

**NOTES: GENERAL**

- DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND LANDSCAPE DRAWINGS
- ALL SERVICES, MATERIALS, CONSTRUCTION METHODS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND REGULATIONS OF THE CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS, ONTARIO PROVINCIAL SPECIFICATION STANDARD SPECIFICATION (OPSS) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), UNLESS OTHERWISE SPECIFIED, TO THE SATISFACTION OF THE CITY AND THE CONSULTANT
- THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES, STRUCTURES AND APPURTENANCES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SATISFY HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM DURING THE COURSE OF CONSTRUCTION. ANY RELOCATION OF EXISTING UTILITIES REQUIRED BY THE DEVELOPMENT OF SUBJECT LANDS IS TO BE UNDERTAKEN AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR MUST NOTIFY ALL EXISTING UTILITY COMPANY OFFICIALS FIVE (5) BUSINESS DAYS PRIOR TO START OF CONSTRUCTION AND HAVE ALL EXISTING UTILITIES AND SERVICES LOCATED IN THE FIELD OR EXPOSED PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO POWER, COMMUNICATION AND GAS LINES.
- ALL TRENCHING AND EXCAVATIONS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS AND AS PER THE RECOMMENDATIONS INCLUDED IN THE GEOTECHNICAL REPORT.
- REFER TO ARCHITECTS PLANS FOR BUILDING DIMENSIONS, LAYOUT AND REMOVALS REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION. ALL INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- TOPOGRAPHIC SURVEY COMPLETED AND PROVIDED BY ANNIS O'SULLIVAN VOLLEBEK LTD. DATED ON JULY 16, 2021. CONTRACTOR TO VERIFY IN THE FIELD PRIOR TO CONSTRUCTION OF ANY WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. VERIFY THAT JOB BENCHMARKS HAVE NOT BEEN ALTERED OR DISTURBED.
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A HEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM.
- ALL DISTURBED AREAS OUTSIDE PROPOSED GRADING LIMITS TO BE RESTORED TO ORIGINAL ELEVATIONS AND CONDITIONS UNLESS OTHERWISE SPECIFIED. ALL RESTORATION SHALL BE COMPLETED WITH THE GEOTECHNICAL REQUIREMENTS FOR BACKFILL AND COMPACTION.
- ABUTTING PROPERTY GRADES TO BE MATCHED UNLESS OTHERWISE SHOWN.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION, INCLUDING WATER PERMIT AND ROAD CUT PERMIT.
- MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS.
- AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PREISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
- CONTRACTOR TO OBTAIN POST-CONSTRUCTION TOPOGRAPHIC SURVEY, COMPLETED BY OLS OR P.ENG CONFIRMING COMPLIANCE WITH DESIGN GRADING AND SERVICING. SURVEY IS TO INCLUDE LOCATION AND INVERTS FOR BURIED UTILITIES.
- ABIDE BY RECOMMENDATIONS OF GEOTECHNICAL REPORT. REPORT ANY VARIATIONS IN OBSERVED CONATIONS FROM THOSE INCLUDED IN REPORT.
- REPORT REFERENCES
  - SERVICING REPORT - QUINN'S POINTE STAGE 2, PREPARED BY IBI GROUP/J.L. RICHARDS & ASSOCIATES LIMITED, PROJ. NO. 27970-5.2.2, APRIL 9, 2019
  - GEOTECHNICAL INVESTIGATION, PREPARED BY PATERSON GROUP, PROJ. NO. PG4748-1, NOVEMBER 2, 2019
- PROVIDE CCTV INSPECTION REPORT FOR ALL SEWERS AND CATCHBASIN LEADS 200mm DIAMETER AND LARGER. REPEAT CCTV INSPECTION FOLLOWING RECTIFICATION OF ANY DEFICIENCIES.

**NOTES: EROSION AND SEDIMENT CONTROL**

\*\* CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MONITORING, REPAIR AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL FEATURES. \*\*

- PRIOR TO START OF CONSTRUCTION:
  - INSTALL SILT FENCE IN LOCATION SHOWN ON DWG C12.
  - INSTALL FILTER FABRIC OR SILT SACK FILTERS IN ALL THE CATCHBASINS AND MANHOLES TO REMAIN DURING CONSTRUCTION WITHIN THE SITE (SEE TYPICAL DETAIL).
  - INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.
- DURING CONSTRUCTION:
  - MINIMIZE THE EXTENT OF DISTURBED AREAS AND THE DURATION OF EXPOSURE AND IMPACTS TO EXISTING GRADING.
  - PERIMETER VEGETATION TO REMAIN IN PLACE UNTIL PERMANENT STORM WATER MANAGEMENT IS IN PLACE. OTHERWISE, IMMEDIATELY INSTALL SILT FENCE WHEN THE EXISTING SITE IS DISTURBED AT THE PERIMETER.
  - PROTECT DISTURBED AREAS FROM OVERLAND FLOW BY PROVIDING TEMPORARY SWALES TO THE SATISFACTION OF THE FIELD ENGINEER. TIE-IN TEMPORARY SWALE TO EXISTING CB'S AS REQUIRED.
  - PROVIDE TEMPORARY COVER SUCH AS SEEDING OR MULCHING IF DISTURBED AREA WILL NOT BE REHABILITATED WITHIN 30 DAYS.
  - INSPECT SILT FENCES, FILTER FABRIC FILTERS AND CATCH BASIN SUMP WEEKLY AND WITHIN 24 HOURS AFTER A STORM EVENT. CLEAN AND REPAIR WHEN NECESSARY.
  - DRAWING TO BE REVIEWED AND REVISED AS REQUIRED DURING CONSTRUCTION. EROSION CONTROL FENCING TO BE ALSO INSTALLED AROUND THE BASE OF ALL STOCKPILES.
  - DO NOT LOCATE TOPSOIL PILES AND EXCAVATION MATERIAL CLOSER THAN 2.5m FROM ANY PAVED SURFACE, OR ONE WHICH IS TO BE PAVED BEFORE THE PILE IS REMOVED. ALL TOPSOIL PILES ARE TO BE SEEDDED IF THEY ARE TO REMAIN ON SITE LONG ENOUGH FOR SEEDS TO GROW (LONGER THAN 30 DAYS).
  - CONTROL WIND-BLOWN DUST OFF SITE BY SEEDING TOPSOIL PILES AND OTHER AREAS TEMPORARILY (PROVIDE WATERING AS REQUIRED AND TO THE SATISFACTION OF THE ENGINEER).
  - NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE FIELD ENGINEER.
  - CITY ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM VEHICULAR TRACKING AS REQUIRED.
  - DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPPED.
  - ANY MUD/MATERIAL TRACKED ONTO THE ROAD SHALL BE REMOVED IMMEDIATELY BY HAND OR RUBBER TIRE LOADER.
  - TAKE ALL NECESSARY STEPS TO PREVENT BUILDING MATERIAL, CONSTRUCTION DEBRIS OR WASTE BEING SPILLED OR TRACKED ONTO ABUTTING PROPERTIES OR PUBLIC STREETS DURING CONSTRUCTION AND PROCEED IMMEDIATELY TO CLEAN UP ANY AREAS SO AFFECTED.
  - ALL EROSION CONTROL STRUCTURE TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN STABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER.
  - 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.

