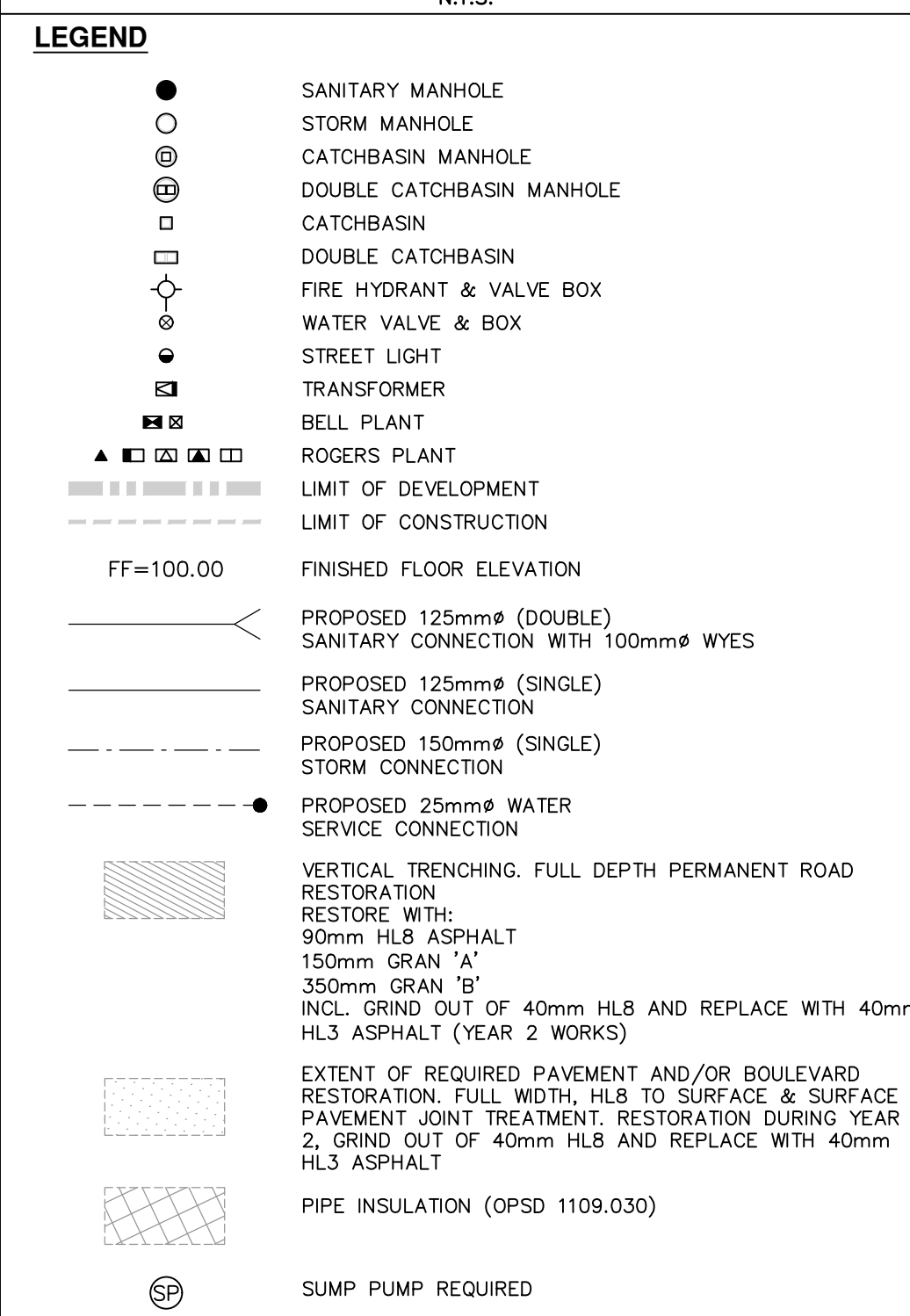


KEY PLAN
N.T.S.



LEGAL DESCRIPTION:
PART OF AN UNNUMBERED LOT, BLOCK H, SOUTH SIDE UNIVERSITY AVENUE AND EAST SIDE GEORGE STREET CADDY PLAN, TOWN OF COBOURG COUNTY OF NORTHUMBERLAND

REFERENCE DRAWINGS:
FOR SITE PLAN INFORMATION REFER TO DRAWING PRELIM. #1, DATED SEPT., '19, PROJECT NO. 19029 BY R.W. BRUNYSON INC.

