## LEGEND

| | |
|---|---|
| SANMH 1 | PROPOSED SANITARY MANHOLE AND SEWER (WT) = WATERTIGHT FRAME AND COVER |
| CBMH 250 | PROPOSED CATCHBASIN MANHOLE C/W RADIAL SUBDRAIN (PER GEOTECH) |
| STMMH 100 | PROPOSED STORM MANHOLE AND SEWER |
| CB 200 | PROPOSED CATCHBASIN C/W SUBDRAIN (PER GEOTECH) |
| LD 1 | PROPOSED LANDSCAPE DRAIN |
| | THERMAL INSULATION FOR SHALLOW SEWERS |
| | PROPOSED WATERMAIN / WATER SERVICE |
| HYD | PROPOSED HYDRANT AND VALVE |
| M RM | PROPOSED WATER METER AND REMOTE METER |
| VB | PROPOSED VALVE BOX |
| RED | PROPOSED REDUCER |
| | PROPOSED SIAMESE CONNECTION |
| | PROPOSED BARRIER CURB (PER SC1.1) |
| DC | PROPOSED DEPRESSED CURB (PER SC1.1) |
| CC | PROPOSED CURB CUT |
| ICD | PROPOSED INLET CONTROL DEVICE |
| FFE | PROPOSED FINISHED FLOOR ELEVATION |
| USF | PROPOSED UNDERSIDE OF FOOTING ELEVATION |
| | PROPOSED TRENCH DRAIN |
| | PROPOSED BUILDING ENTRANCE |
| | EXISTING CONCRETE CURB |
| SANMH | EXISTING SANITARY MANHOLE |
| CBMH | EXISTING CATCHBASIN MANHOLE |
| STMMH | EXISTING STORM MANHOLE |
| CB | EXISTING CATCHBASIN |
| WV | EXISTING HYDRANT & VALVE |
| | EXISTING TREES / VEGETATION |
| EX UP | EXISTING UTILITY POLE C/W GUY WIRES |
| | EXISTING FENCE |
| | EXISTING LIGHT STANDARD |
| X | REMOVALS |

## 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 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 THE CITY OF OTTAWA AND ENGINEER.
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 REPORT (No. 12667557-RPT-2, DATED AUGUST 6, 2025), PREPARED BY GHD, 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 SURFACE AREAS AND DIMENSIONS.
10. REFER TO DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT (R-2023-082) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
11. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
12. PROVIDE LINE/PARKING PAINTING.

## 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'. 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 THE CONTRACTOR IN THE PRESENCE CITY OF OTTAWA FORCES.
2. SPECIFICATIONS:

| ITEM | SPEC. No. | REFERENCE |
|---|---|---|
| WATERMAIN TRENCHING | W17 | CITY OF OTTAWA |
| HYDRANT INSTALLATION | W19 | CITY OF OTTAWA |
| THERMAL INSULATION IN SHALLOW TRENCHES | W22 | CITY OF OTTAWA |
| INSULATION ADJACENT TO OPEN STRUCTURES | W23 | CITY OF OTTAWA |
| VALVE BOX ASSEMBLY | W24 | CITY OF OTTAWA |
| WATERMAIN | PVC DR 18 | |
| WATERMAIN CROSSING BELOW SEWER | W25 | CITY OF OTTAWA |
| WATERMAIN CROSSING ABOVE SEWER | W25.2 | CITY OF OTTAWA |

3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE, UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED.
6. HYDRANTS SHALL BE ROTATED AT THE FLANGE TO FACE THE ROAD AND ALLOW FIRE SERVICES TO OPERATE THE NUTS.
7. ALL DUCTILE IRON PIPES AND FITTINGS SHALL BE PROTECTED AGAINST POTENTIAL CORROSION PER GEOTECHNICAL RECOMMENDATIONS DUE TO THE CORROSIVE NATURE OF THE SUBGRADE AND GROUNDWATER.
8. MODERATE SULPHATE RESISTANCE (MS) CEMENT SHALL BE USED FOR BELOW GRADE CONCRETE STRUCTURES PER GEOTECHNICAL RECOMMENDATIONS.

## SEWER NOTES:

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'.
2. SPECIFICATIONS:

| ITEM | SPEC. No. | REFERENCE |
|---|---|---|
| CATCHBASIN (600x600mm) | 705.010 | OPSD |
| STORM / SANITARY MANHOLE (1200mmØ) | 701.010 | OPSD |
| STORM MANHOLE (1500Ø) | 701.011 | OPSD |
| CB, FRAME & COVER | S19.1 | CITY OF OTTAWA |
| SANITARY MH FRAME & COVER | S24 | CITY OF OTTAWA |
| STORM / CBMH MANHOLE FRAME AND COVER | S24.1 | CITY OF OTTAWA |
| WATERTIGHT MH FRAME AND COVER | 401.030 | OPSD |
| LANDSCAPE DRAIN (ELBOW, COVER & PIPE) | S29 / S31 | CITY OF OTTAWA |
| SEWER TRENCH | S6 | CITY OF OTTAWA |
| INSULATION FOR SHALLOW SEWERS | S35 | CITY OF OTTAWA |
| STORM SEWER | PVC DR 35 | |
| SANITARY SEWER | PVC DR 35 | |
| CATCHBASIN LEAD | PVC DR 35 | |

3. 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.
4. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.8m COVER WITH HI-40 INSULATION PER CITY OF OTTAWA STANDARD DETAIL S35. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
5. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
6. ALL MANHOLES AND CATCHBASIN MANHOLES SHALL BE 1200mmØ UNLESS OTHERWISE SPECIFIED.
7. ALL SEWERS AND WATERMAINS LOCATED PARALLEL TO EACH OTHER ARE TO BE CONSTRUCTED IN SEPARATE TRENCHES MAINTAINING A CLEAR HORIZONTAL SEPARATION DISTANCE OF 2.5 METRES, AS PER MECP F-6-1 STANDARDS.
8. 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.
9. 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.
10. 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.
11. ALL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS.
12. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
13. ALL WEEPING TILE CONNECTIONS TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET CONTROL DEVICES.
14. UNDERGROUND STORMWATER STORAGE TANKS TO BE DESIGNED BY SUPPLIER AND SHALL INCLUDE APPROPRIATE COUNTER BUOYANCY MEASURES WHERE APPLICABLE.
15. ALL DUCTILE IRON PIPES AND FITTINGS SHALL BE PROTECTED AGAINST POTENTIAL CORROSION PER GEOTECHNICAL RECOMMENDATIONS DUE TO THE CORROSIVE NATURE OF THE SUBGRADE AND GROUNDWATER.
16. MODERATE SULPHATE RESISTANCE (MS) CEMENT SHALL BE USED FOR BELOW GRADE CONCRETE STRUCTURES PER GEOTECHNICAL RECOMMENDATIONS.
17. CONTRACTOR TO TELEVISE (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.
18. 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, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

## PROPOSED 300mmØ WATERMAIN TABLE - SITE LOOP

| Station | F/G ELEVATION | TOP OF WATERMAIN | DESCRIPTION |
|---|---|---|---|
| 3+000.00 | 79.57 | 76.60 * | 300mmØ WATERMAIN TEE CONNECTION TO NEW 300mmØ WATERMAIN |
| 3+003.45 | 79.62 | 76.60 | 22.5° VERTICAL BEND |
| 3+004.90 | 79.65 | 76.02 | 22.5° VERTICAL BEND |
| 3+006.10 | 79.66 | 76.02 *** | CROSS UNDER EX. 600mmØ WATERMAIN. INV = 76.62± |
| 3+007.10 | 79.68 | 76.02 | 22.5° VERTICAL BEND |
| 3+008.90 | 79.73 | 76.75 | 22.5° VERTICAL BEND |
| 3+009.10 | 79.73 | 76.75 *** | CROSS UNDER NEW 250mmØ SANITARY SEWER. INV = 77.29± |
| 3+010.30 | 79.72 | 76.77 | 22.5° HORIZONTAL BEND |
| 3+016.20 | 79.60 | 76.85 | CROSS UNDER EX. 100mmØ GAS LINE |
| 3+018.90 | 79.67 | 76.88 | CROSS UNDER EX. ROGERS LINE |
| 3+020.20 | 79.74 | 76.90 | CROSS UNDER EX. HYDRO LINE |
| 3+021.80 | 79.77 | 76.92 | 22.5° HORIZONTAL BEND |
| 3+023.30 | 79.79 | 76.94 | VALVE AT PROPERTY LINE |
| 3+024.30 | 79.77 | 76.95 | BULK WATER METER IN R4 CHAMBER |
| 3+032.50 | 79.60 | ** 77.06 *** | CROSS UNDER NEW 300mmØ STORM SEWER. INV = 78.03± |
| 3+036.10 | 79.77 | 77.11 | 150mmØ HYDRANT 1 TEE |
| 3+059.50 | 80.50 | 77.38 *** | CROSS UNDER NEW 300mmØ STORM SERVICE LATERAL. INV = 78.32± |
| 3+061.10 | 80.54 | ** 77.40 *** | CROSS UNDER NEW 200mmØ SANITARY SERVICE LATERAL. INV = 78.07± |
| 3+062.20 | 80.56 | ** 77.41 | 22.5° HORIZONTAL BEND |
| 3+066.00 | 80.72 | 77.47 | 11.25° VERTICAL BEND |
| 3+070.00 | 80.84 | 78.27 | 11.25° VERTICAL VEND |
| 3+078.15 | 81.28 | 78.32 | 22.5° HORIZONTAL BEND |
| 3+089.70 | 81.30 | 78.32 *** | CROSS UNDER NEW 375mmØ STORM SERVICE LATERAL. INV = 78.84± |
| 3+093.60 | 81.39 | 78.32 | 22.5° VERTICAL BEND |
| 3+094.90 | 81.41 | 78.86 | 150mmØ HYDRANT 2 TEE |
| 3+096.20 | ** 81.43 | 79.40 | 22.5° VERTICAL BEND |
| 3+121.40 | 81.90 | 79.46 | 22.5° HORIZONTAL BEND |
| 3+130.40 | 82.01 | 79.46 | 22.5° HORIZONTAL BEND |
| 3+131.70 | 81.99 | 79.46 *** | CROSS OVER NEW 200mmØ SANITARY SERVICE LATERAL. OBV = 78.23± |
| 3+144.20 | 81.96 | 79.49 | 200mmØ WATER SERVICE TEE |
| 3+145.40 | 81.97 | 79.49 | VALVE & VALVE BOX |

