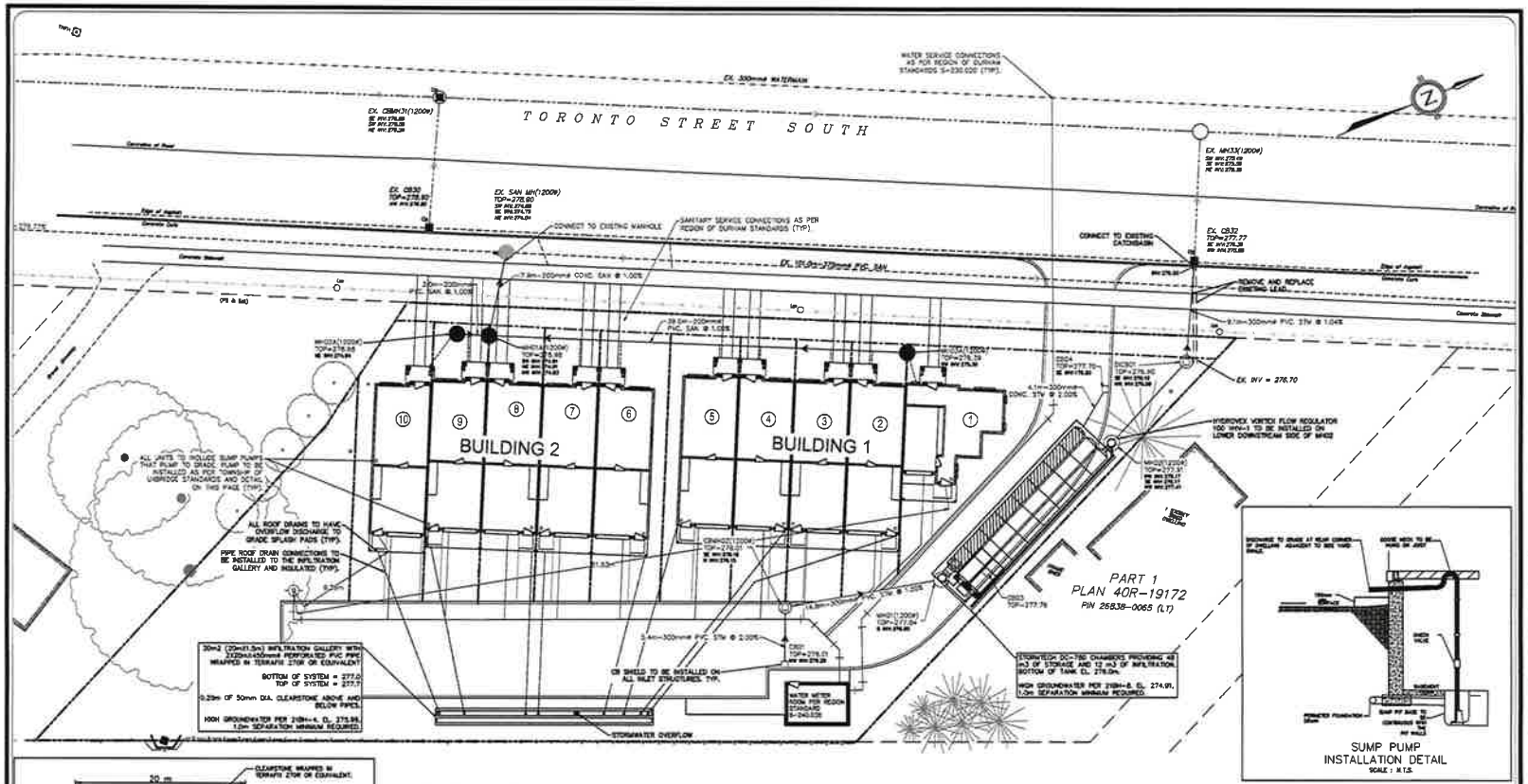
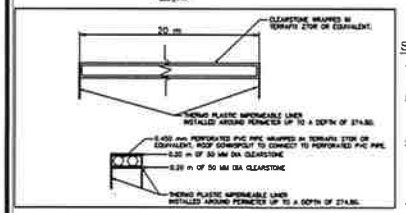




INFILTRATION GALLERY DETAIL (N.T.S.)

