

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.
- 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 (No. PG7178-1, DATED JULY 2, 2024), 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.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
- REFER TO STORMWATER MANAGEMENT REPORT(R-2024-123) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
- 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.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL 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, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

SEWER NOTES:

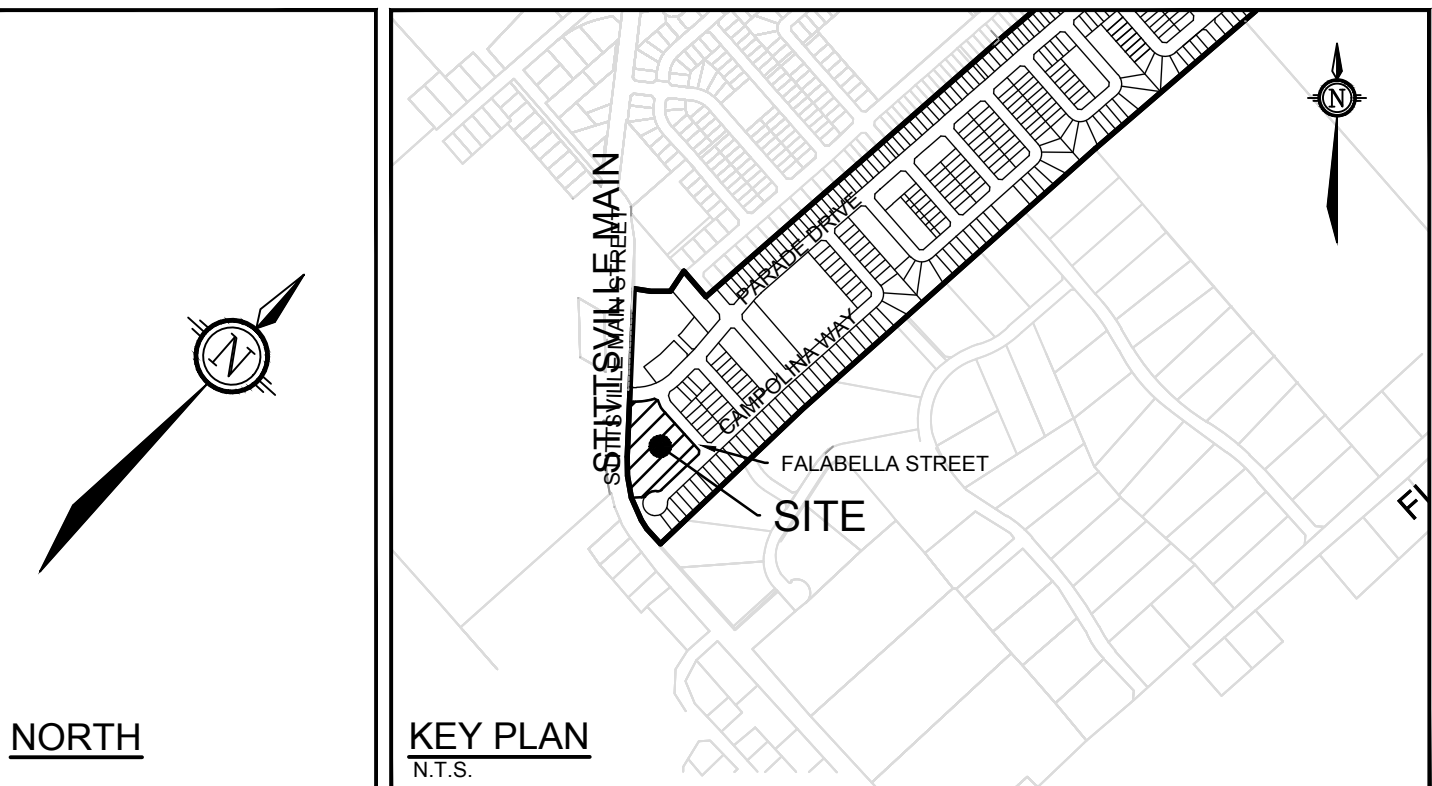
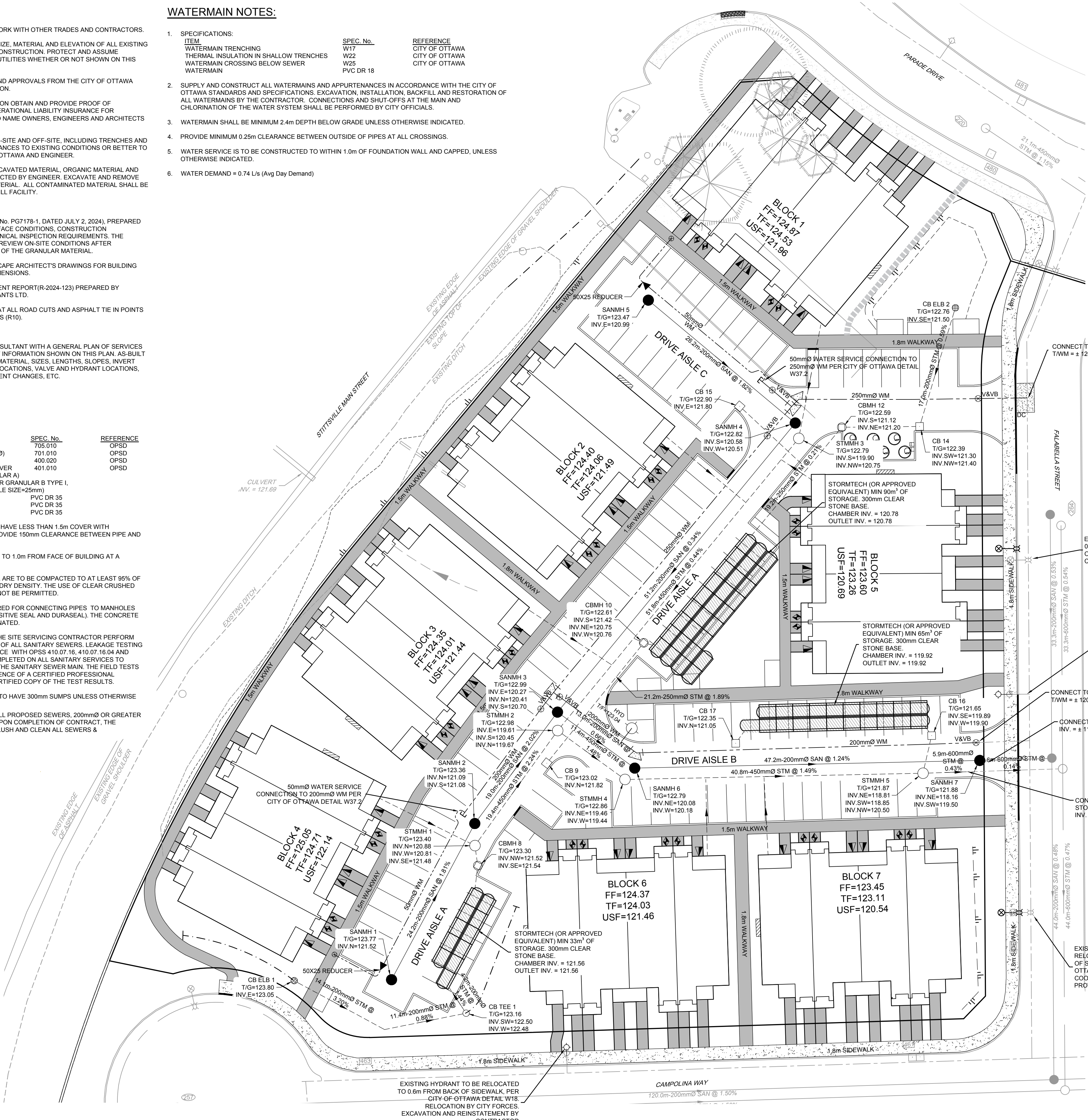
- SPECIFICATIONS:

