

LEGEND

- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCHBASIN
- EXISTING VALVE AND VALVE CHAMBER
- EXISTING VALVE AND VALVE BOX
- EXISTING FIRE HYDRANT
- EXISTING OVERHEAD BELL
- EXISTING OVERHEAD HYDRO
- EXISTING UNDERGROUND HYDRO
- EXISTING GAS MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN
- PROPOSED SANITARY MANHOLE
- PROPOSED CATCHBASIN MANHOLE
- LANDSCAPE MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
- PROPOSED WATER REMOTE METER
- PROPOSED WATER METER
- PROPOSED CURB STOP
- FINISHED FLOOR LEVEL ELEVATION
- BASEMENT FLOOR LEVEL ELEVATION
- UNDERSIDE OF THE FOOTING
- FLOOR DRAIN
- BUILDING ENTRY
- DOWNSPOUTS LOCATION W/ SPLASH PAD
- WATERPOST
- GRASS AREA
- GREEN PAVERS
- INTERLOCK
- PROPOSED ELEVATION
- EXISTING ELEVATION
- PROPOSED GRADING SLOPE BETWEEN 2-7%, GRADING OVER 7% MUST BE TERRACED TO A MAXIMUM SLOPE OF 3H:1V
- STREET ASPHALT OVERLAY
- CONCRETE WALK
- BOARD FENCE
- PROPERTY LINE
- PROPOSED SILT FENCE
- ROOF DRAIN RESTRICTOR TO U/S
- 5 YEAR FLOOD
- 10 YEAR FLOOD
- LEVEL AREA
- SCUPPER
- WATER SAMPLING CHAMBER
- SUMP PUMP FOR FOUNDATION DRAINAGE
- WATER POST
- EXISTING CEDAR FENCE TO REMAIN
- NEW PRESSURE TREATED WOOD FENCE
- NEW GLASS RAILING

- ALL SERVICES, MATERIALS, CONSTRUCTION METHODS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND REGULATIONS OF THE CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS, ONTARIO PROVINCIAL SPECIFICATION STANDARD SPECIFICATION (OPSS) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), UNLESS OTHERWISE SPECIFIED, TO THE SATISFACTION OF THE CITY AND THE CONSULTANT.
- THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES, STRUCTURES AND APPURTENANCES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SATISFY HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM DURING THE COURSE OF CONSTRUCTION. ANY RELOCATION OF EXISTING UTILITIES REQUIRED BY THE DEVELOPMENT OF SUBJECT LANDS IS TO BE UNDERTAKEN AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR MUST NOTIFY ALL EXISTING UTILITY COMPANY OFFICIALS FIVE (5) BUSINESS DAYS PRIOR TO START OF CONSTRUCTION AND HAVE ALL EXISTING UTILITIES AND SERVICES LOCATED IN THE FIELD EXPOSED PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO HYDRO, BELL, CABLE TV, AND CONSUMERS' GAS LINES.
- ALL TRENCHING AND EXCAVATIONS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- REFER TO ARCHITECTS PLANS FOR BUILDING DIMENSIONS LAYOUT AND REMOVALS. REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION. ALL INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- TOPOGRAPHIC SURVEY COMPLETED ON 13TH DAY OF MARCH 2024 AND PROVIDED BY STANLEY, SMITH & DENNIS SURVEYING LTD. CONTRACTOR TO VERIFY IN THE FIELD PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATION OF UNDERGROUND SERVICES ARE BASED ON THE SURVEY PROVIDED WITH THE INFORMATION FROM THE CITY OF OTTAWA OF GEOTOWA. HOWEVER, CONTRACTOR MUST ENSURE THAT THIS INFORMATION IS VERIFIED PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
- 9.0B BENCH MARK AS INDICATED ON THE DRAWINGS
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM
- ALL DISTURBED AREAS OUTSIDE PROPOSED GRADING LIMITS TO BE RESTORED TO ORIGINAL ELEVATIONS AND CONDITION UNLESS OTHERWISE SPECIFIED. ALL RESTORATION SHALL BE COMPLETED WITH THE GEOTECHNICAL REQUIREMENTS FOR BACKFILL AND COMPACTION.
- ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 209, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
- ABUTTING PROPERTY GRADES TO BE MATCHED.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
- MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS.
- AT PROPOSED UTILITIES CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
- SERVICE TRENCHES ON MUNICIPAL RIGHT OF WAY TO BE REINSTATED AS PER CITY OF OTTAWA DETAIL R10.
- PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB-SURFACES FOR FOOTINGS, SERVICES AND PAVEMENT STRUCTURES.
- FOR ANY SOILS RELATED INFORMATION, REFER TO THE GEOTECHNICAL INVESTIGATION REPORT BY EXP Services
- a) PAVEMENT STRUCTURE SHALL CONSIST OF FOR CAR ONLY PARKING AREAS:
 - 65 mm ASPHALTIC CONCRETE (PG 58-34), 92% to 97 % WTD
 - 150 mm GRANULAR A BASE (OPSS 1010) (CRUSHED LIMESTONE), 100% SPMD
 - 300 mm GRANULAR B TYPE II SUB-BASE (OPSS 1010), 100% SPMD
 - SUBGRADE- APPROVED EXISTING FILL, SUBGRADE AND IMPORTED GRANULAR FILL (COMPACTED TO 95% SPMD)