SURVEY INFORMATION:
SURVEY INFORMATION TAKEN FROM TOPOGRAPHIC DETAIL OF 296 GEORGE STREET, FILE NO. 4-5094-TopoDetail.dwg, PREPARED BY IVAN B. WALLACE O.L.S. LTD. DATED 29TH DAY OF APRIL 2019.

BENCHMARK INFO:
ELEVATIONS ARE REFERRED TO THE TOWN OF COBOURG BENCHMARK No. 0011910017, HAVING AN ELEVATION OF 80.14m.

REVISIONS

No.	BY	DATE	DESCRIPTION	APPROVED
1	A.W.	03.26.21	1st SPA SUBMISSION	

TOWN OF COBOURG
ENGINEERING AND ENVIRONMENTAL SERVICES

296 GEORGE STREET

SITE SERVICING PLAN

CANDEVCON EAST LIMITED
CONSULTING ENGINEERS & PLANNERS
1600 STELLAR DRIVE, SUITE 402 TEL. (289) 315-3680 WHITBY, ONTARIO L1N 9B2 FAX (905) 794-0611

SCALE : 1:250	PROJECT No. E20016
DRAWN BY : J.J.	DRAWING No. SS
DESIGNED BY : J.J.	CHECKED BY : A.W.
REVISION DATE: Mar. 26, 2021	

GENERAL NOTES

- MEASUREMENTS IN METRES AND/OR MILLIMETRES, UNLESS OTHERWISE SHOWN.
- ALL DIMENSIONS AND ELEVATIONS TO BE CHECKED AND VERIFIED ON SITE BY THE CONTRACTOR AND ANY DISCREPANCIES REPORTED PRIOR TO THE START OF WORK.
- THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR LOCATES, EXPOSING, SUPPORTING AND PROTECTING OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF CONSTRUCTION IN THE AREA OF THEIR WORK, WHETHER SHOWN ON THE PLANS OR NOT AND FOR ALL REPAIRS AND CONSEQUENCES RESULTING FROM DAMAGE TO SAME.
- ALL TRENCHING TO BE DONE IN ACCORDANCE WITH THE CONSTRUCTION SAFETY ACT.
- ALL INTERNAL WORK TO BE DONE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS, UNLESS OTHERWISE NOTED.
- A ROAD OCCUPANCY PERMIT WILL BE REQUIRED FROM THE MUNICIPAL ROAD AUTHORITY FOR ALL WORKS WITHIN THE PUBLIC ROAD ALLOWANCE. THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING THE ROAD OCCUPANCY PERMIT(S), INCLUDING PROVIDING ALL REQUIRED SUPPORTING DOCUMENTATION.
- REFER TO THE SITE PLAN FOR THE DIMENSIONING OF BUILDINGS, INTERIOR SIDEWALKS, DRIVEWAYS, PARKING AREAS AND CURBING.
- THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER ONE (1) SET OF AS-CONSTRUCTED SITE SERVICING, GRADING AND SITE ELECTRICAL DRAWINGS.

