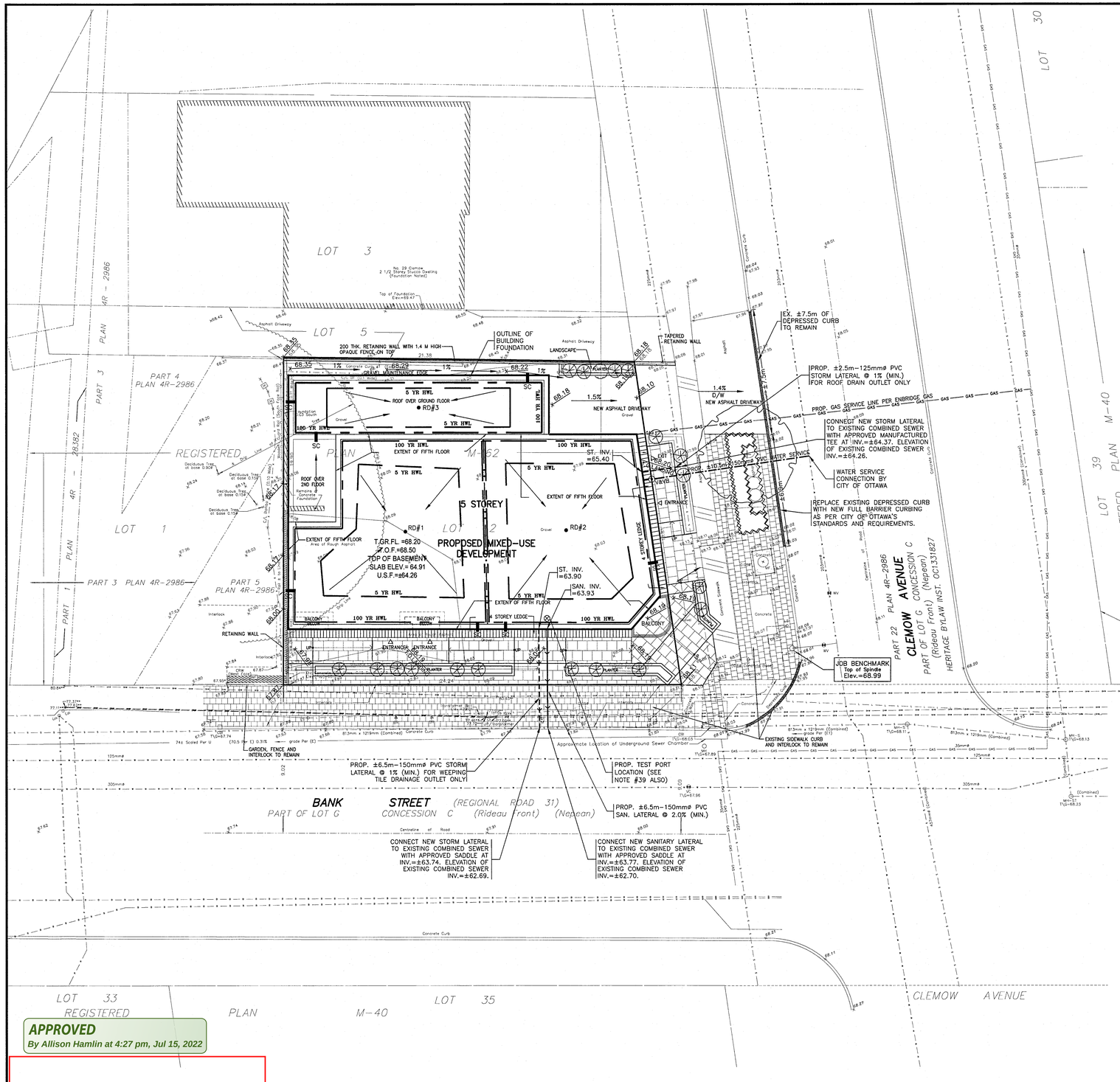

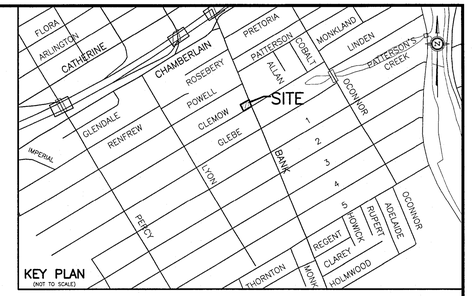

LEGEND

x68.20	PROPOSED ELEVATION
x.67.66	EXISTING ELEVATION
T.GR.FL.	PROPOSED TOP OF GROUND FLOOR SLAB ELEVATION
T.O.F.	PROPOSED TOP OF FOUNDATION ELEVATION
U.S.F.	PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
D/W	PROPOSED DRIVEWAY
S	EXISTING COMBINED SEWER
W	EXISTING WATERMAIN
	PROPOSED 150ø PVC SANITARY LATERAL SERVICE @ 1% (MIN.) SLOPE
	PROPOSED 125mmø AND 150mmø PVC STORM LATERAL SERVICE @ 1% (MIN.) SLOPE
	PROPOSED 150mmø WATER SERVICE PVC CL-150 DR 18
	EXISTING DEPRESSED CURB
MH-S	EXISTING SANITARY MANHOLE
MH-ST	EXISTING STORM MANHOLE
CB	EXISTING INLET CATCH BASIN
FH	EXISTING FIRE HYDRANT
WV	EXISTING WATER VALVE
UP	EXISTING UTILITY POLE
OHW	EXISTING OVERHEAD WIRES
V&VB	PROPOSED V&VB
D/W	PROPOSED DRIVEWAY
	PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE WATER FLOW
RD	PROPOSED ROOF DRAIN LOCATION
SC	PROPOSED ROOF SCUPPER LOCATION
	PROPOSED HIGH RIDGE LINE
	PROPOSED 5 YEAR FLOOD LIMIT
	PROPOSED 100 YEAR FLOOD LIMIT
	PROPOSED WASTEWATER SAMPLING INSPECTION TEST PORT LOCATION IN THE BUILDING WITH ACCESS TO CITY STAFF FOR INSPECTION (SEE NOTE #39 FOR ADDITIONAL DETAILS)
GAS	APPROXIMATE LOCATION OF PROPOSED ENBRIDGE GAS SERVICE LINE TO NEW MIXED USE BUILDING PER E-MAIL OF OCTOBER 12, 2021 FROM OWNER'S ARCHITECT

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.

