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 VERIFIES PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
8. ALL ELEVATIONS ARE GEODETIC. ALL ELEVATIONS ARE REFERED TO RHE CGVD 28:78 GEODETIC DATUM. BEARINGS ARE REFERANCE TO THE MTM ZONE 9, NAD 83 (ORIGINAL) PROJECTION. REFER TO TOPOGRAPHICAL PLAN OF SURVEY OF PART OF LOTS A AND 1 CONCESSION 4 (RIDEAU FRONT), TOWNSHIP OF GLOUCESTER, CITY OF OTTAWA, PREPARED BY ANNIS O'SULIVAN VOLLEBEKK Ltd., DATED AUGUST 8TH, 2022.
9. REFER TO GEOTECHNICAL REPORT (No. PG6149-1, REVISION 2, DATED MAY 24, 2023), PREPARED BY PATTERSON GROUP INC. 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 THE SERVIICING AND STORMWATER MANAGEMENT REPORT(R-2022-191) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD, DATED: SEPTEMBER 29,2023.
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/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
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 (1200Ø)	701.010	OPSD
STORM / SANITARY MANHOLE (1500Ø)	701.011	OPSD
STORM / SANITARY MANHOLE (1800Ø)	701.012	OPSD
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	
STORM SEWER (<450mmØ)	PVC DR 35 (UNLESS SPECIFIED OTHERWISE)	
STORM SEWER (>450mmØ)	CONC CLASS 65D (UNLESS SPECIFIED OTHERWISE)	
SANITARY SEWER	PVC DR 35 (UNLESS SPECIFIED OTHERWISE)	
CATCHBASIN LEAD	PVC DR 35	
CATCHBASIN COVER	S19	CITY OF OTTAWA
LANDSCAPE CATCHBASINS	S30 & S31	CITY OF OTTAWA
LANDSCAPE PERFORATED PIPE	S29	CITY OF OTTAWA
ROAD SUBDRAIN (CONTINUOUS)	R1	CITY OF OTTAWA
WATERTIGHT FRAME & COVER	401.030	OPSD

2. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION (REFER TO DETAIL)
3. THE PIPE BEDDING FOR SEWER AND WATER PIPES PLACED ON A RELATIVELY DRY, UNDISTURBED SUBGRADE SURFACE SHOULD CONSIST OF AT LEAST 150 mm OF OPSS GRANULAR A MATERIAL. WHERE THE BEDDING IS LOCATED WITHIN THE SILTY CLAY, THE THICKNESS OF THE BEDDING MATERIAL SHOULD BE INCREASED TO A MINIMUM OF 300 mm. THE BEDDING SHOULD EXTEND TO THE SPRING LINE OF THE PIPE.
4. COVER MATERIAL, FROM THE SPRING LINE TO AT LEAST 300 mm ABOVE THE OBVERT OF THE PIPE, SHOULD CONSIST OF OPSS GRANULAR A OR GRANULAR B TYPE II WITH A MAXIMUM SIZE OF 25 mm. THE BEDDING AND COVER MATERIALS SHOULD BE PLACED IN MAXIMUM 225 MM THICK LIFTS COMPACTED TO 99% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
5. 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 POTENTIAL DIFFERENTIAL FROST HEAVING. THE BACKFILL SHOULD BE PLACED IN MAXIMUM 225 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S SPMDD
6. 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.
7. 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.
8. STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
9. 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.
10. ALL WORKS SHALL BE PERFORMED AS APPLICABLE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD SPECIFICATIONS, AND IN PARTICULAR O.P.S.S. 407 AND 410.

CLAY SEALS :

1. TO REDUCE LONG-TERM LOWERING OF THE GROUNDWATER LEVEL AT THIS SITE, CLAY SEALS SHOULD BE PROVIDED IN THE SERVICE TRENCHESINSTALL CLAY SEALS AS PER CITY OF OTTAWA DETAIL S8 .
2. THE SEALS SHOULD BE AT LEAST 1.5 m LONG AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. GENERALLY, THE SEALS SHOULD EXTEND FROM THE FROST LINE AND FULLY PENETRATE THE BEDDING, SUB-BEDDING AND COVER MATERIAL.
3. THE BARRIERS SHOULD CONSIST OF RELATIVELY DRY AND COMPACTABLE BROWN SILTY CLAY PLACED IN MAXIMUM 225 mm THICK LOOSE LAYERS AND COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S SPMDD. THE CLAY SEALS SHOULD BE PLACED AT THE SITE BOUNDARIES AND AT STRATEGIC LOCATIONS AT NO MORE THAN 60 M INTERVALS IN THE SERVICE TRENCHES.
4. REFER TO PROFILE DRAWINGS FOR LOCATION OF SEEPAGE BARRIERS.

WATERMAIN NOTES:

1. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN CROSSING ABOVE SEWER	W25.2	CITY OF OTTAWA
WATERMAIN	PVC DR 18	
HYDRANT	WSD-24	CITY OF OTTAWA
VALVE AND VALVE BOX	WSD-19	CITY OF OTTAWA

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 SEWER AND WATERMAIN NOTES AND DETAIL.
4. PROVIDE MINIMUM CLEARANCE, BETWEEN OUTSIDE OF PIPES, AT ALL CROSSINGS AS PER CITY DETAILS W25 AND W25.2. WATERMAIN MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.25m OVER AND 0.50m UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.
6. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS WSD-39, 40, 41, 42, 43 AND 44.
7. PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES PER CITY OF OTTAWA STANDARD DETAIL WSD-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.

TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING NOTES:

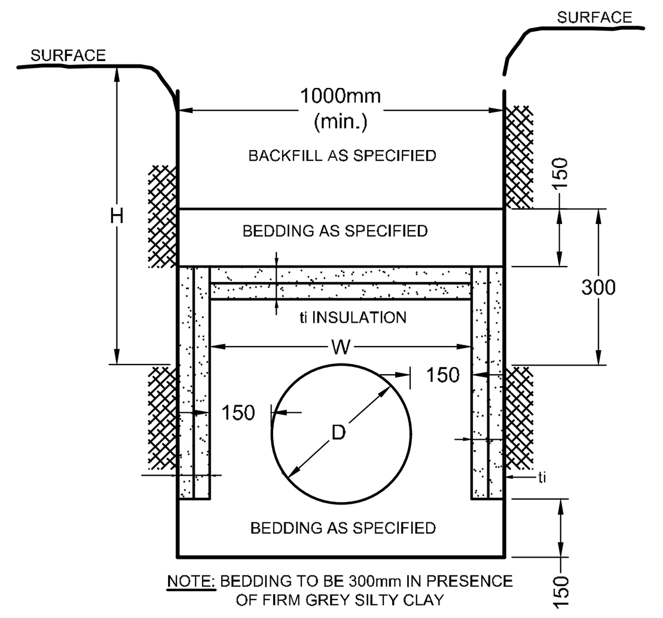
1. NO HORIZONTAL BENDS IN RIGHT-OF-WAY UNLESS OTHERWISE APPROVED BY THE CITY. MAXIMUM OF TWO 22.5° HORIZONTAL BENDS FOR SANITARY AND STORM SERVICES.
2. 1% MINIMUM SANITARY AND STORM SERVICE GRADIENT WITH 2% PREFERRED.
3. STORM SERVICE LATERAL SHALL BE LOCATED TO THE LEFT OF SANITARY SERVICE LATERAL WHEN LOOKING AT THE STRUCTURE FROM THE STREET. SERVICE SIZES IN CONFORMANCE WITH S11.
4. SEE S7 FOR PIPE FOUNDATION, EMBEDMENT AND FINAL BACKFILL REQUIREMENTS.
5. MULTIPLE TAPS WITH SADDLES IN PVC WATERMAIN SHALL BE STAGGERED AND MINIMUM 600mm APART.
6. ELEVATION OF SERVICES VARIABLE DEPENDING ON GRADIENT AND/OR DEPTH OF COVER.
7. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.
8. REFER TO R.O.W. CROSS SECTIONS FOR UTILITY LOCATIONS (DEPICTED ON 122040-ND2).
9. SEE W27 FOR ADDITIONAL WATER SERVICING SCENARIOS.