WATERMANS AND FIREMANS

- ALL WATERMANS AND FIREMANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ONTARIO PROVINCIAL STANDARD SPECIFICATION OPS 701 AND PART VI OF THE ONTARIO BUILDING CODE AND AS PER THE REQUIREMENTS OF LAKEFRONT UTILITY SERVICES INC. WATERMAIN & APPURTENANCE POLICY, UNLESS OTHERWISE SHOWN.
- WATERMANS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 0.50m OVER AND UNDER SEWERS AND OTHER UTILITIES. WHEN CROSSING, THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING SO THAT JOINTS WILL BE EQUIDISTANT AND AS FAR AWAY AS POSSIBLE FROM THE SEWER.
- ALL WATERMANS SHALL HAVE 1.8m MINIMUM COVER AND HORIZONTAL SPACING OF 2.44m FROM ALL SEWER LINES.
- 100mm TO 300mm DIAMETER WATERMANS AND FIREMANS SHALL BE PVC SDR-18, C-900, CLASS 150 UNLESS OTHERWISE SHOWN. WATER SERVICE CONNECTIONS 50mm OR LESS SHALL BE TYPE C COPPER.
- PIPE BEDDING AND BACKFILL FOR WATERMANS SHALL BE AS PER OPS 802.010 FOR FLEXIBLE PIPE UNLESS OTHERWISE SHOWN.
- ALL CURB STOPS TO BE 3.0m OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED.
- ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM EXISTING SYSTEMS PRIOR TO CONNECTION, USING TEST POINT BY-PASS AS REQUIRED.
- EITHER CONCRETE THRUST BLOCKS AS PER OPS 1103.010 AND 1103.020 OR MECHANICALLY RESTRAINED JOINTS SHALL BE USED. MECHANICAL JOINT RESTRAINT SHALL BE UN-FLANGE SERIES 1350 OR APPROVED.
- PROVISIONS FOR FLUSHING WATERMANS MUST BE PROVIDED WITH AT LEAST A 50mm OUTLET ON 100mm AND LARGER LINES. COPPER LINES ARE TO HAVE FLUSHING POINTS AT THE END, THE SAME SIZE AS THE LINE. FIREMANS FLUSHING OUTLET TO BE 100mm DIAMETER MINIMUM OF A HYDRANT. FLUSHING POINTS MUST BE HOSED OR PIPED TO ALLOW THE WATER TO DRAIN.
- FIRE HYDRANTS SHALL CONFORM TO AWWA C502 OR LATEST REVISION. HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH OPS 1105.010. HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.15m ABOVE THE PROPOSED FINISHED GRADE AT HYDRANT.
- TRACER WIRE SHALL BE ATTACHED TO EVERY NON-METALLIC WATERMAIN, FIREMAIN AND SERVICE CONNECTION.
- ALL WATERMANS SHALL BE TERMINATED WITH A PLUG AND 50mm BLOW-OFF UNLESS OTHERWISE NOTED.
- ALL NEW WATERMANS AND SERVICES TO BE PRESSURE TESTED TO 1379kPa (200 psi) FOR AT LEAST ONE (1) HOUR WITHOUT LEAKAGE.
- THE CONTRACTOR SHALL SUCCESSFULLY SWAB AND CHLORINATE WATERMANS AND SERVICES PRIOR TO CONNECTING TO EXTERNAL WATERMANS. CONNECTION TO MUNICIPAL WATERMAIN SHALL NOT BE GRANTED UNTIL A POSITIVE LABORATORY TEST RESULT IS PROVIDED AND ACCEPTED.
- ALL HYDRANTS ON PRIVATE PROPERTY TO BE PAINTED RED AND THE STORZ PAINTED BLACK.
- PRIVATE WATER SUPPLY LINES HAVE BEEN DESIGNED IN ACCORDANCE WITH M.O.E.C.C. GUIDELINES AS PER 7.1.6.5 OF THE O.B.C.
- UNLESS OTHERWISE NOTED ALL WATERMAIN CROSSINGS ARE TO BE ACCOMMODATED USING VERTICAL PIPE DEFLECTIONS.
- ALL TRENCHES ARE TO BE BACKFILLED TO THE STANDARD PROCTOR DENSITY AS SPECIFIED BY THE GEOTECHNICAL CONSULTANT.
- BUILDING SERVICE VALVES TO BE 3.0m OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED AND MUST BE RESTRAINED A MINIMUM OF 12.0m BACK FROM STUB.

