

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 DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
8. THE SITE BENCHMARK BENCHMARK IS THE TOP OF HYDRANT SPINDEL (ELEV = 109.29), LOCATED ON DERREEN AVENUE ACROSS THE ROAD FROM THE PROJECTION OF THE SOUTH PROPERTY LINE. BENCHMARK #2 IS THE TOP OF HYDRANT SPINDEL (ELEV = 109.35), LOCATED ON DERREEN AVENUE ACROSS THE ROAD FROM THE PROJECTION OF THE SOUTH PROPERTY LINE. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-1928-1978 (MONUMENT No. 19770882). REFER TO THE FARLEY, SMITH & DENIS SURVEYING LTD. 2025 TOPOGRAPHIC SKETCH OF # PART OF BLOCK 242, REGISTERED PLAN 4M-1687, CITY OF OTTAWA.
9. REFER TO GEOTECHNICAL REPORT (No. PG7573-1, DATED JUNE 30, 2025), 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.
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. (DATED JUNE 10, 2026).
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. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/W/M ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
15. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.

SEWER NOTES:

SPECIFICATIONS:	SPEC. No.	REFERENCE
ITEM	705.010	OPSD
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (12000)	701.010	OPSD
STORM / SANITARY MANHOLE (15000)	701.011	OPSD
STORM / SANITARY MANHOLE (18000)	701.012	OPSD
CB, FRAME & COVER	400.020	OPSD
WATERTIGHT FRAME & COVER	401.030	OPSD
STORM / SANITARY MH FRAME	S25	CITY OF OTTAWA
SANITARY COVER	S24	CITY OF OTTAWA
STORM COVER (CLOSED)	S24.1	CITY OF OTTAWA
STORM COVER (OPEN)	S28.1	CITY OF OTTAWA
SEWER TRENCH	S6 & S7	CITY OF OTTAWA
LANDSCAPE CATCHBASINS	S30 & S31	CITY OF OTTAWA
LANDSCAPE PERFORATED PIPE	S29	CITY OF OTTAWA
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	
STORM SEWER (<450mmØ)	PVC DR 35	
STORM SEWER (>450mmØ)	CONC CLASS 65D (UNLESS OTHERWISE NOTED)	

- INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH 50mmxX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION (REFER TO DETAIL).
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. DUE TO THE PRESENCE OF FILL MATERIAL ACROSS THE SUBJECT SITE, IT IS RECOMMENDED THAT THE FILL MATERIAL BE SUB-EXCAVATED A MINIMUM OF 300 MM BELOW PROPOSED SEWER OR WATER PIPES AND PROOF-ROLLED USING SUITABLY SIZED COMPACTION EQUIPMENT. THE BEDDING LAYER SHOULD THEN BE PLACED AND SHOULD CONSIST OF OPSS GRANULAR A WITH A MINIMUM THICKNESS OF 300 MM. IF THE BEDDING IS PLACED ON BEDROCK, THE THICKNESS OF THE BEDDING SHOULD BE A MINIMUM OF 300 MM FOR SEWER OR WATER PIPES. THE BEDDING MATERIAL SHOULD EXTEND TO THE SPRING LINE OF THE PIPE.
5. COVER MATERIAL, FROM THE SPRING LINE TO A MINIMUM OF 300 MM ABOVE THE OVERT OF THE PIPE SHOULD CONSIST OF OPSS GRANULAR A CRUSHED STONE. THE BEDDING AND COVER MATERIALS SHOULD BE PLACED IN MAXIMUM 225 MM THICK LIFTS AND COMPACTED TO 99% OF THE SPMD.
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 TO REDUCE THE POTENTIAL DIFFERENTIAL FROST HEAVING. THE TRENCH BACKFILL SHOULD BE PLACED IN MAXIMUM 300 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE SPMD.
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. STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
10. CONTRACTOR TO TELEVIEW (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.
11. ALL CATCHBASINS AND CATCHBASIN MANHOLES TO BE PROVIDED WITH MINIMUM 3 METER LONG PERFORATED SUBDRAINS EXTENDING IN TWO DIRECTIONS AT THE SUBGRADE LEVEL. SUBDRAIN IS TO BE PROVIDED AT THE TRANSITIONS BETWEEN DIFFERENT PAVEMENT COMPOSITIONS. THE SUBGRADE SURFACE SHOULD BE SHAPED TO PROMOTE WATER FLOW TO THE DRAINAGE LINES.

WATERMAIN NOTES:

1. SPECIFICATIONS:
- | ITEM | SPEC. No. | REFERENCE |
|--|-------------|----------------|
| WATERMAIN TRENCHING | W17 | CITY OF OTTAWA |
| THERMAL INSULATION IN SHALLOW TRENCHES | W22 | CITY OF OTTAWA |
| THERMAL INSULATION AT OPEN STRUCTURES | W23 | CITY OF OTTAWA |
| WATERMAIN CROSSING BELOW SEWER/ABOVE SEWER | W25 / W25.2 | CITY OF OTTAWA |
| VALVE AND VALVE BOX | W24 | CITY OF OTTAWA |
| DISTRICT METERING AREA CHAMBER | W3 | CITY OF OTTAWA |
| FIRE HYDRANT | W19 | CITY OF OTTAWA |
| WATERMAIN | PVC DR 18 | |
2. 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.
3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. ANY WATERMAIN WITH LESS THAN 2.4m COVER TO BE INSULATED PER THE SHOWN DETAIL.
4. PROVIDE A MINIMUM VERTICAL CLEARANCE OF 0.50m ABOVE AND BELOW 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.

GRADING NOTES:

1. TOPSOIL AND FILL, SUCH AS THOSE CONTAINING SIGNIFICANT AMOUNTS OF ORGANIC OR DELTERIOUS MATERIALS, SHALL BE STRIPPED FROM UNDER ANY BUILDINGS, PAVED AREAS, PIPE BEDDING AND OTHER SETTLEMENT SENSITIVE STRUCTURES. AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
2. SITE-EXCAVATED SOIL CAN BE PLACED AS GENERAL LANDSCAPING FILL WHERE SETTLEMENT IS A MINOR CONCERN OF THE GROUND SURFACE. THESE MATERIALS SHOULD BE SPREAD IN THIN LIFTS AND AT LEAST COMPACTED BY THE TRACKS OF THE SPREADING EQUIPMENT TO MINIMIZE VOIDS. IF THESE MATERIALS ARE TO BE PLACED TO INCREASE THE SUBGRADE LEVEL FOR AREAS TO BE PAVED, THE FILL SHOULD BE COMPACTED IN MAXIMUM 300 mm THICK LIFTS AND TO A MINIMUM DENSITY OF 95% OF THE RESPECTIVE SPMD.
3. CONSIDERATION MAY BE GIVEN FOR LEAVING IN-SITU FILL IN PLACE AT THE SUBGRADE LEVEL OF PAVED AREAS PROVIDED IT IS REVIEWED IN THE FIELD AT THE TIME OF CONSTRUCTION BY PATERSON PERSONNEL AND SUBSEQUENTLY PROOF-ROLLER BY A SUITABLY-SIZED SHEEPSFOOT ROLLER. PROOF-ROLLING SHOULD BE COMPLETED UNDER DRY AND ABOVE-FREEZING CONDITIONS AND UNDER THE SUPERVISION OF PATERSON PERSONNEL.
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. THIS MATERIAL SHOULD BE TESTED AND APPROVED PRIOR TO DELIVERY TO THE SITE. THE FILL SHOULD BE PLACED IN LIFTS GREATER THAN 300 mm THICK AND COMPACTED USING SUITABLE COMPACTION EQUIPMENT FOR THE LIFT THICKNESS. FILL PLACED BENEATH THE PAVED AREAS SHOULD BE COMPACTED TO AT LEAST 95% OF ITS SPMD.
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 SPMD WITH SUITABLE VIBRATORY EQUIPMENT.
7. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
8. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
9. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
10. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED.
11. 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. THIS MATERIAL SHOULD BE PLACED IN MAXIMUM 300 MM THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 98% OF ITS SPMD UNDER DRY AND ABOVE FREEZING CONDITIONS.
12. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
13. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

PAVEMENT STRUCTURE:

CAR ONLY PARKING AREAS

- 50mm HL3 OR SUPERPAVE 12.5
- 150mm OPSS GRAN "A" CRUSHED STONE
- 300mm OPSS GRAN "B" TYPE II (SUBGRADE - EITHER FILL, IN SITU SOIL, OR OPSS GRANULAR B TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL.)

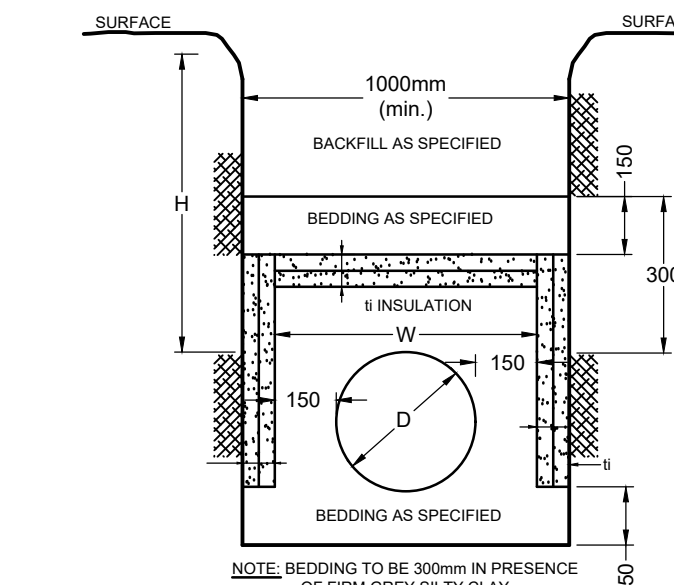
LOCAL RESIDENTIAL ROADWAYS, ACCESS LANES AND HEAVY-TRUCK PARKING AREAS

- 40mm HL3 OR SUPERPAVE 12.5
- 50mm HL3 OR SUPERPAVE 19.0
- 150mm OPSS GRAN "A" CRUSHED STONE
- 400mm OPSS GRAN "B" TYPE II (SUBGRADE - EITHER FILL, IN SITU SOIL, OR OPSS GRANULAR B TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL.)