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)

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



INSULATION DETAIL FOR SHALLOW SEWERS & WATERMAIN

CATCHBASIN TABLE						
CB ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)	ICD DIA (mm)	100yr CAPTURE RATE (L/s)
01	2+051.72	610X1219	84.99	E=83.73(200mm) E=83.67(200mm)	178mm	79.5
02	2+051.72	610X1219	84.99	W=83.79(200mm)		
03	2+148.66	610X1219	85.89	NE=84.56(200mm) NE=84.62(200mm)	145mm	53.6
04	2+148.66	610X1219	85.89	SW=84.69(200mm)		
05	1+052	610X610	86.24	SE=85.04(300mm)		
06	1+052	610X610	86.24	NW=84.98(300mm) SE=84.97(300mm)		
07	1+350.09	1219X610	85.02	E=83.82(300mm)		
08	1+350.09	1219X610	85.02	W=83.76(300mm) E=83.75(300mm)		
09	1+244.23	610X610	86.06	NE=84.86(200mm)	94mm	21.1
10	3+018	610X610	85.91	SE=84.65(200mm) SE=84.35(200mm)	120mm	40.4
11	3+018	610X610	85.91	NW=84.71(200mm)		
12	3+123	610X610	85.69	SE=84.13(200mm) SE=84.43(200mm)	145mm	57.7
13	3+123	610X610	85.69	NW=84.49(200mm)		
14	1+158.27	610X610	86.44	SE=85.24(300mm)		
15	1+158.27	610X610	86.44	NW=85.17(300mm) E=85.11(300mm)		
16	3+309.95	610X610	86.44	NW=85.24(300mm)		
17	3+215.71	610X610	86.02	NW=84.82(300mm)		
18	3+215.70	610X610	86.02	SE=84.76(300mm) NW=84.75(300mm)		
19	3+171.95	610X610	85.69	NE=84.49(300mm)		
20	4+226.35	610X610	85.28	SE=84.08(200mm)		
21	4+194.37	610X610	85.35	NW=84.15(200mm)		
22	4+154.82	610X610	85.38	NW=84.18(200mm)		
23	4+124.19	610X610	85.40	NW=84.20(200mm)		
24	4+075.02	610X610	85.41	NE=84.21(200mm)		
25	4+036.57	610X610	85.45	NE=84.25(200mm)		

REAR YARD CATCHBASIN TABLE		
RYCB No.	T/G ELEVATION	INVERT
706	84.95	SW=83.75
707	84.97	W=83.77

REARYARD MANHOLE TABLE					
MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)	ICD	100yr CAPTURE RATE (L/s)
703	1200	86.04	NW=84.58 SW=84.38 SE=84.44	LMF	12.3
704	1200	85.79	NW=84.33 NE=84.27	LMF	6.8

REAR YARD CATCHBASIN MANHOLE TABLE					
CBMH ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)	ICD DIA (mm)	100yr CAPTURE RATE (L/s)
701	1200	85.12	N=83.90 W=83.55 S=83.61	83mm	17.5
702	1200	85.25	N=83.93 E=83.64 S=83.70	LMF	6.5
705	1200	85.80	SW=84.46 SE=84.40	LMF	6.0
708	1200	85.00	NE=83.11 S=83.05		
709	1200	85.70	SW=84.31 NE=83.95		

LANDSCAPE DRAIN TABLE			
RYCB No.	T/G ELEVATION	INVERT	TYPE
1001	85.05	N=83.80	ELBOW
1002	85.35	S=84.08	ELBOW
1003	85.15	N=83.90	ELBOW
1004	85.44	S=84.20	ELBOW
1005	85.84	NW=84.60	ELBOW
1006	85.70	SE=84.48 NW=84.47	TEE
1008	86.45	SE=84.94	ELBOW
1009	85.65	NW=84.40 SE=84.39	TEE
1010	86.29	SE=84.71	ELBOW
1011	86.40	NE=85.20	ELBOW
1012	86.45	SW=84.90 NE=84.89	TEE
1013	86.30	SW=84.65 NE=84.64	TEE
1014	85.00	SW=83.70	ELBOW
1015	86.13	NE=84.90	ELBOW
1016	85.85	NE=84.63 SW=84.64	TEE

STM MANHOLE TABLE				
MANHOLE ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)
202	2+108.73	1200mmØ	86.00	NW=81.85 S=81.77
203	1+121.22	1200mmØ	86.74	SW=82.23 SE=82.15 NE=82.30
204	1+019.02	1200mmØ	86.49	NE=82.89
205	1+163.50	1200mmØ	86.51	SW=82.57 NW=84.04
402	1+281.39	1200mmØ	86.15	NW=81.44 S=81.37
403	1+251.13	1200mmØ	86.11	NE=81.62 SE=81.54 NW=81.62
404	3+097.56	1200mmØ	85.89	NE=82.04 SW=81.89
405	3+130.68	1200mmØ	85.87	SW=82.27
406	1+181.96	1200mmØ	86.63	SE=81.82 NE=82.02 N=81.93
407	3+228.54	1200mmØ	86.13	SW=82.29 NE=82.30
408	3+195.39	1200mmØ	85.91	SW=82.53
599	4+266.42	1200mmØ	84.70	NW=81.88 SE=81.88 SW=83.00
801	9+016.96	1200mmØ	86.35	NE=83.75 W=81.93
802	9+087.23	1200mmØ	85.48	N=84.35 SW=84.10

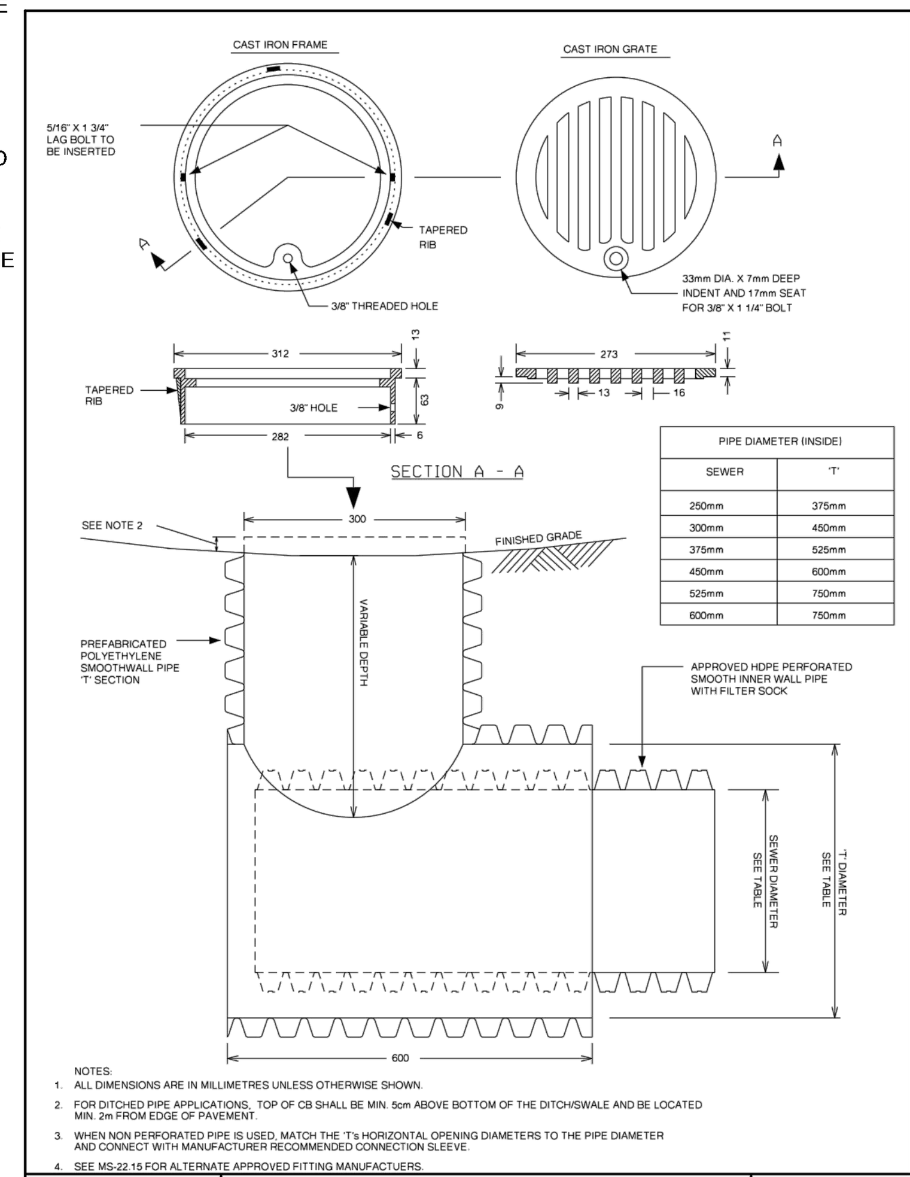
SAN MANHOLE TABLE				
MANHOLE ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)
100	2+006.68	1200mmØ	85.05	N=82.02 W=81.90 E=81.89
101	2+019.92	1200mmØ	85.15	N=82.10 S=82.06
102	2+109.74	1200mmØ	86.06	NW=82.60 S=82.37
103	1+119.73	1200mmØ	86.79	NE=82.96 SE=82.90 SW=82.96
104	1+017.52	1200mmØ	86.51	NE=83.62
105	1+160.89	1200mmØ	86.52	SW=83.23
300	1+382.43	1200mmØ	85.18	N=81.80 SW=81.67 NE=81.66
301	1+369.62	1200mmØ	85.20	N=82.00 S=81.84
302	1+283.33	1200mmØ	86.17	S=82.26 NW=82.29
303	1+249.63	1200mmØ	86.14	NW=82.40 SE=82.39 NE=82.45
304	3+100	1200mmØ	85.92	NE=82.75 SW=82.74
305	3+129.22	1200mmØ	85.76	SW=82.95
306	1+183.21	1200mmØ	86.69	SE=82.60 NE=82.66 NW=82.61
307	3+226.10	1200mmØ	86.16	SW=82.95 NE=82.96
308	3+196.86	1200mmØ	85.90	SW=83.16
309	1+176.67	1200mmØ	86.59	SE=82.66
901	8+016	1200mmØ	86.71	SW=83.08

