

GENERAL

- 1. DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND LANDSCAPE DRAWINGS.
2. 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.
3. 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.
4. 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 HYDRO, BELL, CABLE TV, AND CONSUMERS GAS LINES.
5. ALL TRENCHING AND EXCAVATIONS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. ALL INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. REFER TO ARCHITECTS PLANS FOR BUILDING DIMENSIONS, ELEVATIONS, LAYOUT AND REMOVALS. REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION. ALL INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
7. TOPOGRAPHIC SURVEY COMPLETED AND PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEK LTD. DATED FEB 14, 2023. CONTRACTOR TO VERIFY IN THE FIELD PRIOR TO CONSTRUCTION OF ANY WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
8. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. VERIFY THAT JOB BENCHMARKS HAVE NOT BEEN ALTERED OR DISTURBED.
9. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR DRAIN OUTLETS ARE PROVIDED.
10. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM.
11. ALL DISTURBED AREAS OUTSIDE PROPOSED GRADING LIMITS TO BE RESTORED TO ORIGINAL ELEVATIONS AND CONDITIONS UNLESS OTHERWISE SPECIFIED. EXISTING PARKING LOT SHALL BE RE-ASPHALTED AT EXISTING GRADES EXCEPT AS NOTED TO EVEN OUT GRADES. ALL RESTORATION SHALL BE COMPLETED WITH THE GEOTECHNICAL REQUIREMENTS FOR BACKFILL AND COMPACTION.
12. ABUTTING PROPERTY GRADES TO BE MATCHED.
13. 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.
14. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
15. 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.
16. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
17. PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB-SURFACES FOR FOOTINGS, SERVICES AND PAVEMENT STRUCTURES.
18. CONTRACTOR TO OBTAIN POST-CONSTRUCTION TOPOGRAPHIC SURVEY PERFORMED BY CERTIFIED OLS OR P.ENG. CONFIRMING COMPLIANCE WITH DESIGN GRADING AND SERVICING. SURVEY IS TO INCLUDE LOCATION AND INVERTS FOR BURIED UTILITIES.
19. PROVIDE CCTV INSPECTION REPORT FOR ALL SEWERS AND CATCHBASIN LEADS 200MM DIAMETER AND LARGER. REPEAT CCTV INSPECTION FOLLOWING RECTIFICATION OF ANY DEFICIENCIES.
20. REPORT REFERENCES
20.1. SERVICING AND SWM REPORT FOR AVALON III ES, PREPARED BY WSP CANADA INC. PROJECT NO. 221-12984-00, JUNE 01, 2023.
20.2. DESIGN BRIEF FOR SUMMERSIDE SOUTH - PHASE 1, 2464 TENTH LINE ROAD, PREPARED BY DAVID SCHAEFFER ENGINEERING LTD, PROJ. NO. 15-766, JUNE 24, 2019.
20.3. GEOTECHNICAL INVESTIGATION REPORT - PROPOSED AVALON III ELEMENTARY SCHOOL, PREPARED BY EXP SERVICES INC., PROJ. NO. OTT-22017859-A0, MARCH 7, 2023.
20.4. STORMWATER MANAGEMENT REPORT FOR SUMMERSIDE SOUTH PHASE 1, PREPARED BY J.F. SABOURIN AND ASSOCIATES INC., PROJ. NO. 1102-13, JUNE, 2019