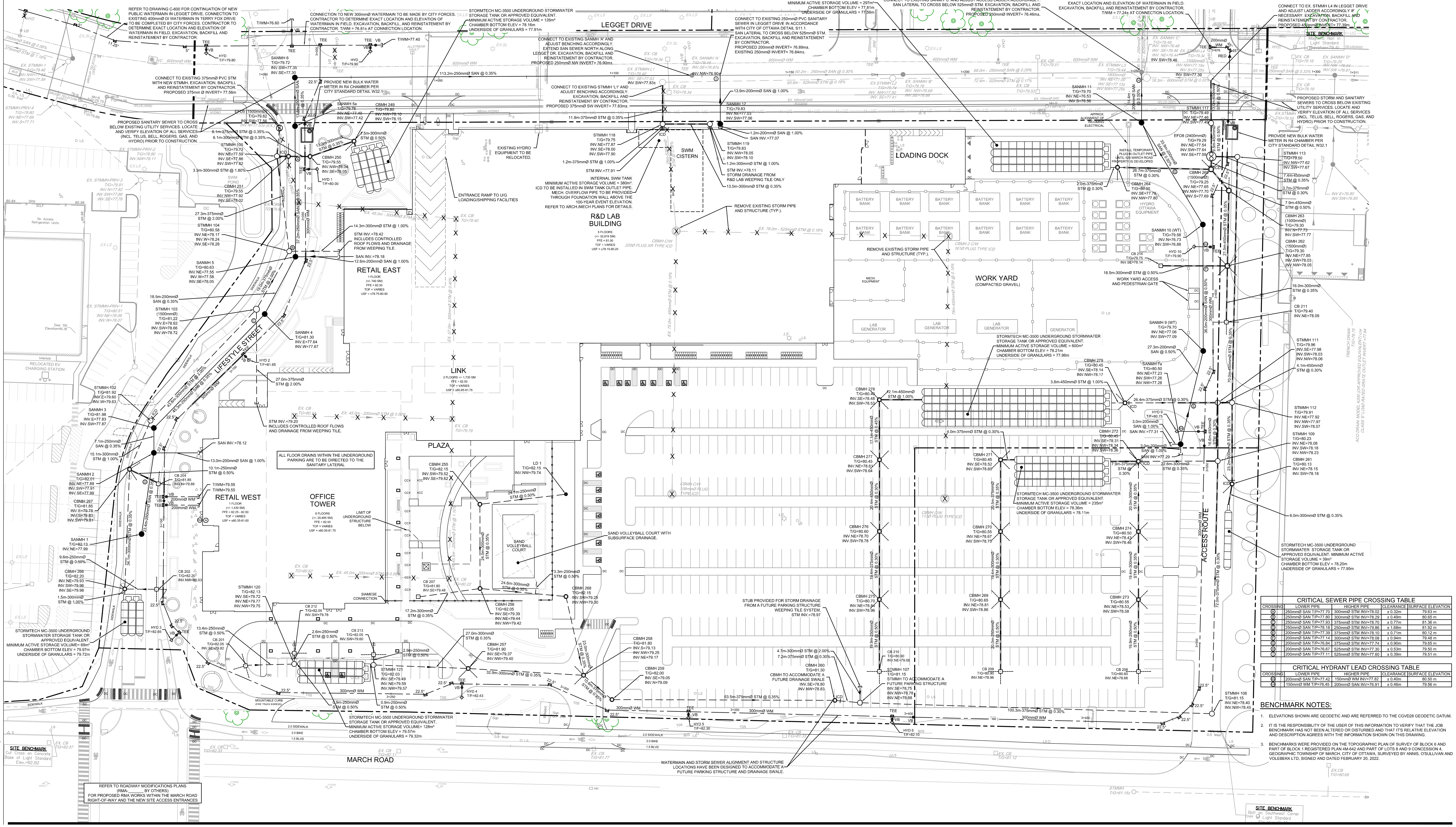
| Station | F/G ELEVATION | TOP OF WATERMAIN | DESCRIPTION |
|---|---|---|---|
| 3+146.60 | 81.98 | 79.49 | 200mmØ WATER SERVICE TEE |
| 3+174.50 | 82.31 | 79.84 | 22.5° HORIZONTAL BEND |
| 3+181.40 | 82.47 | 79.84 | 22.5° HORIZONTAL BEND |
| 3+184.20 | 82.45 | 79.84 | 150mmØ HYDRANT 3 TEE |
| 3+196.10 | 82.33 | 79.84 | 22.5° HORIZONTAL BEND |
| 3+217.90 | 82.31 | 79.84 | 22.5° HORIZONTAL BEND |
| 3+250.00 | 82.28 | 79.61 | - |
| 3+259.70 | 82.27 | 79.57 | 22.5° HORIZONTAL BEND |
| 3+267.80 | 82.17 | 79.57 | 22.5° HORIZONTAL BEND |
| 3+270.80 | 82.03 | 79.55 | 150mmØ HYDRANT 4 TEE |
| 3+295.80 | 81.95 | 79.51 | 22.5° HORIZONTAL BEND |
| 3+313.60 | 82.12 | 79.51 | 22.5° HORIZONTAL BEND |
| 3+325.00 | 82.08 | 79.50 | - |
| 3+336.80 | 82.00 | 79.45 | 150mmØ HYDRANT 5 TEE |
| 3+350.00 | 82.10 | 79.42 | - |
| 3+375.00 | 81.80 | 79.38 | - |
| 3+394.90 | 81.90 | 79.33 | 150mmØ HYDRANT 6 TEE |
| 3+400.90 | 81.78 | 79.32 | VALVE AT PROPERTY LINE |
| 3+425.00 | 82.05 | 79.28 | - |
| 3+450.00 | 81.95 | 79.23 | - |
| 3+454.90 | 81.60 | 79.21 | 11.25° VERTICAL BEND |
| 3+457.50 | 81.50 | 78.69 | 11.25° VERTICAL BEND |
| 3+472.00 | 81.30 | 78.69 | 22.5° HORIZONTAL BEND |
| 3+477.00 | 81.31 | 77.96 | 22.5° HORIZONTAL BEND |
| 3+478.60 | 82.30 | 77.96 | CROSS UNDER NEW 375mmØ STORM SEWER. INV = 78.48± |
| 3+482.00 | 81.30 | 77.96 | 22.5° HORIZONTAL BEND |
| 3+487.00 | 81.07 | 77.96 | 22.5° HORIZONTAL BEND |
| 3+500.00 | 80.98 | 78.30 | - |
| 3+525.00 | 80.65 | 78.20 | - |
| 3+551.80 | 80.28 | 77.86 | CROSS UNDER NEW 300mmØ STORM SEWER. INV = 78.24± |
| 3+556.20 | 80.29 | 77.85 | VALVE & VALVE BOX AT PROPERTY LINE |

| Station | F/G ELEVATION | TOP OF WATERMAIN | DESCRIPTION |
|---|---|---|---|
| 3+560.30 | 80.24 | 77.85 | 150mmØ HYDRANT 9 TEE |
| 3+568.50 | 80.00 | ** 77.60 *** | CROSS UNDER NEW 450mmØ STORM SEWER. INV = 78.07± |
| 3+572.40 | 79.96 | 77.50 | 22.5° HORIZONTAL BEND |
| 3+577.80 | 79.85 | 77.30 | 22.5° HORIZONTAL BEND |
| 3+600.00 | 79.55 | 77.10 | - |
| 3+613.20 | 79.47 | 76.90 | 150mmØ HYDRANT 10 TEE |
| 3+627.90 | 79.40 | 76.90 | 22.5° HORIZONTAL BEND |
| 3+632.90 | 79.27 | 76.90 *** | CROSS UNDER NEW 450mmØ STORM SEWER. INV = 77.71± |
| 3+637.90 | 79.40 | 76.90 | 22.5° HORIZONTAL BEND |
| 3+639.90 | 79.29 | ** 76.89 *** | CROSS UNDER NEW 450mmØ STORM SEWER. INV = 77.61± |
| 3+644.80 | 79.34 | 76.85 | BULK WATER METER IN R4 CHAMBER |
| 3+650.00 | 79.39 | 76.83 | VALVE & VALVE BOX AT PROPERTY LINE |
| 3+652.50 | 79.36 | 76.80 | 22.5° VERTICAL BEND |
| 3+653.30 | 79.34 | 76.40 | CROSS UNDER EX. BELL LINE |
| 3+654.30 | 79.33 | 76.05 | CROSS UNDER EX. ROGERS LINE |
| 3+655.30 | 79.32 | 75.65 | CROSS UNDER EX. TELUS LINE |
| 3+656.30 | 79.31 | 75.25 | CROSS UNDER EX. 100mmØ GAS LINE |
| 3+657.20 | 79.28 | 74.82 | 22.5° VERTICAL BEND |
| 3+659.20 | 79.28 | 74.82 *** | CROSS UNDER EX. 600mmØ STORM SEWER. INV = 77.28± |
| 3+662.40 | 79.33 | 74.82 *** | CROSS UNDER EX. 750mmØ STORM SEWER. INV = 77.20± |
| 3+663.60 | 79.32 | 74.82 *** | CROSS UNDER EX. 250mmØ SANITARY SEWER. INV = 76.54± |
| 3+666.60 | 79.26 | 74.82 *** | CROSS UNDER EX. 600mmØ WATERMAIN. INV = 75.42± |
| 3+668.10 | 79.32 | 74.82 | REDUCER TO 200mmØ WATERMAIN |
| 3+670.10 | 79.31 | 74.82 | 45° HORIZONTAL BEND |
| 3+671.40 | 79.31 | 74.82 | 45° HORIZONTAL BEND |
| 3+672.40 | 79.32 | 74.82 | 45° VERTICAL BEND |
| 3+674.90 | 79.33 | ** 77.32 | 45° VERTICAL BEND |
| 3+675.90 | 79.33 | ** 77.32 * | 200mmØ WATERMAIN TEE CONNECTION TO EX. 200mmØ WATERMAIN |

* CONNECTIONS TO NEW 300mmØ AND EXISTING 200mmØ WATERMAINS. EXACT ELEVATIONS TO BE FIELD DETERMINED.

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

*** PIPE CROSSINGS WITH WATERMAINS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND 25.2 TO AVOID CONFLICTS, WHERE POSSIBLE.




## CRITICAL SEWER PIPE CROSSING TABLE

| CROSSING | LOWER PIPE | HIGHER PIPE | CLEARANCE | SURFACE ELEVATION |
|---|---|---|---|---|
| A | 250mmØ SAN T/P=77.70 | 300mmØ STM INV=78.02 | ± 0.32m | 79.63 m |
| B | 250mmØ SAN T/P=77.80 | 300mmØ STM INV=78.29 | ± 0.49m | 80.65 m |
| C | 250mmØ SAN T/P=77.93 | 375mmØ STM INV=78.70 | ± 0.77m | 81.36 m |
| D | 250mmØ SAN T/P=78.18 | 250mmØ STM INV=79.86 | ± 1.68m | 81.92 m |
| E | 200mmØ SAN T/P=77.39 | 375mmØ STM INV=78.10 | ± 0.71m | 80.12 m |
| F | 200mmØ SAN T/P=77.14 | 300mmØ STM INV=78.08 | ± 0.94m | 79.48 m |
| G | 200mmØ SAN T/P=76.84 | 375mmØ STM INV=77.74 | ± 0.90m | 79.65 m |
| H | 200mmØ SAN T/P=76.67 | 525mmØ STM INV=77.30 | ± 0.53m | 79.50 m |
| I | 200mmØ SAN T/P=77.11 | 525mmØ STM INV=77.60 | ± 0.39m | 79.51 m |

## CRITICAL HYDRANT LEAD CROSSING TABLE

| CROSSING | LOWER PIPE | HIGHER PIPE | CLEARANCE | SURFACE ELEVATION |
|---|---|---|---|---|
| 9A | 200mmØ SAN T/P=77.42 | 150mmØ WM INV=77.82 | ± 0.40m | 80.50 m |
| 10A | 150mmØ WM T/P=76.45 | 200mmØ SAN INV=76.91 | ± 0.46m | 79.56 m |

## BENCHMARK NOTES:

1. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM.
2. 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.
3. BENCHMARKS WERE PROVIDED ON THE TOPOGRAPHIC PLAN OF SURVEY OF BLOCK 6 AND PART OF BLOCK 1 REGISTERED PLAN 4M-642 AND PART OF LOTS 8 AND 9 CONCESSION 4, GEOGRAPHIC TOWNSHIP OF MARCH, CITY OF OTTAWA, SURVEYED BY ANNIS, O'SULLIVAN AND VOLEBEKK LTD, SIGNED AND DATED FEBRUARY 20, 2022.