SWM CATCHBASIN MANHOLE TABLE				
CBMH ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)
506	3+309.95	2400	86.44	NE=82.31 SW=82.30 SE=85.18
509	3+171.95	1800	85.69	SW=84.42 NW=82.83 SE=83.35

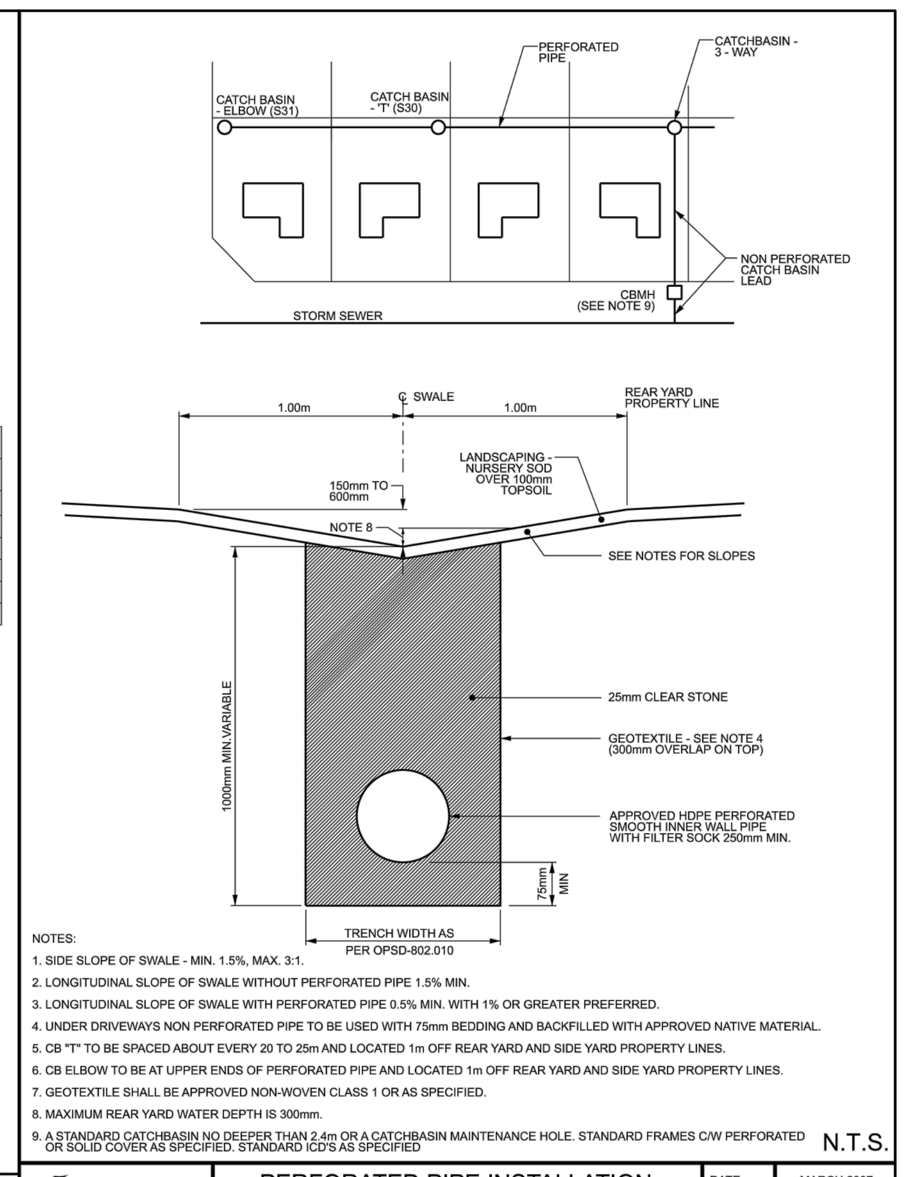
SWM MANHOLE TABLE				
MANHOLE ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)
502	1+043.66	2400mmØ	86.33	NE=83.34
504	1+286.78	1800mmØ	86.08	S=82.65 N=83.01
507	3+230.16	1800mmØ	86.16	NE=82.56 SW=82.55
508	3+193.47	2400mmØ	86.15	SE=82.75 SW=82.69
510	3+161.98	1200mmØ	85.79	NW=83.40 SW=83.90
602	4+115.54	1200mmØ	85.52	W=83.56 NE=83.53
603	4+098.30	1200mmØ	85.58	NW=83.64 E=83.61
604	4+036.58	1200mmØ	85.56	SE=83.83 SW=84.21

SWM MANHOLE TABLE (ICD)						
MANHOLE ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)	ICD	100yr CAPTURE RATE (L/s)
501	1+073.16	2400mmØ	86.42	SW=83.25 NW=82.69	LMF	17.0
503	1+362.11	1800mmØ	85.11	N=82.42 W=81.82 NE=83.70	LMF	9.3
505	1+179.07	1800mmØ	86.57	NE=82.27 S=81.97 W=84.90	LMF	12.3
601	4+235.77	1200mmØ	85.41	SW=83.17 NE=83.16	102mm	29.6

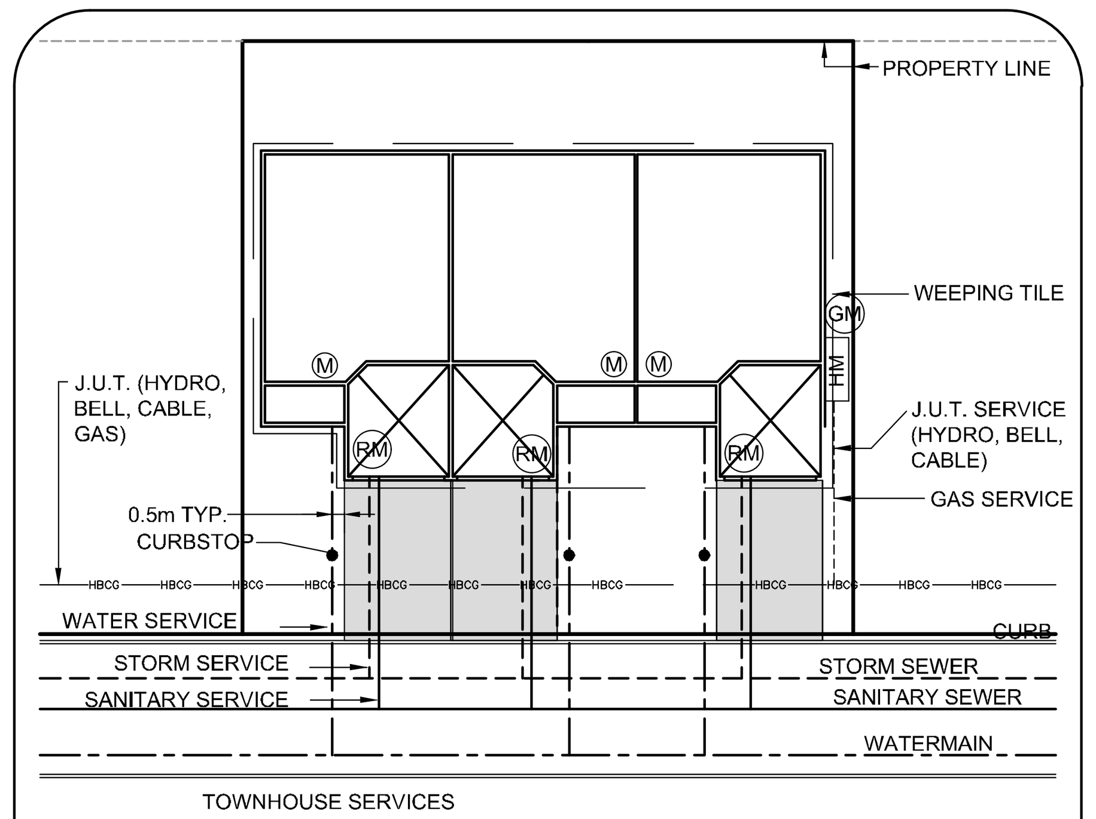
OGS TABLE					
MANHOLE ID	STATION	SIZE (mm)	OGS SPECIFICATION	T/G ELEV (m)	INVERT (m)
600	4+240.45	1200mmØ	CDS PMSU2015-4-C	85.45	SW=83.14 NE=83.13
201	2+018.20	1500mmØ	CDS PMSU2025-5-C	85.09	N=81.50 S=81.01
401	1+371.88	1800mmØ	CDS PMSU3020-6-C	85.17	S=80.69 N=81.10



CATCH BASIN - ELBOW FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS
DATE: MARCH 2007 REV. DATE: MARCH 2019 DWG. No.: S31



PERFORATED PIPE INSTALLATION FOR REAR YARD AND LANDSCAPING APPLICATIONS
DATE: MARCH 2007 REV. DATE: MARCH 2019 DWG. No.: S29



TOWNHOUSE SERVICES

SANITARY- 1-125mmØ PVC DR 28 @ 1.0% (MIN) 2.0% DESIRED
STORM- 1-100mmØ PVC DR 28 @ 1.0% (MIN) 2.0% DESIRED
WATER- 1-19mmØ (TYPE K COPPER)
(M) WATER METER
(RM) REMOTE RECEPTACLE
HM HYDRO GANG METER
(GM) GAS METER

NOTE: SANITARY SERVICE TO BE TO THE RIGHT OF THE STORM SERVICE WHEN FACING THE DWELLING FORM THE STREET

TOWNHOUSE SERVICE CONNECTIONS
N.T.S.

