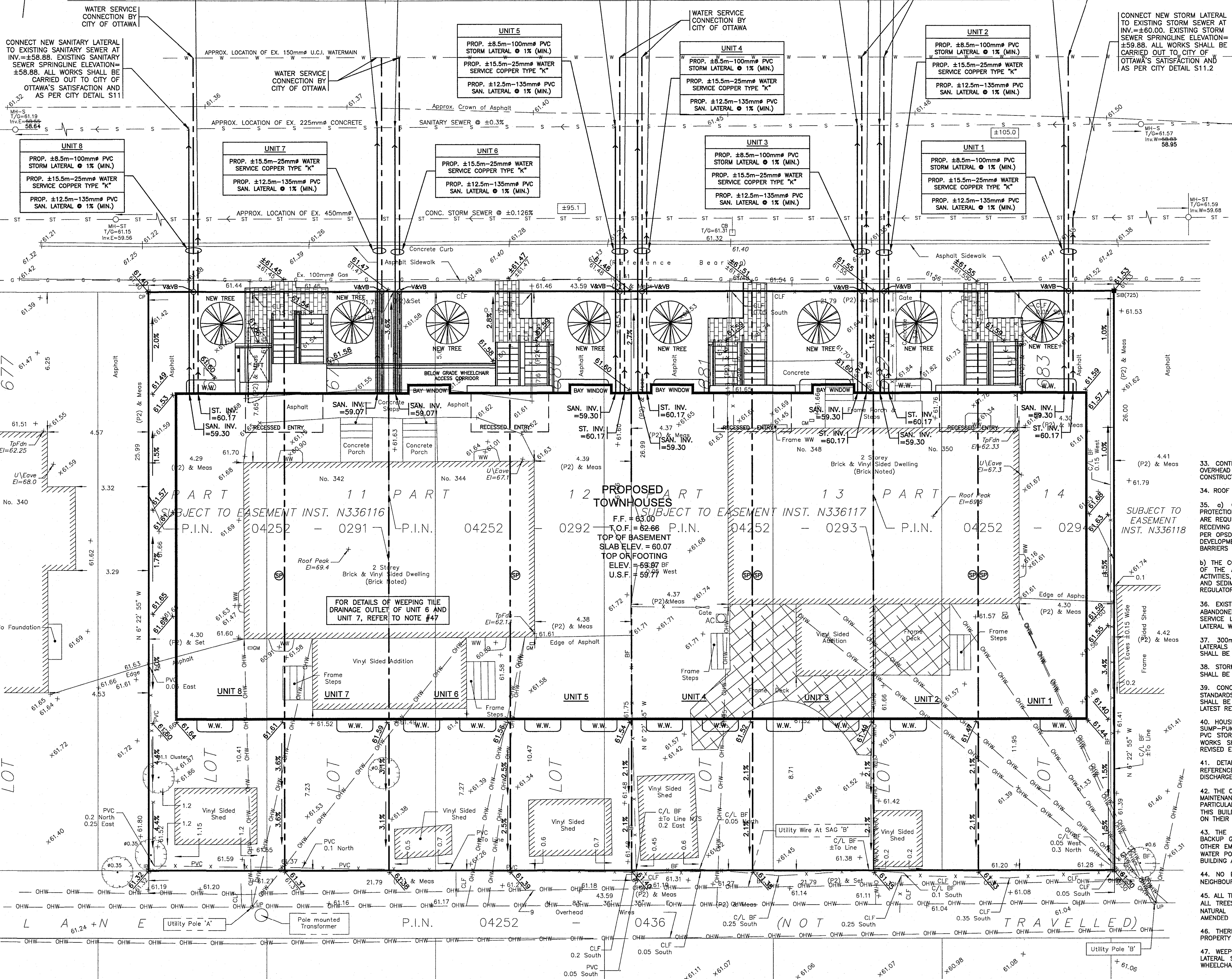
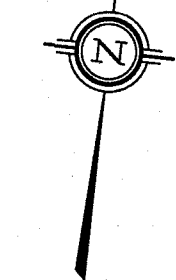