PARKING LOT AND WORK IN PUBLIC RIGHTS OF WAY

- 1. CONTRACTOR TO REINSTATE ROAD CUTS AS PER CITY OF OTTAWA DETAIL R10.
2. REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY EXP SERVICES INC., DATED MARCH 7, 2023 FOR GEOTECHNICAL RECOMMENDATIONS.
3. CONTRACTOR TO PREPARE SUBGRADE, INCLUDING PROOFROLLING, TO THE SATISFACTION OF THE GEOTECHNICAL CONSULTANT PRIOR TO THE COMMENCEMENT OF PLACEMENT OF GRANULAR B MATERIAL.
4. FILL TO BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT REQUIREMENTS.
5. 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.
6. GRANULAR A MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL CONSULTANT OF GRANULAR B PLACEMENT.
7. 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.
8. ASPHALT MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL CONSULTANT OF GRANULAR A PLACEMENT.
9. 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.
10. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING LINE AND GRADE IN ACCORDANCE WITH THE PLANS, AND FOR PROVIDING THE CONSULTANT WITH VERIFICATION PRIOR TO PLACEMENT.
11. 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 METHOD/LOCATION.
12. PAVEMENT STRUCTURE (MATERIAL TYPES AND THICKNESS) TO BE AS SPECIFIED IN THE GEOTECHNICAL REPORT.

STORM SEWERS AND STRUCTURES

- 1. 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.
2. STORM SEWERS 450mm DIAMETER AND SMALLER SHALL BE PVC SDR-35, WITH RUBBER GASKET PER CSA A-257.3.
3. STORM SEWER LARGER THAN 450mm SHALL BE REINFORCED CONCRETE CLASS 1000.
4. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
5. ALL STORM MANHOLES TO BE AS PER STORM STRUCTURE TABLE.
6. 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.
7. ALL CATCHBASIN LEADS TO BE MINIMUM 200mm DIAMETER AT MINIMUM 1.0% SLOPE UNLESS OTHERWISE SPECIFIED.
8. 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.
9. INSTALLATION OF FLOW CONTROL ICDS TO BE VERIFIED BY QUALITY VERIFICATION ENGINEER RETAINED BY CONTRACTOR.
10. PROVIDE BACKWATER VALVE ON FOUNDATION DRAIN, STORM DISCHARGE, AND OVERFLOW DISCHARGE PER S14