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 OPSS 1109.030.
- | COVER SEWER / WATER (mm) | INSULATION THICKNESS (mm) |
|--------------------------|---------------------------|
| 2000-1700 / 2400-2100 | 50 |
| 1700-1400 / 2100-1800 | 75 |
| 1400-1100 / 1800-1500 | 100 |
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)



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

PIPE CROSSING TABLE			
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE
①	250mmØ SAN OBV = 104.70	1050mmØ STM INV = 105.06*	±0.36m
②	450mmØ SAN OBV = 101.96	200mmØ WM INV = 104.68	±2.72m
③	200mmØ WM OBV = 104.57	1050mmØ STM INV = 105.07*	±0.50m
④	250mmØ SAN OBV = 104.88	375mmØ STM INV = 105.92	±0.50m
⑤	200mmØ WM OBV = 105.47	375mmØ STM INV = 105.97	±0.50m
⑥	250mmØ SAN OBV = 105.31	450mmØ STM INV = 105.85*	±0.54m
⑦	450mmØ STM OBV = 106.49*	200mmØ WM INV = 106.99	±0.50m
⑧	250mmØ SAN OBV = 105.40	200mmØ WM INV = 106.89	±1.49m
⑨	250mmØ SAN OBV = 105.78	250mmØ STM INV = 106.86	±1.08m
⑩	250mmØ STM OBV = 106.55	250mmØ STM INV = 106.86	±0.31m
⑪	250mmØ SAN OBV = 105.64	450mmØ STM INV = 105.94*	±0.30m
⑫	250mmØ SAN OBV = 105.62	200mmØ WM INV = 106.07	±0.45m
⑬	200mmØ WM OBV = 105.70	375mmØ STM INV = 106.20	±0.50m
⑭	200mmØ WM OBV = 105.74	375mmØ STM INV = 106.24	±0.50m
⑮	200mmØ WM OBV = 106.17	250mmØ STM INV = 107.13	±0.96m
⑯	250mmØ SAN OBV = 105.77	250mmØ STM INV = 107.20	±1.44m
⑰	250mmØ SAN OBV = 105.63	250mmØ STM INV = 107.28	±1.65m
⑱	250mmØ SAN OBV = 106.03	200mmØ WM INV = 106.53	±0.50m
⑲	250mmØ SAN OBV = 106.08	300mmØ STM INV = 106.40	±0.33m
⑳	250mmØ SAN OBV = 106.71	250mmØ STM INV = 107.03	±0.32m
㉑	250mmØ STM OBV = 106.80	250mmØ STM INV = 107.05	±0.25m
㉒	200mmØ WM OBV = 105.86	250mmØ STM INV = 106.36	±0.50m
㉓	200mmØ WM OBV = 106.52	250mmØ STM INV = 107.34	±0.82m
㉔	250mmØ SAN OBV = 106.22	200mmØ WM INV = 106.72	±0.50m
㉕	250mmØ SAN OBV = 106.26	250mmØ STM INV = 106.57	±0.31m
㉖	250mmØ STM OBV = 106.89	250mmØ STM INV = 107.17	±0.28m
㉗	250mmØ SAN OBV = 106.32	250mmØ STM INV = 107.16	±0.84m
㉘	450mmØ SAN OBV = 101.75*	200mmØ WM INV = 105.65	±3.90m
㉙	200mmØ WM OBV = 104.77	975mmØ STM INV = 105.27*	±0.50m
㉚	200mmØ WM OBV = 106.05	250mmØ STM INV = 106.90	±0.85m

PROPOSED 200mmØ WATER SERVICE (0+000.0)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
0+000.00	108.47	106.02	CONNECTION TO EXISTING 300mmØ WATERMAIN
0+002.66	108.51	104.88	CROSS ABOVE 450mmØ SAN (±2.72m CLEARANCE)
0+005.10	108.53	104.57	CROSS BELOW 1050mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
0+018.01	108.85	105.47	CROSS BELOW 375mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
0+019.91	108.91	105.47	DMA PER CITY OF OTTAWA DETAIL W3
0+036.92	108.96	106.56	200mmX200mm TEE
0+048.79	108.53	107.19	CROSS ABOVE 450mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
0+050.29	108.51	107.09	CROSS ABOVE 250mmØ SAN (±1.49m CLEARANCE)
0+053.09	108.48	106.08	200mmX200mm TEE
0+056.10	108.43	106.03	PROPOSED VALVE AND VALVE BOX
0+094.78	108.71	106.31	200mmX200mm TEE

PROPOSED 200mmØ WATER SERVICE (1+000.0)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
1+000.0	108.40	105.91	CONNECTION TO EXISTING 300mmØ WATERMAIN
1+002.65	108.43	105.85	CROSS ABOVE 450mmØ SAN (±3.90m CLEARANCE)
1+008.93	108.44	104.77	CROSS BELOW 975mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
1+018.97	108.57	105.87	PROPOSED VALVE AND VALVE BOX
1+020.22	108.45	106.05	CROSS BELOW 250 mmØ STM (±0.85m CLEARANCE)
1+047.65	109.20	106.80	200mmX200mm TEE
1+054.24	109.09	106.69	200mmX200mm TEE
1+061.51	108.84	105.74	CROSS BELOW 375mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
1+063.93	108.79	106.17	CROSS BELOW 250mmØ CB LEAD(±0.96m CLEARANCE)
1+069.23	108.70	106.30	200mmX150mm TEE (HYD)
1+080.50	108.67	106.73	CROSS ABOVE 250mmØ SAN AS PER CITY OF OTTAWA STANDARD W25.2(±0.50m CLEARANCE)
1+088.85	108.65	106.25	45° BEND
1+097.34	108.80	106.40	45° BEND
1+122.12	108.90	106.50	200mmX150mm TEE (HYD)
1+136.95	108.90	106.92	CROSS ABOVE 250mmØ SAN AS PER CITY OF OTTAWA STANDARD W25.2(±0.50m CLEARANCE)
1+156.32	108.74	106.34	PROPOSED VALVE AND VALVE BOX
1+163.93	108.71	106.31	200mmX200mm TEE
1+173.71	108.65	106.25	45° BEND
1+176.55	108.70	106.30	45° BEND
1+178.24	108.77	105.86	CROSS BELOW 250mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
1+183.25	108.91	106.51	CROSS BELOW 250mmØ STM(±0.82m CLEARANCE)
1+185.07	109.08	106.68	PROPOSED VALVE AND VALVE BOX
1+187.21	109.30	106.90	CAP SERVICE 1.0m FROM THE FOUNDATION WALL

PROPOSED 200mmØ WATER SERVICE (2+000.0)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
2+000.0	108.48	106.08	200mmX200mm TEE
2+009.40	108.57	106.17	200mmX150mm TEE (HYD)
2+029.96	108.67	106.27	CROSS ABOVE 250mmØ SAN (±0.45m CLEARANCE)
2+041.15	108.75	106.35	CROSS BELOW 250mmØ CB LEAD (±0.69m CLEARANCE)
2+061.84	109.07	105.70	CROSS BELOW 375mmØ STM AS PER CITY OF OTTAWA STANDARD W25 (±0.50m CLEARANCE)
2+059.2	108.95	106.55	PROPOSED VALVE AND VALVE BOX
2+072.28	109.09	106.69	200mmX200mm TEE

* CONTRACTOR TO CONFIRM THE ELEVATION OF THE EXISTING WATER STUB/MAIN AND NOTIFY THE ENGINEER IF DIFFERENT

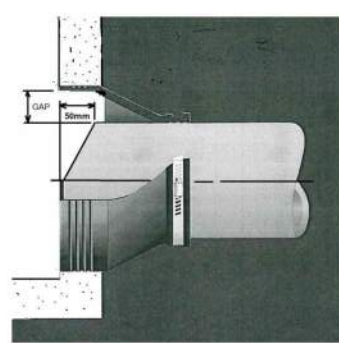
ICD SIZING AND FLOWS						
STRUCTURE	ORIFICE ICD SIZE	ICD INVERT (m)	T/G (m)	100-yr HGL (m)	100-yr HEAD (m)	100-yr RELEASE RATE (L/s)
CB 1	83mm PLATE	106.66	108.70	108.15	1.46	17.7
CB 3	152mm PLATE	107.00	108.35	108.63	1.55	59.3
CB 5	152mm PLATE	107.13	108.45	108.62	1.41	58.2
CB 7	127mm PLATE	107.19	108.60	108.72	1.47	41.4
CB 10	83mm PLATE	107.40	108.60	108.17	0.73	12.5
MH 207	105mm PLATE	106.48	108.84	107.39	0.86	9.3
MH 214	105mm PLATE	106.62	108.95	107.50	0.83	9.1
MH 220	100mm PLATE	106.18	108.90	106.95	0.72	7.7
CBMH 222	108mm PLATE	106.01	108.57	107.94	1.88	32.0

SANITARY MANHOLES THAT REQUIRE WATER TIGHT LIDS (PER OPSS 401.030)	
MANHOLE ID	
102	
104	

STORM MANHOLES THAT REQUIRE WATER TIGHT LIDS (PER OPSS 401.030)	
MANHOLE ID	
202	

Pipe Connections to Structures

For concrete pipe connections to structures OPSS 708.020 applies. Use of Kor-N-Seal and equivalent type products limited to 825mm ID and less.



- For PVC pipe connections to structures OPSS 708.020 applies with the condition that flexible watertight connectors shall be approved cast-in-place or boot gaskets listed in MW-22.15.

- For Kor-N-Seal and equivalent type products with a gap between the pipe and the bored hole, taper back the top half of the PVC pipe until the overt is 50mm behind the inside wall of the maintenance hole to prevent rubbing and eventual cracking of the overt by cleaning hoses. Hoses shall rub on the concrete edge not the overt.