**NOTES: WATERMAIN**

- ALL WATERMAIN AND WATERMAIN APPURTENANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS.
- ALL WATERMAIN 300mm DIAMETER AND SMALLER TO BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 18 MEETING AWWA SPECIFICATION C900.
- ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE WATERMANS CROSS OVER OTHER UTILITIES, A MINIMUM 0.30m CLEARANCE SHALL BE MAINTAINED; WHERE WATERMANS CROSS UNDER OTHER UTILITIES, A MINIMUM 0.50m CLEARANCE SHALL BE MAINTAINED. WHERE THE MINIMUM SEPARATION CANNOT BE ACHIEVED, THE WATERMAIN SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W25 AND W25.2. WHERE 2.4m MINIMUM DEPTH CANNOT BE ACHIEVED, THERMAL INSULATION SHALL BE PROVIDED AS PER CITY OF OTTAWA STANDARD W22. WHERE A WATERMAIN IS IN CLOSE PROXIMITY TO AN OPEN STRUCTURE, THERMAL INSULATION SHALL BE PROVIDED AS PER CITY OF OTTAWA STANDARD W23.
- CONCRETE THRUST BLOCKS AND MECHANICAL RESTRAINTS ARE TO BE INSTALLED AT ALL TEES, BENDS, HYDRANTS, REDUCERS, ENDS OF MAINS AND CONNECTIONS 100mm AND LARGER, IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25.3 & W25.4.
- CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 & W42.
- ALL VALVES AND VALVE BOXES AND CHAMBERS, HYDRANTS, AND HYDRANT VALVES AND ASSEMBLES SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARD
- FIRE HYDRANT LOCATION AND INSTALLATION AS PER CITY OF OTTAWA STANDARD W18 & W19. CONTRACTOR TO PROVIDE FLOW TEST AND PAINTING OF NEW HYDRANT IN ACCORDANCE WITH CITY STANDARDS.
- IF WATER MAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
- REFER TO LANDSCAPE DRAWINGS FOR IRRIGATION SYSTEM REQUIREMENTS

**NOTES: SANITARY SEWER AND MANHOLES**

- ALL SANITARY SEWER, SANITARY SEWER APPURTENANCES AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. PROVIDE CCTV INSPECTION REPORTS FOR ALL NEW SANITARY PIPING. PROVIDE DYE TESTING FOR NEW SERVICES.
- SANITARY SEWER PIPE SIZE 150mm DIAMETER AND GREATER TO BE PVC SDR-35 (UNLESS SPECIFIED OTHERWISE) WITH RUBBER GASKET TYPE JOINTS IN CONFORMANCE WITH CSA B-182.3.4.
- SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
- ALL SANITARY MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01. FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24.
- MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES AS PER THE OPSD 701.021

**NOTES: PARKING LOT AND WORK IN PUBLIC RIGHTS OF WAY**

- CONTRACTOR TO REINSTATE ROAD CUTS AS PER CITY OF OTTAWA DETAIL R10.
- CONTRACTOR TO PREPARE SUBGRADE, INCLUDING PROOFROLLING, TO THE SATISFACTION OF THE GEOTECHNICAL CONSULTANT PRIOR TO THE COMMENCEMENT OF PLACEMENT OF GRANULAR B MATERIAL.
- FILL TO BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT REQUIREMENTS.
- CONTRACTOR TO SUPPLY, PLACE AND COMPACT GRANULAR B MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL CONSULTANT. CONTRACTOR TO PROVIDE CONSULTANT WITH SAMPLES OF GRANULAR B MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL CONSULTANT THAT THE MATERIAL MEETS THE GRADATION REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.
- GRANULAR A MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL CONSULTANT OF GRANULAR B PLACEMENT.
- CONTRACTOR TO SUPPLY, PLACE AND COMPACT GRANULAR A MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL CONSULTANT. CONTRACTOR TO PROVIDE CONSULTANT WITH SAMPLES OF GRANULAR A MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL CONSULTANT THAT THE MATERIAL MEETS THE GRADATION REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.
- ASPHALT MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL CONSULTANT OF GRANULAR A PLACEMENT.
- CONTRACTOR TO SUPPLY, PLACE AND COMPACT ASPHALT MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL CONSULTANT. CONTRACTOR TO PROVIDE CONSULTANT WITH SAMPLES OF ASPHALT MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL CONSULTANT THAT THE MATERIAL MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.
- CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING LINE AND GRADE IN ACCORDANCE WITH THE PLANS, AND FOR PROVIDING THE CONSULTANT WITH VERIFICATION PRIOR TO PLACEMENT.
- ALL EXCESS MATERIAL TO BE HAULED OFFSITE AND DISPOSED OF AT AN APPROVED DUMP SITE. SHOULD THE CONTRACTOR DISCOVER ANY HAZARDOUS MATERIAL, CONTRACTOR IS TO NOTIFY CONSULTANT. CONSULTANT TO DETERMINE APPROPRIATE DISPOSAL METHODOLOGY.
- PAVEMENT STRUCTURE (MATERIAL TYPES AND THICKNESS) FOR HEAVY DUTY, LIGHT DUTY AND BASKETBALL COURT AREAS TO BE AS SPECIFIED IN THE GEOTECHNICAL REPORT AND SHOWN ON THE PLANS.

PAVEMENT STRUCTURE - BUS ACCESS LANES		
COURSE	MATERIAL	THICKNESS
SURFACE	HL3 OR SUPERPAVE 12.5 AC	40 mm
BINDER	HL8 OR SUPERPAVE 19.0 AC	50 mm
BASECOURSE	OPSS GRANULAR 'A'	150 mm
SUBBASE	OPSS GRANULAR 'B' TYPE II	400 mm

PAVEMENT STRUCTURE - PARKING AREAS		
COURSE	MATERIAL	THICKNESS
SURFACE	HL3 OR SUPERPAVE 12.5 AC	50 mm
BASECOURSE	OPSS GRANULAR 'A'	150 mm
SUBBASE	OPSS GRANULAR 'B' TYPE II	300 mm

FOOTBALL/SOCCER FIELD		
COURSE	MATERIAL	THICKNESS
SURFACE	TOPSOIL	200 mm
BASECOURSE	SAND BLANKET	150 mm
SUBBASE	OPSS GRANULAR 'B' TYPE II	300 mm