3. SITING DETAILS FOR THE PROPOSED DWELLING WERE TAKEN FROM THE LATEST REVISED SITE PLAN (DWG. NO. SP-0 REV. 2 PROJECT No. 0616) PREPARED BY VINCENT P. COLIZZA ARCHITECT (DATED 29/07/16). THE GROUND FLOOR, TOP OF FOUNDATION, LOWER LEVEL SLAB, TOP OF CONCRETE FOOTING ELEVATION, AND UNDERSIDE OF CONCRETE FOOTING WERE PROVIDED BY THE OWNER'S ARCHITECT. SEE ARCHITECTURAL "EAST ELEVATION" DRAWING (DWG. No. A2.2 REV. 1) FOR DETAILS.

4. EXISTING HORIZONTAL AND VERTICAL SURVEY DATA SHOWN ON THIS PLAN INCLUDING SITE BENCHMARK, ROAD ELEVATIONS, SEWER INVERT ELEVATIONS, AND THE TOPOGRAPHICAL INFORMATION OF THE LOT SHOWN, WERE PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. AS SHOWN ON THEIR TOPOGRAPHICAL SURVEY PLAN (JOB 15,568-14). T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE.

5. ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA. ALL GRADES SHOWN ARE METRIC. EXISTING AND PROPOSED GRADES SHOWN ON THIS DRAWING ARE BASED ON A BENCHMARK PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD., AS SHOWN ON THEIR TOPOGRAPHICAL SURVEY PLAN.

6. THE PROPOSED 100mm DIAMETER WATER SERVICE SHALL BE PVC-CL-150 DR-18.

7. THE WATERWORKS SHALL BE CONSTRUCTED TO CITY OF OTTAWA'S LATEST REVISED STANDARDS ON APPROVAL BY THE CITY.

8. CONSTRUCT ALL SANITARY AND STORM PIPES IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARD, OTHERWISE AS PER OPSS AND OPSD SPECIFICATIONS.

9. ALL WORKS CONSTRUCTED BY THE CONTRACTOR SHALL MEET CITY OF OTTAWA'S CURRENT ENGINEERING STANDARDS AND AS PER CITY'S REQUIREMENTS.

