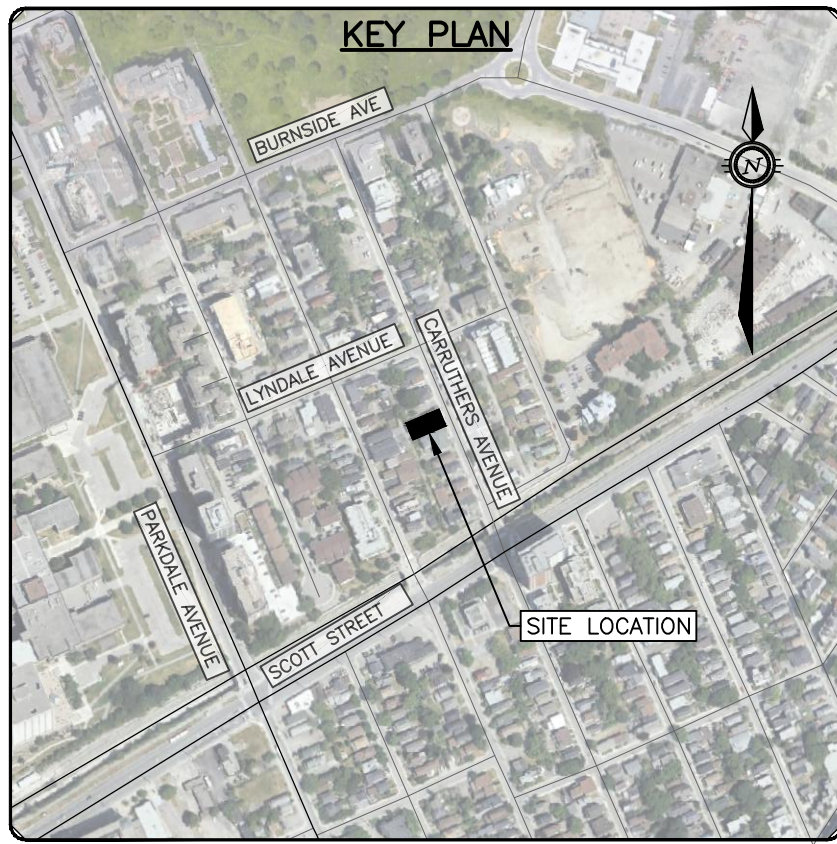
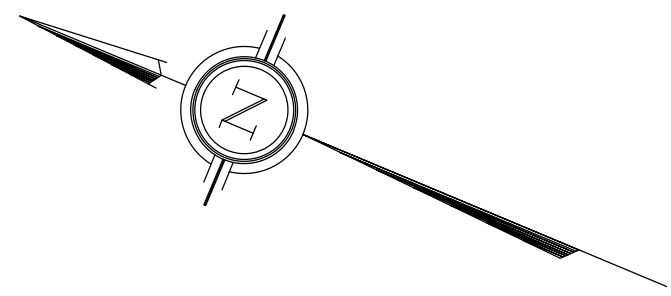
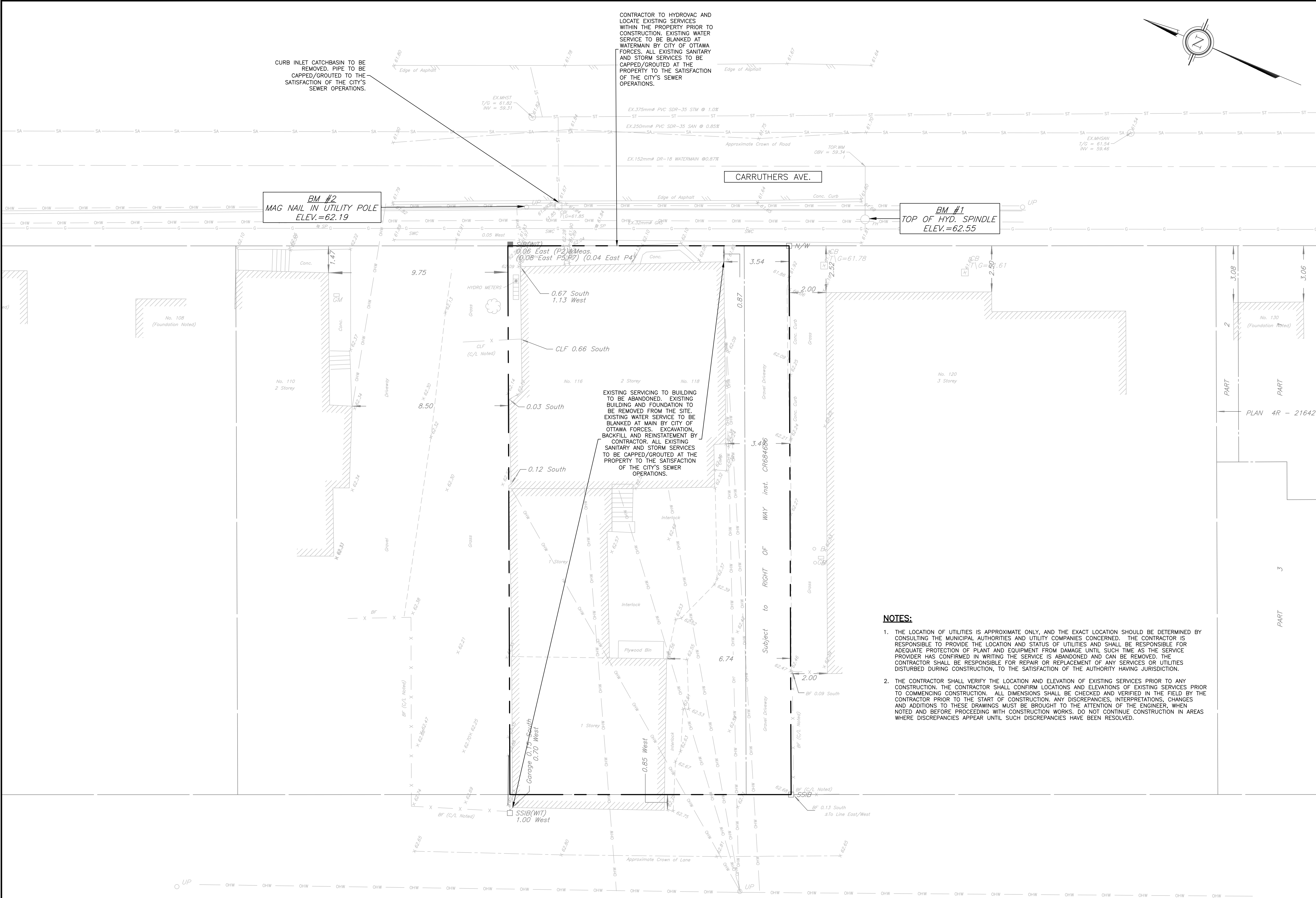




LEGEND	
	PROPERTY LINE
	EXISTING C. OF ROAD
	EXISTING EDGE OF PAVEMENT
	EXISTING EDGE OF GRAVEL
	EXISTING SANITARY
	EXISTING STORM
	EXISTING GASMAIN
	EXISTING WATERMAIN
	EXISTING CURB INLET CATCHBASIN
	EXISTING MANHOLE (AS NOTED)
	EXISTING STANDPIPE
	EXISTING FIRE HYDRANT

NOTES:

1. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND EQUIPMENT FROM DAMAGE UNTIL SUCH TIME AS THE SERVICE PROVIDER HAS CONFIRMED IN WRITING THE SERVICE IS ABANDONED AND CAN BE REMOVED. 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.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WHEN NOTED AND BEFORE PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.

CAUTION
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.