**NOTES: STORM SEWERS AND STRUCTURES**

- ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. PROVIDE CCTV INSPECTION REPORTS FOR ALL NEW STORM SEWERS, SERVICES AND CB LEADS.
- STORM SEWERS 450mm DIAMETER AND SMALLER SHALL BE PVC SDR-35, WITH RUBBER GASKET PER CSA A-257.3.
- STORM SEWER LARGER THAN 450mm SHALL BE REINFORCED CONCRETE CLASS 100.
- SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
- ALL STORM MANHOLES TO BE AS PER STORM STRUCTURE TABLE ON DRAWING C02.
- ANY NEW OR EXISTING STORM SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR APPROVED BY THE ENGINEER. ADD INSULATION ABOVE EXISTING STORM SEWER BETWEEN CBMH109 AND CB14.
- CB IN LANDSCAPE AREAS SHALL BE AS PER CITY OF OTTAWA STANDARD S29, S30 AND S31.
- ALL CATCHBASIN LEADS TO BE MINIMUM 200mm DIAMETER AT MINIMUM 1.0% SLOPE UNLESS OTHERWISE SPECIFIED.
- STORM CATCHBASINS AS PER OPSD 705.010 AND FRAME/COVER AS PER CITY STANDARD DRAWINGS S19. STORM CBMH'S AS INDICATED IN TABLE WITH SUMP. ADJUSTMENT SECTIONS SHALL BE AS PER OPSD 704.010.
- BACKWATER VALVES FOR BUILDING SERVICES ARE TO BE PROVIDED AS PER CITY OF OTTAWA STANDARD S14 FOR STORM AND S14.1 FOR SANITARY.
- INSTALLATION OF FLOW CONTROL ICDS TO BE VERIFIED BY QUALITY VERIFICATION ENGINEER RETAINED BY CONTRACTOR.

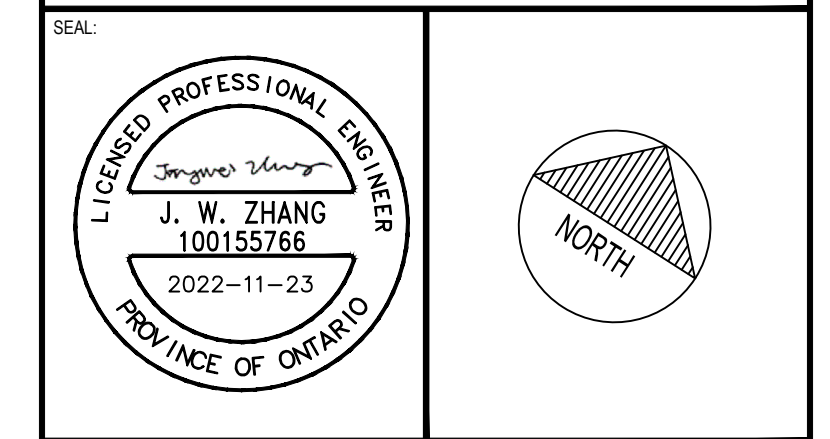
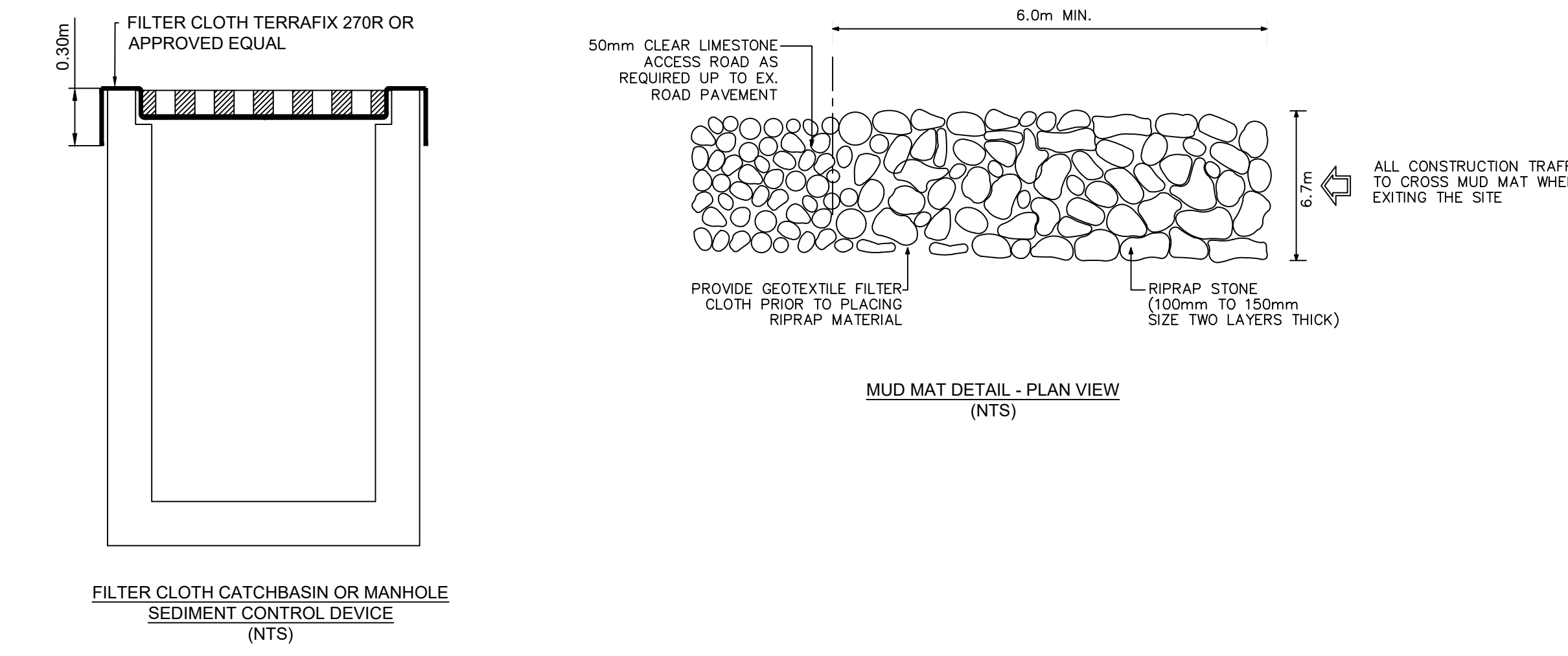
**LEGEND:**



**APPROVED**  
By Lily Xu at 12:12 pm, Nov 30, 2022

*Lily Xu*

**LILY XU, MCIP, RPP**  
MANAGER, DEVELOPMENT REVIEW SOUTH  
PLANNING, INFRASTRUCTURE & ECONOMIC  
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



CLIENT: CEPEO BARRHAVEN  
MANOTICK ELEMENTARY SCHOOL



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ISSUED FOR - REVISION	DATE	DESCRIPTION
6	23 NOV 2022	SITE PLAN UPDATED
5	26 SEPT 2022	ISSUED FOR CONSTRUCTION
4	06 SEPT 2022	REVISED GRADING FOR NEW ROW
3	25 JUL 2022	REVISED AS PER CITY COMMENTS
2	13 APR 2022	ISSUED FOR SPA
1	21 MAR 2022	ISSUED FOR BID AND PERMIT

PROJECT NO: 219-00014-01  
ORIGINAL SCALE: 1:400  
DESIGNED BY: JZ  
DRAWN BY: JT  
CHECKED BY: JZ

DATE: JULY 2022

IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.