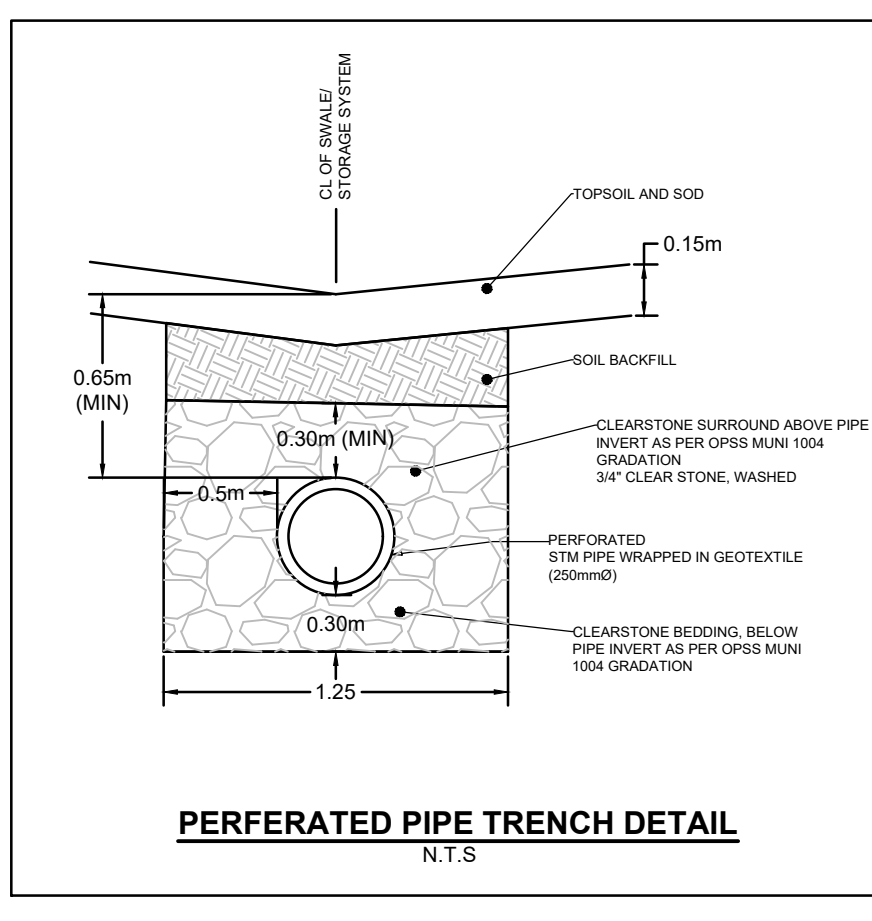
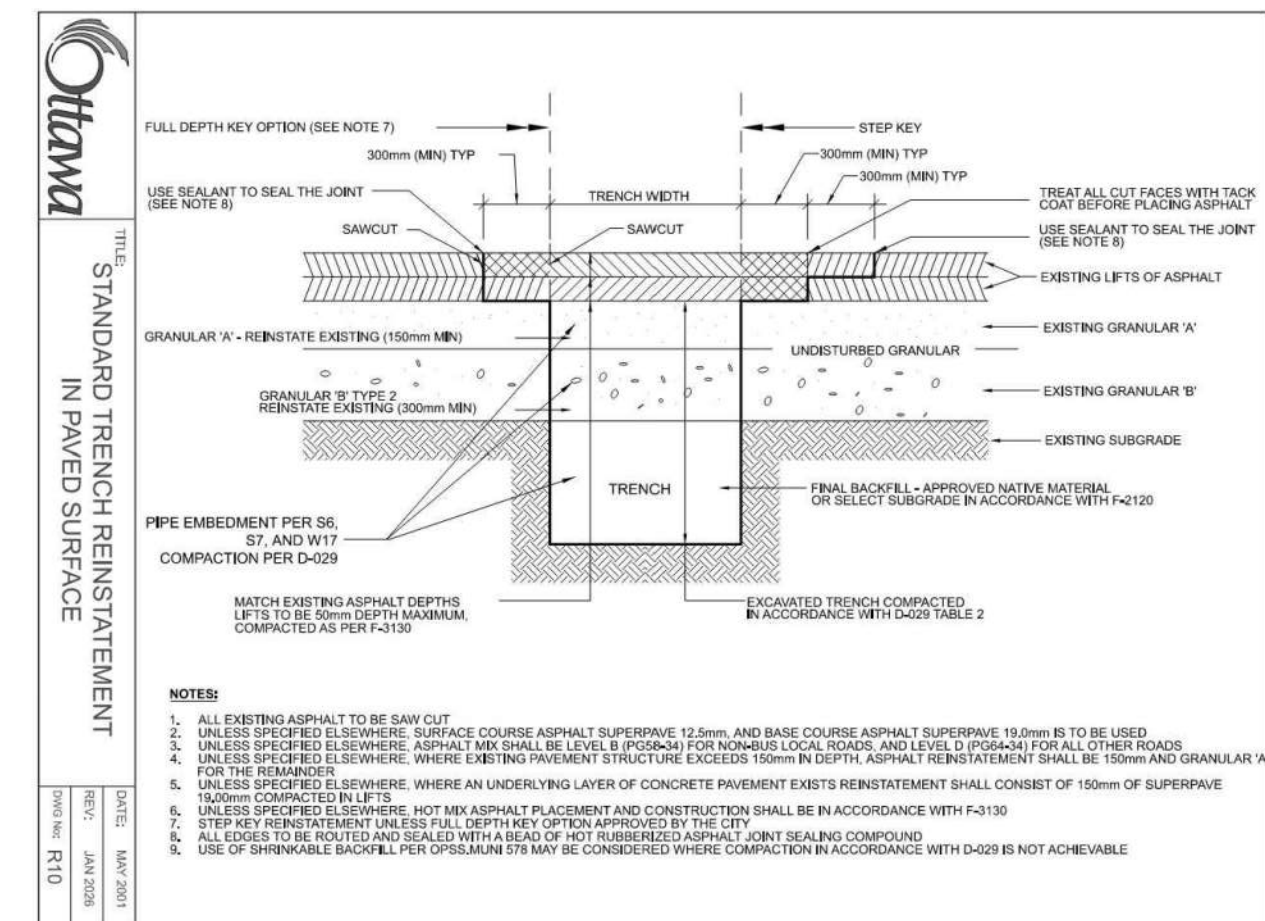
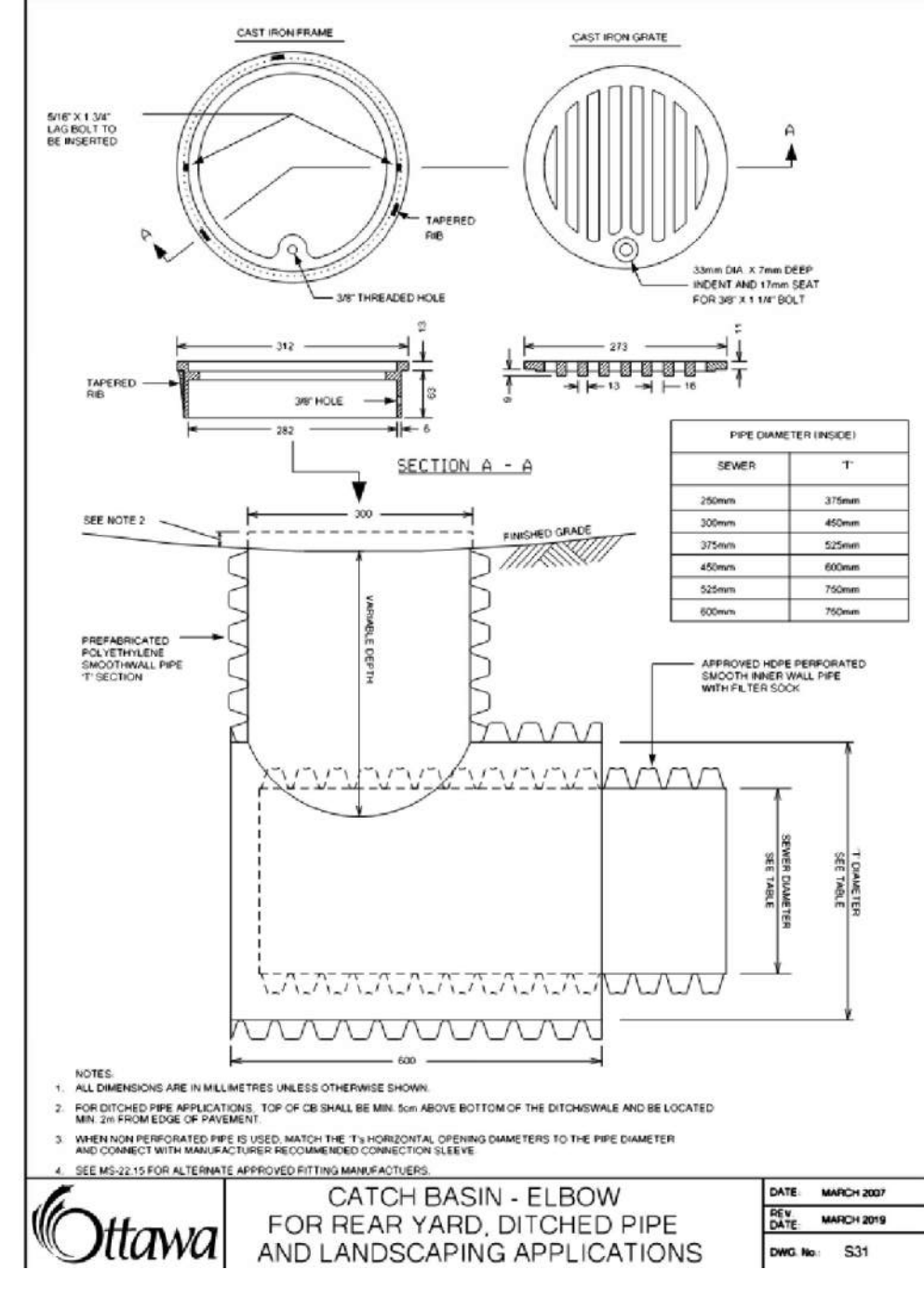
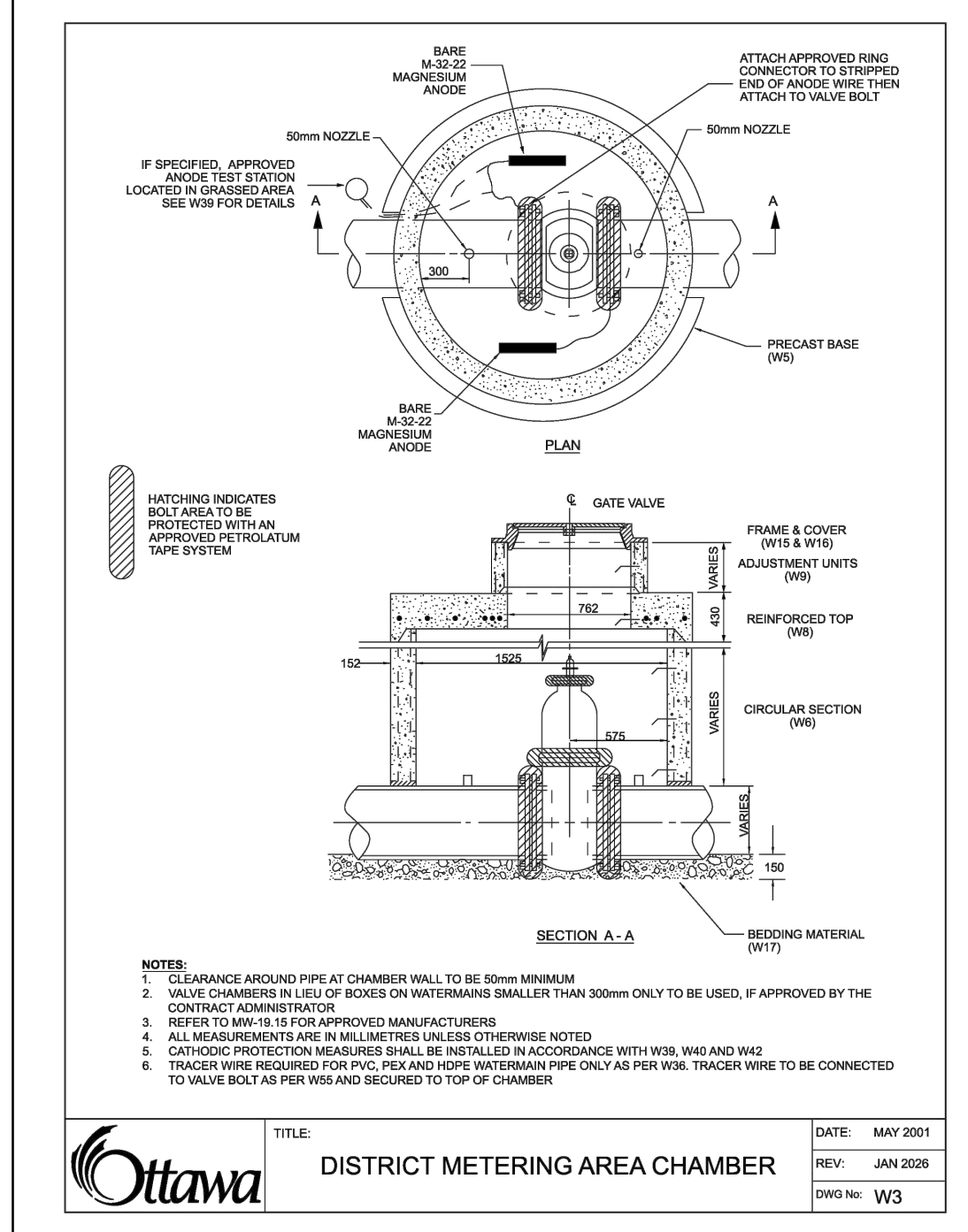
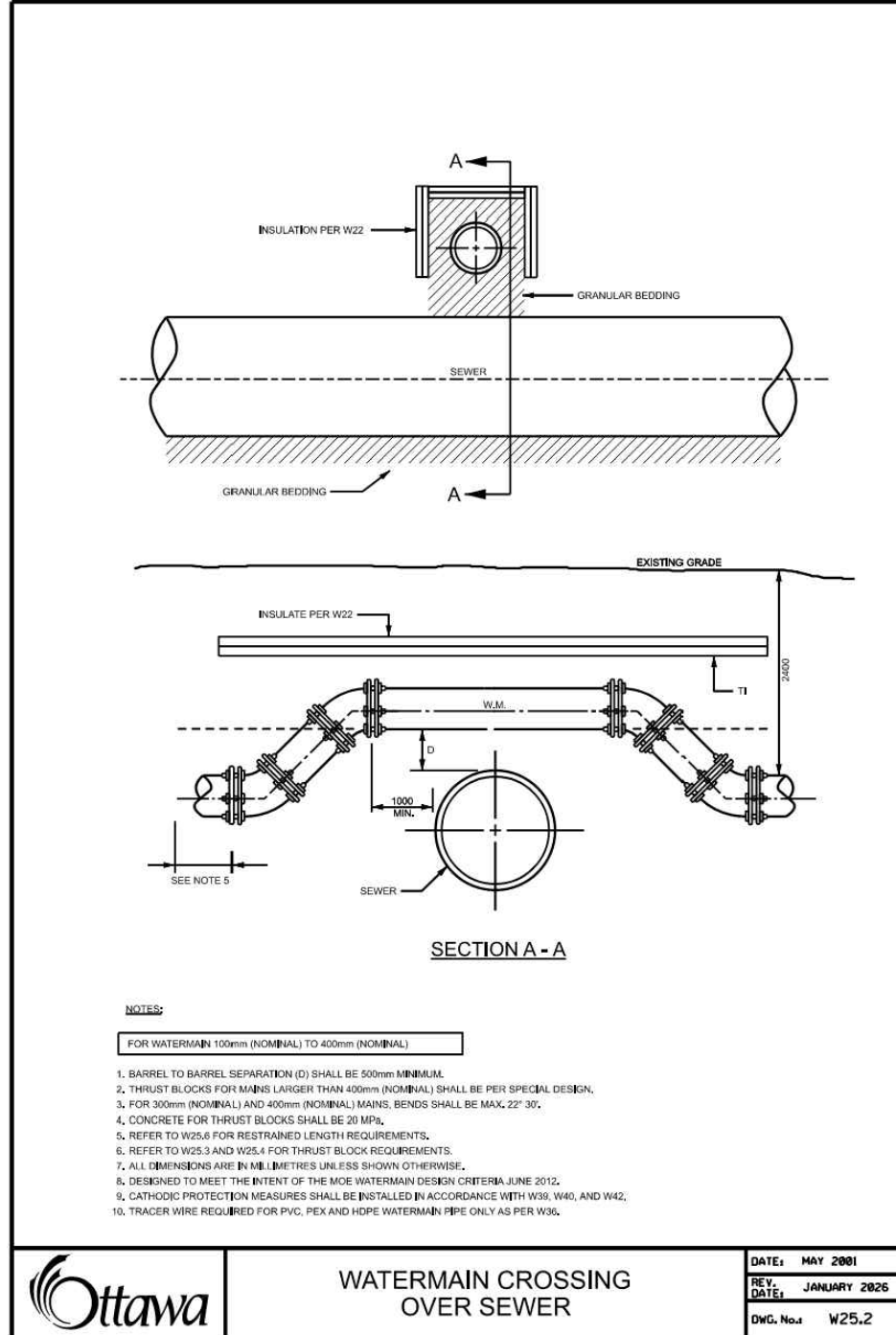
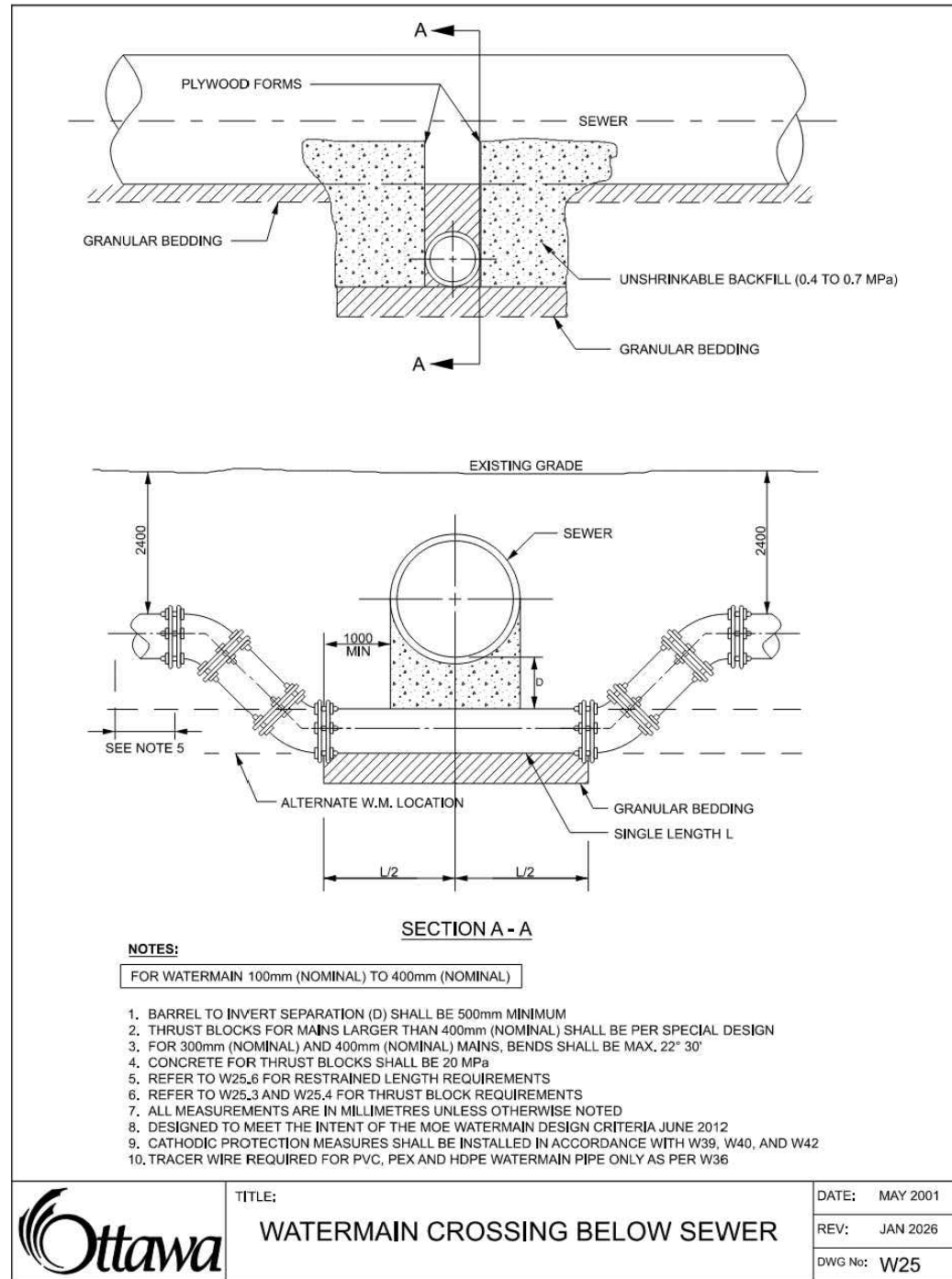
