

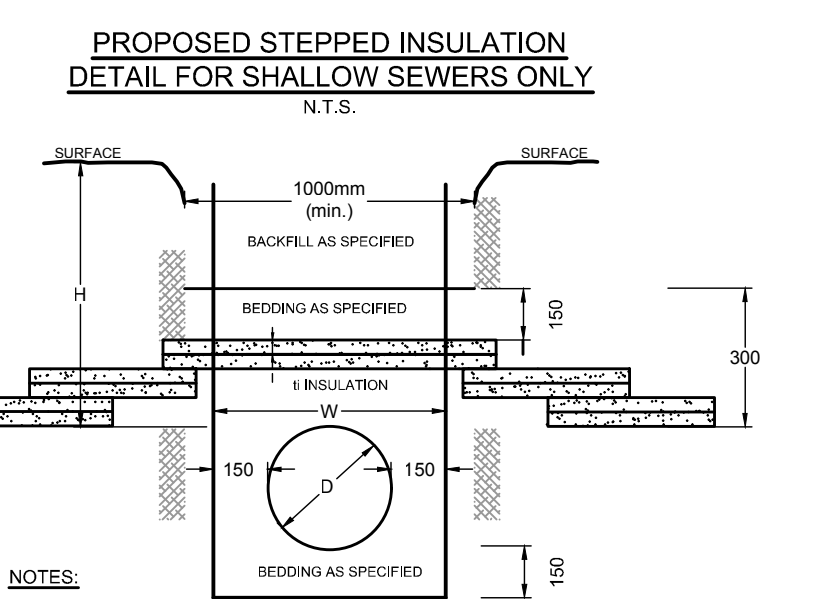
### LEGEND

	PROPERTY LINE
	PROPOSED SANITARY MH & SEWER
	PROPOSED CATCHBASIN MH & SEWER
	PROPOSED STORM MH & SEWER
	MECHANICAL DECK DRAIN
	PROPOSED HYDRANT c/w VALVE & VALVE BOX
	PROPOSED WATER METER AND REMOTE METER
	PROPOSED BARRIER CURB
	PROPOSED DEPRESSED CURB
	PROPOSED WATER SERVICE AND DIAMETER
	PROPOSED VALVE & VALVE BOX
	PROPOSED BEND AND THRUSTBLOCK 11.25', 22.5', 45' or TEE
	PROPOSED CAP
	PROPOSED SIASME CONNECTION
	PROPOSED BUILDING ENTRANCE
	THERMAL INSULATION FOR SHALLOW SEWERS
	PROPOSED LANDSCAPE AREA
	REMOVALS
	FINISHED FLOOR ELEVATION
	TOP OF FOUNDATION ELEVATION
	UNDERSIDE OF FOOTING
	EXISTING CONCRETE CURB
	EXISTING SANITARY MANHOLE & SEWER
	EXISTING CATCHBASIN MANHOLE
	EXISTING STORM MANHOLE & SEWER
	EXISTING CATCHBASIN c/w CATCHBASIN LEAD
	EXISTING WATERMAIN
	EXISTING HYDRANT c/w VALVE & LEAD
	EXISTING TREES/VEGETATION
	EXISTING UTILITY POLE
	EXISTING OVERHEAD UTILITY WIRES

- ### GENERAL NOTES:
- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
  - DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
  - OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
  - BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
  - COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD & AWWA GUIDELINES - ALL CURRENT VERSIONS AND 'AS AMENDED'.
  - RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
  - REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
  - ALL ELEVATIONS ARE GEODETIC.
  - REFER TO GEOTECHNICAL REPORT (PG4394-1, DATED MARCH 29, 2018) AND RELIANCE LETTER (DATED JULY 23, 2024), PREPARED BY PATERSON GROUP INC. FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
  - REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
  - REFER TO THE DEVELOPMENT SERVING STUDY & STORMWATER MANAGEMENT REPORT (R-2024-087) PREPARED BY NOVATECH.
  - SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
  - PROVIDE LINE / PARKING PAINTING AS REQUIRED PER THE ARCHITECTURAL SITE PLAN.

- ### SEWER NOTES:
- SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.
  - SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200mm)	701.010	OPSD
CB, FRAME & COVER	400.020	OPSD
SANITARY MH FRAME & COVER	401.010 - TYPE "A"	OPSD
STORM / CBMH MANHOLE FRAME AND COVER	401.010 - TYPE "B"	OPSD
WATERTIGHT MH FRAME AND COVER	401.030	OPSD
LANDSCAPE DRAIN (ELBOW, COVER & PIPE)	S29 / S31	CITY OF OTTAWA
SEWER TRENCH	S6	CITY OF OTTAWA
STORM SEWER	PVC DR 35	
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	
  - ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2.
  - INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.8m COVER WITH HI-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
  - SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
  - PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
  - FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
  - THE OWNER SHALL REQUIRE THAT THE SITE SERVING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.18.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
  - ALL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS.
  - ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
  - ALL WEeping TILE SYSTEMS ARE TO BE PUMPED TO THE SURFACE AS INDICATED ON THE GENERAL PLAN OF SERVICES DRAWING. REFER TO MECHANICAL PLANS FOR DETAILS.
  - CONTRACTOR TO TELEVIEW (CCTV) ALL PROPOSED SEWERS, 200mm OR GREATER PRIOR TO BASE COURSE ASPHALT, UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.
  - CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND TIG ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.