10. THE CONTRACTOR SHALL CONSTRUCT AND ENSURE THAT THE 150mm WATER SERVICE ON THIS LOT SHALL HAVE A MINIMUM OF 2.4m OF GROUND COVER. THE WATER SERVICE PIPE MATERIAL SHALL BE PVC-CL-150 DR-18 AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF OTTAWA STANDARDS.

11. IF REQUIRED, THE OWNER AND/OR HIS CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES REGARDING RELOCATION REQUIREMENTS FOR THE EXISTING OVERHEAD UTILITY POLE.

12. ALL WATERMAIN SERVICE AND FITTINGS SHALL CONFORM TO APPROVED AWWA AND/OR CSA STANDARDS.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS TO COMPLETE THE WORKS.

14. EXISTING LOCATIONS OF BANK STREET AND CLEMOW WATERMAIN, STORM SEWER, AND SANITARY SEWER SHOWN ON THIS PLAN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY IN THE FIELD TO CONFIRM EXACT LOCATIONS PRIOR TO EXCAVATION (SEE NOTE 23).

15. PROPOSED SURFACE GRADE SHALL BE 7% (MAXIMUM) WHERE THE GROUND DROPS OFF STEEPLY. TERRACE THE GROUND AT 3H TO 1V (MAXIMUM) AS NECESSARY TO MEET THE CITY'S GRADING REQUIREMENTS.

16. WATER SERVICE CONNECTION ON CLEMOW AVENUE SHALL BE DONE BY THE CITY. ALL CONNECTIONS AND OTHER RELATED WORKS TO WATERMAIN SHALL BE MADE BY THE CITY. EXCAVATION, BACKFILLING, AND REINSTATEMENTS BY THE CONTRACTOR. ALL WATERWORKS SHALL BE CARRIED OUT TO THE CITY'S SATISFACTION.

17. IF WATER SERVICE IS LESS THAN 2.4m FROM SEWER, MANHOLE, OR CATCH BASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH S/M RIGID INSULATION (AS PER CITY DETAIL W23).

18. PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.

19. WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY W17 DETAIL.

20. PROPOSED SANITARY AND STORM SERVICE LATERALS SHALL BE PVC-DR-28 OR EQUIVALENT, AND CONNECTION TO THE EXISTING SEWER SHALL BE AS PER CITY OF OTTAWA DWG. 513. THE WORKS SHALL BE CARRIED OUT TO THE SATISFACTION OF THE CITY OF OTTAWA.

21. SANITARY AND STORM SEWER SERVICE BENDS AND RISERS USED MUST BE CONSTRUCTED TO THE CITY'S SATISFACTION.

22. 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 SERVICING TRENCHES.

23. DETAILS OF THE EXISTING SEWERS AND WATERMAIN SHOWN ON BANK STREET AND CLEMOW FROM THE CITY MAY NOT BE CURRENT. THE CONTRACTOR SHALL REFER TO THE CITY'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 TO ENSURE THAT 1% (MINIMUM) PIPE SLOPE OF THE SANITARY AND STORM LATERALS CAN BE ACHIEVED USING THE PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION. IF 1% (MINIMUM) 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.

24. FOR DEVELOPMENT OF THIS LOT, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY, STORM, AND WATER SERVICES FROM THE SEWER AND WATERMAIN TO THE PROPERTY, PRIOR TO BUILDING CONCRETE FOUNDATION POURING. THE CONTRACTOR SHALL VERIFY SEWER DEPTHS TO ENSURE THAT THE 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 BUILDING FOUNDATION GRADES PRIOR TO CONCRETE POURING.

25. REINSTATE EXISTING DEPRESSED CURBING AND DEPRESS CONCRETE SIDEWALKS FOR DEVELOPMENT OF THIS SITE ALONG CLEMOW AVENUE IN ACCORDANCE WITH CITY OF OTTAWA ENGINEERING STANDARDS AND REQUIREMENTS. ALL WORKS SHALL BE CARRIED OUT TO THE CITY'S SATISFACTION.

26. INSULATE THE BUILDING SERVICE LATERALS AND WATER SERVICE WITHIN THE ROAD RIGHT OF WAY WHERE GROUND COVER IS LESS THAN 2.4m FOR WATER SERVICE AND SEWER LATERALS OR LESS THAN 2.4m FOR SERVICE LATERALS AND WATER SERVICE FROM ANY EXISTING CATCH BASINS AND/OR MANHOLES.