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

CLARIDGE HOMES
CLARIDGE HOMES
505 PRESTON STREET,
2ND FLOOR
OTTAWA , ONTARIO
K1S 4N7.

NOT FOR CONSTRUCTION

No.	REVISION	DATE	BY
4	REVISED SITE PLAN	SEPT 29/23	ARM
3	ISSUED FOR UTILITY COORDINATION	SEPT 20/23	ARM
2.	REVISED PER CITY COMMENTS	MAY 26/23	GJM
1.	ISSUED IN SUPPORT OF DEVELOPMENT APPLICATIONS	NOV 01/22	GJM

SCALE: AS SHOWN
DESIGN: ARM
CHECKED: GJM
DRAWN: CJF/ARM
CHECKED: ARM
APPROVED: GJM

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER A. R. MESTWARP 100201604 September 29/2023 PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER G.J. MacDONALD Sept 29, 2023 PROVINCE OF ONTARIO

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

LOCATION
CITY OF OTTAWA
2510 St. LAURENT BOULEVARD

DRAWING NAME
NOTES AND DETAILS
SERVICING

PROJECT No. 122040
REV: REV#4
DRAWING No. 122040-ND1

122040-ND.dwg, ND1, Oct 05, 2023 - 6:37pm, amestwarp
PLANA1.DWG - 841mmx594mm

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. 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. WEAK SUBGRADE CONDITIONS MAY BE EXPERIENCED OVER SERVICE TRENCH FILL MATERIALS. THIS MAY REQUIRE THE USE OF GEOTEXTILE, THICKER SUBBASE OR OTHER MEASURES THAT CAN BE RECOMMENDED AT THE TIME OF CONSTRUCTION AS PART OF THE FIELD OBSERVATION PROGRAM.
5. THE GRANULAR BASE SHOULD BE PLACED IN 300mm LIFTS AND COMPACTED TO AT LEAST 99% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 99% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
6. ON-SPECIFIED EXISTING FILL ALONG WITH SITE-EXCAVATED SOIL COULD BE PLACED AS GENERAL LANDSCAPING FILL WHERE SETTLEMENT OF THE GROUND SURFACE IS OF MINOR CONCERN. THESE MATERIALS SHOULD BE SPREAD IN LIFTS WITH A MAXIMUM THICKNESS OF 300 mm AND COMPACTED BY THE TRACKS OF THE SPREADING EQUIPMENT TO MINIMIZE VOIDS.
7. IF EXCAVATED BROWN SILTY CLAY, FREE OF ORGANICS AND DELETERIOUS MATERIALS, IS TO BE USED TO BUILD UP THE SUBGRADE LEVEL FOR AREAS TO BE PAVED, IT IS RECOMMENDED THAT THE MATERIAL BE PLACED UNDER DRY CONDITIONS AND ABOVE FREEZING TEMPERATURES. THE SILTY CLAY SHOULD BE COMPACTED IN THIN LIFTS TO AT LEAST 95% OF THE MATERIAL'S SPMDD.
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 MOUNTABLE CURB (50mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
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.

EROSION AND SEDIMENT CONTROL NOTES:

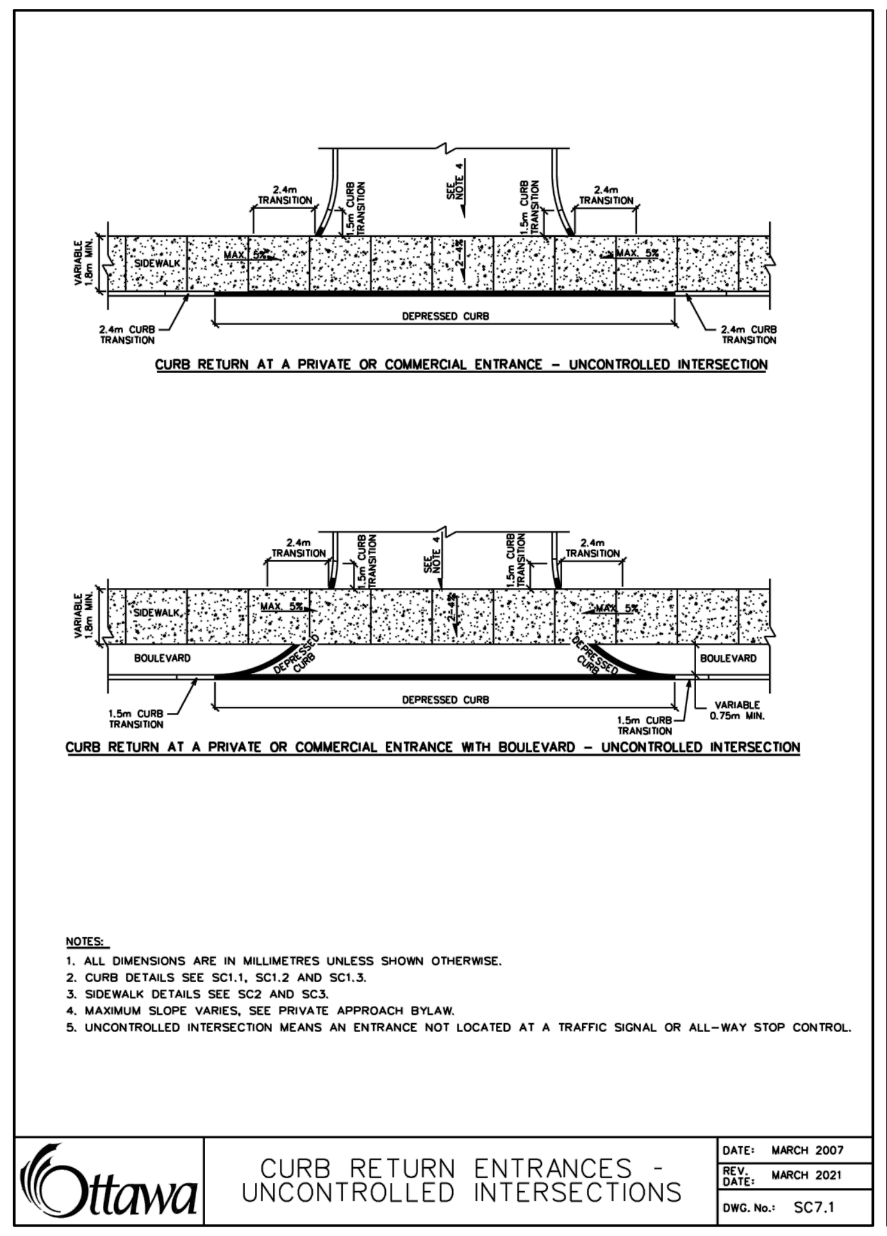
1. THE OWNER AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION 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 CLOTH 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.