CONSTRUCTION NOTES

GENERAL NOTES

1. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT OBSTRUCTION CONFLICTS.
2. THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS PROVIDED BY OTHERS. THE INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND THE ACCURACY OR COMPLETENESS OF THE PROVIDED INFORMATION HAS NOT BEEN CONFIRMED BY COUNTERPOINT ENGINEERING INC. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
3. THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANT'S PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROADS, PARKING, CURBING, BUILDING LOCATION AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE SITE ARCHITECT.
4. INSPECTIONS, ALL WORK IN THE MUNICIPAL RIGHT OF WAY AND EASEMENTS IS TO BE INSPECTED BY THE TOWNSHIP PRIOR TO BACKFILLING. ALL WORK RELATING TO WATERMAINS AND SEWERS TO BE INSPECTED BY THE CITY AS PER THE SITE PLAN AGREEMENT.
5. ALL DISTURBED GRASSED AREAS TO BE RESTORED WITH MINIMUM 150mm TOPSOIL AND No. 1 NURSERY SOD.
6. A MINIMUM HORIZONTAL CLEARANCE OF 1.5m SHALL BE MAINTAINED BETWEEN ALL ABOVE GROUND SERVICES AND UTILITIES.
7. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION UNLESS OTHERWISE NOTED HEREON OR PURSUANT TO CONDITIONS OF PERMIT APPROVALS WHERE APPLICABLE, THE CONTRACTOR SHALL OBTAIN CITY ROAD OCCUPANCY PERMIT A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
9. ALL TRENCHING SHALL BE IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT. TRENCH BEDDING SHALL BE PLACED/WORK IN ACCORDANCE WITH DIRECTIONS FROM THE GEOTECHNICAL ENGINEER. CONSTRUCTION OF SHORING, BRACING AND PROTECTION SCHEMES SHALL CONFORM TO OPSS 539 & 539.
10. ALL TRAFFIC CONTROL AND SIGNAGE SHALL BE IN ACCORDANCE WITH MTO'S "ONTARIO TRAFFIC MANUAL".