QUEEN MARY STREET

(REGISTERED PLAN 342)

P.I.N. 04252 - 0434



LEGEND

- PROPOSED ELEVATION
- EXISTING ELEVATION
- PROPOSED TOP OF GROUND FLOOR ELEVATION
- PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
- PROPOSED DRIVEWAY
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- PROPOSED 135mm PVC SANITARY LATERAL SERVICE
- PROPOSED 100mm PVC STORM LATERAL SERVICE
- PROPOSED 25mm WATER SERVICE (COPPER TYPE "K")
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING OVERHEAD WIRES
- PROPOSED VALVE AND VALVE BOX (V&VB)
- PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE FLOW
- PROPOSED WEeping TILE SUMP PIT LOCATION
- C/W DUPLEX SUMP PUMPS (REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS)
- PROPOSED ASPHALT OVERLAY AREA CONSISTING OF: A 40mm LIFT OF HMA SUPERPAVE 12.5mm PG 58-34 LEVEL B
- PROPOSED RIGID STYROFOAM INSULATION 100mm THICK (MIN.)
- DENOTES LIMIT OF ROAD CUT AND REINSTATEMENT

SUMP PUMP - To Drain Water at Footing Level

Because existing Storm Sewer Elevation is too high in street

CAUTION: SUMP PUMP USE

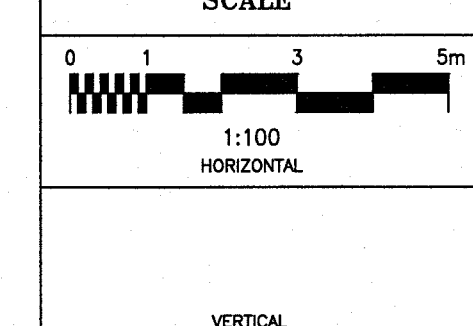
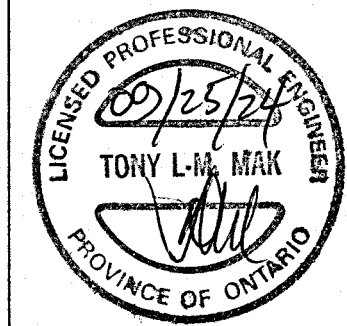
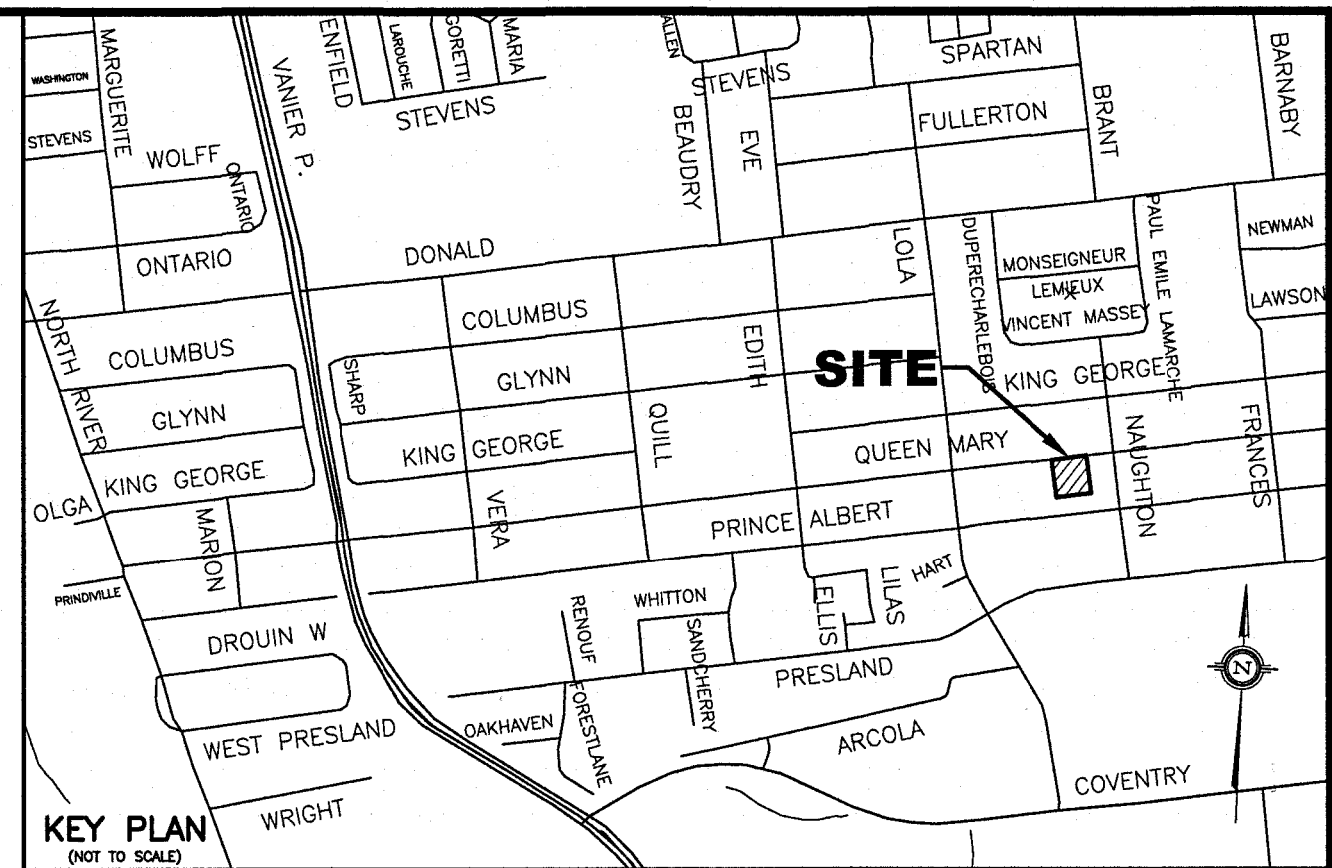
The City Municipal Storm service exists along this street is too high an elevation to be gravity drained from the proposed storm lateral at the house to the existing storm main, we have proposed a sump pump to be installed to drain the water at the footing level. The proposed underside of footing (USF) elevation (which has been calculated based on architectural plan parameters/basement heights and/or at the instruction of client/agent) has the potential to be too low for this development with respect to possible water drainage issues at footing levels.

The Normal High Ground Water Table (NHGW) elevation must be verified prior to/for at time of excavation (per City of Ottawa Building Code service requirements). If it is determined that the proposed footing elevation(s) will be below the NHGW elevation it will be the responsibility of the owner and their representatives to mitigate/modify the situation by either raising the footing elevation above the NHGW elevation or demonstrate the use of appropriate foundation water proofing methods as per current building code requirements. The owners and their representatives must apply for and receive any applicable permits from the City before proceeding with the aforementioned works.

T.L. Mak Engineering Consultants Ltd. assumes no responsibility or liability in regards to the impact on footings and/or basement drainage issues (at time of excavation or future) due to this design.

33. CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES REGARDING LOCATION OF EXISTING OVERHEAD UTILITY WIRES FOR RELOCATION AND POSSIBLE CLEARANCE BEFORE CONSTRUCTION.
34. ROOF TYPE OF PROPOSED NEW 8 DOOR ROW TOWNHOUSE DWELLING IS PITCHED.
35. a) CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE PROTECTION OF THE RECOVERED STORM SEWER DURING CONSTRUCTION ACTIVITIES. THESE PRACTICES ARE REQUIRED TO ENSURE NO SEDIMENT AND/OR ASSOCIATED POLLUTANTS ARE RELEASED TO THE RECEIVING WATERCOURSE. THESE PRACTICES INCLUDE INSTALLATION OF SEDIMENT BARRIERS (AS PER OPSD 219.10) AND ASSOCIATED STRIPPIERS ALONG THE PROPERTY LIMITS OF PROPOSED DEVELOPMENT AND ALL OTHER AREAS THAT DRAIN OFF SITE. MAINTENANCE HOLE SEDIMENT BARRIERS TO BE AMOCO 4555 NONWOVEN GEOTEXTILE OR APPROVED EQUIVALENT.
- b) THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FAIL TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
36. EXISTING HOUSE LATERALS AND WATER SERVICE PIPING HAVE BEEN AND/OR SHALL BE ABANDONED. WATER SERVICE SHALL BE BLANKED AT THE MAIN AS PER CITY'S REQUIREMENTS. SERVICE LATERAL SHALL BE INSTALLED AT THE FRONT PROPERTY LINE. SANITARY AND STORM LATERAL WORKS SHALL BE CARRIED OUT TO CITY'S SATISFACTION AND AS PER CITY DETAIL S11.4.
37. 300mm MINIMUM SEPARATION BETWEEN EXISTING WATERMAIN AND PROPOSED SERVICE LATERALS AS PER CITY STANDARDS. IF 300mm SEPARATION CANNOT BE MET, UNSHRINKABLE FILL SHALL BE USED.
38. STORM SERVICES PASSING THROUGH THE BUILDING FOUNDATION WALL, UNDER DRIVEWAYS SHALL BE SLEEVED AS PER CITY'S RECOMMENDATIONS.
39. CONCRETE BARRIER CURB AND DEPRESSION CURB DETAILS AS PER CITY OF OTTAWA STANDARDS (OWG, No. S01.1 MARCH 2007). CONCRETE CURB CONSTRUCTION AND REINSTATEMENT SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
40. HOUSE WEeping TILE WATER DRAINAGE FOR THE 8 DOOR TOWNHOUSE BUILDING SHALL BE SUMP-PUMPED VIA FORCEMAIN FROM BASEMENT SUMP PIT DIRECTLY TO THE PROPOSED 100mm PVC STORM LATERAL THAT OUTLET TO THE CITY STORM SEWER AT QUEEN MARY STREET. ALL WORKS SHALL BE CARRIED OUT TO CITY'S REQUIREMENTS AND IN COMPLIANCE WITH LATEST REVISED ENGINEERING STANDARDS.
41. DETAILS OF PROPOSED SUMP-PUMP AND PIT LOCATION IN THE BUILDING SHALL BE REFERENCED FROM OWNER'S HOUSE DESIGNER'S FINAL PLANS, SUMP-PIT WATER SHALL BE DISCHARGED TO APPROVED OUTLET AS REQUIRED BY CITY OF OTTAWA.
42. THE OWNER'S HOUSE DESIGNERS SHALL INFORM THE OWNERS THAT AN ONGOING YEAR ROUND MAINTENANCE PROGRAM IS REQUIRED FOR THIS BUILDING TO ENSURE THAT THE HOLDING TANKS IN PARTICULAR SHALL BE ANNUALLY INSPECTED AND CLEANED, IF NECESSARY, ALL PUMPS USED IN THIS BUILDING ARE TO BE DETERMINED BY THE OWNER'S MECHANICAL ENGINEER/PLUMBER BASED ON THEIR SPECIFIC USE OF THE PRESENT PLUMBING CODE AND CITY REQUIREMENTS.
43. THE HOUSE DESIGNER SHALL INFORM THE OWNERS TO HAVE AVAILABLE AT ALL TIMES A BACKUP GENERATOR ON STANDBY AT THE BUILDING IN THE EVENT OF A POWER BACKOUT OR OTHER EMERGENCIES. ALTERNATIVELY, THE ARCHITECTS AND/OR OWNER MAY WISH TO SPECIFY A WATER POWERED BACKUP PUMP (THE SUBJECT NO. S10) OR EQUAL THAT MEETS THE ONTARIO BUILDING AND PLUMBING CODE REQUIREMENTS.
44. NO EXCESS DRAINAGE, DURING AND AFTER CONSTRUCTION, WILL BE DIRECTED TOWARDS NEIGHBOUR'S PROPERTIES.
45. ALL TREES ON THE RIGHT OF WAY ARE TO BE MAINTAINED BEFORE AND AFTER CONSTRUCTION, ALL TREES WITHIN THE PROPERTY SHALL BE PROTECTED AS PER THE "MUNICIPAL TREES AND NATURAL AREAS PROTECTION BYLAWS" AND THE "URBAN TREES CONSERVATION BYLAW" AS AMENDED FROM TIME TO TIME.
46. THERE WILL BE NO ALTERATION OF EXISTING GRADE AND DRAINAGE PATTERNS ON THE PROPERTY LINES.
47. WEeping TILE DRAINAGE OUTLET FOR UNITS 5&6 AND UNITS 7&8 SHALL SHARE STORM LATERAL SERVICES FOR OUTLETTING OF WEeping TILE WATER DUE TO PHYSICAL BARRIER OF WHEELCHAIR ACCESS CORRIDOR LOCATED AT BASEMENT LEVEL IN-FRONT OF UNIT 6 AND UNIT 7.