27. WHERE FROST COVER FROM UNDERSIDE OF BUILDING CONCRETE FOOTING TO PROPOSED FINISHED GROUND ELEVATION IS LESS THAN 1.6m, 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 VINCENT P. COLIZZA ARCHITECTS INC.'S INSULATION DETAILS SHOWN ON THEIR ARCHITECTURAL DRAWINGS AND CONFIRMED BY THE OWNER'S SITE SOILS ENGINEER.

28. IT IS REQUIRED BY THE CITY OF OTTAWA THAT A CITY-APPROVED BACKWATER VALVE BE INSTALLED AT THE (2) NEW STORM LATERALS SERVICE AND A FULL-PORT BACKWATER VALVE FOR THE SANITARY LATERAL SERVICE, AS PER CITY DETAIL S14, S14.1, AND S14.2.

29. CONCRETE CURB, SIDEWALK, DEPRESSED CURB, AND DEPRESSED CONCRETE SIDEWALK DETAILS AS PER CITY OF OTTAWA'S STANDARDS (DWG. SC1, SC2 REVISION DATE FEBRUARY 2004 AND SC8 REVISION DATE FEBRUARY 2002). 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. THE CONTRACTOR SHALL IMPLEMENT BEST MANGEMENT PRACTICES TO PROVIDE FOR THE PROTECTION OF THE AREA DRAINAGE SYSTEM AND RECEIVING WATERCOURSES AND/OR STORM SEWER DURING CONSTRUCTION ACTIVITIES. THESE PRACTICES ARE REQUIRED TO ENSURE NO EXPOSED SOIL, SEDIMENT, AND/OR ASSOCIATED POLLUTANTS ARE RELEASED TO THE RECEIVING WATERCOURSES. THESE PRACTICES INCLUDE INSTALLATION OF SEDIMENT BARRIERS ON ALL CATCH BASIN AND MAINTENANCE HOLES, AND A SILT FENCE BARRIER (AS PER OPSD 219.110 AND ASSOCIATED SPECIFICATIONS) ALONG BANK STREET AND CLEMOW, AND ALL OTHER AREAS THAT SHEET DRAIN OFF SITE. MAINTENANCE HOLE SEDIMENT BARRIERS TO BE AMOCO 4555 NONWOVEN GEOTEXTILE OR APPROVED EQUIVALENT. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY AN APPLICABLE REGULATORY AGENCY.

31. STORMWATER MANAGEMENT NOTES:
ROOF DRAINS SHALL BE EACH SIZED FOR A RELEASE RATE OF 10US GAL/MIN OR 0.63L/S THE OWNER'S MECHANICAL ENGINEER SHALL SPECIFY THE REQUIRED ROOF DRAIN TYPE AND MODEL NUMBER, AND PROVIDE THE NECESSARY INFORMATION TO THE CITY OF OTTAWA FOR THEIR RECORDS TO ENSURE PROPER RELEASE RATE FOR STORMWATER MANAGEMENT COMPLIANCE.
ROOF PITCH IS ASSUMED TO HAVE 1% (MINIMUM) SLOPE.
ROOF SCUPPERS ARE RECOMMENDED TO BE INSTALLED 0mm ABOVE EDGE OF ROOFTOP ELEVATION FOR EMERGENCY OVERFLOW PURPOSES AT ROOF AREAS 1, 2, 3, 4, AND 5.
SEE STORM DRAINAGE REPORT 816-41 DATED JULY 2016 FOR DETAILS.

32. WATER SERVICE, STORM SEWER LATERAL, AND SANITARY SEWER LATERAL ARE THE RESPONSIBILITY OF THE OWNER'S PLUMBER FROM 1m OUTSIDE THE FOUNDATION WALL INTO THE PROPOSED BUILDING UNDER THE LATEST REVISION OF THE ONTARIO PLUMBING CODE.

33. PROPOSED ROOF DRAINS AND SCUPPER LOCATIONS SHOWN ON THIS PLAN SHALL BE REVIEWED BY THE OWNER AND OWNER'S ARCHITECT FOR APPROVAL.