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM CITY OF OTTAWA VERTICAL BENCH MARK MONUMENT NO. 3606, INDEX NO. 118 HAVING AN ELEVATION 67.236 METERS.
SITE BENCHMARKS 1 AND 2 ARE LOCATED ON HYDRO POLE AND HYDRANT ON CARRUTHERS AS INDICATED ON PLAN.

REV	REVISION DESCRIPTION	DATE	BY	APPD
2	RE-ISSUED FOR SPA	29/01/25	AGJ	AKJ
1	ISSUED FOR SPA	23/10/24	AGJ	AKJ

SCALE	DESIGNED BY	REVIEWED BY	CLIENT
0 1m 2m 4m HORIZONTAL 1:100 NORTH			

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GENERAL NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.
2. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE.
3. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND EQUIPMENT FROM DAMAGE. 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.
4. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY BE DAMAGED OR CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER, WATER AND/OR STORM WATER WORKS. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WHEN NOTED AND BEFORE PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.
5. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED. ALL DRAWINGS SHOULD NOT BE SCALED BY THE CONTRACTOR. ANY MISSING OR QUESTIONABLE DIMENSIONS ARE TO BE CONFIRMED WITH THE ENGINEER IN WRITING.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF THE SAME.
7. 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.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, THE CITY OF OTTAWA AND THE AUTHORITY HAVING JURISDICTION.
9. 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.
10. THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON CITY STREETS. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. BOOK 7 AND T.A.C. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).
11. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
12. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED.
13. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
14. THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. AS-BUILT SITE SERVICING & GRADING DRAWINGS SHALL BE MAINTAINED ON SITE BY THE CONTRACTOR.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.
16. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH ENGINEER AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.
17. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.
18. ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY EXP. SERVICES INC.
19. THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.
20. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".
21. FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY ANNIS O'SULLIVAN VOLLEBEK, DATED MARCH 1, 2024.
22. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS.
23. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.
24. STREET LIGHTING SHALL BE TO CITY OF OTTAWA STANDARDS.

SANITARY SEWER NOTES

1. ALL SANITARY SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. ALL SANITARY SEWERS SHALL BE PVC SDR 35, IPEX "RING-TITE" (OR EQUIVALENT), AS PER CSA STANDARD 8182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE NOTED.
3. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS B BEDDING UNLESS OTHERWISE NOTED.
4. ALL SANITARY LATERALS ARE TO BE PVC SDR 28, IPEX "RING-TITE" (OR EQUIVALENT), ANY COLOR EXCEPT WHITE AND MARKED WITH A 50MM X 100MM WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0 M ABOVE GRADE PAINTED RED.
5. SEWER BEDDING AS PER CITY STANDARD S6 & S7. GRANULAR 'A' BEDDING TO BE INCREASED TO 300MM WHERE SEWERS ARE BELOW THE GROUNDWATER TABLE.
6. SANITARY SEWER MANHOLES SHALL BE BENCHES AS PER OPSD 701.021. SANITARY MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24 AND S25. SAFETY PLATFORMS SHALL BE AS PER OPSD 404.02. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
7. THE CONTRACTOR SHALL CONDUCT INFILTRATION/EXFILTRATION (AS PER CURRENT OPSS) TESTING ON ALL NEWLY INSTALLED SANITARY SEWERS. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWER INSTALLATION AND VIEWED BY THE ENGINEER.
8. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF EXISTING MUNICIPAL SANITARY SEWER WITHIN THE CITY ROW BEFORE AND AFTER THE INSTALLATION OF NEW SANITARY SEWERS/LATERALS. CONTRACTOR SHALL PERFORM CCTV INSPECTION ON ALL NEWLY INSTALLED SANITARY SEWERS IMMEDIATELY AFTER THE SEWERS ARE INSTALLED.
9. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
10. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE SANITARY SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMD.
11. ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING S14.1.
12. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
13. MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED, INSTALL 100MM THICK HI-60 RIGID INSULATION ON ALL THREE SIDES PER CITY OF OTTAWA STD S35.

STORM SEWER NOTES

1. ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. 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. 8182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
4. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE STORM SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. RIGID STORM PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.030. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMD.
5. SEWER BEDDING AS PER CITY STANDARD S6 & S7.

CAUTION
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.

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM CITY OF OTTAWA VERTICAL BENCH MARK MONUMENT NO. 3606, INDEX NO. 118 HAVING AN ELEVATION 67.236 METERS.
SITE BENCHMARKS 1 AND 2 ARE LOCATED ON HYDRO POLE AND HYDRANT ON CARRUTHERS AS INDICATED ON PLAN.

6. ALL STORM LATERALS SHALL BE PVC SDR 28, WHITE IN COLOR AND MARKED WITH A 50mm X 100mm WOODEN MARKER EXTENDING FROM THE INVERT TO 1.0M ABOVE GRADE PAINTED GREEN.
7. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
8. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
9. MINIMUM SOIL COVER TO BE 2.1M TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED, INSTALL 100MM THICK HI-60 RIGID INSULATION ON ALL THREE SIDES PER CITY OF OTTAWA STD S35.
10. ALL STORM SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
11. STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24, S24.1 AND S25.
12. SAFETY PLATFORMS SHALL BE IN ACCORDANCE WITH OPSD 404.02.
13. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
14. STORM SEWER MANHOLES SERVING LOCAL 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.
15. SINGLE AND DOUBLE CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S1, AND OPSD 705.020, RESPECTIVELY. FRAMES AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S19 FOR REAR LOT CATCHBASINS, AND STREET CATCHBASINS.
16. CURB INLET TYPE CATCH BASIN (CICB) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S3, AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S22 AND S23, UNLESS OTHERWISE NOTED.
17. SINGLE AND DOUBLE CATCHBASIN LEADS SHALL BE 200mmØ AND 250mmØ (MIN) RESPECTIVELY, 1.0% SLOPE (MIN.) UNLESS OTHERWISE NOTED.
18. ALL CATCHBASINS AND CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 300m DEPTH, UNLESS OTHERWISE NOTED.
19. CONTRACTOR SHALL ENSURE THAT CATCHBASINS ARE INSTALLED AT THE LOW POINT OF SAG CURB WORKS.
20. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED. 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.
8. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF EXISTING MUNICIPAL STORM SEWER WITHIN THE CITY ROW BEFORE AND AFTER THE INSTALLATION OF NEW STORM SEWERS/LATERALS. CONTRACTOR SHALL PERFORM CCTV INSPECTION ON ALL NEWLY INSTALLED STORM SEWERS IMMEDIATELY AFTER THE SEWERS ARE INSTALLED.

WATERMAIN NOTES

1. ALL WATERMAIN MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE. WATERMAIN CONNECTIONS BY CITY OF OTTAWA FORCES WITH ALL EXCAVATION BACKFILL AND ROAD REINSTATEMENT BY CONTRACTOR.
3. ALL PVC WATERMANS SHALL BE EQUAL TO AWWA C-900 CLASS 150, SDR 18, OR APPROVED EQUAL.
4. WATERMANS TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
5. ALL PVC WATERMANS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W36.
6. WATER SERVICES ARE TO BE TYPE K SOFT COPPER AS PER CITY OF OTTAWA STD. W28 UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICES CROSSING SEWERS ARE TO BE INSTALLED AS PER CITY OF OTTAWA STD. W38. WATER SERVICES SHALL BE MARKED WITH A "50mm X 100mm", EXTENDING FROM THE INVERT TO 1.0m ABOVE GRADE PAINTED BLUE. STAND POSTS/SHUT-OFFS SHALL BE INSTALLED AT THE PROPERTY LINE.
7. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.
8. VALVE BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA DETAIL W24.
9. ALL FIRE HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W19 AND LOCATED AS PER CITY STANDARD W18 AND/OR CITY STANDARD CROSS SECTIONS.
10. ALL WATERMANS TO BE INSTALLED AT MINIMUM COVER OF 2.4m.
11. THRUST BLOCKS AND RESTRAINT AS PER CITY OF OTTAWA DWGS: W25.3 AND W25.4, W25.5 AND W25.6.
12. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
13. DISINFECTION AND TESTING OF WATERMAIN TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
14. WATER METERS TO BE INSTALLED AS PER W30 FOR WATER SERVICES.
15. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
16. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY, WHERE WATERMAN COVER IS LESS THAN 2.4m.
17. WHERE THE SEPARATION BETWEEN SERVICES AND MANHOLES IS LESS THAN 1.2m, WATER SERVICES ARE TO BE INSULATED AS PER CITY OF OTTAWA STD. W23.
18. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.25M FOR CROSSING OVER THE SEWER, AS PER CITY STD W25.2. FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE IS 0.30M AS PER CITY STD. W25. 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.

