

NORTH

DESCRIPTION

DESCRIPTION

WATERMAIN TO CROSS UNDER EXISTING BELL LINE

APPROXIMATE CLEARANCE = +/-0.50m

CAPPED OUTSIDE FOUNDATION WALL

APPROXIMATE CLEARANCE = +/-0.50m

CAPPED OUTSIDE FOUNDATION WALL

VALVE AND VALVE BOX ON PROPERTY LIMIT

**ANDREW MCCREIGHT** 

**DEPARTMENT, CITY OF OTTAWA** 

By Andrew McCreight at 12:07 pm, Apr 10, 2024

**APPROVED** 

VALVE AND VALVE BOX ON PROPERTY LIMIT

WATERMAIN TO CROSS UNDER EXISTING STREET LIGHT LINE

WATERMAIN TO CROSS UNDER EXISTING STREET LIGHT LINE

WATERMAIN TO CROSS UNDER EXISTING 680mm HYDRO DUCT

WATERMAIN TO CROSS UNDER EXISTING STREET LIGHT LINE

WATERMAIN TO CROSS UNDER EXISTING STREET LIGHT LINE

WATERMAIN TO CROSS UNDER EXISTING 680mm HYDRO DUCT

11.25° VERTICAL BEND

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**KEY PLÁN** 

## GENERAL NOTES:

- 1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- 2. 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
- 3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION. 4. 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-INSUREI
- 5 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.
- 6. 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 MUNICIPAL AUTHORITIES.
- 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.
- 9. REFER TO GEOTECHNICAL INVESTIGATION REPORT (PG65195-1, REVISION 2, DATED SEPTEMBER 7, 2023), PREPARED BY PATERSON GROUP INC., CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE
- 10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND
- 11. REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2022-124) PREPARED BY
- 12. SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE-IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).

STORM SEWER

STORM SEWER

SANITARY SEWER

ALL ELEVATIONS ARE GEODETIC.

1. 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: STORM / SANITARY MANHOLE (1200Ø) SANITARY MANHOLE FRAME AND COVER STORM/CATCHBASIN MANHOLE (1800Ø) STORM/CBMH FRAME AND COVER WATERTIGHT MANHOLE FRAME AND COVER LOCKABLE MANHOLE FRAME AND COVER CATCHBASIN (600×60) CATCHBASIN FRAME & COVER SEWER TRENCH

OPSD 401.010 - TYPE 'A' 401.010 - TYPE 'B' OPSD CITY OF OTTAWA CITY OF OTTAWA PVC DR 35 (450mmØ PIPE AND SMALLER) CONCRETE 65-D (600mmØ PIPE AND LARGER)

- 3. THE SANITARY SERVICE LATERAL SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS \$14.1 OR \$14.2. REFER TO MECHANICAL PLANS FOR DETAILS. 4. THE STORM SERVICE LATERAL SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER
- CITY OF OTTAWA STANDARD DETAILS \$14. REFER TO MECHANICAL PLANS FOR DETAILS. 5. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
- 6. 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.
- 7. 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.
- 8. CONCRETE MANHOLES ARE TO BE 1200mmØ STRUCTURES UNLESS OTHERWISE NOTED ON THE DRAWING. 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.
- 9. TYPICAL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. 10. THE CONTRACTOR IS TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mm@ OR GREATER PRIOR TO BASE COURSE ASPHALT.
- PROVIDE A COPY OF ALL CCTV INSPECTION REPORTS TO THE ENGINEER FOR REVIEW
- 11. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL APPLICABLE SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS AND ANY ALIGNMENT CHANGES, ETC.
- 12. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 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.
- **WATERMAIN NOTES:**
- 1. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.

2. SPECIFICATIONS: <u>ITEM</u>
WATERMAIN TRENCHING YDRANT INSTALLATION THERMAL INSULATION IN SHALLOW TRENCHES CITY OF OTTAWA THERMAL INSULATION BY OPEN STRUCTURES VALVE BOX ASSEMBLY CITY OF OTTAWA WATERMAIN CROSSING BELOW SEWERS CATHODIC PROTECTION FOR PVC WATERMAINS CITY OF OTTAWA PVC DR 18 (100mm AND LARGER) WATERMAIN MATERIAL

- 3. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
- 4. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. 5. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
- 6. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

- ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM VERTICAL CONTROL MONUMENT No. 2011-0073 HAVING A ELEVATION OF 71.65 METRES.
- IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE JOB BENCHMARK HAS NOT BEEN ALTERED OR DISTURBED AND THAT IT'S RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON
- THIS DRAWING.
- BENCHMARK WAS PROVIDED ON SURVEYOR'S REAL PROPERTY REPORT PART 1, PLAN OF LOTS 54, 55 AND PART OF LOT 53

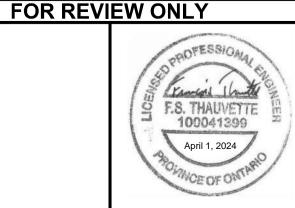
SOUTH LAURIER AVENUE, REGISTERED PLAN 4556, CITY OF OTTAWA, SURVEYED BY ANNIS, O'SULLIVAN AND VOLEBEKK LTD.

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR

DAMAGE TO THEM.

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REVISED AS PER CITY COMMENTS OCT 20/23 REVISED AS PER CITY COMMENTS JUN 5/23 ISSUED FOR SPC APPLICATION AUG 30/22 DATE REVISION





Website

www.novatech-eng.com

CITY OF OTTAWA 150 LAURIER AVENUE WEST

DRAWING NAME

GENERAL PLAN OF SERVICES

REV # 6

12213

PLAN #18833

122133-GP

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