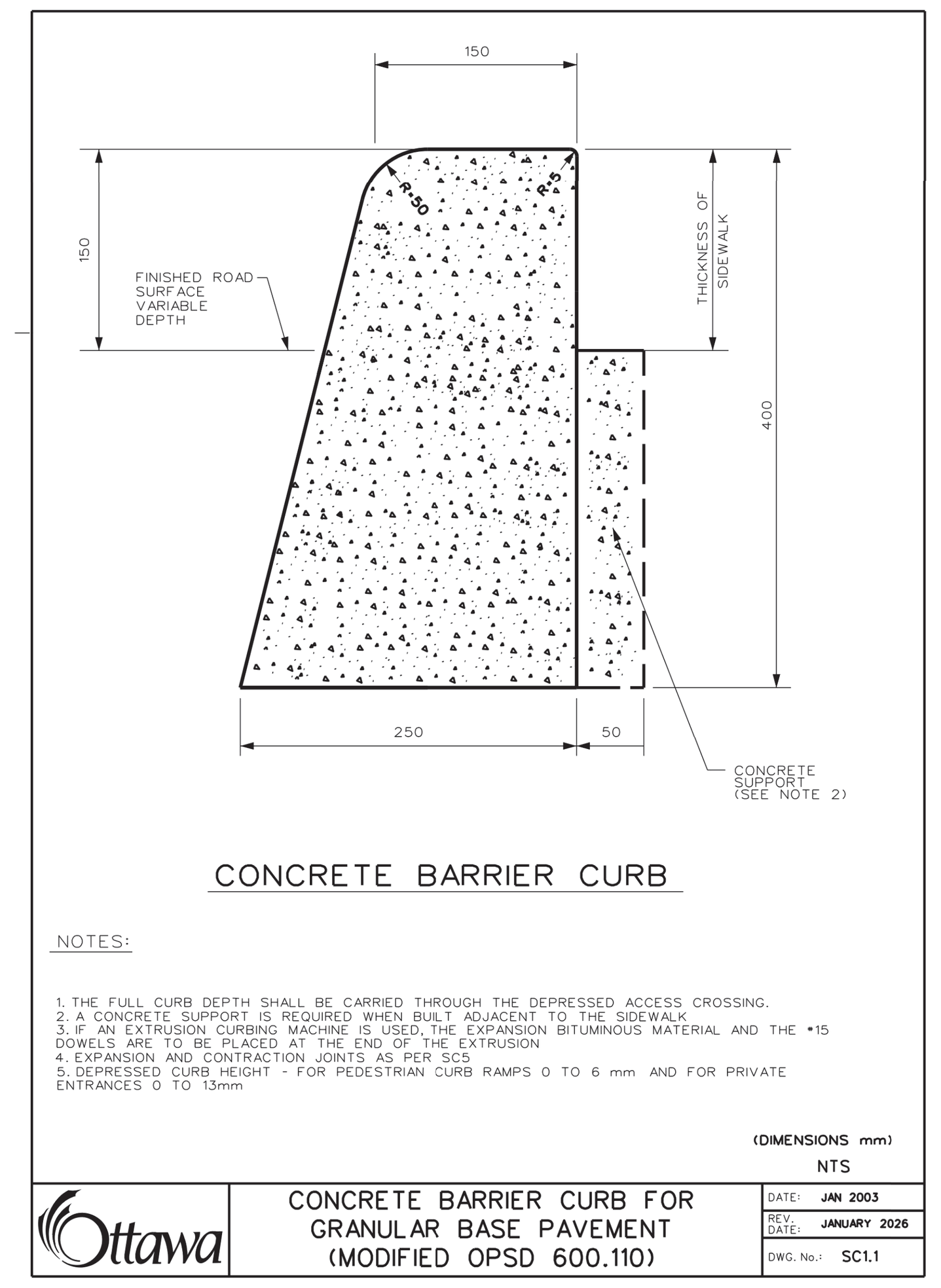
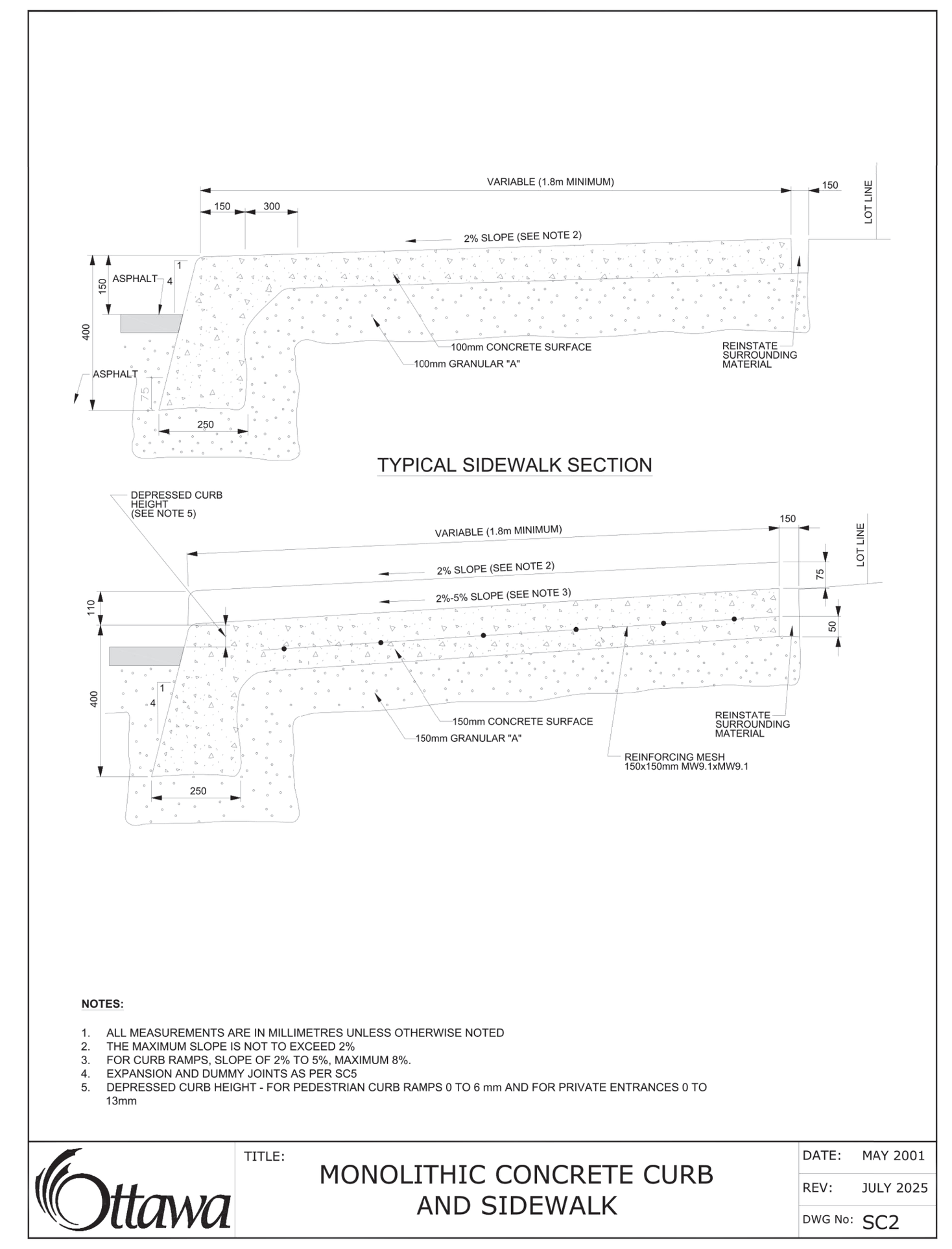
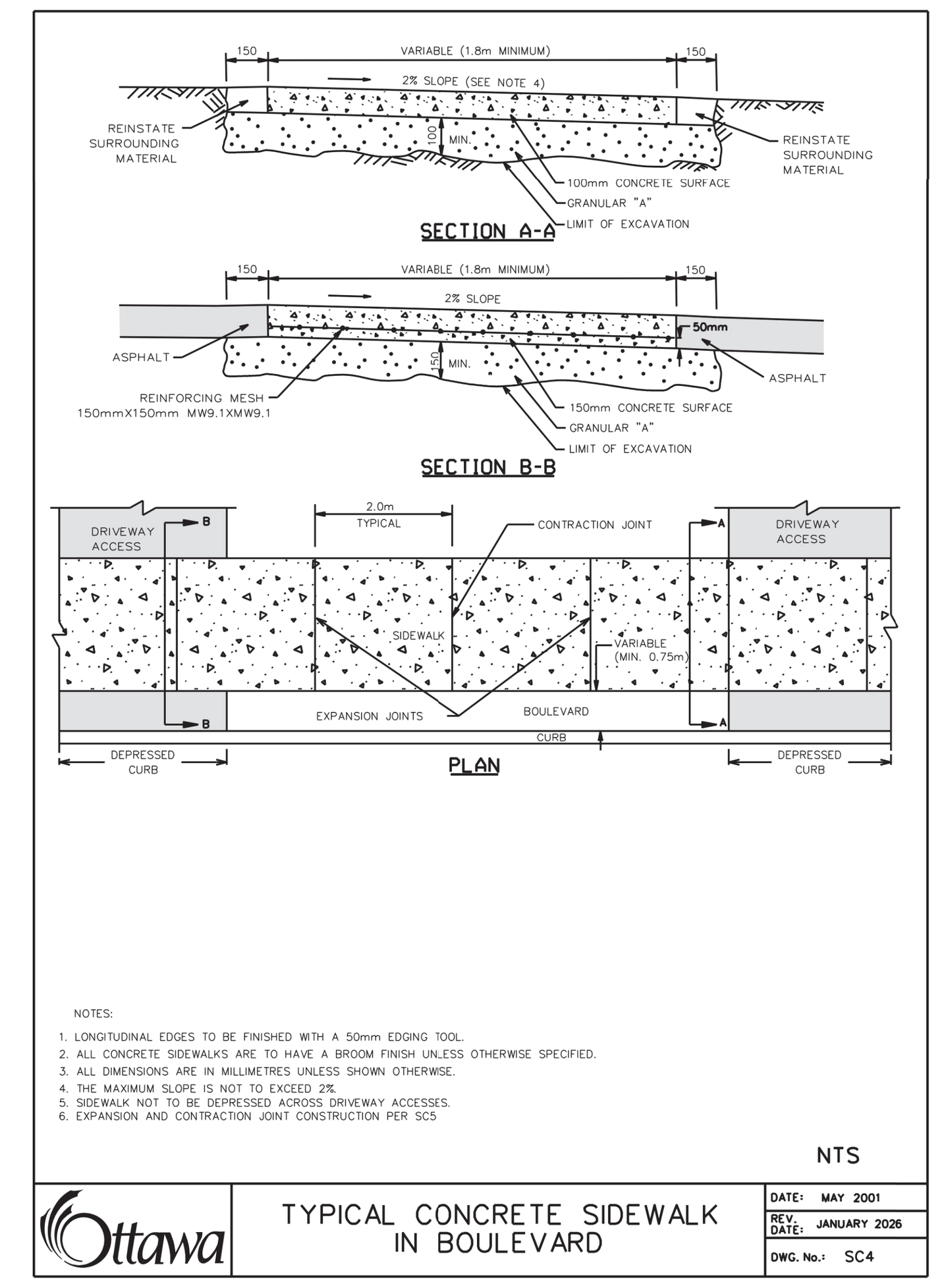
