

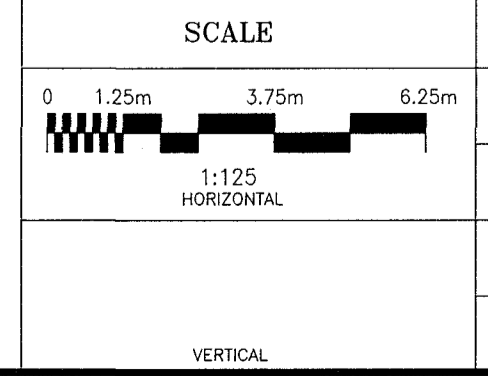
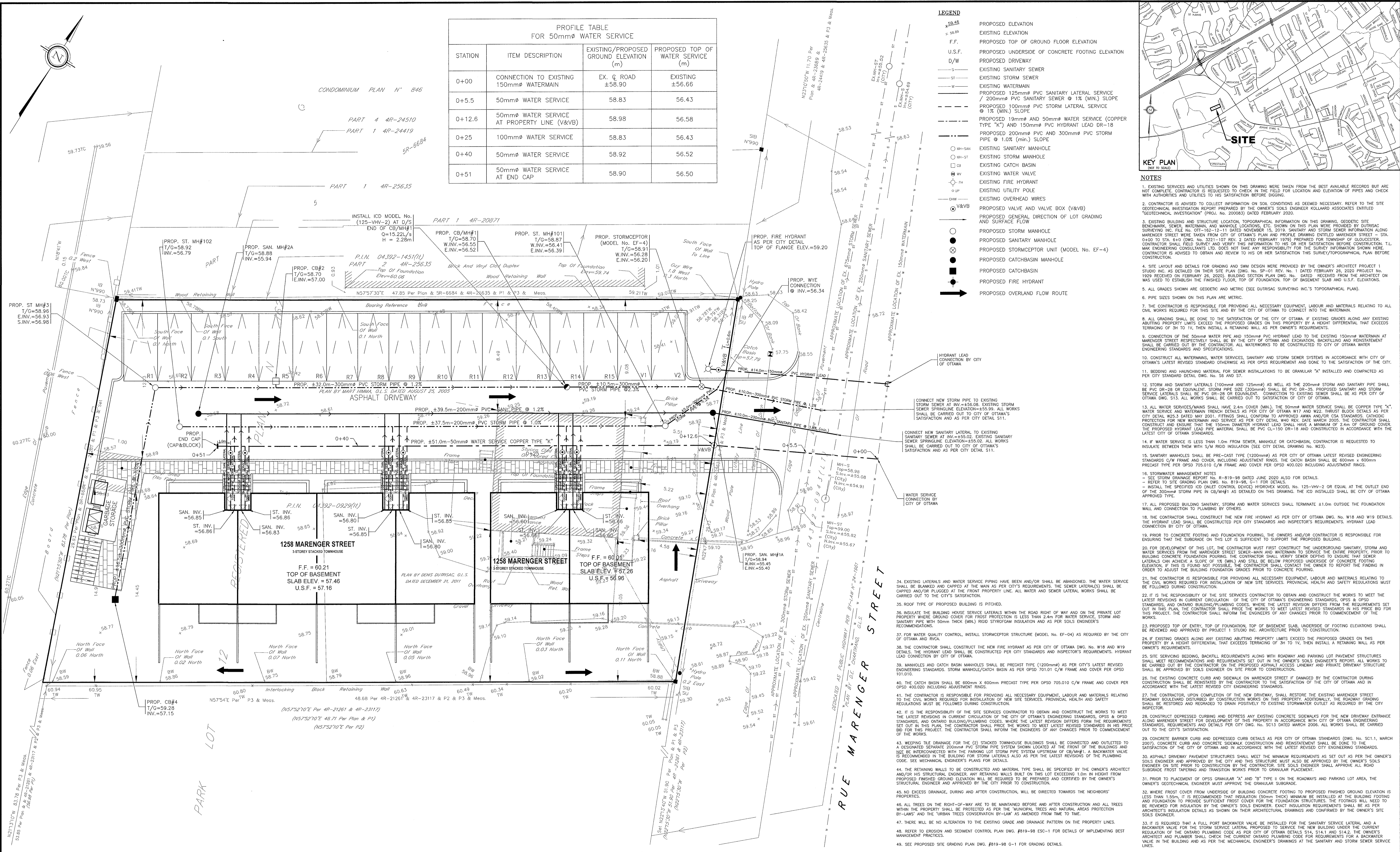
PROFILE TABLE FOR 50mm ϕ WATER SERVICE			
STATION	ITEM DESCRIPTION	EXISTING/PROPOSED GROUND ELEVATION (m)	PROPOSED TOP OF WATER SERVICE (m)
0+00	CONNECTION TO EXISTING 150mm ϕ WATERMAIN	EX. ϕ ROAD ± 58.90	EXISTING ± 56.66
0+5.55	50mm ϕ WATER SERVICE	58.83	56.43
0+12.6	50mm ϕ WATER SERVICE AT PROPERTY LINE (V&VB)	58.98	56.58
0+25	100mm ϕ WATER SERVICE	58.83	56.43
0+40	50mm ϕ WATER SERVICE	58.92	56.52
0+51	50mm ϕ WATER SERVICE AT END CAP	58.90	56.50

LEGEND

- 58.85 PROPOSED ELEVATION
- 58.89 EXISTING ELEVATION
- F.F. PROPOSED TOP OF GROUND FLOOR ELEVATION
- U.S.F. PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
- D/W PROPOSED DRIVEWAY
- ST EXISTING SANITARY SEWER
- ST EXISTING STORM SEWER
- W EXISTING WATERMAIN
- PROPOSED 125mm ϕ PVC SANITARY LATERAL SERVICE / 200mm ϕ PVC SANITARY SEWER @ 1% (MIN.) SLOPE
- PROPOSED 100mm ϕ PVC STORM LATERAL SERVICE @ 1% (MIN.) SLOPE
- PROPOSED 19mm ϕ AND 50mm ϕ WATER SERVICE (COPPER TYPE "K") AND 150mm ϕ PVC HYDRANT LEAD DR-18