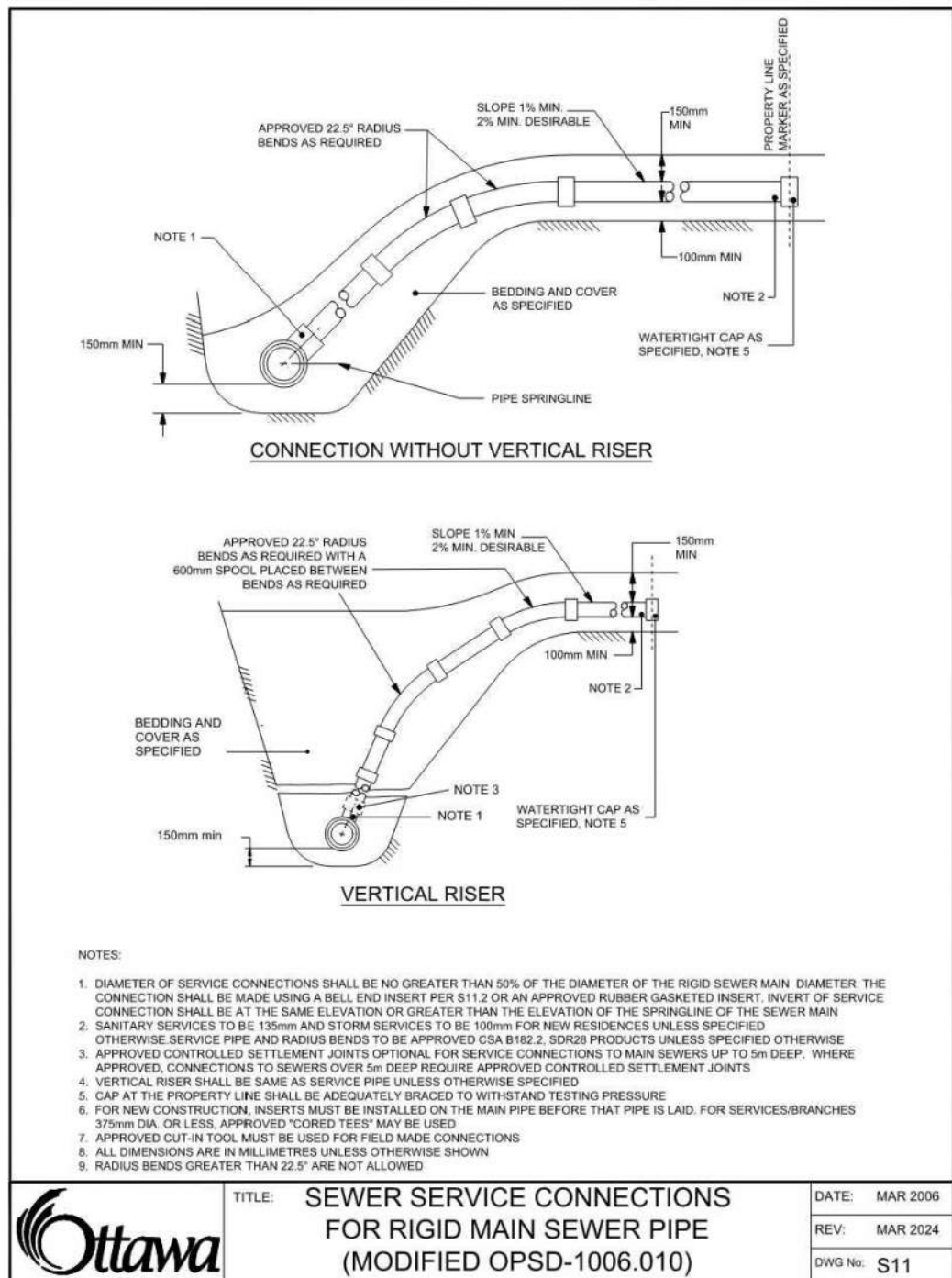
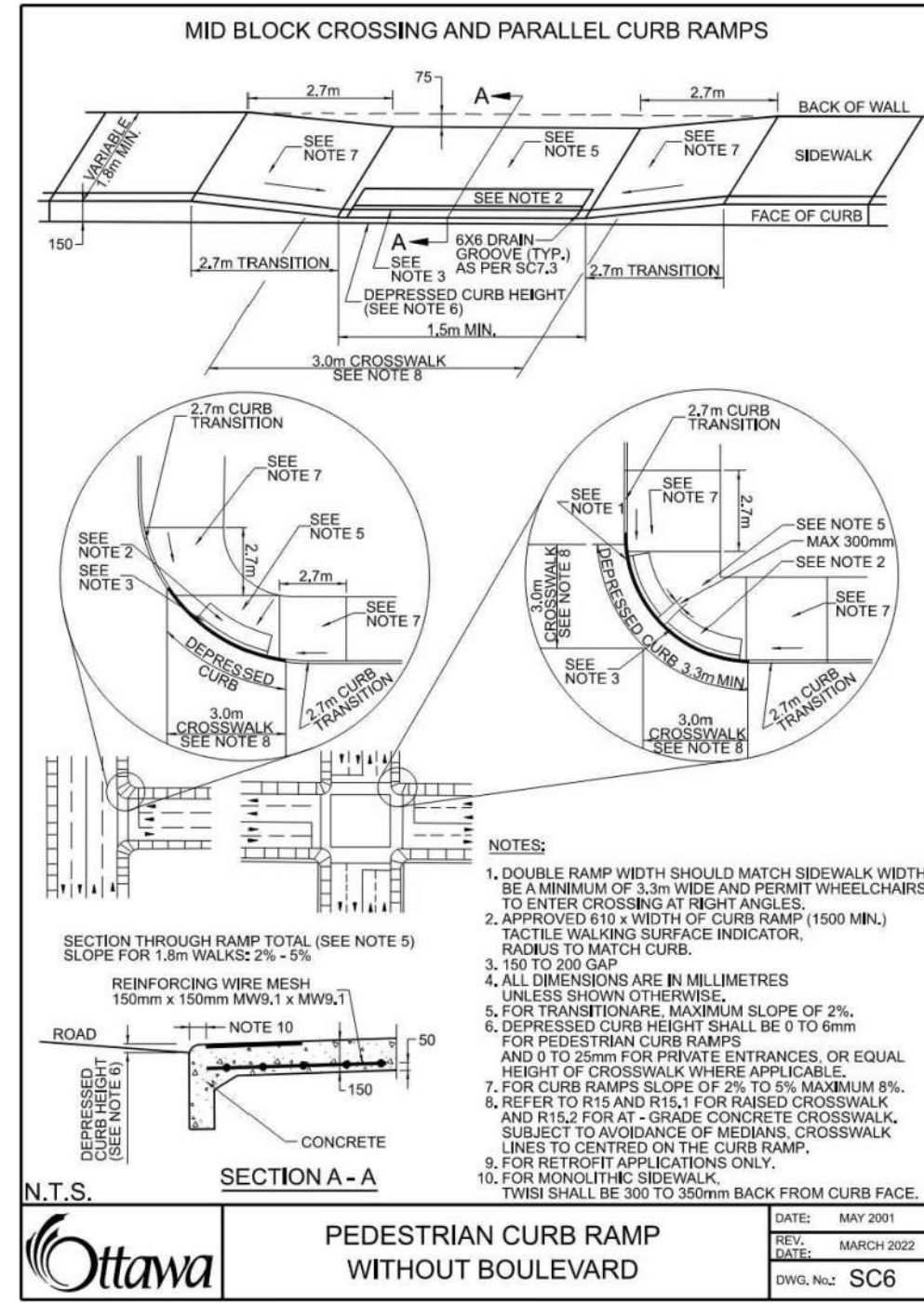
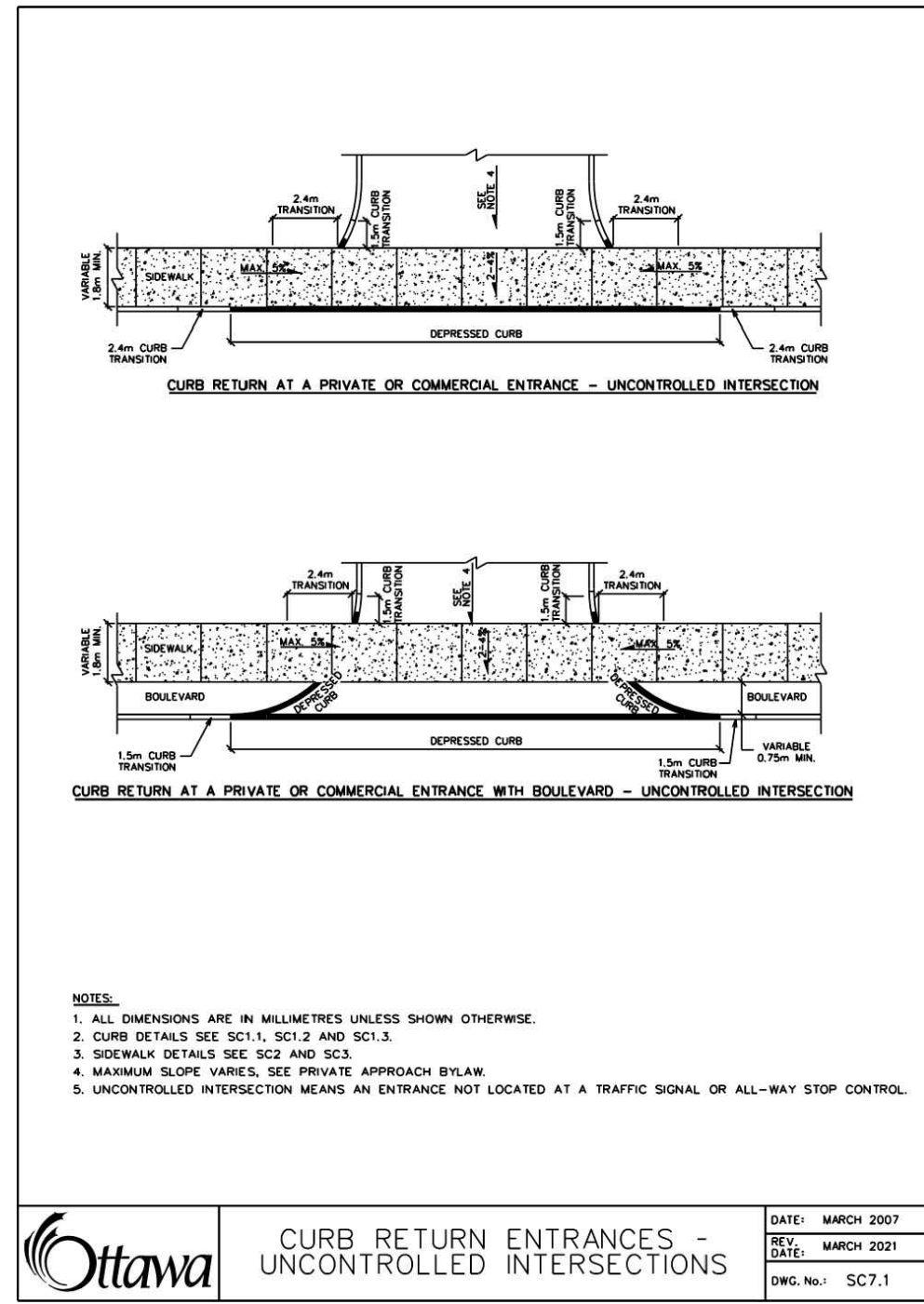
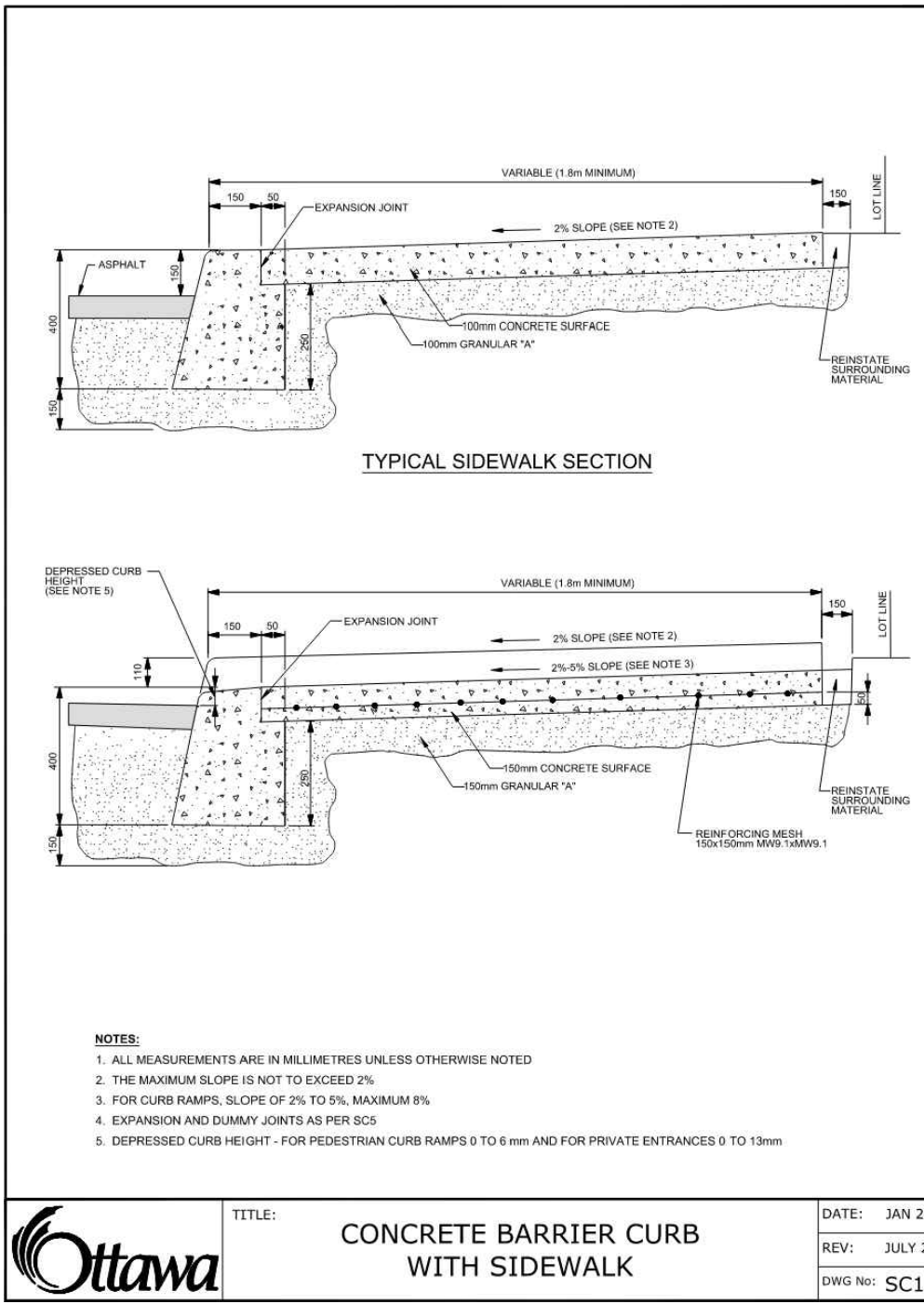
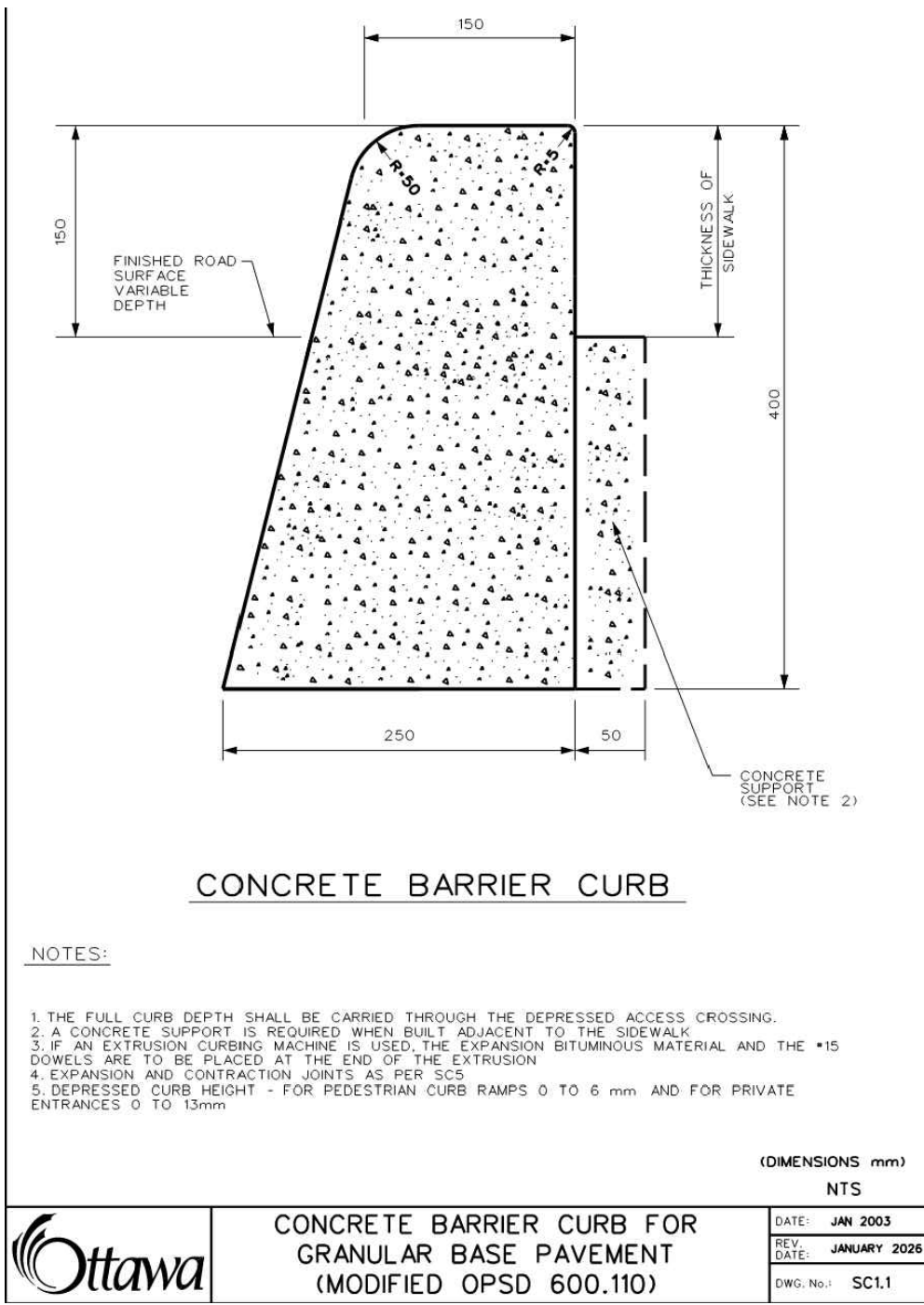
