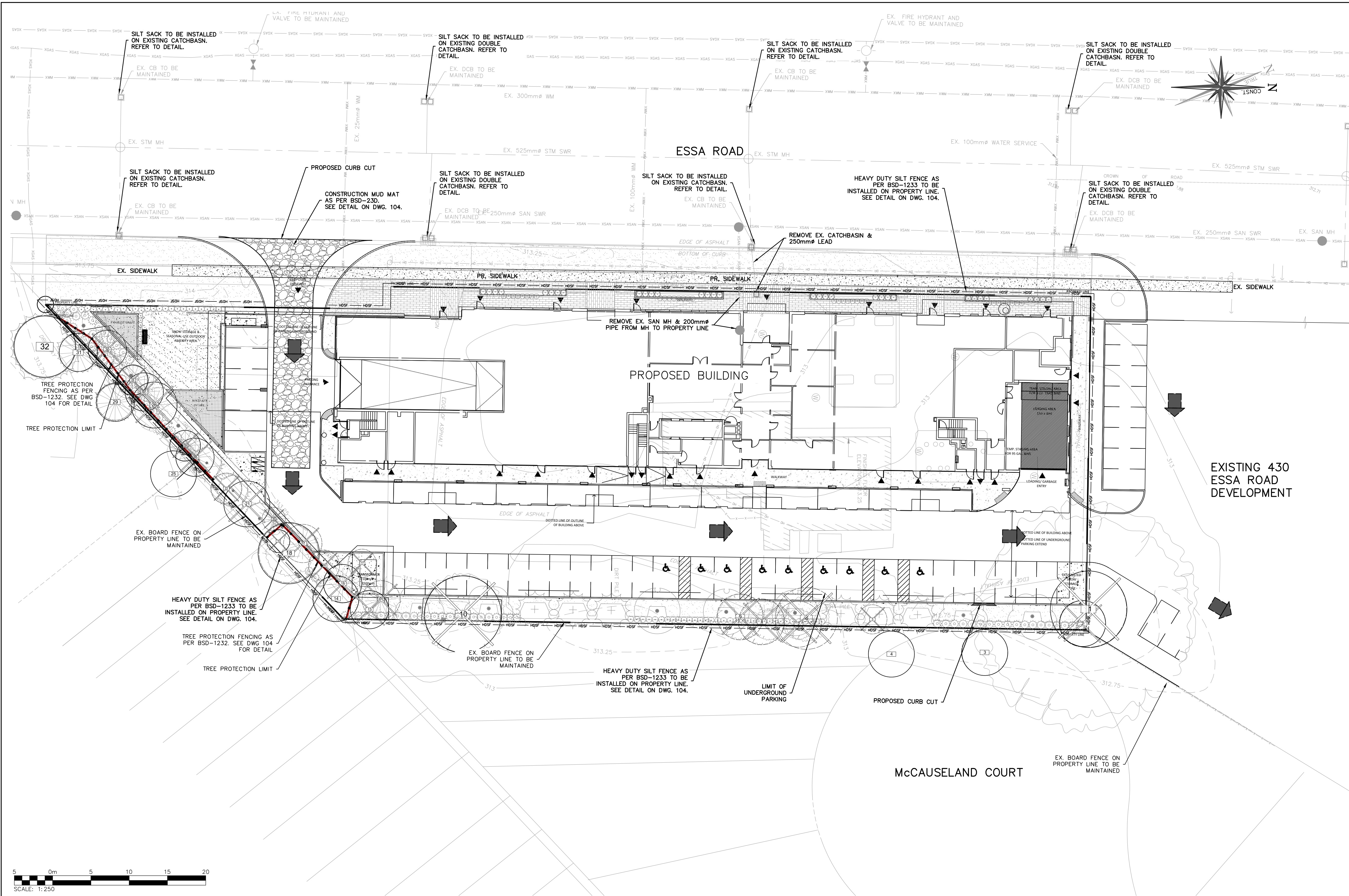
Drawing: GENERAL GRADING PLAN

**CROZIER**  
CONSULTING ENGINEERS

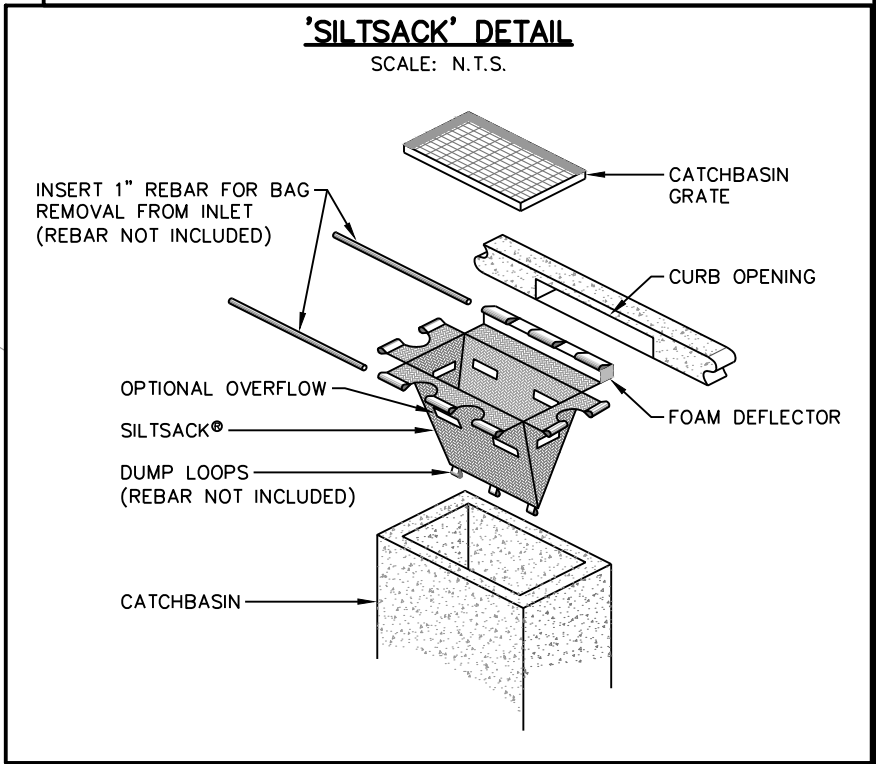
57 JOHN STREET WEST  
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Drawn By	B.L.	Design By	N.C./B.L.	Project	1321-5312
Check By	R.A.A.	Check By	R.A.A.	Scale	1:250
				Drawing	102





LEGEND	
	PROPERTY LINE
	LIMIT OF CONSTRUCTION
	EXISTING HYDRO POLE
	EXISTING HYDRO LINE
	EXISTING FENCE
	EXISTING GRADE
	EXISTING WATERMAIN
	EXISTING STORM SEWER & MANHOLE
	EXISTING SINGLE / DOUBLE CATCHBASIN
	EXISTING SANITARY SEWER & MANHOLE
	CONSTRUCTION MUD-MAT; SEE DETAIL
	HEAVY-DUTY SILT FENCE; SEE DETAIL
	PR. LIMIT OF UNDERGROUND PARKING
	PR. TREE PROTECTION FENCE
	OVERLAND FLOW ARROW
	PROPOSED BUILDING ENTRANCE
	PR. PEDESTRIAN CROSSWALK



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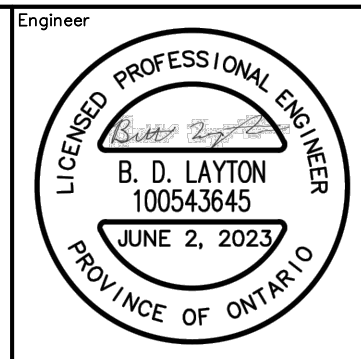
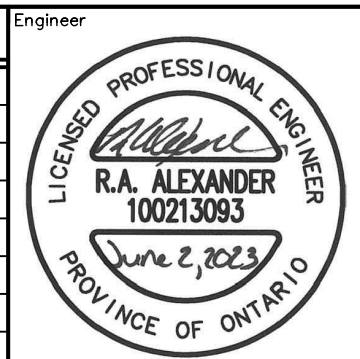
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Project: 440 ESSA ROAD  
CITY OF BARRIE

Drawing: REMOVALS AND EROSION & SEDIMENT CONTROL PLAN

**CROZIER**  
CONSULTING ENGINEERS

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Drawn By: B.C.	Design By: N.C./B.L.	Project: 1321-5312