STORM AND SANITARY SEWERS

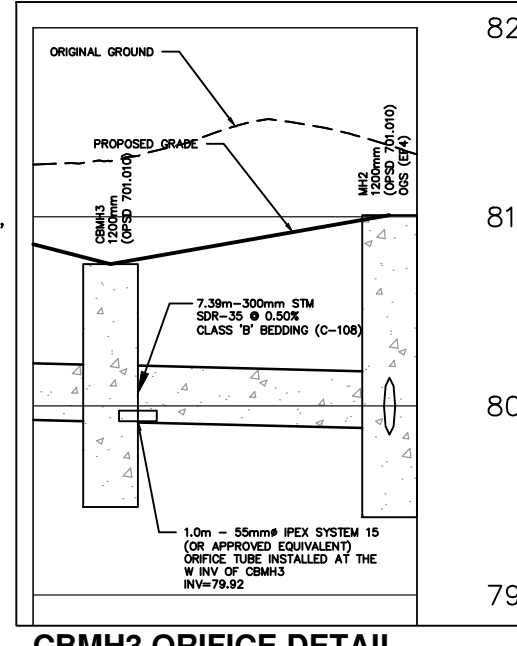
- ALL STORM AND SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ONTARIO PROVINCIAL STANDARD SPECIFICATION OPS 410 AND PART VI OF THE ONTARIO BUILDING CODE, UNLESS OTHERWISE SHOWN.
- SANITARY SEWER PIPES SHALL BE PVC SDR-35 CONFORMING TO CSA B182.2 AND B182.4, UNLESS OTHERWISE NOTED. PIPES SHALL BE JOINTED BY MEANS OF APPROVED RUBBER GASKETS.
- STORM SEWER PIPES 375mm AND SMALLER SHALL BE RIPPED PVC CONFORMING TO CSA B182.2 AND B182.4, UNLESS OTHERWISE NOTED. PIPES SHALL BE JOINTED BY MEANS OF APPROVED RUBBER GASKETS.
- STORM SEWER PIPES 450mm AND LARGER SHALL BE STEEL REINFORCED CONCRETE PIPE CLASS 65-D, CONFORMING TO SPECIFICATION CSA A257.1, A257.3, UNLESS OTHERWISE NOTED PIPES SHALL BE JOINTED BY MEANS OF APPROVED RUBBER GASKETS.
- PIPE BEDDING AND BACKFILL SHALL BE AS PER OPS 802.010 FOR FLEXIBLE PIPE AND OPS 802.030 AND 802.031 FOR RIGID PIPE, UNLESS OTHERWISE SHOWN.
- MANHOLES SHALL BE AS PER OPS 701.010, 701.011, 701.012, 701.013, 701.014 AND 701.015. FRAMES AND COVERS AS PER OPS 401.010. DROP STRUCTURES AS PER OPS 1003.01. MANHOLES SHALL BE 1200mm IN DIAMETER, UNLESS OTHERWISE SHOWN.
- SINGLE CATCHBASIN SHALL BE AS PER OPS 705.010. DOUBLE CATCHBASIN SHALL BE AS PER OPS 705.020. FRAMES AND COVERS AS PER OPS 400.010 WHEN ADJACENT TO CURBS AND OPS 400.020 IN OTHER AREAS. CATCHBASIN LEADS SHALL BE 300mm AT MINIMUM 1.0% GRADE, UNLESS OTHERWISE NOTED.
- STORM AND SANITARY SEWERS AND APPURTENANCES WITHIN A PUBLIC ROAD ALLOWANCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL MUNICIPAL AUTHORITY STANDARDS.
- THE CONTRACTOR SHALL SUBMIT A VIDEO INSPECTION REPORT OF ALL INSTALLED STORM AND SANITARY MAINS, INCLUDING CATCHBASIN LEADS AND SERVICES PRIOR TO ACCEPTANCE.
- SERVICE CONNECTIONS SHALL TERMINATE 1.5m FROM THE FACE OF THE BUILDING, UNLESS OTHERWISE NOTED.
- ALL DOWNSPOUTS SHALL BE DISCONNECTED AND DISCHARGE DIRECTLY TO THE SURFACE.
- MINIMUM DEPTH OF COVER OF 1.4m FOR STORM SEWERS AND 1.8m FOR SANITARY SEWERS, UNLESS OTHERWISE SHOWN.
- PRIVATE SEWERS HAVE BEEN DESIGNED IN ACCORDANCE WITH M.O.E.C.C. GUIDELINES AS PER 7.1.6.5 OF THE O.B.C.
- MINIMUM PIPE CROSSING CLEARANCE FOR STORM AND SANITARY SEWERS IS TO BE 0.15m.
- SANITARY SERVICE CONNECTIONS MUST BE INSTALLED USING WYE CONNECTIONS.

STORM SEWER DATA TABLE

STRUCTURE No.	SIZE	RIM ELEV.	INVERT ELEVATIONS		NOTES
			IN	OUT	
MH1	1200mm	81.24	E 79.82	N 79.76	
MH2	1200mm	81.01	E 79.88	N 79.95	
CBM3	1200mm	80.75	S 79.92	W 79.92	OGS(STORMCEPTOR EF4)
CBM4	1200mm	81.83	S 80.07	N 80.07	
CBM5	1200mm	81.95	SW 80.12	N 80.12	
CBM6	1200mm	81.98	NW 80.14	E 80.14	
MH7	1200mm	82.14	NW 80.27	SE 80.24	
CBM8	1200mm	81.67	SW 80.36	E 80.36	
MH9	1200mm	81.96	S 80.49	NE 80.43	
MH10	1200mm	82.26	N 80.77	N 80.77	
CB1	1200mm	82.10	N 80.58	N 80.58	
CB2	1200mm	81.70	SE 80.39	SE 80.39	
PLUG 2			W 79.81	W 79.81	
PLUG 3			NE 80.13	NE 80.13	
PLUG 4			W 80.13	W 80.13	