DISCIPLINE: CIVIL

TITLE: NOTES AND DETAILS

SHEET NUMBER: C01

SHEET # 1 OF 6

ISSUE: REISSUED FOR SPA

DATE OF: 2022-11-23

REV # 0

STORM STRUCTURE AND ICD DATA TABLE													
STRUCTURE ID	AREA ID	SIZE	STRUCTURE	COVER	TOP OF GRATE	INVERT			DIAMETER (mm)	TYPE	HEAD (m)	FLOW (l/s)	ICD TYPE
						INLET	INLET	OUTLET					
CEPEO BARRHAVEN MANOTICK ELEMENTARY SCHOOL													
CBMH1	S-5	1200mm DIA.	OPSD 701.010	S28.1	103.84	101.370	101.190	375	PVC SDR-35				
CBMH2	S-7	1200mm DIA.	OPSD 701.010	S28.1	103.84	101.060	100.980	450	CONC. CL 100-D				
CBMH3	S-10	1200mm DIA.	OPSD 701.010	S28.1	104.20	102.000	101.450	100.830	100.750	525	CONC. CL 100-D		
CBMH4	S-11	1200mm DIA.	OPSD 701.010	S28.1	103.90			100.590	100.550	525	CONC. CL 100-D		
CBMH5	S-14	1200mm DIA.	OPSD 701.010	S28.1	103.90	101.300	100.400	100.360	525	CONC. CL 100-D	3.54	255	250 mm
STM MH1		1200mm DIA.	OPSD 701.010	S24.1	104.10	100.270	99.800	525	CONC. CL 100-D				
STM MH2		1500mm DIA.	OPSD 701.011	S24.1	104.11	101.480	99.550	99.480	600	CONC. CL 100-D			
CB1	S-3	600X600mm	OPSD 705.010	S19.1	103.75			101.470	200	PVC SDR-35			
CB2	S-4	600X600mm	OPSD 705.010	S19.1	103.95			101.670	200	PVC SDR-35			
CB3	S-6	600X600mm	OPSD 705.010	S19.1	103.84			101.490	250	PVC SDR-35			
CB4	S-8	600X600mm	OPSD 705.010	S19.1	103.90			101.400	200	PVC SDR-35			
CB5	S-9	600X600mm	OPSD 705.010	S19.1	104.20			101.900	200	PVC SDR-35			
CB6	S-13	600X600mm	OPSD-400.083	S19.1	106.35			104.700	250	PVC SDR-35			
ECB1	S-12	300mm DIA.	S30	S30	106.35			105.300	250	HDPE			
TCB2	S-13	300mm DIA.	S30	S30	106.35			104.990	250	HDPE			

SAN STRUCTURE TABLE								
STRUCTURE ID	TOP OF GRATE ELEVATION	INVERT			DESCRIPTION	SIZE	OPSD	COVER
		INLET	INLET	OUTLET				
SAMMH1	103.67		101.170	99.920	1200mm DIA.	OPSD-701.010	S24	

PIPE CROSSING TABLE								
1	150mmØ PVC WM	Invert		1.230	Clearance Under	Obvert		250mmØ HDPE STM
		103.700	103.850			105.080	105.330	
2	150mmØ PVC WM	101.800	101.950	0.630	Clearance Above	100.640	101.170	525mmØ CONC STM
3	150mmØ PVC WM	101.200	101.350	0.970	Clearance Above	99.700	100.230	525mmØ CONC STM
4	200mmØ PVC WM	101.330	101.530	1.160	Clearance Above	99.640	100.170	525mmØ CONC STM
5	200mmØ PVC SAN	101.400	101.600	1.310	Clearance Above	99.560	100.090	525mmØ CONC STM

WATERMAIN SCHEDULE					
STATION	DESCRIPTION	FINISHED GRADE	TOP OF WATERMAIN	AS-BUILT WATERMAIN	COVER
150mm W/M Looping					
0+000	45° Bend Connect to EX.WM	103.770	101.000	101.000	2.770
0+001.81	45° Bend	103.870	101.000		2.870
0+014.32	200 x 200 TEE	103.930	101.270		2.660
0+014.78	200mm VB	103.940	101.270		2.670
0+015.73	200 x 200 Tee	103.950	101.270		2.680
0+017.41	200 x 150 Reducer	103.970	101.300		2.670
0+022.93	45° Bend	104.030	101.400		2.630
0+030.68	45° Bend	104.280	101.500		2.780
0+070.96	Crossing 525mmØ CONC STM	104.320	101.870		2.450
0+089.12	150 x 150 TEE	104.710	102.250		2.460
0+175.16	Crossing 250mmØ HDPE STM	106.300	103.850		2.450
0+180.28	150mm VB	107.280	104.330		2.950
0+188.72	300 x 150 TEE Connect to EX. 305mmØ W/M	107.640	105.120	105.120	2.520
From 200x200 TEE TO PROPOSED BUILDING					
1+000	200 x 200 TEE	103.930	101.270		2.660
1+005.17	200mm VB	104.280	101.710		2.570
1+006.22	WATER CAP	104.340	101.800		2.540
From 200x200 TEE TO PROPOSED BUILDING					
2+000	200 x 200 TEE	104.280	101.500		2.780
2+005.17	200mm VB	104.280	101.710		2.570
2+006.22	WATER CAP	104.340	101.800		2.540
From 150x150 TEE TO PROPOSED FIRE HYDRANT					
3+000	150X150 TEE	104.710	102.200		2.510
3+005.33	150mm GV	104.690	102.200		2.490
3+006.36	FIRE HYDRANT	104.680	102.200		2.480

APPROVED  
By Lily Xu at 12:12 pm, Nov 30, 2022

*Lily Xu*  
LILY XU, MCIP, RPP  
MANAGER, DEVELOPMENT REVIEW SOUTH  
PLANNING, INFRASTRUCTURE & ECONOMIC  
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