Check By: R.A.A.	Scale: 1:250	Drawing: 103



**1. DRAWINGS**

1.1. ALL DRAWINGS SHALL BE PRODUCED IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARDS AND SYMBOLS FOR PLAN & PROFILE DRAWINGS, GENERAL SERVICE PLANS AND LOT GRADING PLANS.

**2. MEASUREMENT**

2.1. ALL DIMENSIONS ARE IN METRES (m), EXCEPT PIPE DIAMETERS, WHICH ARE IN MILLIMETRES (mm), UNLESS SPECIFIED OTHERWISE.

2.2. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION AND ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

**3. GENERAL**

3.1 ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BARRIE STANDARD DRAWINGS (BSD) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

3.2 ORDER OF PRECEDENCE OF STANDARD DRAWINGS IS FIRSTLY CITY OF BARRIE STANDARD DRAWINGS (BSD) AND SECONDLY ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD).

3.3 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.

3.4 A ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE ROADS AND PARKS OPERATIONS BRANCH PRIOR TO THE COMMENCEMENT OF WORK WITHIN ANY CITY RIGHT-OF-WAY.

3.5 A SITE ALTERATION PERMIT IS REQUIRED FROM THE ENGINEERING DEPARTMENT PRIOR TO THE COMMENCEMENT OF ANY EARTH WORKS ON THE SITE.