ROADWAY SPECIFICATIONS

1. ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.1 (BARRIER CURB) AND SC1.3 (MOUNTABLE CURB), AS NOTED. PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS AND DRIVEWAYS.
3. ROAD SUBDRAINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R1. SUBDRAINS SHALL BE 6m IN LENGTH AT CATCHBASINS. SUBDRAINS SHALL BE INSTALLED BOTH SIDES AT LOWPOINTS AND ON THE HIGH SIDE AT FLOWBY CATCHBASINS.
4. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R10 AND OPSD 508.010, OPSS 310.
5. GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
6. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.
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. PAVEMENT STRUCTURE: REFER TO LEGEND.

GENERAL NOTES FOR GRADING

1. IT SHALL BE THE BUILDER'S RESPONSIBILITY TO ENSURE THAT GRADING AROUND HYDRANTS, TRANSFORMERS, AND UTILITY PEDESTALS, ETC., MEET CURRENT CITY OF OTTAWA, HYDRO AND UTILITY COMPANY REQUIREMENTS.
2. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
3. CONTRACTOR TO ADJUST EXISTING CATCH BASINS, MANHOLES, FIRE HYDRANTS, VALVE CHAMBERS AND VALVE BOXES TO FINAL GRADE AS REQUIRED.
4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING FOUNDATIONS OF ADJACENT BUILDINGS DURING EXCAVATION AND CONSTRUCTION PERIOD.
5. GRADING IN GRASSED AREAS WILL BE BETWEEN 2% TO 7%. GRADES IN EXCESS OF 7% WILL REQUIRE A MAXIMUM 3:1 TERRACING.

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REV	REVISION DESCRIPTION	DATE	BY	APPD	REV	REVISION DESCRIPTION	DATE	BY	APPD
					2	RE-ISSUED FOR SPA	29/01/25	AGJ	AKJ
					1	ISSUED FOR SPA	23/10/24	AGJ	AKJ

DESIGNED BY

REVIEWED BY



CLIENT

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BASEPLAN	AGJ
DESIGN	AGJ
CHECKED	AKJ
CAD	AGJ
PROJECT MANAGER	AKJ
APPROVED	AA

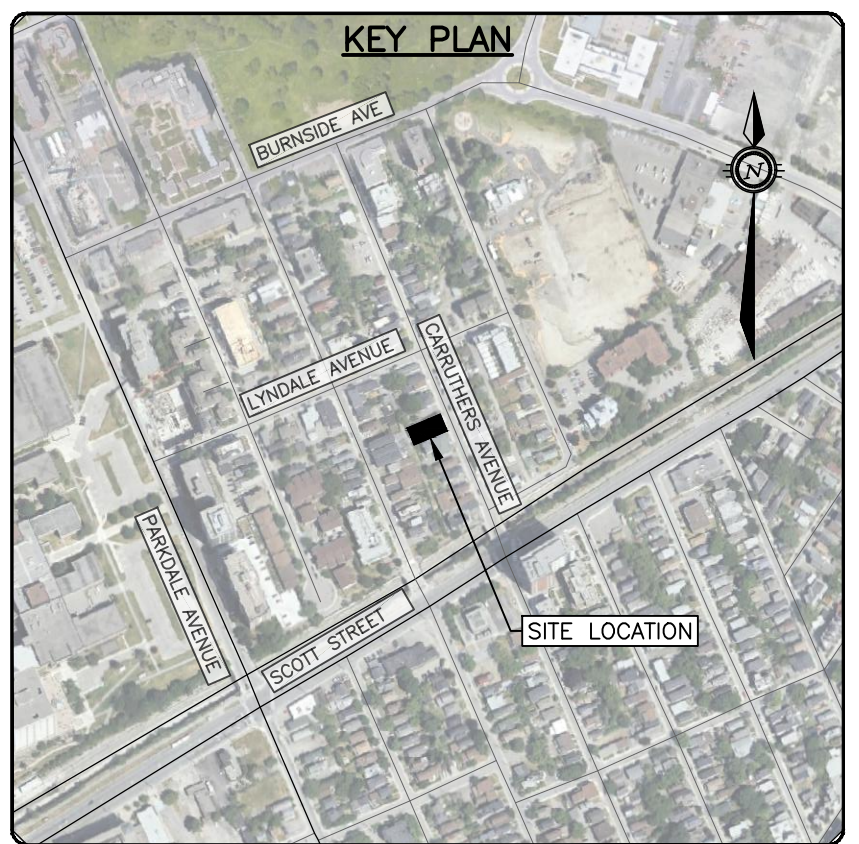
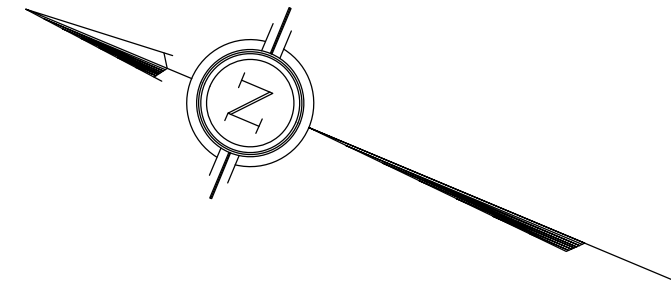
PROJECT
116 & 118 CARRUTHERS AVE
116 & 118 CARRUTHERS AVENUE
OTTAWA, ONTARIO.

NOTES & DETAILS

PROJECT No.
OTT-24006545-AD
SURVEY
ACV

DATE
01/03/2024

DRAWING No.
C001



STRUCTURE TABLE								
STRUCTURE NUMBER	TYPE	LID ELEV (m)	INVERT IN (m) and DIA (mm)	INVERT OUT (m) and DIA (mm)	STRUCTURE			
					SIZE	REFERENCE	FRAME	COVER
STMMH 1	STM	61.96	60.49 (200)	60.43 (200)	1200mmØ	OPSD 701.010	S25	S24.1
			60.49 (150)					
			60.49 (150)					
			60.49 (150)					
CB 01	STM	62.06	60.69 (200)	60.54 (200)	30"Ø	ADS Nyloplast Drain Basin		
CB 02	STM	61.53	60.69 (300)	60.54 (200)	30"Ø	ADS Nyloplast Drain Basin		
CICB 03	MUNI STM	61.81		60.66 (200)	600x600	OPSD 705.010	S22	S23