SANITARY SEWER DATA TABLE

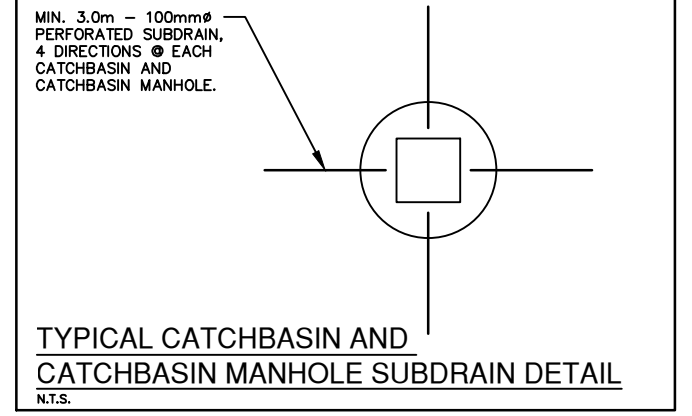
STRUCTURE No.	SIZE	RIM ELEV.	INVERT ELEVATIONS		NOTES
			IN	OUT	
MH1A	1200mm	81.17	S 78.84	N 78.81	
MH2A	1200mm	81.93	E 78.26	S 78.11	
MH3A	1200mm	81.87	E 78.32	W 78.29	
MH4A	1200mm	82.10	S 78.49	W 78.43	
MH5A	1200mm	82.10	N 78.78	N 78.78	
PLUG 1			N 78.86	N 78.86	



CBM3 ORIFICE DETAIL
VERT. 1:10

Pipe Interference Table

Crossing No.	PIPE 1	PIPE 2	Clearance
1	STM Bottom 79.76	W/M Top 79.26	0.50
2	STM Bottom 80.39	W/M Top 79.89	0.50
3	STM Bottom 80.36	SAN Top 78.59	1.77
4	W/M Bottom 79.91	SAN Top 78.31	1.60
5	STM Bottom 80.32	SAN Top 78.63	1.69
6	STM Bottom 80.29	SAN Top 78.74	1.55



TYPICAL CATCHBASIN AND CATCHBASIN MANHOLE SUBDRAIN DETAIL
N.T.S.

TOWN OF COBOURG INSPECTOR TO INSPECT ALL CONNECTIONS TO EXISTING SANITARY AND STORM INFRASTRUCTURE PRIOR TO BACKFILLING. THE TOWN INSPECTOR IS TO BE GIVEN TWO (2) DAYS NOTICE PRIOR TO THE WORKS BEING PERFORMED.

ALL SANITARY AND STORM SEWER PIPE JOINTS TO BE WRAPPED WITH BUTYL JOINT TAPE (OR APPROVED EQUIVALENT) TO PREVENT INFILTRATION AND SUBGRADE MIGRATION

REMOVE EX. 50mm WATER SERVICE TO MAIN AND CAP. LIVE-TAP PROPOSED 150mm WATERMAIN ON BUCK STREET AS PER LAKEFRONT UTILITY SERVICES INC. REQUIREMENTS.

REMOVE EX. DROP CURB AND ASPHALT SIDEWALK ACROSS BUCK STREET SITE FRONTAGE (±23.5m) AND REPLACE WITH FULL CURB (OPSD 600.040) AND CONCRETE SIDEWALK (OPSD 310.010).

BUCK STREET

GEORGE STREET

REMOVE ±24.5m OF EX. 1.5m CONC. SIDEWALK AND ±0.50m INTERLOCKING BRICK ACROSS SITE ENTRANCE AND REPLACE TO SUIT NEW CURB ELEVATIONS. RESTORE CONC. SIDEWALK AS PER OPSD 310.010

REMOVE ±24.5m OF EX. CURB ACROSS SITE ENTRANCE AND REPLACE WITH DEPRESSED CURB (OPSD 600.040). REMOVE EX. GRAVEL DRIVEWAY AND RESTORE WITH TOPSOIL AND SOD WITHIN R.O.W.

INSTALL MH2A OVER EX. SANITARY SEWER INCLUDING ALL APPLICABLE RESTORATION

REMOVE EX. WATER SERVICE TO MAIN AND CAP. LIVE-TAP PROPOSED 150mm WATERMAIN ON GEORGE STREET AS PER LAKEFRONT UTILITY SERVICES INC. REQUIREMENTS.

WATERMAIN AND SANITARY TO BE INSTALLED WITH VERTICAL TRENCHING. RESTORATION EQUAL TO EXISTING WITH A MINIMUM DEPTH OF: 350mm GRAN 'B' 150mm GRAN 'A' 90mm HLB INCL. GRIND OUT OF 40mm HLB 3 AND REPLACE WITH 40mm HLB 3 ASPHALT (YEAR 2 WORKS)

REMOVE ±18.5m OF EX. 1.2m CONC. SIDEWALK AND RESTORE WITH TOPSOIL AND SOD