- ## NOTES
1. EXISTING SERVICES AND UTILITIES SHOWN ON THIS DRAWING WERE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT ARE INCOMPLETE. CONTRACTOR IS REQUIRED TO CHECK IN THE FIELD FOR LOCATION AND ELEVATION OF PIPES, UNDERGROUND STRUCTURES, ETC. AND CHECK WITH AUTHORITIES AND UTILITIES TO HIS SATISFACTION BEFORE DIGGING.
 2. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY BEFORE POURING OF CONCRETE FOOTING AND FOUNDATION. THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SUBGRADE ON THIS LOT IS SUFFICIENT TO SUPPORT PROPOSED RESIDENTIAL BUILDINGS.
 3. SITING DETAILS FOR THE PROPOSED 8 DOOR ROW TOWNHOUSE DWELLING WERE PREPARED BY THE OWNER'S HOUSE DESIGNER EVOLUTION DESIGN AND DRAFTING AS SHOWN ON THE SITE PLAN (OWG, No. A0.1 REV. 2 DATED APRIL 28, 2024) RECEIVED ON JULY 2, 2024. FOR THE TOP OF FINISHED FLOOR, TOP OF CONCRETE FOUNDATION, TOP OF BASEMENT SLAB, TOP OF FOOTING, AND UNDER OF FOOTING ELEVATIONS OF THE PROPOSED BUILDING, REFER TO HOUSE DESIGNER'S ELEVATIONS 1 PLAN (OWG, No. A4.0 REV. 2 DATED APRIL 28, 2024) RECEIVED ON JULY 2, 2024.
 4. EXISTING HORIZONTAL AND VERTICAL SURVEY DATA SHOWN ON THIS PLAN INCLUDING SITE BENCHMARK, ROAD ELEVATIONS, SEWER LOCATIONS, AND TOPOGRAPHICAL INFORMATION OF THE LOT WERE PROVIDED BY FARLEY SMITH AND DENIS SURVEYING LTD. AS DEPICTED ON THEIR TOPOGRAPHICAL SURVEY PLAN (FILE No. 12-24 COMPLETED ON FEBRUARY 14, 2024) RECEIVED ON JULY 2, 2024. T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE. FOR INFORMATION ABOUT THE STORM AND SANITARY INVERT ELEVATION AT MANHOLES AND WATERMAIN LOCATION AND SIZE, THE CONTRACTOR SHALL FIELD CHECK EXISTING SANITARY SEWER, STORM SEWER, AND WATERMAIN DEPTH TO THEIR SATISFACTION, AND REFER TO CITY OF OTTAWA'S PLAN AND PROFILE PLAN ENTITLED "QUEEN MARY STREET" - STORM SEWER PLAN No. A9d-2 DATED NOVEMBER 24, 1980 FOR ADDITIONAL DETAILS.
 5. ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA.
 6. ALL GRADES SHOWN ARE GEODETIC AND METRIC.
 7. SANITARY SERVICE BENDS AND RISERS USED MUST BE CONSTRUCTED TO CITY OF OTTAWA'S SATISFACTION.
 8. CONSTRUCT ALL SANITARY AND STORM PIPES IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARD, OTHERWISE AS PER OPSD AND OPSD SPECIFICATIONS.
 9. ALL WORKS CONSTRUCTED BY THE CONTRACTOR SHALL MEET CITY OF OTTAWA'S CURRENT ENGINEERING STANDARDS AND AS PER CITY OF OTTAWA'S REQUIREMENTS.