PROPOSED SEWER TABLE									
STRUCTURE		TYPE	INVERT ELEV (m)		NOMINAL DIA. (mm)	LENGTH (m)	Type	Class	Slope (%)
U/S	D/S		U/S	D/S					
BLDG	MUNI SAN	SAN	60.15	59.97	150	8.90	PVC	SDR 28	2.0%
C/IB 03	MUNI STM	STORM	63.36	60.27	200	4.94	PVC	SDR 28	2.0%
CB 01	STMHH 1	STORM	60.54	60.49	200	2.56	PVC	SDR 28	2.0%
BLDG (ROOF DRAIN)	STMHH 1	STORM	60.52	60.49	150	1.89	PVC	SDR 28	2.0%
BLDG (STM SUMP)	STMHH 1	STORM	60.53	60.49	150	1.98	PVC	SDR 28	2.0%
CB 02	STMHH 1	STORM	60.54	60.49	200	11.75	PVC	SDR 28	0.5%
STMHH 1	MUNI STM	STORM	60.43	60.29	200	7.90	PVC	SDR 28	2.0%
650mmX200mm REDUCER	CB 01	STORM	60.70	60.69	200	1.20	PVC	SDR 28	1.0%
650mmX200mm REDUCER	CB 02	STORM	60.70	60.69	200	1.16	PVC	SDR 28	1.0%
650mm END CAP	650mmX200mm REDUCER	STORM	60.72	60.70	650	6.50	ADS HP STORM DUAL WALL WATERTIGHT HDPE		0.3%
650mm END CAP	650mmX200mm REDUCER	STORM	60.73	60.70	650	8.20	ADS HP STORM DUAL WALL WATERTIGHT HDPE		0.3%

SEWER/SERVICE LATERALS CROSSING TABLE												
LOCATION	FINISHED GRADE (m)	SANITARY			STORM			WATER			CLEARANCES (mm)	COMMENTS
		INV ELEV (m)	DIA (mm)	OBV ELEV (m)	INV ELEV (m)	DIA (mm)	OBV ELEV (m)	INV ELEV (m)	DIA (mm)	OBV ELEV (m)		
1	61.82	59.73	250	59.98	60.30	200	60.50				318	Storm Service Crossing above Sanitary
2	61.76				60.317	200	60.52	59.26	100	59.36	957	Storm Service Crossing above Watermain
3	61.75	60.007	150	60.157				59.25	100	59.35	657	Sanitary Service Crossing above Watermain
4	61.95				60.49	200	60.69	59.45	100	59.55	940	Water Service Crossing below Storm
5	61.94	60.11	150	60.26				59.44	100	59.54	571	Water Service Crossing below Sanitary
6	61.75				60.32	200	60.52	59.25	100	59.35		CB Lead Crossing above Watermain
7	61.83	59.70	250	59.95	60.28	200	60.48				930	CB Lead Crossing above Sanitary

						3	RE-ISSUED FOR SPA	29/01/25	AGJ	AKJ
						2	ISSUED FOR SPA	23/10/24	AGJ	AKJ
						1	COORDINATION	24/09/24	AGJ	AKJ
REV	REVISION DESCRIPTION	DATE	BY	APPD	REV	REVISION DESCRIPTION	DATE	BY	APPD	

REVIEWED BY

LICENSED PROFESSIONAL ENGINEER

A. K. JARIWALA

100562090

2025/01/29

PROVINCE OF ONTARIO

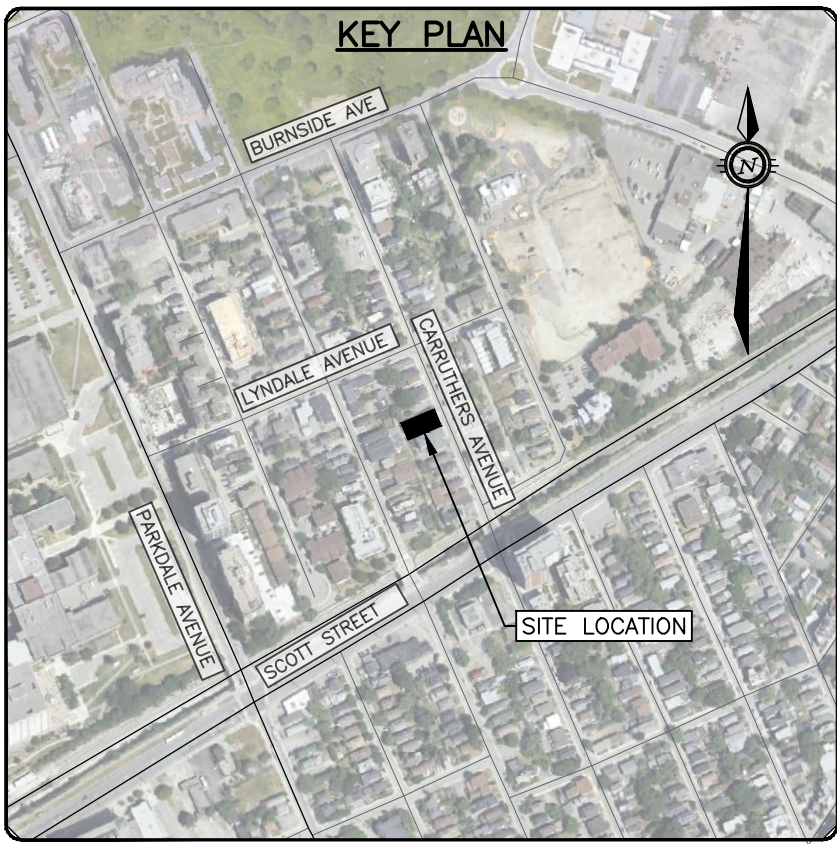
BASE PLAN	AGJ
DESIGN	AGJ
CHECKED	AKJ
CAD	AGJ
PROJECT MANAGER	AKJ
APPROVED	AA

116 & 118 CARRUTHERS AVE
116 & 118 CARRUTHERS AVENUE
OTTAWA, ONTARIO.

TITLE

SITE SERVICING PLAN

PROJECT No.	OTT-24006545-A
SURVEY	AOV
DATE	01/03/2024
DRAWING No.	C100



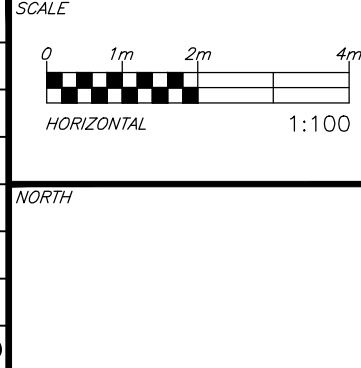
CAUTION

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ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM CITY OF OTTAWA
VERTICAL BENCH MARK MONUMENT NO. 3606, INDEX NO. 118
HAVING AN ELEVATION 67.236 METERS.

SITE BENCHMARKS 1 AND 2 ARE LOCATED ON HYDRO POLE AND
HYDRANT ON CARRUTHERS AS INDICATED ON PLAN.

