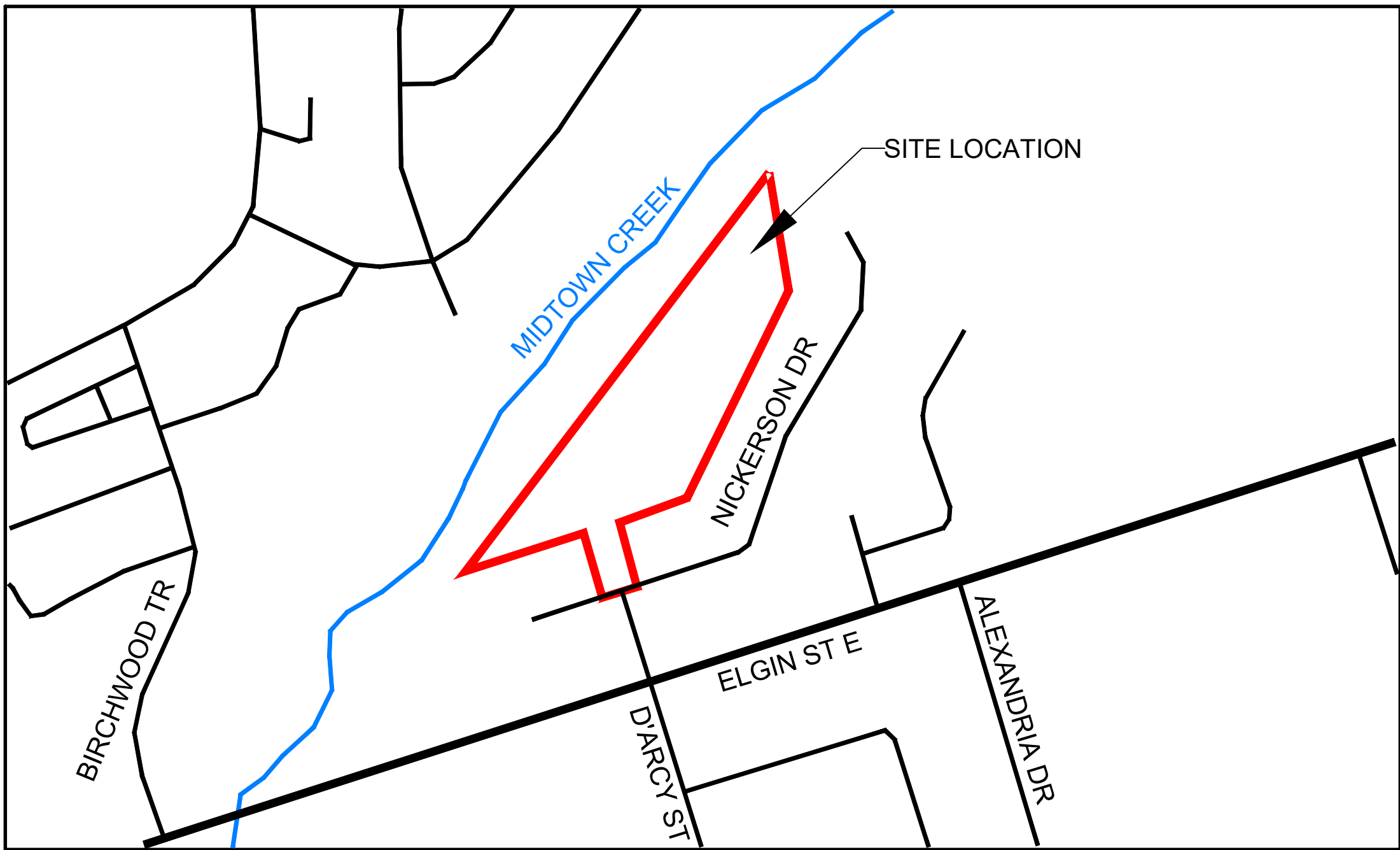


NICKERSON WOODS

COBOURG, ONTARIO
WILLS Project No. 07-10122

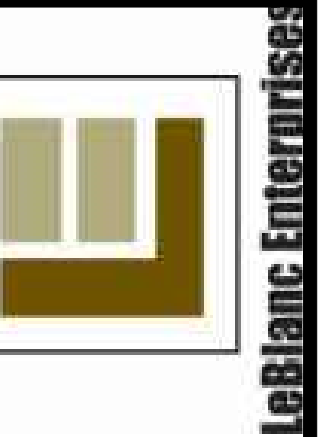


DRAWING INDEX

DRAWING	SHEET No.	REV. No.	REV DATE
GENERAL PLAN	01	3	10/20/2020
GENERAL NOTES	02	3	10/20/2020
DETAILS	03	3	10/20/2020
REMOVALS and EROSION AND SEDIMENT CONTROL PLAN	04	3	10/20/2020
SEDIMENT POND DETAILS	04A	3	10/20/2020
GRADING PLAN	05	3	10/20/2020
PLAN and PROFILE 0+990 TO 1+220	06	3	10/20/2020
PLAN and PROFILE D'ARCY STREET 1+220 TO 2+430	06A	3	10/20/2020
PLAN and PROFILE 1+220 TO 2+430	07	3	10/20/2020
STORM SEWER DRAINAGE AREA PLAN	08	3	10/20/2020
SANITARY SEWER DRAINAGE AREA PLAN	09	3	10/20/2020
UTILITY COORDINATION PLAN	10	3	10/20/2020
STORMWATER MANAGEMENT (SWM) DETAILS	11	3	10/20/2020
STORMTECH UNDERGROUND STORAGE CHAMBER DETAILS	12	3	10/20/2020



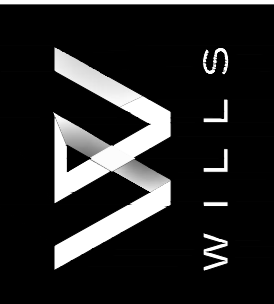
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NICKERSON WOODS

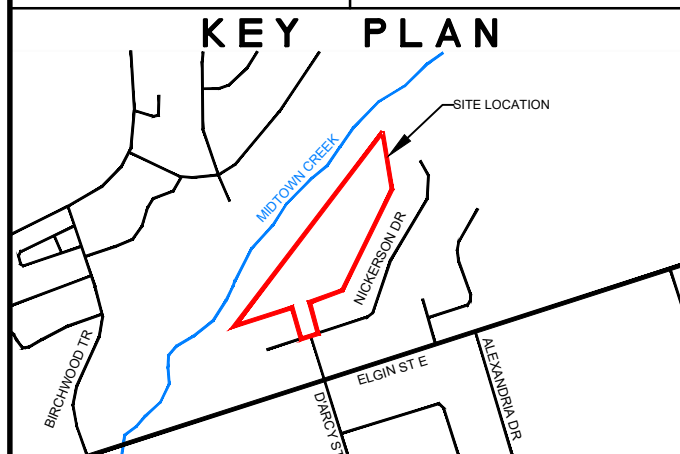
COBOURG, ONTARIO
WILLS Project No. 18-10122
THIRD SUBMISSION - OCTOBER 20, 2020

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THIRD SUBMISSION - OCTOBER 20, 2020
SECOND SUBMISSION - AUGUST 14, 2020
FIRST SUBMISSION - JANUARY 7, 2020

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street
traffic island at Elgin St.
N 4873468.59



METRIC	Dimensions are in METRES and/or MILLIMETRES unless otherwise shown
LEGEND	TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES

LICENSED PROFESSIONAL ENGINEER
 A. M. HICKEY
 100212979
 OCTOBER 27, 2020
 PROVINCE OF ONTARIO



Drawn By: C.P.M.	SCALE: Horz. 1:500 Vert. N/A	
Designed By: M.B.J.	Issue: OCTOBER 20, 2020	
Checked By: D.A.K.	Project No.: 18-10122	Sht. No.: 01
Engineer: A.M.H.	Dwg File No.: GEN	



- 1.1 LEGAL LINework IS PER DRAFT PLAN OF SUBDIVISION BY RFA PLANNING CONSULTANT INC., SIGNED AND DATED BY CRYSTAL CRANCH, O.L.S., DATED FEBRUARY 10, 2014.
- 1.2 SUBSURFACE INVESTIGATION BY GEOLOGIC INC., DATED MAY 25, 2015.
- 1.3 TOPOGRAPHIC SURVEY CONDUCTED NOVEMBER 9, 2019 BY DM WILLS (DM WILLS) ASSOCIATES LIMITED AND AUGUST 21, 2013 BY IVAN B WALLACE ONTARIO LAND SURVEYOR LIMITED.
- 1.4 THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR THE FIELD LOCATION OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF EXISTING UTILITIES AND ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.

1. GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND HAVING ON SITE, A COPY OF THE ONTARIO PROVINCIAL STANDARDS, AND THE LATEST DESIGN GUIDELINES FOR THE CORPORATION OF THE TOWN OF COBOURG, LAKEFRONT UTILITY SERVICES INC. AND LAKEFRONT UTILITIES INC.
- 1.6. GENERAL CONTRACTOR SHALL CARRY ALL COSTS ASSOCIATED WITH CONSTRUCTION WITHIN THE MUNICIPAL C.D.W. WHETHER IT IS PERFORMED BY THE CONTRACTOR OR IS TO BE PERFORMED BY PUBLIC WORKS DEPARTMENT. CONTRACTOR TO MAKE ALL NECESSARY ARRANGEMENTS FOR CO-ORDINATION WITH THE MUNICIPALITY AND/OR LOCAL UTILITY.
- 1.7. THE APPROVAL OF THE PLANS DOES NOT EXEMPT THE OWNER'S CONTRACTOR FROM OBTAINING THE FOLLOWING, BUT NOT LIMITED TO, PERMITS: ROAD CUT, SEWER PERMIT, RELOCATION OF SERVICES, ENCROACHMENT AGREEMENTS, APPROACH PERMITS, WATERMAIN CONNECTION PERMIT ETC.
- 1.8. THE DETAILS ON THIS DRAWING SHALL TAKE PRECEDENCE OVER THE LATEST OPSD DETAILS WHERE APPLICABLE.
- 1.9. THE CONTRACTOR MUST CHECK AND VERIFY ALL DRAWING DIMENSIONS AND GRADES AND REPORT ANY DISCREPANCY TO THE ENGINEER BEFORE PROCEEDING WITH THE WORKS.
- 1.10. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- 1.11. 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.
- 1.12. ALL AREAS DISTURBED BY THE CONTRACTOR'S CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AS INDICATED ON THE OWNER'S CONTRACT DRAWINGS AND IN ACCORDANCE WITH OPSS 507.
- 1.13. ALL COMPACTION, CONCRETE, ASPHALT AND MATERIAL TESTING SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST DESIGN GUIDELINES FOR THE CORPORATION OF THE TOWN OF COBOURG.
- 1.14. ANY HYDRO POLES OR BELL POLES THAT ARE IN DANGER OF BEING UNDERMINED ARE TO BE BRACED. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE POLES BRACED TO THE SATISFACTION OF THE APPROPRIATE UTILITY. ALL COSTS ASSOCIATED WITH THE BRACING OF POLES SHALL BE CARRIED BY THE CONTRACTOR.
- 1.15. ALL TREES AND ROOTS TO BE COMPLETELY REMOVED AND DISPOSED OF OFF SITE, UNLESS NOTED FOR PRESERVATION.
- 1.16. ALL TEMPORARY SILTATION CONTROL DEVICES ARE TO BE PLACED AND MAINTAINED BEFORE CONSTRUCTION STARTS. CONTROL DEVICES SHALL BE REMOVED ONCE ALL CONSTRUCTION HAS BEEN COMPLETED, ALL VEGETATION HAS BEEN ESTABLISHED AND AT THE DIRECTIONS OF THE ENGINEER (D.M.WILLS).
- 1.17. ALL MATERIALS (CONCRETE ASPHALT, ETC.) THAT ARE TO BE REMOVED MUST BE DISPOSED OF IN ACCORDANCE WITH OPSS MUNI 180 AND LOCAL MUNICIPAL BYLAWS.
- 1.18. GENERAL CONTRACTOR TO PLACE A "MUDMAT" AS PER DETAIL 2 ON SHEET 3, AT THE CONSTRUCTION ENTRANCE ON D'ARCY STREET AT NICKERSON DRIVE AS SHOWN ON SHEET 4. IF THE CONTRACTOR UTILIZES ANY OTHER ENTRANCES AS A CONSTRUCTION ENTRANCE, IT IS THE CONTRACTORS RESPONSIBILITY TO CONSTRUCT A MUD MAT AT EACH ENTRANCE AND MAINTAIN THE MUD MAT THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND CLEANING THE MUD MAT TO ENSURE NO DEBRIS IS TRACKED ONTO THE CITY ROADS. ANY DEBRIS TRACKED ONTO THE ROADWAYS SHALL BE POWER SWEEPED AT THE END OF EACH DAY.
- 1.19. ALL EXISTING ASPHALT EDGES SHALL BE SAW CUT CLEAN PRIOR TO ANY PAVING OPERATION. REFER TO LAP JOINT DETAIL 3 ON SHEET 3.
- 1.20. THE REMOVAL OF VEGETATION SHALL OCCUR OUTSIDE OF THE BREEDING BIRD TIMING (TYP. APRIL 1 to AUGUST 15).
- 1.21. CONTRACTOR TO BE VIGILANT IN CHECKING FOR TURTLES AND SNAKES DURING CONSTRUCTION, ALLOWING ANY SPECIES ENCOUNTERED, TIME TO MOVE OUT OF HARM'S WAY AFTER BEING PHOTOGRAPHED. ENDANGERED AND THREATENED SPECIES SHOULD BE REPORTED TO THE MECP.
- 1.22. ONCE THE WOODLAND HAS BEEN CLEARED FOR DEVELOPMENT, SMALLER SHRUBS SHOULD BE PLANTED ALONG THE EDGE. RE-VEGETATION OF DISTURBED AREA SHOULD OCCUR AS SOON AS POSSIBLE AFTER CONSTRUCTION.
- 1.23. DURING CONSTRUCTION, EQUIPMENT SHALL BE CLEANED OF EXISTING DEBRIS FROM PREVIOUS LOCATIONS PER "CLEAN EQUIPMENT PROTOCOL FOR INDUSTRY".
- 1.24. VEHICLE AND REFUELING AND/OR MAINTENANCE SHALL BE CONDUCTED WITHIN A DEFINED STAGING AREA, A MINIMUM OF 30.0m FROM A WATERCOURSE.
- 1.25. ALL SOIL STOCKPILE LOCATIONS SHALL BE LOCATED A MINIMUM OF 15.0m FROM THE WATERCOURSE, AND SURROUNDED BY SEDIMENT CONTROLS.
- 1.26. THE CONTRACTOR SHALL PROVIDE THE TOWN OF COBOURG AND THE CONTRACT ADMINISTRATOR WITH A MINIMUM OF TWO (2) WORKING DAYS' NOTICE IN ADVANCE OF ANY CONNECTION TO EXISTING TOWN INFRASTRUCTURE.
- 1.27. ALL SERVICING WITHIN THE CONDOMINIUM COMMON ELEMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- 1.28. PLUMBING PERMITS ARE REQUIRED FOR THE INSTALLATION OF SANITARY, STORM, AND WATER SERVICES AND MAINS WITHIN THE CONDOMINIUM COMMON ELEMENT
- 1.29. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE ONTARIO TRAFFIC MANUAL.
- 1.30. NO OPEN EXCAVATION SHALL BE PERMITTED IN THE TREE PROTECTION ZONES.
- 1.31. THE CONTRACTOR SHALL PROVIDE THE CONTRACT ADMINISTRATOR WITH A MINIMUM OF THREE (3) WORKING DAYS' NOTICE IN ADVANCE OF UNDERTAKING THE FOLLOWING WORKS: EXCAVATION AND INSTALLATION FOR CB 9. ANY GRADING WORKS WITHIN LOT 16, AND DITCHING SOUTH OF THE ROAD ACROSS FROM LOTS 10 TO 12. THE CONTRACTOR SHALL NOT UNDERTAKE THE AFOREMENTIONED WORKS WITHOUT AN ARBORIST PRESENT ON-SITE. IT SHALL BE THE CONTRACT ADMINISTRATOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS TO HAVE AN ARBORIST ON-SITE FOR THESE WORKS.
- 1.32. HAND EXCAVATION SHALL BE EXCLUSIVELY USED FOR ALL EXCAVATION REQUIRED TO CONSTRUCT THE SIDEWALK THROUGH THE TREE PROTECTION ZONE SOUTHEAST OF LOT 23. PRECAUTIONS REGARDING TREE PROTECTION AND ROOT TREATMENT SHALL BE COMPLETED IN ACCORDANCE WITH NOTE 1.33.
- 1.33. IF ANY ANCHOR ROOTS ARE EXPOSED DURING THE EXCAVATION OF THE ROAD, CURB AND SIDEWALK ADJACENT TO THE TREE PROTECTION ZONE SOUTHWEST OF LOT 23, THEY SHALL BE CLEANLY SEVERED AND NOT TORN OR RIPPED. ANY ANCHOR ROOTS THAT ARE EXPOSED AND REQUIRE SEVERING FOR THE INSTALLATION OF THE SIDEWALK, CURB AND GUTTER, ROADWAY, OR OTHER SITE FEATURES SHALL BE SEVERED IMMEDIATELY FOLLOWING EXPOSURE.

- 2.1 ALL WATERMANS AND WATER SERVICE MATERIALS AND CONSTRUCTION METHODS MUST CONFORM TO CURRENT DESIGN GUIDELINES AND GENERAL SPECIFICATIONS FOR THE WATER DISTRIBUTION SYSTEM FOR THE TOWN OF COBOURG, LAKEFRONT UTILITY SERVICES INC. AND OPSD. WHERE A CONFLICT IN STANDARD EXISTS THE ORDER OF PRECEDENCE SHALL BE AS FOLLOWS: LAKEFRONT UTILITY SERVICES INC. (LUSI) WATERMAIN AND APPURTENANCES POLICY & PROCEDURE), TOWN OF COBOURG, OPSD.
- 2.2 CONTRACTOR TO INSTALL 12-GAUGE TWU STRANDED COPPER PLASTIC COATED TRACER WIRE ON ALL NEW PVC WATERMAIN AND WATER SERVICE INSTALLATIONS. TRACER WIRE SHALL ALSO BE INSTALLED UP THE FULL LENGTH OF THE STEM TO THE SURFACE OF EACH CURB STOP, VALVE AND HYDRANT. TRACER WIRE TO BE ATTACHED TO TOP OF PIPE AND OUTSIDE OF EACH VALVE WITH TAPE. TRACER WIRE INSTALLATION SHALL CONFORM TO TOWN OF COBOURG STANDARDS.
- 2.3. WATERMAIN PIPE SHALL BE OF THE FOLLOWING MATERIALS ACCORDING TO PIPE SIZE:
 - A) > 300mmØ: DUCTILE IRON PRESSURE CLASS 300 (AWWA C150)
 - B) 150-300mmØ: PVC DR18 (AWWA C900)

- 2.4. CONTRACTOR TO INSTALL CATHODIC PROTECTION ON ALL NEW PVC WATERMAIN SYSTEMS INCLUDING AS PER OPSD 1109.011. IN ADDITION, ONE 5.4kg ZINC ANODE TO BE INSTALLED ON EVERY VALVE, HYDRANT AND FITTING CONNECTED TO A NON-FERROUS WATERMAIN. FITTINGS REQUIRING CATHODIC PROTECTION INCLUDE: BENDS, TEES, CROSSES, SLEEVES, REDUCERS, PLUGS, CAPS, JOINT RESTRAINERS AND COUPLINGS.
- 2.5. MINIMUM COVER ON THE WATER SERVICE SHALL BE 1.80m FROM PROPOSED FINISH GRADE TO THE TOP OF PIPE.
- 2.6. BEDDING AND BACKFILL FOR WATERMAIN SHALL BE AS PER OPSD 802.010.
- 2.7. THE MINIMUM VERTICAL DISTANCE BETWEEN THE WATERMAIN AND EITHER A STORM SEWER OR SANITARY SEWER SHALL BE 500mm. THE MINIMUM HORIZONTAL DISTANCE BETWEEN THE WATERMAIN AND SEWER OR STRUCTURE SHALL BE 2.5m.
- 2.8. ALL WATER SERVICES SHALL BE INSTALLED AT RIGHT ANGLES TO THE WATERMAIN WHERE POSSIBLE.
- 2.9. WATER SERVICE CONNECTIONS SHALL NOT BE LOCATED UNDER A DRIVEWAY OR PAVED AREA.
- 2.10. ALL WATER SERVICES SHALL BE INSTALLED AS PER OPSD 1104.010. WATER SERVICES SHALL BE ONE CONTINUOUS PIECE OF MATERIAL. ALL WATER SERVICES 50mmØ OR LESS SHALL BE TYPE 'K' COPPER.
- 2.11. ALL HYDRANTS TO BE INSTALLED AS PER THE DESIGN GUIDELINES FOR THE CORPORATION OF THE TOWN OF COBOURG AND LAKEFRONT UTILITY SERVICES INC. STANDARDS.
- 2.12. ALL WATERMAIN TESTING INCLUDING CHLORINATION, BACTERIOLOGICAL, PRESSURE AND FLOW TESTING IS TO BE IN ACCORDANCE WITH THE TOWN OF COBOURG STANDARDS (FLOW TESTING ON ALL HYDRANTS IS TO INCLUDE THE FLOW RATE IN USGPM, THE STATIC PRESSURE IN PSI, AND THE RESIDUAL PRESSURE IN PSI). CONTRACTOR TO SUPPLY THE ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS. THE WATERMAIN TESTING CONTRACTOR(S) MUST BE APPROVED BY THE ENGINEER PRIOR TO TESTING OF THE WATERMAIN. THE SITE SERVICES CONTRACTOR OR GENERAL CONTRACTOR IS TO SUPPLY THE ENGINEER WITH THE NAME, PHONE NUMBER AND ADDRESS OF THE WATERMAIN TESTING CONTRACTOR(S), A MINIMUM OF TWO WEEKS PRIOR TO TESTING.
- 2.13. ALL WATERMAIN FITTINGS TO HAVE RESTRAINED JOINTS OR CONCRETE THRUST BLOCKS. JOINTS SHALL BE RESTRAINED IN ALL OPPOSING DIRECTION OF THRUST FORCES, AND CONFORM TO THE TOWN OF COBOURG STANDARDS.
- 2.14. THE CONTRACTOR IS TO TERMINATE THE WATER SERVICES AT THE PROPERTY LINE WITH A CURB STOP. THE WATER SERVICE SHALL BE MARKED WITH A 2 x 4 PAINTED BLUE. THE 2 x 4 SHALL EXTEND 0.9m ABOVE FINISHED GRADE. THE 2 x 4 SHALL BE CLEARLY LABELED "WAT".
- 2.15. RESILIENT SEAT VALVES CONFORMING TO AWWA C509 SHALL BE USED ON ALL WATERMAINS 300mmØ AND SMALLER. ALL IN-LINE VALVES SHALL BE RESTRAINED.
- 2.16. THE CONTRACTOR SHALL NOTIFY THE COUNTY OF NORTHUMBERLAND PLUMBING INSPECTOR A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF THE PRESSURE TESTING OF THE WATERMAIN.