# NOKIA CORPORATION

520, 570 March Rd,
Ottawa, ON, K2K 2T6

NOKIA OTTAWA CAMPUS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CSW Landscape Architects Limited.
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Stantec
Traffic Consultant
300 – 1331 Clyde Avenue
Ottawa Ontario, K2C 3G5
Tel 613.722.4420


| △ Date | Description |
|---|---|
| SEP 12/24 | ISSUED FOR SITE PLAN CONTROL APPROVAL |
| NOV 15/24 | REVISED PER CITY COMMENTS |
| FEB 07/25 | REVISED PER CITY COMMENTS |
| JUN 25/25 | ISSUED FOR INFORMATION P01 |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |

NOT FOR CONSTRUCTION

Seal / Signature

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

Project Name
Nokia Ottawa Campus

Project Number
027.7946.000

Description
GENERAL PLAN OF SERVICES

Scale
1 : 400

C100

City Project no: D07-12-24-0149



Plan #19202

## LEGEND

| | | | |
|---|---|---|---|
| 81.65 / 81.50 | PROPOSED ELEVATION / *EXISTING ELEVATION* | FFE | PROPOSED FINISHED FLOOR ELEVATION |
| × 81.50 | EXISTING ELEVATION | USF | PROPOSED UNDERSIDE OF FOOTING ELEVATION |
| 82.00DC | PROPOSED DEPRESSED CURB ELEVATION | | PROPOSED BUILDING ENTRANCE |
| 81.65* | PROPOSED INTERNAL ELEVATION | | PROPOSED SIAMESE CONNECTION |
| 88.00TW / 80.00BW | PROPOSED TOP OF WALL ELEVATION / PROPOSED LOW ELEVATION | | PROPOSED SILT FENCING (OPSD 219.110) |
| 82.50 | PROPOSED FINISHED FLOOR ELEVATION | | PROPOSED TRENCH DRAIN |
| 2.0% | GRADE AND DIRECTION | MM | PROPOSED MUD MAT / CONSTRUCTION ENTRANCE |
| | MAXIMUM 3:1 SIDESLOPE | | PROPOSED FILTER BAG |
| | EMERGENCY OVERLAND FLOW ROUTE | 1:5 YR / 1:100 YR | APPROXIMATE PONDING LIMITS |
| SANMH 1 | PROPOSED SANITARY MANHOLE | | *EXISTING CONCRETE CURB* |
| CBMH 250 | PROPOSED CATCHBASIN MANHOLE | SANMH | *EXISTING SANITARY MANHOLE* |
| STMMH 101 | PROPOSED STORM MANHOLE | CBMH | *EXISTING CATCHBASIN MANHOLE* |
| CB 201 | PROPOSED CATCHBASIN | STMMH | *EXISTING STORM MANHOLE* |
| LD 1 | PROPOSED LANDSCAPE DRAIN | CB | EXISTING CATCHBASIN |
| HYD / VB | PROPOSED HYDRANT AND VALVE | HYD / WV | *EXISTING HYDRANT & VALVE* |
| | APPROXIMATE LIMIT OF REINSTATEMENT AREA | | *EXISTING TREES / VEGETATION* |
| | PROPOSED BARRIER CURB (PER SC1.1) | EX UP | *EXISTING UTILITY POLE C/W GUY WIRES* |
| DC | PROPOSED DEPRESSED CURB (PER SC1.1) | | *EXISTING FENCE* |
| CC | PROPOSED CURB CUT | | *EXISTING LIGHT STANDARD* |
| | | X | REMOVALS |
| | | | FULL ASPHALT OVERLAY PER CITY STANDARD R10 |

## PAVEMENT STRUCTURES:

| HEAVY DUTY (LIFESTYLE STREET) | HEAVY DUTY (ACCESS ROADS AND LOADING DOCK) | LIGHT DUTY (SURFACE PARKING LOT) |
|---|---|---|
| 100mm UNIT PAVERS | 50mm HL1 | 50mm HL1 |
| 10mm COARSE SAND | 70mm HL8 | 50mm HL8 |
| 150mm GRANULAR "A" | 150mm GRANULAR "A" | 150mm GRANULAR "A" |
| 500mm GRANULAR "B" TYPE II | 650mm GRANULAR "B" TYPE II | 550mm GRANULAR "B" TYPE II |

## 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 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. 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 THE CITY OF OTTAWA AND ENGINEER.
7. 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.
8. ALL ELEVATIONS ARE GEODETIC.
9. REFER TO GEOTECHNICAL REPORT (No. 12667557-RPT-2, DATED AUGUST 6, 2025), PREPARED BY GHD, 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.
10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
11. REFER TO DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT (R-2023-082) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
12. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
13. PROVIDE LINE/PARKING PAINTING.

**Erosion and Sediment Control Responsibilities:**

| | | | | During Construction | | | After Construction Prior to Final Acceptance | | After Final Acceptance |
|---|---|---|---|---|---|---|---|---|---|
| | ESC Measure | Symbol | Specification | Installation Responsibility | Inspection/Maintenance Responsibility | Inspection Frequency | Approval to Remove | Removal Responsibility | Inspection/Maintenance Responsibility |
| Temporary Measures | Silt Fence | | OPSD 219.110 | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | N/A |
| | Filter Fabric | Location as Indicated in ESC Note #3 | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | N/A |
| | Mud Mat | MM | Drawing Details | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Developer's Contractor | Developer's Contractor | N/A |
| | Dust Control | Location as Required Around Site | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Consultant | Developer's Contractor | N/A |
| | Stabilized Material Stockpiling | Location as Required by Contractor | Erosion and Sediment Control Notes | Developer's Contractor | Developer's Contractor | Weekly (as a minimum) | Developer's Contractor | Developer's Contractor | N/A |
| | Sediment Basin (for flows being pumped out of excavations) | Location as Required by Contractor | - - - | Developer's Contractor | Developer's Contractor | After Every Rainstorm | Developer's Contractor | Developer's Contractor | N/A |

## GRADING NOTES:

1. ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
2. EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
3. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
7. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
8. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1). MOUNTABLE CURBS ARE TO BE PER CITY OF OTTAWA STANDARD (SC1.3).
9. ALL RETAINING WALLS OF AT LEAST 0.6m IN HEIGHT SHALL HAVE FENCING/RAILING ALONG TOP SURFACE OF WALL PER OBC ARTICLE 9.8.8.1.
10. ALL BIO-SWALES SHALL BE CONSTRUCTED BASED ON THE SPECIFICATIONS PROVIDED ON THE APPROVED LANDSCAPED PLAN, WHICH ARE GENERALLY BASED ON THE CITY OF OTTAWA STANDARD L20.
11. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
12. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

## BENCHMARK NOTES:

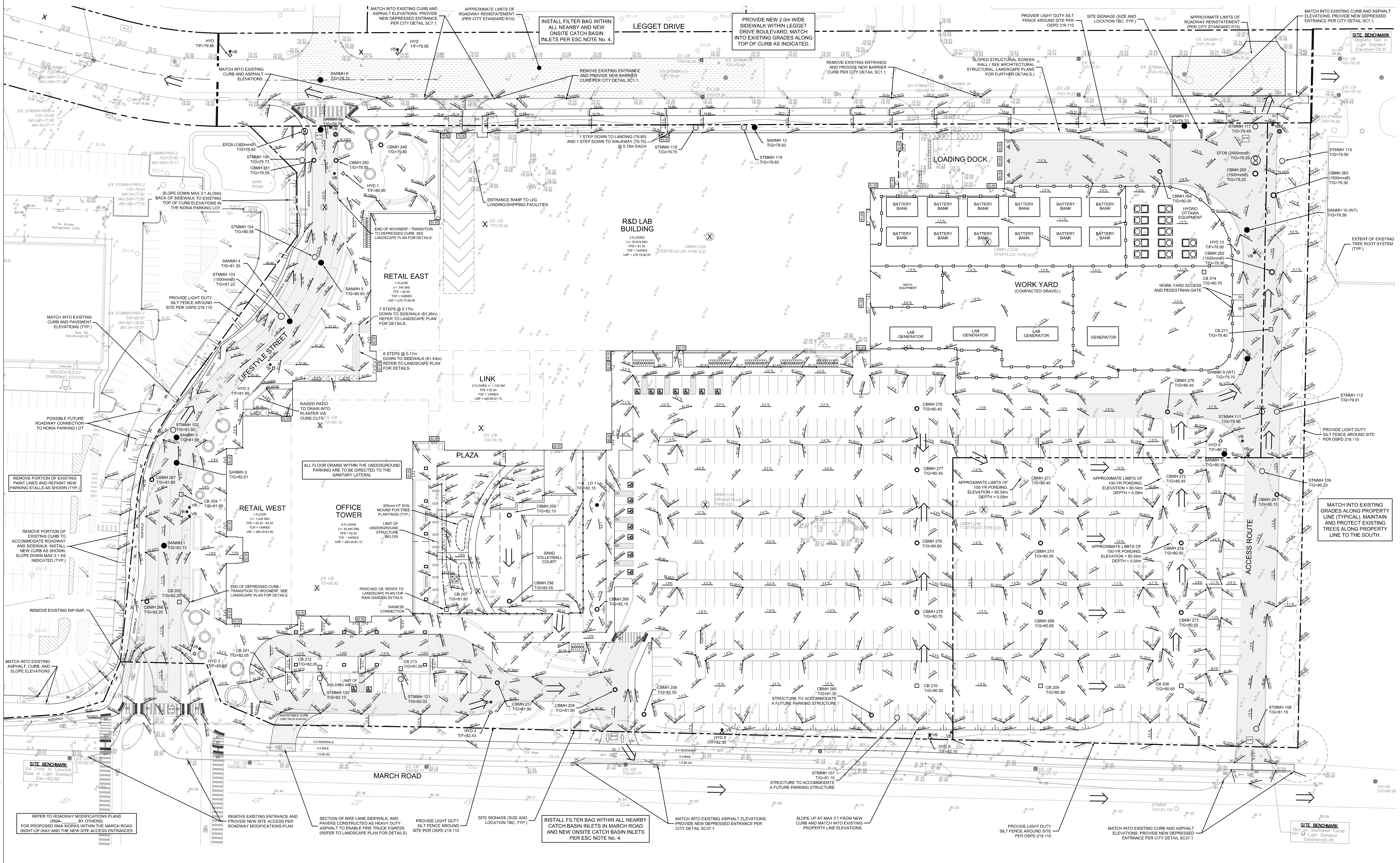
1. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM.
2. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE JOB BENCHMARK HAS NOT BEEN ALTERED OR DISTURBED AND THAT IT'S RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON THIS DRAWING.
3. BENCHMARKS WERE PROVIDED ON THE TOPOGRAPHIC PLAN OF SURVEY OF BLOCK 6 AND PART OF BLOCK 1 REGISTERED PLAN 4M-642 AND PART OF LOTS 8 AND 9 CONCESSION 4, GEOGRAPHIC TOWNSHIP OF MARCH, CITY OF OTTAWA, SURVEYED BY ANNIS, O'SULLIVAN AND VOLEBEKK LTD, SIGNED AND DATED FEBRUARY 20, 2022.