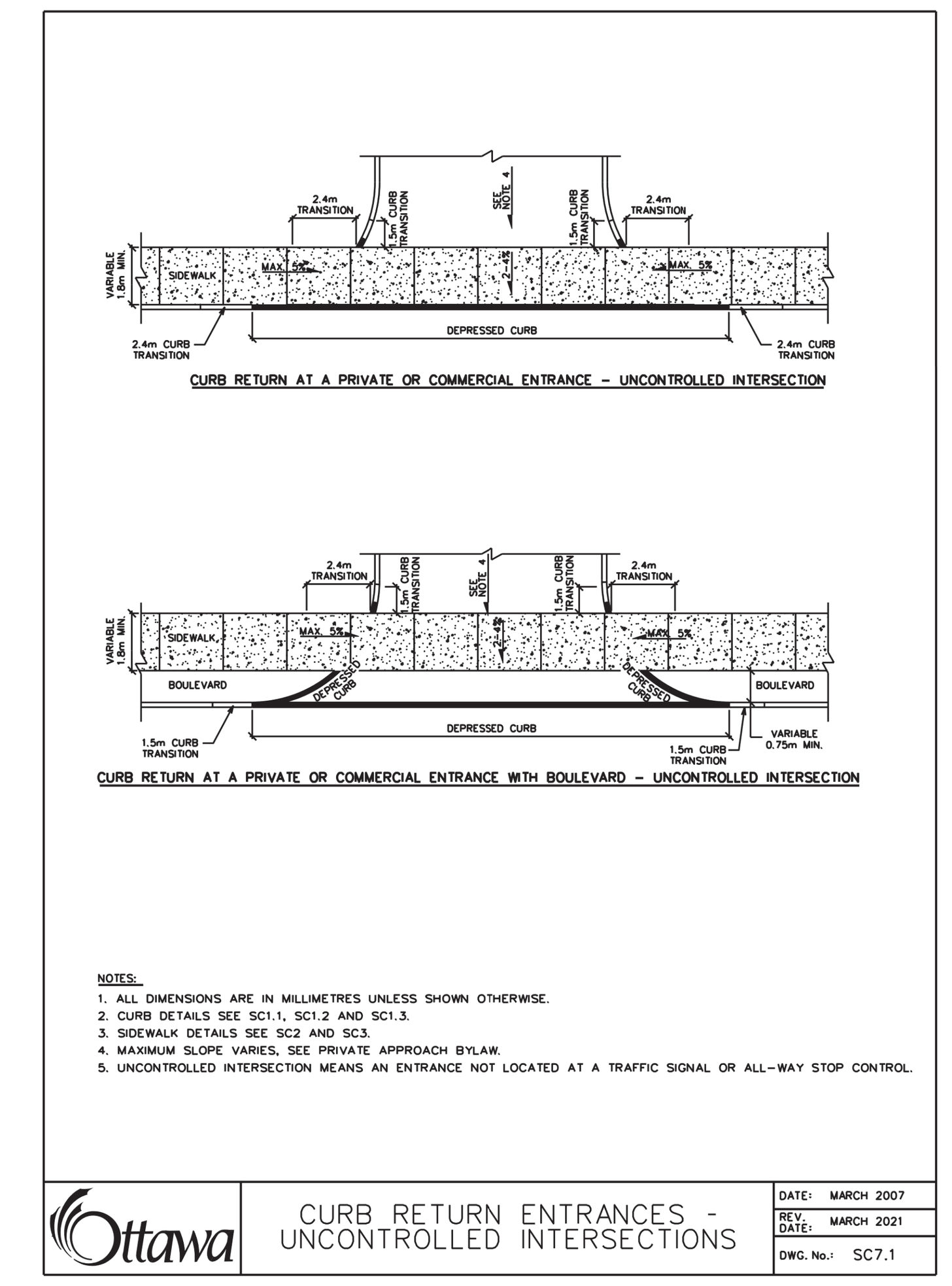
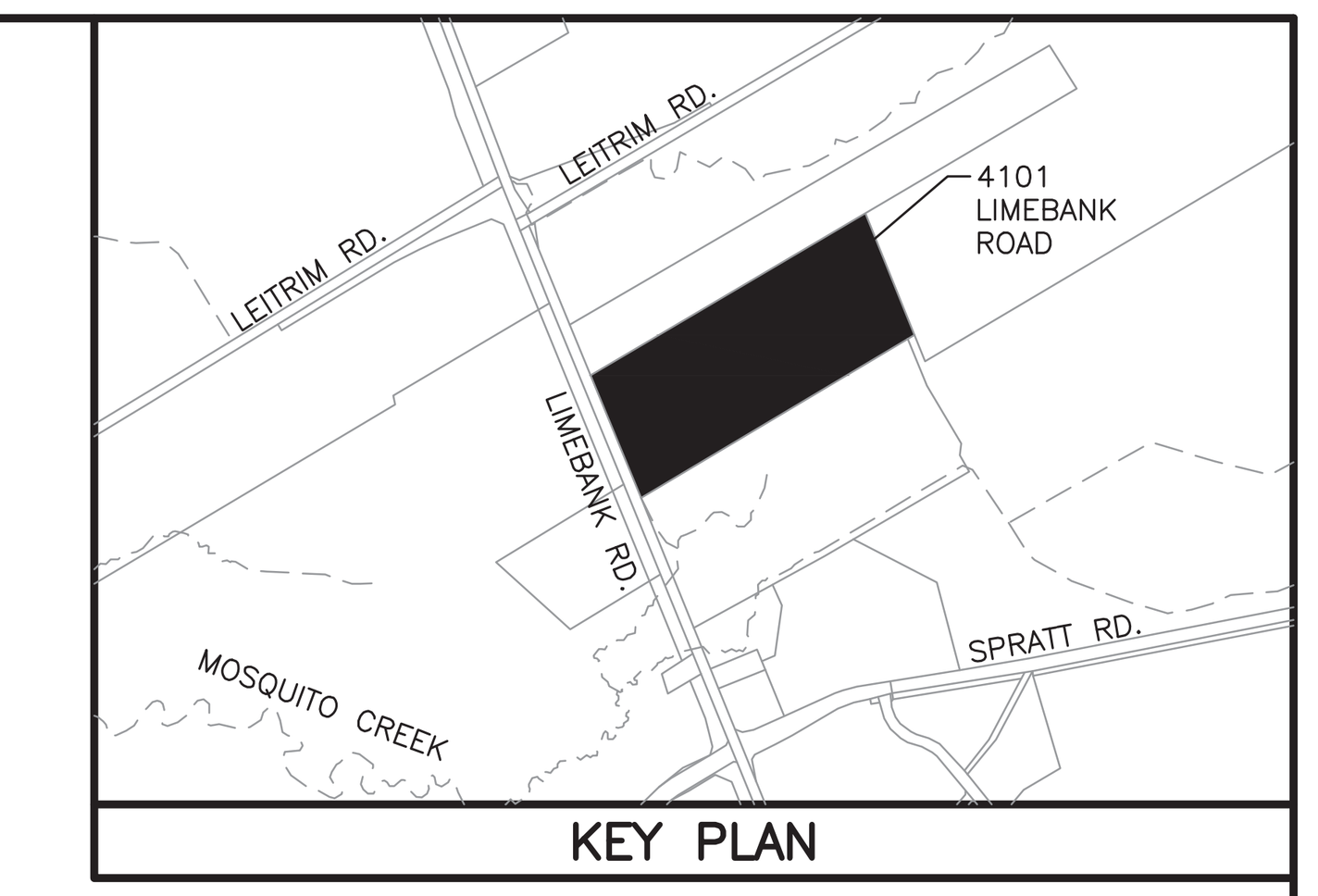
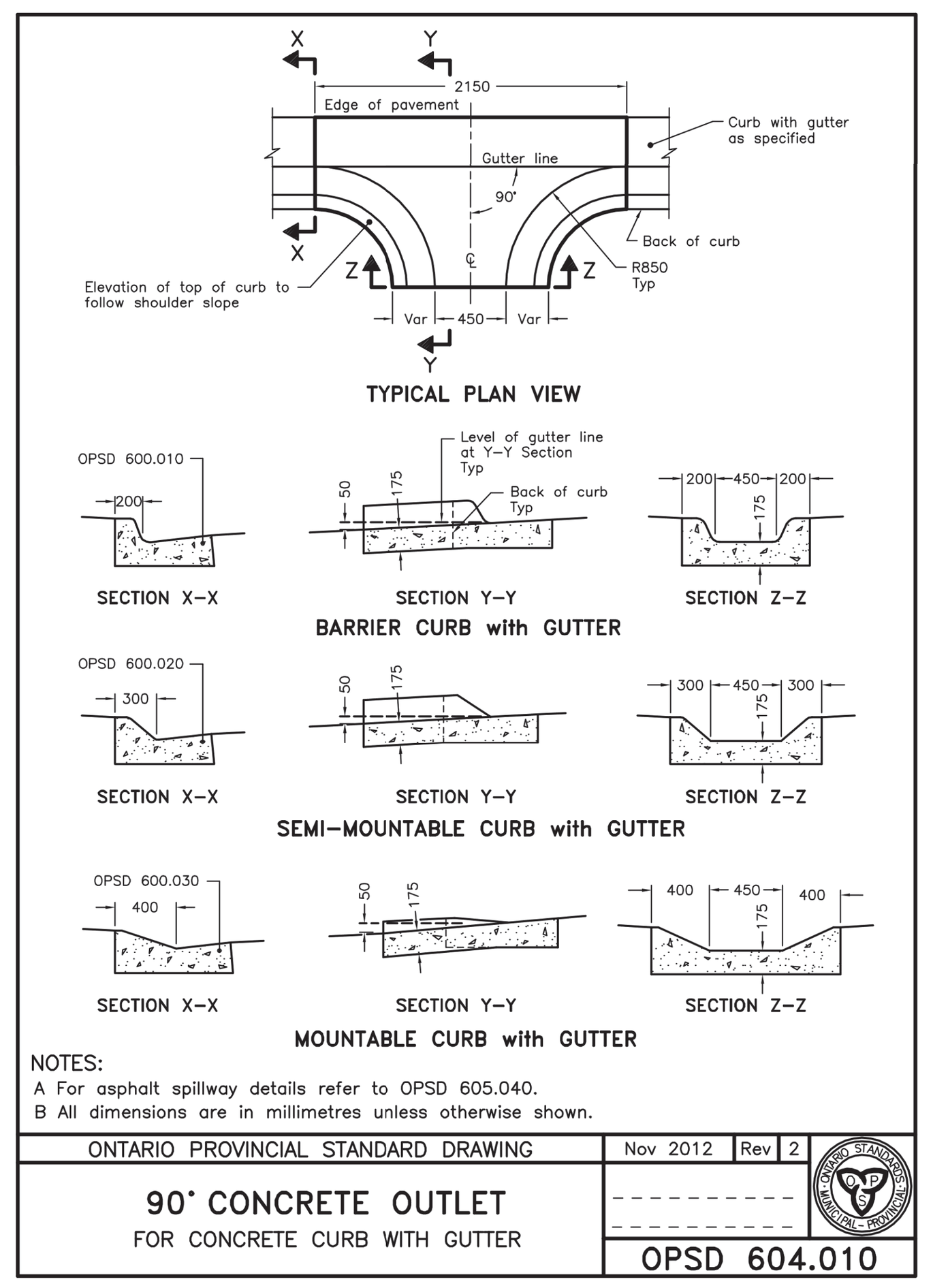