- 3.1. STORM SEWER UP TO 375mm DIA. SHALL BE DR35 PVC PIPE AND GREATER THAN 375mm DIA. SHALL BE REINFORCED CONCRETE PIPE. SANITARY SEWER SHALL BE DR35 PVC PIPE.
- 3.2. ALL STORM AND SANITARY SEWERS TO BE CONSTRUCTED IN ACCORDANCE WITH TOWN OF COBOURG STANDARDS AND MUST CONFORM TO CURRENT TOWN OF COBOURG DESIGN GUIDELINES.
- 3.3. THE STORM AND SANITARY SEWERS ARE TO BE FLUSHED UPON COMPLETION OF ALL SITE WORKS, AND ALL CATCH BASINS AND STORM MANHOLES ARE TO BE CLEANED AND VACUUMED OUT.
- 3.4. ALL NEW STORM AND SANITARY SEWER SHALL BE INSPECTED BY CCTV AFTER CONSTRUCTION IS COMPLETE AND AFTER THE SEWERS HAVE BEEN CLEANED. THE CONTRACTOR SHALL PROVIDE THREE COPIES OF THE VIDEOS AND REPORTS ON CD TO THE ENGINEER.
- 3.5. THE SITE SIGHTING CONTRACTOR IS TO TERMINATE THE SANITARY SERVICE 1.5m BEYOND THE PROPERTY LINE WITH A WATERTIGHT PLUG. SANITARY SERVICES SHALL BE MARKED WITH A 2 x 4 PAINTED GREEN, AND BE CLEARLY LABELED "SAN". THE 2 x 4 SHALL EXTEND 0.9m ABOVE FINISHED GRADE.
- 3.6. SANITARY CONNECTIONS TO MAIN SEWER LINE ARE TO BE MANUFACTURED TEES.
- 3.7. SANITARY SERVICE LATERALS SHALL NOT BE CONNECTED DIRECTLY TO MAINTENANCE HOLES, EXCEPT WHERE SHOWN.
- 3.8. BEDDING AND BACKFILL FOR STORM AND SANITARY SEWER SHALL BE AS PER TOWN OF COBOURG STANDARDS IN CONJUNCTION WITH OPSD 802.010 (GRANULAR 'A' EMBEDMENT) FOR PVC PIPES.
- 3.9. THE CONTRACTOR SHALL PERFORM A DEFLECTION TEST ON ALL STORM AND SANITARY SEWERS IN ACCORDANCE WITH OPSS 410. THE CONTRACTOR SHALL PROVIDE D.M. WILLS WRITTEN NOTICE, A MINIMUM OF 2 WORKING DAYS PRIOR TO CONDUCTING THE DEFLECTION TEST. THE DEFLECTION TEST SHALL NOT BE INITIATED WITH OUT D.M. WILLS' INSPECTOR ON SITE. THE CONTRACTOR SHALL SUBMIT THREE COPIES OF THE REPORTS TO THE ENGINEER.
- 3.10. ALL CATCH BASINS SHALL HAVE FILTER FABRIC PLACED UNDER THE LID IMMEDIATELY AFTER INSTALLATION, TO CONTROL ANY SILT THAT MAY ENTER THE STORM SEWER. THE CONTRACTOR SHALL ENSURE THE FILTER FABRIC IS NOT 'SEALED' IN PLACE DURING THE PLACEMENT OF ASPHALT. ALL FILTER FABRIC IS TO BE MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL FILTER FABRIC UPON COMPLETION OF THE PROJECT OR AFTER BEING NOTIFIED BY THE ENGINEER.
- 3.11. ALL CATCH BASINS SHALL BE AS PER OPSD 705.010. ALL CATCH BASINS TO BE PROVIDED WITH FRAME AND GRATE AS PER OPSD 401.081, UNLESS OTHERWISE NOTED. CATCH BASINS TO BE PROVIDED WITH A 300mm PVC DR35 LEAD UNLESS OTHERWISE NOTED.
- 3.12. THE 12.5m - 300mmØ PVC DR18 STORM SEWER FROM CBMH101 TO EX. MH100 SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LAKEFRONT UTILITY SERVICES INC. STANDARDS FOR WATERMAIN. THAT SECTION OF PIPE IS TO BE PRESSURE TESTED IN ACCORDANCE WITH OPSS 701, WITH A PRESSURE OF 350KPA.
- 3.13. NO SANITARY SERVICE CONNECTION SHALL BE INSTALLED AT A DEPTH LESS THAN 2.5m, OR GREATER THAN 3.0m.
- 3.14. WHERE A CHANGE IN DIRECTION OF SANITARY SERVICES IS REQUIRED, SWEEPING ELBOWS SHALL BE USED IN PLACE OF BENDS.
- 3.15. ALL SANITARY SERVICES SHALL BE 150mmØ PVC DR28 AT 2% MINIMUM. GREEN IN COLOUR.
- 3.16. FOR SANITARY SEWER CONNECTION DETAIL, SEE OPSD-1006.01.
- 3.17. THE CONTRACTOR SHALL COMPLETE LEAKAGE TESTING FOR ALL STORM AND SANITARY SEWERS AND STRUCTURES TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.

OPSD No.	TITLE	REV. #	REV. DATE
219.130	HEAVY DUTY SILT FENCE	2	NOV 2015
219.180	STRAW BALE CHECK DAM	1	NOV 2006
400.010	CAST IRON, SQUARE FRAME WITH SQUARE OVERFLOW TYPE DISHD GRATE FOR CATCH BASINS, HERRING BONE OPENINGS	3	NOV 2018
400.020	CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS	3	NOV 2018
401.010	MAINTENANCE HOLE, SQUARE FRAME, CIRCULAR COVER CLOSED-SANITARY, OPEN STORM	4	NOV 2018
401.081	CAST IRON, SQUARE FRAME, FISH TYPE COVER	1	NOV 2015
405.010	MAINTENANCE HOLE STEPS (HOLLOW)	4	NOV 2018
600.040	CONCRETE BARRIER CURB WITH STANDARD GUTTER	2	NOV 2012
600.100	CONCRETE MOUNTABLE CURB WITH NARROW GUTTER	1	NOV 2006
600.110	CONCRETE BARRIER CURB	2	NOV 2012
603.020	PRECAST CONCRETE CURB	2	NOV 2012
605.030	45 DEGREE GUTTER OUTLET FOR CONCRETE CURB AND GUTTER AT END OF RUN	2	NOV 2012
701.010	1200mm PRECAST MANHOLE (PROVIDE 0.3m SUMP FOR STM)	5	NOV 2014
701.021	SANITARY MANHOLE BENCHING DETAILS	4	NOV 2014
701.030	1200mm PRECAST MANHOLE COMPONENTS	4	NOV 2014
705.010	PRECAST CONCRETE CATCH BASIN 600 x 600mm (MIN. 0.6m SUMP)	3	NOV 2014
802.010	FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION	3	NOV 2014
803.031	FROST TREATMENT-PIPE CULVERTS, FROST PENETRATION LINE BETWEEN TOP OF PIPE AND BEDDING GRADE	3	NOV 2015
1006.010	SEWER SERVICE CONNECTIONS FOR MAIN PIPE SEWER	3	NOV 2016
1103.010	CONCRETE THRUST BLOCKS - TEES, PLUGS, HORIZONTAL BENDS	3	NOV 2018
1103.020	CONCRETE THRUST BLOCKS - VERTICAL BENDS	4	NOV 2018
1104.010	WATER SERVICE CONNECTIONS	4	NOV 2018
1109.010	CATHODIC PROTECTION FOR METALLIC WATERMAIN SYSTEMS	2	NOV 2015
1109.011	CATHODIC PROTECTION FOR PVC WATERMAIN SYSTEMS	2	NOV 2015
1109.030	INSULATION FOR SEWERS AND WATERMAINS IN SHALLOW TRENCHES	0	NOV 2015

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street
traffic island at Elgin St.
N 4873468.59

KEY PLAN

The map shows a red-outlined polygon representing the 'BITE LOCATION'. This location is situated between 'MAYO HILL CREEK' to its north and east, and 'ELGIN ST E' to its south. To the west of the location is 'ST. JOSEPH ST'. The creek flows from the top left towards the bottom right of the map.

REVISIONS		
No.	Description	Date
3	THIRD SUBMISSION	OCT. 20/20
2	SECOND SUBMISSION	JUL. 2/20
1	FIRST SUBMISSION	JAN. 7/20

METRIC	Dimensions are in METRES and/or MILLIMETRES unless otherwise shown
LEGEND	TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES



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Project Name/Location

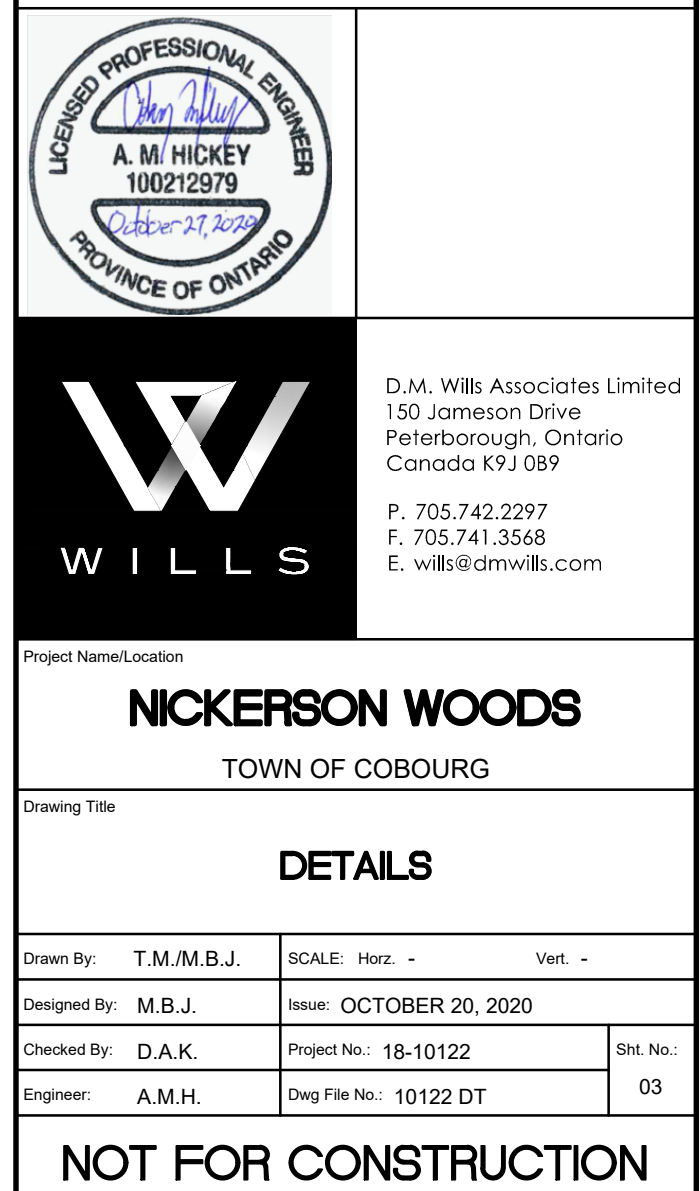
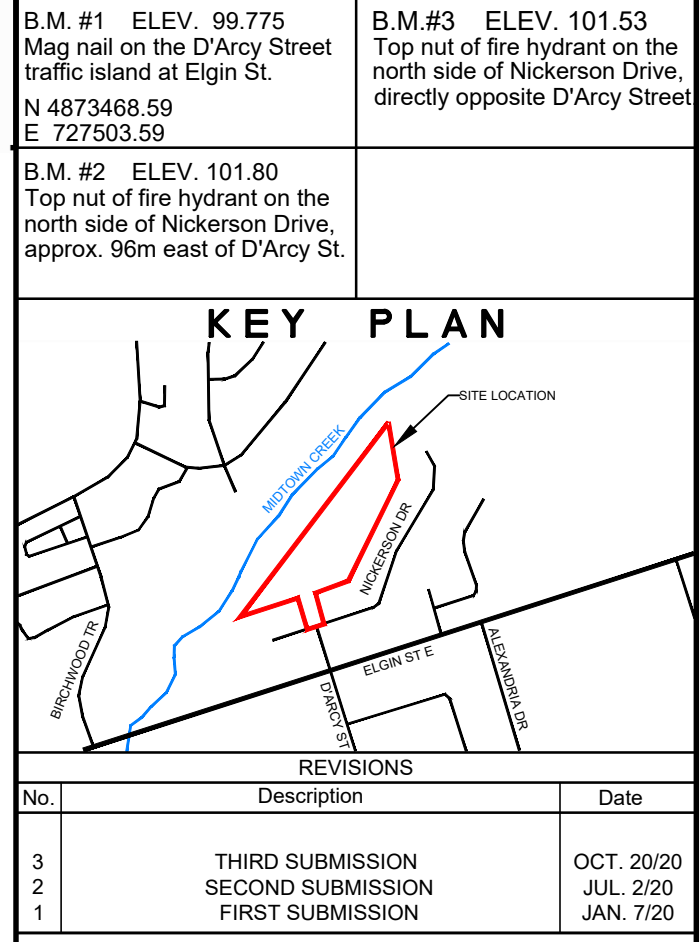
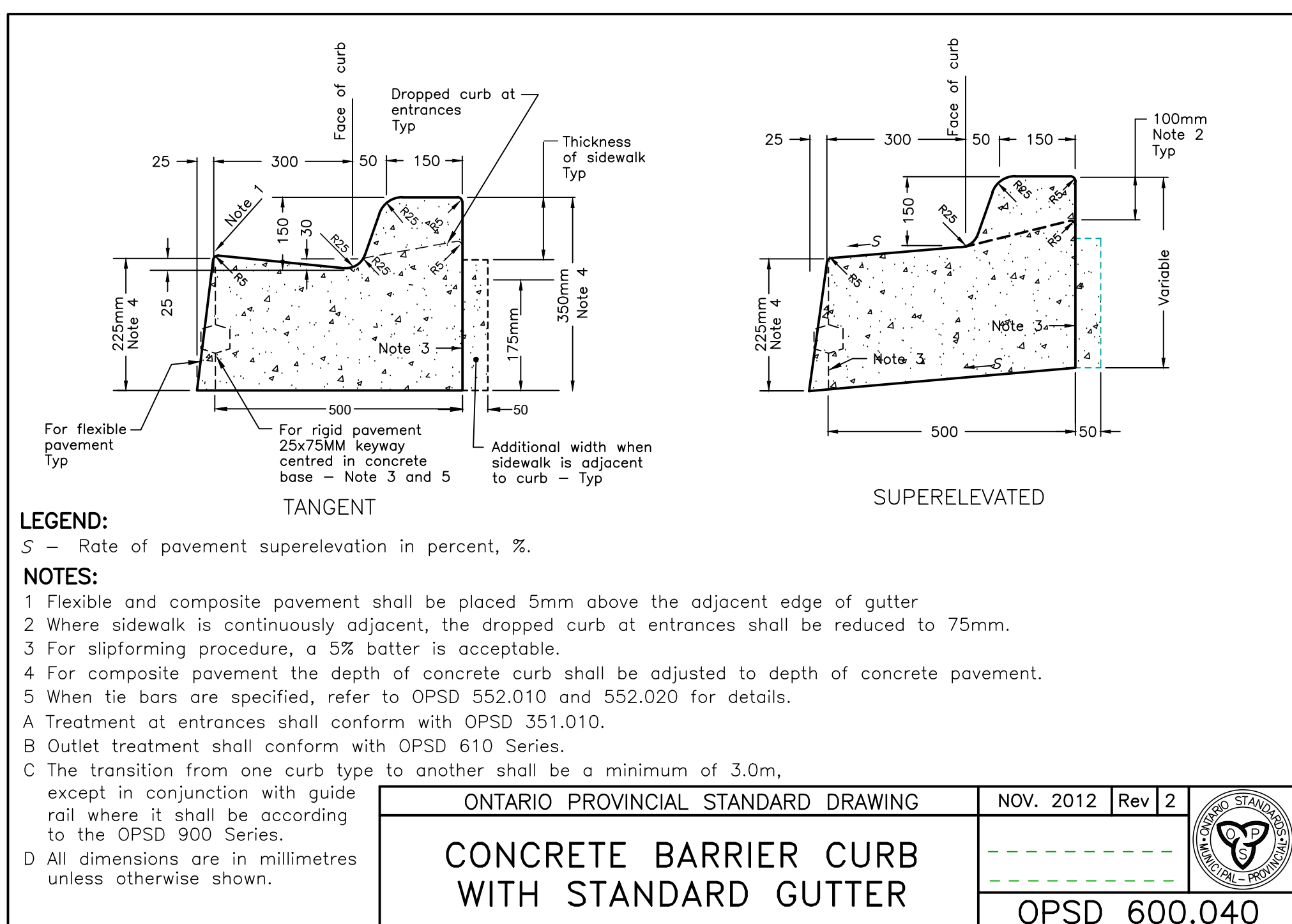
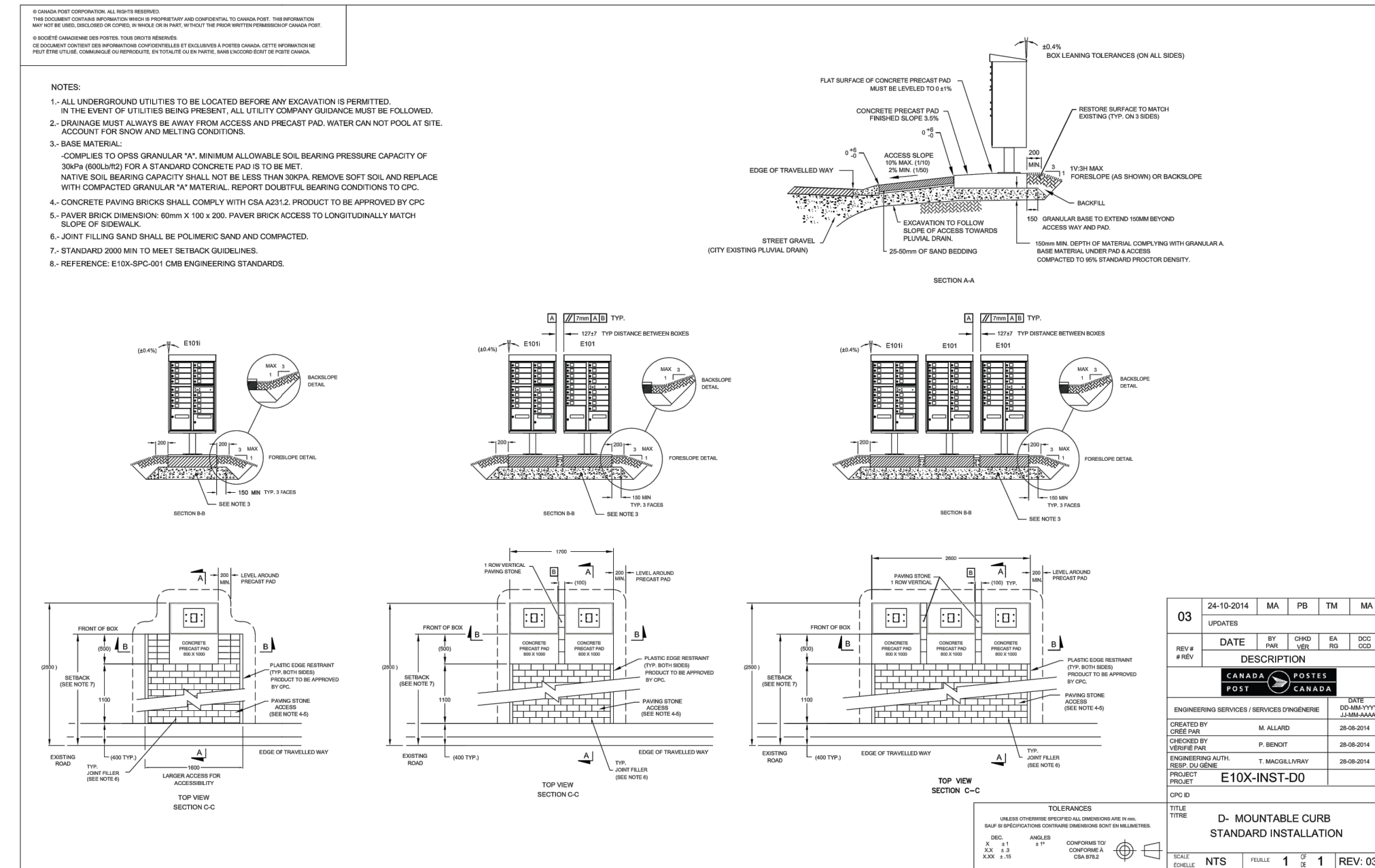
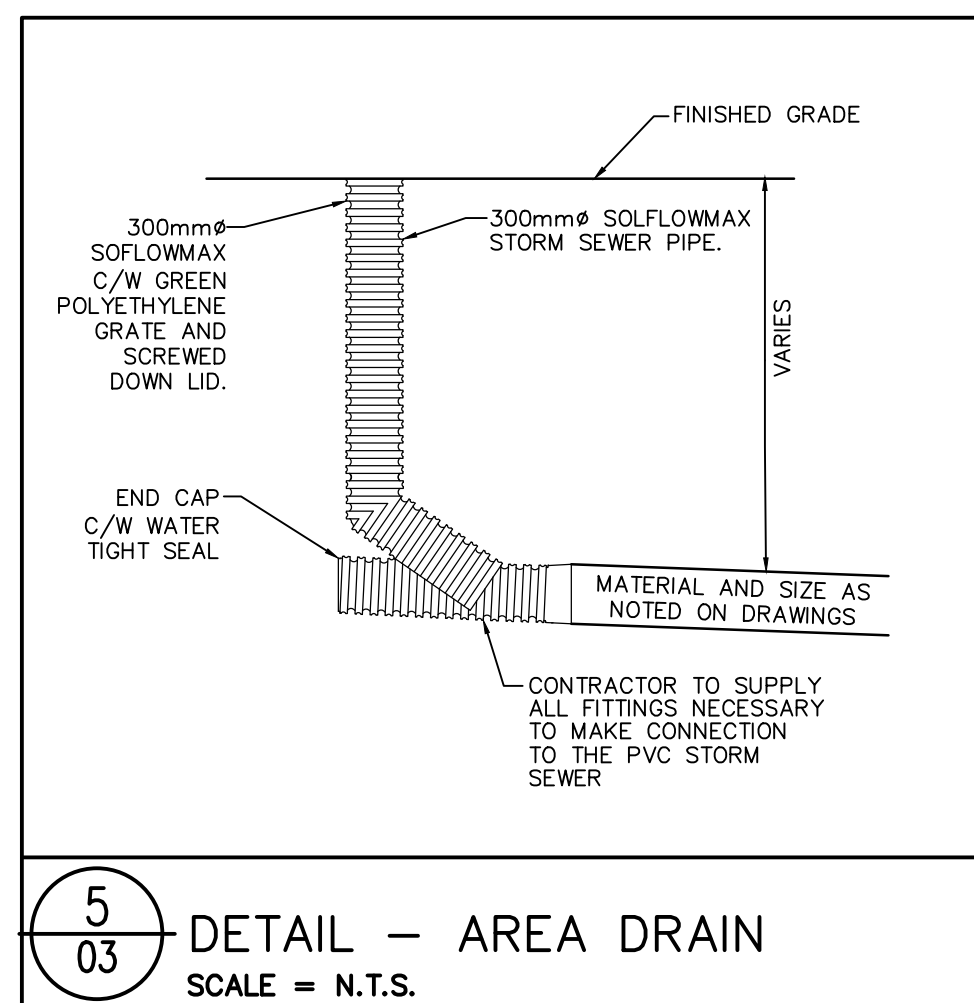
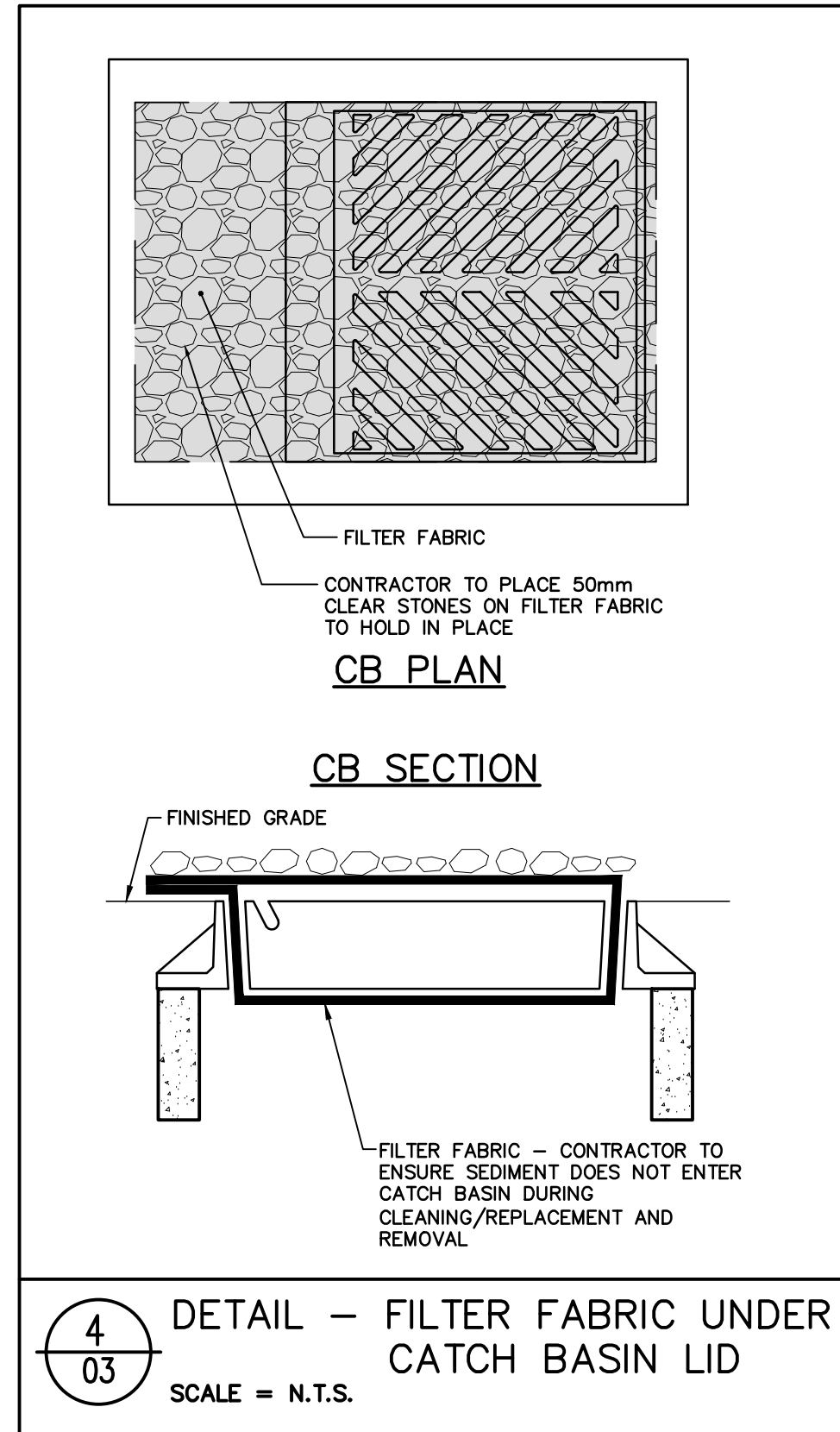
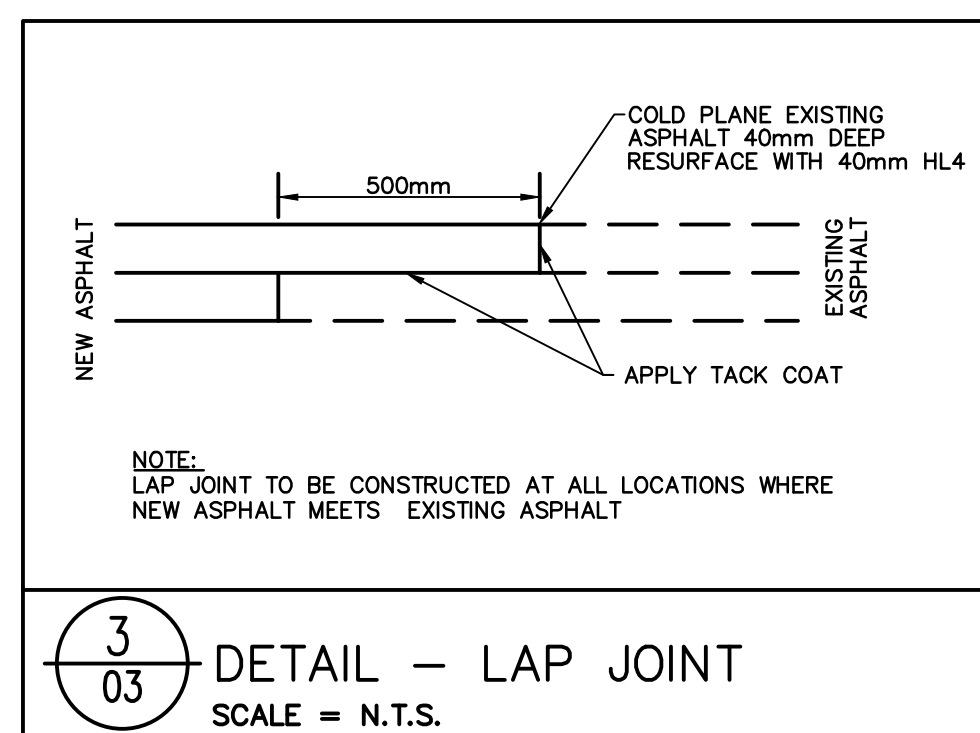
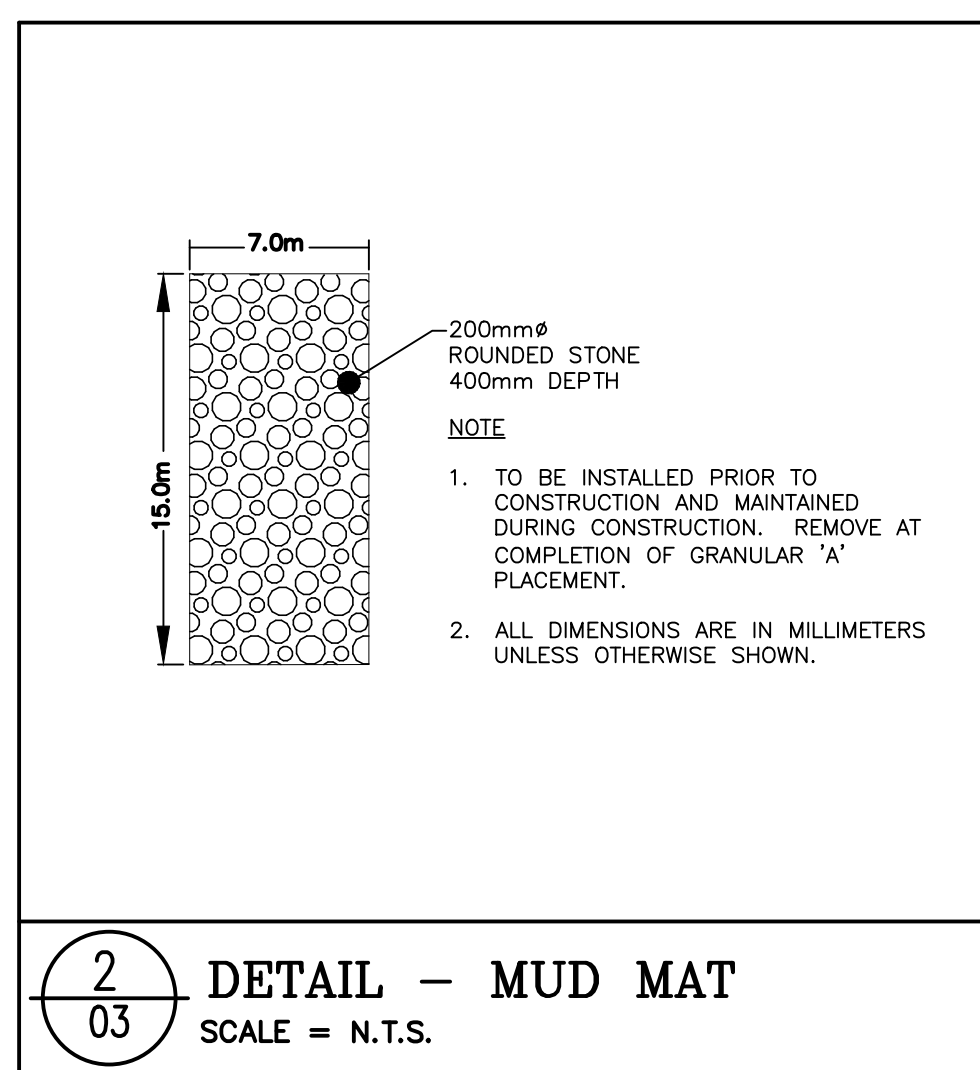
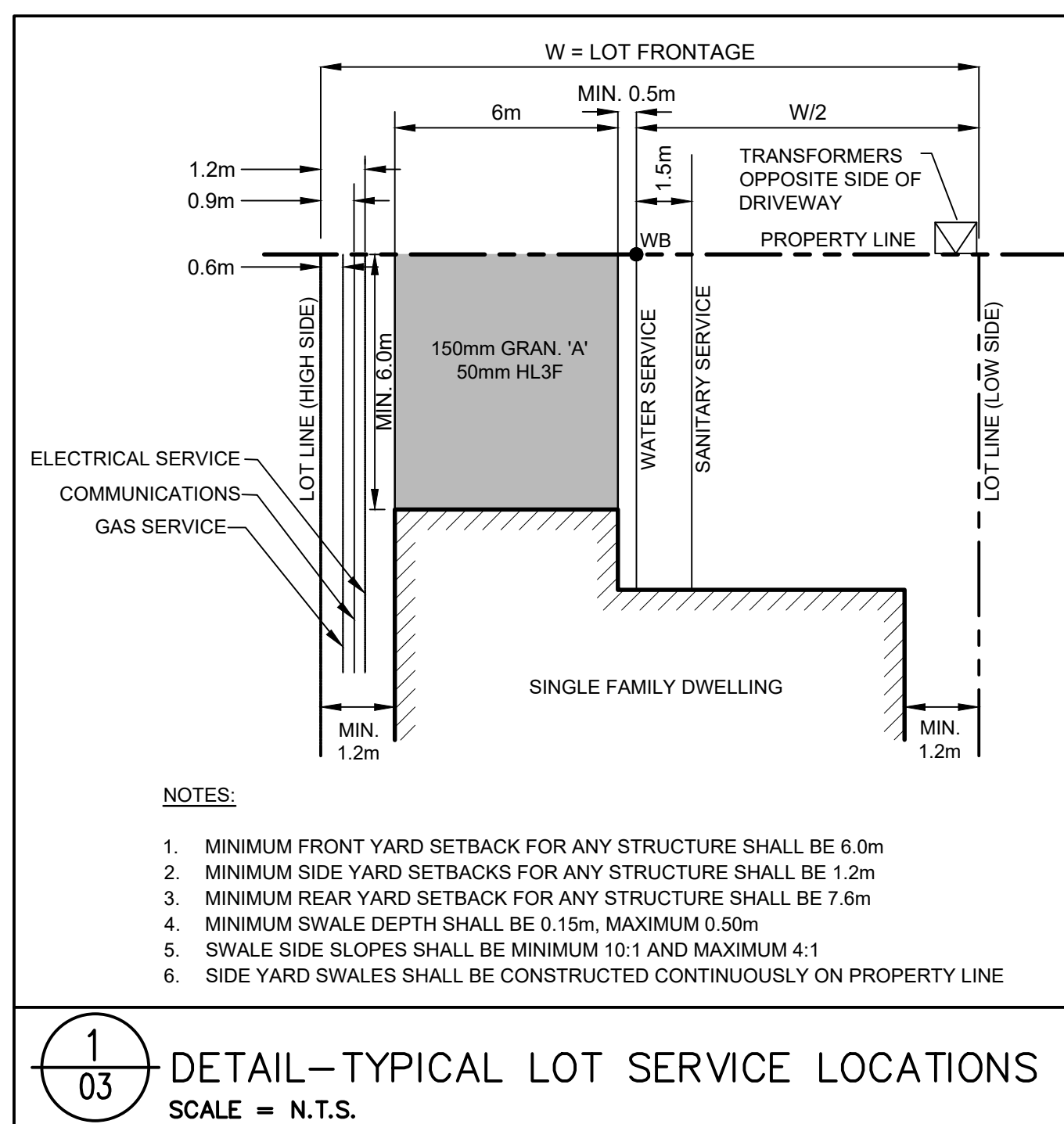
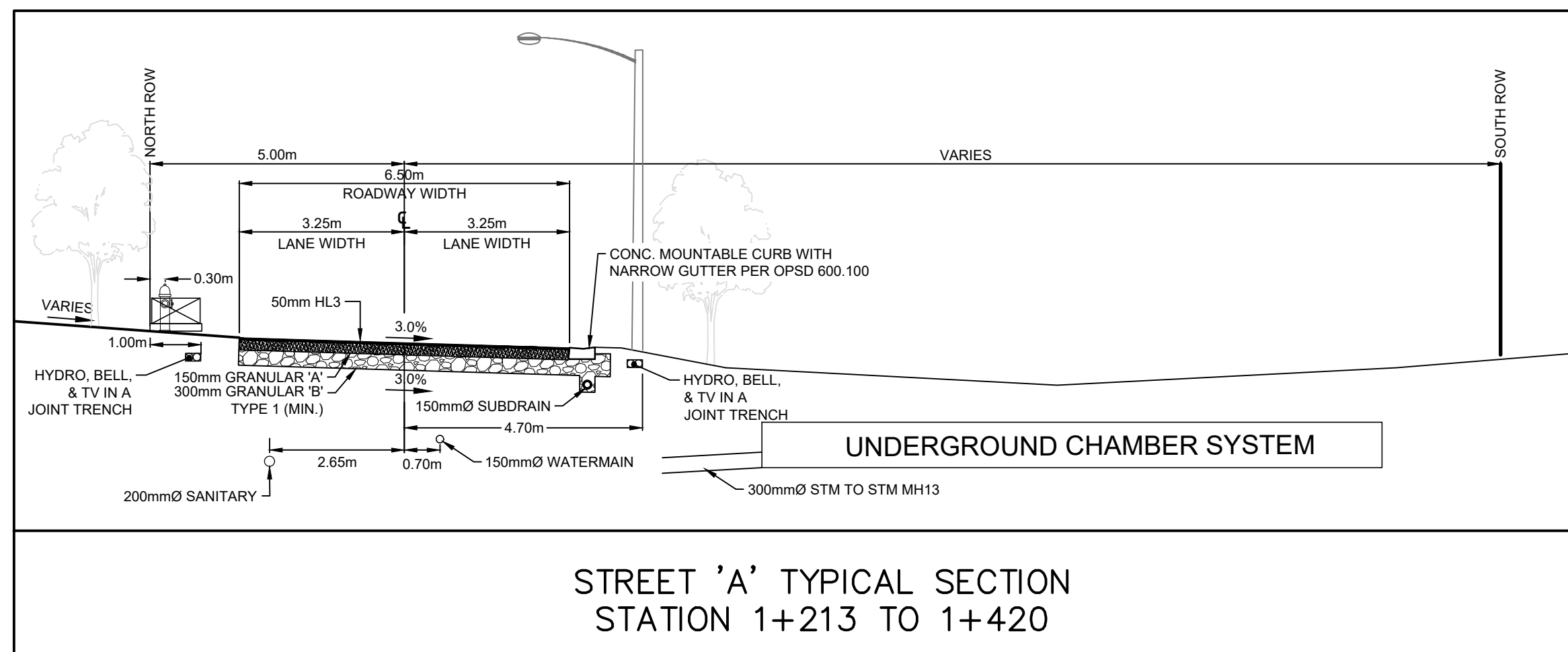
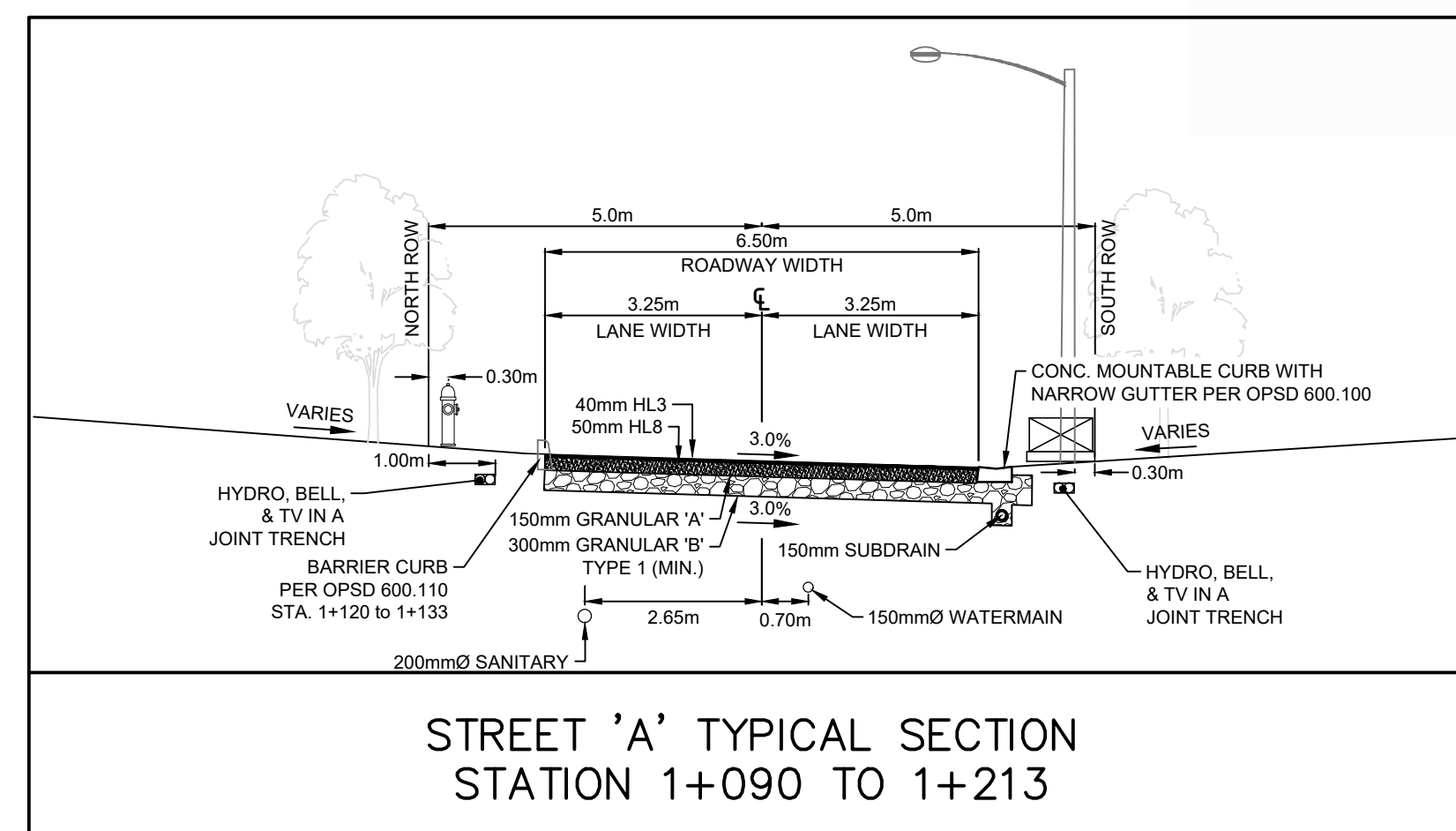
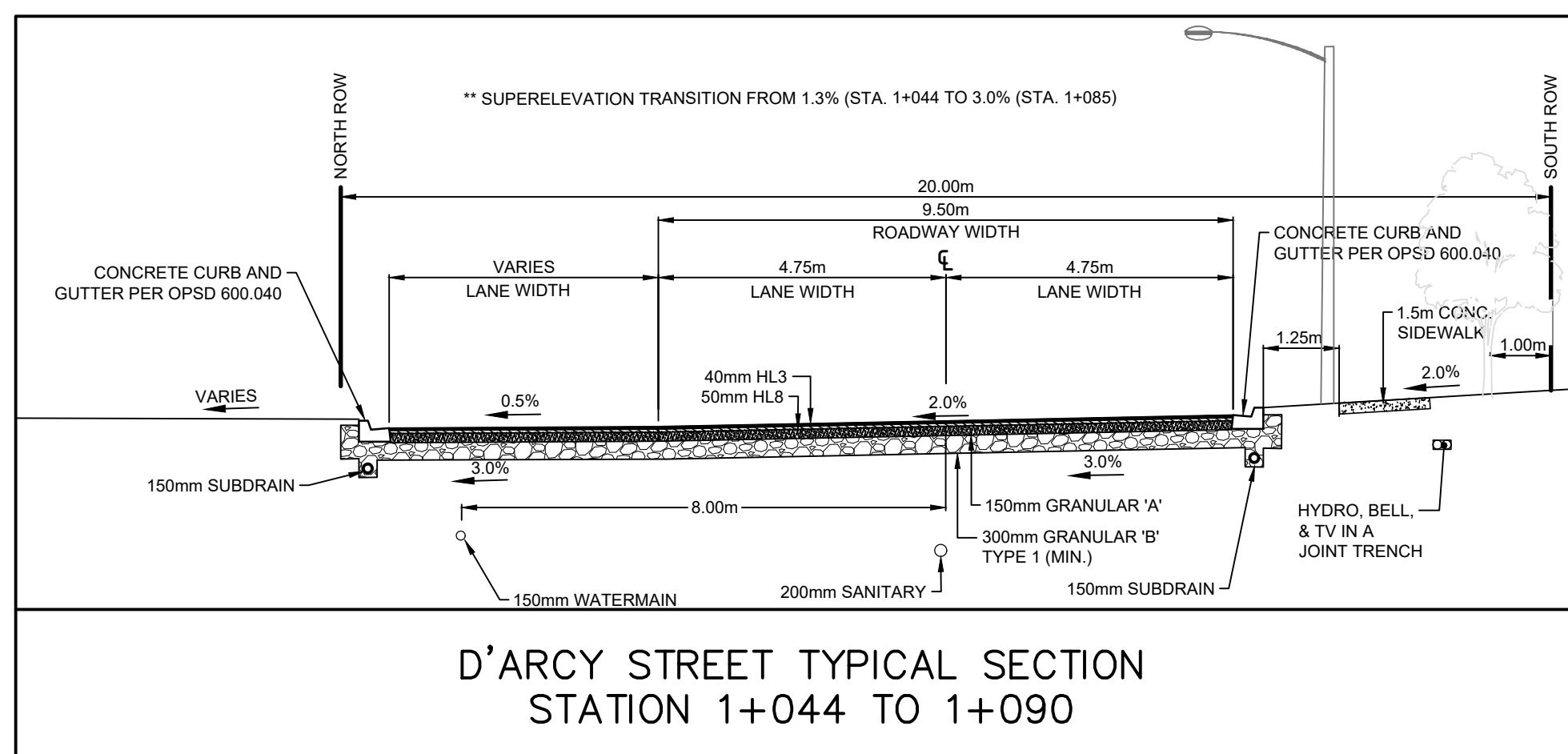
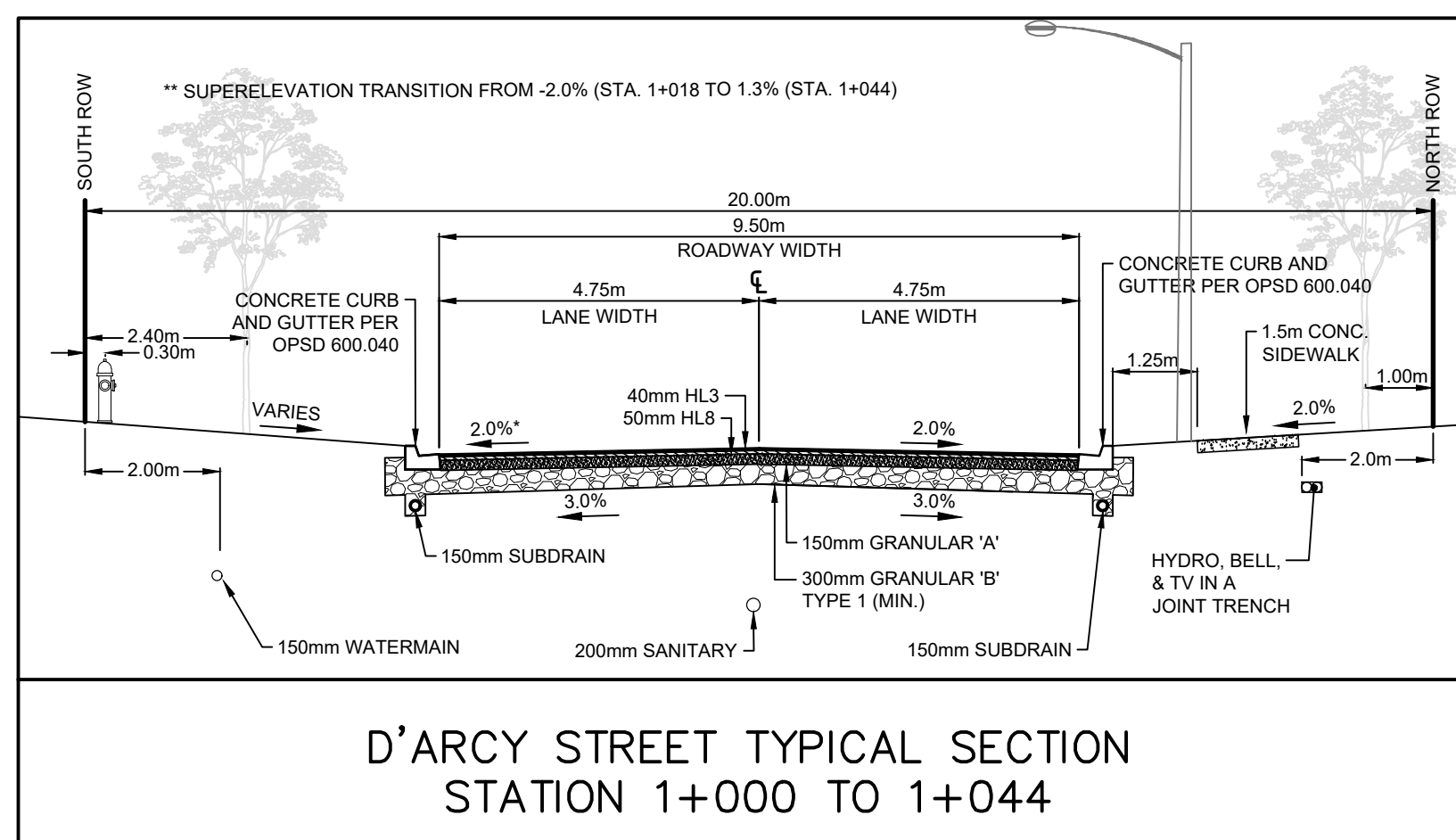
NICKERSON WOODS