34. SANITARY AND STORM LATERAL INVERTS SET 1.0m FROM OUTSIDE OF BUILDING WALL IS BASED ON ASSUMING AN INTERNAL PIPING SLOPE BY THE OWNER'S PLUMBER WILL ACHIEVE 1% SLOPE (MINIMUM).

35. THE OWNER'S ARCHITECT AND STRUCTURAL ENGINEER SHALL ENSURE THAT THE ADDITIONAL STORMWATER STORAGE VOLUME FROM STORMWATER MANAGEMENT MEASURES ARE ACCOUNTED FOR IN THE STRUCTURAL DESIGN OF AND WATERPROOFING OF ROOF AREAS 1, 2, AND 3 AT ROOF DRAINS # 1, 2, AND 3 AND ANY OF THE SUPPORTING STRUCTURES THAT MAY BE AFFECTED BY THE STORED WATER.

36. ALL EXISTING HOUSE SEWER LATERALS SERVICING THIS PROPERTY SHALL BE ABANDONED AND TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY SEWER OPERATIONS DEPARTMENT'S STANDARDS AND REQUIREMENTS.

37. ALL EXISTING HOUSE WATER SERVICE SERVICING THIS PROPERTY SHALL BE ABANDONED AND TO BE CAPPED AT THE WATERMAIN TO THE SATISFACTION OF THE CITY WATER OPERATIONS DEPARTMENT'S STANDARDS AND REQUIREMENTS.

38. ROOF DRAINS 1 TO 5 INCLUSIVE SHALL OUTLET INTO THE DESIGNATED 125mm DIAMETER PVC STORMWATER PIPE AS SHOWN ON THIS DRAWING. BUILDING WEEPING TILE WATER WILL BE OUTLETTING INTO ITS OWN SEPARATE DESIGNATED 125mm DIAMETER PVC STORM LATERAL AS INDICATED ON THIS DRAWING.

39. THE OWNER SHALL PROVIDE A TEST PORT IN THE PROPOSED MIXED USE BUILDING WHICH FORMS PART OF THE INTERNAL BUILDING PLUMBING SYSTEM. THE OWNER SHALL ALSO GRANT ACCESS RIGHTS FOR CITY EMPLOYEES DURING WORKING HOURS FOR TESTING OF SANITARY SEWER QUALITY PURPOSES.

APPROVED
By Allison Hamlin at 4:27 pm, Jul 15, 2022

AHamlin

ALLISON HAMLIN
MANAGER (A), DEVELOPMENT REVIEW WEST
PLANNING, REAL ESTATE & ECONOMIC DEVELOPMENT
DEPARTMENT, CITY OF OTTAWA

NO.	REVISION	DATE	BY
4	REVISIONS AS PER CITY'S REVIEW COMMENTS OF OCTOBER 12, 2021 AND ADDED ENBRIDGE SERVICE LINE PER ARCHITECT'S REQUEST	10/12/21	TLM
3	REVISIONS AS PER CITY'S REVIEW COMMENTS OF SEPTEMBER 27, 2021	10/07/21	TLM
2	REVISIONS AS PER OWNER'S ARCHITECT'S LATEST REVISED SITE PLAN RECEIVED ON MARCH 23, 2017	04/13/17	TLM
1	REVISIONS AS PER OWNER'S ARCHITECT'S LATEST REVISED SITE PLAN RECEIVED ON MARCH 9, 2017	03/17/17	TLM

LICENSED PROFESSIONAL ENGINEER — TONY L-M. MAK — 10/12/21 — PROVINCE OF ONTARIO

SCALE
0 1.25m 3.75m 6.25m
1:125
HORIZONTAL
VERTICAL

DESIGN	T.L.M.
CHECKED	T.L.M.
DRAWN BY	G.U.
CHECKED	T.L.M.
APPROVED	T.L.M.

PROJECT
PROPOSED MIXED USE BUILDING
667 BANK STREET
LOT 2
REGISTERED PLAN M-62
CITY OF OTTAWA

DRAWING TITLE
PROPOSED GRADING, SERVICING AND STORMWATER MANAGEMENT PLAN

T.L. MAK ENGINEERING CONSULTANTS LTD.
CONSULTING ENGINEERS

PROJECT No.	DATE	DRAWING No.
816-41	JULY 2016	G-1

D07-12-16-0118

#18558