NOTES:

- INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.8m COVER WITH EXPANDED POLYSTYRENE INSULATION AS SHOWN.
- THE THICKNESS OF INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm REDUCTION IN THE REQUIRED DEPTH OF COVER (SEE TABLE).

COVER (mm)	INSULATION THICKNESS (mm)
1800-1900	50
1600-1700	75
1200-600	100
900-450	125

n = THICKNESS OF INSULATION (mm)  
t = DEPTH OF COVER (W = 300 (1000 mm))  
W = WIDTH OF INSULATION (mm)  
D = O.D. OF PIPE (mm)

### 150mmØ WATER SERVICE TABLE (WEST)

STATION	SURFACE ELEVATION	T/W M ELEVATION	COMMENTS
0+0.0	64.41s	61.87s	150mmØ TEE CONNECTION TO EX. 203mmØ PVC WM
0+2.0	64.42	62.69	22.5" VERTICAL BEND
0+3.8	64.50	62.69	CROSS ABOVE EX. 600mm STORM SEWER (CLEARANCE = ±0.25m)
0+8.8	64.53	62.69	150mmØ V&VB
0+9.5	64.51	62.69	CAP AT FOUNDATION WALL

### 150mmØ WATER SERVICE TABLE (EAST)

STATION	SURFACE ELEVATION	T/W M ELEVATION	COMMENTS
1+0.0	64.35s	61.87s	150mmØ TEE CONNECTION TO EX. 203mmØ PVC WM
0+2.0	64.40	62.69	22.5" VERTICAL BEND
1+3.8	64.50	62.69	CROSS ABOVE EX. 600mm STORM SEWER (CLEARANCE = ±0.25m)
0+8.8	64.57	62.69	150mmØ V&VB
0+9.5	64.57	62.69	CAP AT FOUNDATION WALL

\* CONNECTIONS TO EXISTING 200mmØ WATERMAIN. EXACT ELEVATIONS TO BE FIELD DETERMINED.  
\*\* PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W22 IN SHALLOW TRENCHES AND/OR CITY OF OTTAWA DETAIL W23 ADJACENT TO OPEN STRUCTURES.

- ### WATERMAIN NOTES:
- SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE CITY OF OTTAWA FORCES.
  - SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
WATERMAIN	PVC DR 18	
  - WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE, UNLESS OTHERWISE INDICATED.
  - PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
  - WATER SERVICE IS TO BE CONSTRUCTED TO FOUNDATION WALL AND CAPPED.

### INTERNAL SWM STORAGE SYSTEM

DESIGN EVENT	STORAGE SYSTEM CONTROLLED FLOW	STORAGE VOLUMES REQUIRED	PROVIDED
1.2 YR	PUMPED FLOW	18.7 m³	>71 m³
1.5 YR	RATE = 5.5 L/s	28.4 m³	
1-100 YR		70.5 m³	

### CRITICAL SEWER PIPE CROSSING TABLE

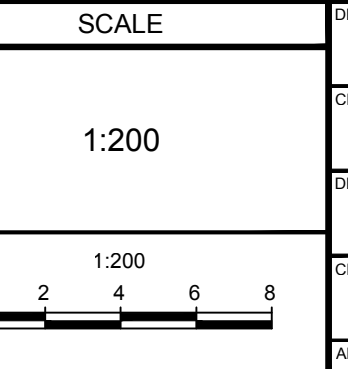
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE	SURFACE ELEVATION
ⓐ	200mmØ WM T/P=61.78	200mmØ SAN INV=62.52	±0.74m	64.15 m
ⓑ	600mmØ STM T/P=62.31	200mmØ SAN INV=62.56	±0.25m	64.36 m

- ### BENCHMARK NOTES:
- ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM, AND ARE DERIVED FROM THE CAN-NET VRS NETWORK MONUMENT, OTTAWA WITH AN ELEVATION OF 95.230.
  - IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE JOB BENCHMARK HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON THIS DRAWING.
  - BENCHMARK WAS PROVIDED ON PLAN OF SURVEY OF ALL OF LOTS 24 AND 25, AND PART OF LOTS 45, 46, 47, AND 48, REGISTERED PLAN 369, SURVEYED BY STANTEC GEOMATICS LTD (PROJECT NO 161613828-110).

- ### NOTES:
- ALL DRAINS FROM AREA A.2 (PROPOSED AMENITY AREA DECK DRAINAGE AND ALL ROOF DRAINS) TO BE DIRECTED TO THE INTERNAL STORMWATER STORAGE SYSTEM. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR DETAILS.
  - REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT SIZE AND DETAILS OF INTERNAL STORMWATER STORAGE SYSTEM.
  - REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR LOCATION AND CONNECTIONS AND DETAILS OF THE INTERNAL STORMWATER STORAGE SYSTEM AND EMERGENCY OVERFLOW PIPING.

**OWNER INFORMATION**  
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OTTAWA, ONTARIO K2E 7S8  
KEN HOPPNER  
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No.	REVISION	DATE	BY
1.	ISSUED FOR SPC	JUL 31/24	FST



DESIGN	FOR REVIEW ONLY
BB/KD	
CHECKED	FST
DRAWN	BB/KD
CHECKED	FST
APPROVED	FST



LOCATION	CITY OF OTTAWA
1950 SCOTT STREET AND 312 & 314 CLIFTON ROAD	
DRAWING NAME	GENERAL PLAN OF SERVICES
PROJECT No.	121301
REV	REV #1
DRAWING No.	121301-GP
PLAN #	XXXX

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