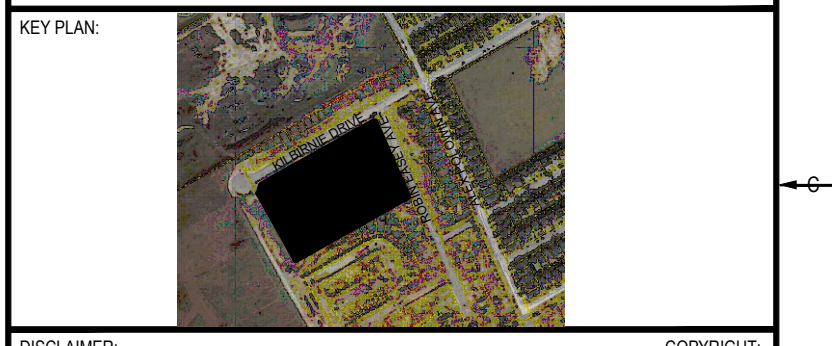
**wsp**  
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ARCHITECT:  
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SEAL:  
LICENSED PROFESSIONAL ENGINEER  
J. W. ZHANG  
100155766  
2022-11-23  
PROVINCE OF ONTARIO

CLIENT:  
**Conseil des écoles publiques de l'Est de l'Ontario**

CLIENT REF. #  
PROJECT:  
**CEPEO BARRHAVEN  
MANOTICK ELEMENTARY SCHOOL**



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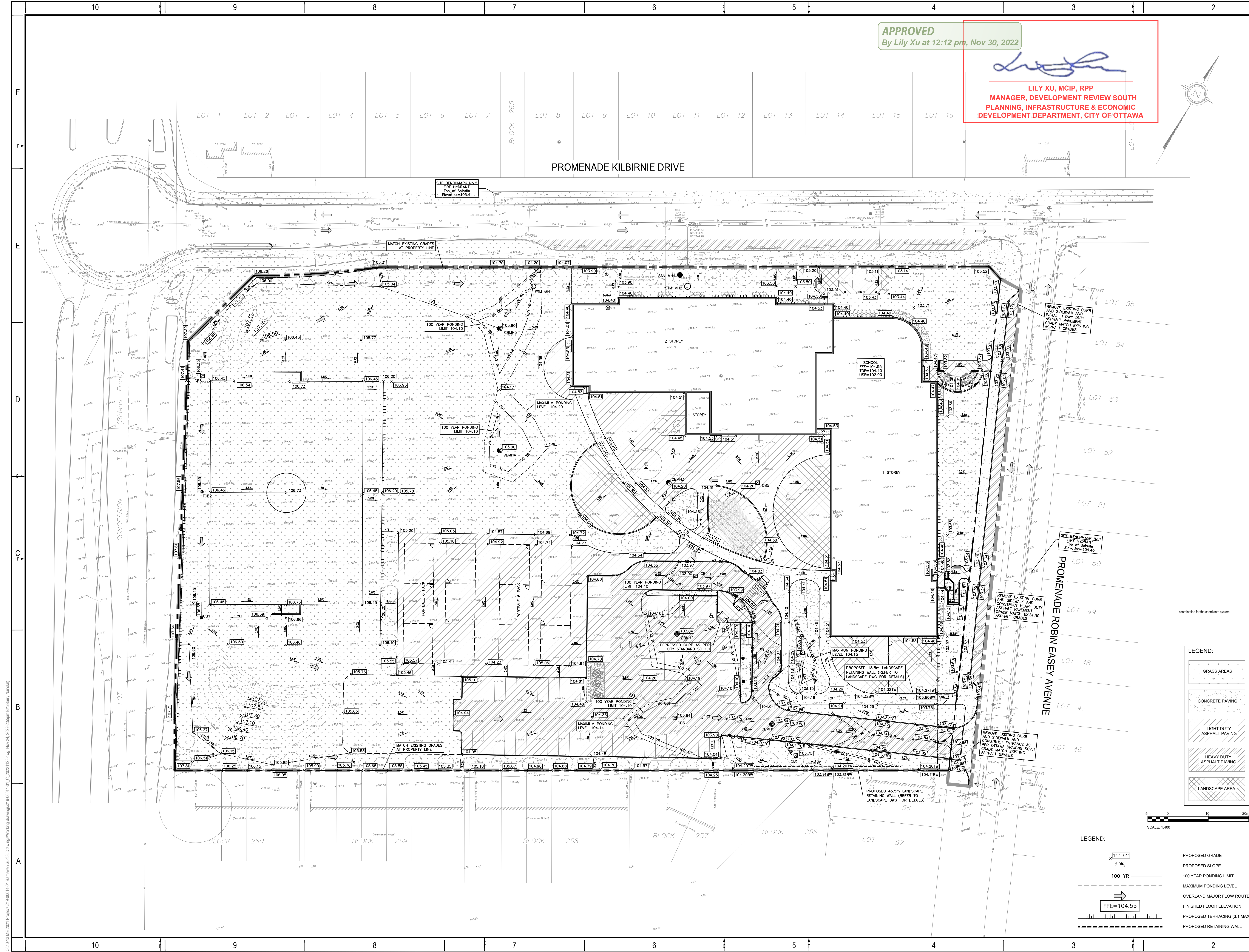
IS	RE	DATE	DESCRIPTION
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4	06 SEPT 2022		REVISED GRADING FOR NEW ROW
3	25 JUL 2022		REVISED AS PER CITY COMMENTS
2	13 APR 2022		ISSUED FOR SPA
1	21 MAR 2022		ISSUED FOR BID AND PERMIT

PROJECT NO: 219-00014-01  
DATE: JULY 2022  
ORIGINAL SCALE: 1:400  
DESIGNED BY: JZ  
DRAWN BY: JT  
CHECKED BY: JZ  
DISCIPLINE: CIVIL

TITLE: DETAILS  
SHEET NUMBER: C02  
SHEET #: 2 OF 6  
ISSUE: REISSUED FOR SPA  
DATE OF: 2022-11-23  
REV # 0

T:\Ottawa\_Infrastructure\10-13\_M21\_2021\Projects\219-00014-01\_Barrhaven\_Sud3\_Drains\Wsp\Drawings\219-00014-01\_C\_20211203.dwg, Nov 23, 2022, 1:15 pm (JZhang)

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**APPROVED**  
By Lily Xu at 12:12 pm, Nov 30, 2022

*Lily Xu*

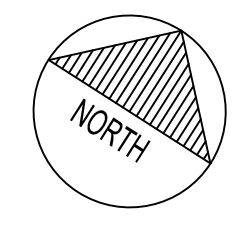
**LILY XU, MCIP, RPP**  
MANAGER, DEVELOPMENT REVIEW SOUTH  
PLANNING, INFRASTRUCTURE & ECONOMIC  
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



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CLIENT REF. #  
PROJECT:  
**CEPEO BARRHAVEN  
MANOTICK ELEMENTARY SCHOOL**



KEY PLAN  
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ISSUED FOR - REVISION	NO.	DATE	DESCRIPTION
	8	23 NOV 2022	SITE PLAN UPDATED
	7	14 NOV 2022	REVISED GRADING AS PER COMMENTS
	6 01	24 OCT 2022	SUPPLEMENTAL INSTRUCTION
	5	26 SEPT 2022	ISSUED FOR CONSTRUCTION
	4	06 SEPT 2022	REVISED GRADING FOR NEW ROW
	3	25 JUL 2022	REVISED AS PER CITY COMMENTS
	2	13 APR 2022	ISSUED FOR SPA
	1	21 MAR 2022	ISSUED FOR BID AND PERMIT