- PROPOSED 200mm ϕ PVC AND 300mm ϕ PVC STORM PIPE @ 1.0% (MIN.) SLOPE
- OH-SAN EXISTING SANITARY MANHOLE
- OH-ST EXISTING STORM MANHOLE
- OB EXISTING CATCH BASIN
- WV EXISTING WATER VALVE
- FP EXISTING FIRE HYDRANT
- UP EXISTING UTILITY POLE
- OWH EXISTING OVERHEAD WIRES
- V&VB PROPOSED VALVE AND VALVE BOX (V&VB)
- PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE FLOW
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED STORMCEPTOR UNIT (MODEL No. EF-4)
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED FIRE HYDRANT
- PROPOSED OVERLAND FLOW ROUTE

NOTES

1. EXISTING SERVICES AND UTILITIES SHOWN ON THIS DRAWING WERE TAKEN FROM THE BEST AVAILABLE RECORDS BUT ARE NOT COMPLETE. CONTRACTOR IS REQUESTED TO CHECK IN THE FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH AUTHORITIES AND UTILITIES TO HIS SATISFACTION BEFORE DIGGING.
2. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY. REFER TO THE SITE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY THE OWNER'S SOILS ENGINEER KOLLAR ASSOCIATES ENTITLED "GEOTECHNICAL INVESTIGATION (PROJ. No. 2008-01) DATED FEBRUARY 2008."
3. EXISTING BUILDING AND STRUCTURE LOCATION, TOPOGRAPHICAL INFORMATION ON THIS DRAWING, GEODETIC SITE BENCHMARK, SEWER, WATERMAIN, AND MANHOLE LOCATIONS, ETC. SHOWN ON THIS PLAN WERE PROVIDED BY DUTRISAC SURVEYING INC. FILE No. OTT-152-12-11 2019 SANITARY AND STORM SEWER INFORMATION ALONG MARENGER STREET WERE TAKEN FROM CITY OF OTTAWA'S PLAN AND PROFILE DRAWING ENTITLED "MARENGER STREET - STA. 0+00 TO STA. 6+10 (D.W. No. 2221-01-REV. 2 DATED FEBRUARY 1978) PREPARED FOR TOWNSHIP OF SAUSSETTE. CONTRACTOR SHALL FIELD SURVEY AND VERIFY THIS INFORMATION TO HIS OR HER SATISFACTION BEFORE CONSTRUCTION. T.L.M. ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HEREON UNLESS ADVISED TO OBTAIN AND REVIEW TO HIS OR HER SATISFACTION THIS SURVEY/TOPOGRAPHICAL PLAN BEFORE CONSTRUCTION.
4. SITE LAYOUT AND DETAILS FOR GRADING AND SWM DESIGN WERE PROVIDED BY THE OWNER'S ARCHITECT PROJECT 1 STUDIO INC. AS DETAILED ON THEIR SITE PLAN (DWG. No. SP-01 REV. No. 1 DATED FEBRUARY 26, 2020) PROJECT No. 1924 RECEIVED ON FEBRUARY 26, 2020. BUILDING SECTION PLAN DWG. No. 1001 RECEIVED FROM THE ARCHITECT ON MARCH 10, 2020. CONTRACTOR SHALL VERIFY THIS INFORMATION TO HIS OR HER SATISFACTION BEFORE CONSTRUCTION. T.L.M. ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HEREON UNLESS ADVISED TO OBTAIN AND REVIEW TO HIS OR HER SATISFACTION THIS SURVEY/TOPOGRAPHICAL PLAN BEFORE CONSTRUCTION.
5. ALL GRADES SHOWN ARE GEODETIC AND METRIC (SEE DUTRISAC SURVEYING INC.'S TOPOGRAPHICAL PLAN).
6. PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO ALL CIVIL WORKS REQUIRED FOR THIS SITE AND BY THE CITY OF OTTAWA TO CONNECT INTO THE WATERMAIN.
8. ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA. IF EXISTING GRADES ALONG ANY EXISTING ADJUTING PROPERTY LINES EXCEED THE PROPOSED GRACES ON THIS PROPERTY BY A HEIGHT DIFFERENTIAL THAT EXCEEDS TERRACING OF 3H TO 1V, THEN INSTALL A RETAINING WALL AS PER OWNER'S REQUIREMENTS.
9. CONNECTION OF THE 50mm ϕ WATER PIPE AND 150mm ϕ PVC HYDRANT LEAD TO THE EXISTING 150mm ϕ WATERMAIN AT MARENGER STREET RESPECTIVELY SHALL BE BY THE CITY OF OTTAWA AND EXCAVATION, BACKFILLING AND REINSTATEMENT SHALL BE CARRIED OUT BY THE CONTRACTOR. ALL WATERWORKS TO BE CONSTRUCTED TO CITY OF OTTAWA WATER ENGINEERING STANDARDS AND SPECIFICATIONS.
10. CONSTRUCT ALL WATERMANS, WATER SERVICES, SANITARY AND STORM SEWER SYSTEMS IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARDS OTHERWISE AS PER OPS 67000 INCLUDING ADJUSTMENT RINGS.
11. BEDDING AND HAUNCHING MATERIAL FOR SEWER INSTALLATIONS TO BE GRANULAR "A" INSTALLED AND COMPACTED AS PER CITY STANDARD DETAIL DWG. No. 56 AND 57.
12. STORM AND SANITARY LATERALS (100mm ϕ AND 125mm ϕ) AS WELL AS THE 200mm ϕ STORM AND SANITARY PIPE SHALL BE PVC DR-28 OR EQUIVALENT. STORM PIPE SIZE (300mm ϕ) SHALL BE PVC DR-35. PROPOSED SANITARY AND STORM SERVICE LATERALS SHALL BE PVC DR-28 OR EQUIVALENT. CONNECTION TO EXISTING SEWER SHALL BE AS PER CITY OF OTTAWA DWG. S13. ALL WORKS SHALL BE CARRIED OUT TO SATISFACTION OF CITY OF OTTAWA.
13. ALL WATER SERVICES/MANS SHALL HAVE 2.4m COVER (MIN.). THE 50mm ϕ WATER SERVICE SHALL BE COPPER TYPE "K". WATER SERVICES FROM THE WATERMAIN AND WATERMAIN TO SEWER SHALL BE COPPER TYPE "K". ALL WORKS SHALL BE CARRIED OUT TO SATISFACTION OF CITY OF OTTAWA DWG. W23.3 DATED MAY 2001. FITTINGS SHALL CONFORM TO APPROVED AWWA AND/OR CSA STANDARDS. CATHODIC PROTECTION FOR NEW WATERMAIN AND SERVICE AS PER CITY DETAIL W40 REV. DATE MARCH 2005. THE CONTRACTOR SHALL CONSTRUCT AND ENSURE THAT THE 50mm ϕ WATERMAIN HYDRANT LEAD SHALL HAVE A MINIMUM CLEARANCE OF 2.4m OF GROUND COVER. THE PROPOSED HYDRANT LEAD PIPE MATERIAL SHALL BE PVC CL-150 DR-18 AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF OTTAWA STANDARDS.
14. IF WATER SERVICE IS LESS THAN 1.0m FROM SEWER, MANHOLE OR CATCHBASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH 5/8" RIGID INSULATION (SEE CITY DETAIL DRAWING No. W23).
15. SANITARY MANHOLES SHALL BE PRE-CAST TYPE (1200mm ϕ) AS PER CITY OF OTTAWA LATEST REVISED ENGINEERING STANDARDS C/W FRAME AND COVER, INCLUDING ADJUSTMENT RINGS. THE CATCH BASIN SHALL BE 600mm x 600mm PRECAST TYPE PER OPS 705.010 C/W FRAME AND COVER PER OPS 400.020 INCLUDING ADJUSTMENT RINGS.
16. STORMWATER MANAGEMENT NOTES - SEE STORM DRAINAGE REPORT No. R-819-98 DATED JUNE 2020 ALSO FOR DETAILS. - REFER TO THE DRAINAGE PLAN DWG. No. R19-98-01 FOR DETAILS. - INSTALL THE SPECIFIED KID (NET CONTROL DEVICE) HYDROEX MODEL No. 125-VHV-2 OR EQUAL AT THE OUTLET END OF THE 300mm ϕ STORM PIPE IN CB/MH#1 AS DETAILED ON THIS DRAWING. THE KID INSTALLED SHALL BE CITY OF OTTAWA APPROVED TYPE.
17. ALL PROPOSED BUILDING SANITARY, STORM AND WATER SERVICES SHALL TERMINATE 1.0m OUTSIDE THE FOUNDATION WALL AND CONNECTION TO PLUMBING BY OTHERS.
18. THE CONTRACTOR SHALL CONSTRUCT THE NEW FIRE HYDRANT AS PER CITY OF OTTAWA DWG. No. W18 AND W19 DETAILS. THE HYDRANT LEAD SHALL BE CONSTRUCTED PER CITY STANDARDS AND INSPECTOR'S REQUIREMENTS. HYDRANT LEAD CONNECTION BY CITY OF OTTAWA.
19. PRIOR TO CONCRETE FOOTING AND FOUNDATION POURING, THE OWNERS AND/OR CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SUBGRADE ON THIS LOT IS SUFFICIENT TO SUPPORT THE PROPOSED BUILDING.
20. FOR DEVELOPMENT OF THIS LOT, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY, STORM AND WATER SERVICES FROM THE WATERMAIN AND WATERMAIN TO SEWER. THE ENTIRE PROJECT PRIOR TO BUILDING CONCRETE FOUNDATION POURING. THE CONTRACTOR SHALL VERIFY SEWER DEPTHS TO ENSURE THAT SEWER LATERALS CAN ACHIEVE A SLOPE OF 1% (MIN.) AND STILL BE BELOW PROPOSED UNDERSIDE OF CONCRETE FOOTING. ELEVATION OF THIS IS FOUND NOT TO BE SUFFICIENT. CONTRACTOR SHALL CONTACT THE OWNER TO REPORT THE FINDING IN ORDER TO ADJUST THE BUILDING FOUNDATION STRUCTURE PRIOR TO CONCRETE POURING.
21. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO THE CIVIL WORKS REQUIRED FOR INSTALLATION OF NEW SITE SERVICES. PROFESSIONAL HEALTH AND SAFETY REGULATIONS MUST BE FOLLOWED DURING CONSTRUCTION.
22. IT IS THE RESPONSIBILITY OF THE SITE SERVICES CONTRACTOR TO OBTAIN AND CONSTRUCT THE WORKS TO MEET THE LATEST REVISIONS IN CURRENT CIRCULATION OF THE CITY OF OTTAWA'S ENGINEERING STANDARDS, OPS & OPS STANDARDS, AND ONTARIO BUILDING/PLUMBING CODES, WHERE THE LATEST REVISION DIFFERS FROM THE REQUIREMENTS SET OUT IN THIS PLAN, THE CONTRACTOR SHALL PRICE THE WORKS TO MEET LATEST REVISED STANDARDS IN HIS PRICE BID FOR THIS PROJECT. THE CONTRACTOR SHALL INFORM THE ENGINEERS OF ANY CHANGES PRIOR TO COMMENCEMENT OF THE WORKS.
23. PROPOSED TOP OF ENTRY, TOP OF FOUNDATION, TOP OF BASEMENT SLAB, UNDERSIDE OF FOOTING ELEVATIONS SHALL BE REVIEWED AND APPROVED BY PROJECT 1 STUDIO INC. ARCHITECTURE PRIOR TO CONSTRUCTION.
24. IF EXISTING GRADES ALONG ANY EXISTING ADJUTING PROPERTY LINES EXCEED THE PROPOSED GRACES ON THIS PROPERTY BY A HEIGHT DIFFERENTIAL THAT EXCEEDS TERRACING OF 3H TO 1V, THEN INSTALL A RETAINING WALL AS PER OWNER'S REQUIREMENTS.
25. SITE SERVING BEDDING, BACKFILL REQUIREMENTS ALONG WITH ROADWAY AND PARKING LOT PAVEMENT STRUCTURES SHALL MEET RECOMMENDATIONS AND REQUIREMENTS SET OUT IN THE OWNER'S SOILS ENGINEER'S REPORT. ALL WORKS TO BE CARRIED OUT BY THE CONTRACTOR ON THE PROPOSED ASPHALT ACCESS LANEWAY AND PRIVATE DRIVEWAY STRUCTURE SHALL BE APPROVED BY SOILS ENGINEER ON SITE PRIOR TO CONSTRUCTION.
26. THE EXISTING CONCRETE CURB AND SIDEWALK ON MARENGER STREET IF DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REINSTATE BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
27. THE CONTRACTOR, UPON COMPLETION OF THE NEW DRIVEWAY, SHALL RESTORE THE EXISTING MARENGER STREET ROADWAY SUBGRADE DISTURBED BY CONSTRUCTION WORKS ON THIS PROPERTY. ADDITIONALLY, THE ROADWAY GRADING SHALL BE RESTORED AND REGRADED TO MATCH POSITIVELY TO EXISTING STORMWATER OUTLET AS REQUIRED BY THE CITY INSPECTOR.
28. CONSTRUCT DEPRESSED CURBING AND DEPRESS ANY EXISTING CONCRETE SIDEWALKS FOR THE NEW DRIVEWAY ENTRANCE ALONG MARENGER STREET FOR DEVELOPMENT OF THIS PROPERTY IN ACCORDANCE WITH ALL CITY OF OTTAWA ENGINEERING STANDARDS, REQUIREMENTS AND DETAILS PER CITY DWG. No. SC13 DATED MARCH 2006. ALL WORKS SHALL BE CARRIED OUT TO THE CITY'S SATISFACTION.
29. CONCRETE BARRIER CURB AND DEPRESSED CURB DETAILS AS PER CITY OF OTTAWA STANDARDS DWG. No. SC11.1, MARCH 2007. CONCRETE CURB AND CONCRETE SIDEWALK CONSTRUCTION AND REINSTATEMENT SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
30. ASPHALT DRIVEWAY PAVEMENT STRUCTURES SHALL MEET THE MINIMUM REQUIREMENTS AS SET OUT AS PER THE OWNER'S SOILS ENGINEER AND APPROVED BY THE CITY AND THIS STRUCTURE MUST ALSO BE APPROVED BY THE OWNER'S SOILS ENGINEER ON SITE PRIOR TO CONSTRUCTION BY THE CONTRACTOR. SITE SOILS ENGINEER SHALL APPROVE ALL ROAD SUBGRADE FROST TOLERANCE AND TRANSITION WORKS PRIOR TO GRANULAR PLACEMENT.
31. PRIOR TO PLACEMENT OF OPS GRANULAR "A" AND "B" TYPE II ON THE ROADWAYS AND PARKING LOT AREA, THE OWNER'S GEOTECHNICAL ENGINEER MUST APPROVE THE GRANULAR SUBGRADE.
32. WHERE FROST COVER FROM UNDERSIDE OF BUILDING CONCRETE FOOTING TO PROPOSED FINISHED GROUND ELEVATION IS LESS THAN 1.50m, IT IS RECOMMENDED THAT INSULATION (50mm THICK) MINIMUM BE INSTALLED AT THE BUILDING FOOTING AND FOUNDATION TO PROVIDE SUFFICIENT FROST COVER FOR THE FOUNDATION STRUCTURES. THE FOOTINGS WILL NEED TO BE REVIEWED FOR INSULATION BY THE OWNER'S SOILS ENGINEER. EXACT INSULATION REQUIREMENTS SHALL BE AS PER ARCHITECT'S INSULATION DETAILS AS SHOWN ON THEIR ARCHITECTURAL DRAWINGS AND CONFIRMED BY THE OWNER'S SITE SOILS ENGINEER.
33. IT IS REQUIRED THAT A FULL PORT BACKWATER VALVE BE INSTALLED FOR THE SANITARY SEWER LATERAL AND A BACKWATER VALVE FOR THE STORM SEWER LATERAL PROPOSED TO SERVICE THE NEW BUILDING UNDER THE CURRENT REGULATION OF THE ONTARIO PLUMBING CODE AS PER CITY OF OTTAWA DETAILS S14, S14.1 AND S14.2. THE OWNER'S ARCHITECT AND PLUMBER SHALL CHECK THE CURRENT ONTARIO PLUMBING CODE FOR REQUIREMENTS FOR A BACKWATER VALVE IN THE BUILDING AND AS PER THE MECHANICAL ENGINEER'S DRAWINGS AT THE SANITARY AND STORM SEWER SERVICE LINES.



DESIGN	T.L.M.
CHECKED	T.L.M.
DRAWN BY	P.M.
CHECKED	T.L.M.
APPROVED	T.L.M.

1258 MARENGER STREET PART OF PARK LOT 12 REGISTERED PLAN 162 CITY OF OTTAWA

T.L. MAK ENGINEERING CONSULTANTS LTD. CONSULTING ENGINEERS

PROJECT No. 819-98 DATE MARCH 2020 DRAWING No. S-1

NO.	REVISION	DATE	BY
1	STORM SEWER DESIGN AND PROPOSED BUILDING ELEVATION REVISIONS	07/09/20	TLM