| ITEM   | SPEC. No. | REFERENCE |
|--|-----------|-----------|
| CATCHBASIN (600x600mm)   | 705.010   | OPSD      |
| STORM / SANITARY MANHOLE (1200Ø)   | 701.010   | OPSD      |
| CB, FRAME & COVER  | 400.020   | OPSD      |
| STORM / SANITARY MH FRAME & COVER  | 401.010   | OPSD      |
| SEWER TRENCH - BEDDING (GRANULAR A)                                      |           |           |
| COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm) |           |           |
| STORM SEWER  | PVC DR 35 |           |
| SANITARY SEWER   | PVC DR 35 |           |
| CATCHBASIN LEAD  | PVC DR 35 |           |
- INSULATE ALL PIPES (SANITARY) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm HI-40 INSULATION. 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 KORAN-SEAL, PSX POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
- 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 OPS5 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.
- STORM MANHOLES AND CBMHs ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
- CONTRACTOR TO TELEVISION (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

WATERMAIN NOTES:

- SPECIFICATIONS:

| ITEM                                   | SPEC. No. | REFERENCE      |
|--|-----------|----------------|
| WATERMAIN TRENCHING                    | W17       | CITY OF OTTAWA |
| THERMAL INSULATION IN SHALLOW TRENCHES | W22       | CITY OF OTTAWA |
| WATERMAIN CROSSING BELOW SEWER         | W25       | CITY OF OTTAWA |
| WATERMAIN                              | PVC DR 18 |                |
- SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. 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.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
- PROVIDE MINIMUM 0.25m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
- WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
- WATER DEMAND = 0.74 L/s (Avg Day Demand)



- LEGEND**
- 200mmØ WM - PROPOSED WATERMAIN
  - 250mmØ WM - PROPOSED WATERMAIN
  - V&VB - PROPOSED VALVE LOCATION
  - HYD - PROPOSED VALVE & VALVE BOX
  - T/F=98.45 - PROPOSED TOP OF BOTTOM FLANGE
  - BEND - PROPOSED BEND AND THRUSTBLOCK 11.25", 22.5", 45" or TEE
  - PROPOSED SANITARY MH & SEWER
  - PROPOSED STORM MH & SEWER
  - CBMH - PROPOSED CATCHBASIN MANHOLE
  - CB - PROPOSED ROAD CATCHBASIN
  - CB ELB - PROPOSED LANDSCAPE ELBOW CATCHBASIN
  - CB TEE - PROPOSED LANDSCAPE TEE CATCHBASIN
  - PROPOSED WATER SERVICE (3 x 25mm SERVICES)
  - PROPOSED SANITARY SERVICE (1 x 125mm SERVICE)
  - EXISTING SANITARY MH & SEWER
  - EXISTING STORM MH & SEWER

EXISTING STREETLIGHT TO BE RELOCATED TO 0.6m FROM BACK OF SIDEWALK, PER CITY OF OTTAWA DETAIL ROW-20.0 COORDINATE W/ MAINTENANCE PROVIDER

EXISTING HYDRANT TO BE RELOCATED TO 0.6m FROM BACK OF SIDEWALK, PER CITY OF OTTAWA DETAIL W18. RELOCATION BY CITY FORCES. EXCAVATION AND REINSTATEMENT BY CONTRACTOR