STORM AND SANITARY SEWER

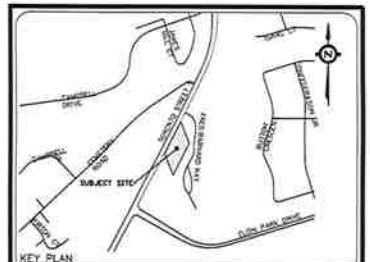
1. FOR CONSTRUCTION DETAILS NOT SHOWN ON PLANS, REFERENCE SHALL BE MADE TO REGION OF DURHAM STANDARDS AND SPECIFICATIONS, AND ONTARIO PROVINCIAL STANDARDS DRAWINGS AND SPECIFICATIONS.
2. ALL STORM MANHOLES SHALL BE AS PER OPSD 701.010 TO 701.014 (SIZE AS SHOWN) WITH FRAME AND COVER AS PER OPSD 401.010. ALL CATCHBASIN MANHOLES TO HAVE FRAME AND GRATE AS PER OPSD 400.020 UNLESS OTHERWISE SPECIFIED. SAFETY PLATFORMS TO BE INSTALLED IN ALL MANHOLES WHERE DEPTHS EXCEED 3.0m, THE MAXIMUM SPACING BETWEEN SAFETY GRATING SHALL NOT EXCEED 4.5m.
3. ALL STORM SEWERS UP TO 450mm DIA., INCLUDING CATCHBASIN LEADS, SHALL BE PVC SDR-35 SEWER PIPE AND SHALL BE IN COMPLIANCE WITH OPSS 1841, CSA B182.2, CSA B182.4. SEALING GASKETS MUST MEET THE REQUIREMENTS OF ASTM D3034 OR ASTM F1760, CSA B182.2 OR CSA B182.7. IN ADDITION, THE PIPE JOINTS MUST BE ABLE TO WITHSTAND A MINIMUM HYDROSTATIC PRESSURE OF 345 kPa WITHOUT LEAKAGE. INJECTION-MOULDED GASKETED PVC FITTING SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND ASTM F1336 AND SHALL BE DERIVED TO CSA B182.1 OR CSA B182.2. FABRICATED FITTINGS MUST CONFORM TO ASTM F1336 AND CSA B182.2.
4. ALL STORM SEWERS 525mm OR LARGER SHALL BE REINFORCED CONCRETE COMPLYING WITH WITH C.S.A. SPECIFICATION A257.2. STANDARD MINIMUM CLASS OF CONCRETE SEWER SHALL BE AS PER OPSD 807.010 AND 807.030. RIBED PIPE REQUIRES CONCRETE ENCASEMENT FOR THE FIRST PIPE LENGTH CONNECTING TO ANY APPURTENANCES. WHERE CONCRETE PIPE SMALLER THAN 525mm IS SPECIFIED CLASS SHALL BE 100-D.
5. PVC STORM SEWER BEDDING SHALL BE CLASS "B" BEDDING AS PER REGIONAL MUNICIPALITY OF DURHAM STANDARD S-200.010. CONCRETE STORM SEWER BEDDING SHALL BE OPSS GRANULAR 'A' AS PER OPSD 802.030 CLASS 'B'. ALL BEDDING AND COVER MATERIAL ARE TO BE COMPACTED TO MINIMUM 95% SPMDD WITH A MINIMUM 300mm SAND COVER OVER THE PIPE WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 98% SPMDD.
6. SINGLE AND DOUBLE CATCH BASINS TO BE PRECAST AS PER OPSD 705.010 AND OPSD 705.020, WITH FRAME AND GRATE AS PER OPSD 400.020.
7. CATCHBASIN LEADS TO HAVE MIN. COVER OF 1.5m BELOW FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
8. ALL SANITARY MANHOLES SHALL BE 1200mmØ AS PER OPSD 701.010 AND WATERTIGHT FRAME AND COVER AS PER OPSD 401.050.
9. ALL SANITARY SEWERS SHALL BE PVC SDR 28 SEWER PIPE FOR 150mm DIA. & PVC SDR 35 SEWER PIPE FOR 200mm DIA. AND SHALL BE IN COMPLIANCE WITH ASTM D3034 OR ASTM F1760 AND THIRD PARTY CERTIFIED TO CSA B182.2 OR CSA B182.7. SEALING GASKETS MUST MEET THE REQUIREMENTS OF ASTM D3034 OR ASTM F1760, CSA B182.2 OR CSA B182.7. IN ADDITION, THE PIPE JOINTS MUST BE ABLE TO WITHSTAND A MINIMUM HYDROSTATIC PRESSURE OF 345 kPa WITHOUT LEAKAGE. INJECTION-MOLDED GASKETED PVC FITTING SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND ASTM F1336 AND SHALL BE DERIVED TO CSA B182.1 OR CSA B182.2. FABRICATED FITTINGS MUST CONFORM TO ASTM F1336 AND CSA B182.2.
10. BEDDING FOR SANITARY SEWERS SHALL BE 19mm CRUSHER RUN LIMESTONE COMPACTED TO 98% PROCTOR DENSITY FROM 150mm BELOW INVERT TO SPRING LINE, WITH 300mm SAND COVER ABOVE COMPACTED TO 98% PROCTOR DENSITY AS PER REGION STANDARD S-200.010 (CLASS 'B'). WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 100% SPMDD.
11. ALL MANHOLE AND CATCHBASIN EXCAVATIONS TO BE BACKFILLED WITH OPSS 1010 GRANULAR "B"-TYPE 2 COMPACTED TO 98% SPMDD WITHIN 0.5m OF SUBGRADE ELEVATION. BACKFILL TO BE COMPACTED TO 100% SPMDD.
12. MANHOLES SHALL BE BENCHED ACCORDING TO OPSD 701.021. STORM MANHOLES SHALL BE BENCHED TO SPRING LINE UNLESS OTHERWISE SPECIFIED. CATCHBASIN TYPE MANHOLES TO BE PROVIDED WITH A MIN. 0.30m SUMP. SANITARY MANHOLES SHALL BE BENCHED TO CROWN.
13. "MODULEX" OR APPROVED PRE-CAST MANHOLE AND CATCH BASIN ADJUSTERS TO BE USED TO SET STRUCTURES TO FINAL GRADE. PARGE ADJUSTING UNITS ON THE OUTSIDE ONLY.
14. SERVICES TO BUILDINGS TO BE TERMINATED 1.5m FROM THE STREETLINE UNLESS OTHERWISE NOTED.
15. DROP STRUCTURES AS PER DURHAM REGION STANDARD DETAIL S-1100.08, TYPE 'B'.
16. VERTICAL AND HORIZONTAL LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
17. THE CONTRACTOR IS TO FLUSH AND PROVIDE CCTV CAMERA INSPECTIONS OF ALL SANITARY AND STORM SEWERS, INCLUDING PICTORIAL REPORT AND TWO (2) CD'S, TO COUNTERPOINT ENGINEERING PRIOR TO PLACEMENT OF ASPHALT AT PRELIMINARY ACCEPTANCE, AND AT FINAL ACCEPTANCE.
18. SANITARY SERVICE CONNECTIONS TO BE 100mmØ GREEN PVC, INSTALLED TO THE REGION OF DURHAM STANDARD DRAWING S-230.010.

