

\* 150mmØ CONNECTION TO EXISTING 200mmØ DUCTILE IRON WATERMAIN.  
 EXACT ELEVATION TO BE FIELD DETERMINED.

\*\* PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W23 AND DETAIL  
 W22 WHERE COVER IS LESS THAN 2.4m AND/OR ADJACENT TO OPEN STRUCTURES.

BYRON AVENUE

1. SUPPLY AND CONSTRUCT ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. SPECIFICATIONS:

| <u>ITEM</u>                            | <u>SPEC. No.</u>             | <u>REFERENCE</u> |
|--|------------------------------|------------------|
| WATERMAIN TRENCHING                    | W17                          | CITY OF OTTAWA   |
| THERMAL INSULATION IN SHALLOW TRENCHES | W22                          | CITY OF OTTAWA   |
| THERMAL INSULATION BY OPEN STRUCTURES  | W23                          | CITY OF OTTAWA   |
| WATERMAIN CROSSING BELOW SEWERS        | W25                          | CITY OF OTTAWA   |
| WATERMAIN MATERIAL                     | PVC DR 18 (100mm AND LARGER) |                  |
3. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS. EXCAVATION, INSTALLATION OF SERVICE, BACKFILL AND RESTORATION BY THE CONTRACTOR.
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.



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|  | PROPERTY LINE                           |
|  | PROPOSED SANITARY SERVICE               |
|  | PROPOSED STORM SERVICE                  |
|  | CONTROLLED FLOW ROOF DRAIN              |
|  | PROPOSED DECK DRAIN                     |
|  | THERMAL INSULATION FOR SHALLOW SEWERS   |
|  | PROPOSED TRENCH DRAIN                   |
|  | PROPOSED BARRIER CURB                   |
|  | PROPOSED DEPRESSED CURB                 |
|  | PROPOSED WATER SERVICE AND DIAMETER     |
|  | PROPOSED VALVE & VALVE BOX              |
|  | PROPOSED CAP                            |
|  | PROPOSED DIAMESE CONNECTION             |
|  | PROPOSED WATER METER & REMOTE METER     |
|  | PROPOSED BUILDING ENTRANCE              |
|  | REMOVALS                                |
|  | PROPOSED HYDRO TRANSFORMER              |
|  | EXISTING OVERHEAD WIRES                 |
|  | EXISTING CONCRETE CURB                  |
|  | EXISTING SANITARY MANHOLE & SEWER       |
|  | EXISTING CATCHBASIN MANHOLE             |
|  | EXISTING STORM MANHOLE & SEWER          |
|  | EXISTING CATCHBASIN C/W CATCHBASIN LEAD |
|  | EXISTING HYDRANT & VALVE                |
|  | EXISTING TREES / VEGETATION             |
|  | EXISTING UTILITY POLE C/W GUY WIRES     |
|  | EXISTING FENCE                          |
|  | EXISTING WATERMAIN                      |
|  | EXISTING HYDRANT C/W VALVE & LEAD       |

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 DRAWING.
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-INSURED.
5. 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.
6. 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.
7. ALL ELEVATIONS ARE GEODETIC.
8. REFER TO GEOTECHNICAL INVESTIGATION (PG4712-1), DATED FEBRUARY 26, 2019, PREPARED BY PATERSON GROUP 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.
9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
10. REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2019-013) PREPARED BY NOVATECH.
11. SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE-IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. SPECIFICATIONS:
 

| ITEM   | SPEC. NO. |
|--|-----------|
| STORM SEWER  | PVC DR 35 |
| SANITARY SEWER   | PVC DR 35 |
| SEWER TRENCH - BEDDING (GRANULAR 'A')<br>COVER (GRANULAR 'A' OR GRANULAR 'B' TYPE I WITH MAXIMUM PARTICLE SIZE=25mm) |           |
3. THE SANITARY SEWER LATERAL SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14.1 OR S14.2, REFER TO MECHANICAL PLANS FOR DETAILS.
4. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 85% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
5. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.5m COVER WITH UP TO 125mm THICK H4-K10 RIGID INSULATION.
6. 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.
7. 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 AND 410.07.2 OF THE MAIN. IT IS TO BE COMPLETED ON ALL SANITARY SERVICING TO A CERTIFIED 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.

**NOTES:**

1. ALL DRAINAGE FROM AREA R-1 (PROPOSED ROOFTOP AMENITY AREA AND ALL ROOFTOP / PATIO DRAINS) TO BE DIRECTED TO THE INTERNAL STORMWATER STORAGE TANK. REFER TO THE ARCHITECTURAL AND MECHANICAL PLANS FOR DETAILS.
2. REFER TO STRUCTURAL PLANS FOR EXACT SIZE AND DETAILS OF INTERNAL STORMWATER STORAGE TANK.
3. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR LOCATION AND CONNECTIONS TO INTERNAL STORMWATER STORAGE TANK.

\* REDUCED FLOW COMPARED TO PRE-DEVELOPMENT UNCONTROLLED CONDITIONS

# PRELIMINARY

**OWNER INFORMATION**  
2592532 ONTARIO INC.  
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|     |                      |  |  |          |     |   |          |          |
|-----|----------------------|--|--|----------|-----|---|----------|----------|
|     |                      |  |  |          |     | <div>SCALE</div> <div>1:150</div> <div><div>0123456</div><div>1:150</div></div> | DESIGN   | FST / SM |
|     |                      |  |  |          |     |   | CHECKED  | FST      |
|     |                      |  |  |          |     |   | DRAWN    | SM       |
|     |                      |  |  |          |     |   | CHECKED  | FST / SM |
|     |                      |  |  |          |     |   | APPROVED | FST      |
|     |                      |  |  |          |     |   |          |          |
|     |                      |  |  |          |     |   |          |          |
| 1   | ISSUED FOR SITE PLAN |  |  | APR 5/19 | FST |   |          |          |
| No. | REVISION             |  |  | DATE     | BY  |   |          |          |

**FOR REVIEW ONLY**



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LOCATION  
CITY of OTTAWA  
472 BYRON PLACE - BYRON PLACE APARTMENTS

## GENERAL PLAN OF SERVICES

|             |        |
|-------------|--------|
| PROJECT No. | 118024 |
|-------------|--------|

REV # 1  
DRAWING No.  
118024-GP

**D07-12-19-XXXX**