 10. CONTRACTOR SHALL CONSTRUCT AND ENSURE THAT THE 25mm WATERMAIN SERVICE ON THIS LOT SHALL HAVE A MINIMUM OF 2.4m OF GROUND COVER, OTHERWISE INSULATE WITH RIGID S/M STYROFOAM IN ACCORDANCE WITH THE S.O.S.ULS REPRESENTATIVE TO MITIGATE/NEEDY THE SITUATION BY EITHER RAISING THE FOOTING ELEVATION ABOVE THE NHGW ELEVATION OR DEMONSTRATE THE USE OF APPROPRIATE FOUNDATION WATER PROOFING METHODS AS PER CURRENT BUILDING CODE REQUIREMENTS. THE OWNERS AND THEIR REPRESENTATIVES MUST APPLY FOR AND RECEIVE ANY APPLICABLE PERMITS FROM THE CITY BEFORE PROCEEDING WITH THE aforementioned works.
 11. THIS LOT GRADING DESIGN PLAN WAS PREPARED FOR THE OWNERS FOR BUILDING PERMIT ISSUANCE. ALL WORKS CONSTRUCTED BY THE CONTRACTOR SHALL MEET CITY OF OTTAWA'S CURRENT ENGINEERING STANDARDS AND PER CITY OF OTTAWA'S REQUIREMENTS. THIS GRADING PLAN SHALL NOT BE USED FOR BUILDING CONSTRUCTION PURPOSES. REFER TO HOUSE DESIGNER'S APPROVED SITE PLAN FOR EXACT DIMENSIONS REGARDING BUILDING LOCATION LAYOUT.
 12. WHERE ROOF EAVESDROUGHTS ARE INSTALLED, ROOF DOWNSPOUTS SHALL BE DIRECTED TO OUTLET DISCHARGE TO FRONT YARD ONLY, WHERE POSSIBLE.
 13. ALL WATERMAIN SERVICE AND FITTINGS SHALL CONFORM TO APPROVED AWWA AND/OR CSA STANDARDS.
 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS TO COMPLETE THE WORKS.
 15. EXISTING LOCATION OF QUEEN MARY STREET WATERMAIN AND SANITARY AND STORM SEWER SHOWN ON THIS PLAN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY IN THE FIELD TO CONFIRM ITS EXACT LOCATION BEFORE EXCAVATION. (SEE ALSO NOTE #24).
 16. PROPOSED SURFACE GRADE SHALL BE 7% MAXIMUM, WHERE THE GROUND DROPS OFF STEEPLY, TERRACE THE GROUND AT 3% MAXIMUM TO 1% AS NECESSARY TO MEET CITY OF OTTAWA'S GRADING REQUIREMENTS.
 17. WATER SERVICE CONNECTION ON QUEEN MARY STREET SHALL BE DONE BY THE CITY OF OTTAWA. ALL CONNECTIONS AND OTHER RELATED WORKS TO WATERMAIN SHALL BE MADE BY THE CITY. EXCAVATION, BACKFILLING, AND REINSTATEMENTS BY CONTRACTOR. ALL WATERWORKS SHALL BE CARRIED OUT TO CITY OF OTTAWA'S SATISFACTION.
 18. IF WATER SERVICE IS LESS THAN 2.4m FROM SEWER, MANHOLE, OR CATCHBASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH S/M RIGID INSULATION (AS PER CITY DETAIL W23).
 19. PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