3.6 NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMD).

3.7 GRAVEL MATERIAL, USED FOR BACKFILL, SHALL BE PLACED IN LAYERS OF 150mm IN DEPTH MAXIMUM AND COMPACTED TO 100% SPMD.

3.8 ALL DISTURBED AREAS ARE TO BE REINSTATE TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE CITY ENGINEERING DEPARTMENT.

3.9 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 ENGINEERING DEPARTMENT.

4.1 SINGLE-STAGE CURB AND GUTTER TO COMPLY WITH OPSD 600.60.40.

4.2 TWO-STAGE CURB AND GUTTER TO COMPLY WITH OPSD 600.60.70.

4.3 SIDEWALKS TO COMPLY WITH OPSD 310.01.01 AND ARE TO BE 1.5 METRES WIDE  
MINIMUM THICKNESS AS FOLLOWS:

- RESIDENTIAL DRIVEWAY 150mm
- COMMERCIAL/INDUSTRIAL DRIVEWAY 200mm  
(REINFORCEMENT AS PER OPS IF REQUIRED)
- WHEN NO DRIVEWAY IS PRESENT 125mm

4.4 NATIVE SUBGRADE SHALL HAVE CROSSFALL OF 3% AND MATERIAL SHALL BE APPROVED BY A SOILS CONSULTANT AND IS SUBJECT TO APPROVAL BY THE DIRECTOR OF ENGINEERING.

4.5 THE ROAD BASE SHALL INCORPORATE 100mm DIAMETER SUBDRAIN WITH FACTORY INSTALLED FILTER FABRIC AS PER CITY OF BAYR STANDARD 850-34.

4.6 ALL CURB RADI TO BE MINIMUM 10.0 METRES AT THE EDGE OF ASPHALT.

4.7 NATIVE SUBGRADE TO BE COMPACTED TO MINIMUM 95% SPMD AND SHALL BE PROOF ROLLED.

4.8 GRADE AND CROSSFALL ADJUSTMENTS OF MAINTENANCE HOLE AND CATCHBASIN FRAMES WILL BE MADE USING PRODUCTS SPECIFICALLY MANUFACTURED FOR THAT PURPOSE. THE TOP ADJUSTMENT OF ALL CATCHBASIN AND MAINTENANCE HOLES SHALL BE RUBBER.