						3	RE-ISSUED FOR SPA	29/01/25	AGJ	AKJ		
						2	ISSUED FOR SPA	23/10/24	AGJ	AKJ		
						1	COORDINATION	24/09/24	AGJ	AKJ		
REV	REVISION DESCRIPTION	DATE	BY	APPD	REV	REVISION DESCRIPTION	DATE	BY	APPD			

DESIGNED
BY

REVIEWED BY

LICENSED PROFESSIONAL ENGINEER

A. K. Jariwala

A. K. JARIWALA
100562090

2025/01/29

PROVINCE OF ONTARIO



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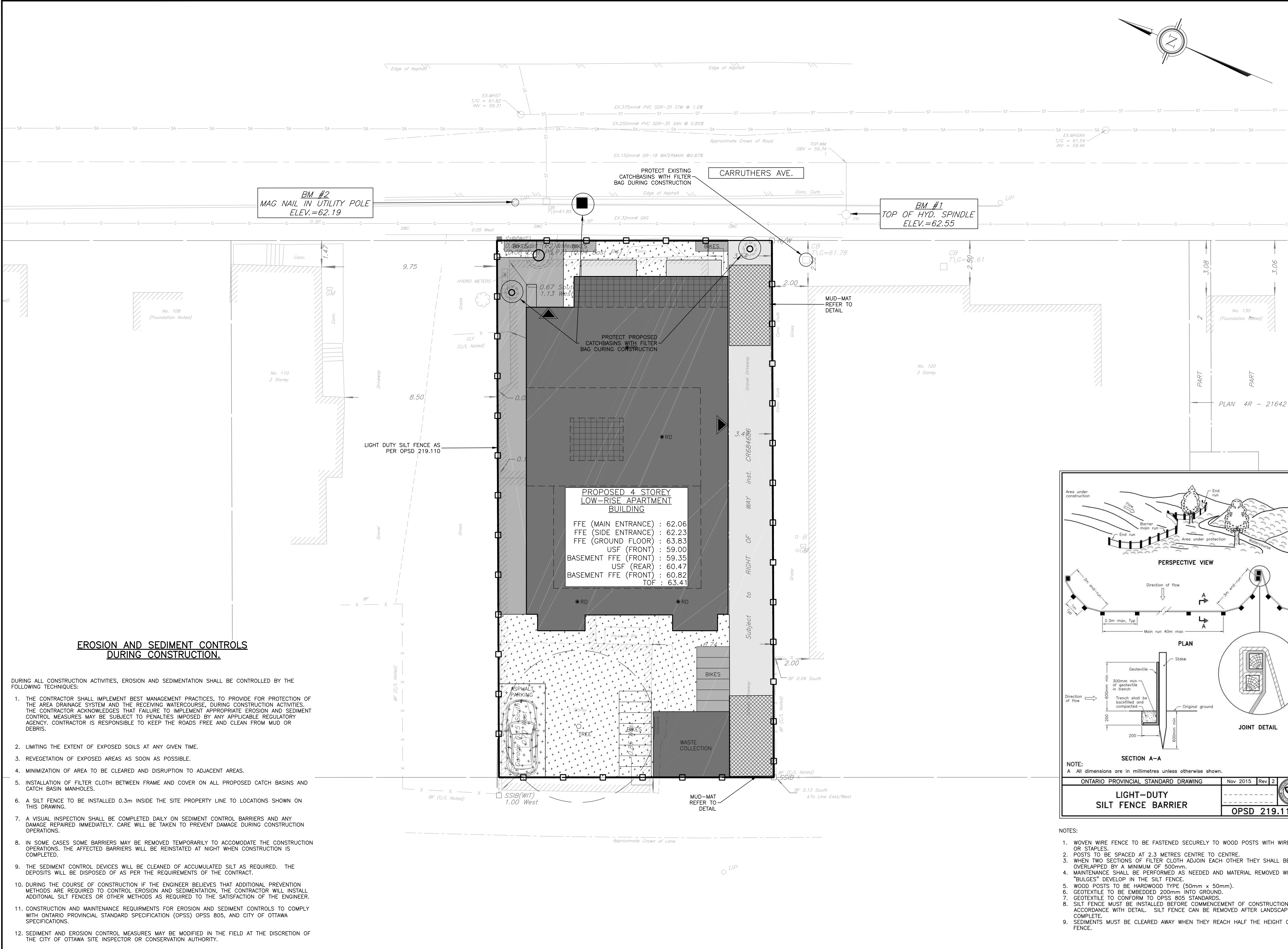
- BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
- INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

BASEPLAN	AGJ
DESIGN	AGJ
CHECKED	AKJ
CAD	AGJ
PROJECT MANAGER	AKJ
APPROVED	AA

PROJECT
116 & 118 CARRUTHERS AVE
116 & 118 CARRUTHERS AVENUE
OTTAWA, ONTARIO.

TITLE
SITE GRADING PLAN

PROJECT No.	OTT-24006545-
SURVEY	AOV
DATE	01/03/2024
DRAWING No.	C200



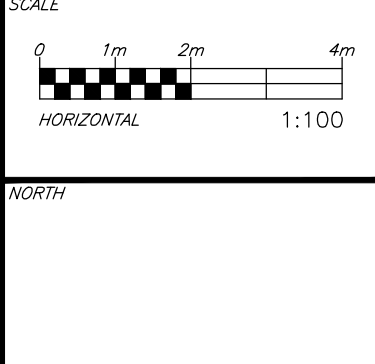
EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION.

- DURING ALL CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION SHALL BE CONTROLLED BY THE FOLLOWING TECHNIQUES:
1. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.
 2. LIMITING THE EXTENT OF EXPOSED SOILS AT ANY GIVEN TIME.
 3. REVEGETATION OF EXPOSED AREAS AS SOON AS POSSIBLE.
 4. MINIMIZATION OF AREA TO BE CLEARED AND DISRUPTION TO ADJACENT AREAS.
 5. INSTALLATION OF FILTER CLOTH BETWEEN FRAME AND COVER ON ALL PROPOSED CATCH BASINS AND CATCH BASIN MANHOLES.
 6. A SILT FENCE TO BE INSTALLED 0.3m INSIDE THE SITE PROPERTY LINE TO LOCATIONS SHOWN ON THIS DRAWING.
 7. A VISUAL INSPECTION SHALL BE COMPLETED DAILY ON SEDIMENT CONTROL BARRIERS AND ANY DAMAGE REPAIRED IMMEDIATELY. CARE WILL BE TAKEN TO PREVENT DAMAGE DURING CONSTRUCTION OPERATIONS.
 8. IN SOME CASES SOME BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE THE CONSTRUCTION OPERATIONS. THE AFFECTED BARRIERS WILL BE REINSTATED AT NIGHT WHEN CONSTRUCTION IS COMPLETED.
 9. THE SEDIMENT CONTROL DEVICES WILL BE CLEANED OF ACCUMULATED SILT AS REQUIRED. THE DEPOSITS WILL BE DISPOSED OF AS PER THE REQUIREMENTS OF THE CONTRACT.
 10. DURING THE COURSE OF CONSTRUCTION IF THE ENGINEER BELIEVES THAT ADDITIONAL PREVENTION METHODS ARE REQUIRED TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR WILL INSTALL ADDITIONAL SILT FENCES OR OTHER METHODS AS REQUIRED TO THE SATISFACTION OF THE ENGINEER.
 11. CONSTRUCTION AND MAINTENANCE REQUIREMENTS FOR EROSION AND SEDIMENT CONTROLS TO COMPLY WITH ONTARIO PROVINCIAL STANDARD SPECIFICATION (OPSS) OPSS 805, AND CITY OF OTTAWA SPECIFICATIONS.
 12. SEDIMENT AND EROSION CONTROL MEASURES MAY BE MODIFIED IN THE FIELD AT THE DISCRETION OF THE CITY OF OTTAWA SITE INSPECTOR OR CONSERVATION AUTHORITY.

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SITE BENCHMARKS 1 AND 2 ARE LOCATED ON HYDRO POLE AND HYDRANT ON CARRUTHERS AS INDICATED ON PLAN.