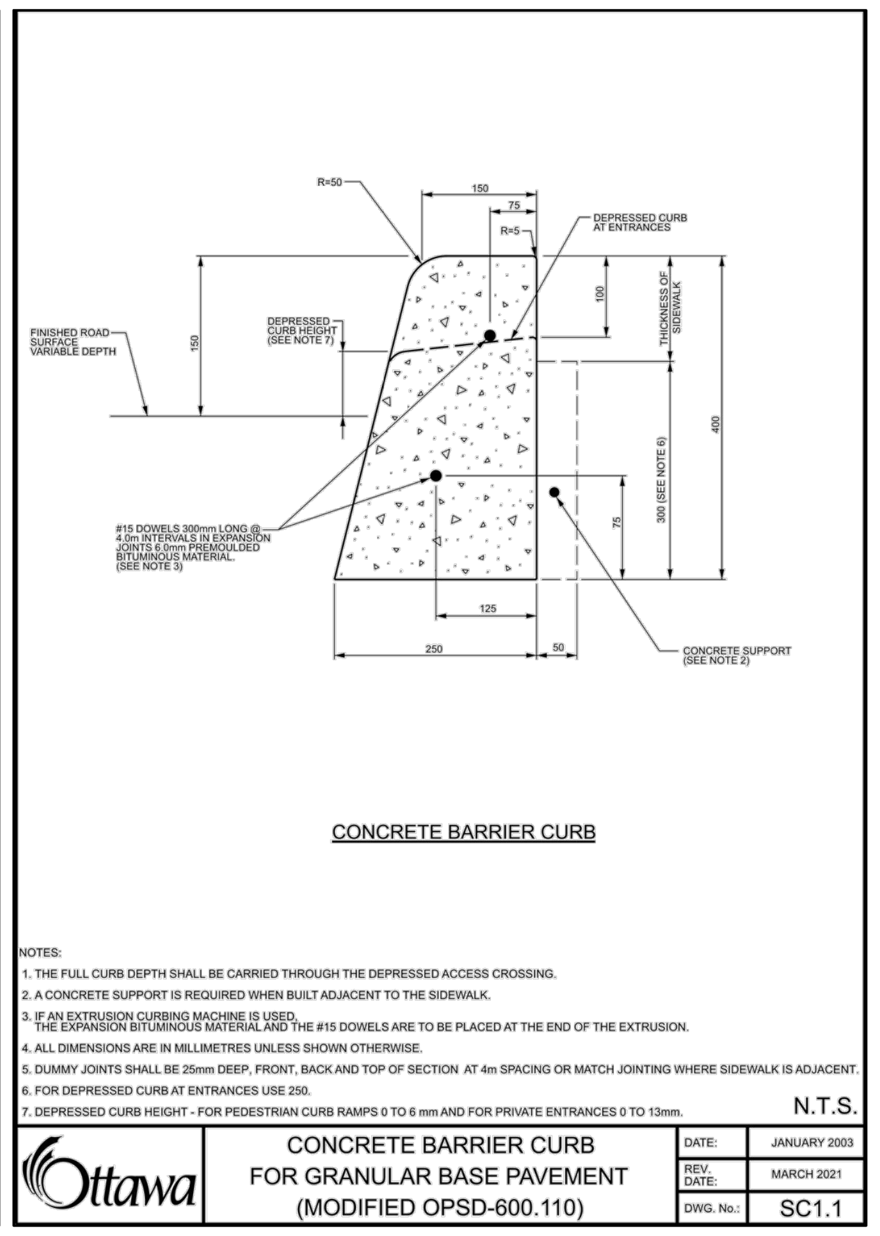
PAVEMENT STRUCTURE:

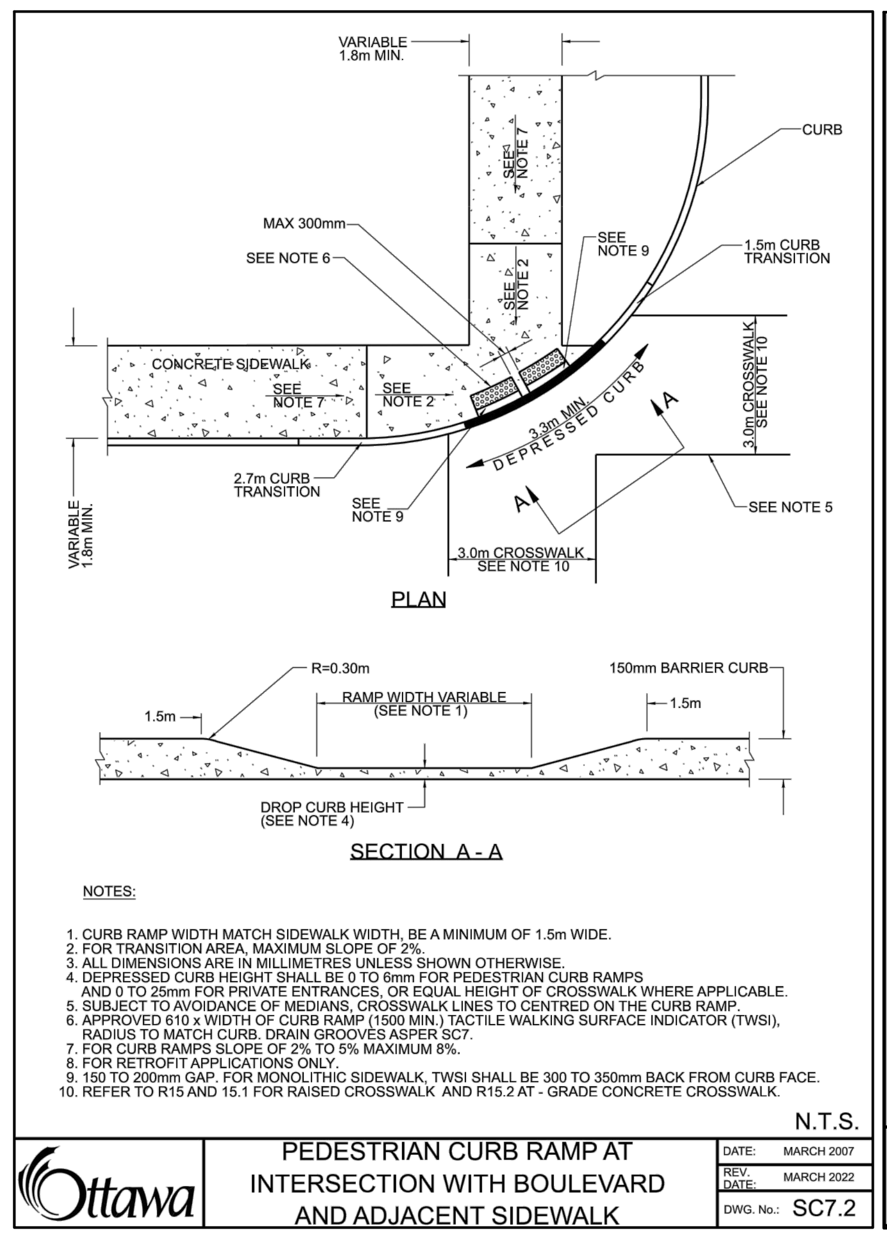
DRIVEWAYS AND AT GRADE CAR PARKING AREAS
50mm HL3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE
150mm GRAN "A"
300mm GRAN "B" TYPE II

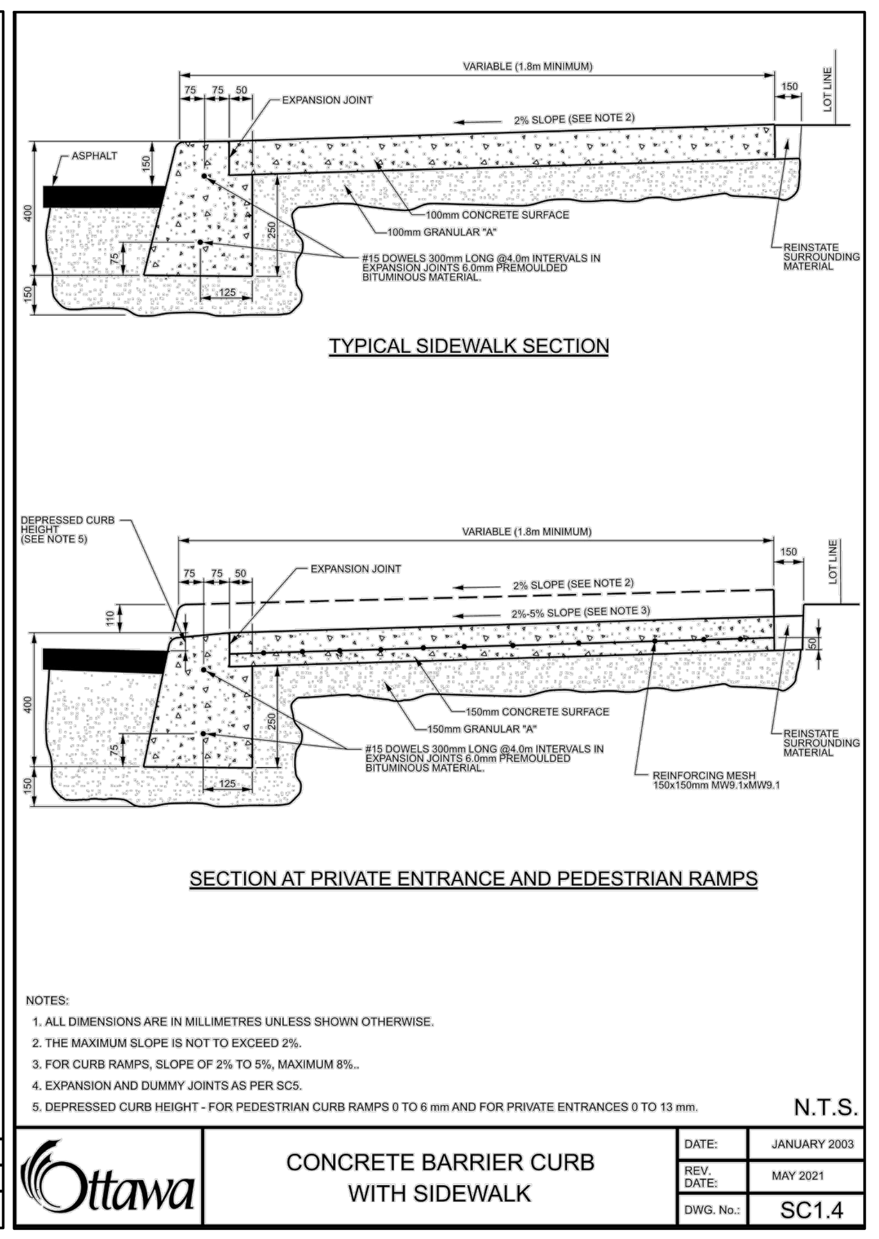
LOCAL RESIDENTIAL ROADS AND ACCESS LANES
40mm HL3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE
50mm HL8 OR SUPERPAVE 19.0 ASPHALTIC CONCRETE
150mm GRAN "A"
450mm GRAN "B" TYPE II