NOTES WATERMAIN

- ALL WATERMAIN AND WATERMAIN APPURTENANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS.
 - ALL WATERMAIN 300mm DIAMETER AND SMALLER TO BE POLY VINYL CHLORIDE (PVC) CLASS 150 OR 16 MEETING AWWA SPECIFICATION C900. STANDARD LATERAL MATERIAL FINISHED GRADE TO 50MM IS COPPER TYPE 'K'.
 - ALL WATER MAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m. BELOW FINISHED GRADE. WHERE WATERMAINS CROSS OVER OTHER UTILITIES, A MINIMUM 0.30m CLEARANCE FROM UTILITIES OVERLIT SHALL BE MAINTAINED; WHERE WATERMAINS CROSS UNDER OTHER UTILITIES, A MINIMUM 0.30m CLEARANCE SHALL BE MAINTAINED; WHERE THE MINIMUM SEPARATION CANNOT BE ACHIEVED, THE WATERMAIN SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W25 AND W25.2. WHERE 2.4m MINIMUM DEPTH CANNOT BE ACHIEVED, THERMAL INSULATION SHALL BE PROVIDED AS PER CITY OF OTTAWA STANDARD W22.
 - WATER MAIN BEDDING TO BE AS PER CITY OF OTTAWA STANDARD W17.
 - VALVE BOX TO BE AS PER CITY OF OTTAWA STANDARD W24.
 - CONCRETE THRUST BLOCKS AND MECHANICAL RESTRAINTS ARE TO BE INSTALLED AT ALL TEES, BENDS, HYDRANTS, REDUCERS, ENDS OF MAINS AND CONNECTIONS 100mm AND LARGER, IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25.3 & W25.4.
 - CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 & W42.
 - FIRE HYDRANTS TO BE AS PER CITY OF OTTAWA STANDARD W19, (NOT REQUIRED)
 - IF WATER MAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
- TYPICAL WATER SERVICE LINE AS PER W26(FOR 19MM & 25MM DIA. WATER SERVICES), AND TO BE INSTALLED AT 1 M FROM THE FOUNDATION WALLS.