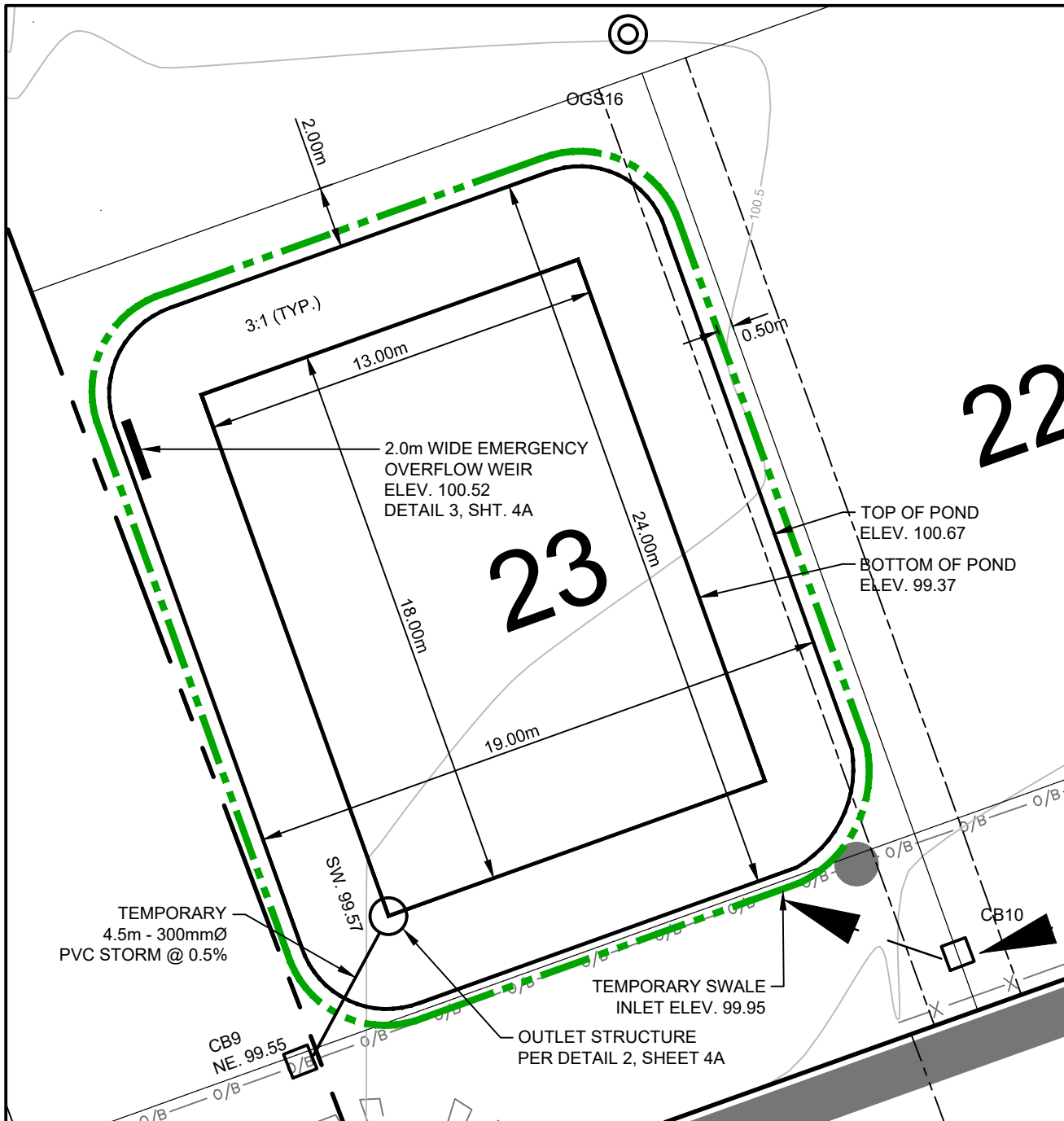
TOWN OF COBOURG

GENERAL NOTES

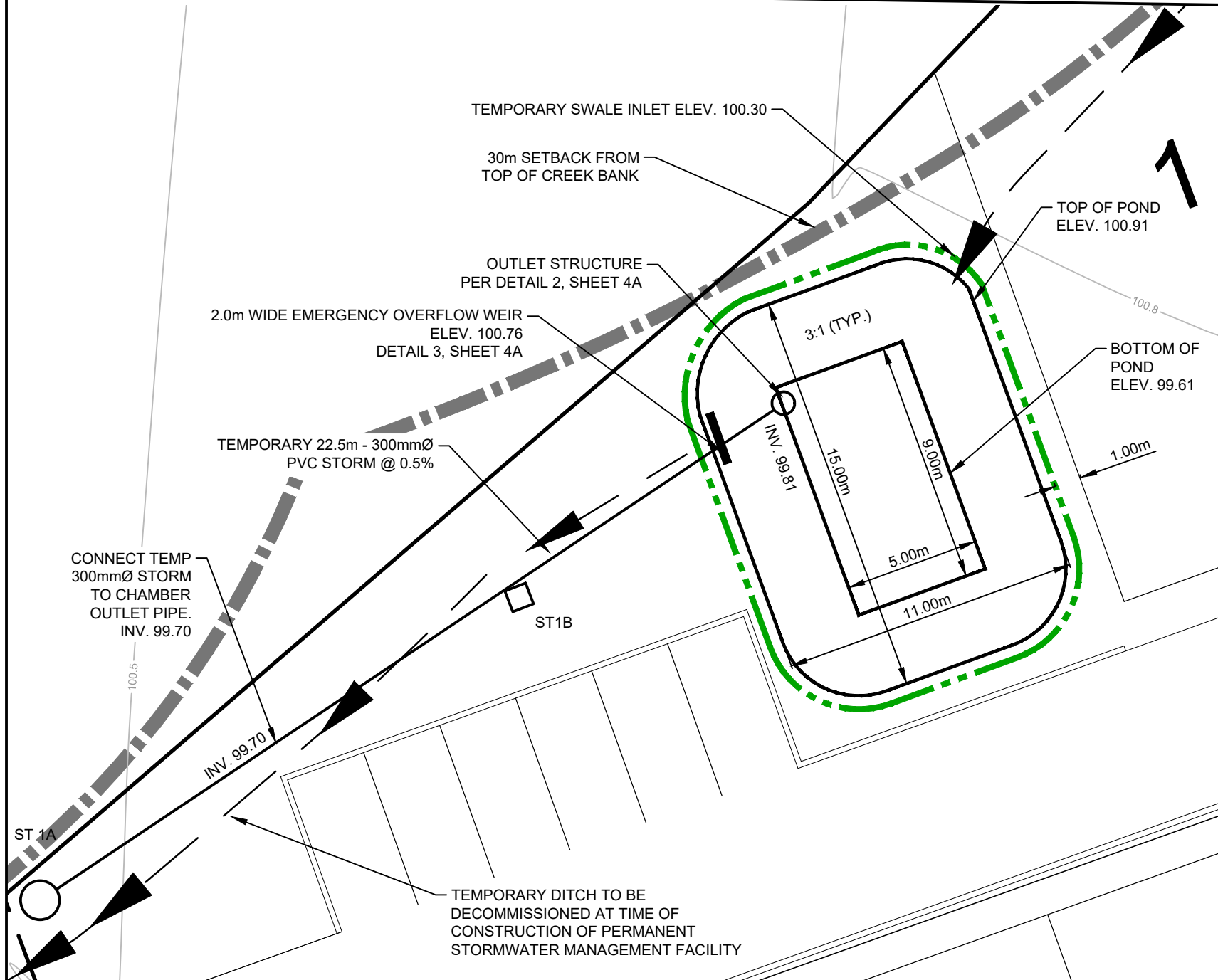
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Designed By: M.B.J.	Issue: OCTOBER 20, 2020	
Checked By: D.A.K.	Project No.: 18-10122	Sht. No.:
Engineer: A.M.H.	Dwg File No.: 10122 DT	02

NOT FOR CONSTRUCTION





1
04
DETAIL - LOT 23 SEDIMENTATION POND
SCALE = N.T.S.

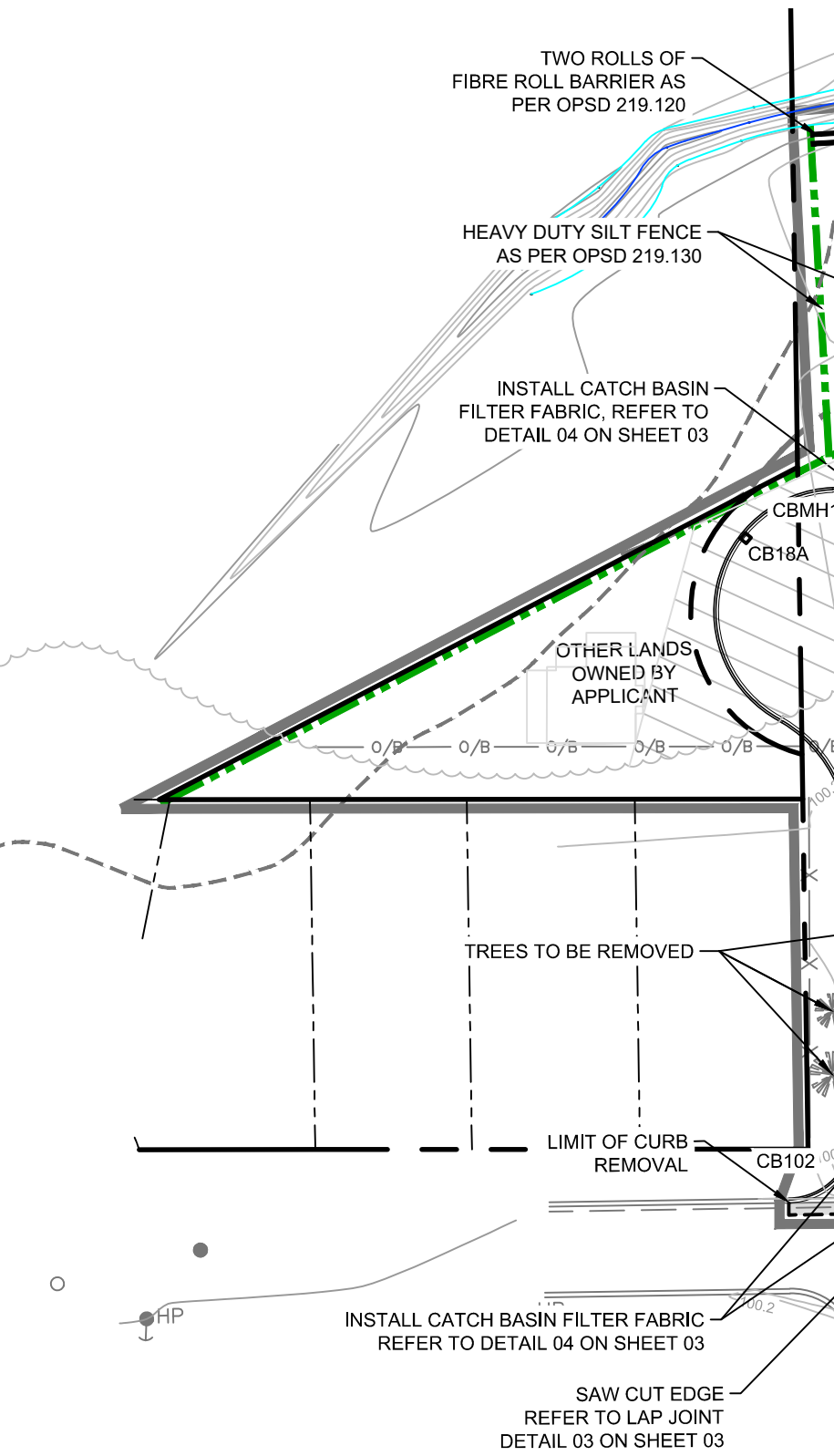


2
04
DETAIL - LOT 1 SEDIMENTATION POND
SCALE = N.T.S.

EROSION AND SEDIMENT CONTROL NOTES

- ALL EROSION AND SEDIMENT CONTROL (E&S) MEASURES SUCH AS SILT FENCE, MUD MAT, CATCH BASIN FILTER FABRIC, SWALES AND CHECK DAMS ARE TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY OTHER SITE WORKS. BOTH TEMPORARY SEDIMENTATION PONDS, ON LOTS 1 AND 23, SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF ANY OTHER SITE WORKS. SEDIMENTATION PONDS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL AFTER THE COMPLETION OF ALL SITE SERVING WORKS.
- THE TEMPORARY SEDIMENTATION PONDS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING PERIODIC REMOVAL AND DISPOSAL OF SEDIMENT ACCUMULATED IN THE POND TO AN ACCEPTABLE DISPOSAL SITE WHEN DIRECTED BY THE CONTRACT ADMINISTRATOR.
- THE TEMPORARY SEDIMENTATION POND PER DETAIL 2, SHEET 04 SHALL BE DECOMMISSIONED IMMEDIATELY PRECEDING THE CONSTRUCTION OF THE PERMANENT STORMWATER MANAGEMENT FACILITY AT THE SAME LOCATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING AND MAINTAINING ALL E&S MEASURES THROUGHOUT CONSTRUCTION TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.
- THE CONTRACT ADMINISTRATOR SHALL REGULARLY INSPECT ALL E&S MEASURES DURING CONSTRUCTION, AT A MINIMUM OF ONCE PER WEEK AND AFTER EVERY SIGNIFICANT RAINFALL EVENT OR SNOW MELT TO ENSURE THE MEASURES ARE FUNCTIONAL AND THAT THE SITE AND ADJACENT PROPERTIES ARE NOT BEING NEGATIVELY IMPACTED BY EROSION AND SEDIMENT RUNOFF. WHEN CONSTRUCTION ACTIVITIES ARE NOT OCCURRING FOR A PERIOD OF 30 DAYS OR MORE, THE CONTRACT ADMINISTRATOR SHALL CONDUCT MONTHLY INSPECTIONS OF THE E&S MEASURES.
- IF THE CONTRACT ADMINISTRATOR IDENTIFIES DAMAGED E&S MEASURES, OR IF ADDITIONAL E&S MEASURES ARE REQUIRED TO BE IMPLEMENTED TO CONTROL EROSION AND SEDIMENT TRANSPORT, THE CONTRACTOR SHALL REPAIR OR IMPLEMENT ADDITIONAL MEASURES, AS DIRECTED BY THE CONTRACT ADMINISTRATOR, WITHIN TWO WORKING DAYS OF BEING NOTIFIED BY THE CONTRACT ADMINISTRATOR.
- THE CONTRACTOR SHALL KEEP ADDITIONAL MATERIALS ON-SITE TO REPAIR THE SILT FENCE UPON REQUEST OF THE CONTRACT ADMINISTRATOR.
- THE CONTRACTOR SHALL PRESERVE EXISTING GROUND VEGETATION IN AREAS WHERE WORKS ARE NOT PROPOSED.
- IN AREAS WHERE TOPSOIL AND VEGETATION IS STRIPPED AND REMOVED TO CONSTRUCT THE WORKS, THE STRIPPED GROUND IS TO BE STABILIZED THROUGH RE-VEGETATION IF THE GROUND IS LEFT INACTIVE FOR 30 DAYS OR MORE.
- IF TOPSOIL IS REQUIRED TO BE STOCKPILED ON-SITE, THE CONTRACTOR SHALL INSTALL HEAVY-DUTY SILT FENCE AROUND THE PERIMETER WITHIN ONE METER OF THE LIMIT OF THE STOCKPILE. THE CONTRACTOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR OF THE PROPOSED STOCKPILE LOCATION, AND THE CONTRACTOR SHALL NOT STOCKPILE TOPSOIL UNTIL APPROVAL OF THE LOCATION IS ISSUED BY THE CONTRACT ADMINISTRATOR. TOPSOIL STOCKPILES SHALL BE LOCATED ON-SITE, AND AT LEAST 15m FROM THE WATERCOURSE. STOCKPILES SHALL NOT EXCEED 2.0m IN HEIGHT, AND SHALL NOT EXCEED SIDE SLOPES OF 2H:1V. STOCKPILES LEFT INACTIVE FOR 30 DAYS OR MORE SHALL BE STABILIZED WITH VEGETATION.
- ALL CONSTRUCTION EQUIPMENT, VEHICLES AND PERSONNEL SHALL ENTER THE SITE THROUGH D'ARCY STREET. NO ADDITIONAL SITE ACCESS LOCATIONS ARE PERMITTED.
- VEHICLE AND EQUIPMENT REFUELLING AND/OR MAINTENANCE SHALL BE CONDUCTED WITHIN A DEFINED STAGING AREA AT LEAST 30 METERS FROM THE WATERCOURSE.
- NO CONSTRUCTION EQUIPMENT OR ACTIVITIES ARE TO OCCUR OUTSIDE OF THE SITE BOUNDARY.
- THE CONTRACTOR SHALL SWEEP THE STREETS AT THE ENTRANCE TO THE SITE (D'ARCY STREET AND NICKERSON DRIVE) IF REQUESTED BY THE CONTRACT ADMINISTRATOR. THE CONTRACTOR SHALL COMPLETE STREET SWEEPING WITHIN TWO WORKING DAYS OF BEING NOTIFIED BY THE CONTRACT ADMINISTRATOR.

- ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE CLEANED OF ALL DEBRIS PRIOR TO MOBILIZATION TO THE SITE TO PREVENT THE SPREAD OF INVASIVE SPECIES FROM TRANSFERRING TO THE SITE. THE CLEAN EQUIPMENT PROTOCOL FOR INDUSTRY PREPARED BY THE ONTARIO INVASIVE PLANT COUNCIL SHALL BE FOLLOWED FOR VEHICLE CLEANING PROCEDURES AND REQUIREMENTS.
- HEAVY EQUIPMENT SHALL BE KEPT AWAY FROM THE PROPOSED UNDERGROUND CHAMBER LOCATIONS TO PREVENT COMPACTION OF NATIVE SOIL.
- THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR WHEN REQUESTED BY THE CONTRACT ADMINISTRATOR. THE CONTRACTOR SHALL IMPLEMENT MEASURES WITHIN TWENTY-FOUR (24) HOURS OF RECEIPT OF THE REQUEST.
- UNDERGROUND CHAMBER SYSTEMS TO REMAIN OFFLINE UNTIL THE SITE HAS BEEN REVEGETATED AND THE OIL-GRIT SEPARATOR HAS BEEN INSTALLED.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SAFE AND BLOCK PUBLIC ACCESS TO ALL TEMPORARY SEDIMENTATION PONDS AND SWALES DEEPER THAN 0.30m.

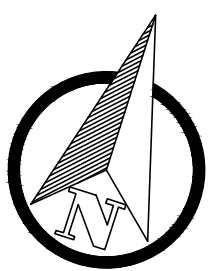


REMOVAL AND TREE PRESERVATION NOTES

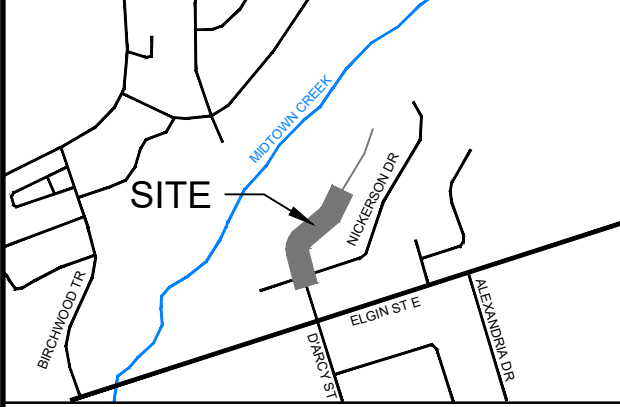
- UNLESS OTHERWISE NOTED, ALL TREES WITHIN THE SITE AREA ARE TO BE REMOVED/CLEARED.
- TREES IDENTIFIED ON THIS PLAN AS "TO REMAIN" SHALL BE PROTECTED WITH HEAVY-DUTY SILT FENCE PER OPSD 219.130 AROUND THE PERIMETER OF THE TREE, DIRECTLY UNDER THE DRIPLINE UNLESS OTHERWISE SHOWN.
- TREE PROTECTION FENCING SHALL BE INSTALLED IN ADVANCE OF ANY OTHER SITE WORKS, AND SHALL REMAIN IN-PLACE AND BE MAINTAINED FOR THE DURATION OF CONSTRUCTION. TREE PROTECTION FENCING SHALL ONLY BE REMOVED FOLLOWING COMPLETION OF ALL SITE WORKS. THE TREE PROTECTION FENCING SHALL NOT BE REMOVED BEFORE RECEIVING WRITTEN CONSENT FROM THE TOWN OF COBOURG AND THE CONTRACT ADMINISTRATOR.
- MULCH SHALL BE SPREAD WITHIN THE LIMITS OF THE TREE PROTECTION ZONE. CHIPPED TREES FROM CLEARING THE SITE CAN BE USED AS MULCH.

B.M. #3 ELEV. 101.53
Top out of fire hydrant on the north side of Nickerson Drive, directly opposite D'Arcy Street.

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street traffic island at Elgin St.
N 4873468.59
E 727503.59



KEY PLAN



REVISIONS			Date
No.	Description		
3	THIRD SUBMISSION		OCT. 20/20
2	SECOND SUBMISSION		JUL. 2/20
1	FIRST SUBMISSION		JAN. 7/20

METRIC	LEGEND
Dimensions are in METRES and/or MILLIMETRES unless otherwise shown. TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES	

EX./PR. EDGE OF PAVEMENT	EX./PR. ROAD CENTERLINE	EX./PR. SANITARY MANHOLE	EX./PR. CATCH BASIN MANHOLE	EX./PR. STORM MANHOLE	EX./PR. CATCH BASIN	EX./PR. AREA DRAIN	EX./PR. FIRE HYDRANT	LIGHT STANDARD	HYDRO POLE	EX./PR. WATER VALVE	BEND	GAS VALVE	BELL/CABLE PEDESTAL	OVERHEAD BELL	UNDERGROUND BELL	OVERHEAD HYDRO	UNDERGROUND HYDRO	UNDERGROUND CABLE	UNDERGROUND GAS	EX./PR. DITCH	EX./PR. STORM SEWER	EX./PR. SANITARY SEWER	PR./EX. INSULATION	PR./EX. WATERMAIN	SANITARY SERVICE	WATER SERVICE	PR./EX. FENCE	R.O.W.	EASEMENT / BLOCK LINE	LOT LINE	BENCHMARK	SITE BOUNDARY	LIMIT OF CONSTRUCTION	TREE PROTECTION ZONE	EXISTING CONTOUR	STRAW BALE CHECK DAM PER OPSD 219.180	PROPOSED HEAVY DUTY SILT FENCE	TREE TO REMAIN AND BE PROTECTED	LIMIT OF VEGETATION	LIMIT OF CLEARING AND GRUBBING
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F. 705.741.3568
E. wills@dmwills.com

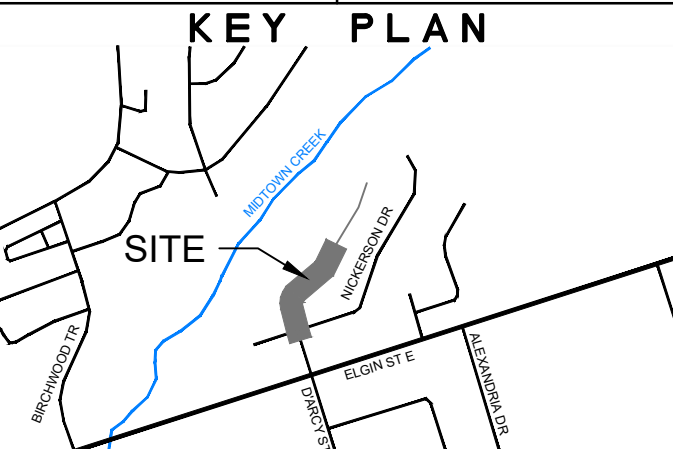
Project Name/Location
NICKERSON WOODS
TOWN OF COBOURG

Drawing Title
REMOVALS and EROSION & SEDIMENT CONTROL PLAN

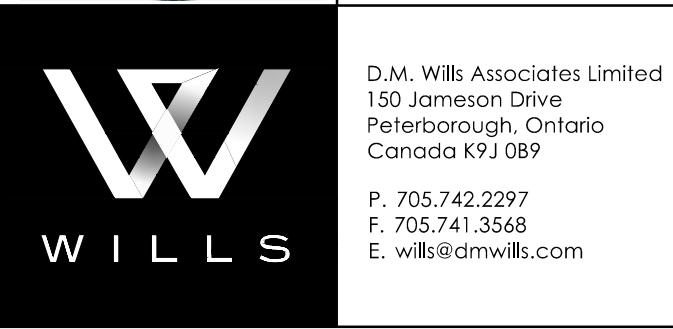
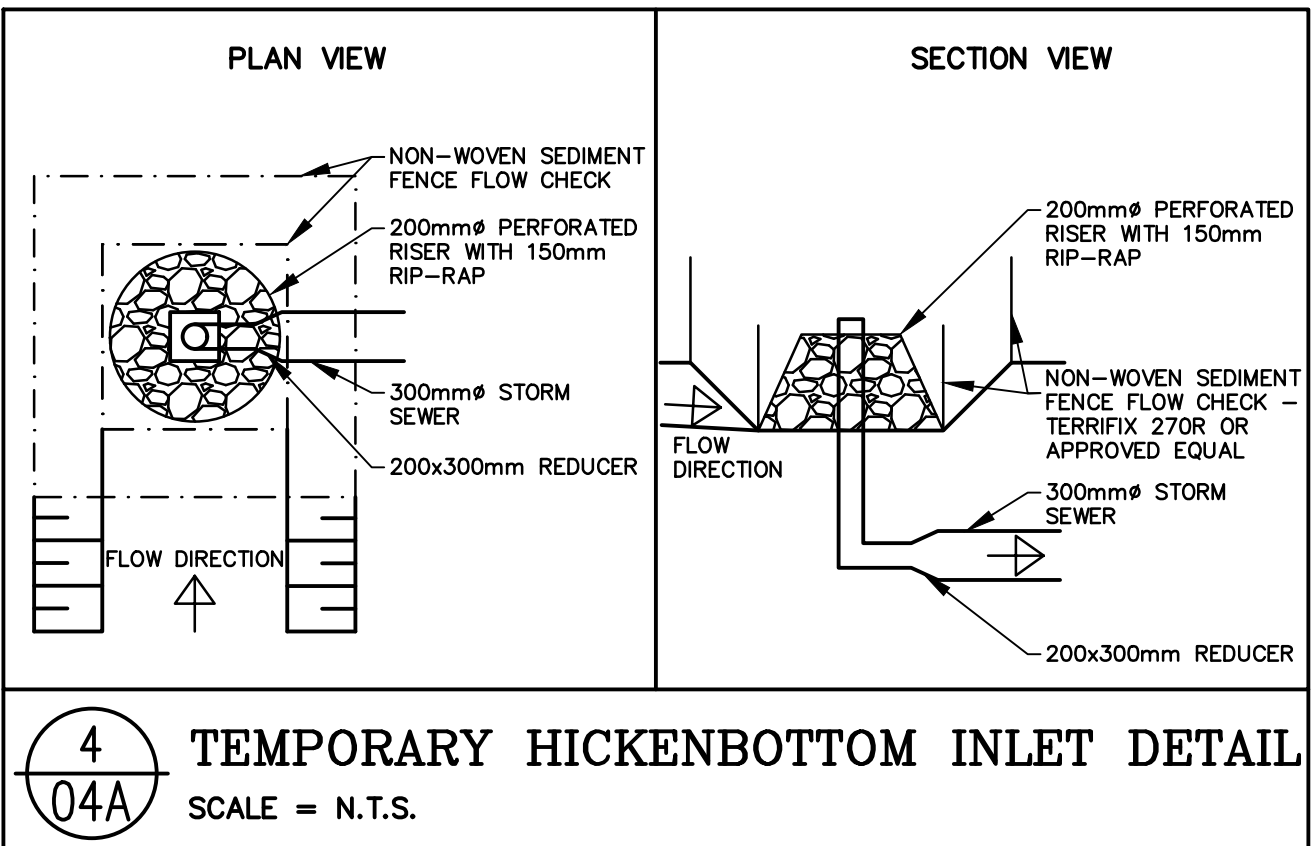
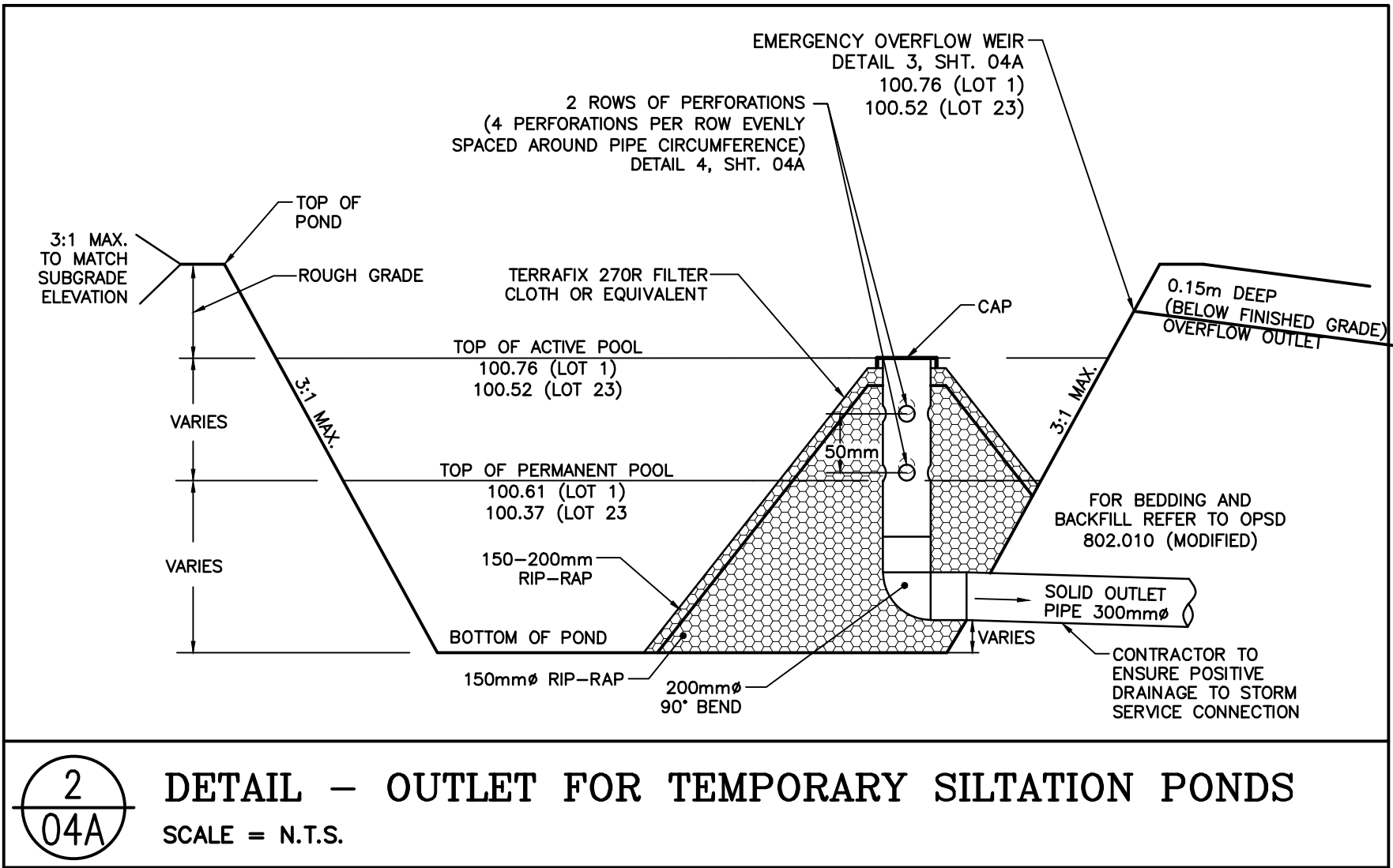
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Designed By: M.B.J.	Issue: OCTOBER 20, 2020	
Checked By: D.A.K.	Project No.: 18-10122	Shr. No.: 04
Engineer: A.M.H.	Dwg File No.: REM EC	

NOT FOR CONSTRUCTION

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street
traffic island at Elgin St.
N 4873468.59
E 727503.59



METRIC	Dimensions are in METRES and/or MILLIMETRES unless otherwise shown
LEGEND	TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES

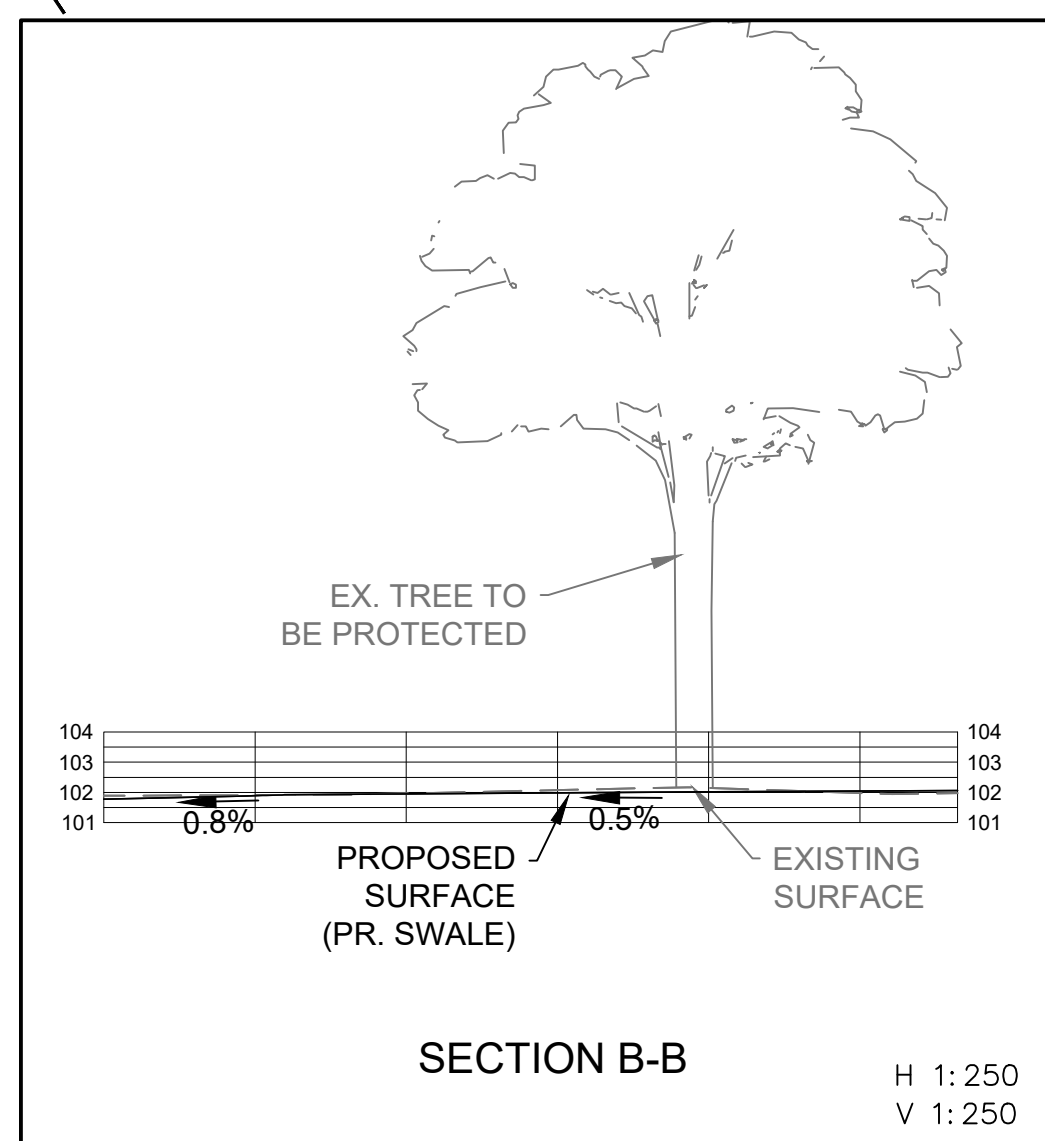
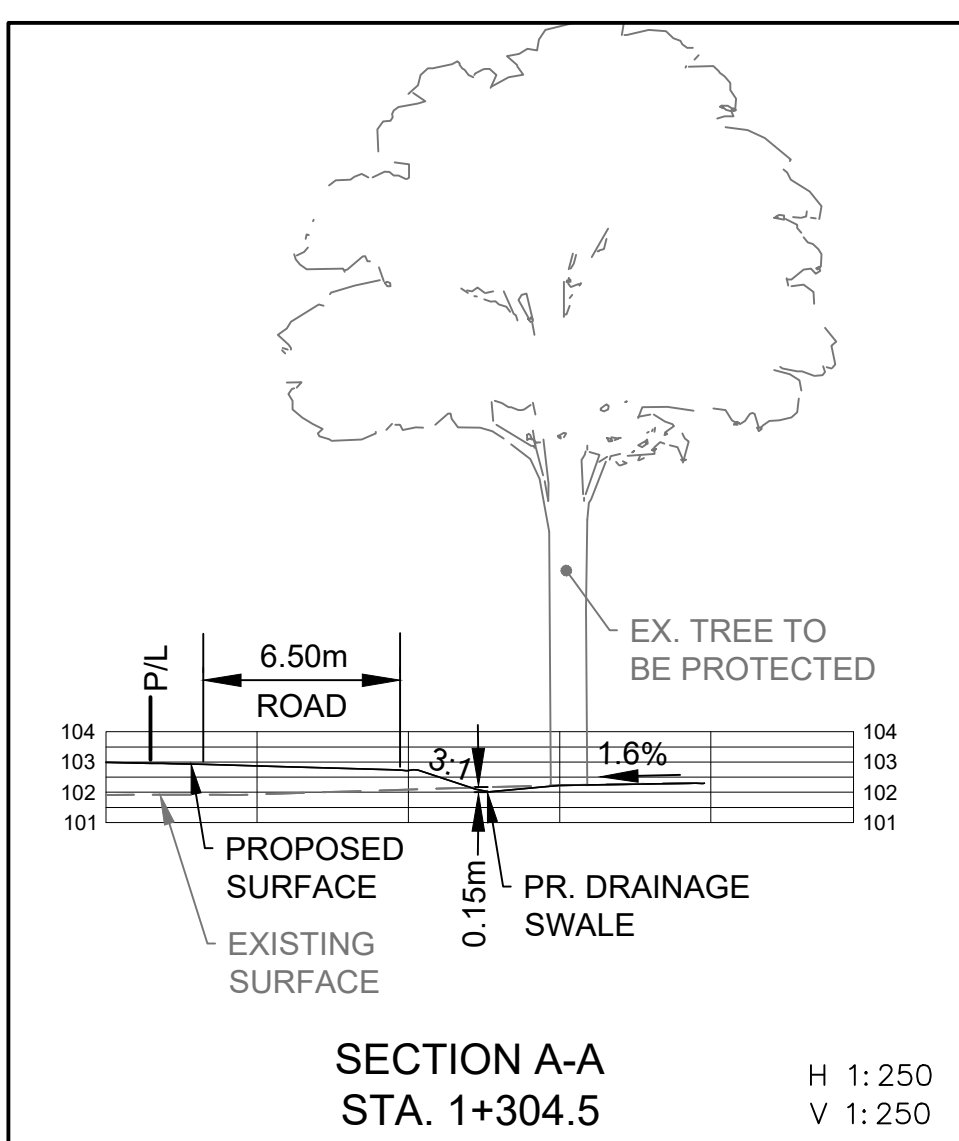
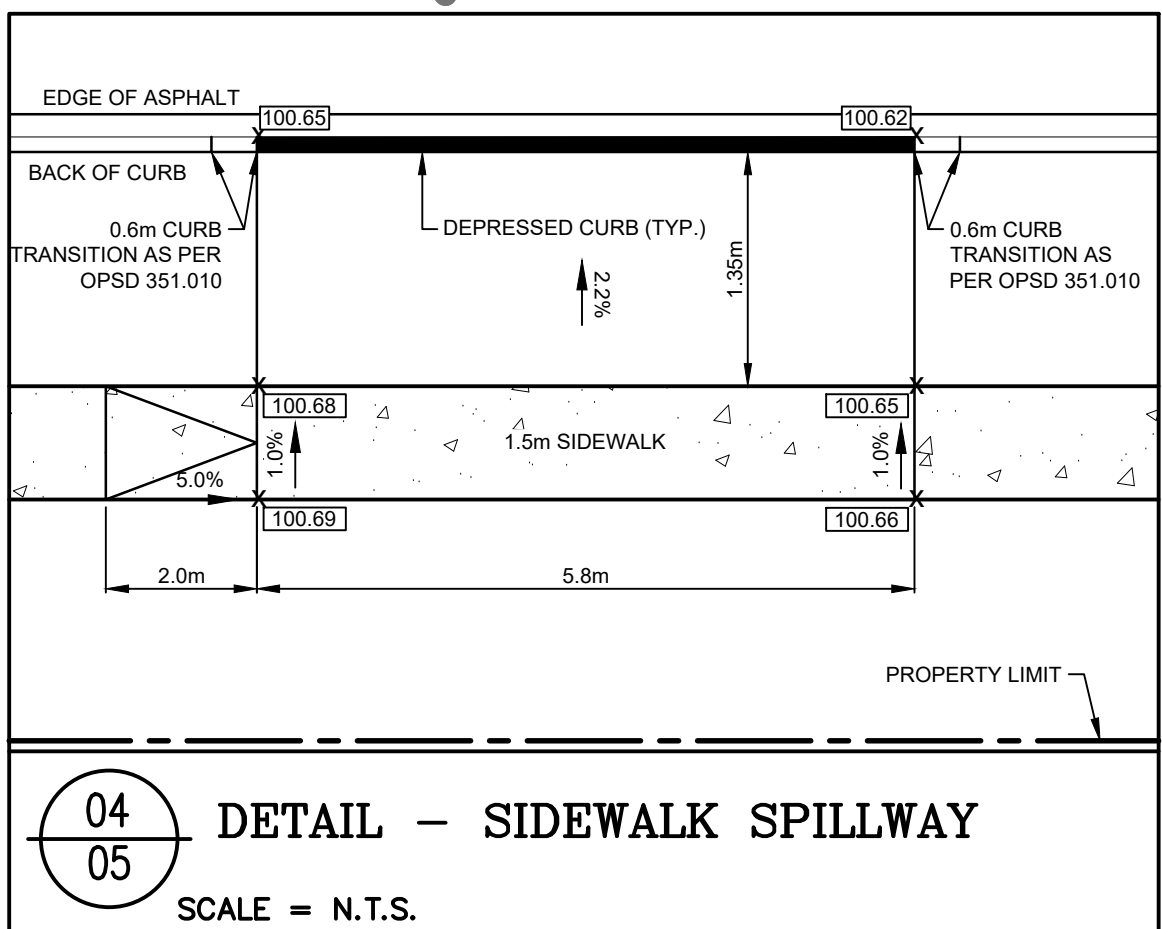
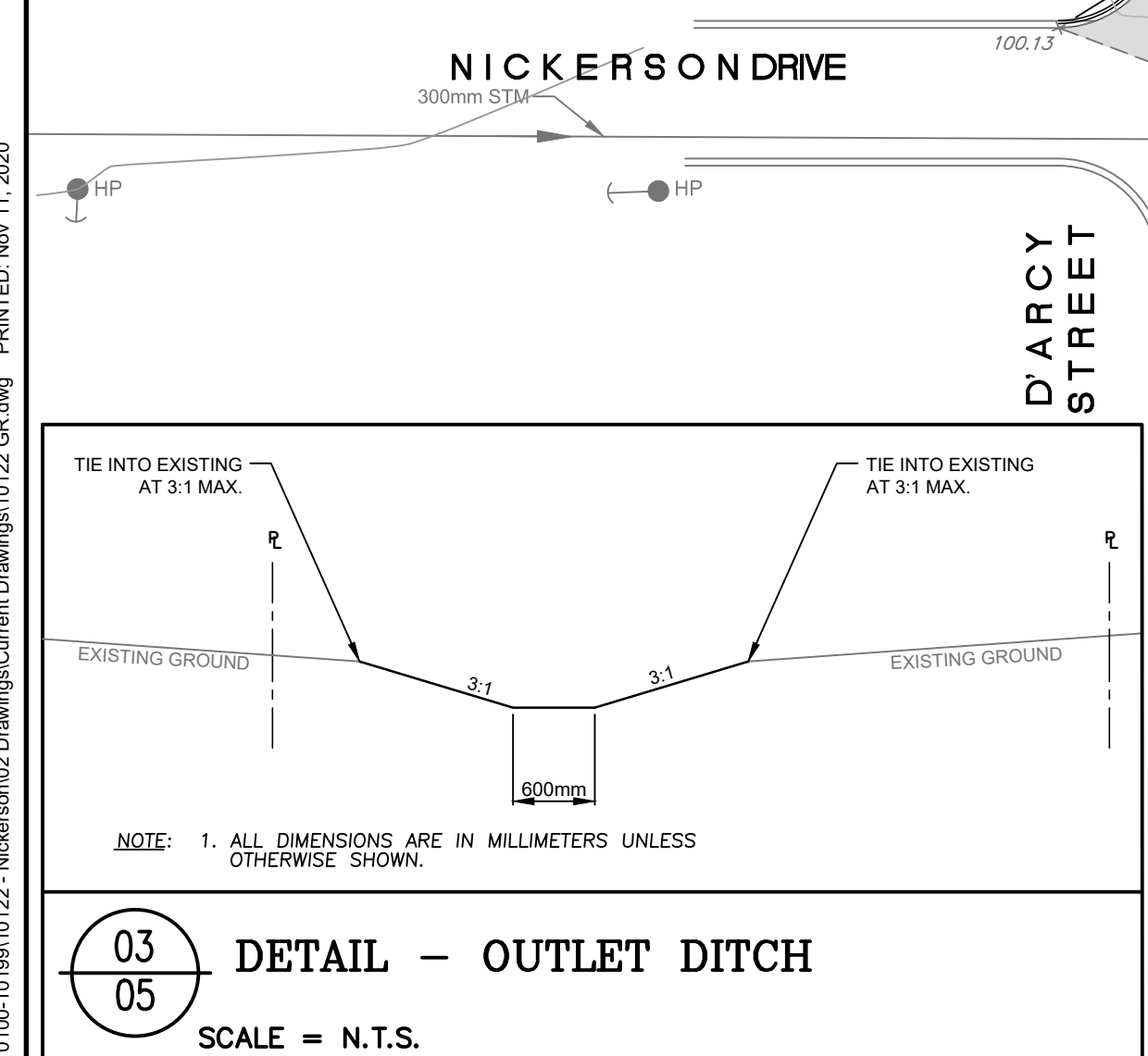
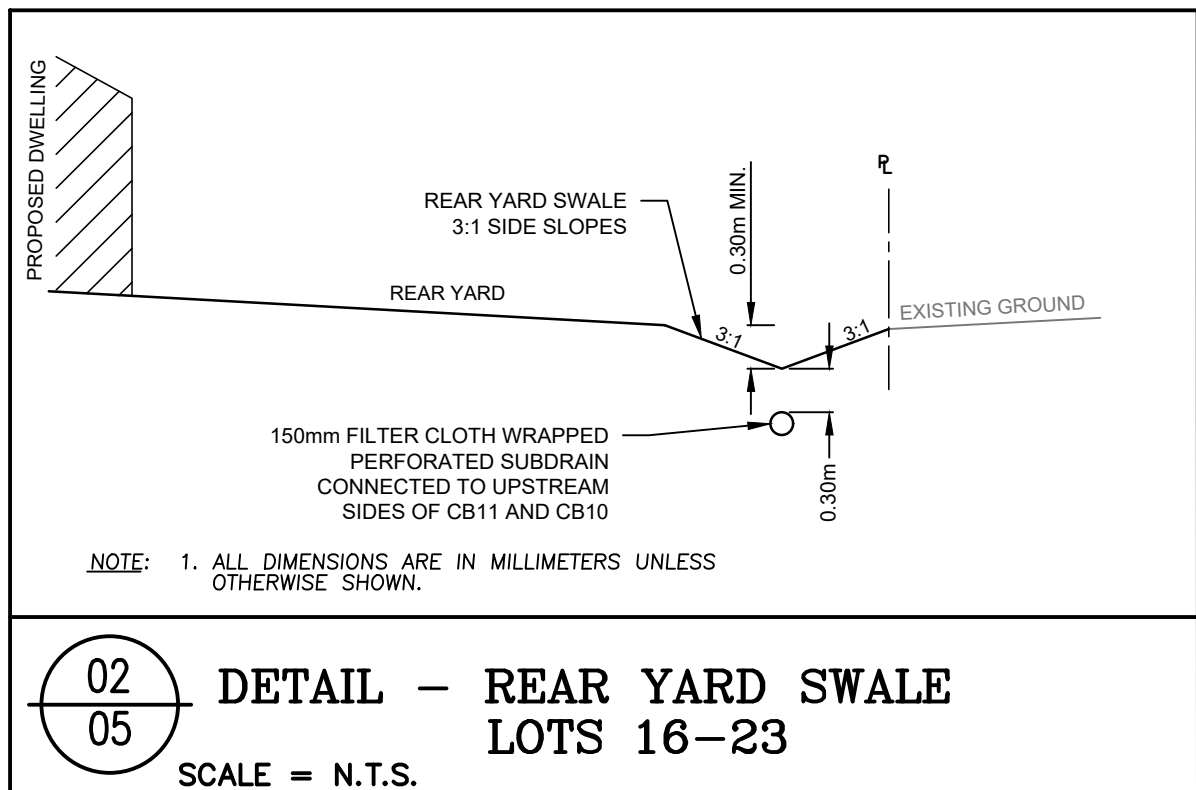


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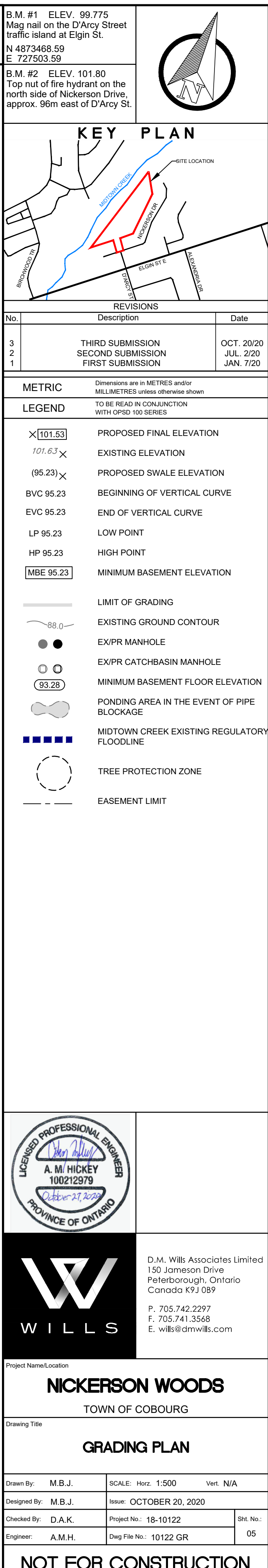
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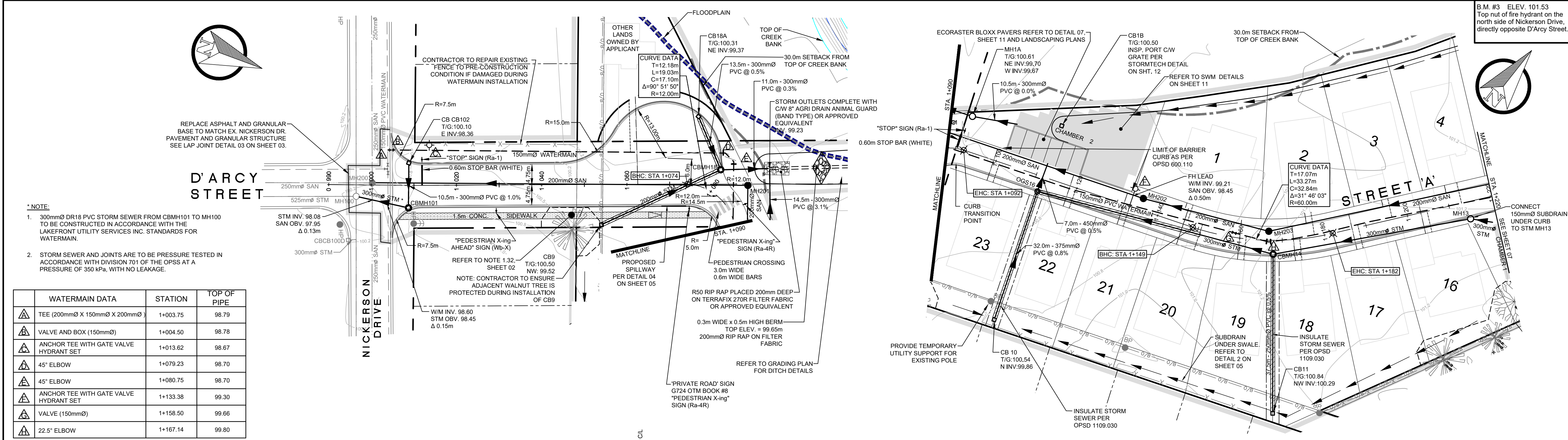
NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION



Minimum Basement Elevation	
Lot Number	Elevation (m)
1	100.20
2	100.35
3	100.54
4	100.72
5	100.79
6	100.87
7	100.94
8	101.02
9	101.09
10	101.16
11	101.25
12	101.33
13	101.48
14	101.72
15	101.92
16	100.72
17	100.54
18	100.35
19	100.20
20	100.20
21	99.93
22	99.81
23	99.56





B.M. #3 ELEV. 101.53
Top nut of fire hydrant on the north side of Nickerson Drive, directly opposite D'Arcy Street.

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street traffic island at Elgin St.
N 4873468.59
E 727503.59

B.M. #2 ELEV. 101.80
Top nut of fire hydrant on the north side of Nickerson Drive, approx. 96m east of D'Arcy St.

KEY PLAN

SITE

No.	Description	Date
3	THIRD SUBMISSION	OCT. 20/20
2	SECOND SUBMISSION	JUL. 2/20
1	FIRST SUBMISSION	JAN. 7/20

METRIC

Dimensions are in METRES and/or MILLIMETRES unless otherwise shown.

TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES

LEGEND

- EX./PR. EDGE OF PAVEMENT
- EX./PR. ROAD CENTERLINE
- EX./PR. SANITARY MANHOLE
- EX./PR. CATCH BASIN MANHOLE
- EX./PR. STORM MANHOLE
- EX./PR. CATCH BASIN
- EX./PR. AREA DRAIN
- EX./PR. FIRE HYDRANT
- LIGHT STANDARD
- HYDRO POLE
- EX./PR. WATER VALVE
- BEND
- GAS VALVE
- BELL/CABLE PEDESTAL
- OVERHEAD BELL
- UNDERGROUND BELL
- UNDERGROUND HYDRO
- UNDERGROUND HYDRO
- UNDERGROUND CABLE
- UNDERGROUND GAS
- EX./PR. DITCH
- EX./PR. STORM SEWER
- PR. INSULATION
- PR./EX. WATERMAIN
- SANITARY SERVICE
- WATER SERVICE
- PR./EX. FENCE
- R.O.W.
- EASEMENT / BLOCK LINE
- LOT LINE
- BENCHMARK
- SITE BOUNDARY
- LIMIT OF CONSTRUCTION
- BELL BOX
- BELL GROUND LEVEL BOX
- CABLE BOX
- TRANSFORMER
- LIGHT STANDARD
- COMMUNITY MAIL BOX
- TREE PROTECTION ZONE

PROFESSIONAL ENGINEER

A. M. HICKEY
100212979
PROVINCE OF ONTARIO

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F. 705.741.3568
E. wills@dmwills.com

Project Name/Location

NICKERSON WOODS

TOWN OF COBOURG

Drawing Title

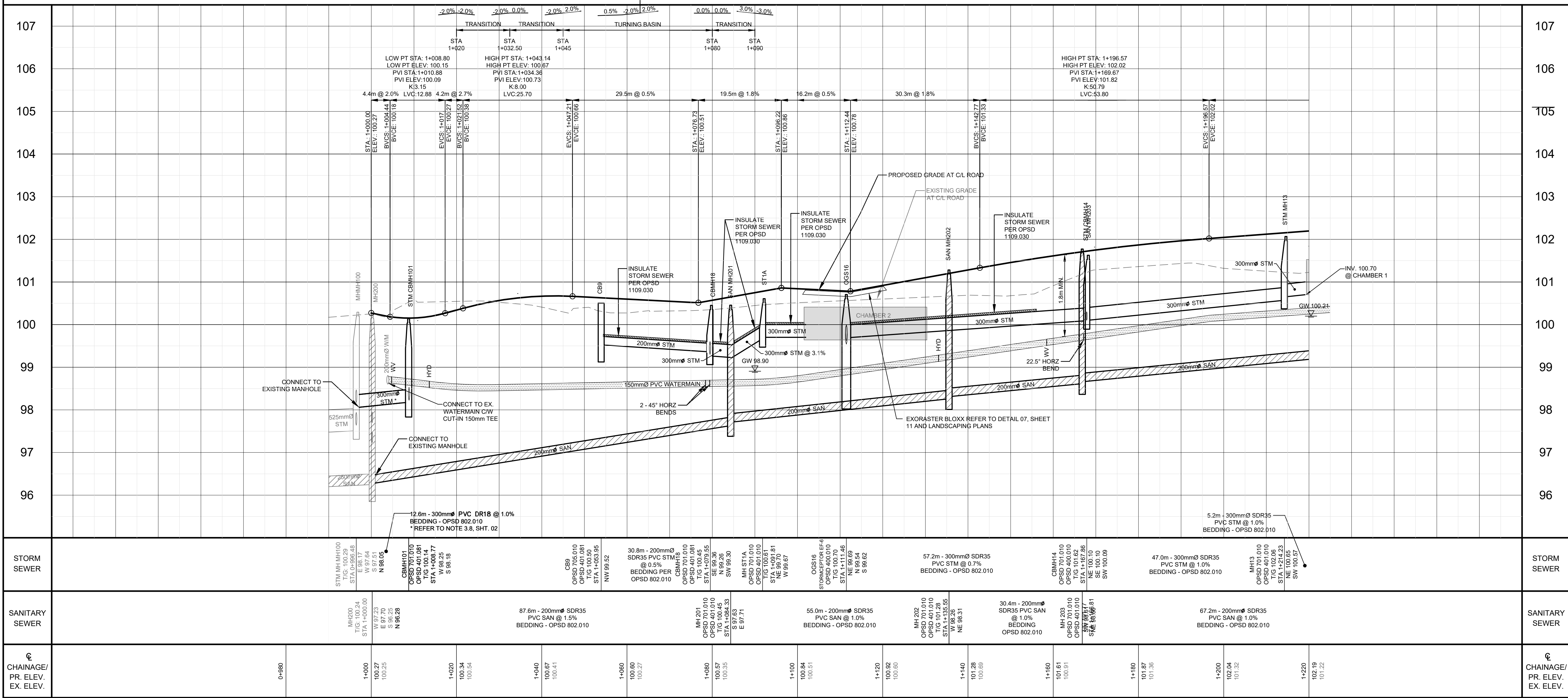
D'ARCY ST. and STREET 'A'

PLAN and PROFILE

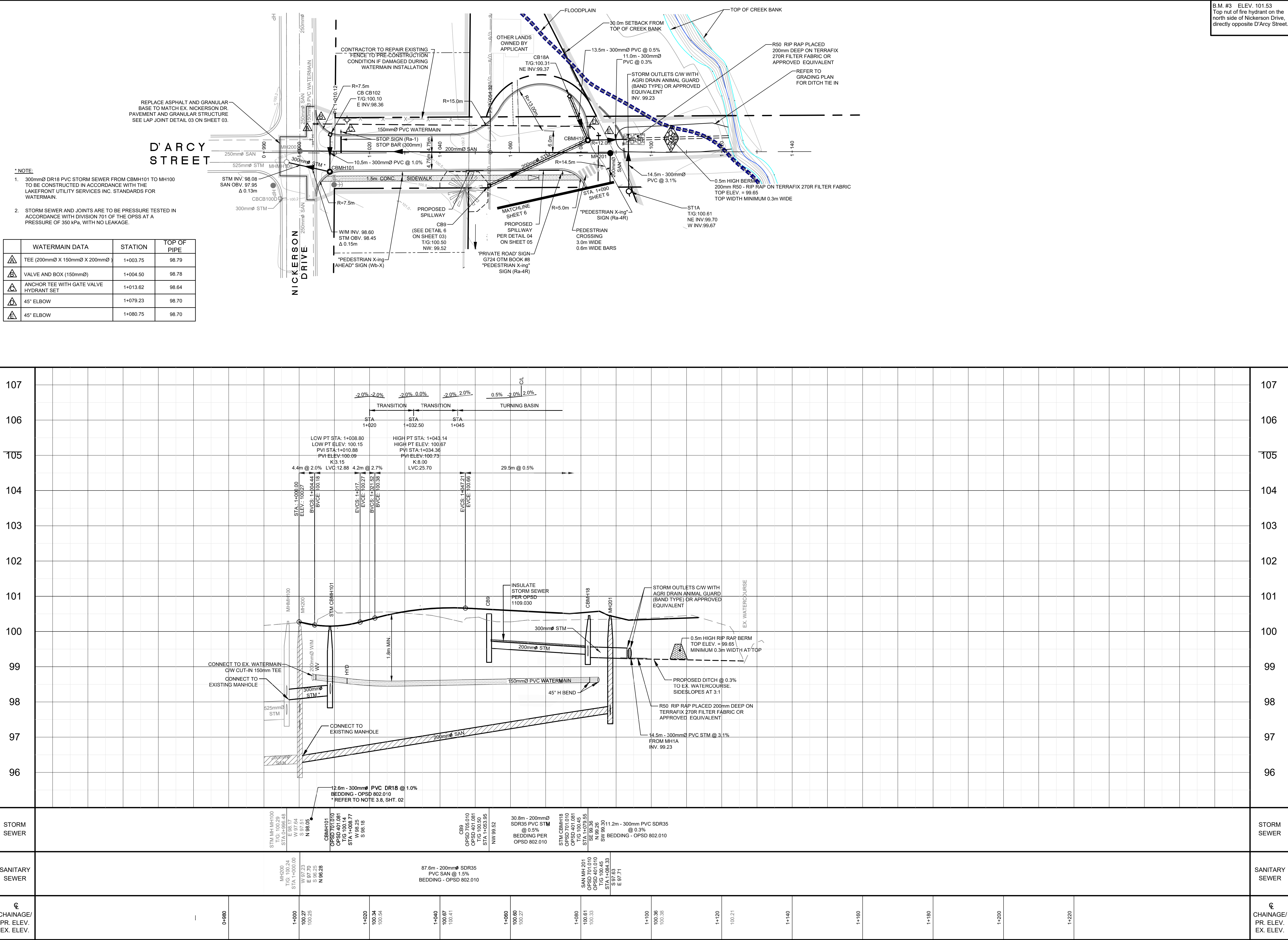
STA. 1+000 to STA. 1+220

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Designed By: <td>M.B.J.</td> <td>Issue:</td> <td colspan="2">OCTOBER 20, 2020</td>	M.B.J.	Issue:	OCTOBER 20, 2020	
Checked By:	D.A.K.	Project No.:	18-10122	Shr. No.:
Engineer:	A.M.H.	Dwg File No.:	PP STH	06

NOT FOR CONSTRUCTION



Z:\10100-10100-10122- Nickerson\02 Drawings\Current Drawings\10122 PP Darcy.dwg PRINTED: Nov 11, 2020



B.M. #3 ELEV. 101.53
Top nut of fire hydrant on the north side of Nickerson Drive, directly opposite D'Arcy Street.