CONNECT TO EXISTING 250mmØ WATERMAIN T/W = ± 120.05m

CONNECT TO EXISTING 200mmØ SANITARY SEWER INV. = ± 118.16

| 200mmØ & 250mmØ WATERMAIN TABLE (DRIVE AISLE A) |           |                  |  |  |
|---|-----------|------------------|--|--|
| STATION   | ELEVATION | TOP OF WATERMAIN | DESCRIPTION                                  |  |
| 0+000   | 123.75    | 121.35           | 50mmØ X 25mmØ REDUCER                        |  |
| 0+023.0   | 123.32    | 120.92           | 200mmØ WATERMAIN CAP                         |  |
| 0+023.5   | 123.30    | 120.90           | 50mmØ WATERMAIN CONNECTION                   |  |
| 0+042   | 122.99    | 120.59           | VALVE AND VALVE BOX                          |  |
| 0+044.5   | 122.95    | 120.55           | TEE CONNECTION / 250mmØ WATERMAIN CONNECTION |  |
| 0+054.60  | 122.67    | 120.27           | VERTICAL BEND                                |  |
| 0+075   | 122.69    | 120.29           | TOP OF WATERMAIN                             |  |
| 0+078.90  | 122.98    | 120.58           | VERTICAL BEND                                |  |
| 0+085.50  | 122.88    | 120.48           | VALVE AND VALVE BOX                          |  |
| 0+090.00  | 122.80    | 120.40           | TEE CONNECTION                               |  |
| 0+100.00  | 122.72    | 120.32           | TOP OF WATERMAIN                             |  |
| 0+105.20  | 122.53    | 120.13           | VERTICAL BEND                                |  |
| 0+114.40  | 122.56    | 120.16           | VALVE AND VALVE BOX                          |  |
| 0+121.1   | 122.42    | 120.22           | CONNECT TO EXISTING 250mmØ WATERMAIN         |  |

| 200mmØ WATERMAIN TABLE (DRIVE AISLE C) |           |                  |                            |  |
|--|-----------|------------------|----------------------------|--|
| STATION                                | ELEVATION | TOP OF WATERMAIN | DESCRIPTION                |  |
| 0+000                                  | 123.50    | 121.10           | 50mmØ X 25mmØ REDUCER      |  |
| 0+020.91                               | 120.90    | 120.42           | 200mmØ WATERMAIN CAP       |  |
| 0+021.41                               | 120.90    | 120.42           | 50mmØ WATERMAIN CONNECTION |  |
| 0+023.26                               | 122.92    | 120.52           | VALVE AND VALVE BOX        |  |
| 0+026.70                               | 120.90    | 120.42           | TEE CONNECTION             |  |

| 200mmØ WATERMAIN TABLE (DRIVE AISLE C) |           |                  |                            |  |
|--|-----------|------------------|----------------------------|--|
| STATION                                | ELEVATION | TOP OF WATERMAIN | DESCRIPTION                |  |
| 0+000                                  | 123.50    | 121.10           | 50mmØ X 25mmØ REDUCER      |  |
| 0+020.91                               | 120.90    | 120.42           | 200mmØ WATERMAIN CAP       |  |
| 0+021.41                               | 120.90    | 120.42           | 50mmØ WATERMAIN CONNECTION |  |
| 0+023.26                               | 122.92    | 120.52           | VALVE AND VALVE BOX        |  |
| 0+026.70                               | 120.90    | 120.42           | TEE CONNECTION             |  |

**NOTE:**  
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.

| No. | REVISION                            | DATE      | BY  |
|-----|-------------------------------------|-----------|-----|
| 6.  | RE-ISSUED FOR SITE PLAN APPLICATION | APR 11/25 | DJC |
| 5.  | REVISED PER CITY COMMENTS           | JAN 23/25 | ARM |
| 4.  | ISSUED FOR COORDINATION             | NOV 21/24 | ARM |
| 3.  | ISSUED WITH SERVICING & SWM REPORT  | OCT 22/24 | ARM |
| 2.  | ISSUED FOR COORDINATION             | OCT 9/24  | ARM |
| 1.  | ISSUED FOR COORDINATION             | SEP 11/24 | ARM |

**SCALE**

1:300

0 3 6 9 12

**FOR REVIEW ONLY**

DESIGN: MNP  
CHECKED: ARM  
DRAWN: MNP  
CHECKED: ARM  
APPROVED: ARM

**PROFESSIONAL ENGINEER**  
B. P. BAHIA  
100164647  
Apr 15, 2025  
PROVINCE OF ONTARIO

**NOVATECH**  
Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 1P6  
Telephone: (613) 254-9643  
Facsimile: (613) 254-5867  
Website: www.novatech-eng.com

**LOCATION**  
CITY OF OTTAWA  
BLOCK 349

**DRAWING NAME**  
GENERAL PLAN OF SERVICES

**PROJECT No.**  
124097

**REV #**  
6

**DRAWING No.**  
124097-GP