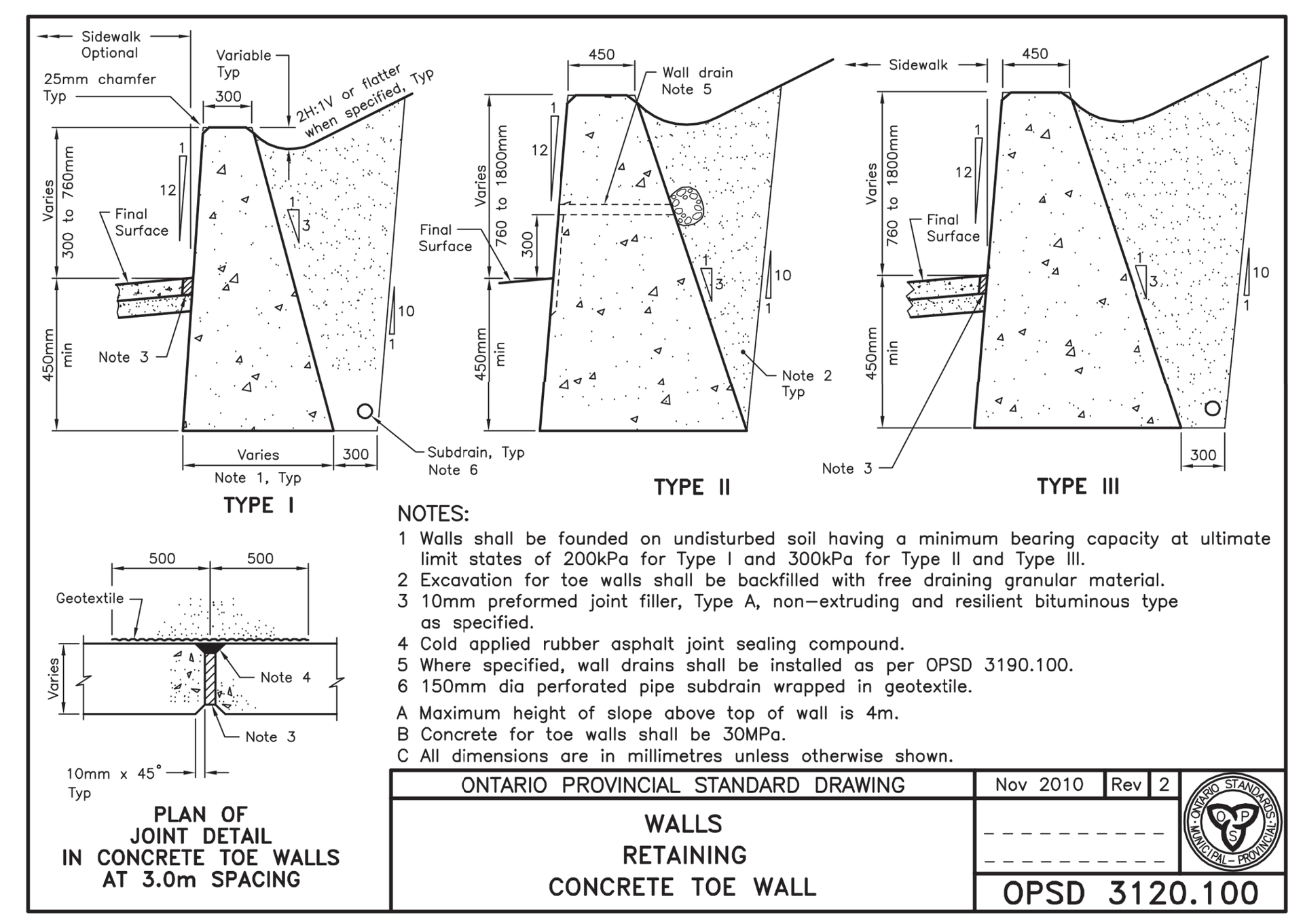


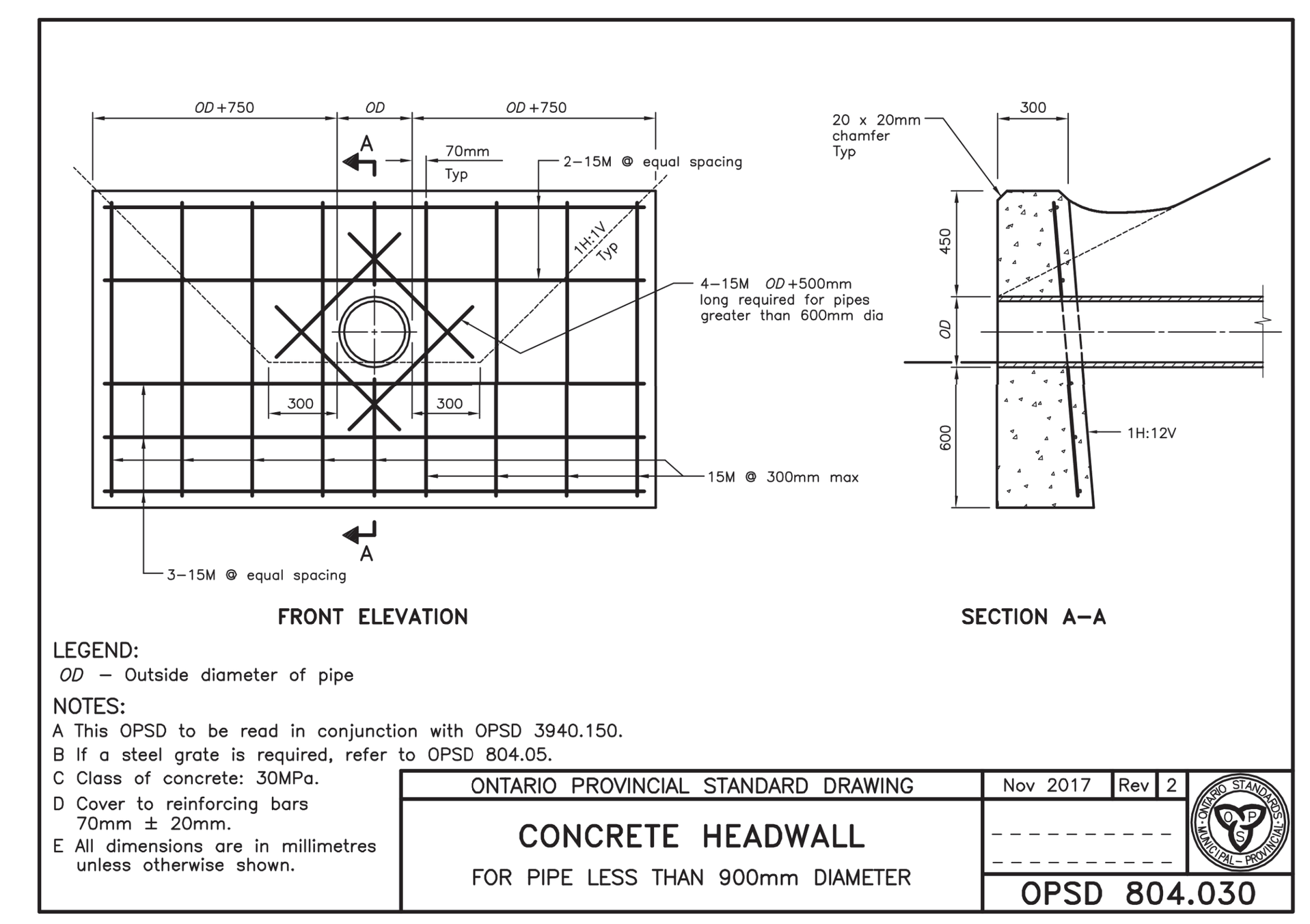


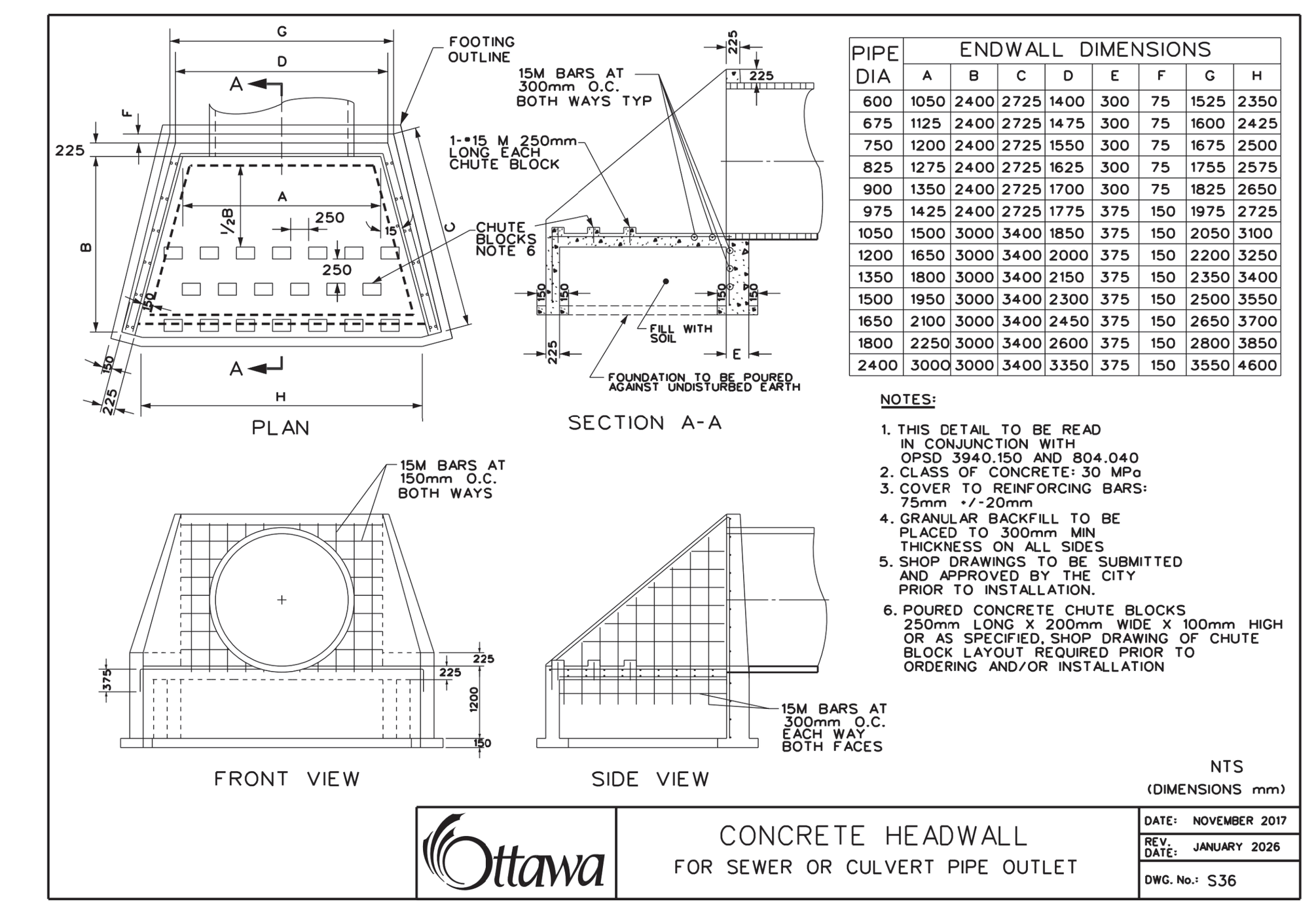


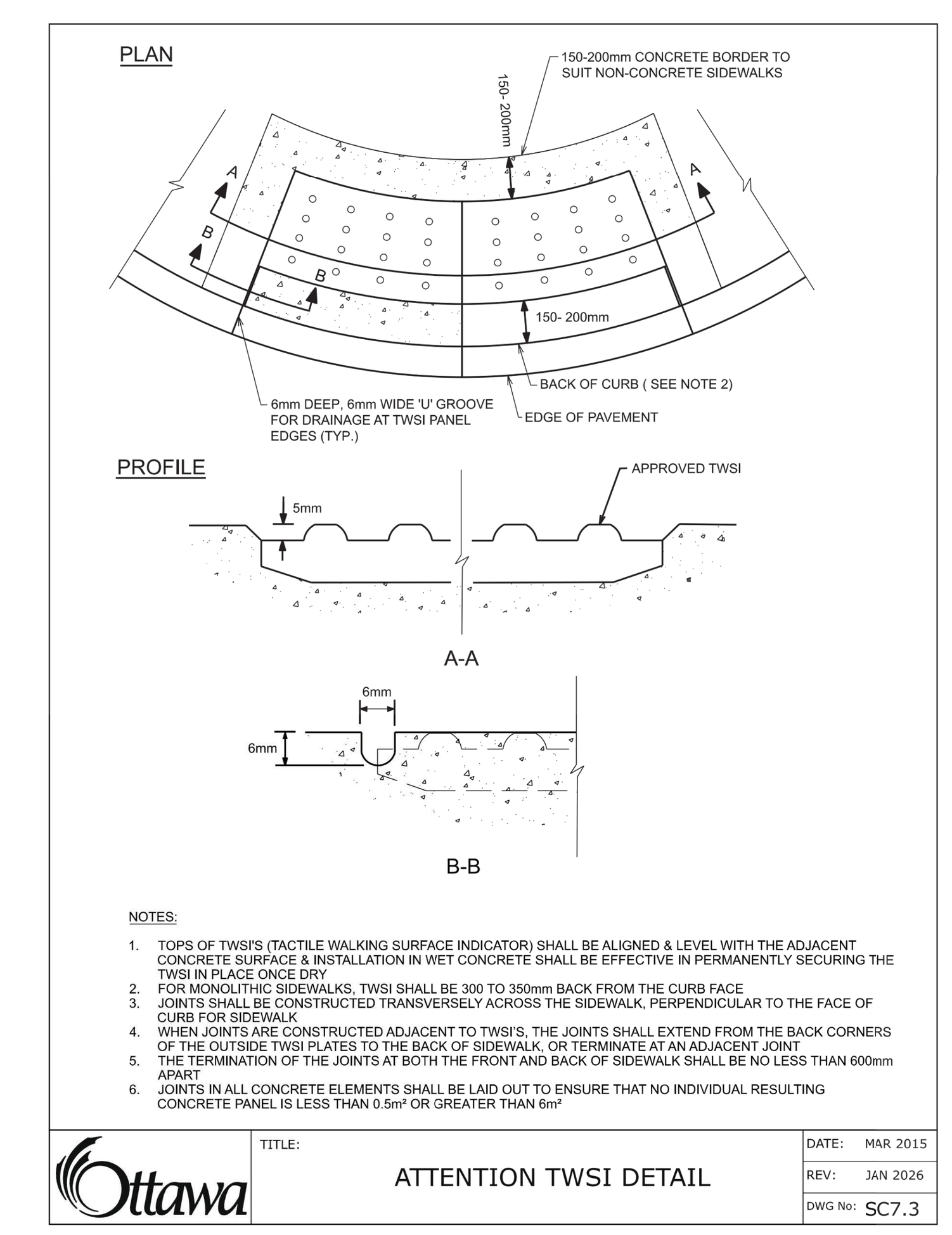


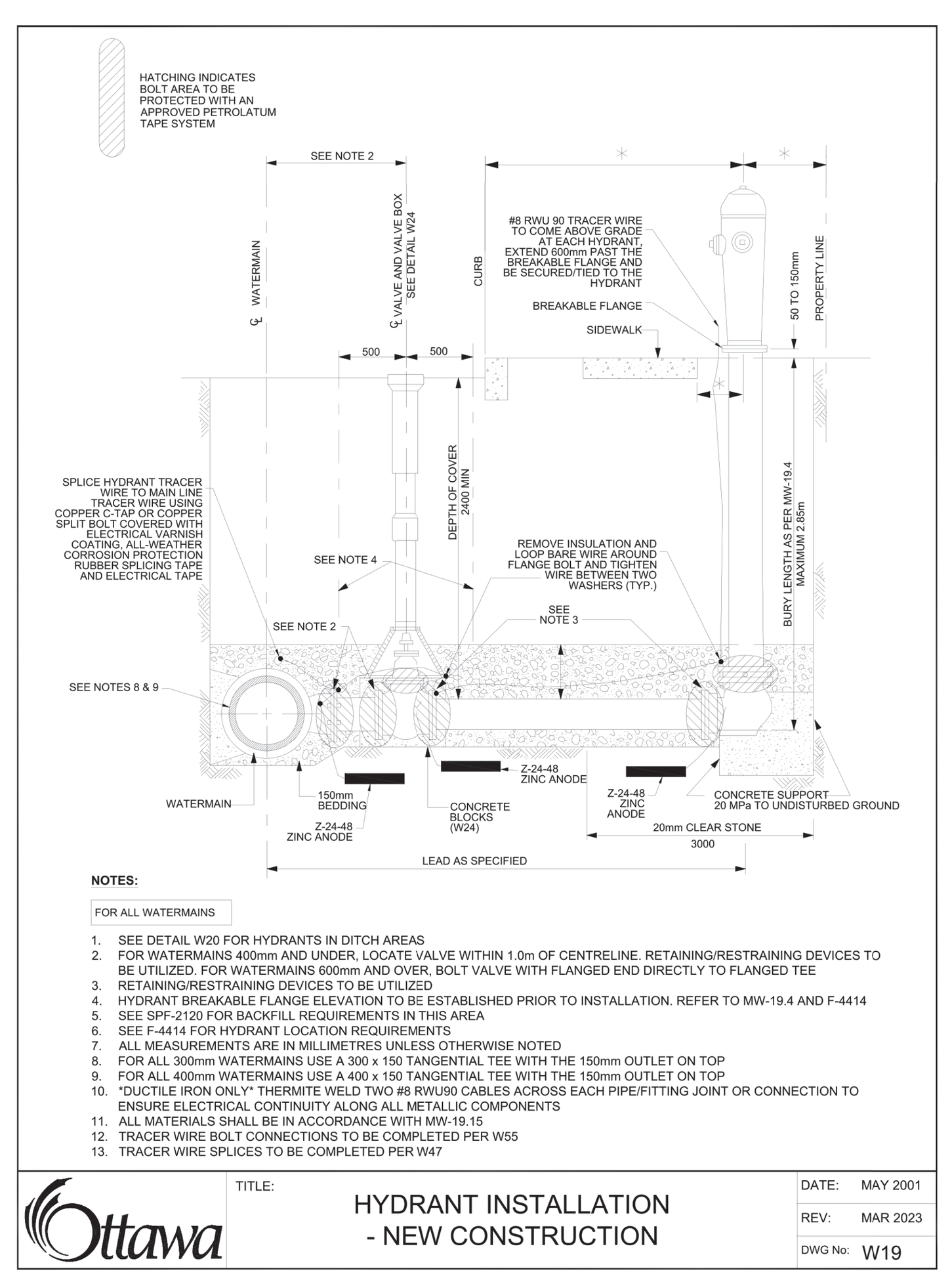


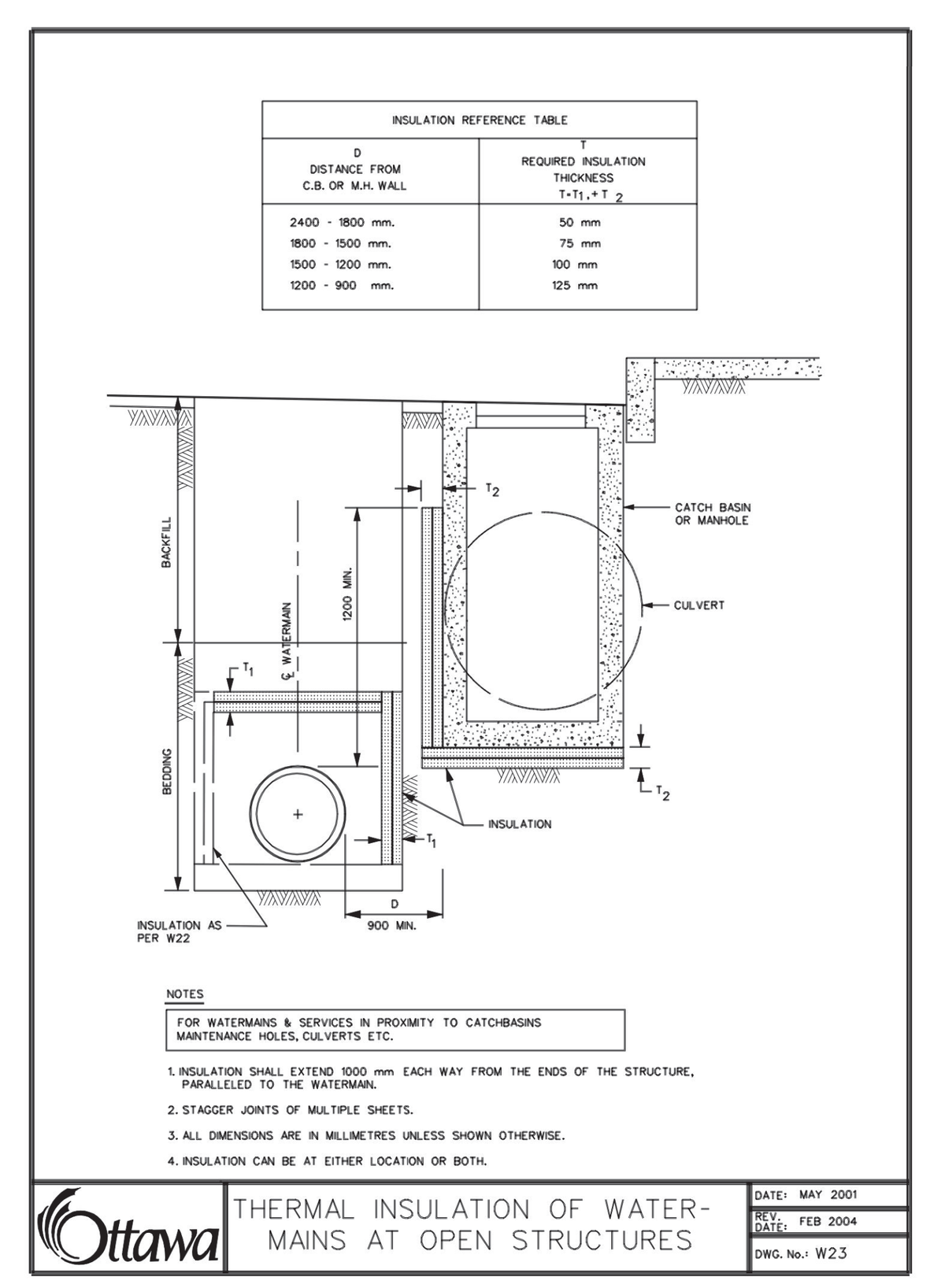


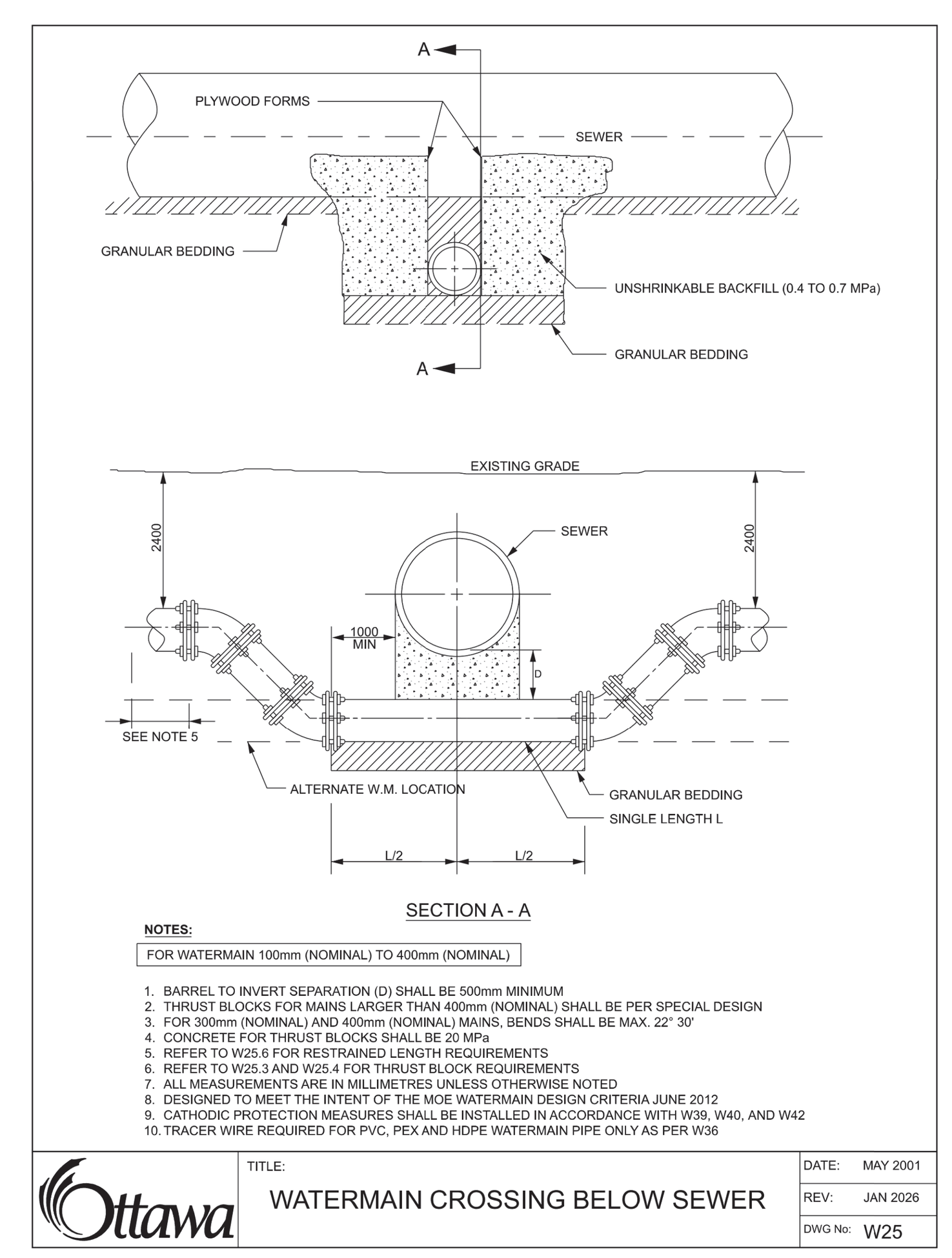


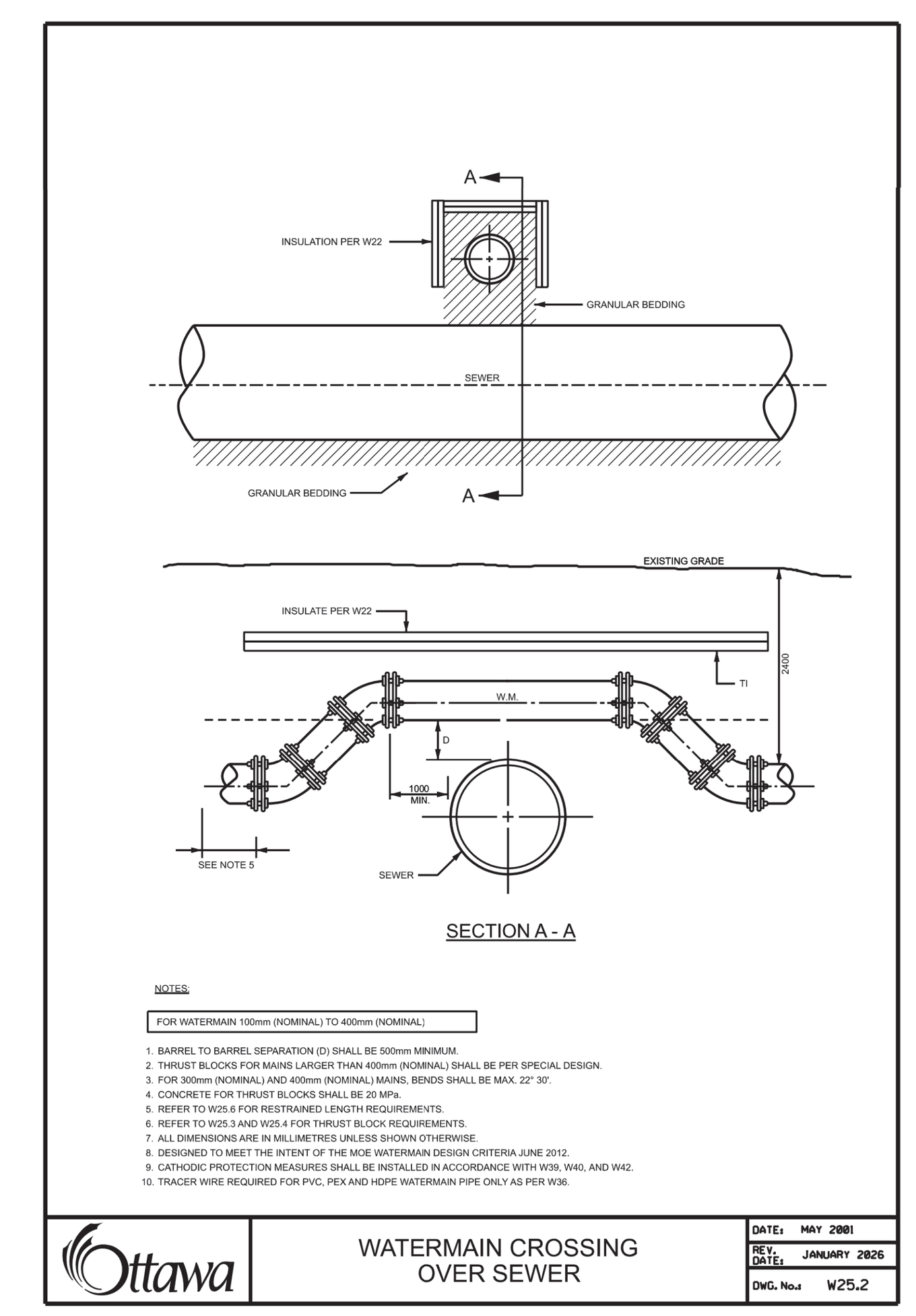












GENERAL NOTES:

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), AS AMENDED BY THE CITY OF OTTAWA.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
3. ALL DIMENSIONS AND ELEVATIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
4. DESIGN ELEVATIONS GIVEN ARE TO BE ADHERED TO WITH NO CHANGES WITHOUT PRIOR WRITTEN APPROVAL BY ROBINSON LAND DEVELOPMENT. CONTRACTOR TO PROVIDE AS CONSTRUCTED SURVEY TO VERIFY WORKS ARE COMPLETED IN ACCORDANCE WITH THE DESIGN.
5. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS TO PROPOSED GRADES WHERE NOTED, AND EXISTING GRADES OTHERWISE.
6. CONTRACTOR SHALL ADJUST FINAL GRADE OF EXISTING MAINTENANCE HOLES, VALVE BOXES, ETC. AS REQUIRED TO MATCH PROPOSED GRADES.
7. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
8. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
9. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
10. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).
11. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
12. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.
14. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REFER TO LANDSCAPE PLANS FOR ANY TREE CUTTING.
15. REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY EXP DATED NOVEMBER 2024.
16. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL PROVIDE FOR DEWATERING, SUPPORT AND PROTECTION OF EXCAVATIONS AND TRENCHING AS WELL AS RELEASE OF ANY PUMPED GROUNDWATER IN A CONTROLLED AND APPROVED MANNER.
17. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".
18. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
19. THE CONTRACTOR SHALL BE RESPONSIBLE TO MANAGE EXCESS SOIL IN ACCORDANCE WITH ONTARIO REGULATION 406/19.

STORM SEWERS:

1. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT). ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1 (LATEST AMENDMENT). PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3 (LATEST AMENDMENT).
3. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 (LATEST AMENDMENT), UNLESS OTHERWISE SPECIFIED.
4. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S6 AND S7 CLASS 'B' UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY GEOTECHNICAL REPORT.
5. CLAY SEALS SHALL BE INSTALLED WITHIN SEWER TRENCHES IN ACCORDANCE WITH CITY STANDARD S8.
6. STORM MAINTENANCE HOLESFRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24.1 AND S25. CBMH COVER AS PER CITY OF OTTAWA STD. S28.1.
7. CB FRAME PER OPSD 400.020 AND COVER PER CITY OF OTTAWA STD. 19.1. CURB INLET CB FRAME AND COVER PER CITY OF OTTAWA STD. S28. DITCH INLET CB FRAME AND COVER PER OPSD 705.030.
8. STORM SEWER MAINTENANCE HOLESSERVING SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 300mm SUMP. FOR STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701.021.
9. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED ABOVE. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADDITIONAL BEDDING, A DIFFERENT TYPE OF BEDDING OR A HIGHER PIPE STRENGTH AT HIS OWN EXPENSE AND SHALL ALSO BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
10. ALL STORM MAINTENANCE HOLES SHALL BE 1200mm DIAMETER AS PER OPSD 701.010 UNLESS OTHERWISE NOTED.
11. ALL CATCH BASINS SHALL BE 600mm X 600mm AS PER OPSD 705.010 UNLESS OTHERWISE NOTED.
12. ALL CB LATERALS SHALL BE 200mm PVC AT 2% UNLESS OTHERWISE NOTED.