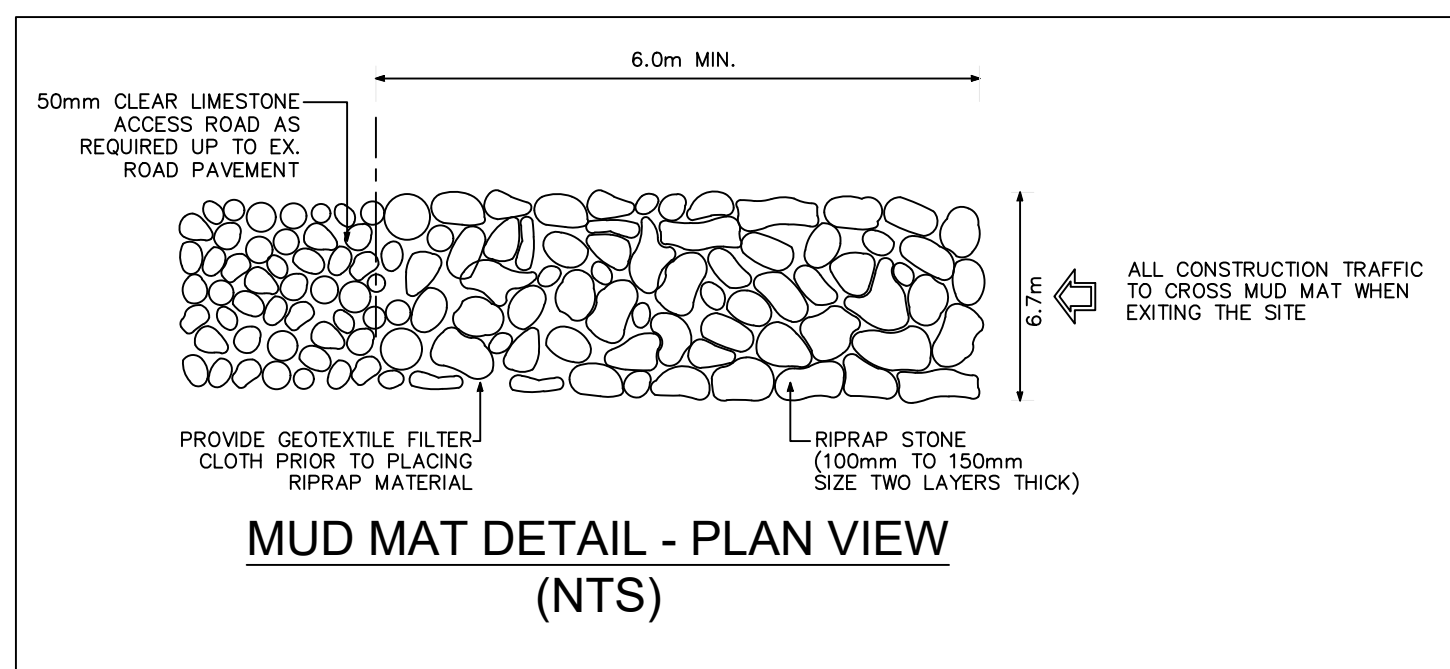
SANITARY SEWER AND STRUCTURES

- 1. 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.
2. 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-182.2.3.4.
3. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
4. 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.
5. MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES AS PER THE OPSD 701.021.
6. ANY SANITARY SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR APPROVED BY THE ENGINEER.
7. PROVIDE BACKWATER VALVE FOR BUILDING SANITARY SERVICES PER S14.1

WATERMAIN

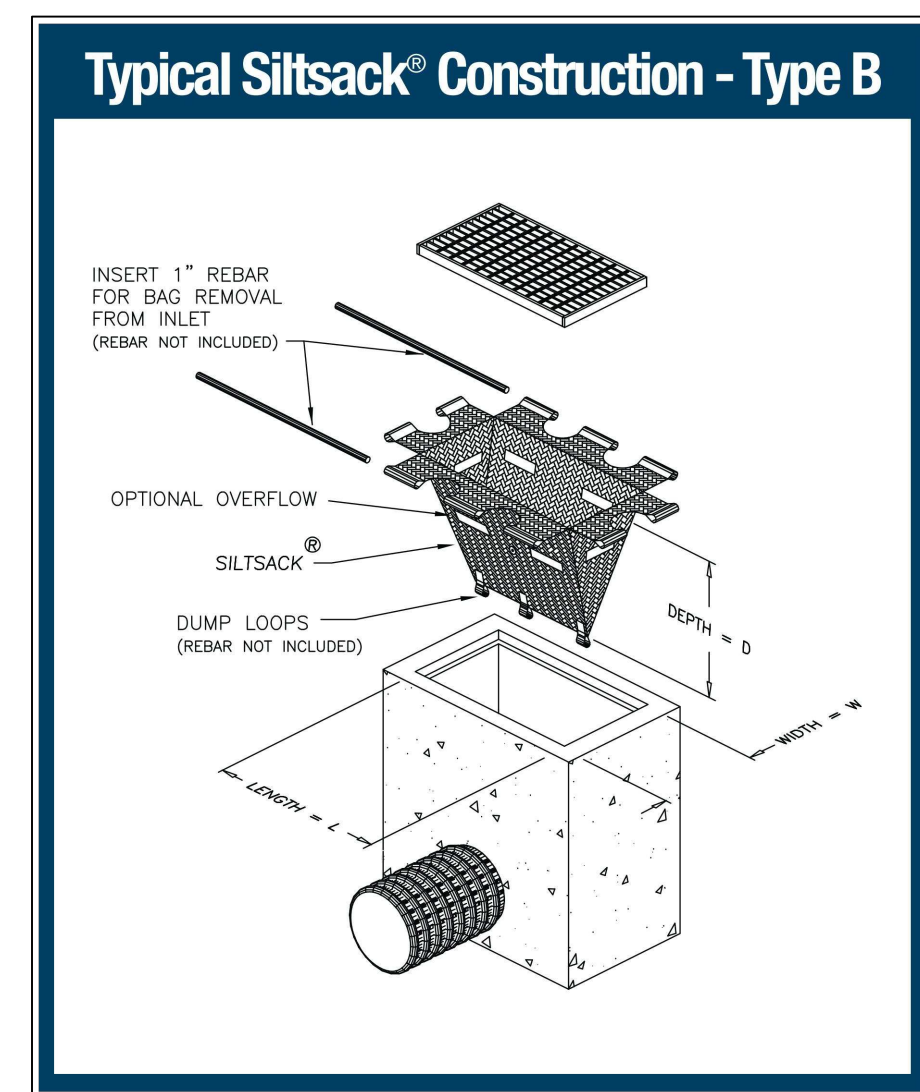
- 1. ALL WATERMAIN AND WATERMAIN APPURTENANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS.
2. ALL WATERMAIN 300mm DIAMETER AND SMALLER TO BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 18 MEETING AWWA SPECIFICATION C900.
3. 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.
4. 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 W23.3 & W25.4.
5. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 & W42.
6. ALL VALVES AND VALVE BOXES AND CHAMBERS, HYDRANTS, AND HYDRANT VALVES AND ASSEMBLES SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARD
7. 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.
8. 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.