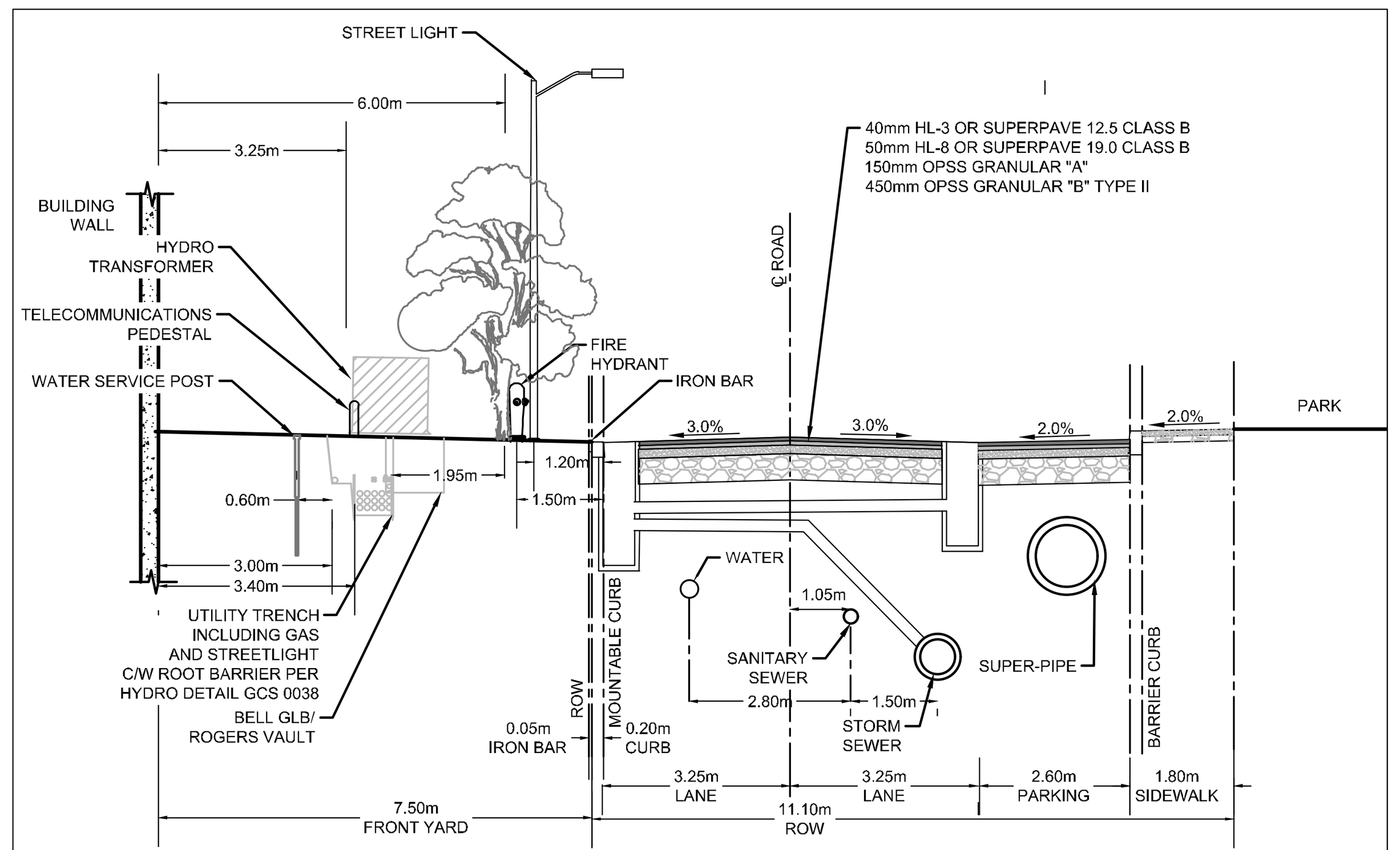
1. UNDER PAVED AREAS, EXISTING CONSTRUCTION REMNANTS, SUCH AS FOUNDATION WALLS, SHOULD BE EXCAVATED TO A MINIMUM OF 1 m BELOW FINAL GRADE.
2. MINIMUM PERFORMANCE GRADED (PG) 58-34 ASPHALT CEMENT SHOULD BE USED FOR THIS PROJECT. FOR RESIDENTIAL DRIVEWAYS AND CAR ONLY PARKING AREAS, AN ONTARIO TRAFFIC CATEGORY A WILL BE USED. FOR LOCAL ROADWAYS, AN ONTARIO TRAFFIC CATEGORY B SHOULD BE USED FOR DESIGN PURPOSES.


CURB RETURN ENTRANCES - UNCONTROLLED INTERSECTIONS (SC7.1)

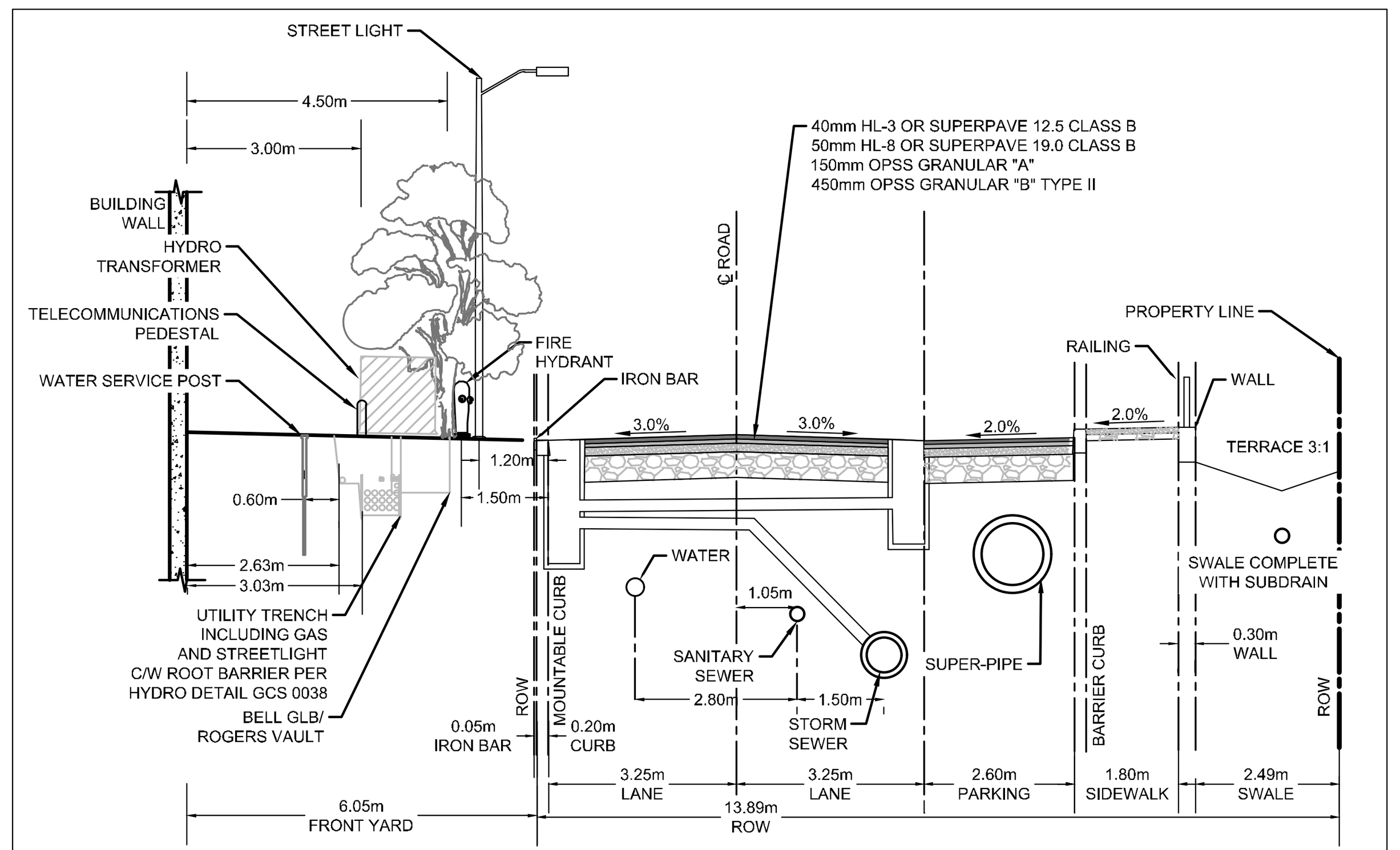

CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110) (SC1.1)


PEDESTRIAN CURB RAMP AT INTERSECTION WITH BOULEVARD AND ADJACENT SIDEWALK (SC7.2)