WATER SERVICING NOTES

1. WATERMAINS AND APPURTENANCES SHALL BE AS PER REGION OF DURHAM STANDARDS AND SPECIFICATIONS.
2. WATERMAINS SHALL BE POLYVINYL CHLORIDE (PVC) CLASS 150, DR 18 CONFORMING TO AWWA C-900.
3. ALL PIPE FITTINGS SHALL BE CAST IRON, CEMENT LINED MECHANICAL JOINT, SHORT BODY CONFORMING TO AWWA C110 IRON FITTINGS OR AWWA C153 FOR DUCTILE IRON FITTINGS. FITTINGS SHALL BE SUPPLIED WITH MECHANICAL JOINT TYPE ENDS AWWA C111.
4. WATERMAIN BEDDING SHALL BE 19mm CRUSHER RUN LIMESTONE COMPACTED TO 98% PROCTOR DENSITY FROM 150mm BELOW INVERT TO SPRING LINE WITH 300mm SAND COVER ABOVE COMPACTED TO 98% PROCTOR DENSITY AS PER REGION STANDARD S-200.010 (CLASS 'B'). WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 100% SPMDD.
5. ALL BENDS, TEES, JOINTS, ETC., ARE TO BE RESTRAINED WITH THRUST BLOCKS AS PER OPSD 1103.010 & OPSD 1103.020.
6. TRACER WIRE SHALL BE INSTALLED ON ALL PVC WATERMAIN AS PER REGION STANDARD DRAWING S-201.030. TRACER WIRE SHALL BE No. 12 GAUGE (CANADIAN WIRE STRANDED T.W.V., 75C 600V OR APPROVED EQUIVALENT).
7. ANODES FOR METAL FITTING TO BE 3.4 Kg. ZINC AS PER REGION SPECIFICATIONS. CATHODIC PROTECTION FOR WATERMAINS TO BE PER REGION STANDARD DRAWING S-201.030. CATHODIC PROTECTION SHALL BE PROVIDED ON ALL BURIED METAL PIPES AND FITTINGS.
8. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 1.8m FROM PROPOSED GRADES WITH A MINIMUM HORIZONTAL SPACING OF 2.5m HORIZ. FROM STORM AND SANITARY SEWERS AND 2.0m HORIZ FROM GAS MAINS AND OTHER WIRE CONDUITS. IN PRE-GRADE OR EXISTING UNDEVELOPED AREAS COVER SHALL BE FROM PRE-GRADE EXISTING ELEVATIONS.
9. WATERMAIN SEPERATION AS PER MOE REQUIREMENTS CONTAINED IN MOE DOCUMENT PROCEDURE F-6-1. PROCEDURES TO GOVERN THE SEPERATION OF SEWERS AND WATERMAINS UNDER NORMAL CONDITIONS. WATERMAINS SHOULD BE LAID WITH AT LEAST 2.5 METERS HORIZONTAL SEPERATION FROM ANY SEWER OR SEWER MANHOLE. THE DISTANCE SHALL BE MEASURED FROM THE NEAREST EDGES. UNDER NORMAL CONDITIONS, WATERMAINS SHALL CROSS ABOVE SEWERS WITH SUFFICIENT VERTICAL SEPERATION TO ALLOW FOR PROPER BEDDING AND STRUCTURAL SUPPORT OF THE WATERMAIN AND SEWER MAIN. WHEN IT IS NOT POSSIBLE FOR THE WATERMAIN TO CROSS ABOVE THE SEWER, THE WATERMAIN PASSING UNDER A SEWER SHALL BE PROTECTED BY PROVIDING:
   - A VERTICAL SEPERATION OF AT LEAST 0.5 METRES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATERMAIN.
   - ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
   - THAT THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.
10. ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING SYSTEMS IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING IN ACCORDANCE WITH THE REGION OF DURHAM REQUIREMENTS.
11. ALL WATERMAINS AND FIREMAINS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH ALL LOCAL MUNICIPAL AND PROVINCIAL REQUIREMENTS. DISPOSAL OF CHLORINATED WATER TO BE IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
12. WATER SERVICE CONNECTIONS TO BE 19mmØ TYPE "K" COPPER, INCLUDING CURB STOPS AND VALVE BOXES LOCATED AT THE PROPERTY LINE PER REGION STANDARD S-230.020.