**LEGEND:**

- GRASS AREAS
- CONCRETE PAVING
- LIGHT DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- LANDSCAPE AREA

**LEGEND:**

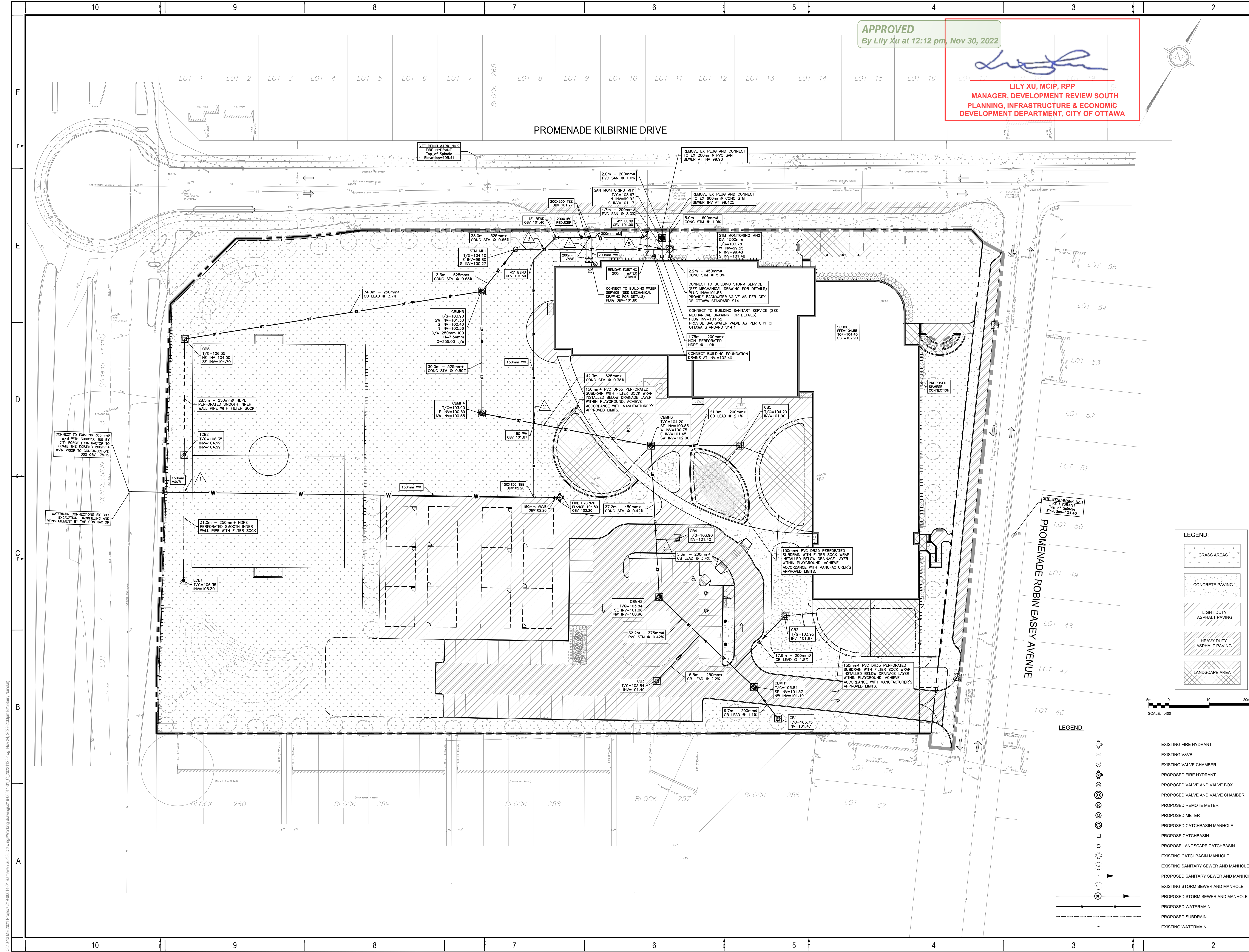
- PROPOSED GRADE
- PROPOSED SLOPE
- 100 YEAR PONDING LIMIT
- MAXIMUM PONDING LEVEL
- OVERLAND MAJOR FLOW ROUTE
- FINISHED FLOOR ELEVATION
- PROPOSED TERRACING (3-1 MAX)
- PROPOSED RETAINING WALL

PROJECT NO: 219-00014-01	DATE: JULY 2022
ORIGINAL SCALE: 1:400	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.
DESIGNED BY: JZ	
DRAWN BY: JT	
CHECKED BY: JZ	
DISCIPLINE: CIVIL	

TITLE: <b>GRADING PLAN</b>
SHEET NUMBER: <b>C03</b>
SHEET #: 3 OF 6
ISSUE: <b>REISSUED FOR SPA</b>
DATE OF: 2022-11-23
REV #: 0

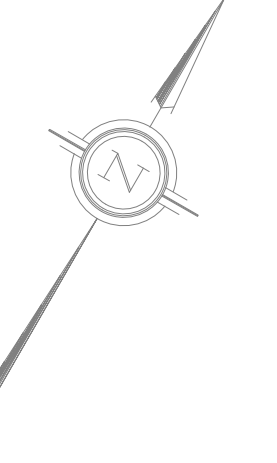
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D07-12-22-0060



**APPROVED**  
By Lily Xu at 12:12 pm, Nov 30, 2022

*Lily Xu*  
**LILY XU, MCIP, RPP**  
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SEAL: **LICENSED PROFESSIONAL ENGINEER**  
*Jinguo Zhang*  
**J. W. ZHANG**  
100155766  
2022-11-23  
PROVINCE OF ONTARIO

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PROJECT: **CEPEO BARRHAVEN MANOTICK ELEMENTARY SCHOOL**



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NO.	DATE	DESCRIPTION
6	23 NOV 2022	SITE PLAN UPDATED
5	26 SEPT 2022	ISSUED FOR CONSTRUCTION
4	06 SEPT 2022	REVISED GRADING FOR NEW ROW
3	25 JUL 2022	REVISED AS PER CITY COMMENTS
2	13 APR 2022	ISSUED FOR SPA
1	21 MAR 2022	ISSUED FOR BID AND PERMIT