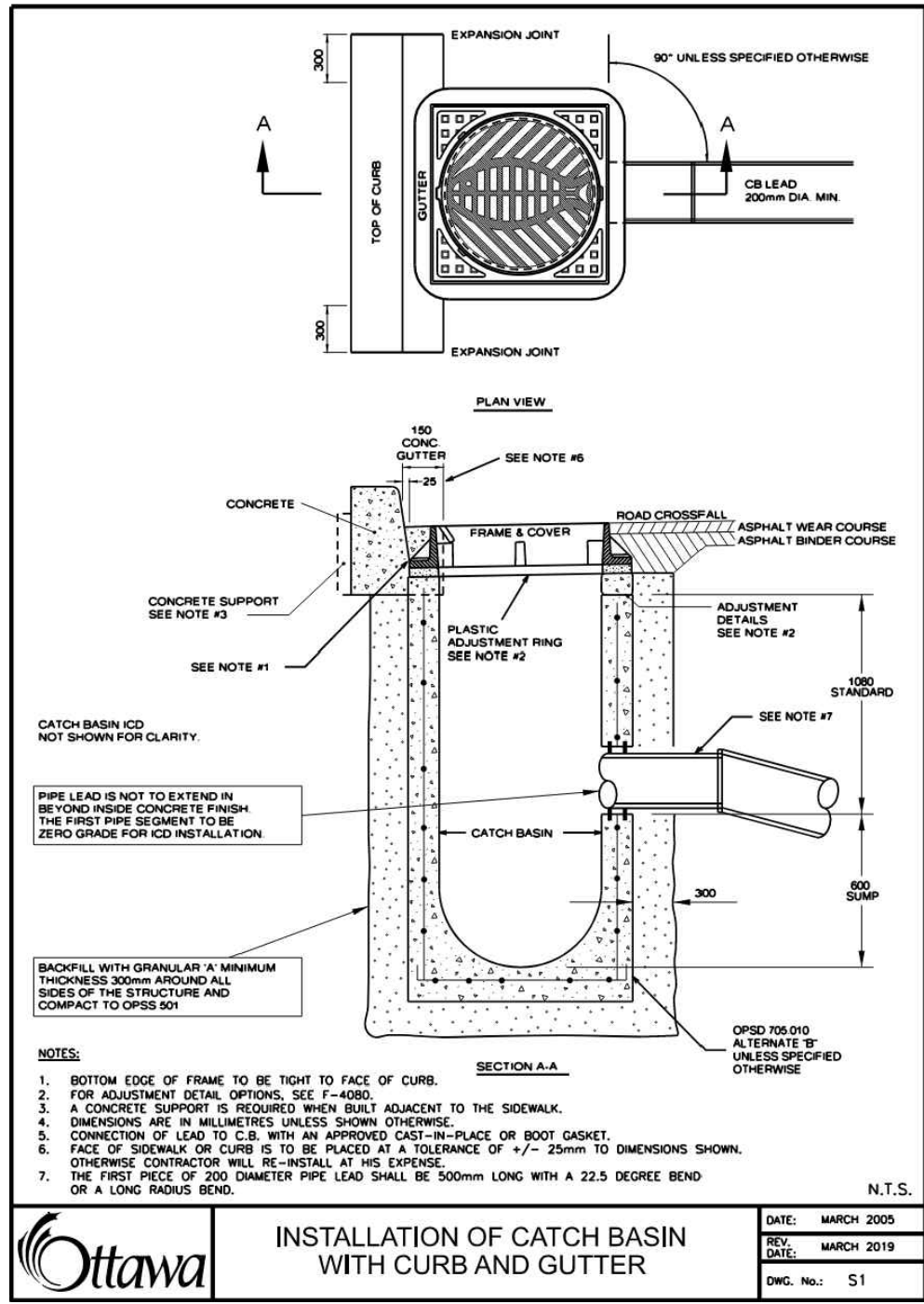
Field Testing
Leakage testing shall be completed in accordance with OPSS MUNI 410.07.16 and in accordance with the plumbing code. Subsection 410.07.16 of OPSS MUNI 410 is amended by the following:

PIPE CONNECTIONS TO STRUCTURES
(EXCERPTED FROM OTTAWA F-4100)

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SCALE	DESIGN
AS SHOWN	ARM
	GJM
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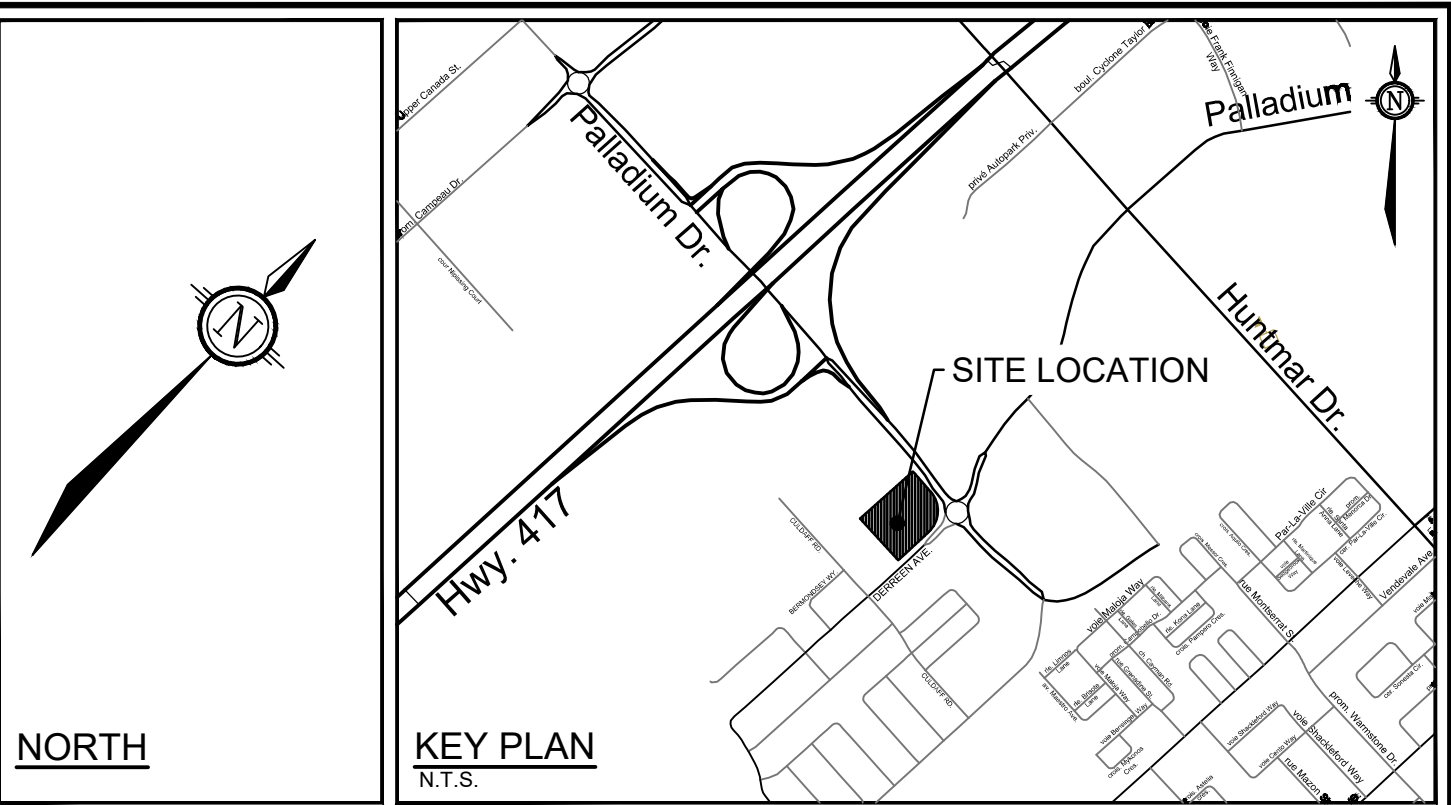
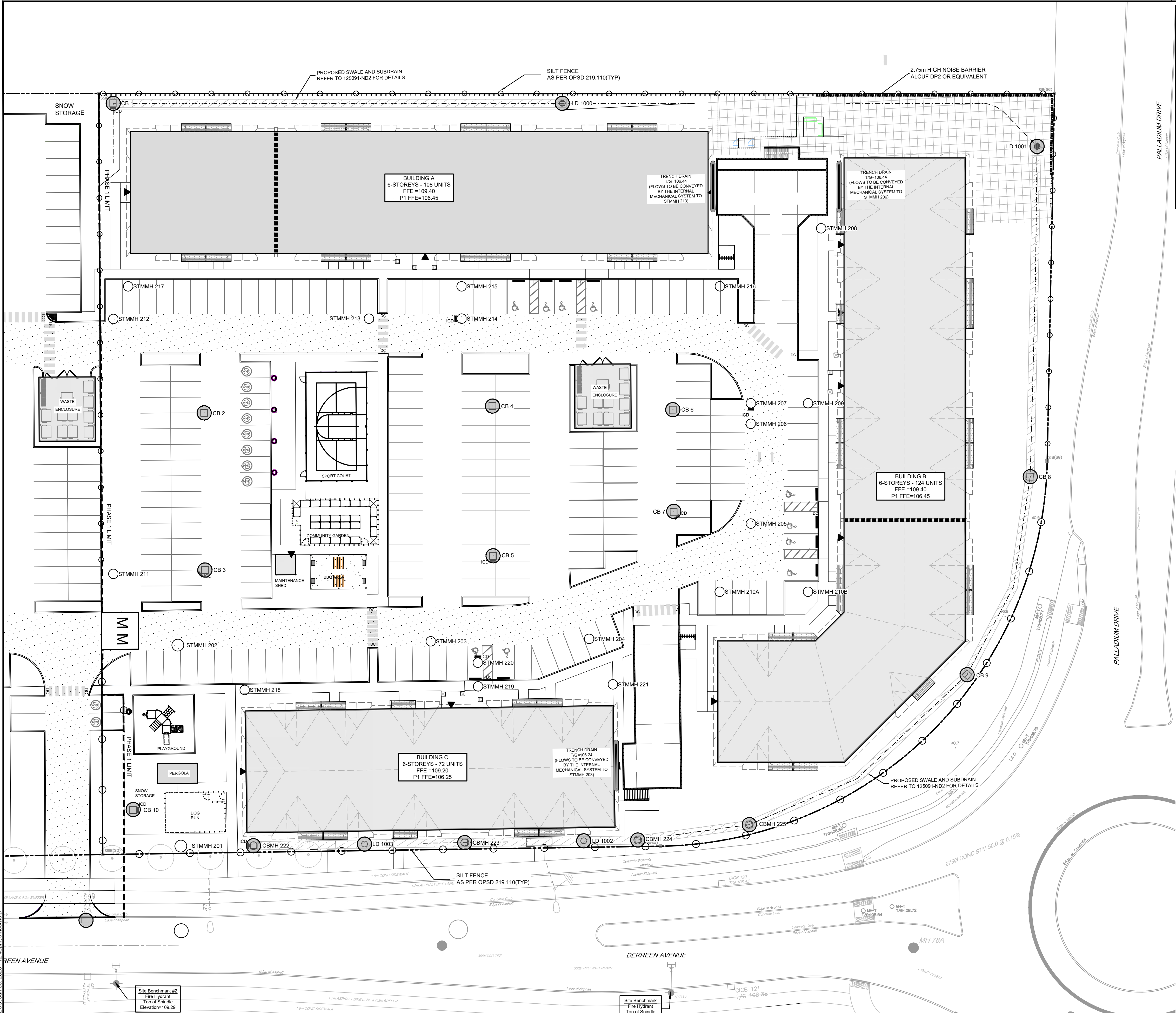
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