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street traffic island at Elgin St.
N 4873468.59
E 727503.59

B.M. #2 ELEV. 101.80
Top nut of fire hydrant on the north side of Nickerson Drive, approx. 96m east of D'Arcy St.

KEY PLAN

REVISIONS

No.	Description	Date
3	THIRD SUBMISSION	OCT. 20/20
2	SECOND SUBMISSION	JUL. 2/20
1	FIRST SUBMISSION	JAN. 7/20

METRIC LEGEND

Dimensions are in METRES and/or MILLIMETRES unless otherwise shown
TO BE READ IN CONJUNCTION WITH OPSD 100 SERIES

Symbol	Description
---	EX./PR. EDGE OF PAVEMENT
---	EX./PR. ROAD CENTERLINE
---	EX./PR. SANITARY MANHOLE
---	EX./PR. CATCH BASIN MANHOLE
---	EX./PR. STORM MANHOLE
---	EX./PR. CATCH BASIN
---	EX./PR. AREA DRAIN
---	EX./PR. FIRE HYDRANT
---	LIGHT STANDARD
---	HYDRO POLE
---	EX./PR. WATER VALVE
---	BEND
---	GAS VALVE
---	BELL/CABLE PEDESTAL
---	OVERHEAD BELL
---	UNDERGROUND BELL
---	OVERHEAD HYDRO
---	UNDERGROUND HYDRO
---	UNDERGROUND CABLE
---	UNDERGROUND GAS
---	EX./PR. DITCH
---	EX./PR. STORM SEWER
---	PR. INSULATION
---	PR./EX. WATERMAIN
---	SANITARY SERVICE
---	WATER SERVICE
---	PR./EX. FENCE
---	R.O.W.
---	EASEMENT / BLOCK LINE
---	LOT LINE
---	BENCHMARK
---	SITE BOUNDARY
---	LIMIT OF CONSTRUCTION
---	BELL BOX
---	BELL GROUND LEVEL BOX
---	CABLE BOX
---	TRANSFORMER
---	LIGHT STANDARD
---	COMMUNITY MAIL BOX

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E. wills@dmwills.com

STORM SEWER

STORM SEWER

SANITARY SEWER

SANITARY SEWER

CHAINAGE/
PR. ELEV.
EX. ELEV.

0+980

1+000
100.27
100.25

1+020
100.34
100.34

1+040
100.37
100.41

1+060
100.50
100.27

1+080
100.51
100.53

1+100
100.36
100.26

1+120
100.21

1+140

1+160

1+180

1+200

1+220

STORM SEWER

STORM SEWER

SANITARY SEWER

SANITARY SEWER

CHAINAGE/
PR. ELEV.
EX. ELEV.

0+980

1+000
100.27
100.25

1+020
100.34
100.34

1+040
100.37
100.41

1+060
100.50
100.27

1+080
100.51
100.53

1+100
100.36
100.26

1+120
100.21

1+140

1+160

1+180

1+200

1+220

NICKERSON WOODS
TOWN OF COBOURG

D'ARCY ST. (to Creek)
PLAN and PROFILE
STA. 1+000 to STA. 1+130

Drawn By: M.B.J.

Designed By: M.B.J.

Checked By: D.A.K.

Engineer: A.M.H.

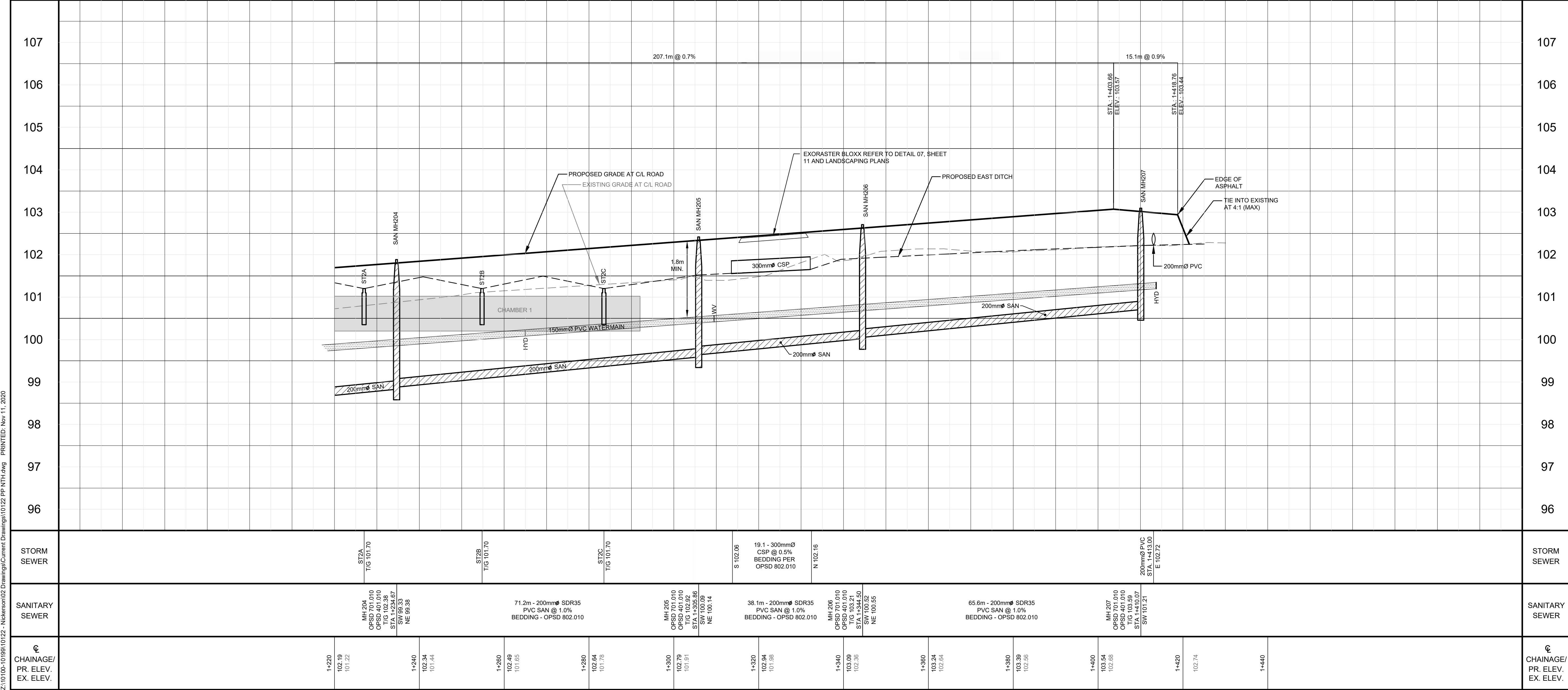
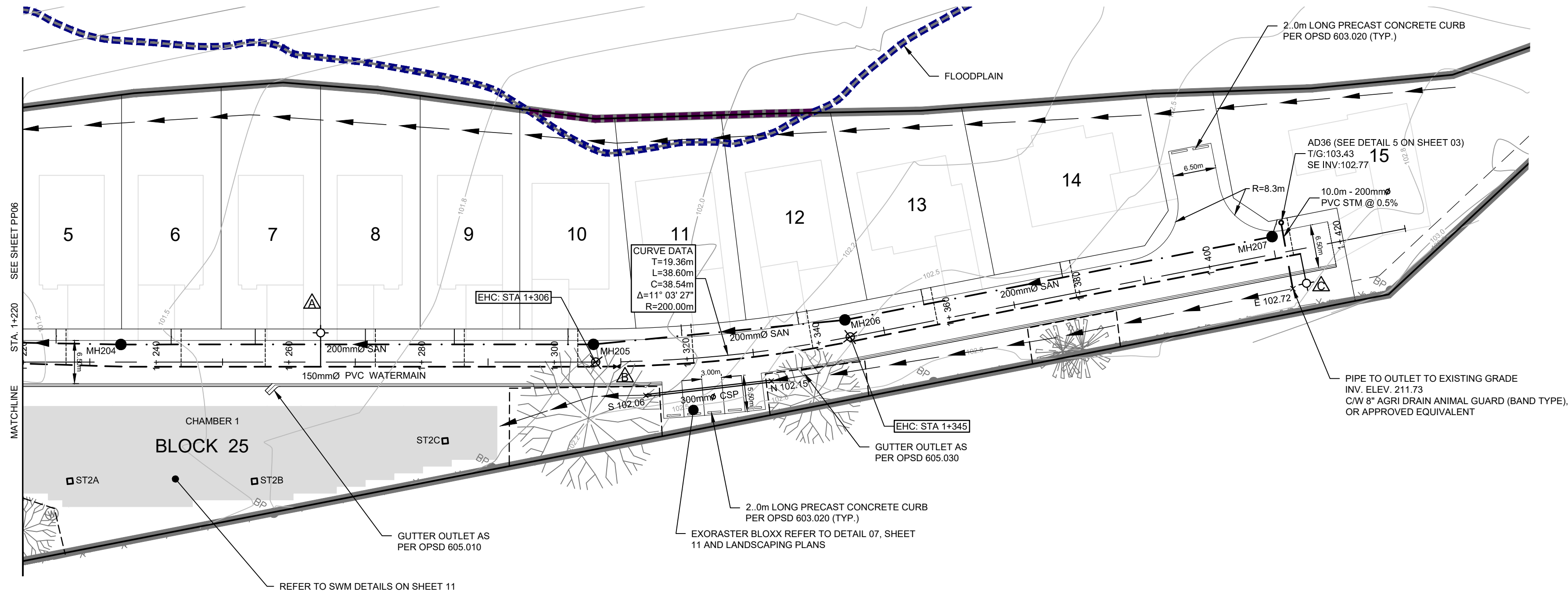
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Issue: OCTOBER 20, 2020
Project No.: 18-10122
Dwg File No.: PP DARC Y

Vert. 1:50
Sht. No.: 06A

NOT FOR CONSTRUCTION

Z:\10103-10103\10122- Nickerson\02 Drawings\Current Drawings\10122 PP NTH.dwg PRINTED: Nov 11, 2020

	WATERMAIN DATA	STATION	TOP OF PIPE
	ANCHOR TEE WITH GATE VALVE HYDRANT SET	1+265.00	100.32
	VALVE AND BOX (200mmØ)	1+309.40	100.54
	ANCHOR TEE WITH GATE VALVE HYDRANT SET	1+413.80	101.34



B.M. #3 ELEV. 101.53
Top nut of fire hydrant on the north side of Nickerson Drive, directly opposite D'Arcy Street.

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street traffic island at Elgin St.
N 4873468.59
E 727503.59

B.M. #2 ELEV. 101.80
Top nut of fire hydrant on the north side of Nickerson Drive, approx. 96m east of D'Arcy St.

KEY PLAN

REVISIONS

No.	Description	Date
3	THIRD SUBMISSION	OCT. 20/20
2	SECOND SUBMISSION	JUL. 2/20
1	FIRST SUBMISSION	JAN. 7/20

METRIC

LEGEND

EX./PR. EDGE OF PAVEMENT

EX./PR. ROAD CENTERLINE

EX./PR. SANITARY MANHOLE

EX./PR. CATCH BASIN MANHOLE

EX./PR. STORM MANHOLE

EX./PR. CATCH BASIN

EX./PR. AREA DRAIN

EX./PR. FIRE HYDRANT

HYDRO POLE

EX./PR. WATER VALVE

BEND

GAS VALVE

BELL/CABLE PEDESTAL

OVERHEAD BELL

UNDERGROUND BELL

OVERHEAD HYDRO

UNDERGROUND HYDRO

UNDERGROUND CABLE

UNDERGROUND GAS

EX./PR. DITCH

EX./PR. STORM SEWER

EX./PR. SANITARY SEWER

PR. INSULATION

PR./EX. WATERMAIN

SANITARY SERVICE

WATER SERVICE

PR./EX. FENCE

R.O.W.

EASEMENT / BLOCK LINE

LOT LINE

BENCHMARK

SITE BOUNDARY

LIMIT OF CONSTRUCTION

BELL BOX

BELL GROUND LEVEL BOX

CABLE BOX

TRANSFORMER

LIGHT STANDARD

COMMUNITY MAIL BOX

TREE PROTECTION ZONE

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E. wills@dmwills.com

Project Name/Location

NICKERSON WOODS
TOWN OF COBOURG

Drawing Title

**STREET 'A'
PLAN and PROFILE
STA. 1+220 to STA. 1+440**

Drawn By: M.B.J.

SCALE: Horiz. 1:500

Vert. 1:50

Designed By: M.B.J.

Issue: OCTOBER 20, 2020

Checked By: D.A.K.

Project No.: 18-10122

Shr. No.: 07

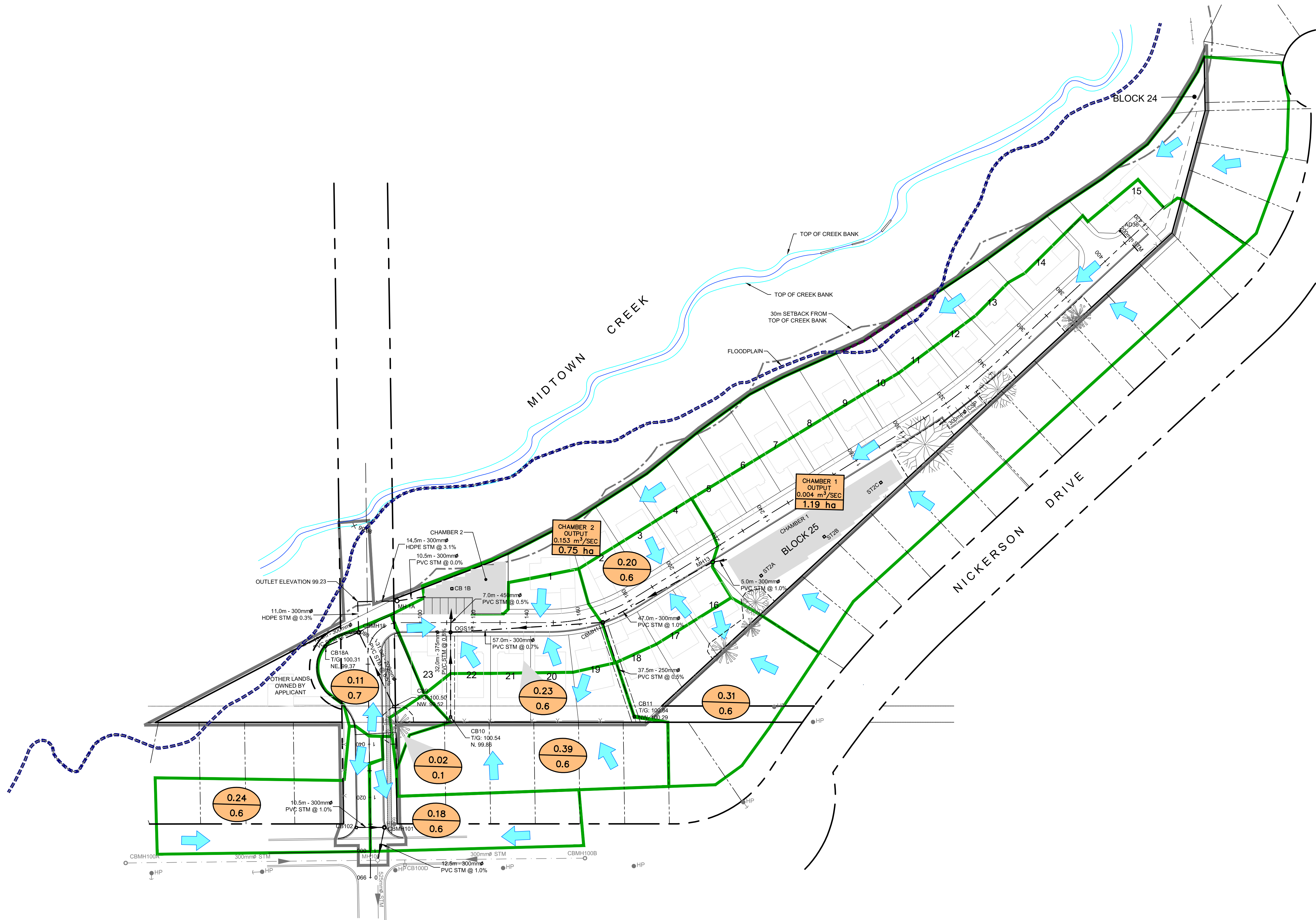
Engineer: A.M.H.

Dwg File No.: PP NTH

CHAINAGE/
PR. ELEV.
EX. ELEV.

NOT FOR CONSTRUCTION

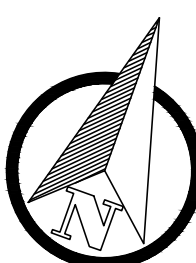
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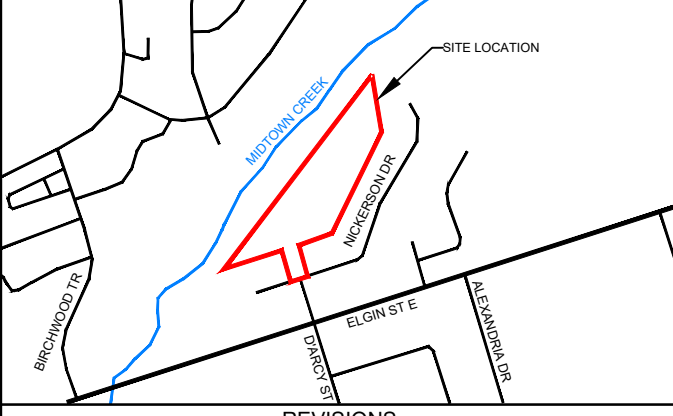
B.M. #3 ELEV. 101.53
Top nut of fire hydrant on the
north side of Nickerson Drive,
directly opposite D'Arcy Street.

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street
traffic island at Elgin St.
N 4873468.59
E 727503.59

B.M. #2 ELEV. 101.80
Top nut of fire hydrant on the
north side of Nickerson Drive,
approx. 96m east of D'Arcy St.