CONFORMANCE REQUIREMENTS

1. THE FOLLOWING ITEMS ARE TO BE PROVIDED TO COUNTERPOINT NO LESS THAN 10 WORKING DAYS PRIOR TO THE REQUEST FOR A LETTER OF GENERAL CONFORMANCE/FINAL CERTIFICATION. THE DOCUMENTS MUST INDICATE THAT THE SITE HAS BEEN CONSTRUCTED IN GENERAL CONFORMANCE WITH THE APPROVED DESIGN;
   - AS-CONSTRUCTED TOPOGRAPHIC/UNDERGROUND SURVEY COMPLETED BY A REGISTERED LAND SURVEYOR #'S PER THE SPECIFICATIONS OUTLINED WITHIN THE CONTRACT DOCUMENT,
   - GEOTECHNICAL ENGINEER CERTIFICATION LETTER, WHICH INCLUDES SUB-GRADE COMPACTION RESULTS (SEQUOIA AND BACKFILL COMPACTION AND MATERIAL ACCEPTANCE, GRANULAR, ASPHALT, SITE CONCRETE MATERIAL ACCEPTANCE AND COMPACTION RESULTS);
   - CCTV INSPECTION OF FLUSHED STORM AND SANITARY PIPES AND STRUCTURES;
   - AIR/MANDREL TEST RESULTS FOR SANITARY SEWER (IF REQUIRED);
   - WATERMAIN PRESSURE, CHLORINATION AND BACTERIAL TEST RESULTS AND MUNICIPAL APPROVAL IF AVAILABLE.
2. SHOULD THE SUBMITTED MATERIALS INDICATE NON-CONFORMANCE OR DEFICIENCIES, THEY MUST BE ADDRESSED TO COUNTERPOINT'S SATISFACTION WITH AN UPDATED SUBMITTAL PRIOR TO ISSUANCE OF A LETTER OF GENERAL CONFORMANCE/FINAL CERTIFICATION.
3. COUNTERPOINT MUST ALSO COMPLETE ALL NECESSARY SITE INSPECTIONS AS OUTLINED IN THE APPROVED SERVICE PROGRAM, WITH ALL DEFICIENCIES ADDRESSED TO COUNTERPOINT'S SATISFACTION.



LEGEND

- EXISTING HYDRANT
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- PROPOSED STORM SEWER AND MH
- PROPOSED SANITARY SEWER AND MH
- H&V — PROPOSED HYDRANT AND VALVE
- V&B — PROPOSED VALVE AND BOX
- PROPOSED WATERMAIN
- PROPERTY LINE

RECEIVED
JUL 13 2022
TOWNSHIP OF UXBRIDGE
DEVELOPMENT SERVICES

PROVIDED BY: BARICH CRENEKE
297 HWY No. 8 (UNIT 101)
STONEY CREEK, ON, L8G 1E5
PHONE:(905) 662-6767

BENCHMARK AND ELEVATION

ELEVATIONS SHOWN ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928: 1978) AND ARE DERIVED FROM THE TOWNSHIP OF UXBRIDGE BENCHMARK No. 201921UXB75, HAVING AN ELEVATION OF 272.439 METERS.
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17 (81°00' WEST LONGITUDE) NAD83 (CSRS) (2010.0).
ORP 1 — NORTHING (4854411.823), EASTING (648873.685).

No.	REVISIONS/ISSUES	DATE	BY	CHK
1	ISSUED FOR 1ST SUBMISSION	2022/06/16	CT	

counterpoint ENGINEERING
COUNTERPOINT ENGINEERING INC.
8395 Jane St., Suite 205 Vaughan ON L4K 5Y2 Phone 905 326-1451 Fax 905 326-1455

ENGINEER'S STAMP

APPLICANT:
MANSOUR ARAB/MAN HOLDINGS LTD
174 DINNICK CRESCENT
TORONTO, ONTARIO
M4N 1M3

SITE LOCATION:
181 TORONTO STREET SOUTH
UXBRIDGE, ONTARIO

SITE PLAN FILE No.:

SERVICING PLAN

DESIGNED BY:	CHECKED BY:	DATE: APRIL 2021	
DRAWN BY:	CHECKED BY:	PROJECT No.	21026
CAD FILE:	CHECKED BY:	DRAWING No.	C-2
SCALE: 1:200m (0m, 4m, 8m, 12m)			

REGION FILE No.: