



- LEGEND**
- PROPOSED ELEVATION
  - EXISTING ELEVATION
  - PROPOSED TOP OF FIRST FLOOR ELEVATION
  - PROPOSED TOP OF CONCRETE FOUNDATION ELEVATION
  - PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
  - PROPOSED DRIVEWAY
  - EXISTING SANITARY SEWER
  - EXISTING STORM SEWER
  - EXISTING WATERMAIN
  - PROPOSED 150mm PVC SANITARY LATERAL SERVICE @ 1% (MIN.) SLOPE
  - PROPOSED 125mm AND 150mm PVC STORM LATERAL SERVICE @ 1% (MIN.)
  - PROPOSED 38mm WATER SERVICE (COPPER TYPE "K")
  - EXISTING SANITARY MANHOLE
  - EXISTING STORM MANHOLE
  - EXISTING CATCH BASIN
  - EXISTING UTILITY POLE
  - EXISTING HYDRO POLE
  - EXISTING OVERHEAD HYDRO WIRES
  - EXISTING UTILITY WIRES
  - PROPOSED V&B
  - PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE FLOW
  - PROPOSED TERRACING 3:1 (MAX.) TO 1 V
  - PROPOSED RIGID STYROFOAM INSULATION 50mm THICK (MIN.)
  - PROPOSED WASTEWATER SAMPLING/INSPECTION CHAMBER PER CITY DETAIL S18.1
  - PROPOSED SANITARY HOLDING TANK(S) C/W DUPLEX PUMPS (SEE MECHANICAL ENGINEER'S DRAWINGS)
  - PROPOSED WEeping TILE SUMP PIT LOCATION C/W SUMP PUMPS (SEE MECHANICAL ENGINEER'S DRAWINGS)
  - PROPOSED HIGH RIDGE LINE
  - PROPOSED ROOF SCUPPER LOCATION
  - PROPOSED FLOOR DRAIN AS PER ARCHITECTURAL/MECHANICAL DRAWING

- NOTES**
- 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.
  - 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.
  - SITING DETAILS FOR THE PROPOSED BUILDING WERE TAKEN FROM THE OWNER'S ARCHITECT'S (ROBERTSON MARTIN ARCHITECTS) SITE/LANDSCAPE PLAN (DWG. No. A-01 REV. 02 DATED MARCH 2017 PROJECT No. 15200) RECEIVED ON APRIL 18, 2019. FOR DETAILS OF TOP OF MAIN LEVEL SUBFLOOR (F.F.), TOP OF FLOOR (T.O.F.), TOP OF BASEMENT SLAB ELEVATION AND UNDERSIDE OF FOOTING (U.S.F.) INFORMATION FOR THE VARIOUS ELEVATION LEVELS OF THE NEW BUILDING, REFER TO ROBERTSON MARTIN ARCHITECTS' ELEVATION PLAN (PROJECT No. 15200 DWG. No. A-04 DATED MARCH 2017).
  - EXISTING BUILDING AND STRUCTURE LOCATION, TOPOGRAPHICAL INFORMATION ON THIS DRAWING, GEODETIC SITE BENCHMARK, SEWER INVERT AND LOCATION ETC. SHOWN ON THIS PLAN WERE PROVIDED BY J.D. BARNES LIMITED (REFERENCE No. 15-10-861-00 COMPLETED OCTOBER 19, 2015 AND DATED OCTOBER 20, 2015). T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE. THE CONTRACTOR IS ADVISED TO OBTAIN AND REVIEW TO HIS SATISFACTION THIS SURVEY/TOPOGRAPHICAL PLAN PRIOR TO CONSTRUCTION. STORM AND SANITARY INVERT INFORMATION IS ALSO AVAILABLE FROM CITY OF OTTAWA PLAN AND PROFILE DRAWING CARRUTHERS AVENUE PLAN No. 2825 SHEET 4 OF 8 (CONTRACT No. 95C2825).
  - ALL GRADES SHOWN ARE GEODETIC AND METRIC (J.D. BARNES LIMITED'S TOPOGRAPHICAL PLAN).
  - PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
  - 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.
  - ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA.
  - CONNECTION OF THE PROPOSED 38mm WATER SERVICE TO THE EXISTING 300mm WATERMAIN SHALL BE BY THE CITY OF OTTAWA AND EXCAVATION, BACKFILLING AND REINSTATE SHALL BE CARRIED OUT BY THE CONTRACTOR. ALL WATERWORKS TO BE CONSTRUCTED TO CITY OF OTTAWA WATER ENGINEERING STANDARDS AND SPECIFICATIONS.
  - CONSTRUCT ALL WATERMAINS, WATER SERVICES, SANITARY AND STORM SEWER SYSTEMS IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARD OTHERWISE AS PER OPSS REQUIREMENT AND DONE TO THE SATISFACTION OF THE CITY.
  - BEDDING AND HAUNCHING MATERIAL FOR SEWER INSTALLATIONS TO BE GRANULAR "A" INSTALLED AND COMPACTED AS PER CITY STANDARD DETAIL DWG. No. S6 AND S7.
  - STORM AND SANITARY LATERALS (125mm AND 150mm) SHALL BE PVC DR-28 OR EQUIVALENT.
  - ALL WATER SERVICES/MAINS SHALL HAVE 2.4m COVER (MIN.). THE 38mm WATER SERVICE SHALL BE COPPER TYPE "K". WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY OF OTTAWA WITH THURST BLOCK DETAILS AS PER CITY DETAIL W25.3 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.
  - IF WATER SERVICE IS LESS THAN 2.4m FROM SEWER, MANHOLE OR CATCH BASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH S/W RIGID INSULATION (SEE CITY DETAIL DRAWING No. W23).
  - STORMWATER MANAGEMENT NOTES
    - REFER TO PROPOSED ROOFTOP STORMWATER MANAGEMENT PLAN (DWG. No. B16-86 SWM-1) FOR ROOFTOP 5 YEAR AND 100 YEAR HWL.
    - SEE STORM DRAINAGE REPORT No. R-816-86 DATED SEPTEMBER 2018 ALSO FOR DETAILS.
    - CONTROLLED ROOF DRAIN FLOW RATE SHALL BE 1.26L/S OR 20 U.S. GAL/MIN.
  - ALL PROPOSED BUILDING SANITARY, STORM AND WATER SERVICES SHALL TERMINATE ± 1.0m OUTSIDE THE FOUNDATION WALL AND CONNECTION TO PLUMBING BY OTHERS.
  - THE RETAINING WALL TO BE CONSTRUCTED AND MATERIAL TYPE SHALL BE SPECIFIED BY THE OWNER'S ARCHITECT AND/OR HIS STRUCTURAL ENGINEER. ANY RETAINING WALLS EXCEEDING 1.0m IN HEIGHT FROM PROPOSED FINISHED GROUND ELEVATION WILL BE REQUIRED TO BE PREPARED AND CERTIFIED BY THE OWNER'S STRUCTURAL ENGINEER AND APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
  - 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.
  - FOR DEVELOPMENT OF THIS LOT, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY, STORM AND WATER SERVICES FROM THE SEWER AND WATERMAIN TO SERVICE THE ENTIRE PROPERTY, PRIOR TO BUILDING CONCRETE FOUNDATION POURING. THE CONTRACTOR SHALL VERIFY SEWER DEPTHS TO ENSURE THAT SEWER LATERAL CAN ACHIEVE A SLOPE OF 1% (MIN.) AND STILL BE BELOW PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION, IF THIS IS FOUND NOT POSSIBLE, THE CONTRACTOR SHALL CONTACT THE OWNER TO REPORT THE FINDING IN ORDER TO ADJUST THE BUILDING FOUNDATION GRADES PRIOR TO CONCRETE POURING.
  - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO ALL CIVIL WORKS REQUIRED FOR INSTALLATION OF NEW SITE SERVICES. PROVINCIAL HEALTH AND SAFETY REGULATIONS MUST BE FOLLOWED DURING CONSTRUCTION.
  - 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, OPSS & OPSD STANDARDS, AND OTTAWA BUILDING/PLUMBING CODES. WHERE THE LATEST REVISION DIFFERS FROM THE REQUIREMENTS SET OUT IN THIS PLAN, THE CONTRACTOR SHALL PRICE THE WORKS TO MEET THE 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.
  - PROPOSED TOP OF MAIN LEVEL SUBFLOOR, TOP OF FOUNDATION, TOP OF BASEMENT SLAB AND UNDERSIDE OF FOOTING ELEVATIONS SHALL BE REVIEWED AND APPROVED BY THE OWNERS AND ROBERTSON MARTIN ARCHITECTS PRIOR TO CONSTRUCTION.
  - IF EXISTING GRADES ALONG ANY EXISTING ADJUTING PROPERTY LIMITS EXCEED PROPOSED GRADES ON THIS PROPERTY BY A HEIGHT DIFFERENTIAL THAT EXCEEDS TERRACING OF 3H TO 1V, THEN INSTALL A RETAINING WALL AS PER OWNER'S REQUIREMENTS.
  - CONCRETE BARRIER CURB AND DEPRESSED CURB DETAILS AS PER CITY OF OTTAWA STANDARDS (DWG. No. SC1.1 AND SC1.4, MARCH 2007 AND SOB, MAY 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.
  - CONCRETE SIDEWALK, DEPRESSED CURB AND DEPRESSED CONCRETE SIDEWALK DETAILS AS PER CITY OF OTTAWA STANDARDS (DWG. No. SC1 AND SC1.4 REV. DATE MARCH 2007, SC4 REV. DATE MARCH 2007 AND SC7.1 REV. DATE 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.

3 CITY OF OTTAWA FILE NUMBER AND PLAN NUMBER ADDED TO THE DRAWING		08/22/19	TLM
2 REVISIONS AS REVISED SITE PLAN RECEIVED ON APRIL 18/19 AND CITY REVIEW COMMENTS		05/07/19	TLM
1 REVISIONS AS PER ARCHITECT'S NEW SITE PLAN OF APRIL 17, 2019		04/29/19	TLM
NO.	REVISION	DATE	BY

SCALE

0 1 2 3 5m

1:100 HORIZONTAL

VERTICAL

DESIGN	T.L.M.	PROJECT <b>258 CARRUTHERS AVENUE PART OF LOTS 7 AND 8 REGISTERED PLAN 83 CITY OF OTTAWA</b>	DRAWING TITLE <b>PROPOSED GRADING AND SERVICING PLAN</b>	
CHECKED	T.L.M.			
DRAWN BY	G.U.			
CHECKED	T.L.M.			
APPROVED	T.L.M.	PROJECT No. <b>816-86</b>	DATE <b>SEPTEMBER 2018</b>	DRAWING No. <b>G-1</b>

**T.L. MAK ENGINEERING CONSULTANTS LTD.**  
CONSULTING ENGINEERS

# 17976