19. STORM SERVICE CONNECTION REQUIRES APPROVED CONTROLLED SETTLEMENT JOINT IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S11 AND S11.1.
20. FOUNDATION DRAINS TO BE INSTALLED WITH BACKWATER VALVES PER CITY OF OTTAWA STD. S14.
21. SEWERS, SERVICES AND LATERALS WITH LESS THAN 2m COVER SHALL BE INSULATED PER CITY OF OTTAWA STD. S35.
19. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL STORM SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
20. CULVERTS TO BE INSTALLED IN ACCORDANCE WITH CITY OF OTTAWA STD. S26 AND SHALL BE PROVIDED WITH FROST TAPER IN ACCORANCE WITH OPSD 803.030.

SANITARY SEWERS:

1. ALL SANITARY SEWERS SHALL BE PVC SDR 35 AND SERVICE LATERALS SHALL BE PVC SDR 28, IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
2. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B' BEDDING UNLESS OTHERWISE NOTED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY GEOTECHNICAL REPORT.
3. SANITARY MAINTENANCE HOLE FRAME AND COVERS SHALL BE WATERTIGHT AS PER CITY OF OTTAWA STD. S24 AND S25.
4. SANITARY SEWER MAINTENANCE HOLES SHALL BE 1200mm DIAMETER AS PER OPSD 701.010 AND BENCHED AS PER OPSD 701.021.
5. SANITARY MAINTENANCE HOLES SHALL BE INSTALLED WITH CRETEX JOINT SEALS, OR A SIMILAR PRODUCT TO PREVENT INFILTRATION.
17. CLAY SEALS SHALL BE INSTALLED WITHIN SEWER TRENCHES IN ACCORDANCE WITH CITY STANDARD S8.
18. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSS 410 AND OPSS 407.
19. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL SANITARY SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
20. SANITARY SERVICE CONNECTION REQUIRES APPROVED CONTROLLED SETTLEMENT JOINT IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S11.1.
21. SEWERS AND LATERALS WITH LESS THAN 2m COVER SHALL BE INSULATED PER CITY OF OTTAWA STD. S35.