Table VIII: Recommended Pavement Structure Thicknesses. Table with 6 columns: Pavement Layer, Compaction Requirements, Pathways and Walkways, Play Ground, Pavement Design to be used by light Duty Vehicles (Cars), Heavy Duty Vehicles (Cars and Trucks, Buss Drop Off). Rows include Surface Course Asphaltic Concrete HL-4 (OPSS 1150), (OPSS 1010) Granular A Base, and (OPSS 1010) Granular B Sub-Base, Type II.



EROSION AND SEDIMENT CONTROL

- CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MONITORING, REPAIR AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL FEATURES.
1. PRIOR TO START OF CONSTRUCTION:
1.1. INSTALL SILT FENCE IN LOCATION SHOWN.
1.2. INSTALL FILTER FABRIC OR SILT SACK FILTERS IN ALL THE CATCHBASINS AND MANHOLES TO REMAIN DURING CONSTRUCTION WITHIN THE SITE.
1.3. INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.
1.4. INSTALL MUD MAT AT CONSTRUCTION ENTRANCES.
2. DURING CONSTRUCTION:
2.1. MINIMIZE THE EXTENT OF DISTURBED AREAS AND THE DURATION OF EXPOSURE AND IMPACTS TO EXISTING GRADING.
2.2. 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.
2.3. 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.
2.4. PROVIDE TEMPORARY COVER SUCH AS SEEDING OR MULCHING IF DISTURBED AREA WILL NOT BE REHABILITATED WITHIN 30 DAYS.
2.5. INSPECT SILT FENCES, FILTER FABRIC FILTERS AND CATCH BASIN SUMPS WEEKLY AND WITHIN 24 HOURS AFTER A STORM EVENT. CLEAN AND REPAIR WHEN NECESSARY.
2.6. DOWNSTREAM STORM INFRASTRUCTURE SHALL BE PROTECTED FROM UNFILTERED RUNOFF DURING ON-SITE STORM INFRASTRUCTURE DEMOLITION.
2.7. DRAWING TO BE REVIEWED AND REVISED AS REQUIRED DURING CONSTRUCTION.
2.8. EROSION CONTROL FENCING TO BE ALSO INSTALLED AROUND THE BASE OF ALL STOCKPILES.
2.9. 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).
2.10. 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).
2.11. NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE FIELD ENGINEER.
2.12. CITY ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM VEHICULAR TRACKING AS REQUIRED.
2.13. DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPED.
2.14. ANY MUD/MATERIAL TRACKED ONTO THE ROAD SHALL BE REMOVED IMMEDIATELY BY HAND OR RUBBER TIRE LOADER.
2.15. TAKE ALL NECESSARY STEPS TO PREVENT BUILDING MATERIAL, CONSTRUCTION DEBRIS OR WASTE BEING SPILLED OR TRACKED ONTO ADJUTING PROPERTIES OR PUBLIC STREETS DURING CONSTRUCTION AND PROCEED IMMEDIATELY TO CLEAN UP ANY AREAS SO AFFECTED.
2.16. 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.
2.17. 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.