REV	REVISION DESCRIPTION	DATE	BY	APPD	REV	REVISION DESCRIPTION	DATE	BY	APPD
					2	RE-ISSUED FOR SPA	29/01/25	AGJ	AKJ
					1	ISSUED FOR SPA	23/10/24	AGJ	AKJ



DESIGNED BY
A. K. JARIWALA
100562090
2025/01/29
PROVINCE OF ONTARIO

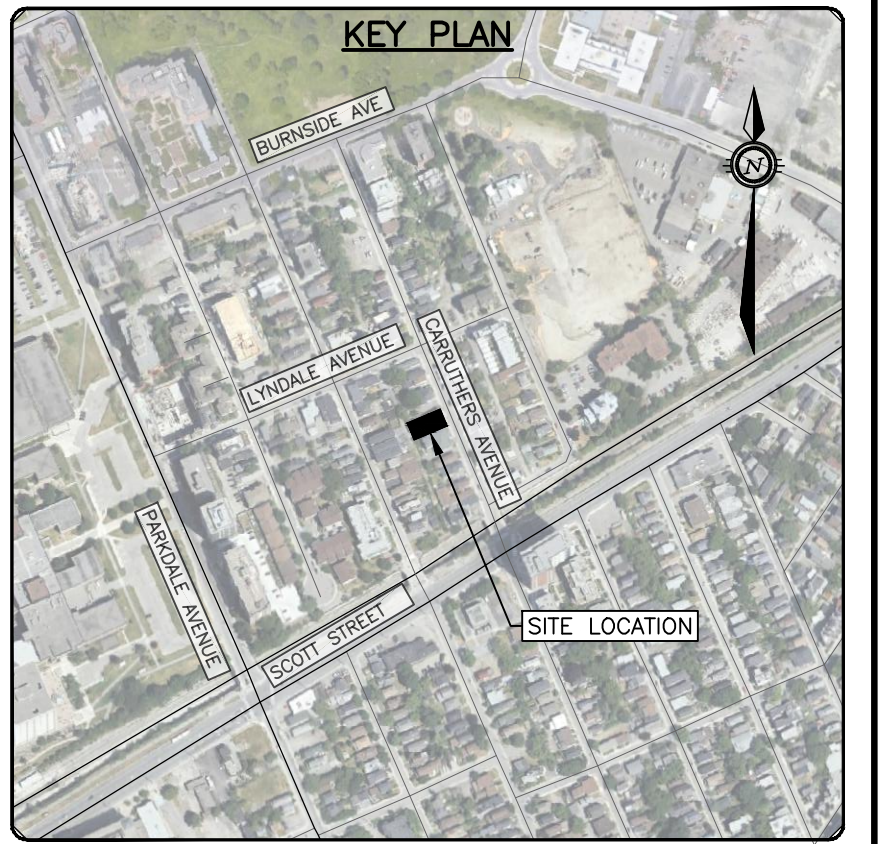


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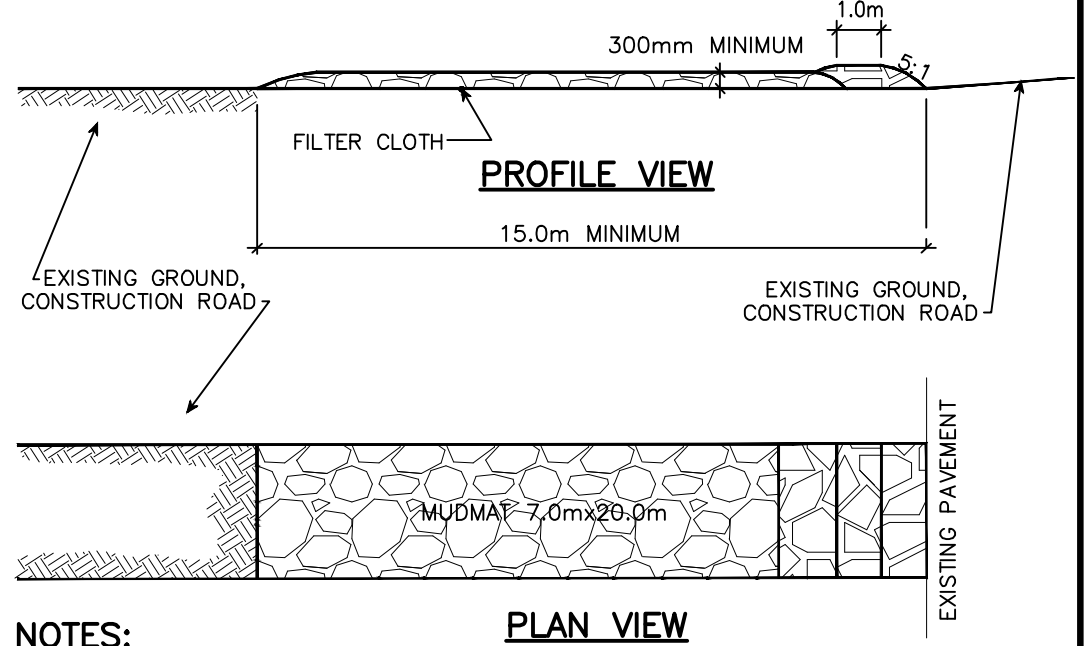
BASEPLAN	AGJ	PROJECT	116 & 118 CARRUTHERS AVE 116 & 118 CARRUTHERS AVENUE OTTAWA, ONTARIO.	PROJECT No. OTT-24006545-AD
DESIGN	AGJ	CHECKED	AKJ	ADV
CAD	AGJ	PROJECT MANAGER	AKJ	DATE 01/03/2024
APPROVED	AA			DRAWING No. C300
EROSION AND SEDIMENT CONTROL PLAN				