WATER SUPPLY:

1. ALL PVC WATERMAINS SHALL BE EQUAL TO AWWA C-900 CLASS 150, SDR 18, OR APPROVED EQUAL.
2. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY GEOTECHNICAL REPORT.
3. ALL PVC WATERMAINS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W36.
4. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.
5. CONTRACTOR TO SUPPLY HYDRANT EXTENSION TO ADJUST THE LENGTH OF HYDRANT BARREL IF REQUIRED.
6. FIRE HYDRANTS SHALL BE INSTALLED AS PER CITY OF OTTAWA STD. W19, AND LOCATED AS PER CITY STD. W18.
7. VALVE IN BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA STD. W24.
8. WATERMAIN IN FILL AREAS TO BE INSTALLED WITH RESTRAINED JOINTS AS PER CITY OF OTTAWA STD. W25.5 AND W25.6.
9. THRUST BLOCKING OF WATERMAIN TO BE INSTALLED AS PER CITY OF OTTAWA STD. W25.3 AND W25.4.
10. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY, WHERE WATERMAIN COVER IS LESS THAN 2.4m.
11. INSULATION BETWEEN WATERMAIN AND OPEN STRUCTURES IN ACCORDANCE WITH CITY OF OTTAWA STD. W23 WHERE CLEARANCE IS LESS THAN 2.4m.
12. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.50m FOR CROSSING UNDER/OVER THE SEWER, AS PER CITY STD. W25 & W25.2. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER AS PER CITY STD. W25.
13. CONNECTION TO EXISTING WATERMAIN TO BE PERFORMED BY CITY FORCES. CONTRACTOR TO PROVIDE LABOUR, EQUIPMENT AND MATERIAL REQUIRED FOR EXCAVATION, BEDDING AND REINSTATEMENT.
10. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
11. SWABBING, HYDROSTATIC TESTING, AND DISINFECTION TO BE CONDUCTED AS PER CITY OF OTTAWA STANDARDS IN THE PRESENCE OF A CITY INSPECTOR AND/OR CONSULTANT.

ROADWORK SPECIFICATIONS:

1. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.1 (BARRIER CURB). PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS AND DRIVEWAYS.
2. ALL BARRIER CURB TO BE 150mm ABOVE FINISHED ASPHALT GRADE UNLESS OTHERWISE NOTED.
3. MONOLITHIC CURB AND SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC2 WITH CONSTRUCTION JOINTS PER SC5.
4. TACTILE WALKING SURFACE INDICATOR (TWSI) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC7.3. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS.
5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R10 AND OPSD 509.010, OPSS 310.
6. GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
7. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
8. SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300mm LIFTS.
9. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW-CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW ASPHALT.
10. PAVEMENT DESIGN AS PER GEOTECHNICAL RECOMMENDATIONS. SEE REPORT BY EXP DATED NOVEMBER 2024.

NOT FOR CONSTRUCTION

NOTES

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

PROPERTY BOUNDARIES ARE DERIVED FROM TOPOGRAPHICAL PLAN OF SURVEY OF PART OF LOTS 16 & 17 CONCESSION 2 (RIDEAU FRONT), GEOGRAPHIC TOWNSHIP OF GLOUCESTER, CITY OF OTTAWA. PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. ONTARIO LAND SURVEYORS, REF: 24256-23. ELEVATIONS ARE REFERRED TO GEODETIC DATUM (CGVD28).

NO.	REVISION DESCRIPTION	DATE	BY
2	REISSUED FOR SPA	08/09/26	SM
1	ISSUED FOR SPA	16/10/24	SM

SCALE

LICENSED PROFESSIONAL ENGINEER
SEP 08/26
S.A.G.MCCAUGHEY
100217133
PROVINCE OF ONTARIO

Robinson Land Development
200-2936 Baseline Road
Ottawa, ON K2H 1B3
(613) 592-6060 rcii.com

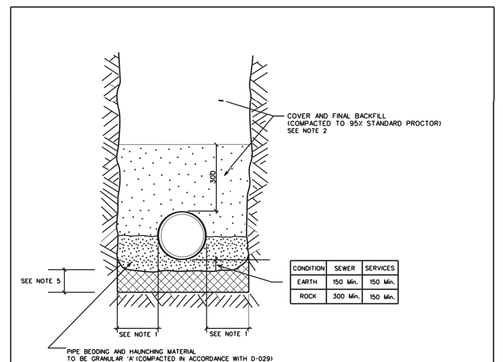
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CHECKED	BM
DRAWN	SM
CHECKED	BM
APPROVED	CC

GROUPE MONTONI

4101 LIMEBANK RD.
CITY OF OTTAWA

NOTES AND DETAILS PLAN

PROJECT No.	23074
SURVEY	AOV
DATED	SEPT 2026
DWG. No:	23074-N1

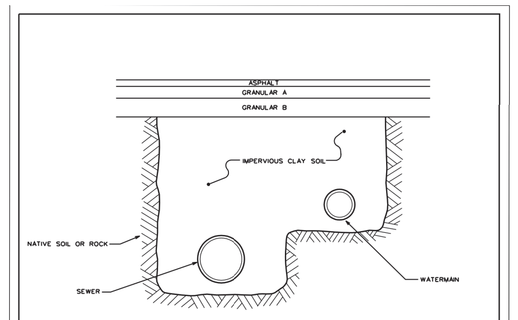


NOTES:

1. | PIPE INSIDE DIAMETER (mm) | CLEARANCE (mm) |
|---|---|
| 800 OR LESS | CONC 450 PVC 450 |
| OVER 800 | 500 |

2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-4120 AND F-2120.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INITIAL BACKFILL MATERIAL
   - CONC PIPE - GRANULAR 'A', GRANULAR 'B' OR SELECT SUBGRADE MATERIAL WITH 100% PASSING THE 37.5mm SIEVE
   - PVC PIPE - GRANULAR 'A'
5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.

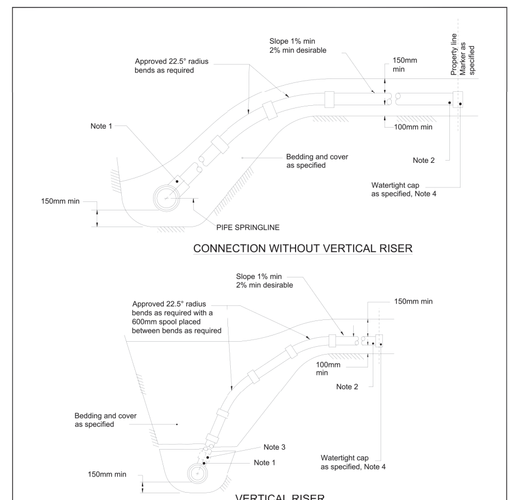
Ottawa	SINGLE TRENCH (SEWER & SEWER SERVICES)	DATE: MAY 2001 REV. (DATE): JAN 2026 DWG. No.: S6



NOTES:

1. CLAY SEAL TO EXTEND FROM BOTTOM OF TRENCH EXCAVATION TO UNDERSIDE OF ROAD STRUCTURE.
2. CLAY SEAL TO EXTEND FULL TRENCH WIDTH TO EXISTING NATIVE SOILS WITH A MINIMUM THICKNESS OF 1.0m ALONG PIPES.
3. CLAY SEAL TO BE LOCATED SO THAT NO PIPE JOINTS ARE WITHIN THE CLAY SEAL MATERIAL.

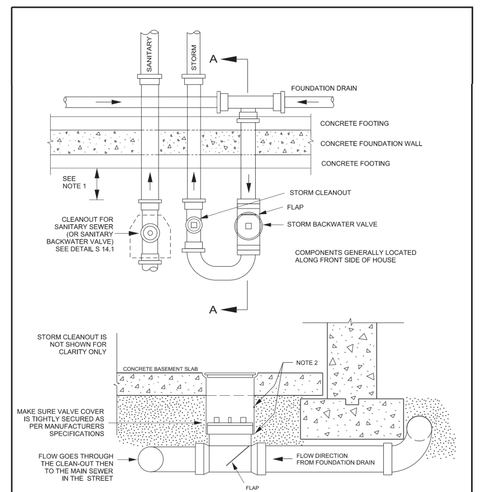
Ottawa	CLAY SEAL FOR PIPE TRENCHES	DATE: MAY 2001 REV. (DATE): MARCH 2006 DWG. No.: S8



NOTES:

1. THE CONNECTION SHALL BE MADE USING AN APPROVED TEE OR WYE FITTINGS. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE SIZE FOR INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL BUILDINGS TO BE DETERMINED BY DESIGN.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. ALL SEWERS AND SERVICES TO BE TESTED FOR LEAKAGE BY EXFILTRATION/AIR TESTING PRESSURE
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
6. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

Ottawa	TITLE: SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE	DATE: MAR 2006 REV.: JAN 2026 DWG No: S11.1

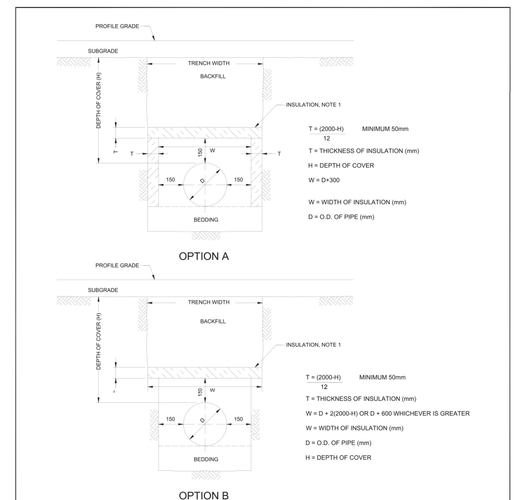


NOTES:

1. BACKWATER VALVE, CLEAN-OUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS
2. JOINTS BETWEEN THE SLEEVE AND THE BACKWATER VALVE AND THE FLOOR SHALL BE WATERTIGHT.

N.T.S.

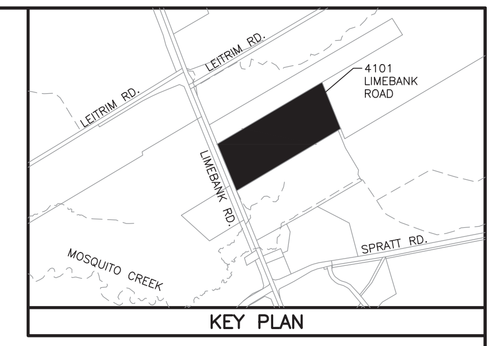
Ottawa	FOUNDATION DRAIN BACKWATER VALVE INSTALLATION	DATE: DEC 2002 REV. (DATE): MARCH 2011 DWG No.: S14



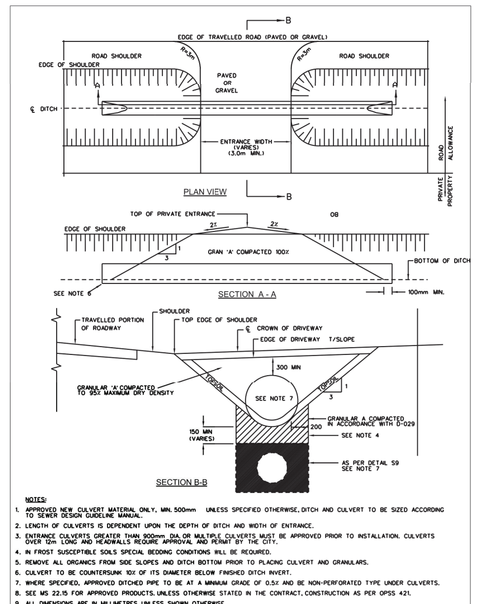
NOTES:

1. THE INSULATION MATERIAL SHALL BE EXTRUDED POLYSTYRENE ACCORDING TO MNI 18.15 WITH A MINIMUM COMPRESSIVE STRENGTH OF 275 kPa
2. MINIMUM INSULATION THICKNESS SHALL BE 50mm
3. JOINTS SHALL BE STAGGERED FOR MULTIPLE INSULATION SHEETS
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

Ottawa	TITLE: INSULATION FOR SHALLOW SEWERS	DATE: MAY 2001 REV.: JULY 2024 DWG No: S35



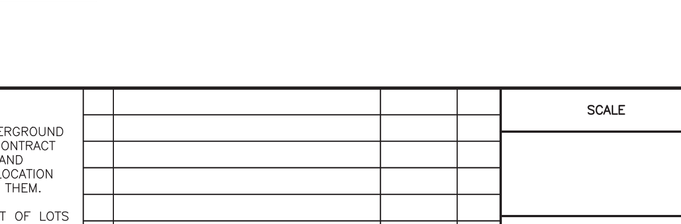
KEY PLAN



NOTES:

1. REMOVED NEW CULVERT MATERIAL ONLY. MIN 500mm UNLESS SPECIFIED OTHERWISE, DITCH AND CULVERT TO BE SIZED ACCORDING TO SEWER DESIGN GUIDELINE MANUAL.
2. LENGTH OF CULVERTS IS DEPENDENT UPON THE DEPTH OF DITCH AND WIDTH OF ENTRANCE.
3. ENTRANCE CULVERTS GREATER THAN 900mm DIA OR MULTIPLE CULVERTS MUST BE APPROVED PRIOR TO INSTALLATION. CULVERTS GREATER THAN 1200mm DIA REQUIRE ENGINEERED DESIGN AND APPROVAL.
4. IN FROST SUSCEPTIBLE SOILS SPECIAL BEDDING CONDITIONS WILL BE REQUIRED.
5. REMOVE ALL ORGANICS FROM SIDE SLOPES AND DITCH BOTTOM PRIOR TO PLACING CULVERT AND GRANULARS.
6. CULVERT TO BE COUNTERSUNK 100 OF ITS DIAMETER BELOW FINISHED DITCH INVERT.
7. WHERE SPECIFIED, APPROVED DITCHED PIPE TO BE AT A MINIMUM GRADE OF 0.5% AND BE NON-PERFORATED TYPE UNDER CULVERTS.
8. SEE MS 22.15 FOR APPROVED PRODUCTS, UNLESS OTHERWISE STATED IN THE CONTRACT, CONSTRUCTION AS PER OPSS 421.
9. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa	PRIVATE ENTRANCE DETAIL - RURAL	DATE: MAY 2001 REV. (DATE): MARCH 2016 DWG. No.: S26



NOTES:

1 Pipe embedment or bedding, cover, and backfill shall be according to:
a) Flexible OPSD 802.010, 802.013, 802.014, 802.020, 802.023, and 802.024.
b) Rigid – OPSD 802.030, 802.031, 802.032, 802.033, 802.034, 802.050, 802.051, 802.052, 802.053, and 802.054.
2 Frost tapers shall start at bedding grade.

LEGEND:
d –depth of roadbed granular
A –depth of frost treatment below profile grade
f –depth of frost penetration below profile grade

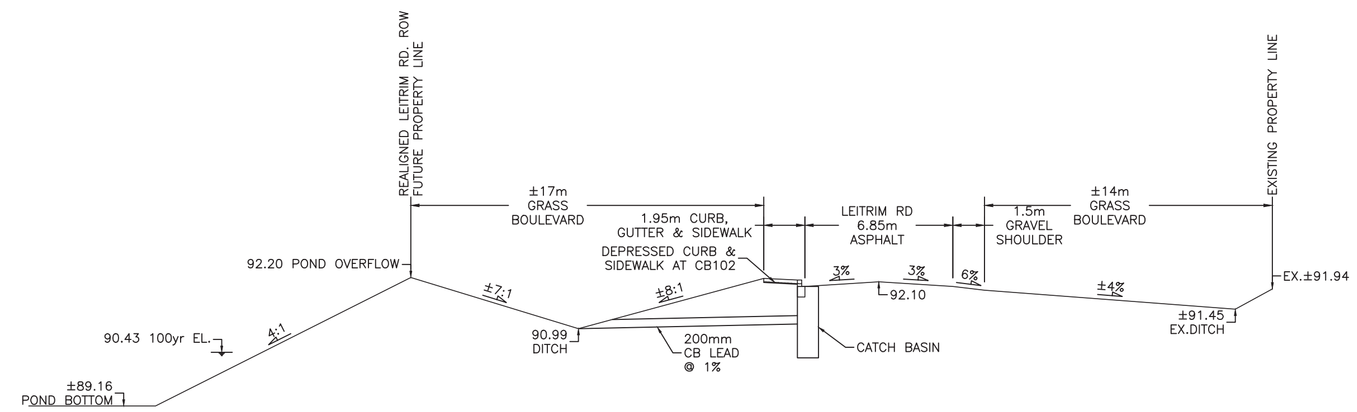
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 3
FROST TREATMENT – PIPE CULVERTS FROST PENETRATION LINE BELOW BEDDING GRADE		OPSD 803.030



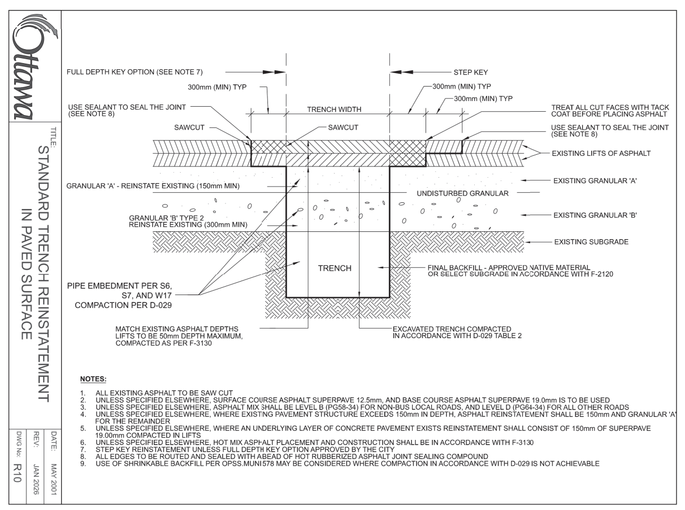
NOTES:

1 The thickness of the rip–rap layer shall be at least 1.5 times the rip–rap mean diameter.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3
GENERAL RIP–RAP LAYOUT FOR SEWER AND CULVERT OUTLETS		OPSD 810.010



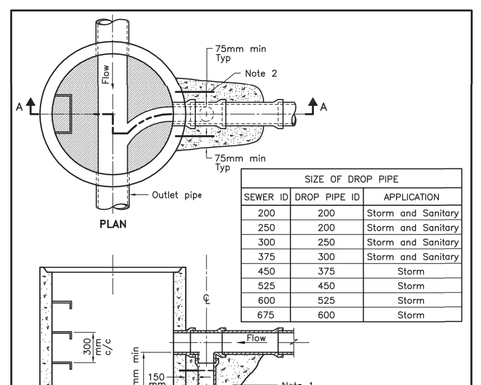
SECTION A–A REALIGNED LEITRIM RD. ROW
N.T.S.



NOTES:

1. ALL EXISTING ASPHALT TO BE SAW CUT.
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERMIX 12.5mm, AND BASE COURSE ASPHALT SUPERMIX 19.0mm IS TO BE USED.
3. UNLESS SPECIFIED ELSEWHERE, ASPHALT MIX SHALL BE LEVEL B (PG58-34) FOR NON-BUS LOCAL ROADS, AND LEVEL E (PG58-34) FOR ALL OTHER ROADS
4. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR 'A' FOR THE REMAINDER.
5. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERMIX AND GRANULAR 'A' AND 'B'.
6. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130
7. STEP KEY REINSTATEMENT UNLESS FULL DEPTH KEY OPTION APPROVED BY THE CITY.
8. ALL EDGES TO BE ROUTED AND SEALED WITH A BEAD OF HOT RUBBERIZED ASPHALT JOINT SEALING COMPOUND
9. USE OF SHRINKABLE BACKFILL PER OPSS MUNI 975 MAY BE CONSIDERED WHERE COMPACTION IN ACCORDANCE WITH D-029 IS NOT ACHIEVABLE

Ottawa	DATE: MAY 2001 REV. (DATE): JAN 2026 DWG No: R10



NOTES:

1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3
CAST–IN–PLACE MAINTENANCE HOLE DROP STRUCTURE TEE		OPSD 1003.010

NOT FOR CONSTRUCTION

NOTES

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

PROPERTY BOUNDARIES ARE DERIVED FROM TOPOGRAPHICAL PLAN OF SURVEY OF PART OF LOTS 16 & 17 CONCESSION 2 (RIDEAU FRONT), GEOGRAPHIC TOWNSHIP OF GLOUCESTER, CITY OF OTTAWA. PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. ONTARIO LAND SURVEYORS, REF: 24256–23. ELEVATIONS ARE REFERRED TO GEODETIC DATUM (CGVD28).

NO.	REVISION DESCRIPTION	DATE	BY
2	REISSUED FOR SPA	08/09/26	SM
1	ISSUED FOR SPA	16/10/24	SM

SCALE

LICENSED PROFESSIONAL ENGINEER
SEP. 08/26
S.A.G.MCCAUGHEY
100217133
PROVINCE OF ONTARIO

Robinson Land Development
200-2936 Baseline Road
Ottawa, ON K2H 1B3
(613) 592-6060 rcii.com

DESIGN	SM
CHECKED	BM
DRAWN	SM
CHECKED	BM
APPROVED	CC

GROUPE MONTONI

4101 LIMEBANK RD.
CITY OF OTTAWA

NOTES AND DETAILS PLAN

PROJECT No.	23074
SURVEY	AOV
DATED	SEPT 2026
DWG. No:	23074-N2

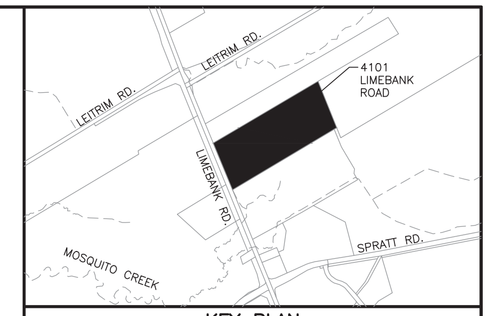
300mmø WATERMAIN GRADE TABLE				
STATION	FINISHED GRADE (m)	TOP OF WATER (m)	COVER DEPTH (m)	COMMENTS
0+000	92.29	89.89	2.40	300x300mm TEE TO EXISTING
0+020.7	92.32	89.92	2.40	300mm VALVE
0+025	92.26	89.86	2.40	TOP OF WATERMAIN
0+050	92.01	89.61	2.40	TOP OF WATERMAIN
0+075	92.52	90.12	2.40	TOP OF WATERMAIN
0+100	92.16	89.76	2.40	TOP OF WATERMAIN
0+125	92.20	89.80	2.40	TOP OF WATERMAIN
0+150	92.53	89.80	2.73	TOP OF WATERMAIN
0+175	92.81	90.41	2.40	TOP OF WATERMAIN
0+200	93.05	90.65	2.40	TOP OF WATERMAIN
0+225	93.30	90.90	2.40	TOP OF WATERMAIN
0+228.7	93.34	90.94	2.40	300x250mm TEE
0+229.8	93.35	90.95	2.40	300mm VALVE
0+235.0	93.19	90.79	2.40	CAP

250mmø WATERMAIN GRADE TABLE				
STATION	FINISHED GRADE (m)	TOP OF WATER (m)	COVER DEPTH (m)	COMMENTS
1+000	93.34	90.94	2.40	300x250mm TEE
1+006.0	93.37	90.97	2.40	250mm VALVE
1+025	93.20	90.80	2.40	TOP OF WATERMAIN
1+029.1	93.05	90.65	2.40	250x250mm TEE
1+050	92.31	89.91	2.40	TOP OF WATERMAIN
1+071.3	92.36	89.96	2.40	250x150mm BUILDING TEE
1+075	92.39	89.99	2.40	TOP OF WATERMAIN
1+082.9	92.46	90.06	2.40	250x150mm HYDRANT TEE
1+100	92.49	90.09	2.40	TOP OF WATERMAIN
1+101.7	92.50	90.10	2.40	250x150mm BUILDING TEE
1+125	92.56	90.16	2.40	TOP OF WATERMAIN
1+135.1	92.49	90.09	2.40	250x150mm BUILDING TEE
1+150	92.50	90.10	2.40	TOP OF WATERMAIN
1+151.1	92.50	90.10	2.40	250x150mm HYDRANT TEE
1+175	92.63	90.23	2.40	TOP OF WATERMAIN
1+184.5	92.56	90.16	2.40	250x150mm BUILDING TEE
1+188.1	92.55	90.15	2.40	150x250mm BUILDING TEE
1+200	92.56	90.16	2.40	TOP OF WATERMAIN
1+219.6	92.52	90.12	2.40	150x250mm HYDRANT TEE
1+250	92.40	90.00	2.40	TOP OF WATERMAIN
1+226.3	92.40	90.00	2.40	250mm VALVE
1+231.7	92.32	89.92	2.40	250x250mm TEE