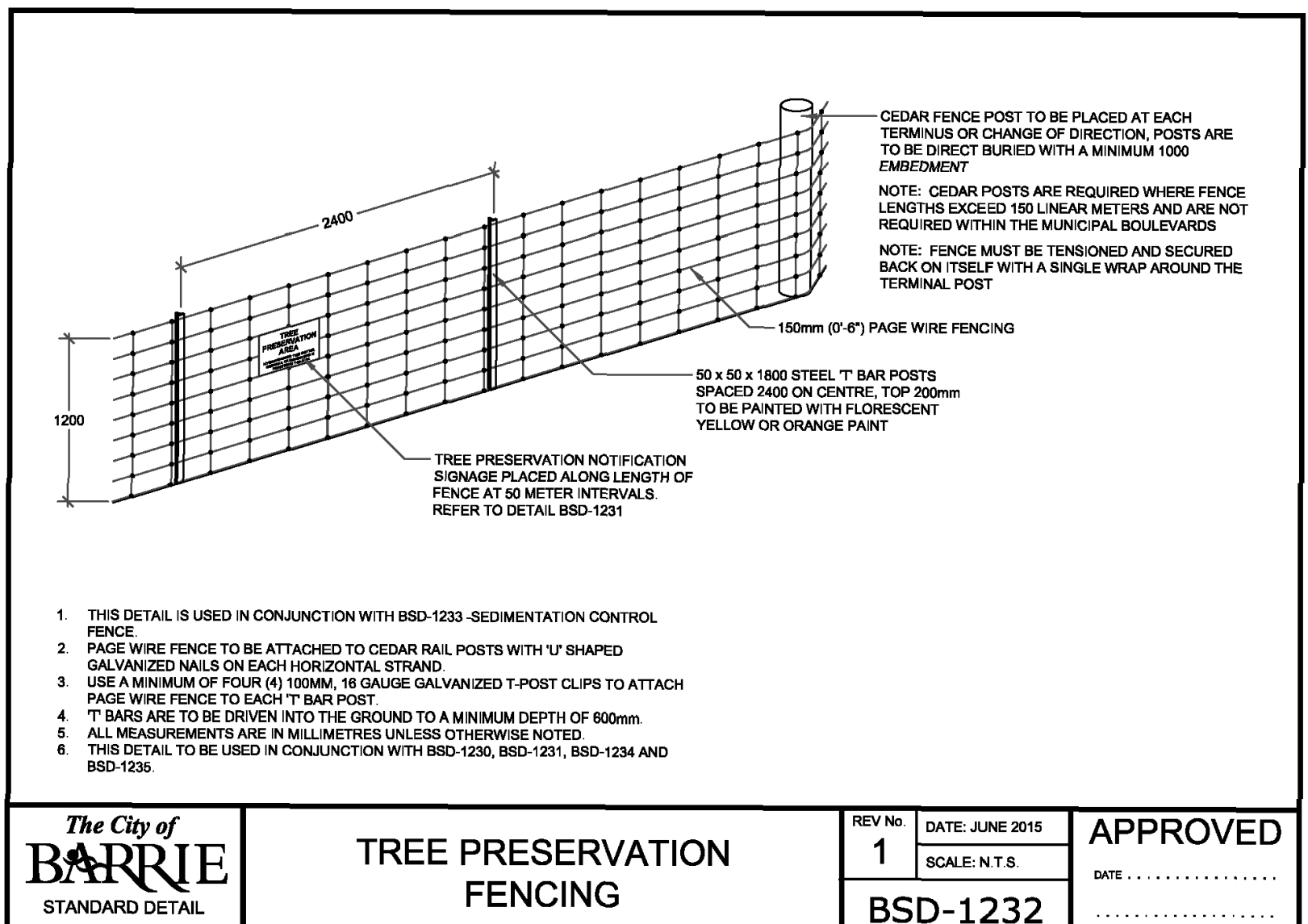
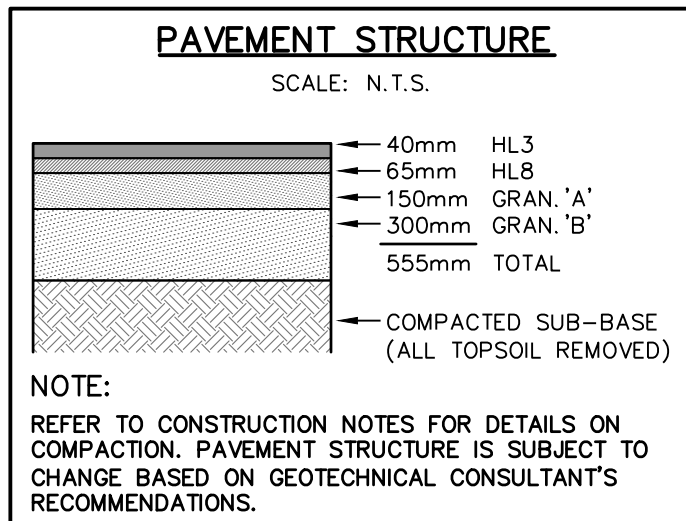
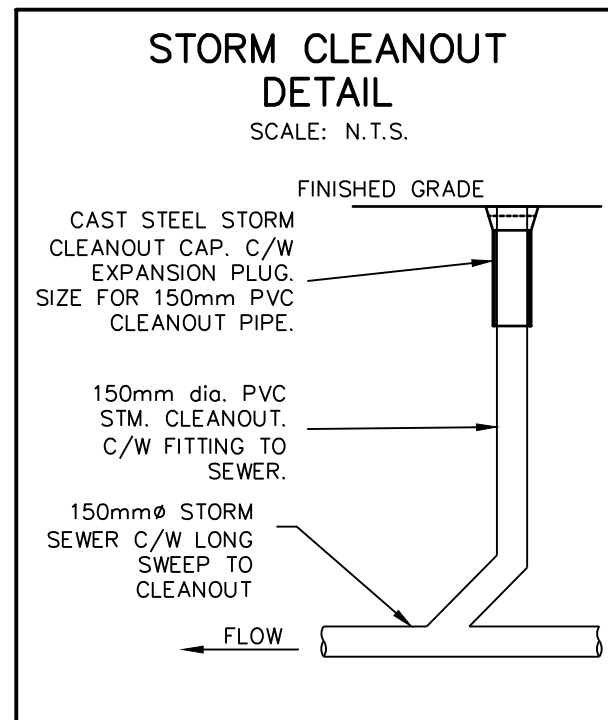