## EROSION AND SEDIMENT CONTROL NOTES :

1. 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.
2. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA. THEY ARE TO BE APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION. THESE PRACTICES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD INCLUDE AS A MINIMUM THOSE MEASURES INDICATED ON THE PLAN.
3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED DURING CONSTRUCTION IN ACCORDANCE WITH THE "GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES" (GOVERNMENT OF ONTARIO, MAY 1987). THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEETING ALL REGULATORY AGENCY REQUIREMENTS.
4. TO PREVENT SURFACE EROSION FROM ENTERING ANY STORM SEWER SYSTEM DURING CONSTRUCTION, FILTER CLOTH WILL BE PLACED UNDER GRATES OF NEARBY CATCHBASINS AND STRUCTURES. A LIGHT DUTY SILT FENCE BARRIER WILL ALSO BE INSTALLED AROUND THE CONSTRUCTION AREA (WHERE APPLICABLE). THESE CONTROL MEASURES WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
5. TO LIMIT EROSION: MINIMIZE THE AMOUNT OF EXPOSED SOILS AT ANY GIVEN TIME, RE-VEGETATE EXPOSED AREAS AND SLOPES AS SOON AS POSSIBLE AND PROTECT EXPOSED SLOPES WITH NATURAL OR SYNTHETIC MULCHES.
6. FOR MATERIAL STOCKPILING: MINIMIZE THE AMOUNT OF EXPOSED MATERIALS AT ANY GIVEN TIME; APPLY TEMPORARY SEEDING, TARPS, COMPACTION AND/OR SURFACE ROUGHENING AS REQUIRED TO STABILIZE STOCKPILED MATERIALS THAT WILL NOT BE USED WITHIN 14 DAYS.
7. THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE ENGINEER, THE MEASURES ARE NO LONGER REQUIRED. NO CONTROL MEASURES MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
8. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO ANY STORM SEWER SYSTEM. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.
9. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
10. ROADWAYS ARE TO BE SWEPT AS REQUIRED OR AS DIRECTED BY THE ENGINEER AND/OR THE MUNICIPALITY.
11. THE CONTRACTOR SHALL ENSURE PROPER DUST CONTROL IS PROVIDED WITH THE APPLICATION OF WATER (AND IF REQUIRED, CALCIUM CHLORIDE) DURING DRY PERIODS. MONITOR DUST LEVELS DURING SITE PREPARATION/EXCAVATION, AND CONSTRUCTION ACTIVITIES, AND WHEN DUST LEVELS BECOME VISUALLY APPARENT SPRAY WATER TO MINIMIZE THE RELEASE OF DUST FROM GRAVEL, PAVED AREAS AND EXPOSED SOILS. USE CHEMICAL DUST SUPPRESSANTS ONLY WHERE NECESSARY ON PROBLEM AREAS.

## LEGGET DRIVE REINSTATEMENT:

1. RESTORE ALL DISTURBED R.O.W. AREAS TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF MUNICIPAL AUTHORITIES. ASPHALT TO MEET PG 58-34 'TRAFFIC LEVEL B' STANDARDS FOR MINOR COLLECTOR ROADS AS PER CITY SPECIFICATION F-3106.
2. REINSTATE ALL DISTURBED ROADWAY AREAS AND SAW CUT & KEYGRIND ASPHALT AT ALL ROAD CUTS / ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARD R10.
3. REINSTATE LINE PAINTING AS REQUIRED TO THE SATISFACTION OF MUNICIPAL AUTHORITIES.

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Tel 613.230.1186

NOVATECH
Engineers, Planners & Landscape Architects

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Tel 613.254.9643

CSW

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Landscape Consultant
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Ottawa Ontario, K1Z 0B9
Tel 613.729.4536

Stantec
Traffic Consultant
300 – 1331 Clyde Avenue
Ottawa Ontario, K2C 3G5
Tel 613.722.4420

| △ Date | Description |
|---|---|
| SEP 12/24 | ISSUED FOR SITE PLAN CONTROL APPROVAL |
| NOV 15/24 | REVISED PER CITY COMMENTS |
| FEB 07/25 | REVISED PER CITY COMMENTS |
| JUN 25/25 | ISSUED FOR INFORMATION P01 |
| JUL 24/25 | ISSUED FOR INFORMATION P02: PARKING |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDITION |

NOT FOR CONSTRUCTION

Seal / Signature

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

Project Name
Nokia Ottawa Campus

Project Number
027.7946.000

Description
GRADING AND EROSION & SEDIMENT CONTROL PLAN

Scale
1 : 400

C200

City Project no: D07-12-24-0149


Plan #19202

## LEGEND

| | |
|---|---|
| ▬ ▬ ▬ | DRAINAGE AREA LIMITS |
| PRE | PRE-DEVELOPMENT AREA ID |
| 0.600 | PRE-DEVELOPMENT DRAINAGE AREA (ha) |
| 0.30 | 1:5 YEAR WEIGHTED RUNOFF COEFICIENT |
| | EXISTING CONCRETE CURB |
| V&VB | EXISTING VALVE & VALVE BOX |
| SP | EXISTING SERVICE POST |
| HYD | EXISTING HYDRANT |
| CBMH | EXISTING CATCHBASIN |
| CB | EXISTING CATCHBASIN MH |
| EX UP | EXISTING UTILITY POLE C/W GUY WIRES |
| | EXISTING DRAINAGE DIRECTION ARROWS |
| | EXISTING OVERLAND FLOW |

## GENERAL NOTES:

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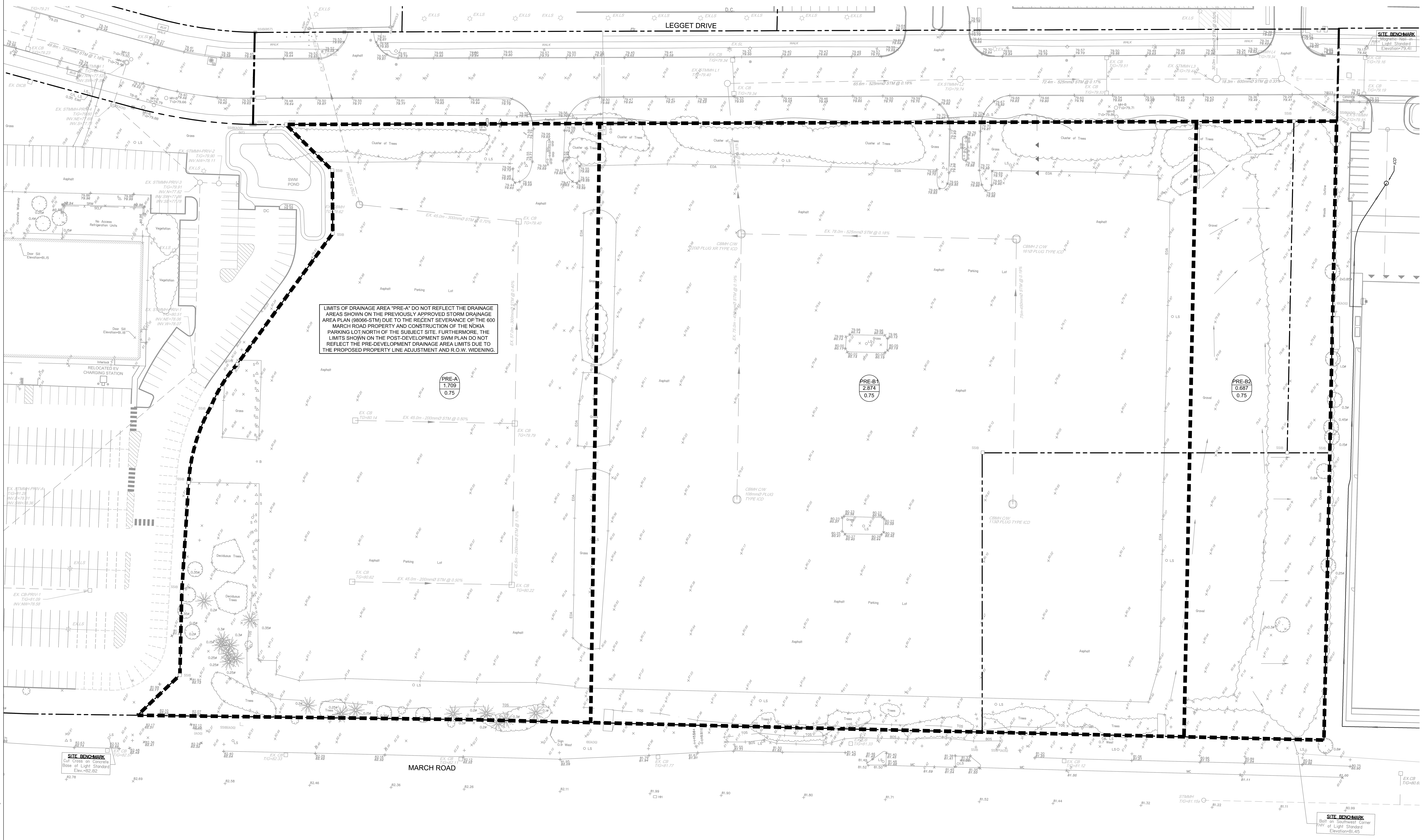


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Seal / Signature

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

Project Name

Nokia Ottawa Campus

Project Number

027.7946.000

Description

PRE-DEVELOPMENT STORM DRAINAGE PLAN

Scale

1 : 400

# C300

City Project no: D07-12-24-0149



Plan #19202

## LEGEND

- DC — PROPOSED DEPRESSED CURB
- CC — PROPOSED CURB CUT
- PROPOSED BARRIER CURB
- DRAINAGE AREA LIMITS
- 1:5 YR / 1:100 YR — APPROXIMATE ROOF PONDING LIMITS
- APPROXIMATE SURFACE PONDING LIMITS
- A-2 / 0.129 / 0.82 — POST-DEVELOPMENT AREA ID / POST-DEVELOPMENT DRAINAGE AREA (ha) / 1:5 YEAR WEIGHTED RUNOFF COEFICIENT
- STMMH — PROPOSED STORM MANHOLE
- CBMH — PROPOSED CATCHBASIN MANHOLE C/W RADIAL SUBDRAIN (PER GEOTECH)
- CB — PROPOSED CATCHBASIN C/W SUBDRAIN (PER GEOTECH)
- RD — CONTROLLED FLOW ROOF DRAIN
- LD — PROPOSED LANDSCAPE DRAIN
- PROPOSED STORM SEWER AND FLOW DIRECTION
- ICD — PROPOSED INLET CONTROL DEVICE
- EMERGENCY OVERLAND FLOW ROUTE
- PROPOSED TRENCH DRAIN
- PROPOSED BUILDING ENTRANCE / EXIT
- MAXIMUM 3:1 SIDESLOPE
- FFE — FINISHED FLOOR ELEVATION
- USF — UNDERSIDE OF FOOTING ELEVATION
- EXISTING STORM MH & SEWER
- CB — EXISTING CATCHBASIN C/W CATCHBASIN LEAD
- EXISTING CONCRETE CURB
- V&VB — EXISTING VALVE & VALVE BOX
- SP — EXISTING SERVICE POST
- HYD — EXISTING HYDRANT
- CBMH — EXISTING CATCHBASIN
- CB — EXISTING CATCHBASIN MH
- EX UP — EXISTING UTILITY POLE C/W GUY WIRES

## GENERAL NOTES:

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### INLET CONTROL DEVICE DATA TABLE: AREA A-1

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST MHF TYPE A | STMMH 102 1200mmØ | 300mmØ PVC | 10.9 | 0.54 | 80.29 | 23.9 | 76.4 $m^3$ |
| 1:5 YR | | | | 12.5 | 0.71 | 80.46 | 34.5 | |
| 1:100 YR | | | | 17.0 | 1.34 | 81.09 | 74.1 | |

### INLET CONTROL DEVICE DATA TABLE: AREA A-2

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST MHF TYPE A | CBMH 251 1200mmØ | 300mmØ PVC | 11.6 | 0.44 | 78.51 | 41.1 | 126.3 $m^3$ |
| 1:5 YR | | | | 13.5 | 0.60 | 78.67 | 58.4 | |
| 1:100 YR | | | | 19.5 | 1.16 | 79.23 | 122.3 | |

### INLET CONTROL DEVICE DATA TABLE: AREA B-1

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST HF TYPE C | INTERNAL SWM TANK | 375mmØ PVC | 21.9 | 0.48 | 78.58 | 137.1 | 389.3 $m^3$ |
| 1:5 YR | | | | 27.0 | 0.73 | 78.83 | 188.9 | |
| 1:100 YR | | | | 41.0 | 1.66 | 79.76 | 380.0 | |