250mmø WATERMAIN GRADE TABLE				
STATION	FINISHED GRADE (m)	TOP OF WATER (m)	COVER DEPTH (m)	COMMENTS
2+000	93.05	90.65	2.40	250x250mm TEE
2+001.5	93.01	90.61	2.40	250mm VALVE
2+025	92.24	89.84	2.40	TOP OF WATERMAIN
2+050	92.09	90.11	1.98	TOP OF WATERMAIN
2+075	92.72	90.32	2.40	TOP OF WATERMAIN
2+100	92.52	90.12	2.40	TOP OF WATERMAIN
2+125	92.60	90.20	2.40	TOP OF WATERMAIN
2+127.8	92.57	90.17	2.40	250x250mm TEE
2+150	92.68	90.28	2.40	TOP OF WATERMAIN
2+159.3	92.59	90.19	2.40	250X150mm HYDRANT TEE
2+175	92.54	90.14	2.40	TOP OF WATERMAIN
2+200	92.68	90.28	2.40	TOP OF WATERMAIN
2+225	92.55	90.15	2.40	TOP OF WATERMAIN
2+250	92.60	90.20	2.40	TOP OF WATERMAIN
2+268.6	92.70	90.30	2.40	22.5° HORIZONTAL BEND
2+275	92.74	90.34	2.40	TOP OF WATERMAIN
2+285.6	92.61	90.21	2.40	22.5° HORIZONTAL BEND
2+290.0	92.57	90.17	2.40	250mm VALVE
2+300	92.47	90.07	2.40	TOP OF WATERMAIN
2+323.7	92.55	90.15	2.40	250X150mm HYDRANT TEE
2+325	92.57	90.17	2.40	TOP OF WATERMAIN
2+350	92.69	90.29	2.40	TOP OF WATERMAIN
2+375	92.67	90.27	2.40	TOP OF WATERMAIN
2+380.4	92.75	90.35	2.40	45° HORIZONTAL BEND
2+388.0	92.78	90.38	2.40	45° HORIZONTAL BEND
2+400	92.72	90.32	2.40	TOP OF WATERMAIN
2+425	92.71	90.31	2.40	TOP OF WATERMAIN
2+425.4	92.72	90.32	2.40	250X150mm BUILDING TEE
2+450	92.76	90.36	2.40	TOP OF WATERMAIN
2+475	92.92	90.52	2.40	TOP OF WATERMAIN
2+485.4	92.94	90.54	2.40	250X150mm HYDRANT TEE
2+494.8	93.03	90.63	2.40	250X150mm BUILDING TEE
2+500	92.97	90.57	2.40	TOP OF WATERMAIN
2+525	93.14	90.74	2.40	TOP OF WATERMAIN
2+543.8	93.13	90.73	2.40	250X150mm BUILDING TEE
2+550	93.14	90.74	2.40	TOP OF WATERMAIN
2+575	93.27	90.87	2.40	TOP OF WATERMAIN
2+586.9	93.10	90.70	2.40	45° HORIZONTAL BEND
2+592.6	93.11	90.71	2.40	45° HORIZONTAL BEND
2+600	93.11	90.71	2.40	TOP OF WATERMAIN
2+600.2	93.12	90.72	2.40	250X150mm HYDRANT TEE
2+625	93.51	91.11	2.40	TOP OF WATERMAIN
2+650	93.63	91.23	2.40	TOP OF WATERMAIN
2+675	93.58	91.18	2.40	TOP OF WATERMAIN
2+700	93.34	90.94	2.40	TOP OF WATERMAIN
2+725	92.98	90.58	2.40	TOP OF WATERMAIN
2+733.6	92.96	90.56	2.40	250mm VALVE
2+750	92.88	90.48	2.40	TOP OF WATERMAIN
2+775	93.00	90.60	2.40	TOP OF WATERMAIN
2+800	93.14	90.74	2.40	TOP OF WATERMAIN
2+825	93.10	90.70	2.40	TOP OF WATERMAIN
2+850	92.81	90.41	2.40	TOP OF WATERMAIN
2+867.2	92.68	90.28	2.40	250x250mm TEE
2+875	92.69	90.29	2.40	TOP OF WATERMAIN
2+900	92.60	90.20	2.40	TOP OF WATERMAIN
2+925	92.86	90.46	2.40	TOP OF WATERMAIN
2+950	92.97	90.57	2.40	TOP OF WATERMAIN
2+975	92.82	90.42	2.40	TOP OF WATERMAIN
2+992.9	92.59	90.19	2.40	22.5° HORIZONTAL BEND
3+000	92.32	89.92	2.40	TOP OF WATERMAIN
3+000.5	92.32	89.92	2.40	22.5° HORIZONTAL BEND
3+002.0	92.32	89.92	2.40	250x250mm TEE
3+006.3	92.30	89.90	2.40	250mm VALVE
3+025	92.42	90.02	2.40	TOP OF WATERMAIN
3+050	92.29	89.89	2.40	TOP OF WATERMAIN
3+075	92.26	89.86	2.40	TOP OF WATERMAIN
3+100	92.30	89.90	2.40	TOP OF WATERMAIN
3+125	92.29	89.89	2.40	TOP OF WATERMAIN
3+150	92.48	90.08	2.40	TOP OF WATERMAIN
3+171.7	92.83	90.43	2.40	45° HORIZONTAL BEND
3+175	92.87	90.47	2.40	TOP OF WATERMAIN
3+179.5	92.93	90.53	2.40	45° HORIZONTAL BEND
3+200	91.75	89.35	2.40	TOP OF WATERMAIN
3+225	92.11	89.71	2.40	TOP OF WATERMAIN
3+250	92.56	90.16	2.40	TOP OF WATERMAIN
3+275	92.30	89.90	2.40	TOP OF WATERMAIN
3+300	92.30	89.90	2.40	TOP OF WATERMAIN
3+307.0	92.30	89.90	2.40	300x250mm REDUCER
3+309.4	92.30	89.90	2.40	45° HORIZONTAL BEND
3+310.9	92.30	89.90	2.40	45° HORIZONTAL BEND
3+312.9	92.30	89.90	2.40	CONNECT TO EX. 300mm VALVE CHAMBER

NOTE: PROVIDE INSULATION WHEREVER COVER <2.4m PER CITY STD. W22 OR DISTANCE TO CATCH BASIN OR MAINTENANCE HOLE <2.4m PER CITY STD. W23

250mmø WATERMAIN GRADE TABLE				
STATION	FINISHED GRADE (m)	TOP OF WATER (m)	COVER DEPTH (m)	COMMENTS
4+000	92.57	90.17	2.40	250x250mm TEE
4+003.9	92.37	90.33	2.04	250mm VALVE
4+020.8	92.45	90.05	2.40	22.5° HORIZONTAL BEND
4+025	92.39	89.99	2.40	TOP OF WATERMAIN
4+034.0	92.43	90.03	2.40	22.5° HORIZONTAL BEND
4+050	92.58	90.18	2.40	TOP OF WATERMAIN
4+063.5	92.56	90.16	2.40	250x150mm BUILDING TEE
4+075	92.46	90.06	2.40	TOP OF WATERMAIN
4+096.7	92.55	90.15	2.40	250x150mm HYDRANT TEE
4+100	92.51	90.11	2.40	TOP OF WATERMAIN
4+114.3	92.64	90.24	2.40	150mm BUILDING TEE
4+125	92.64	90.24	2.40	TOP OF WATERMAIN
4+150	92.74	90.34	2.40	TOP OF WATERMAIN
4+174.3	92.73	90.33	2.40	250x150mm BUILDING TEE
4+175	92.73	90.33	2.40	TOP OF WATERMAIN
4+200	92.55	90.15	2.40	TOP OF WATERMAIN
4+209.5	92.63	90.23	2.40	250x150mm HYDRANT TEE
4+211.8	92.66	90.26	2.40	250mm VALVE
4+213.6	92.68	90.28	2.40	250x250mm TEE



KEY PLAN

CROSSING TABLE							
CROSSING No.	SERVICE	TOP/BOT OF PIPE	SEPARATION (m)	CROSSING No.	SERVICE	TOP/BOT OF PIPE	SEPARATION (m)
1	SAN	88.26	0.18	26	WM	90.07	0.50
	EX STM	88.08			SAN	89.57	
2	*EX WM*	89.53	0.87	27	STM	89.87	0.50
	SAN	88.66			WM	89.37	
3	STM	88.81	0.13	28	STM	89.87	0.22
	SAN	88.68			SAN	89.65	
4	WM	90.10	0.50	29	WM	90.20	0.50
	STM	89.60			SAN	89.70	
5	STM	88.77	0.68	30	STM	91.03	0.82
	EX STM	88.09			WM	90.21	
6	CULVERT	90.65	1.96	31	STM	90.95	1.33
	SAN	88.69			SAN	89.62	
7	CULVERT	90.65	0.65	32	STM	91.02	1.28
	WM	90.00			SAN	89.74	
8	WM	89.97	0.60	33	STM	91.04	1.16
	EX GAS	89.37			SAN	89.88	
9	*EX GAS*	90.91	1.14	34	STM	91.04	1.02
	WM	89.77			SAN	90.02	
10	CULVERT	89.87	0.50	35	STM	90.23	0.13
	EX GAS	89.37			SAN	90.10	
11	*EX GAS*	90.91	0.56	36	STM	91.16	0.75
	CULVERT	90.35			WM	90.41	
12	*EX GAS*	90.12	0.52	37	STM	91.08	1.06
	CULVERT	89.63			WM	90.02	
13	*EX GAS*	91.06	1.35	38	STM	91.08	0.87
	CULVERT	89.71			WM	90.21	
14	CULVERT	91.53	1.24	39	STM	90.49	0.50
	EX GAS	90.29			WM	89.99	
15	CULVERT	91.59	0.39	40	STM	91.38	0.50
	EX GAS	91.20			WM	90.88	
16	*EX GAS*	89.92	1.02				
	SAN	88.90					
17	*EX GAS*	90.99	2.07				
	SAN	88.92					
18	*EX GAS*	89.96	0.60				
	WM	89.36					
19	*EX GAS*	90.99	0.76				
	WM	90.23					
20	CULVERT	91.79	2.72				
	SAN	89.07					
21	CULVERT	91.80	1.01				
	WM	90.79					
22	WM	90.50	1.33				
	SAN	89.17					
23	STM	89.57	0.41				
	SAN	89.16					
24	STM	89.58	0.50				
	WM	89.08					
25	WM	89.83	0.50				
	SAN	89.33					

NOT FOR CONSTRUCTION

NOTES

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NO.	REVISION DESCRIPTION	DATE	BY
1	REISSUED FOR SPA	08/09/26	SM

SCALE

LICENSED PROFESSIONAL ENGINEER — SEP 08/26 — S.A.G.MCCAUGHEY 100217133 — PROVINCE OF ONTARIO

Robinson Land Development
200-2936 Baseline Road
Ottawa, ON K2H 1B3
(613) 592-6060 rcii.com

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GROUPE MONTONI

4101 LIMEBANK RD.
CITY OF OTTAWA

NOTES AND DETAILS PLAN

PROJECT No.	23074
SURVEY	AOV
DATED	SEPT 2026
DWG. No:	23074-N3