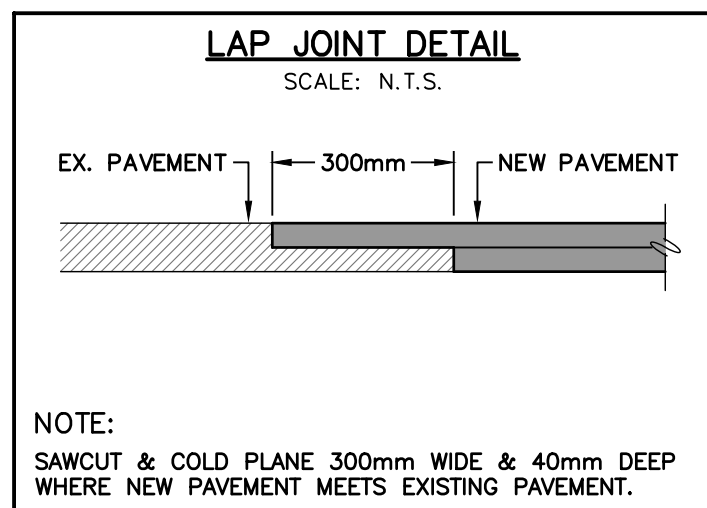
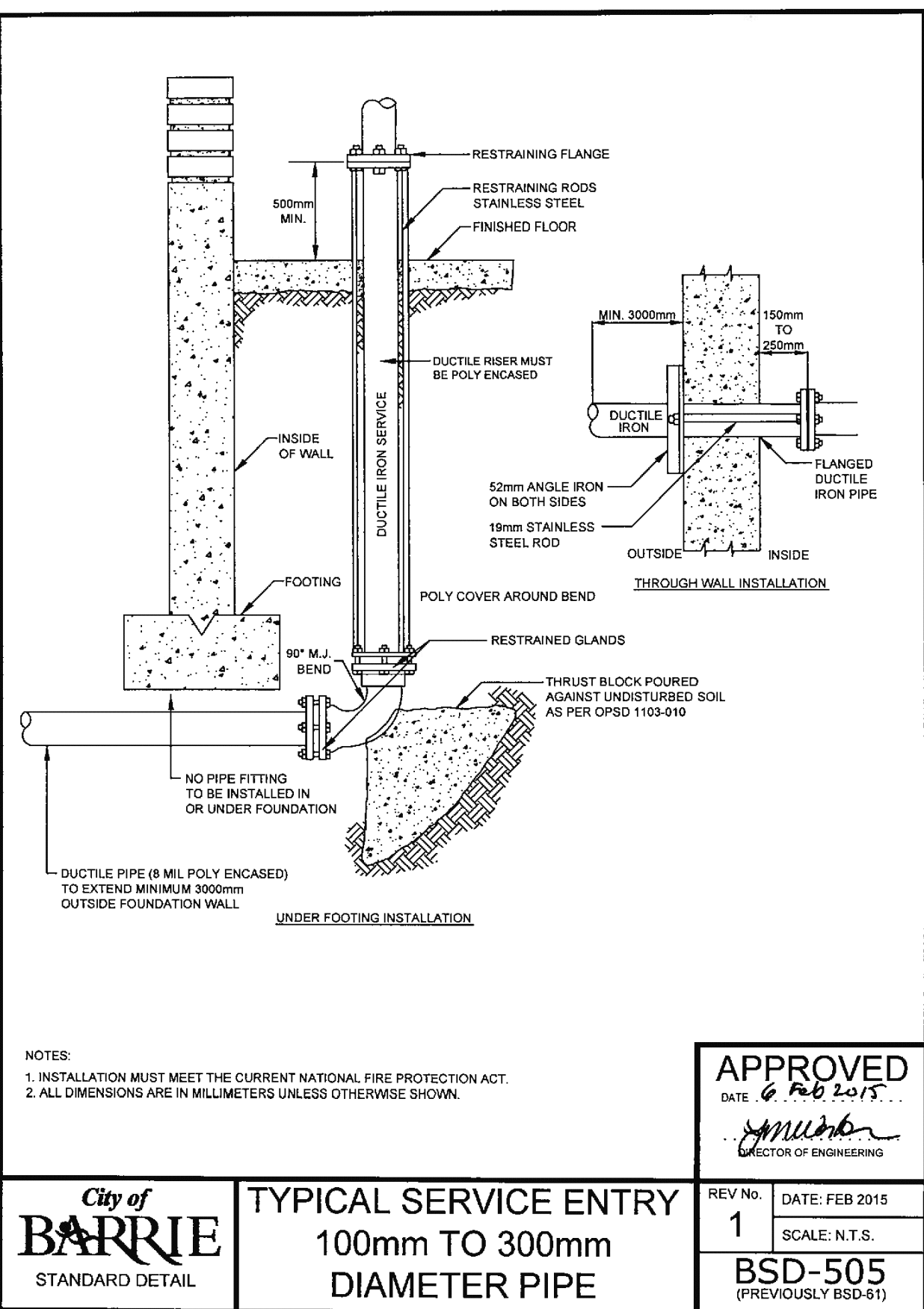
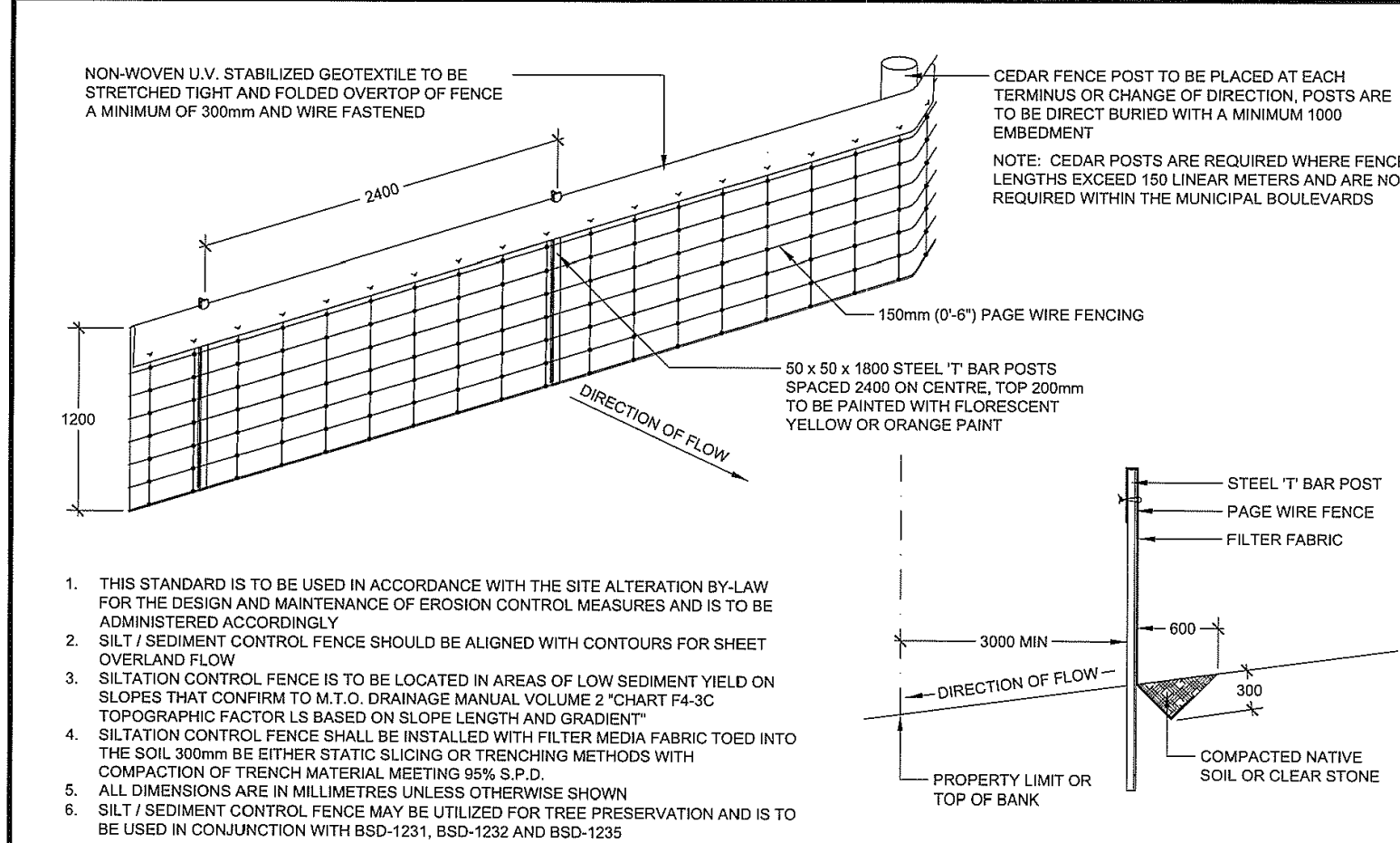