LEGEND

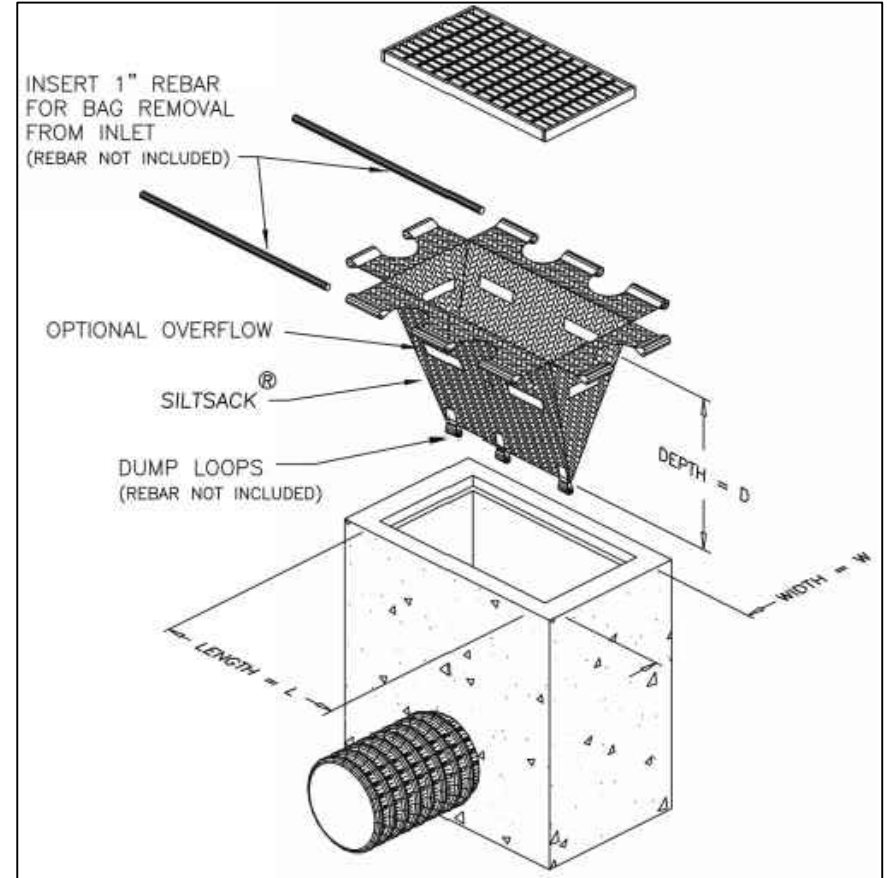
--- PROPERTY LINE

--- SILT FENCE

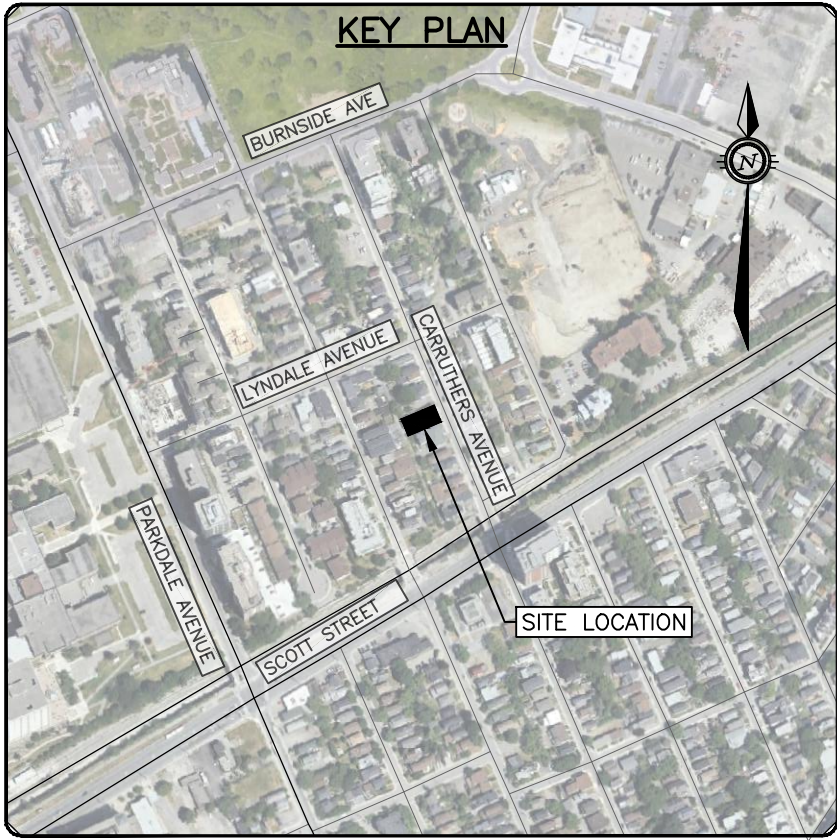
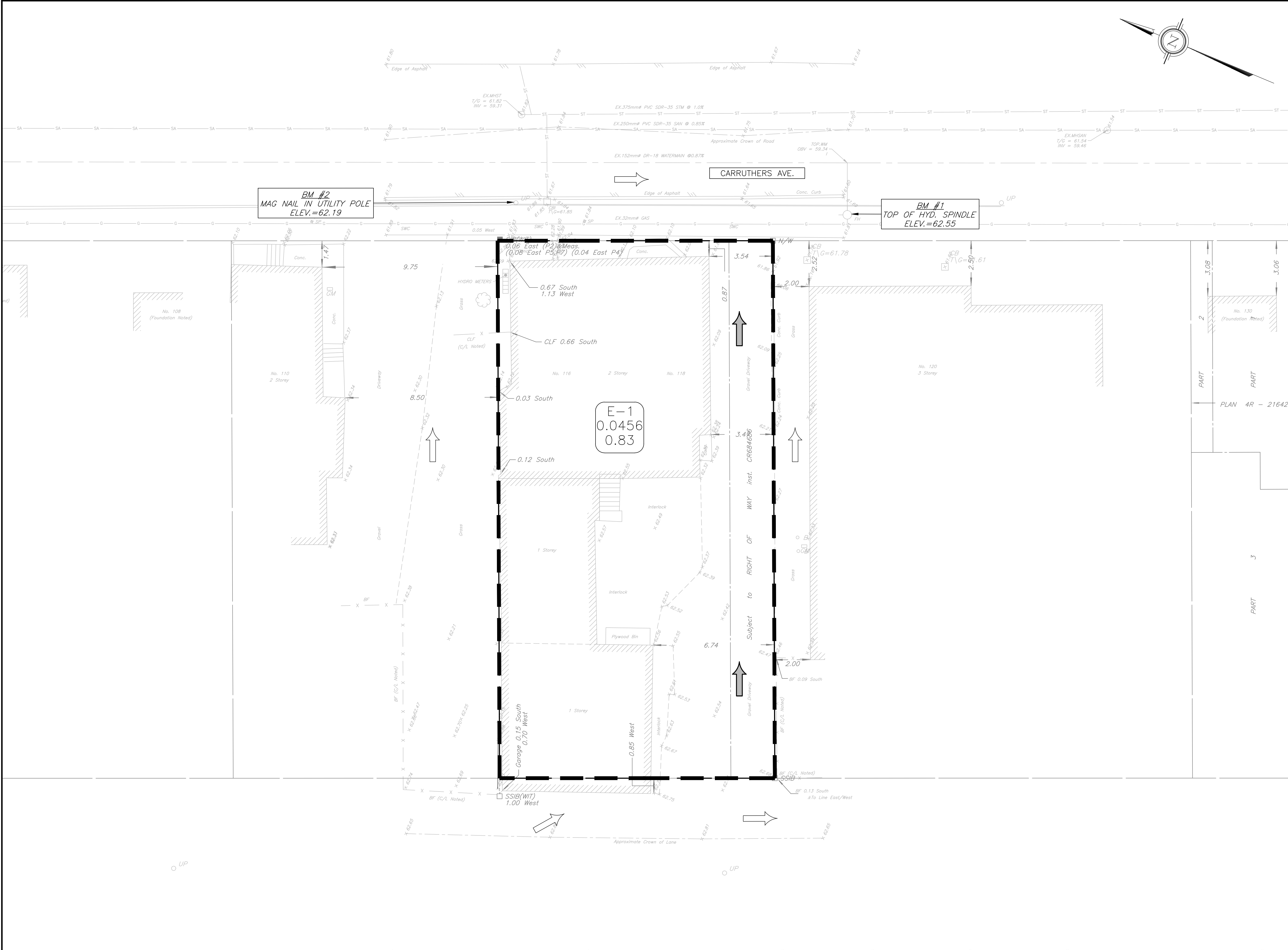


- NOTES:**
1. STONE - USE CLEAR CRUSHED 100mm STONE.
 2. LENGTH - AS REQUIRED BUT NOT LESS THAN 15.0m.
 3. THICKNESS - NOT LESS THAN 300mm.
 4. WIDTH - 7.0m MINIMUM, NOT LESS THAN THE WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
 5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
 6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
 7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