LOCATION	CITY OF OTTAWA
DRAWING NAME	PALLADIUM 2
NOTES AND DETAILS PLAN	
PROJECT NO.	125091
REV	REV#1
DRAWING NO.	125079-ND2

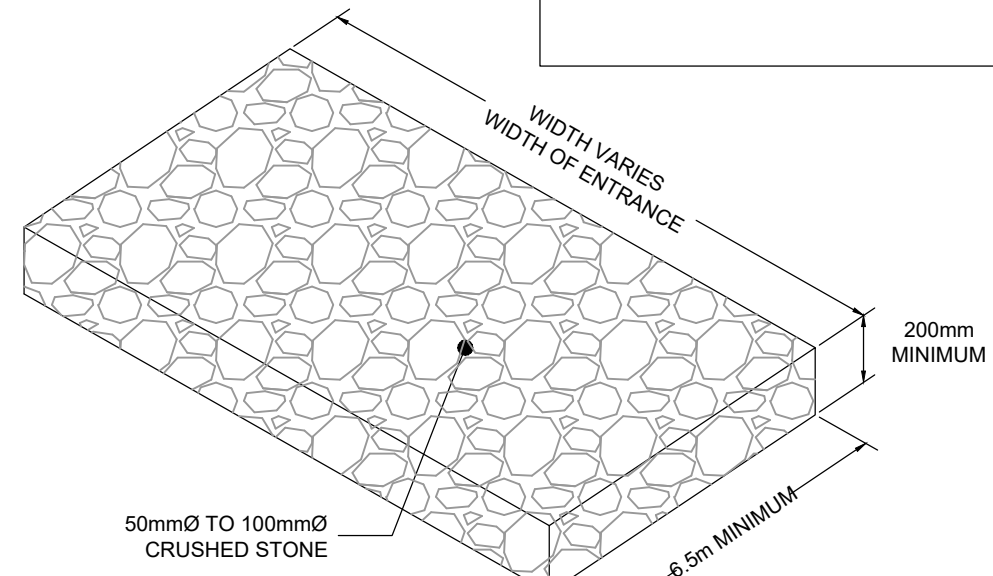
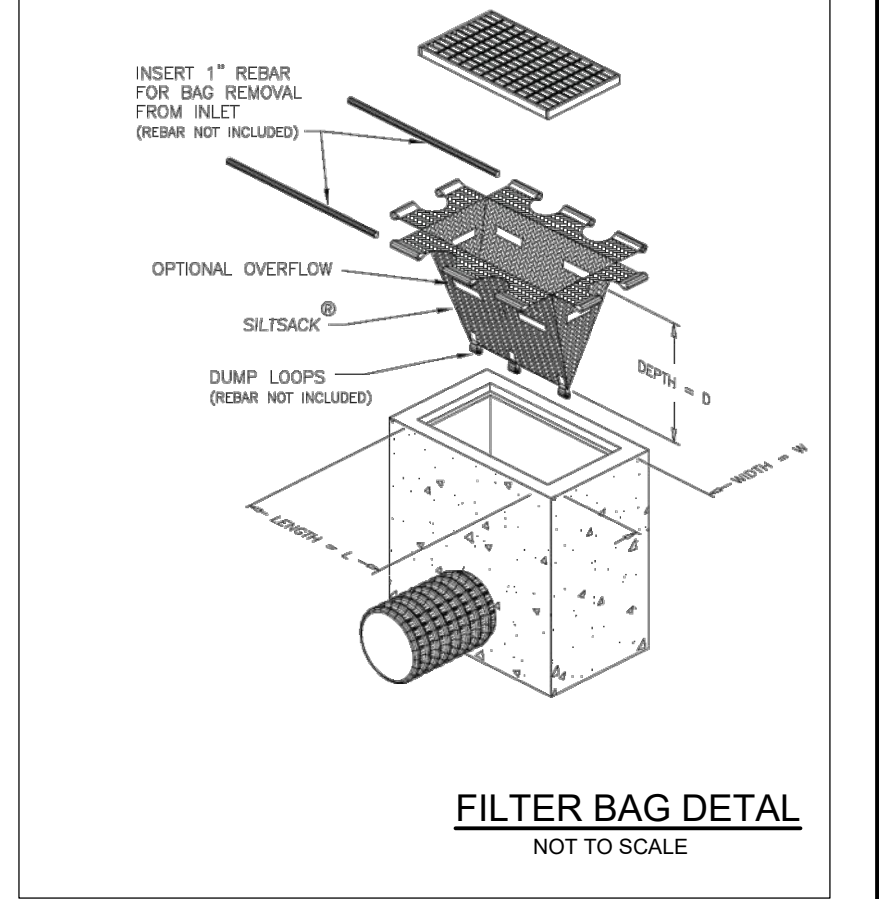
CITY FILE NO. Dxx-xx-xx-XXXX

CITY PLAN NO. XXXXX



- LEGEND**
- | | |
|--|--|
| --- PROPERTY LINE | --- SWALE |
| --- PHASE 1 LIMIT | ----- PROPOSED FIREWALL |
| --- PROPOSED CURB | [Symbol] PROPOSED BIKE RACKS |
| --- DC PROPOSED DEPRESSED CURB | --- PROPOSED ROOF LIMITS |
| [Symbol] PROPOSED FOUNDATION WALK C/W RAILING | [Symbol] PROPOSED FILTER BAGS AT CATCHBASINS, CATCHBASIN MANHOLES AND TRENCHDRAINS |
| [Symbol] PROPOSED TACTILE WALKING SURFACE INDICATOR (TWSI) | [Symbol] PROPOSED MUD MAT |
| [Symbol] PROPOSED STORM SEWER AND MANHOLE | [Symbol] LIGHT DUTY SILT FENCE (OPSD 219.110) |
| [Symbol] PROPOSED CATCHBASIN MANHOLE | [Symbol] EXISTING STORM MANHOLE |
| [Symbol] PROPOSED CATCHBASIN | [Symbol] CB 1 EXISTING CATCHBASIN |
| [Symbol] PROPOSED LANDSCAPE DRAIN | |
| [Symbol] PROPOSED TRENCH DRAIN | |
| [Symbol] PROPOSED INLET CONTROL DEVICE | |
| [Symbol] PROPOSED BUILDING ENTRANCE | |

- EROSION AND SEDIMENT CONTROL NOTES:**
- 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.
- 1) THE OWNER AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, 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 IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL SUCH AS BUT NOT LIMITED TO INSTALLING FILTER CLOTHS ACROSS MANHOLE/CATCHBASIN LIDS TO PREVENT SEDIMENTS FROM ENTERING STRUCTURES AND INSTALL AND MAINTAIN A LIGHT DUTY SILT FENCE BARRIER AS REQUIRED.
 - 2) THE CONTRACTOR SHALL PLACE FILTER BAGS UNDER THE CATCHBASIN AND MANHOLE GRATES FOR THE DURATION OF CONSTRUCTION AND WILL REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION.
 - 3) SILT FENCING FOR ENTIRE PERIMETER OF SITE, SHALL BE UTILIZED TO CONTROL EROSION FROM THE SITE DURING CONSTRUCTION.
 - 4) THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
 - 5) PROVIDE MUD MATS AT ALL CONSTRUCTION ACCESS POINTS TO MINIMIZE SEDIMENT TRANSPORT OFFSITE.
 - 6) EROSION AND SEDIMENT CONTROL MEASURES MAY BE MODIFIED IN THE FIELD AT THE DISCRETION OF THE CITY OF OTTAWA SITE INSPECTOR OR CONSERVATION AUTHORITY.