CONCRETE BARRIER CURB WITH SIDEWALK (SC1.4)


NOTE:
1. BARRIER CURB IS PROPOSED ADJACENT TO ON STREET PARKING AREAS. MOUNTABLE CURB IS PROPOSED IN ALL OTHER AREAS
2. ALL CURB TO BE AS PER CITY DETAIL SC1.1

ROW CROSS-SECTION DETAIL - STREET 1 - ADJACENT PARK
N.T.S


NOTE:
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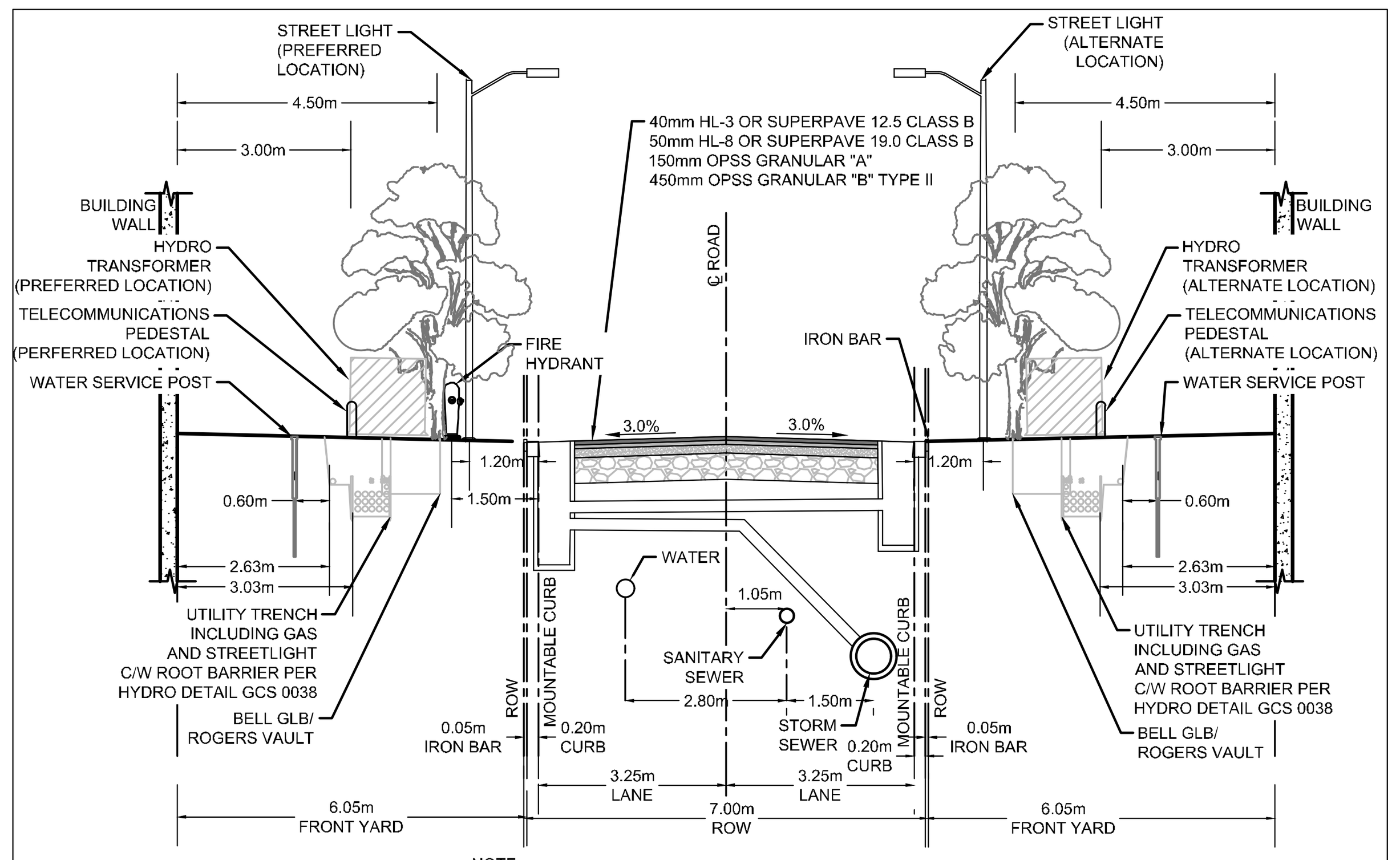
13.89m ROW CROSS-SECTION DETAIL - STREET 1 - PARALLEL PARKING (TYPICAL)
N.T.S


NOTE:
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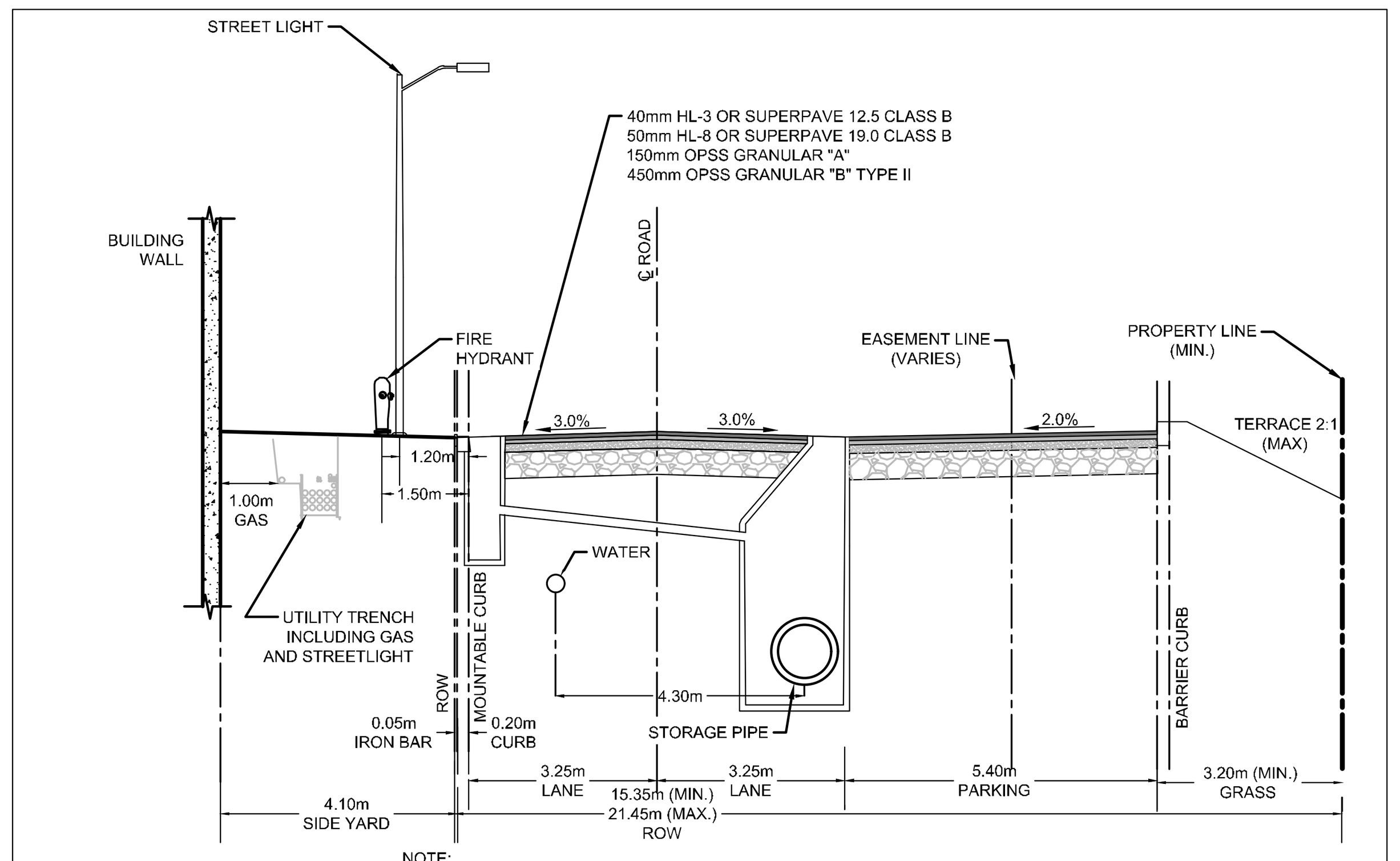
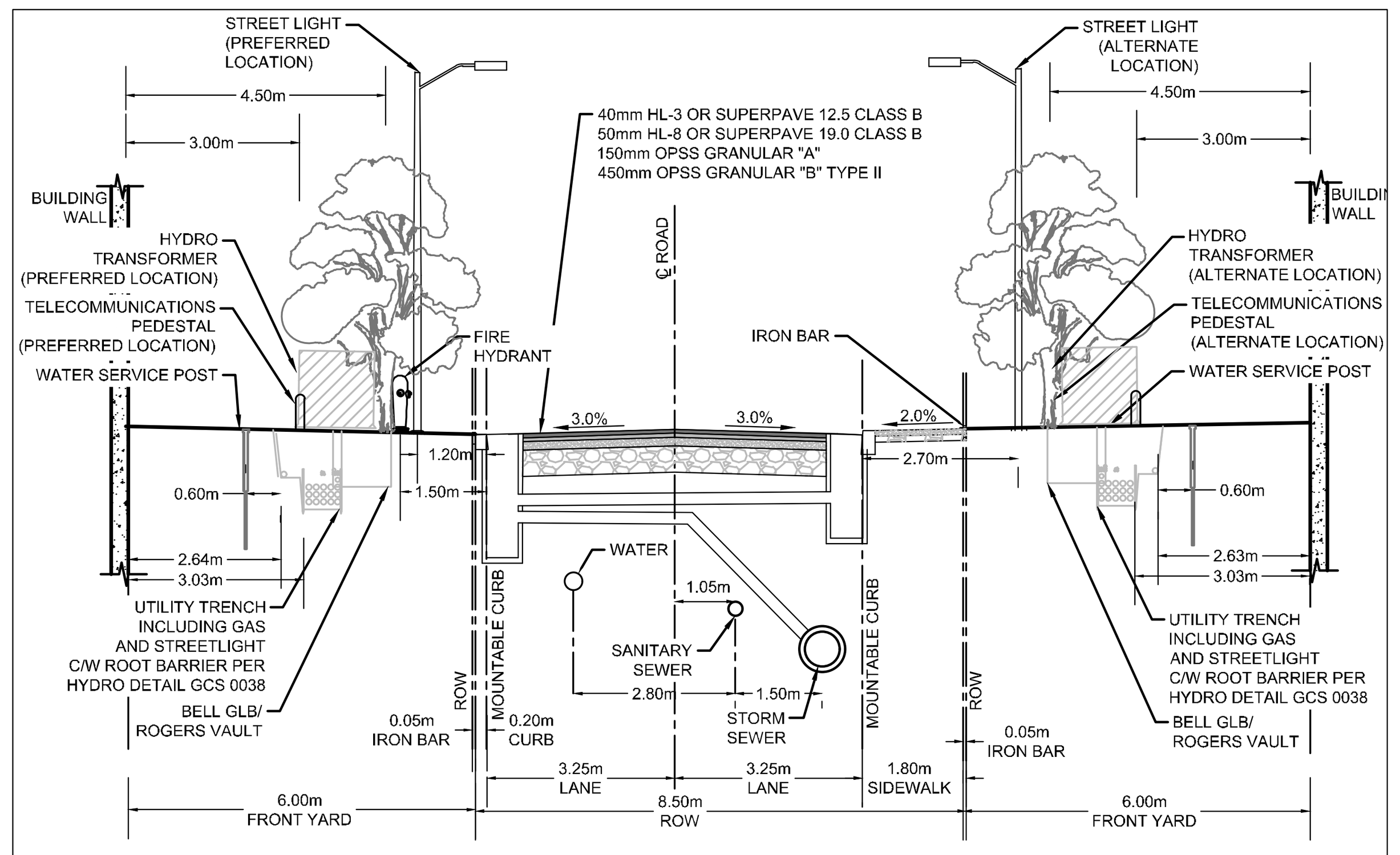
2. ALL CURB TO BE AS PER CITY DETAIL SC1.1