MUD MAT DETAIL
N.T.S



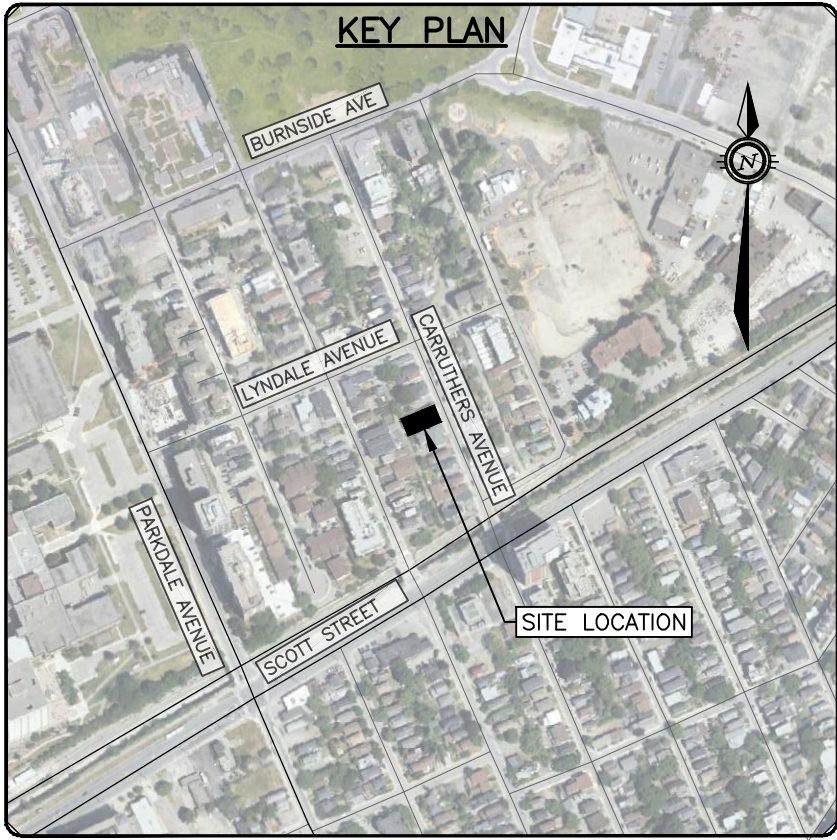
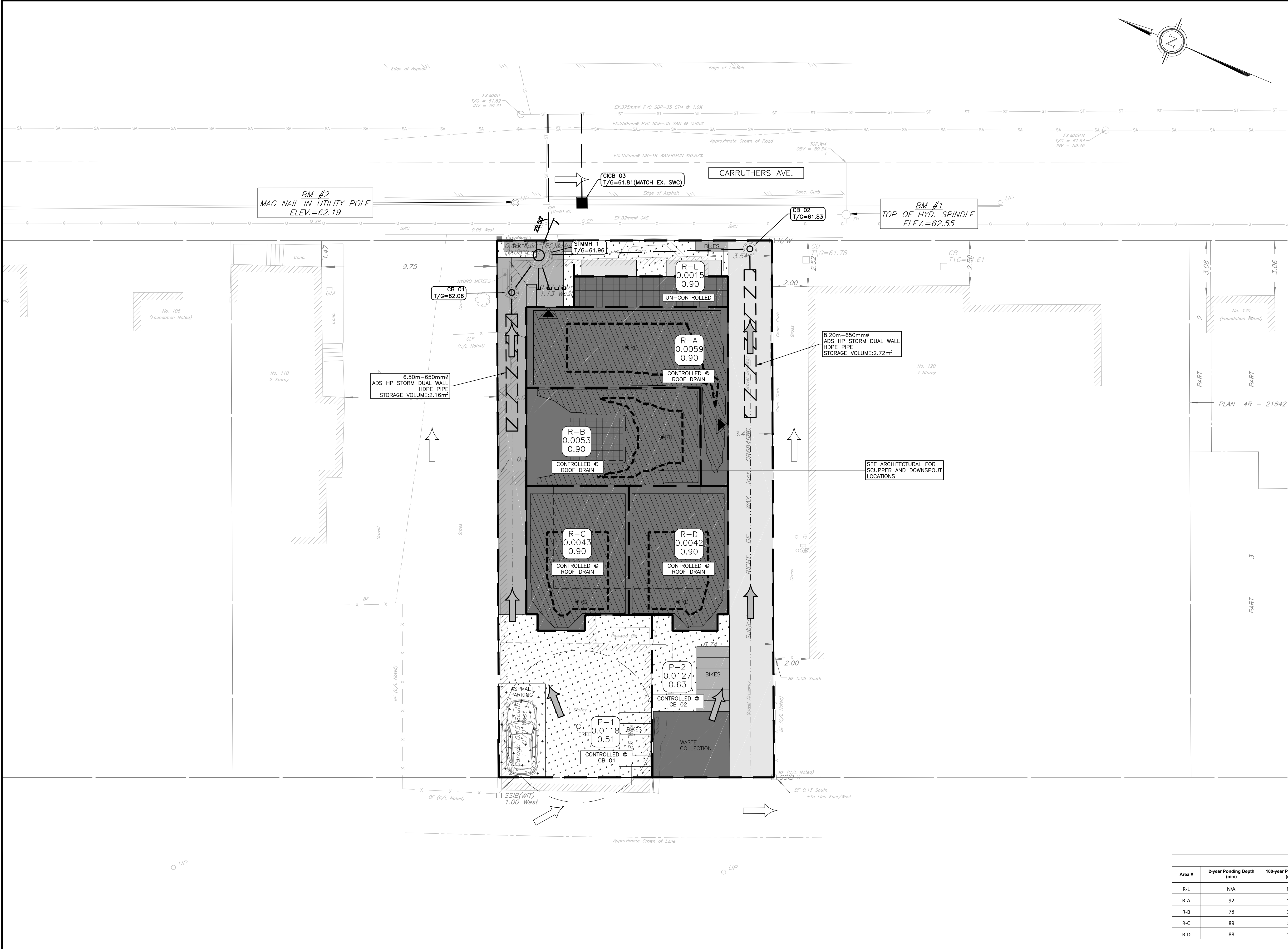
EROSION AND SEDIMENT CONTROL PLAN



LEGEND

- PROPERTY LINE
- ONSITE OVERLAND FLOW ROUTE
- EXTERNAL OVERLAND FLOW ROUTE
- AREA NO. 0.184, 0.79
- AREA IN HECTARES
- RUNOFF COEFFICIENT
- CATCHMENT AREA

CAUTION 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.				ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM CITY OF OTTAWA VERTICAL BENCH MARK MONUMENT NO. 3606, INDEX NO. 118 HAVING AN ELEVATION 67.236 METERS. SITE BENCHMARKS 1 AND 2 ARE LOCATED ON HYDRO POLE AND HYDRANT ON CARRUTHERS AS INDICATED ON PLAN.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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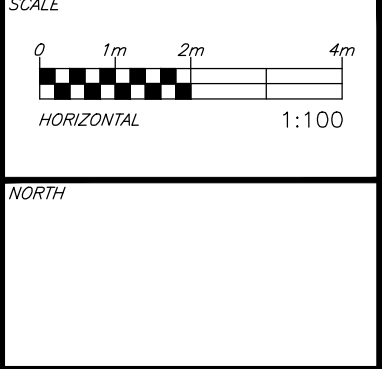
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R-B	78	138	WATTS ACCUTROL	1	1/4 Open	0.91
R-C	89	147	WATTS ACCUTROL	1	Closed	0.32
R-D	88	146	WATTS ACCUTROL	1	Closed	0.32

CAUTION
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.

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM CITY OF OTTAWA VERTICAL BENCH MARK MONUMENT NO. 3606, INDEX NO. 118 HAVING AN ELEVATION 67.236 METERS.
SITE BENCHMARKS 1 AND 2 ARE LOCATED ON HYDRO POLE AND HYDRANT ON CARRUTHERS AS INDICATED ON PLAN.

REV	REVISION DESCRIPTION	DATE	BY	APPD	REV	REVISION DESCRIPTION	DATE	BY	APPD
2	RE-ISSUED FOR SPA	29/01/25	AGJ	AKJ					
1	ISSUED FOR SPA	23/10/24	AGJ	AKJ					



DESIGNED BY
A. K. JARIWALA
100562090
2025/01/29
PROVINCE OF ONTARIO

REVIEWED BY
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100562090
2025/01/29
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PROJECT MANAGER
AKJ
APPROVED
AA

PROJECT
116 & 118 CARRUTHERS AVE
116 & 118 CARRUTHERS AVENUE
OTTAWA, ONTARIO.
POST-DEVELOPMENT
CONDITIONS

PROJECT No.
OTT-24006545-AD
SURVEY
AOV
DATE
01/03/2024
DRAWING No.
C500