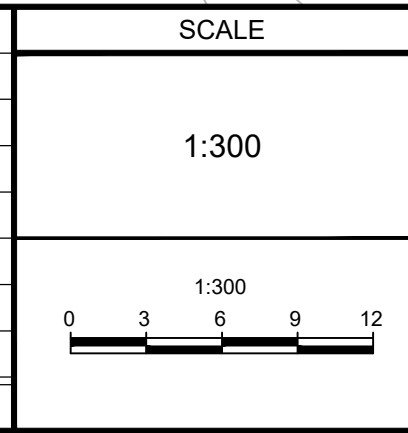


MUD MAT DETAIL
NOT TO SCALE
REFER TO 125091-ND FOR ADDITIONAL NOTES & DETAILS

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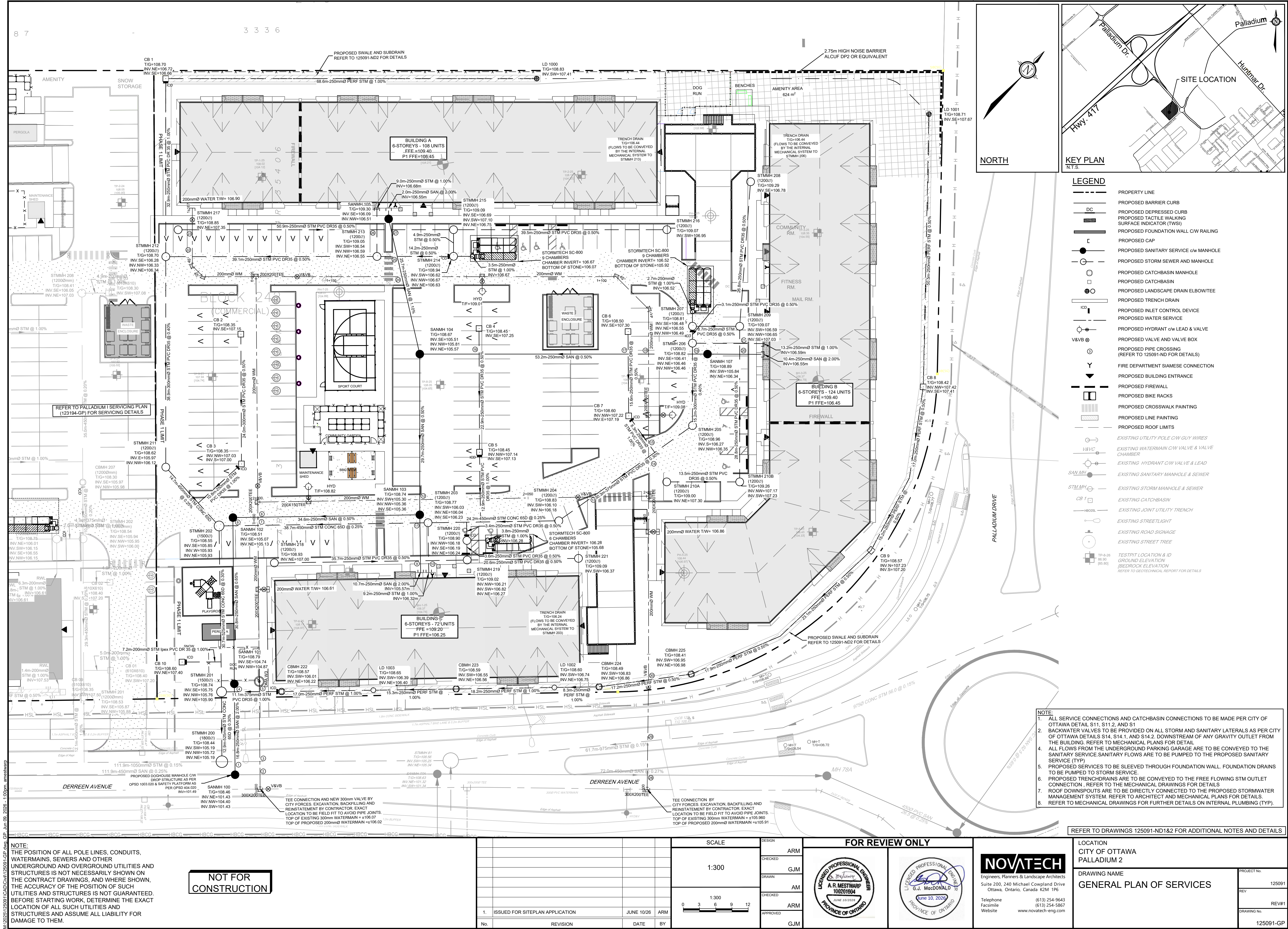
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APPROVED	GJM

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LOCATION CITY OF OTTAWA PALLADIUM 2	PROJECT No. 125091
DRAWING NAME EROSION AND SEDIMENT CONTROL PLAN	REV#1 REV#1
	DRAWING No. 125091-ESC

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WATERMANS, SEWERS AND OTHER
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SCALE	DESIGN
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APPROVED

PROFESSIONAL ENGINEER
A.R. MESTWARP
100201604
JUNE 10/2026
PROVINCE OF ONTARIO

PROFESSIONAL ENGINEER
G.J. MacDONALD
JUNE 10/2026
PROVINCE OF ONTARIO

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LOCATION
CITY OF OTTAWA
PALLADIUM 2

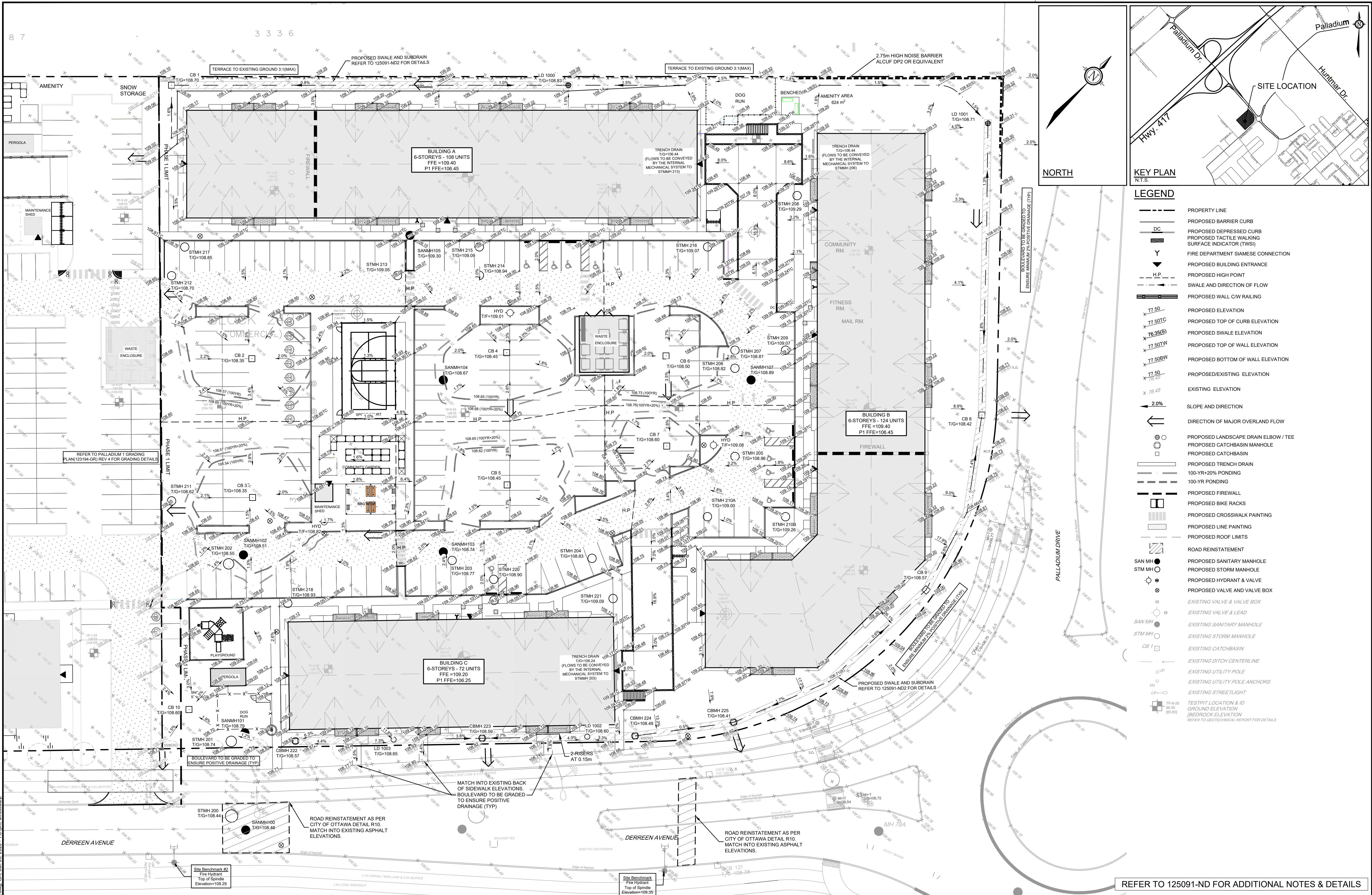
DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No.
125091

REV
REV#1

DRAWING No.
125091-GP

CITY FILE NO. Dxx-xx-XXXXXX
CITY PLAN No. XXXXX



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DESIGN

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PROFESSIONAL ENGINEER
A.R. MESTWARP
100201604
JUNE 10/2026
PROVINCE OF ONTARIO

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LOCATION
CITY OF OTTAWA
PALLADIUM 2

DRAWING NAME
GRADING PLAN

PROJECT No.
125091

REV
REV#1

DRAWING No.
125091-GR

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CITY FILE NO. Dxx-xx-XXXXX

CITY PLAN No. XXXXX