7.0m ROW CROSS-SECTION DETAIL - STREET 2 (TYPICAL)
N.T.S


NOTE:
1. BARRIER CURB IS PROPOSED ADJACENT TO ON STREET PARKING AREAS. MOUNTABLE CURB IS PROPOSED IN ALL OTHER AREAS
2. ALL CURB TO BE AS PER CITY DETAIL SC1.1

ROW CROSS-SECTION DETAIL - STREET 3 - PERPENDICULAR PARKING
N.T.S


NOTE:
1. BARRIER CURB IS PROPOSED ADJACENT TO ON STREET PARKING AREAS. MOUNTABLE CURB IS PROPOSED IN ALL OTHER AREAS
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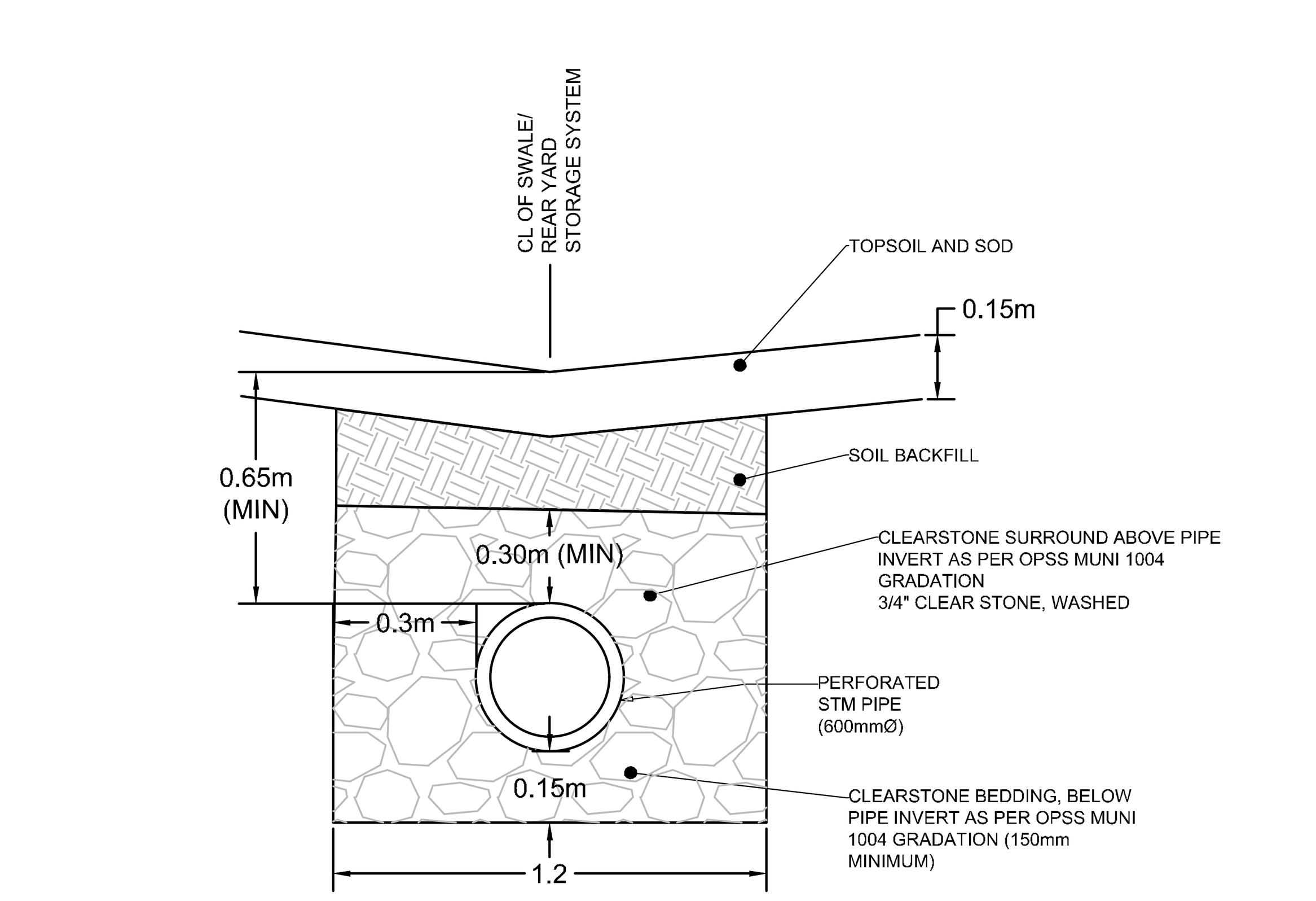
ROW CROSS-SECTION DETAIL - STREET 3 - SOUTH LEG
N.T.S



REAR YARD SWALE CROSS-SECTION
N.T.S

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

CLARIDGE HOMES

CLARIDGE HOMES
505 PRESTON STREET,
2ND FLOOR
OTTAWA , ONTARIO
K1S 4N7.

NOT FOR CONSTRUCTION

No.	REVISION	DATE	BY
4	REVISED SITE PLAN	SEPT 29/23	ARM
3	ISSUED FOR UTILITY COORDINATION	SEPT 20/23	ARM
2.	REVISED PER CITY COMMENTS	MAY 26/23	GJM
1.	ISSUED IN SUPPORT OF DEVELOPMENT APPLICATIONS	NOV 01/22	GJM

SCALE: AS SHOWN

DESIGN: ARM
CHECKED: GJM
DRAWN: CJF/ARM
CHECKED: ARM
APPROVED: GJM

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER A. R. MESTWARP 100201604 September 29/2023 PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER G.J. MacDONALD Sept 29, 2023 PROVINCE OF ONTARIO

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LOCATION
CITY OF OTTAWA
2510 St. LAURENT BOULEVARD

DRAWING NAME
NOTES AND DETAILS
GRADING

PROJECT No. 122040
REV: REV#4
DRAWING No. 122040-ND2

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PLANA1.DWG - 841mmx594mm