 20. WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY W17 DETAIL.
 21. PROPOSED SANITARY AND STORM SERVICE LATERALS SHALL BE PVC DR-28 OR EQUIVALENT.
 22. IT IS REQUIRED THAT A FULL PORT BACKWATER VALVE BE INSTALLED FOR THE NEW SANITARY LATERAL SERVICE. AND A BACKWATER VALVE BE INSTALLED FOR THE NEW STORM LATERAL SERVICE UNDER THE CURRENT REGULATION OF THE ONTARIO PLUMBING CODE, AND AS PER CITY DETAIL S14, S14.1 AND S14.2.
 23. BEDDING FOR SEWERS AND WATERMAIN INSTALLATION SHALL BE TYPE "B" COMPACTED TO 95% DRY PROCTOR DENSITY. FOR THE SEWER LATERALS USE 300mm THICK APPROVED GRANULAR COVER MATERIAL COMPACT TO 95% DRY PROCTOR DENSITY. TRENCH BACKFILL WITH NATIVE MATERIAL AND COMPACT TO 95% DRY PROCTOR DENSITY MINIMUM. NO FROZEN MATERIALS ARE TO BE USED AS BACKFILL IN THE SERVINGING TRENCHES.
 24. DETAILS OF EXISTING SEWERS AND WATERMAIN SHOWN ON QUEEN MARY STREET FROM THE CITY OF OTTAWA MAY NOT BE CURRENT. CONTRACTOR SHALL REFER TO THE CITY OF OTTAWA'S SEWER AND WATERMAIN DRAWINGS FOR DETAILS BEFORE DIGGING. THE CONTRACTOR IS ADVISED TO EXCAVATE AND INVESTIGATE THE SEWER ELEVATIONS IN FRONT OF THIS PROPERTY FIRST TO ENSURE THE 1% (MIN.) PIPE SLOPE OF THE SANITARY AND STORM LATERALS CAN BE ACHIEVED USING THE PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION. IF 1% (MIN.) SLOPE IS NOT POSSIBLE FROM THE BUILDING TO THE SEWER, THEN THE CONTRACTOR SHOULD INFORM THE OWNER'S PROJECT MANAGER AND THE CITY ACCORDINGLY FOR FURTHER DIRECTION.
 25. FOR DEVELOPMENT OF THIS SITE, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY AND STORM LATERALS TO THE SEWER MAIN. PRIOR TO BUILDING CONCRETE FOUNDATION. THE CONTRACTOR SHALL VERIFY SEWER DEPTHS TO ENSURE THAT SEWER LATERALS CAN ACHIEVE A SLOPE OF 1% (MINIMUM) AND STILL BE BELOW PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION. IF THIS IS FOUND NOT POSSIBLE, THE CONTRACTOR SHALL CONTACT THE OWNER AND HIS OR HER PROJECT MANAGER TO REPORT THE FINDING IN ORDER TO ADJUST THE BUILDING FOUNDATION GRADES PRIOR TO CONCRETE POURING.
 26. INSULATE HOUSE SERVICE LATERALS WITHIN PRIVATE PROPERTY AND ROAD RIGHT OF WAY WHERE GROUND COVER FOR FROST PROTECTION IS LESS THAN 2.4m. FOR WATER SERVICE AND 2.0m FOR SANITARY GRAVITY SEWERS. MINIMUM GROUND COVER OVER HOUSE SERVICE PIPES SHALL NOT BE LESS THAN 2.0m. EXACT INSULATION THICKNESS SHALL BE DETERMINED BY THE OWNER'S SOILS ENGINEER. ALL INSULATION WORKS SHALL BE CARRIED OUT AS PER CITY OF OTTAWA'S CURRENT ENGINEERING STANDARDS AND AS PER CITY DETAIL W22.