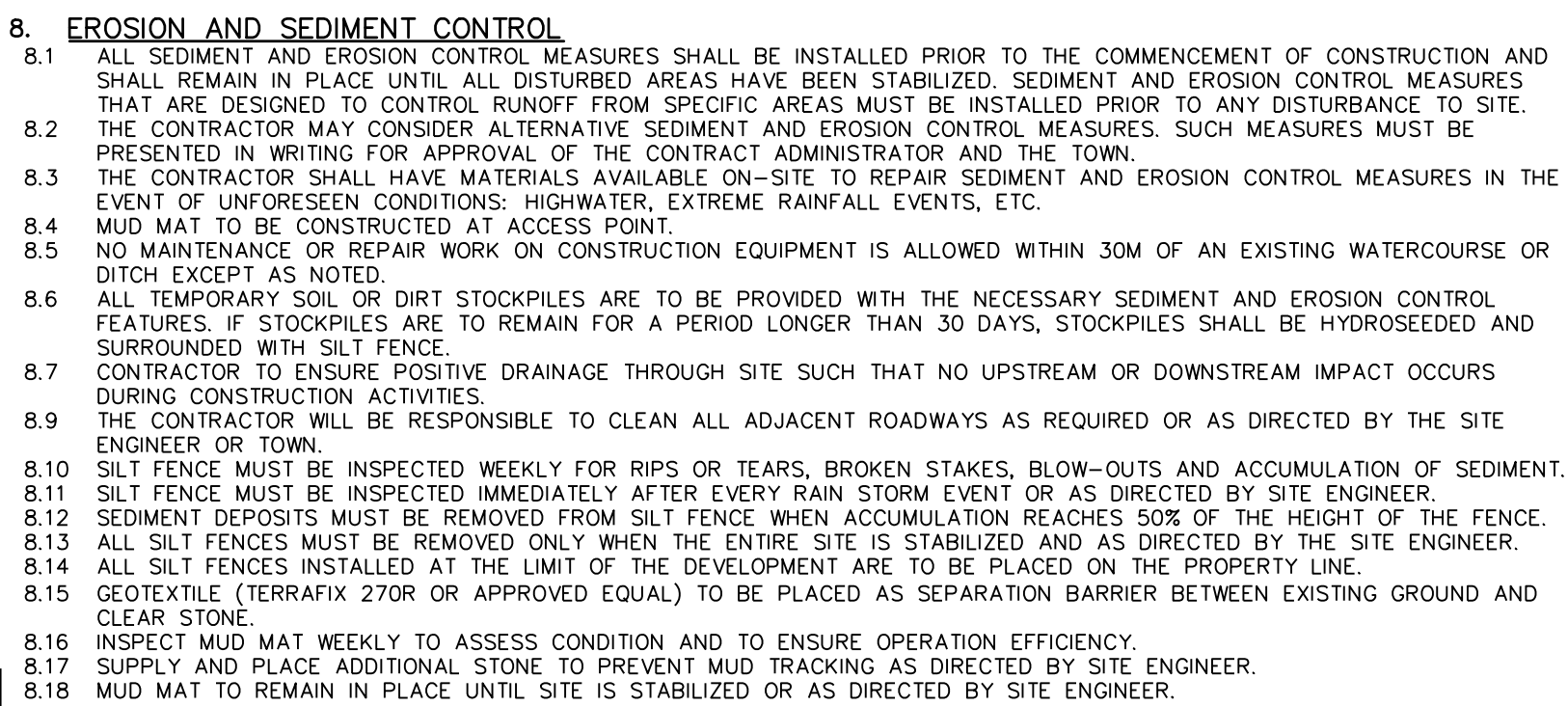
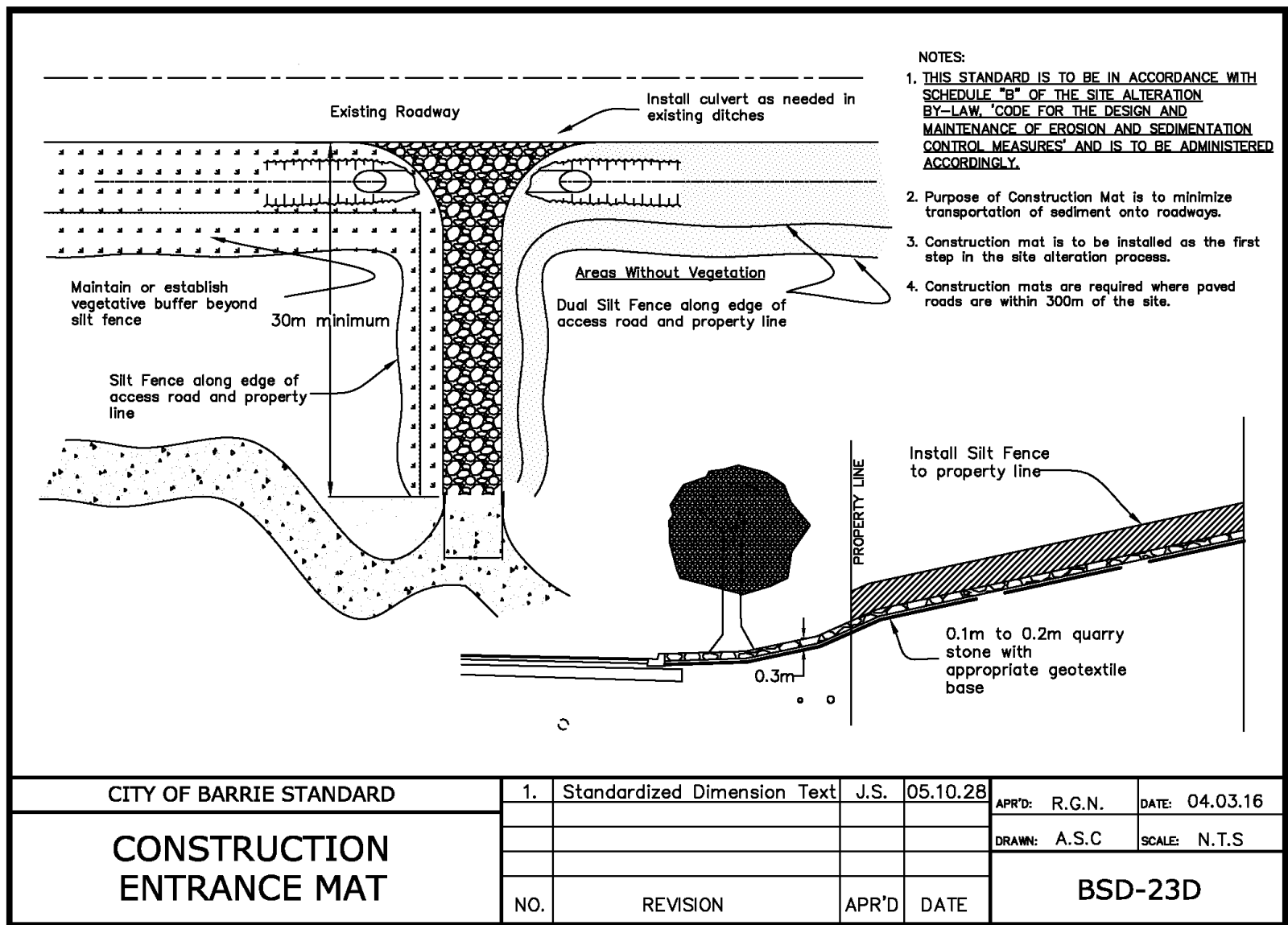
4.9 ADJUSTMENT UNITS MUST BE CERTIFIED TO MEET ALL PERTINENT OPS, CSA, ASTM AND MTO-DSM LIST, OR OTHER INDUSTRY GUIDELINES FOR MATERIALS, PERFORMANCE AND USE AS APPLICABLE.