NOTES SANITARY SEWER AND MANHOLES

- ALL SANITARY SEWER, SANITARY SEWER APPURTENANCE AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
- SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
- ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410.
- ALL SANITARY MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSS 701.01. FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24, (NOT APPLICABLE)
- SANITARY BACKWATER VALVES TO BE PROVIDED FOR EACH BUILDING CLOSE TO THE FOUNDATION WALL NEAR SERVICES ENTRY AS PER CITY OF OTTAWA STD S14.1 OR S14.2.
- STORM BACKWATER VALVES TO BE PROVIDED FOR EACH BUILDING CLOSE TO THE FOUNDATION WALL NEAR SERVICES ENTRY AS PER CITY OF OTTAWA STD S14

NOTES STORM SEWERS AND STRUCTURES

- ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
- NOTES EROSION AND SEDIMENT CONTROL
- ALL TREES SHALL BE PROTECTED AS PER 'MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAW' AS AMENDED ON PROPERTIES.
- ALL TREES ON RIGHT - OF - WAY TO BE MAINTAINED BEFORE AND DURING CONSTRUCTION.
- EAVESTHROUGHS / DOWNSPOUT TO BE INSTALLED AND A MINIMUM OF 1.5m FROM PROPERTY LINES
- MINIMUM OF 1.5M SOIL COVERAGE BETWEEN USF AND SURROUNDING GRADES OR PROVIDE RIGID FOAM INSULATION UNDER FOOTING FOR FROST PROTECTION IF REQUIRED.
- PROVIDE PERIMETER SUB-DRAIN ALONG FOOTINGS
- CONFIRMATION OF EXISTING AND AS-BUILT INVERTS TO BE DETERMINED PRIOR TO EXCAVATING ON PROPOSED UNDER SIDE OF FOOTINGS.
- NO EXCESS DRAINAGE DURING AND AFTER CONSTRUCTION SHALL BE DIRECTED TO ADJACENT PROPERTIES.
- NO ALTERATIONS TO EXISTING GRADES ARE PERMITTED ON OR BEYOND THE PROPERTY LINE.
- EXISTING GAS SERVICES LOCATED AT THE PROPERTIES WILL REQUIRE TO BE RELOCATED BY ENRIDGE CONSUMERS GAS.
- NEW GAS SERVICE WILL BE REQUIRED.

GENERAL NOTES

PROVIDE FROST PROTECTION FOR FOOTING ABOVE 1.5m BELOW THE SURROUNDING GRADE

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

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CIVIL
STRUCTURE
ELECTRICAL
MECHANICAL

CLIENT:

PROJECT:

KEY PLAN:

ISSUED FOR - REVISION:

NO	DATE	DESCRIPTION
5	2025-01-27	ISSUED FOR REVIEW
4	2024-10-29	ISSUED FOR REVIEW
3	2024-10-25	ISSUED FOR REVIEW
2	2024-09-27	ISSUED FOR REVIEW
1	2024-08-13	ISSUED FOR REVIEW

PROJECT NO: 2024-120

ORIGINAL SCALE: 1:100

DESIGNED BY: R.E

DRAWN BY: R.E

CHECKED BY: W.E

DISCIPLINE:

TITLE:

SHEET NUMBER: G1

SHEET # OF

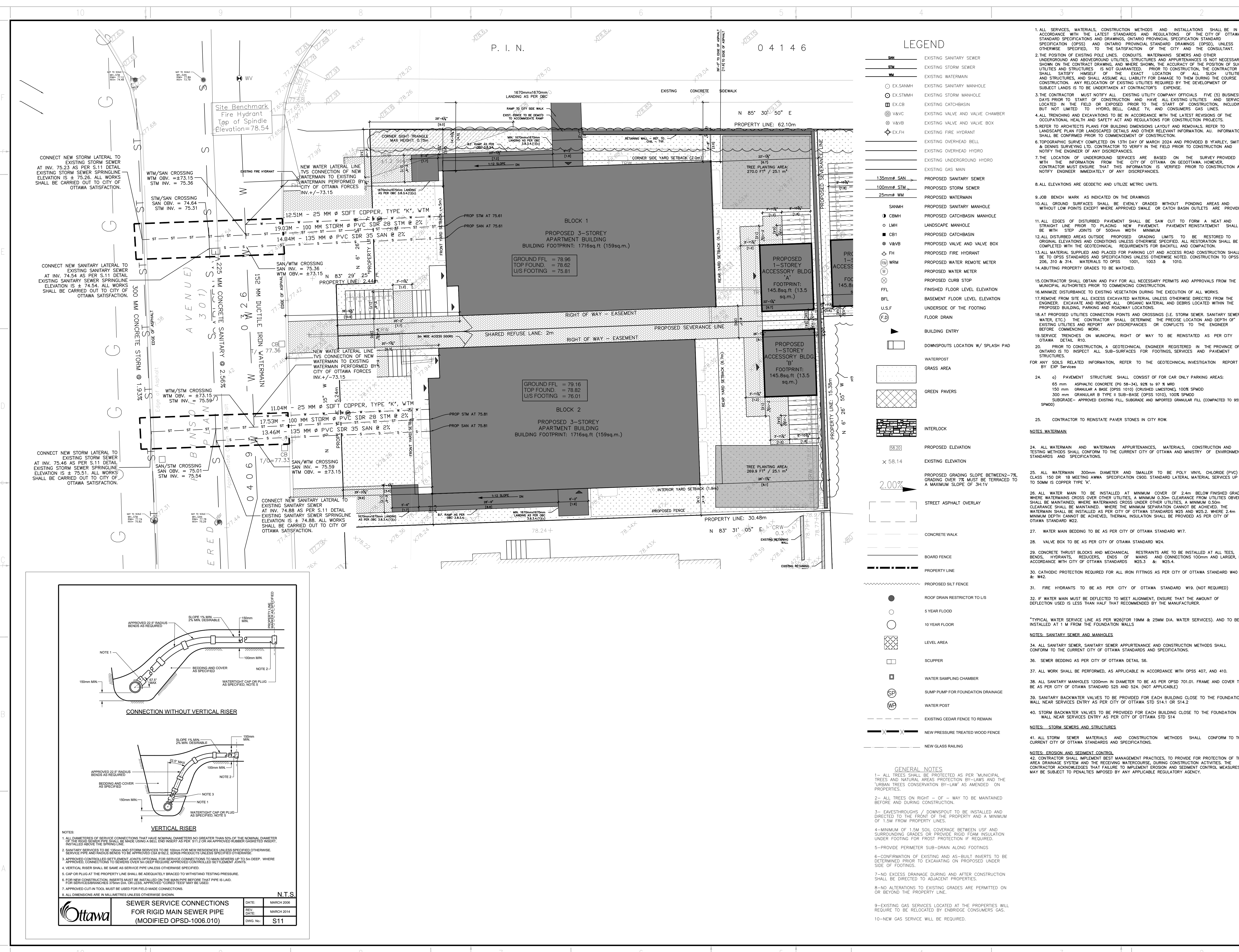
ISSUE: ISSUED FOR REVIEW

DATE OF: 2024-08-13

REV #

PROPOSED DEVELOPMENT
2409 CARLSEN AVENUE
OTTAWA, ON K1V 8E9

GRADING
PLAN



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CONSULTANT:

SEAL:

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PROJECT:

KEY PLAN:

DISCLAIMER:

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TITLE:

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ISSUE:

DATE OF: 2024-08-13

REV #:

PROPOSED DEVELOPMENT
2409 CARLSEN AVENUE
OTTAWA, ON K1V 8E9

PROPOSED 3-STORY APARTMENT BUILDING
BUILDING FOOTPRINT: 1716sq.ft (159sq.m.)

PROPOSED 1-STORY ACCESSORY BLDG
FOOTPRINT: 145.8sq.ft (13.5 sq.m.)

PROPOSED 3-STORY APARTMENT BUILDING
BUILDING FOOTPRINT: 1716sq.ft (159sq.m.)

PROPOSED 1-STORY ACCESSORY BLDG
FOOTPRINT: 145.8sq.ft (13.5 sq.m.)

SERVICING PLAN

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