PROJECT NO: 219-00014-01  
ORIGINAL SCALE: 1:400  
DESIGNED BY: JIZ  
DRAWN BY: JT  
CHECKED BY: JIZ  
DISCIPLINE: CIVIL

TITLE: **SERVICING PLAN**

SHEET NUMBER: **C04**  
SHEET # 4 OF 6  
ISSUE: **REISSUED FOR SPA**  
DATE OF: 2022-11-23  
REV # 0

**LEGEND:**

- GRASS AREAS
- CONCRETE PAVING
- LIGHT DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- LANDSCAPE AREA

**LEGEND:**

- EXISTING FIRE HYDRANT
- EXISTING VALVE
- EXISTING VALVE CHAMBER
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE AND VALVE BOX
- PROPOSED VALVE AND VALVE CHAMBER
- PROPOSED REMOTE METER
- PROPOSED METER
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED LANDSCAPE CATCHBASIN
- EXISTING CATCHBASIN MANHOLE
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED STORM SEWER AND MANHOLE
- PROPOSED WATERMAIN
- PROPOSED SUBDRAIN
- EXISTING WATERMAIN



O:\10-13-VE-2021-Projects\219-00014-01-Barrhaven-Sud3\_Drawing\Working drawings\219-00014-01\_C\_20221123.dwg, Nov 24, 2022 2:33pm BY: Barry.Nasrullah

D07-12-22-0060

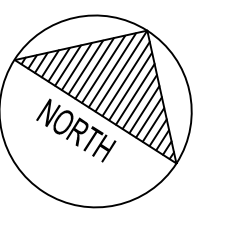
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By Lily Xu at 12:12 pm, Nov 30, 2022

*Lily Xu*  
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PROJECT:  
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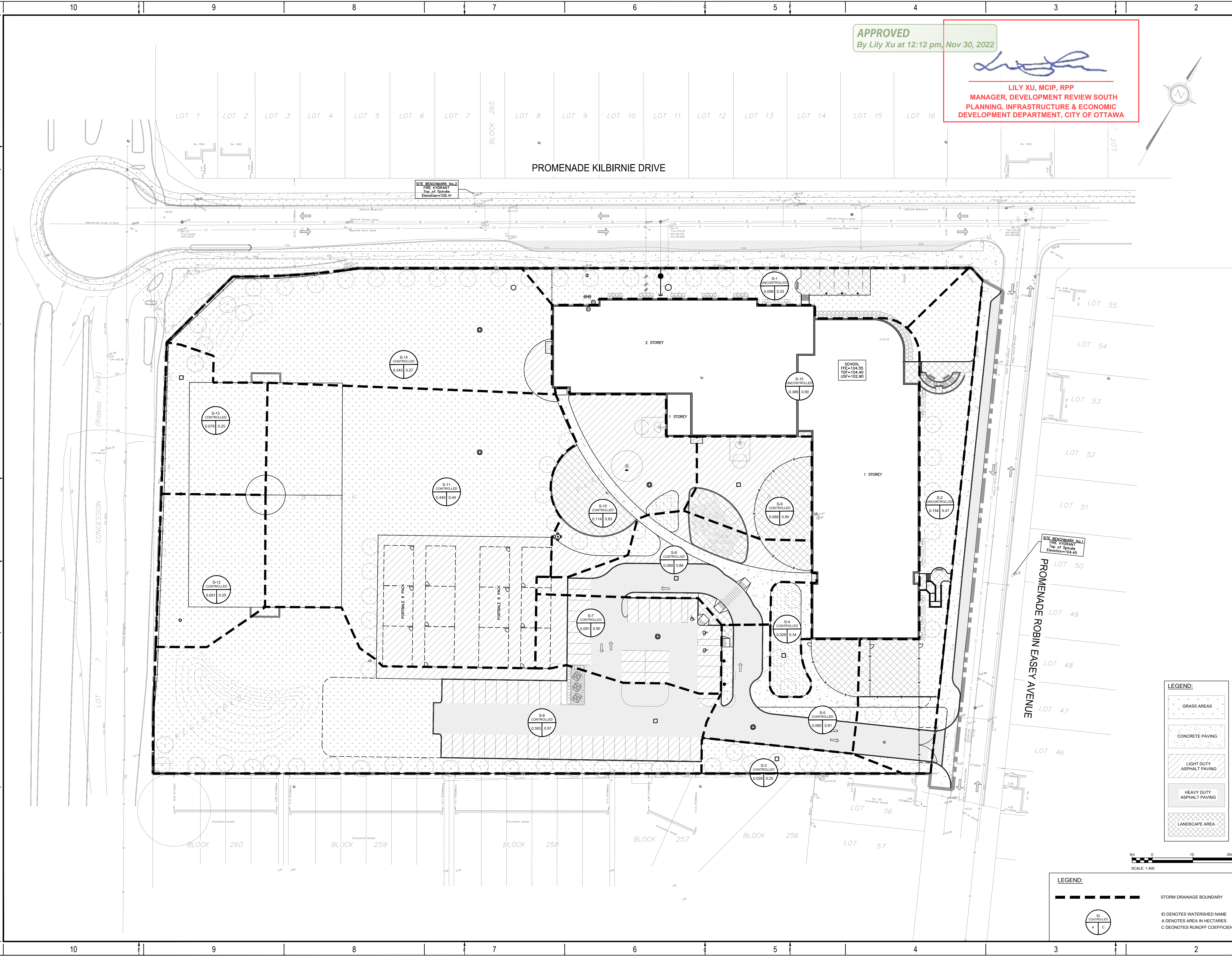


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IS	RE	DATE	DESCRIPTION
6		23 NOV 2022	SITE PLAN UPDATED
5		26 SEPT 2022	ISSUED FOR CONSTRUCTION
4		06 SEPT 2022	REVISED GRADING FOR NEW ROW
3		25 JUL 2022	REVISED AS PER CITY COMMENTS
2		13 APR 2022	ISSUED FOR SPA
1		21 MAR 2022	ISSUED FOR BID AND PERMIT

PROJECT NO:	DATE:
219-00014-01	JULY 2022
ORIGINAL SCALE:	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.
1:400	
DESIGNED BY:	DRAWN BY:
JZ	JT
CHECKED BY:	DISCIPLINE:
JZ	CIVIL

TITLE:	SHEET NUMBER:	SHEET #:	ISSUE:	REV #:
<b>DRAINAGE AREA PLAN</b>	<b>C05</b>	5 OF 6	<b>REISSUED FOR SPA</b>	0
			DATE OF: 2022-11-23	