### INLET CONTROL DEVICE DATA TABLE: AREA B-2

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST HF TYPE B | CBMH 260 1200mmØ | 375mmØ PVC | 19.0 | 0.84 | 79.83 | 53.9 | 168.8 $m^3$ |
| 1:5 YR | | | | 21.0 | 1.03 | 80.02 | 78.3 | |
| 1:100 YR | | | | 30.0 | 2.14 | 81.13 | 167.0 | |

### INLET CONTROL DEVICE DATA TABLE: AREA B-3

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST HF TYPE E | CBMH 279 1200mmØ | 375mmØ PVC | 23.7 | 0.22 | 78.55 | 186.4 | 616.4 $m^3$ |
| 1:5 YR | | | | 29.8 | 0.35 | 78.68 | 254.8 | |
| 1:100 YR | | | | 46.0 | 0.83 | 79.16 | 510.5 | |

### INLET CONTROL DEVICE DATA TABLE: AREA B-4

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST HF TYPE E | CBMH 265 1500mmØ | 375mmØ PVC | 29.4 | 0.34 | 78.18 | 103.2 | 311.4 $m^3$ |
| 1:5 YR | | | | 35.7 | 0.50 | 78.34 | 144.2 | |
| 1:100 YR | | | | 53.0 | 1.09 | 78.93 | 303.1 | |

### INLET CONTROL DEVICE DATA TABLE: AREA C-1

| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST HF TYPE B | CBMH 272 1200mmØ | 300mmØ PVC | 8.4 | 0.18 | 78.85 | 109.6 | 304.3 $m^3$ |
| 1:5 YR | | | | 11.7 | 0.35 | 79.02 | 144.8 | |
| 1:100 YR | | | | 27.0 | 1.87 | 80.54 | 258.0 | |

### INLET CONTROL DEVICE DATA TABLE: AREA C-2

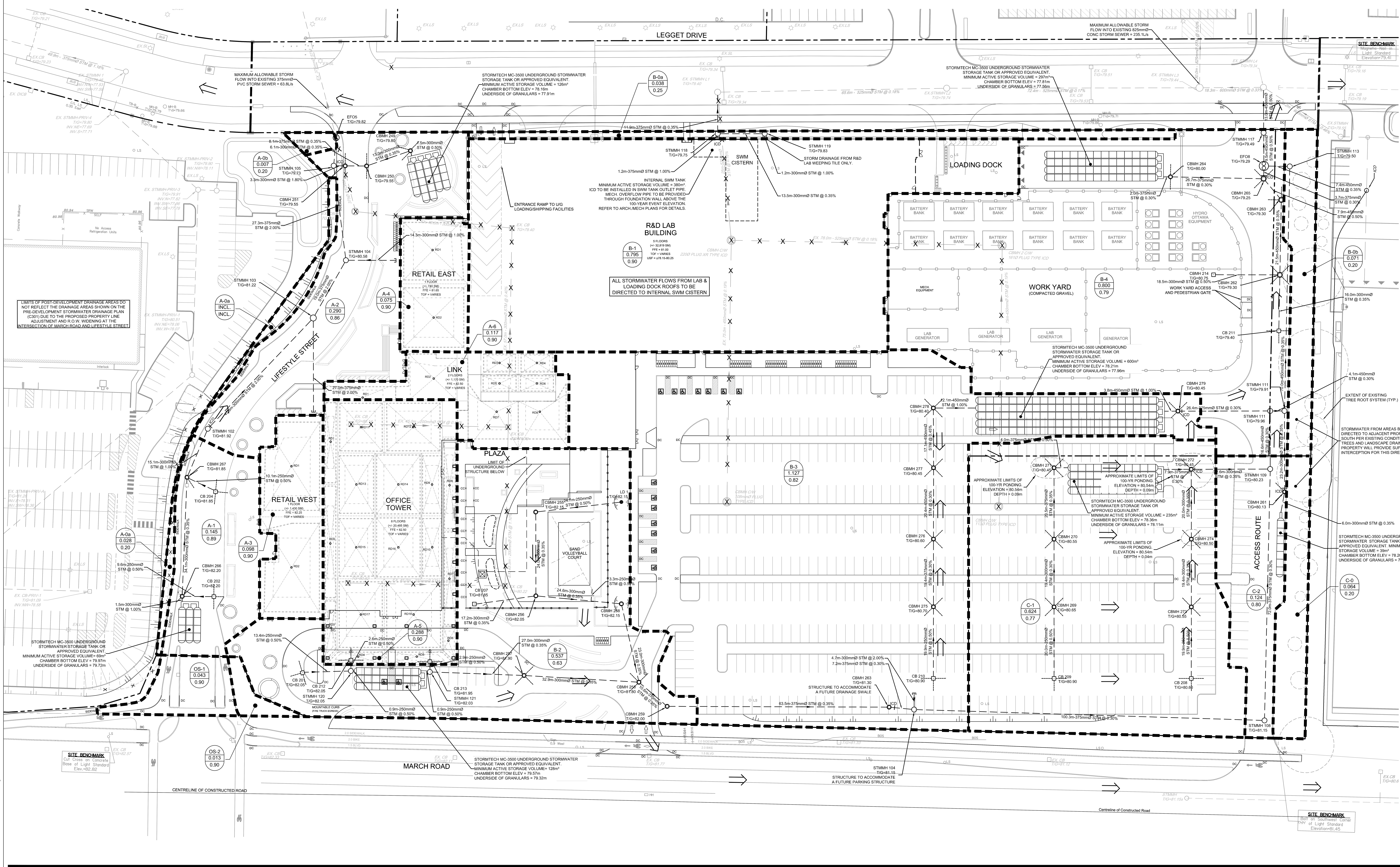
| DESIGN EVENT | ICD TYPE (PLUG TYPE) | OUTLET STRUCTURE | DIAMETER OF OUTLET PIPE (mm) | PEAK DESIGN FLOW (L/s) | DESIGN HEAD (m) | WATER ELEVATION (m) | VOLUME ($m^3$) | AVAILABLE STORAGE |
|---|---|---|---|---|---|---|---|---|
| 1:2 YR | IPEX TEMPEST MHF TYPE A | CBMH 261 1200mmØ | 300mmØ PVC | 7.8 | 0.25 | 78.55 | 12.9 | 44.2 $m^3$ |
| 1:5 YR | | | | 9.7 | 0.39 | 78.69 | 18.0 | |
| 1:100 YR | | | | 15.0 | 0.94 | 79.24 | 37.6 | |

### ROOF DRAIN TABLE

| AREA ID * | BUILDING | ROOF DRAIN No. (WATTS MODEL)** | ROOF DRAIN OPENING SETTING | 2 YEAR RELEASE RATE | APPROX. 2-YR PONDING DEPTH | 5-YEAR RELEASE RATE | APPROX. 5-YEAR PONDING DEPTH | 100-YEAR RELEASE RATE | APPROX. 100-YR PONDING DEPTH |
|---|---|---|---|---|---|---|---|---|---|
| A-3 | RETAIL WEST | RD 1 (RD-100-A-ADJ) | FULLY EXPOSED | 0.95 L/s | 8 cm | 1.26 L/s | 10 cm | 1.89 L/s | 15 cm |
| | | RD 2 (RD-100-A-ADJ) | FULLY EXPOSED | 0.95 L/s | 8 cm | 1.26 L/s | 10 cm | 1.89 L/s | 15 cm |
| A-4 | RETAIL EAST | RD 1 (RD-100-A-ADJ) | FULLY EXPOSED | 0.95 L/s | 8 cm | 1.26 L/s | 10 cm | 1.89 L/s | 15 cm |
| | | RD 2 (RD-100-A-ADJ) | FULLY EXPOSED | 0.95 L/s | 8 cm | 1.26 L/s | 10 cm | 1.89 L/s | 15 cm |
| A-5 | OFFICE TOWER | RD 1 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 2 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 3 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 4 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 5 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 6 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 7 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 8 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 9 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 10 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 11 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 12 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 13 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 14 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 15 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 16 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 17 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 18 (RD-100-A-ADJ) | 1/2 OPEN | 0.79 L/s | 8 cm | 0.95 L/s | 10 cm | 1.26 L/s | 15 cm |
| A-6 | LINK | RD 1 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 2 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 3 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 4 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 5 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 6 (RD-100-A-ADJ) | CLOSED | 0.32 L/s | 8 cm | 0.32 L/s | 10 cm | 0.32 L/s | 15 cm |
| | | RD 7 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |
| | | RD 8 (RD-100-A-ADJ) | 1/4 OPEN | 0.71 L/s | 8 cm | 0.79 L/s | 10 cm | 0.95 L/s | 15 cm |

* REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2023-082) PREPARED BY NOVATECH FOR DRAINAGE AREA IDENTIFIERS AND STORMWATER MANAGEMENT DETAILS.

**ALL CONTROLLED FLOW ROOF DRAINS FOR THE PROPOSED BUILDING TO BE WATTS 'ADJUSTABLE ACCUTROL' ROOF DRAINS.




# NOKIA CORPORATION

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NOVATECH
Engineers, Planners & Landscape Architects
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Landscape Consultant
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Tel 613.729.4536

Stantec
Stantec
Traffic Consultant
300 – 1331 Clyde Avenue
Ottawa Ontario, K2C 3G5
Tel 613.722.4420

| △ Date | Description |
|---|---|
| SEP 12/24 | ISSUED FOR SITE PLAN CONTROL APPROVAL |
| NOV 15/24 | REVISED PER CITY COMMENTS |
| FEB 07/25 | REVISED PER CITY COMMENTS |
| JUN 25/25 | ISSUED FOR INFORMATION P01 |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |

NOT FOR CONSTRUCTION

Seal / Signature
LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

Project Name
Nokia Ottawa Campus

Project Number
027.7946.000

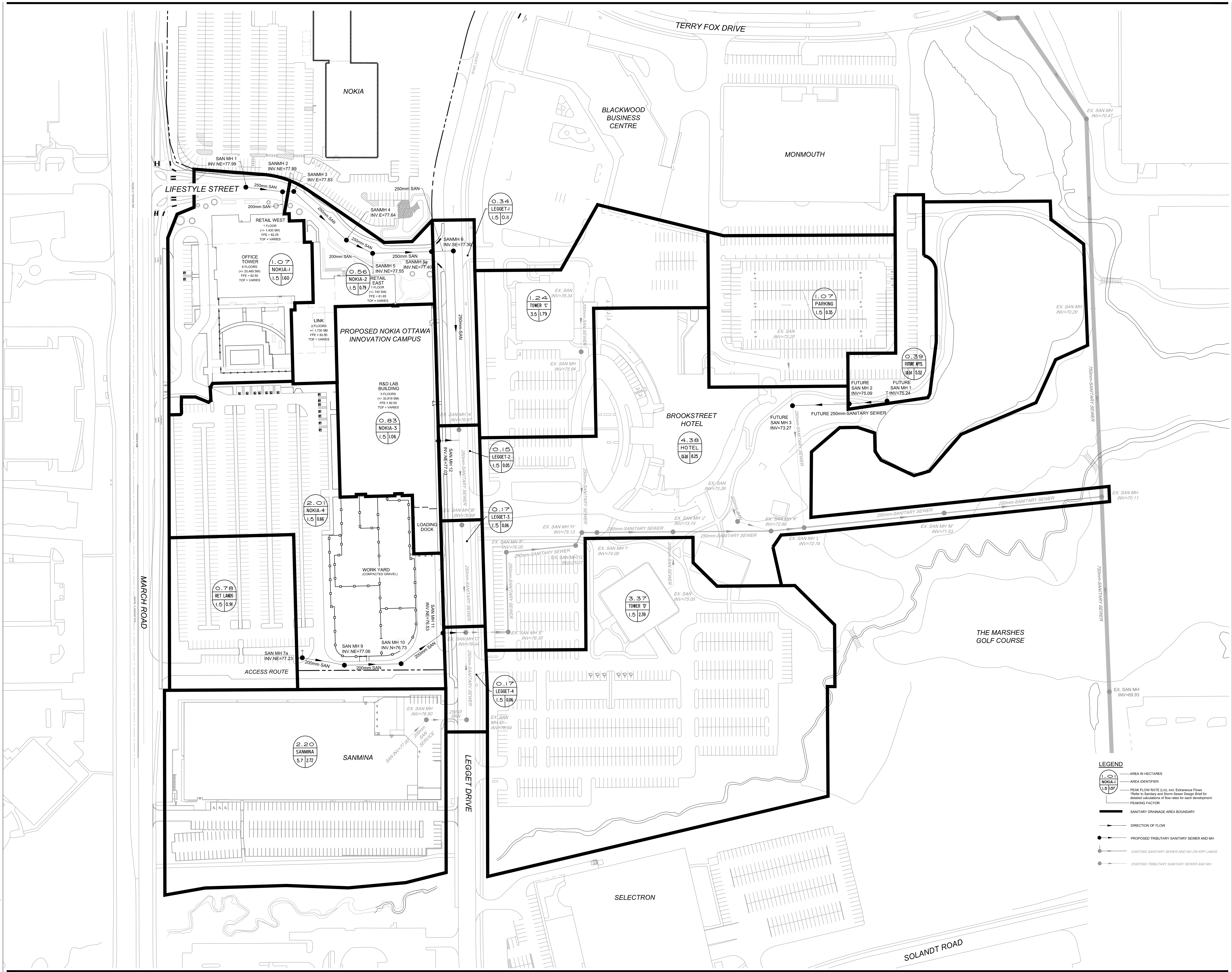
Description
POST-DEVELOPMENT STORMWATER MANAGEMENT PLAN

