

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.
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.
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.
7. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION.
8. THE SITE BENCHMARK IS CURRENTLY SET ON TOP OF THE FIRE HYDRANT SPINDLE (ELEV. + 89.26).
9. REFER TO GEOTECHNICAL REPORT (No. PG6526-1, DATED JANUARY 30, 2023), AND THE GRADING PLAN REVIEW MEMO (No. PG6526-MEMO.01, DATED MAY 6, 2024).
10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
11. REFER TO SERVICING AND STORMWATER MANAGEMENT REPORT 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.
14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN.
15. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.

SEWER NOTES:

- 1. SPECIFICATIONS: ITEM, SPEC. No., REFERENCE. CATCHBASIN (600x600mm) 705.010 OPSD. STORM / SANITARY MANHOLE (12000) 701.010 OPSD.
2. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED).
3. SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1.
4. THE PIPE BEDDING FOR THE SEWER AND WATER PIPES SHOULD CONSIST OF AT LEAST 150 MM OF OPSS GRANULAR A.
5. THE COVER MATERIAL, WHICH SHOULD CONSIST OF OPSS GRANULAR A, SHOULD EXTEND FROM THE SPRING LINE OF THE PIPE TO AT LEAST 300 MM ABOVE THE OVERTOP OF THE PIPE.
6. WHERE HARD SURFACE AREAS ARE CONSIDERED ABOVE THE TRENCH BACKFILL, THE TRENCH BACKFILL MATERIAL WITHIN THE FROST ZONE (ABOUT 1.8 M BELOW FINISHED GRADE) SHOULD MATCH THE SOILS EXPOSED AT THE TRENCH WALLS.
7. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL).
8. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS.
9. STORM MANHOLES AND CBMHs ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
10. CONTRACTOR TO TELEPHONE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT.
11. ALL CATCHBASINS AND CATCHBASIN MANHOLES TO BE PROVIDED WITH MINIMUM 3 METER LONG PERFORATED SUBDRAINS.
12. TO REDUCE LONG-TERM LOWERING OF THE GROUNDWATER LEVEL AT THIS SITE, CLAY SEALS SHOULD BE PROVIDED IN THE SERVICE TRENCHES.

WATERMAIN NOTES:

- 1. SPECIFICATIONS: ITEM, SPEC. No., REFERENCE. WATERMAIN TRENCHING W17 CITY OF OTTAWA. WATERMAIN CROSSING BELOW SEWER/ABOVE SEWER W22 / W25.2 CITY OF OTTAWA.
2. SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.25m ABOVE, 0.5m IF BELOW, CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS PER CITY OF OTTAWA STANDARDS W25/W25.2.
5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
6. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS W-39, 40, 41, 42, 43 AND 44.
7. PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES PER CITY OF OTTAWA STANDARD DETAIL W-23.
8. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.

NOTE: THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, 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.

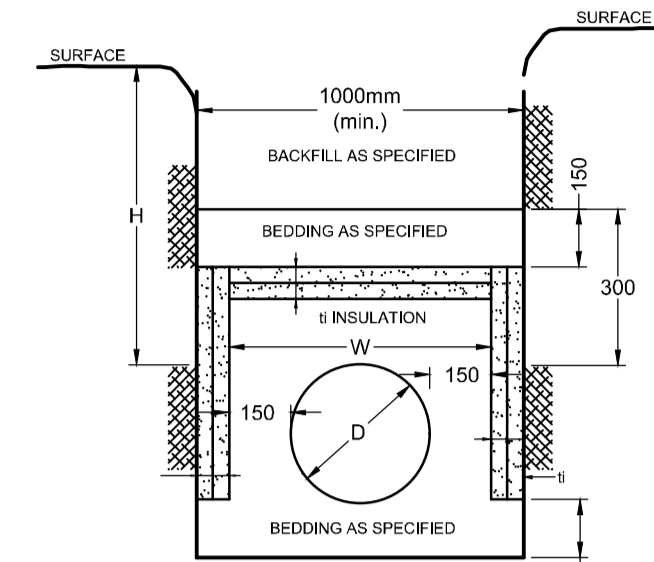
GRADING NOTES:

- 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. NON-SPECIFIED EXISTING FILL ALONG WITH SITE-EXCAVATED SOIL COULD BE PLACED AS GENERAL LANDSCAPING FILL AND BENEATH EXTERIOR PARKING AREAS WHERE SETTLEMENT OF THE GROUND SURFACE IS OF MINOR CONCERN.
3. EXPOSED SUB-GRADES 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.
4. IF SOFT SPOTS DEVELOP IN THE SUBGRADE DURING COMPACTION OR DUE TO CONSTRUCTION TRAFFIC, THE AFFECTED AREAS SHOULD BE EXCAVATED AND REPLACED WITH OPSS GRANULAR B TYPE II MATERIAL, AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
5. FILL USED FOR GRADING BENEATH THE BASE AND SUBBASE LAYERS OF PAVED AREAS SHOULD CONSIST, UNLESS OTHERWISE SPECIFIED, OF CLEAN IMPORTED GRANULAR FILL, SUCH AS OPSS GRANULAR A, GRANULAR B TYPE I OR SELECT SUBGRADE MATERIAL.
6. THE PAVEMENT GRANULAR BASE AND SUBBASE SHOULD BE PLACED IN MAXIMUM 300 MM THICK LIFTS AND COMPACTED TO A MINIMUM OF 100% OF THE MATERIAL'S SPMDD USING SUITABLE COMPACTION EQUIPMENT.
7. THE TRANSITION BETWEEN THE PAVEMENT STRUCTURE OVER THE PODIUM DECK SUBGRADE AND SOIL SUBGRADE BEYOND THE FOOTPRINT OF THE PODIUM DECK SHALL BE AS FOLLOWS.
8. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
9. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
10. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
11. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED.
12. BACKFILL MATERIAL BELOW SIDEWALK AND WALKWAY SUBGRADE AREAS OR OTHER SETTLEMENT SENSITIVE STRUCTURES WHICH ARE NOT ADJACENT TO THE BUILDINGS SHOULD CONSIST OF FREE-DRAINING, NON-FROST SUSCEPTIBLE MATERIAL.
13. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

SEWER & WATERMAIN INSULATION NOTES:

- 1. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 2.0m COVER AND ALL WATERMAIN WITH LESS THAN 2.4m OF COVER WITH EXPANDED POLYSTYRENE INSULATION AS PER OPSD 1109.030.
2. THE THICKNESS OF INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm REDUCTION IN THE REQUIRED DEPTH OF COVER WITH 50mm MINIMUM (SEE TABLE).
T = THICKNESS OF INSULATION (mm)
W = WIDTH OF INSULATION (mm)
W = D + 300 (1000 MIN.)
D = O.D. OF PIPE (mm)

Table with 2 columns: COVER SEWER / WATER (mm) and INSULATION THICKNESS (mm). Rows: 2000-1700 / 2400-2100 (50), 1700-1400 / 2100-1800 (75), 1400-1100 / 1800-1500 (100).

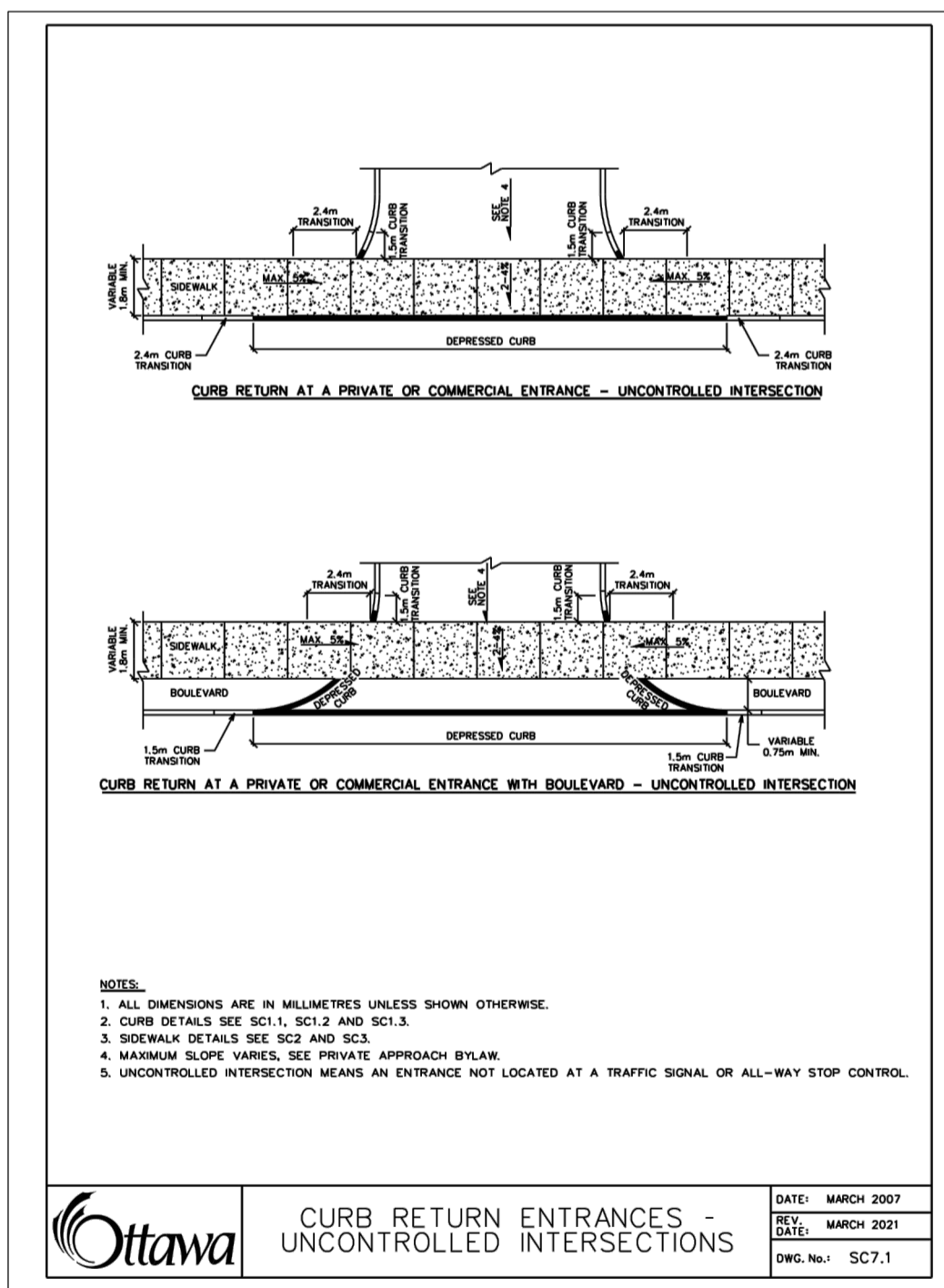


INSULATION DETAIL FOR SHALLOW SEWERS & WATERMAIN N.T.S.

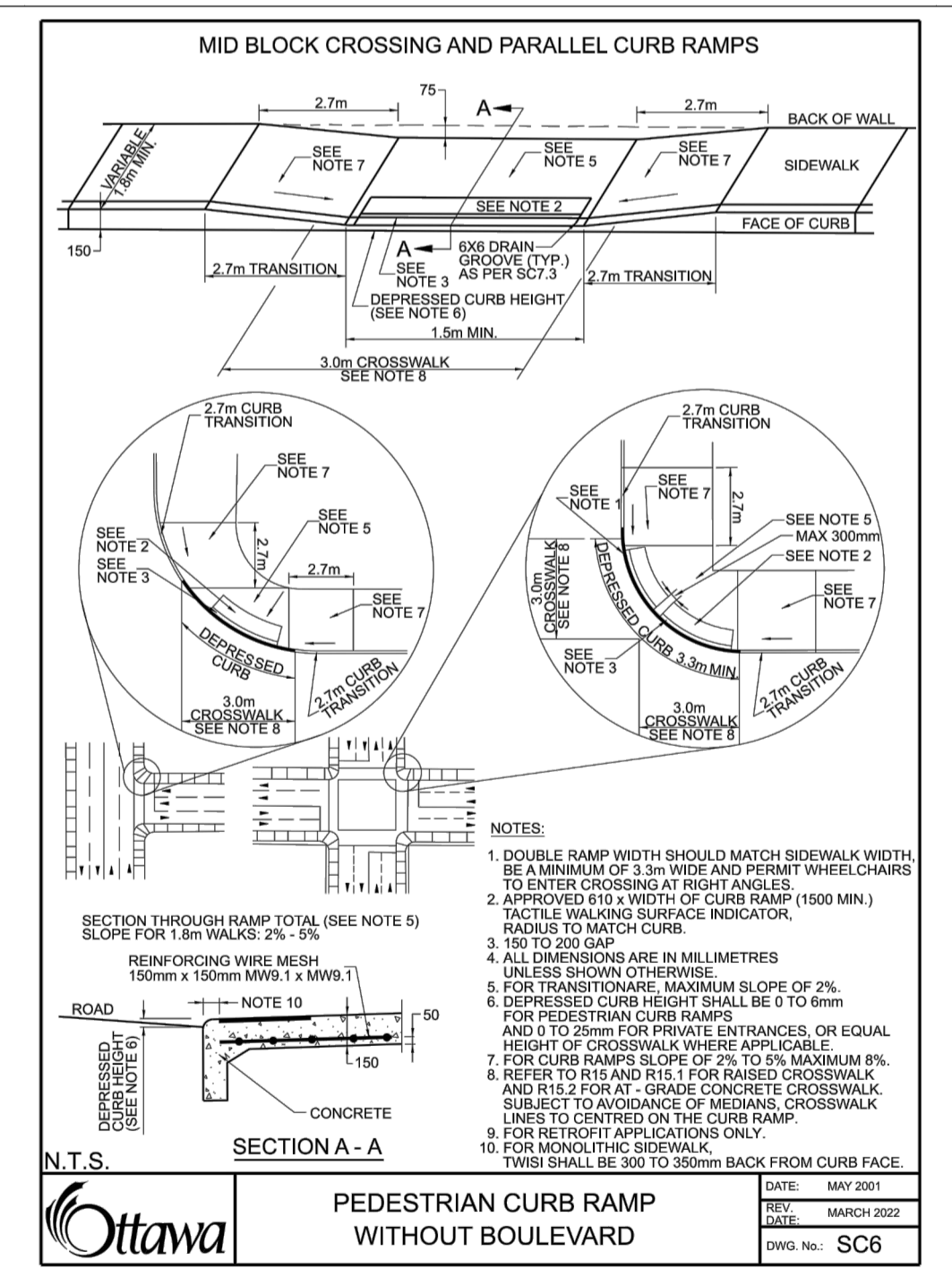
PAVEMENT STRUCTURE:

- PODIUM DECK - CAR ONLY PARKING AREAS: 50mm HL3 OR SUPERPAVE 12.5, 200mm OPSS GRAN 'A' CRUSHED STONE, 101.6mm RIGID INSULATION, 31.8mm WATERPROOFING MEMBRANE AND PROTECTION BOARD.
PODIUM DECK - ACCESS LANE, FIRE TRUCK LANE, RAMP AND HEAVY TRUCK PARKING AREAS: 40mm HL3 OR SUPERPAVE 12.5, 50mm HL8 OR SUPERPAVE 19.0, 300mm OPSS GRAN 'A' CRUSHED STONE, 101.6mm RIGID INSULATION, 31.8mm WATERPROOFING MEMBRANE AND PROTECTION BOARD.
CAR ONLY PARKING AREAS: 50mm HL3 OR SUPERPAVE 12.5, 150mm OPSS GRAN 'A' CRUSHED STONE, 300mm OPSS GRAN 'B' TYPE II.
HEAVY TRUCK TRAFFIC AND LOADING AREAS: 40mm HL3 OR SUPERPAVE 12.5, 50mm HL8 OR SUPERPAVE 19.0, 150mm OPSS GRAN 'A' CRUSHED STONE, 450mm OPSS GRAN 'B' TYPE II.

- NOTE: MINIMUM PERFORMANCE GRADED (PG) 58-34 ASPHALT CEMENT.



Ottawa CURB RETURN ENTRANCES - UNCONTROLLED INTERSECTIONS



Ottawa PEDESTRIAN CURB RAMP WITHOUT BOULEVARD

ICD SIZING AND FLOWS table with columns: STRUCTURE, TEMPEST LMF ICD SIZE, ICD INVERT (m), T/G (m), 100-yr HGL (m), 100-yr HEAD (m), 100-yr RELEASE RATE (L/s).

ACCUTROL RD-100-A-ADJ. ROOF DRAIN TABLE with columns: ROOF DRAIN ID, WEIR SETTING, 5-YEAR EVENT HEAD, FLOW RATE, 100-YEAR EVENT HEAD, FLOW RATE.

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Revision table with columns: No., REVISION, DATE, BY. Includes entries for revised per city comments and issued for site plan application.

Professional Engineer stamps for A.R. Mestwarp and G.J. McDonald, dated Nov 29, 2024, and project information for NOVATECH.

Project location information: CITY OF OTTAWA, CASSETTE COMMONS - 119 RYAN REYNOLDS WAY, and drawing details including title, date, and revision number.