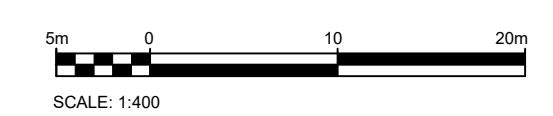


**LEGEND:**

- GRASS AREAS
- CONCRETE PAVING
- LIGHT DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- LANDSCAPE AREA

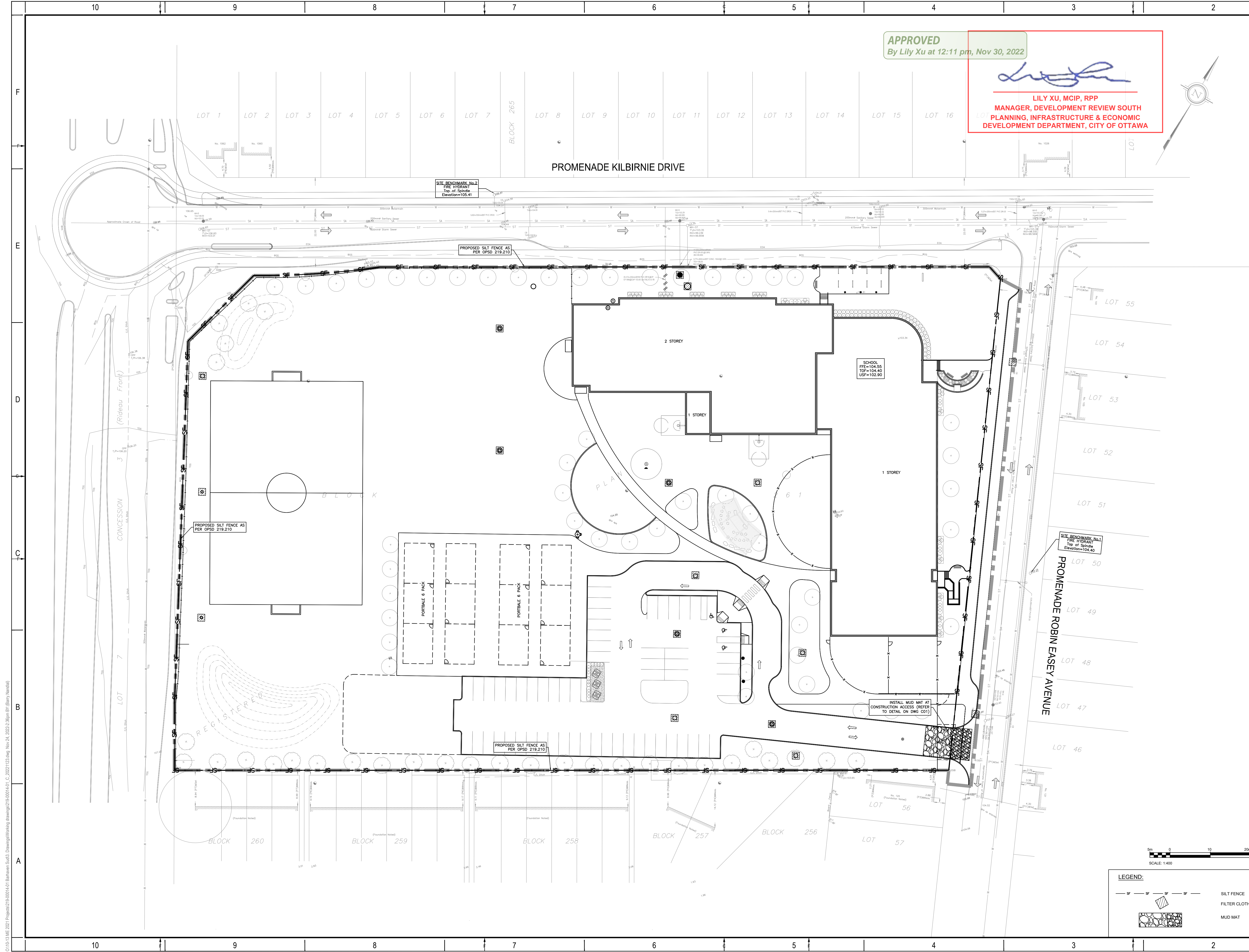
**LEGEND:**

- STORM DRAINAGE BOUNDARY
- ID DENOTES WATERSHED NAME
- A DENOTES AREA IN HECTARES
- C DENOTES RUNOFF COEFFICIENT



0:10:13 ME 2021 Project: 219-00014-01 Barrhaven Sud3 Drawings/Working drawings/219-00014-01\_C\_20221123.dwg Nov 24, 2022 2:35pm BY: Barry Nucchi

D07-12-22-0060

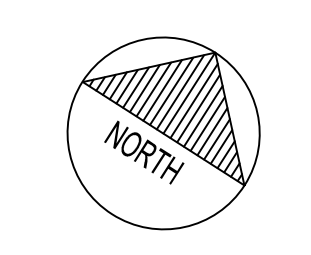
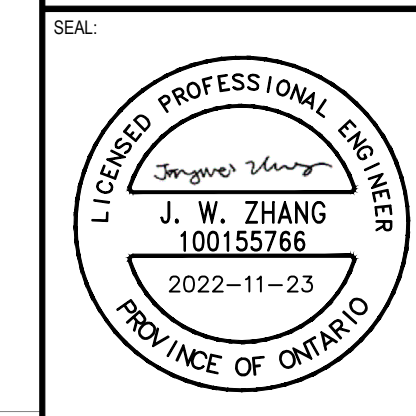


**APPROVED**  
By Lily Xu at 12:11 pm, Nov 30, 2022

*Lily Xu*  
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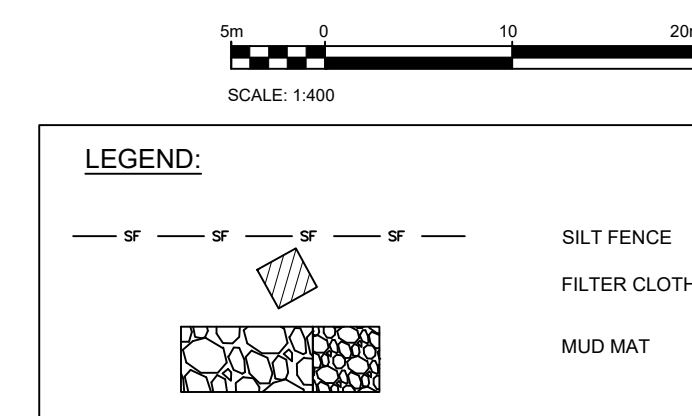


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6		23 NOV 2022	SITE PLAN UPDATED
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1		21 MAR 2022	ISSUED FOR BID AND PERMIT

PROJECT NO:	219-00014-01	DATE:	JULY 2022
ORIGINAL SCALE:	1:400	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.	
DESIGNED BY:	JZ		
DRAWN BY:	JT		
CHECKED BY:	JZ		

DISCIPLINE:	CIVIL
TITLE:	EROSION AND SEDIMENT CONTROL PLAN
SHEET NUMBER:	C06
SHEET #:	5 OF 6
ISSUE:	REISSUED FOR SPA
DATE OF:	2022-11-23
REV #:	0



01/10/13/ME 2021 Project/219-00014-01 Barrhaven Sub3 Drawings/Working drawings/219-00014-01\_C\_20221123.dwg Nov 24, 2022 2:36pm BY: Barry Naurath

01/10/13/ME 2021 Project/219-00014-01 Barrhaven Sub3 Drawings/Working drawings/219-00014-01\_C\_20221123.dwg Nov 24, 2022 2:36pm BY: Barry Naurath