Scale
1 : 400

C301

City Project no: D07-12-24-0149


Plan #19202

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Stantec
Traffic Consultant
300 – 1331 Clyde Avenue
Ottawa Ontario, K2C 3G5
Tel 613.722.4420

| Date | Description |
|---|---|
| NOV 15/24 | ISSUED FOR SITE PLAN CONTROL APPROVAL |
| FEB 07/25 | REVISED PER CITY COMMENTS |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |

NOT FOR CONSTRUCTION

Seal / Signature

Project Name
Nokia Ottawa Campus

Project Number
027.7946.000

Description
SANITARY DRAINAGE AREA PLAN

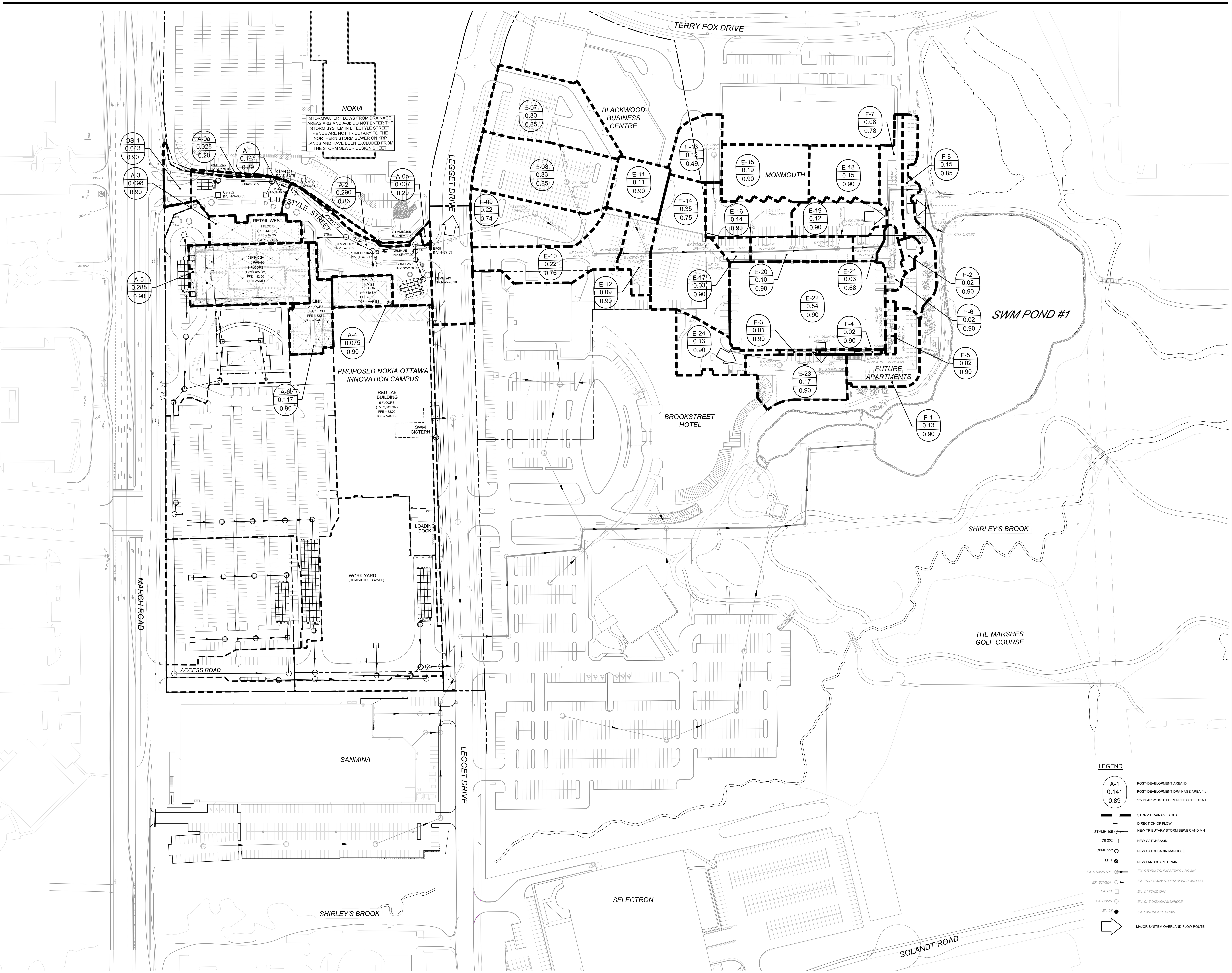
Scale
1 : 750

C400

City Project no: D07-12-24-0149



Plan #19202

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Tel 613.722.4420

| △ Date | Description |
|---|---|
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| FEB 07/25 | REVISED PER CITY COMMENTS |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |
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NOT FOR CONSTRUCTION

**Seal / Signature**

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

**Project Name**
Nokia Ottawa Campus

**Project Number**
027.7946.000

**Description**
STORM DRAINAGE AREA PLAN - NORTH OUTLET

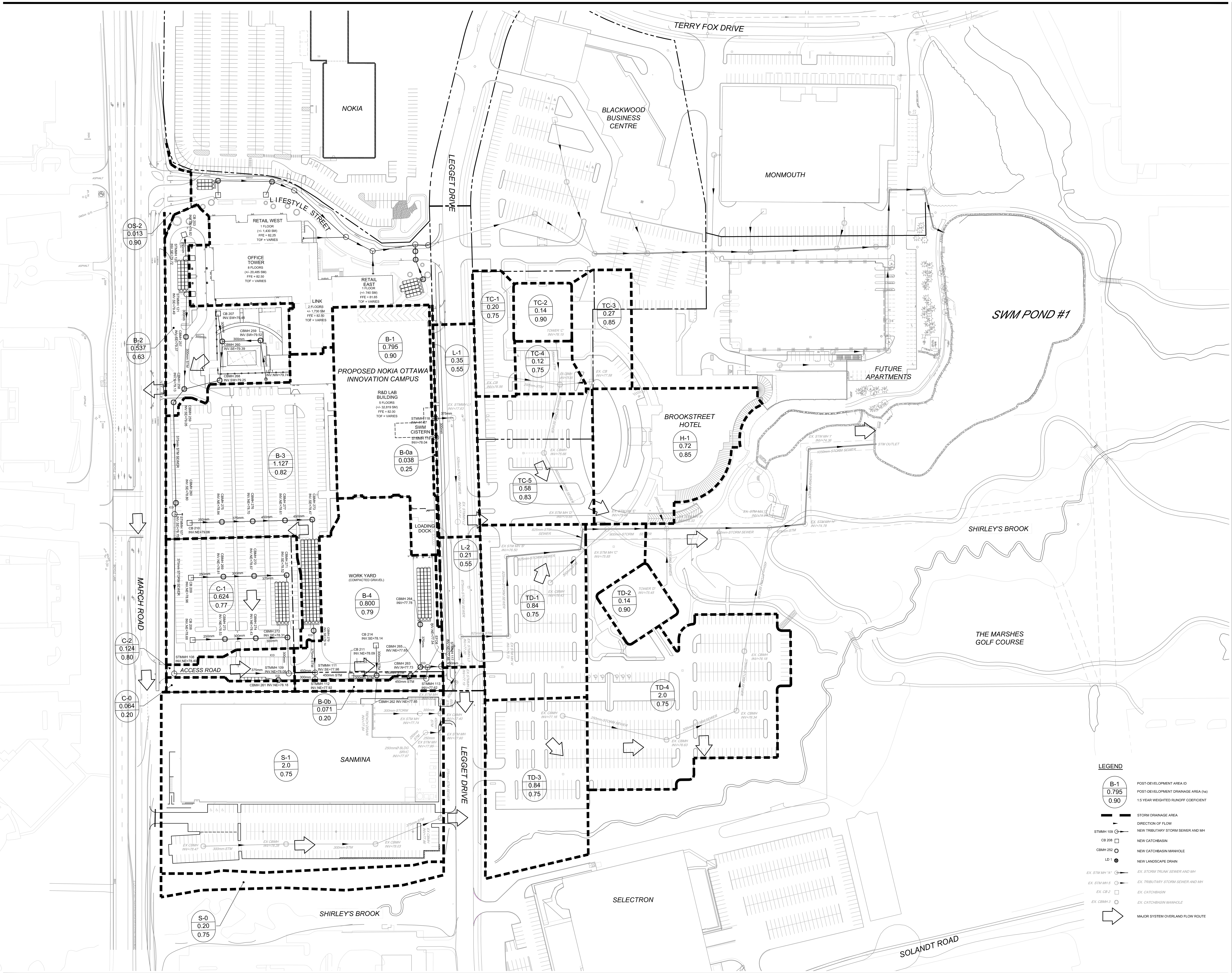
**Scale**
1 : 750

# C500

City Project no: D07-12-24-0149



Plan #19202

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| △ Date | Description |
|---|---|
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| FEB 07/25 | REVISED PER CITY COMMENTS |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |
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NOT FOR CONSTRUCTION

Seal / Signature

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

Project Name

Nokia Ottawa Campus

Project Number

027.7946.000

Description

STORM DRAINAGE AREA PLAN - SOUTH OUTLET

Scale

1 : 750

# C501

City Project no: D07-12-24-0149



Plan #19202

## LEGEND

| | | | |
|---|---|---|---|
| SAN MH 1 | PROPOSED SANITARY MANHOLE AND SEWER | | PROPOSED BUILDING ENTRANCE |
| CBMH 250 | PROPOSED CATCHBASIN MANHOLE | | EXISTING CONCRETE CURB |
| STMMH 100 | PROPOSED STORM MANHOLE AND SEWER | SANMH | EXISTING SANITARY MANHOLE |
| CB 200 | PROPOSED CATCHBASIN | CBMH | EXISTING CATCHBASIN MANHOLE |
| LD 1 | PROPOSED LANDSCAPE DRAIN | STMMH | EXISTING STORM MANHOLE |
| | THERMAL INSULATION | CB | EXISTING CATCHBASIN |
| | PROPOSED WATERMAIN / WATER SERVICE | HYD WV | EXISTING HYDRANT & VALVE |
| HYD | PROPOSED HYDRANT AND VALVE | | EXISTING TREES / VEGETATION |
| V&VB | PROPOSED VALVE BOX | EX UP | EXISTING UTILITY POLE C/W GUY WIRES |
| RED | PROPOSED REDUCER | | EXISTING FENCE |
| | PROPOSED BARRIER CURB (PER SC1.1) | | EXISTING LIGHT STANDARD |
| DC | PROPOSED DEPRESSED CURB (PER SC1.1) | X | REMOVALS |
| CC | PROPOSED CURB CUT | | FULL ASPHALT OVERLAY PER CITY STANDARD R10 |
| ICD | PROPOSED INLET CONTROL DEVICE | | BOREHOLE LOCATION (REFER TO GEOTECH REPORTS (PROJECT: 103940.007 DATED JULY 11, 2025), PREPARED BY GEMTEC, FOR DETAILS) |

## BENCHMARK NOTES:

1. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM.
2. 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.
3. BENCHMARKS WERE PROVIDED ON THE TOPOGRAPHIC PLAN OF SURVEY OF BLOCK 6 AND PART OF BLOCK 1 REGISTERED PLAN 4M-642 AND PART OF LOTS 8 AND 9 CONCESSION 4, GEOGRAPHIC TOWNSHIP OF MARCH, CITY OF OTTAWA, SURVEYED BY ANNIS, O'SULLIVAN AND VOLEBEKK LTD, SIGNED AND DATED FEBRUARY 20, 2022.