4.10 ADJUSTMENT UNITS AND JOINTS WILL BE SEALED AND OR FARGED IN COMPLIANCE WITH MANUFACTURERS SPECIFICATIONS AND GUIDELINES.

4.11 MORTAR 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.

4.12 NON COMPRESSIVE BACKFILL WILL BE USED DURING REBUILDING, ADJUSTING, OR ANY OTHER APPLICABLE CATCHBASIN OR MAINTENANCE HOLE WORKS.

- 5.1 SANITARY SEWER TO BE LOCATED AT THE CENTRELNE OF THE ROAD.
- 5.2 SEWERS SHALL BE CONSTRUCTED WITH BEDDINGS AS PER OSD 802.010 (GRAN 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD 802.030 OR 802.031 CLASS B (GRAN 'A' BEDDING MATERIAL) FOR RIGID PIPES UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENGINEERING.
- 5.3 MAXIMUM DEFLECTION FROM COMBINED LIVE AND DEAD LOADING SHALL NOT EXCEED AND CSA, OPS, OR MANUFACTURERS RECOMMENDED SPECIFICATIONS.
- 5.4 PVC, CONCRETE AND PROFILE WALL PVC SEWERS SHALL HAVE RUBBER GASKET TYPE JOINTS AND SHALL BE CERTIFIED TO CONFORM TO ALL APPLICABLE CURRENT CSA SPECIFICATIONS.
- 5.5 CONCRETE SANITARY SEWERS SHALL HAVE A MINIMUM STRENGTH OF 50N/m<sup>2</sup> MINIMUM CONFORMING TO CSA STANDARD A257.2-1982, CLASS 50-D (PREVIOUSLY CSA STANDARD A257.2-1974, CLASS II).
- 5.6 MAINTENANCE HOLE TOPS (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE. THE TOP OF THE TOP OF CASING SHALL BE IN FULL COMPLIANCE WITH OSD-N2.
- 5.7 ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-MANUFACTURED, FABRICATED TEES, CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERTA-TEES IN STRICT ACCORDANCE TO MANUFACTURERS GUIDELINES.
- 5.8 ANY LATERAL CONNECTION TO BE LOCATED AT THE CENTRELNE OF THE LOT AND CAPPED.
- 5.9 LOCATION OF LATERAL TO BE MARKED 2.0m PAST PROPERTY LINE WITH A 50mm x 100mm WOOD MARKER PAINTED GREEN, EXTENDING FROM SERVICE INVERT TO 300mm ABOVE GROUND LEVEL.
- 5.10 PIPE TO BE MINIMUM 100mm dia. PVC SDR28, RUBBER GASKET TYPE JOINTS AND SHALL CONFORM TO CSA (B-182.2.3.4) (CONFORMED TO A RESISTANCE TO ROOTS AND 150mm MINIMUM DEPTH OF COVER SDR28 FOR INDUSTRIAL/COMMERCIAL DEVELOPMENT).
- 5.11 MINIMUM DEPTH OF LATERAL AT PROPERTY LINE SHALL BE 2.4m MEASURED FROM THE SEWER ORVERT TO FINISHED GROUND SURFACE ELEVATION UNLESS NOTES OTHERWISE.
- 5.12 ALL CONNECTIONS TO NEW SANITARY MAINS SHALL BE PRE-MANUFACTURED, FABRICATED TEES, CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE MADE WITH APPROVED FACTORY MADE TEES OR INSERTA-TEES IN STRICT ACCORDANCE WITH MANUFACTURERS GUIDELINES.
- 5.13 MINIMUM PIPE SLOPE TO BE 2.0% MAXIMUM 8.0% (SEE OPSD 1006.010, 1006.020).



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HAVING AN ELEVATION OF 312.81

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4	ISSUED FOR 4TH SUBMISSION SPA	06/02/2023

nnineer



Engineer



Project

440 ESSA ROAD  
CITY OF BARRIE

## CONSTRUCTION NOTES AND STANDARD DETAILS



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BRADFORD, ON L3Z 2B4  
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Check By R.A.	Check By G.M.	Scale 1:250	Drawing <b>104</b>