 27. WHERE FROST COVER FROM UNDERSIDE OF HOUSE CONCRETE FOOTING TO PROPOSED FINISHED GROUND ELEVATION IS LESS THAN 1.5m, IT IS RECOMMENDED THAT INSULATION (50mm) THICK MINIMUM BE INSTALLED AT BUILDING FOOTING AND FOUNDATION OF HOUSE TO PROVIDE SUFFICIENT FROST COVER FOR FOUNDATION STRUCTURES. INSULATION REQUIREMENTS SHALL BE REVIEWED AND RECOMMENDED BY OWNER'S SOILS ENGINEER. EXACT INSULATION REQUIREMENTS SHALL BE CONFIRMED BY OWNER'S HOUSE DESIGNER AND SITE SOILS ENGINEER TO CONTRACTOR BEFORE INSTALLATION.
 28. LOCATION AND ELEVATION OF EXISTING SANITARY AND STORM MANHOLES SHOWN ON THIS DRAWING WERE TAKEN FROM FARLEY SMITH AND DENIS SURVEYING LTD.'S TOPOGRAPHICAL SURVEY PLAN. CONTRACTOR SHALL OBTAIN AND REVIEW THESE PLANS AND SATISFY HIM/HERSELF AND OBTAIN LOCATES OF THESE SERVICES BEFORE CONSTRUCTION.
 29. EXISTING ASPHALT DRIVEWAY NOT TO BE RE-USED SHALL BE REMOVED AND REPLACED WITH SOFT LANDSCAPING.
 30. CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION, AND SUCH REINSTATEMENT MUST BE UNDERTAKEN IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
 31. UPON COMPLETION OF NEW SERVICE LATERALS FOR THE PROPOSED BUILDING AND NEW DRIVEWAYS, THE CONTRACTOR SHALL RESTORE THE EXISTING ROADWAY BOULEVARD ACROSS THIS LOT TO DRAIN POSITIVELY TO ITS EXISTING OUTLET. ALL WORKS SHALL BE CARRIED OUT TO SATISFACTION OF CITY OF OTTAWA.
 32. AT THE TIME OF CONSTRUCTION OF DRIVEWAY FOR NEW HOUSE, REGRADE ROADWAY BOULEVARD TO OUTLET INTO EXISTING STORM OUTLET TO CITY OF OTTAWA'S SATISFACTION AND REQUIREMENTS.



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

342-350 QUEEN MARY STREET
LOTS 678, 680, 681, 682, 683 AND
PART OF LOTS 678 AND 684
REGISTERED PLAN 342
CITY OF OTTAWA

PROJECT	DRAWING TITLE
342-350 QUEEN MARY STREET LOTS 678, 680, 681, 682, 683 AND PART OF LOTS 678 AND 684 REGISTERED PLAN 342 CITY OF OTTAWA	PROPOSED LOT GRADING AND SERVICING PLAN
PROJECT No.	DATE
824-85	AUGUST 2024
DRAWING No.	G-1

REVISIONS	DATE	BY
1. REVISIONS AS PER HOUSE DESIGNER'S COMMENTS OF SEPTEMBER 4, 2024 AND OWNER'S REPRESENTATIVES COMMENTS OF SEPTEMBER 16, 2024	09/24/24	TLM
No.	REVISION	