## GENERAL NOTES:

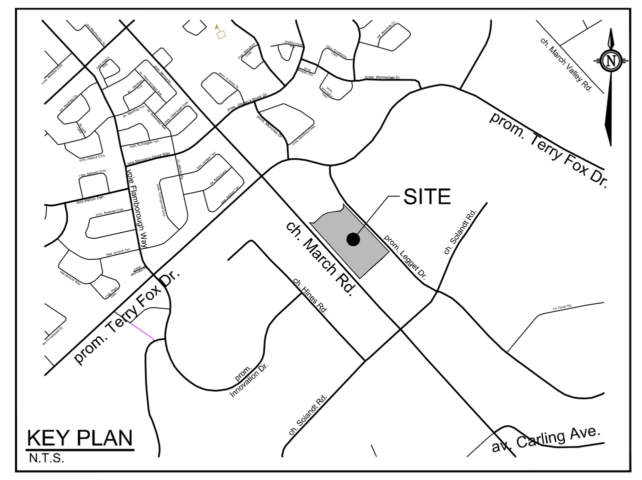
1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN 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 AND ENGINEERS 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 THE CITY OF OTTAWA AND ENGINEER.
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 THE GEOTECHNICAL REPORT, SOIL QUALITY REPORT, AND SUBSURFACE INVESTIGATION REPORT (PROJECT: 103940.007, DATED JULY 11, 2025), PREPARED BY GEMTEC, FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, EXCESS SOIL MANAGEMENT, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
9. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
10. PROVIDE LINE PAINTING.

## WATERMAIN NOTES:

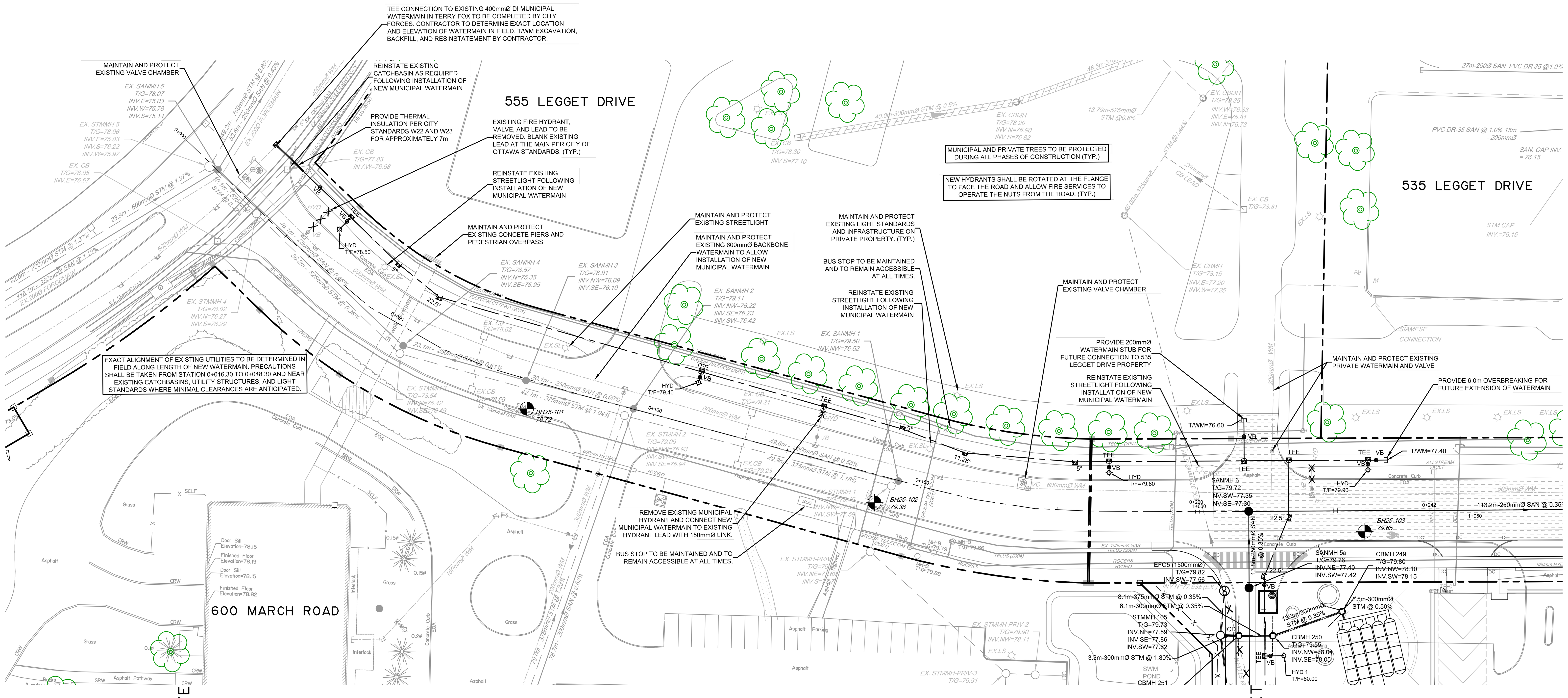
1. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION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

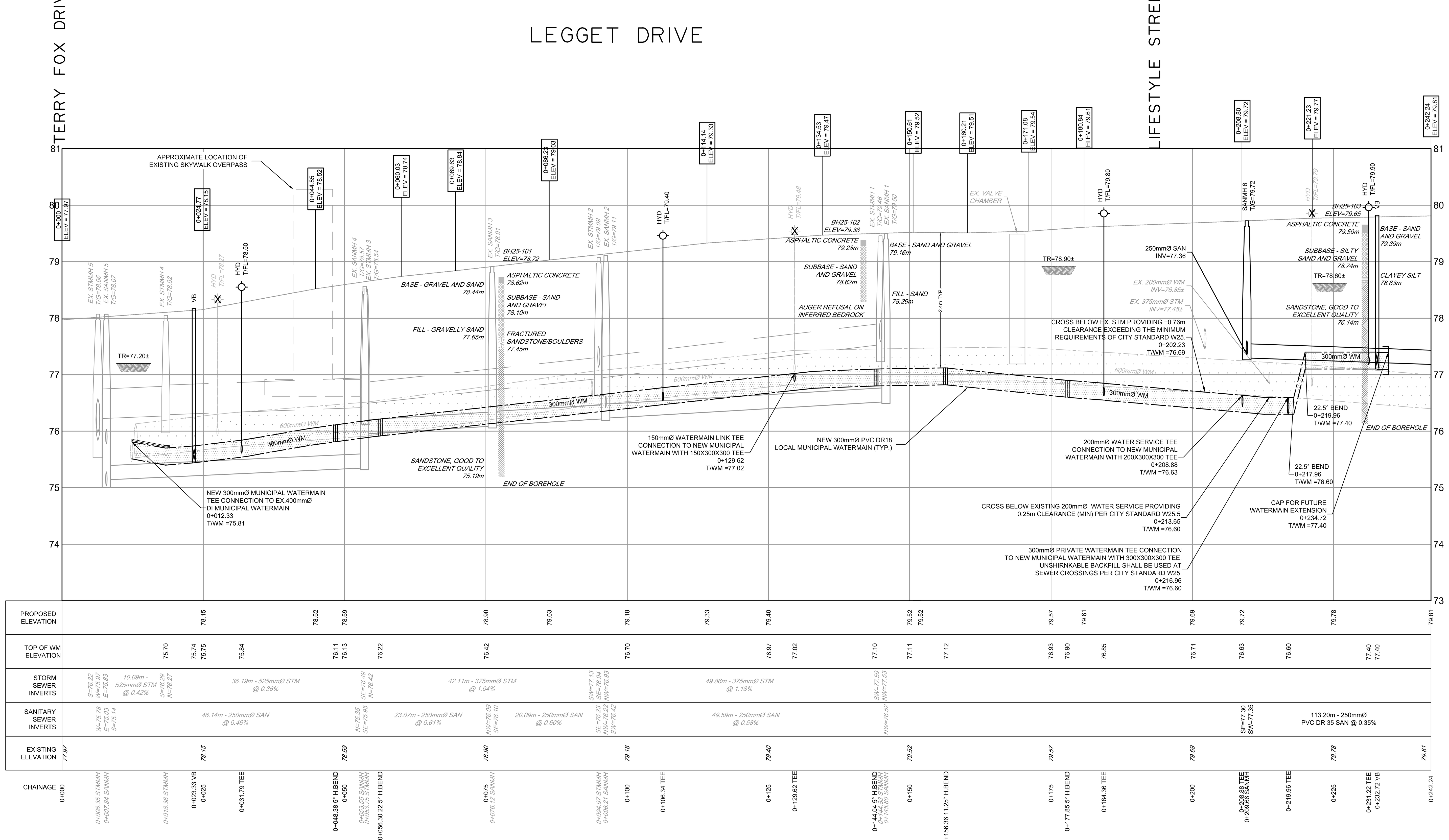
| ITEM | SPEC. No. | REFERENCE |
|---|---|---|
| WATERMAIN TRENCHING | W17 | CITY OF OTTAWA |
| HYDRANT INSTALLATION | W19 | CITY OF OTTAWA |
| THERMAL INSULATION IN SHALLOW TRENCHES | W22 | CITY OF OTTAWA |
| INSULATION ADJACENT TO OPEN STRUCTURES | W23 | CITY OF OTTAWA |
| VALVE BOX ASSEMBLY | W24 | CITY OF OTTAWA |
| WATERMAIN | PVC DR 18 | |
| WATERMAIN CROSSING BELOW SEWER | W25 | CITY OF OTTAWA |
| WATERMAIN CROSSING ABOVE SEWER | W25.2 | CITY OF OTTAWA |

3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE, UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
5. HYDRANTS SHALL BE ROTATED AT THE FLANGE TO FACE THE ROAD AND ALLOW FIRE SERVICES TO OPERATE THE NUTS.
6. ALL DUCTILE IRON PIPES AND FITTINGS SHALL BE PROTECTED AGAINST POTENTIAL CORROSION PER GEOTECHNICAL RECOMMENDATIONS DUE TO THE CORROSIVE NATURE OF THE SUBGRADE AND GROUNDWATER.
7. MODERATE SULPHATE RESISTANCE (MS) CEMENT SHALL BE USED FOR BELOW GRADE CONCRETE STRUCTURES PER GEOTECHNICAL RECOMMENDATIONS.
8. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A PLAN AND PROFILE DRAWING INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.