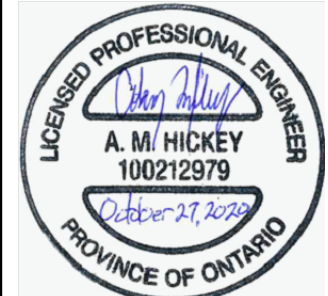
KEY PLAN



No.	Description	Date
3	THIRD SUBMISSION	OCT. 20/20
2	SECOND SUBMISSION	JUL. 2/20
1	FIRST SUBMISSION	JAN. 7/20

METRIC Dimensions are in METRES and/or
MILLIMETRES unless otherwise shown
TO BE READ IN CONJUNCTION
WITH OPSD-100 SERIES

- LEGEND**
- 0.04 ha
0.6 DRAINAGE AREA (HA.)
RUNOFF COEFFICIENT
 - OVERLAND FLOW DIRECTION
 - CATCHMENT BOUNDARY
 - PR. STORM PIPE AND FLOW DIRECTION
 - EX. STORM PIPE AND FLOW DIRECTION
 - PR./EX. STORM MANHOLE
 - PR./EX. CATCHBASIN MANHOLE
 - PR./EX. CATCHBASIN
 - PR./EX. DOUBLE CATCHBASIN
 - PR. CORRUGATED STEEL PIPE
 - SITE BOUNDARY
 - LIMIT OF CONSTRUCTION



D.M. Wills Associates Limited
150 Jameson Drive
Peterborough, Ontario
Canada K9J 0B7
P. 705.742.2297
F. 705.741.3568
E. wills@dmwills.com

Project Name/Location

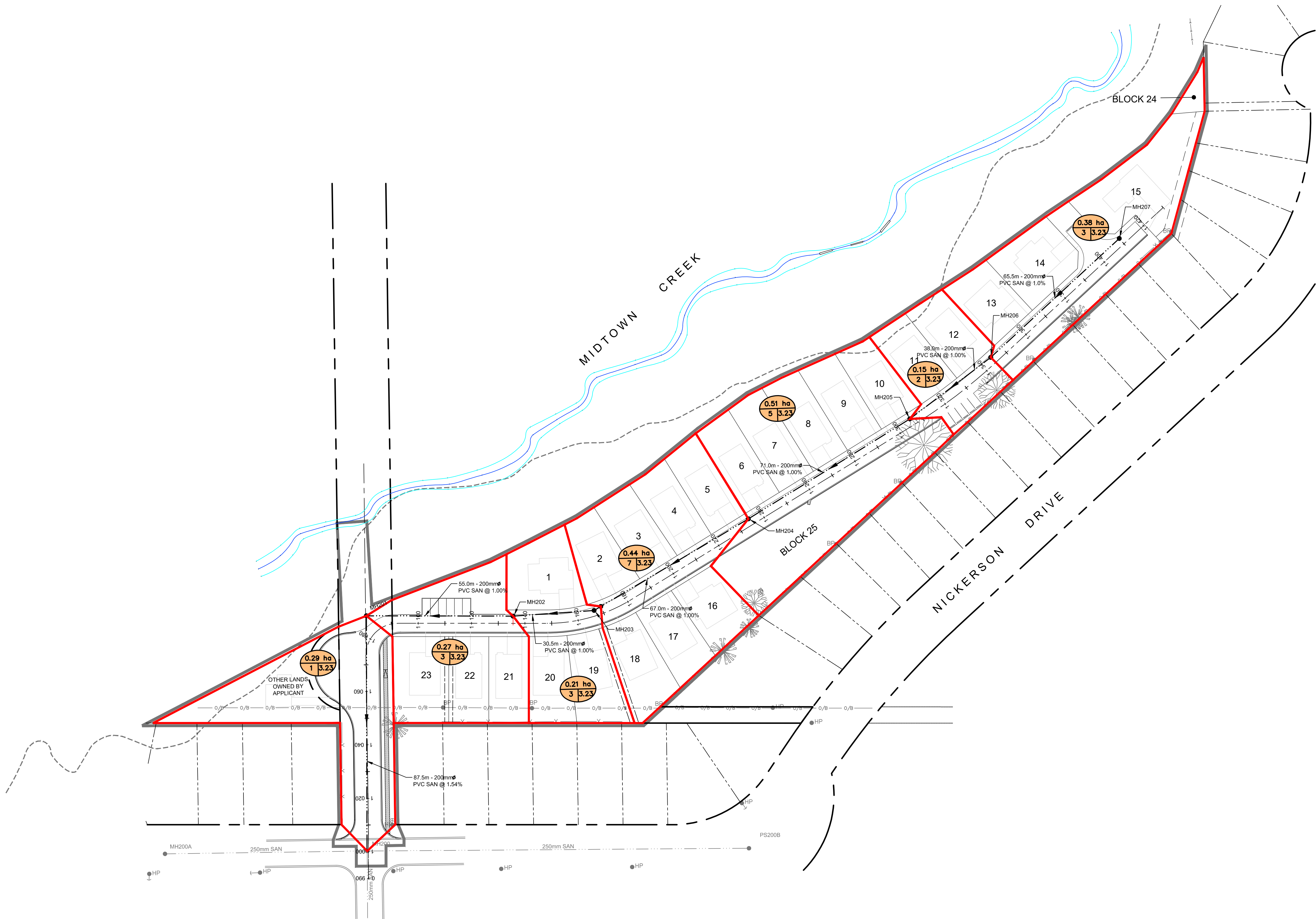
NICKERSON WOODS
TOWN OF COBOURG

**STORM DRAINAGE
AREA PLAN**

Drawn By:	SCALE: Horiz. -	Vert. -
Designed By: M.B.J.	Issue: OCTOBER 20, 2020	
Checked By: D.A.K.	Project No.: 18-10122	Sht. No.:
Engineer: A.M.H.	Dwg File No.: 10122 STM	08

NOT FOR CONSTRUCTION

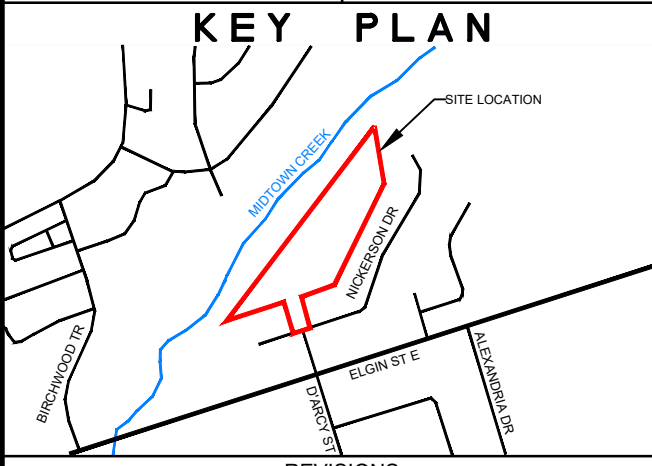
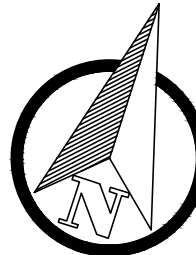
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B.M. #3 ELEV. 101.53
Top nut of fire hydrant on the
north side of Nickerson Drive,
directly opposite D'Arcy Street.

B.M. #1 ELEV. 99.775
Mag nail on the D'Arcy Street
traffic island at Elgin St.
N 4873468.59
E 727503.59

B.M. #2 ELEV. 101.80
Top nut of fire hydrant on the
north side of Nickerson Drive,
approx. 96m east of D'Arcy St.

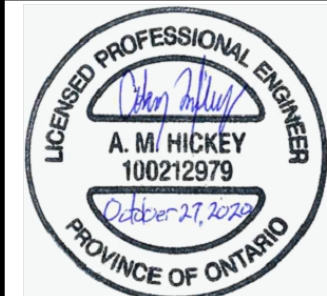


REVISIONS		
No.	Description	Date
3	THIRD SUBMISSION	OCT. 20/20
2	SECOND SUBMISSION	JUL. 2/20
1	FIRST SUBMISSION	JAN. 7/20

METRIC Dimensions are in METRES and/or
MILLIMETRES unless otherwise shown
TO BE READ IN CONJUNCTION
WITH OPSD 100 SERIES

LEGEND
RESIDENTIAL:
0.45 ha SANITARY DRAINAGE AREA (HECTARES)
4 PERSON PER UNIT
3 NUMBER OF UNITS

- DRAINAGE AREA BOUNDARY
- PR. SANITARY PIPE AND FLOW DIRECTION
- EX. SANITARY PIPE AND FLOW DIRECTION
- SANITARY SERVICE
- EX./PR. SANITARY MANHOLE
- SITE BOUNDARY
- LIMIT OF CONSTRUCTION



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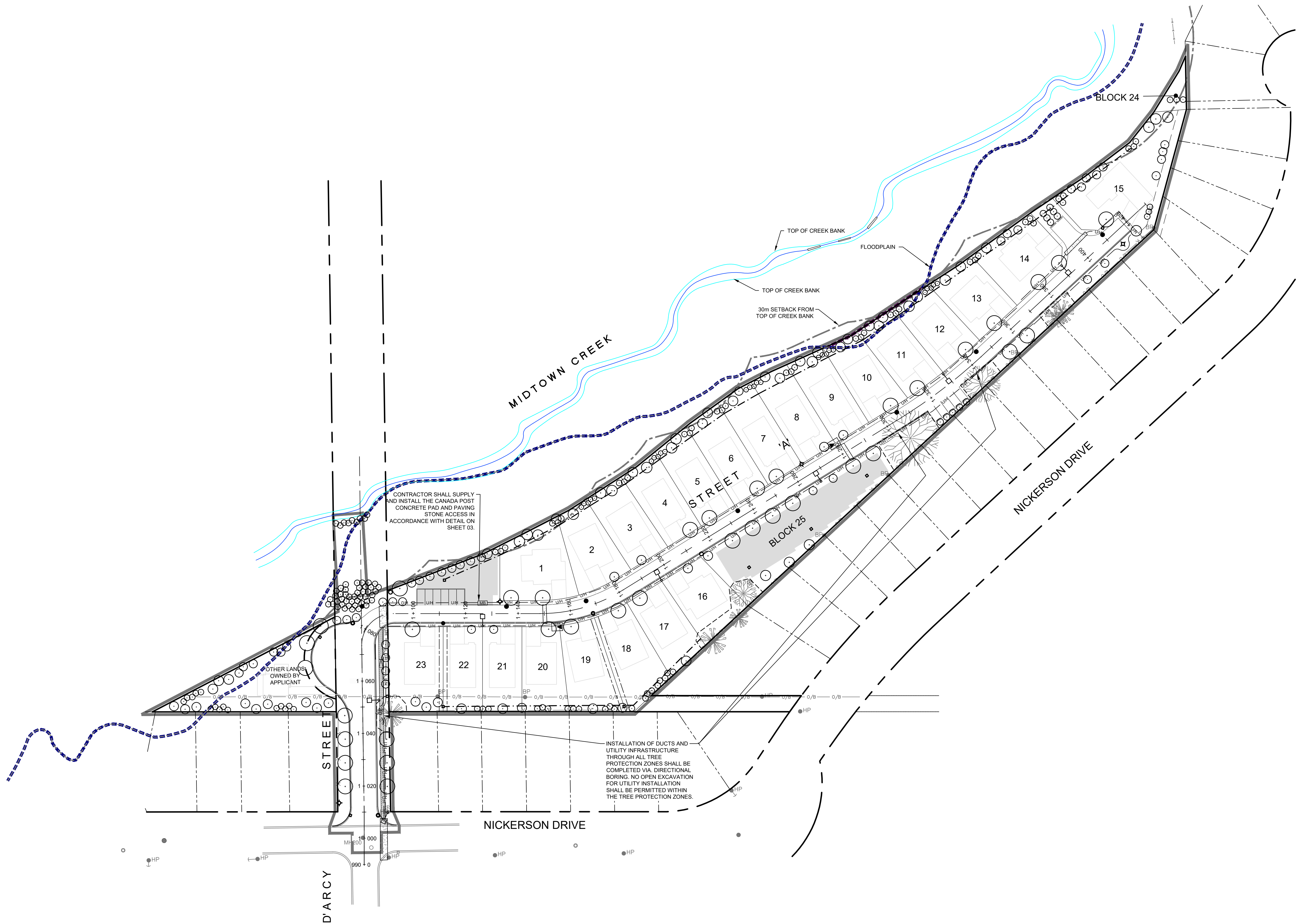
Project Name/Location
NICKERSON WOODS
TOWN OF COBOURG

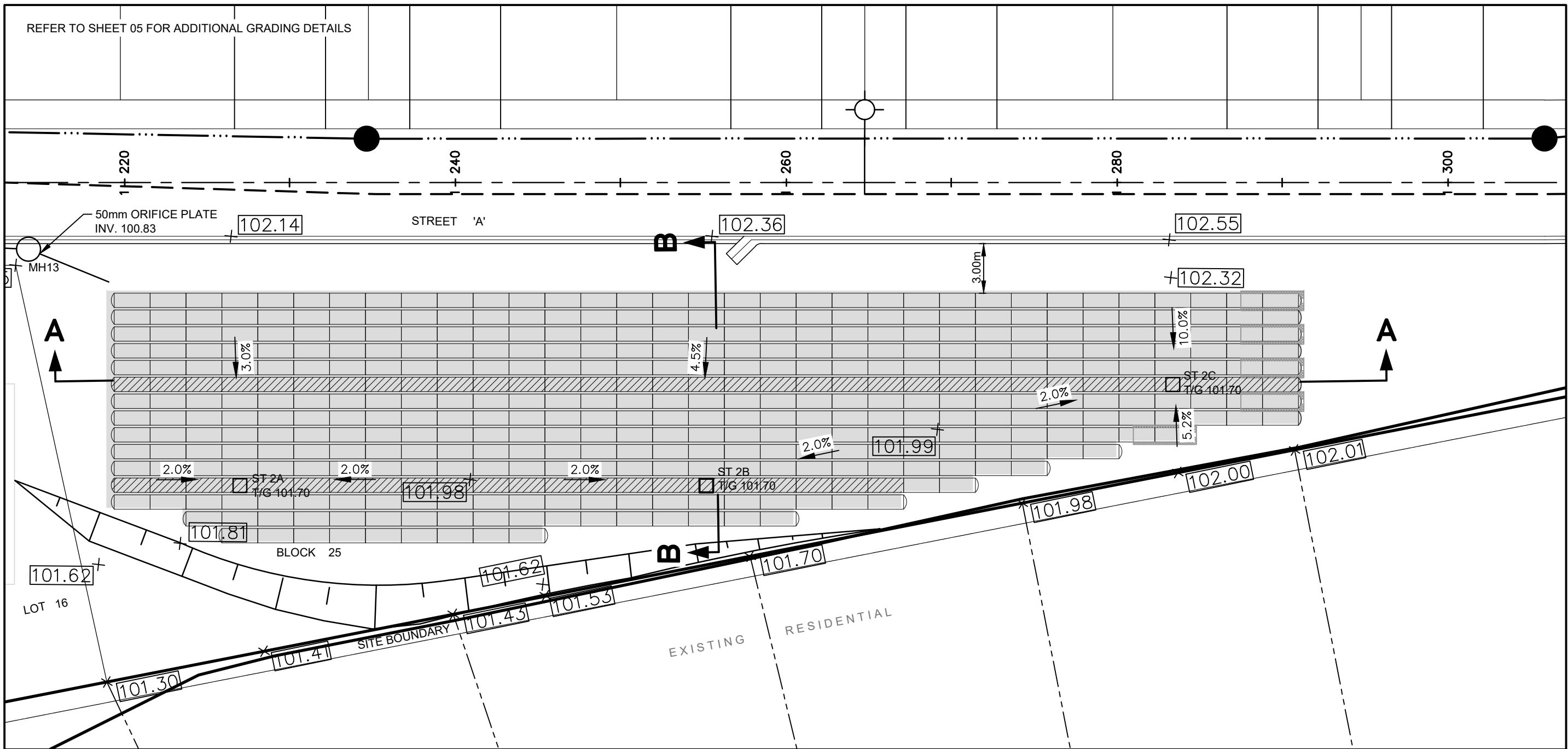
Drawing Title
**SANITARY SEWER
DRAINAGE AREA PLAN**

Drawn By: M.B.J.	SCALE: Horiz. 1:750	Vert. N/A-
Designed By: M.B.J.	Issue: OCTOBER 20, 2020	
Checked By: D.A.K.	Project No.: 18-10122	Sht. No.:
Engineer: A.M.H.	Dwg File No.: 10122 SAN	09

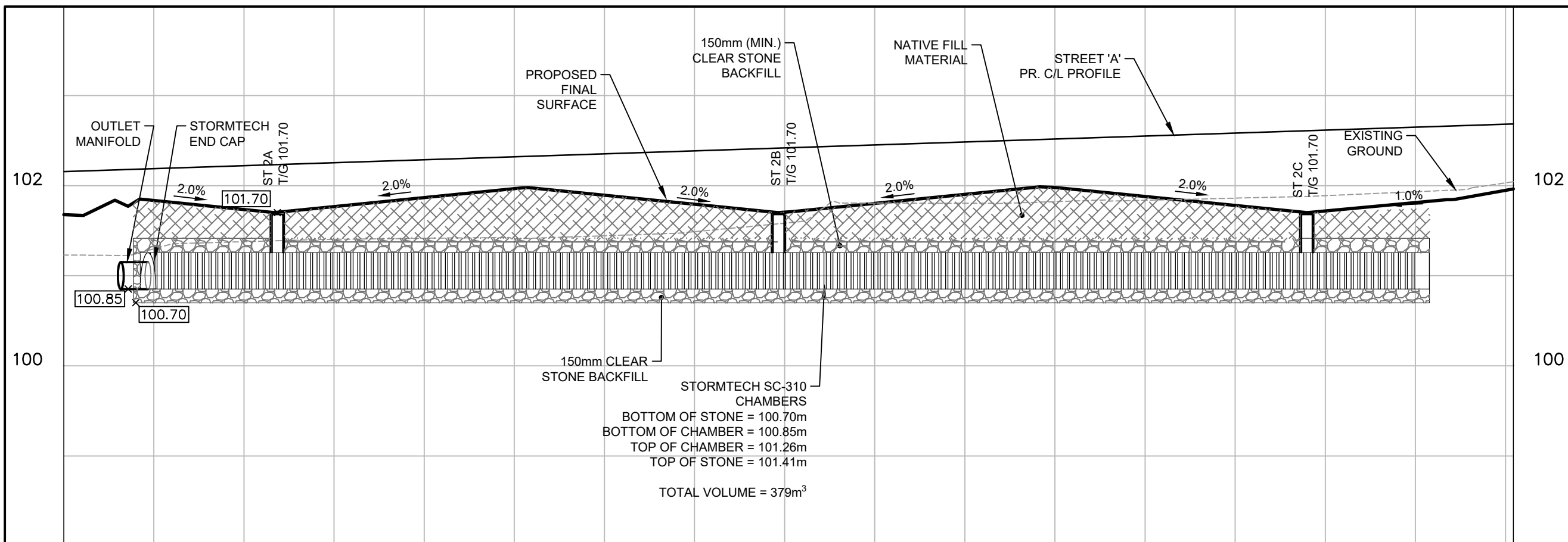
NOT FOR CONSTRUCTION

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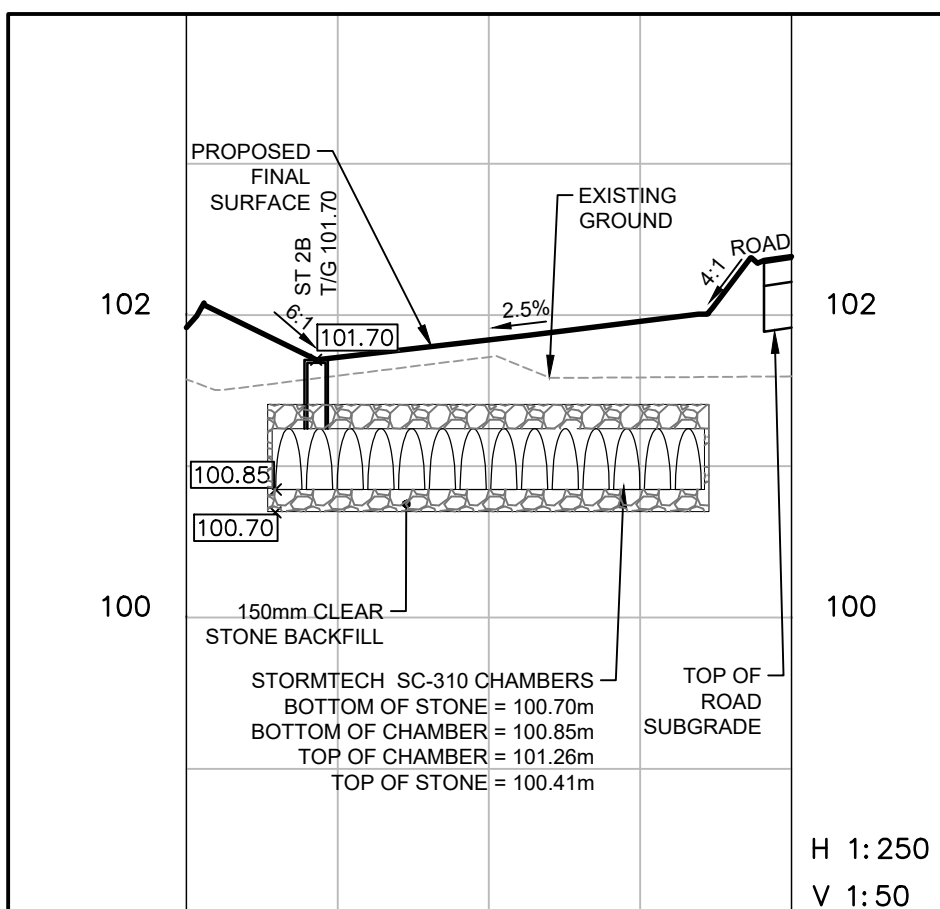




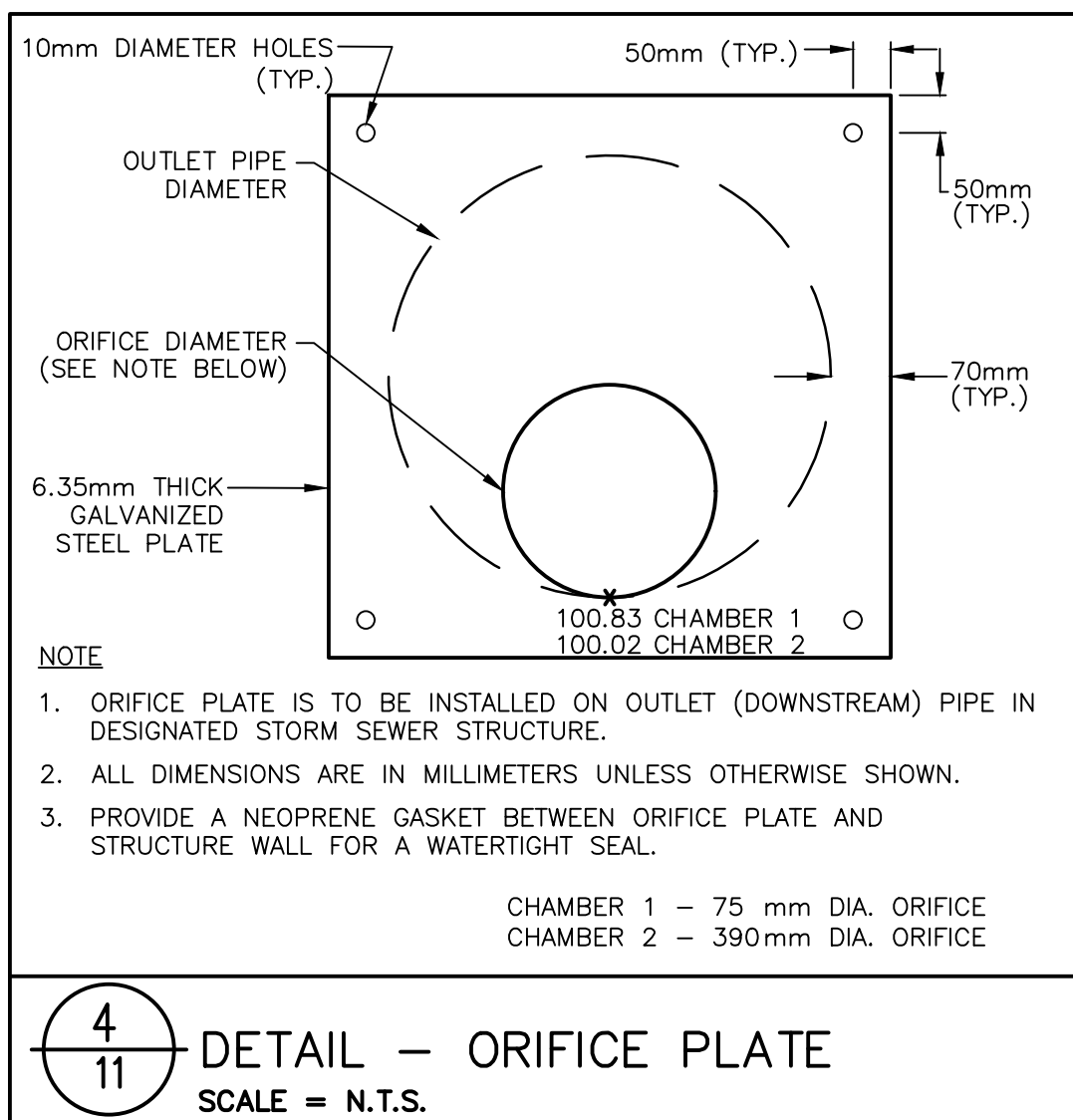
01
11
DETAIL – CHAMBER 1 LAYOUT
SCALE = 1:250



02
11
DETAIL – SECTION A-A
SCALE = N.T.S.



03
11
DETAIL – SECTION B-B
SCALE = N.T.S.



4
11
DETAIL – ORIFICE PLATE
SCALE = N.T.S.