KEY PLAN
N.T.S.

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Stantec
Traffic Consultant
300 – 1331 Clyde Avenue
Ottawa Ontario, K2C 3G5
Tel 613.722.4420

| △ Date | Description |
|---|---|
| JAN 24/25 | PRELIMINARY WATERMAIN DESIGN ISSUED WITH CLASS C COST ESTIMATE |
| FEB 12/25 | PRELIMINARY WATERMAIN DESIGN ISSUED WITH REVISED CLASS C COST ESTIMATE |
| MAY 28/25 | REVISED WATERMAIN DESIGN ISSUED WITH REVISED CLASS C COST ESTIMATE |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |

NOT FOR CONSTRUCTION

Seal / Signature


Project Name

Nokia Ottawa Campus

Project Number

027.7946.000

Description

PLAN AND PROFILE - LEGGET DRIVE
STATION 0+000 TO 0+225

Scale

HORIZONTAL 1 : 400
VERTICAL 1 : 40

# C600

City Project no: D07-12-24-0149



Plan #19202

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## LEGEND

| | |
|---|---|
| SAN MH 1 | PROPOSED SANITARY MANHOLE AND SEWER |
| CBMH 250 | PROPOSED CATCHBASIN MANHOLE |
| STMMH 100 | PROPOSED STORM MANHOLE AND SEWER |
| CB 200 | PROPOSED CATCHBASIN |
| LD 1 | PROPOSED LANDSCAPE DRAIN |
| | THERMAL INSULATION FOR SHALLOW SEWERS |
| | PROPOSED WATERMAIN / WATER SERVICE |
| HYD | PROPOSED HYDRANT AND VALVE |
| V&VB | PROPOSED VALVE BOX |
| VC | PROPOSED VALVE CHAMBER |
| RED | PROPOSED REDUCER |
| | PROPOSED BARRIER CURB (PER SC1.1) |
| DC | PROPOSED DEPRESSED CURB (PER SC1.1) |
| CC | PROPOSED CURB CUT |
| ICD | PROPOSED INLET CONTROL DEVICE |
| | PROPOSED BUILDING ENTRANCE |
| | EXISTING CONCRETE CURB |
| SANMH | EXISTING SANITARY MANHOLE |
| CBMH | EXISTING CATCHBASIN MANHOLE |
| STMMH | EXISTING STORM MANHOLE |
| CB | EXISTING CATCHBASIN |
| HYD WV | EXISTING HYDRANT & VALVE |
| | EXISTING TREES / VEGETATION |
| EX UP | EXISTING UTILITY POLE C/W GUY WIRES |
| | EXISTING FENCE |
| | EXISTING LIGHT STANDARD |
| X | REMOVALS |
| | FULL ASPHALT OVERLAY PER CITY STANDARD R10 |
| | BOREHOLE LOCATION (REFER TO GEOTECH REPORT (PROJECT: 103940.009 DATED JULY 23, 2025), PREPARED BY GEMTEC, FOR DETAILS) |

## 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 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 AND ENGINEERS 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 THE CITY OF OTTAWA AND ENGINEER.
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 THE SOIL QUALITY REPORT AND GEOTECHNICAL REPORT (PROJECT: 103940.009, DATED JULY 15 AND JULY 23, 2025), PREPARED BY GEMTEC, FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, EXCESS SOIL MANAGEMENT, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
9. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
10. PROVIDE LINE PAINTING.

## SEWER NOTES:

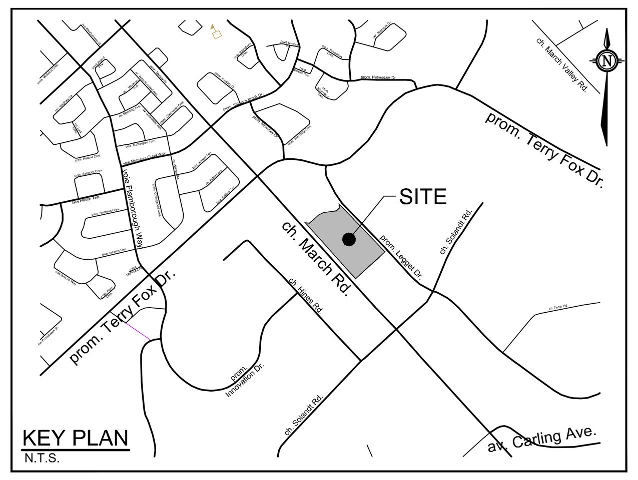
1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.
2. SPECIFICATIONS:

| ITEM | SPEC. No. | REFERENCE |
|---|---|---|
| SANITARY MANHOLE (1200mmØ) | 701.010 | OPSD |
| SANITARY MH FRAME & COVER | S24 | CITY OF OTTAWA |
| INSULATION FOR SHALLOW SEWERS | S35 | CITY OF OTTAWA |
| SANITARY SEWER | PVC DR 35 | |

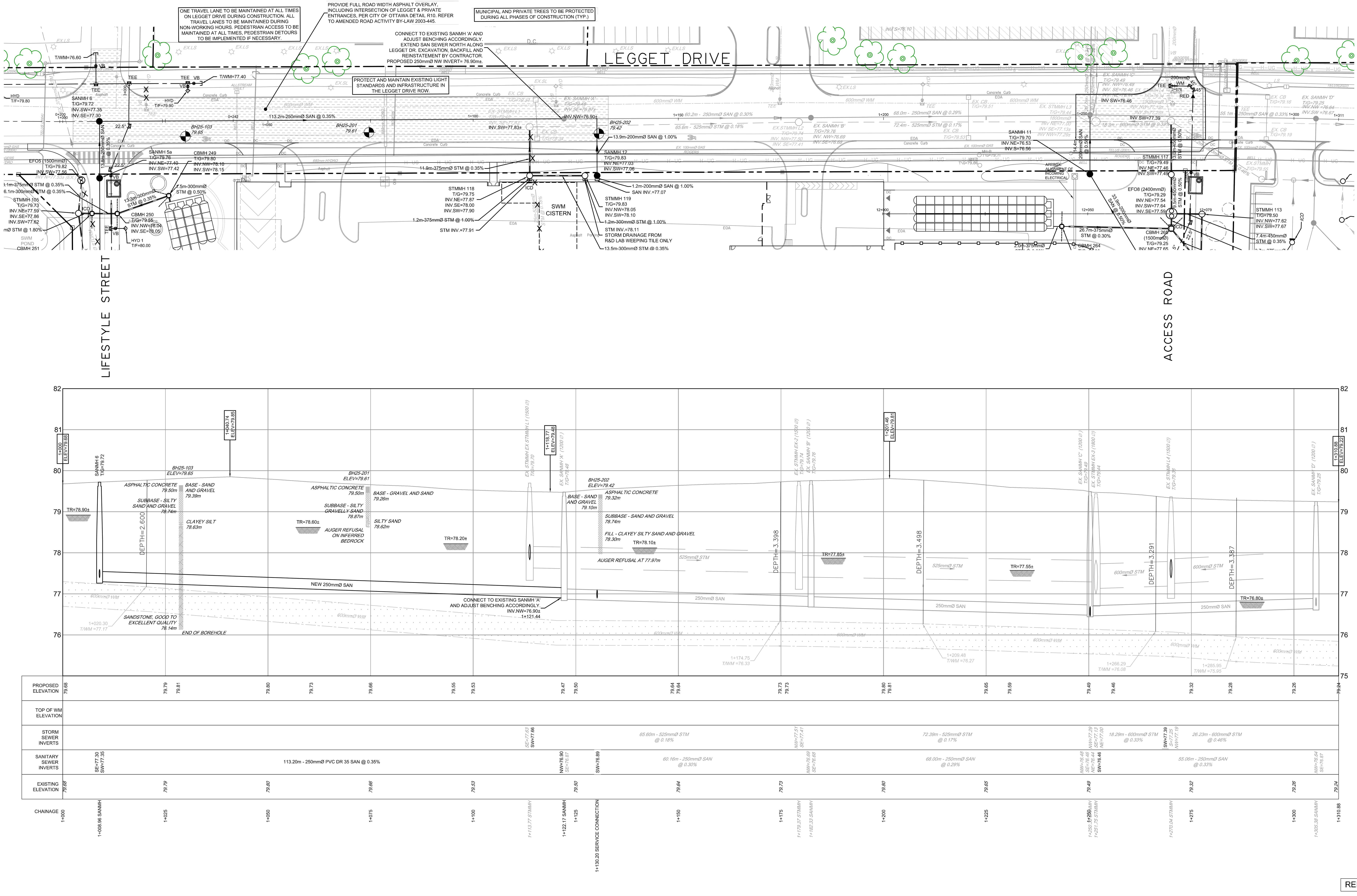
3. INSULATE ALL NEW PIPES THAT HAVE LESS THAN 1.8m COVER WITH HI-40 INSULATION PER CITY OF OTTAWA STANDARD DETAIL S35. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
4. ALL MANHOLES SHALL BE 1200mmØ UNLESS OTHERWISE SPECIFIED.
5. ALL SEWERS AND WATERMAINS LOCATED PARALLEL TO EACH OTHER ARE TO BE CONSTRUCTED IN SEPARATE TRENCHES MAINTAINING A CLEAR HORIZONTAL SEPARATION DISTANCE OF 2.5 METRES, AS PER MECP F-6-1 STANDARDS.
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. 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.
8. 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.
9. ALL DUCTILE IRON PIPES AND FITTINGS SHALL BE PROTECTED AGAINST POTENTIAL CORROSION PER GEOTECHNICAL RECOMMENDATIONS DUE TO THE CORROSIVE NATURE OF THE SUBGRADE AND GROUNDWATER.
10. MODERATE SULPHATE RESISTANCE (MS) CEMENT SHALL BE USED FOR BELOW GRADE CONCRETE STRUCTURES PER GEOTECHNICAL RECOMMENDATIONS.
11. CONTRACTOR TO TELEVISE (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.
12. CONTRACTOR TO PROVIDE THE CONSULTANT WITH AN A PLAN AND PROFILE DRAWING 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, AND ANY ALIGNMENT CHANGES, ETC.

## BENCHMARK NOTES:

1. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM.
2. 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.
3. BENCHMARKS WERE PROVIDED ON THE TOPOGRAPHIC PLAN OF SURVEY OF BLOCK 6 AND PART OF BLOCK 1 REGISTERED PLAN 4M-642 AND PART OF LOTS 8 AND 9 CONCESSION 4, GEOGRAPHIC TOWNSHIP OF MARCH, CITY OF OTTAWA, SURVEYED BY ANNIS, O'SULLIVAN AND VOLEBEKK LTD, SIGNED AND DATED FEBRUARY 20, 2022.




KEY PLAN
N.T.S.




REFER TO DRAWING C-100 FOR ADDITIONAL NOTES

# NOKIA CORPORATION

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NOKIA OTTAWA CAMPUS

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Traffic Consultant
300 – 1331 Clyde Avenue
Ottawa Ontario, K2C 3G5
Tel 613.722.4420

| △ Date | Description |
|---|---|
| NOV 15/24 | ISSUED FOR SITE PLAN CONTROL APPROVAL |
| FEB 07/25 | REVISED PER CITY COMMENTS |
| AUG 06/25 | REVISED PER CITY COMMENTS / SURFACE PARKING LOT ADDED |

NOT FOR CONSTRUCTION

Seal / Signature

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 6, 2025
PROVINCE OF ONTARIO

Project Name
Nokia Ottawa Campus

Project Number
027.7946.000

Description
PLAN AND PROFILE - LEGGET DRIVE
STATION 1+000 TO 1+310

Scale
HORIZONTAL 1 : 400
VERTICAL 1 : 40

**C601**

City Project no: D07-12-24-0149

 Plan #19202

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