EXISTING LEGEND:

- EXISTING BOUNDARY
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING WATERMAIN
EXISTING STORM MANHOLE
EXISTING SANITARY MANHOLE
EXISTING CATCH BASIN
EXISTING WATER VALVE BOX
EXISTING FIRE HYDRANT
EXISTING FLOW DIRECTION
EXISTING ELEVATION

PROPOSED LEGEND:

- PROPOSED CURB
PROPOSED PROPERTY LINE
PROPOSED PAINT LINE
PROPOSED STORM SEWER
PROPOSED SANITARY SEWER
PROPOSED WATERMAIN
PROPOSED 100YR POND LIMIT
PROPOSED 100YR+20% DEPTH POND LIMIT
PROPOSED HIGH POINT LINE
PROPOSED TERRACING LINE
PROPOSED STM/SAN MANHOLE
PROPOSED CATCHBASIN MANHOLE
PROPOSED CATCHBASIN
PROPOSED WATER VALVE BOX
PROPOSED WATER TEE CONNECTION
PROPOSED 45° ELBOW
PROPOSED ELEVATION
PROPOSED SLOPE
PROPOSED FLOW DIRECTION
PROPOSED SEWER STUB
PROPOSED DRAINAGE FLOW DIRECTION

ESC LEGEND:

- SILT FENCE
MUD MAT
SILT SACK

DRAINAGE AREA LEGEND:

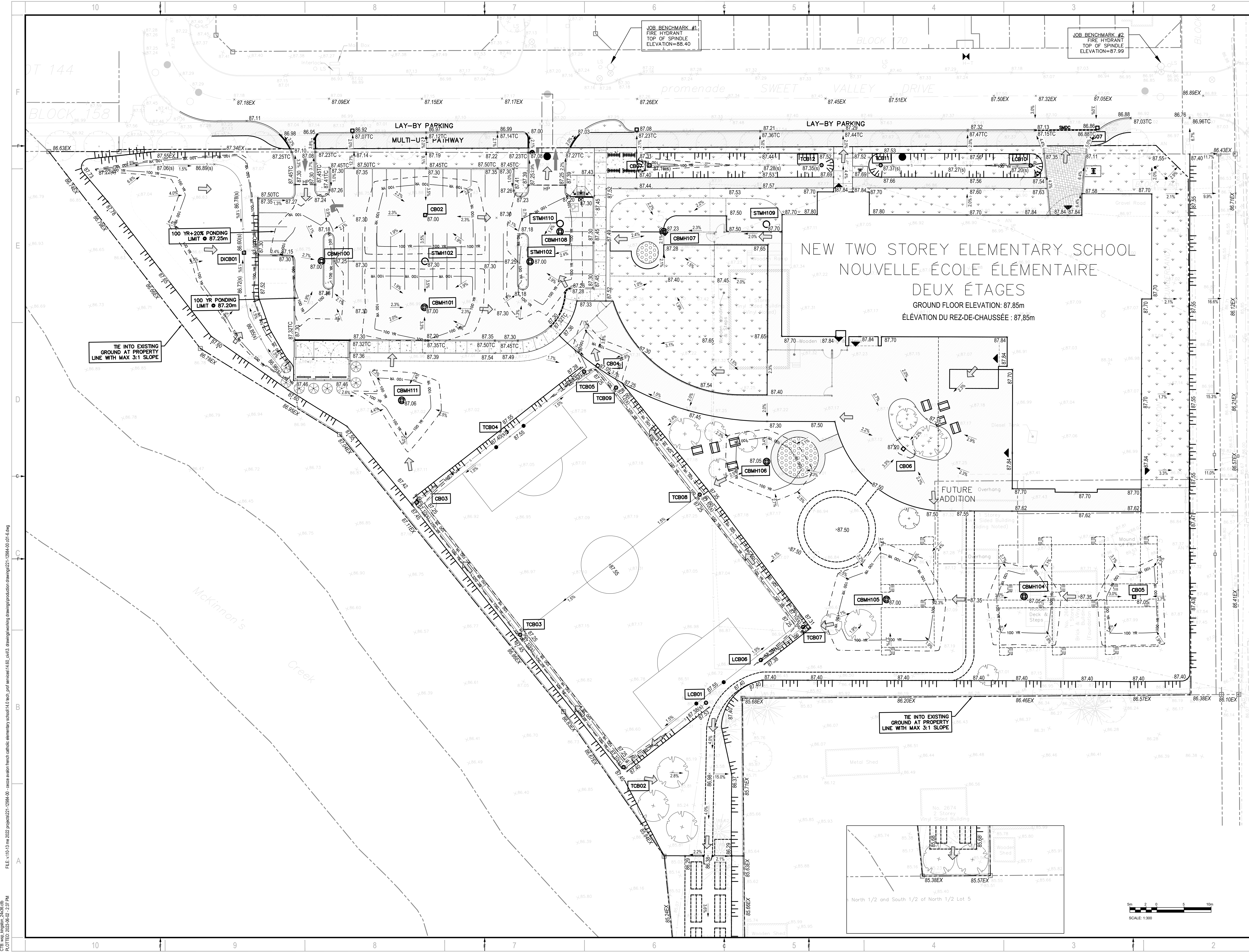
- DRAINAGE BOUNDARY LINE
DRAINAGE AREA SYMBOL

PRE-DEVELOPMENT DRAINAGE AREA LEGEND:

- PRE-DRAINAGE BOUNDARY LINE
DRAINAGE AREA SYMBOL
EXISTING FLOW DIRECTION

Client: Écoles catholiques Centre-Est
Architect: EDWARD J CUHACI & ASSOCIATES ARCHITECTS Inc.
Client Ref: #
Title: NOTES AND DETAILS
Sheet Number: C01
Issued For: SPA
Date: 2023-06-02
Discipline: CIVIL

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300-2611 QUEENSWAY DRIVE  
 OTTAWA ONTARIO CANADA K2B 8K2  
 TEL: 1-613-829-2800 | FAX: 1-613-829-9299 | WWW.WSPGROUP.COM

**ÉCOLE ÉLÉMENTAIRE CATHOLIQUE  
 AVALON III**  
 TENTH LINE ROAD  
 OTTAWA, ON

CONSEIL DES ÉCOLES CATHOLIQUES DU CENTRE-EST  
 4000, RUE LABELLE, OTTAWA, ON K1J 1A1



NOT VALID UNLESS SIGNED AND DATED  
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 BEARING NOTE: BEARINGS ARE GRID DERIVED FROM THE CAN-NET REAL TIME NETWORK GPS OBSERVATIONS. REFERENCED TO SPECIFIED CONTROL POINTS D191680154 AND D1916844761, MTM ZONE 9 (P3) WEST (CONTOUR MARKS ORIGINAL). BENCHMARK #1 N: 503345 D3 E: 344791 31 2.88 40 BENCHMARK #2 N: 503365 D3 E: 344875 28 2.87 89

NO.	DATE	DESCRIPTION
1	2023-06-02	ISSUED FOR SPA

PROJECT NO: 221-12984-00	DATE: 2023-06-01
ORIGINAL SCALE: 1:300	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.
DESIGNED BY: D.Y./M.S.	
DRAWN BY: S.T.R.	
CHECKED BY: D.Y.	

DISCIPLINE: CIVIL	TITLE: GRADING PLAN
SHEET NUMBER: C02	
SHEET #: ISSUED FOR SPA	REV #: 0
DATE OF: 2023-06-02	

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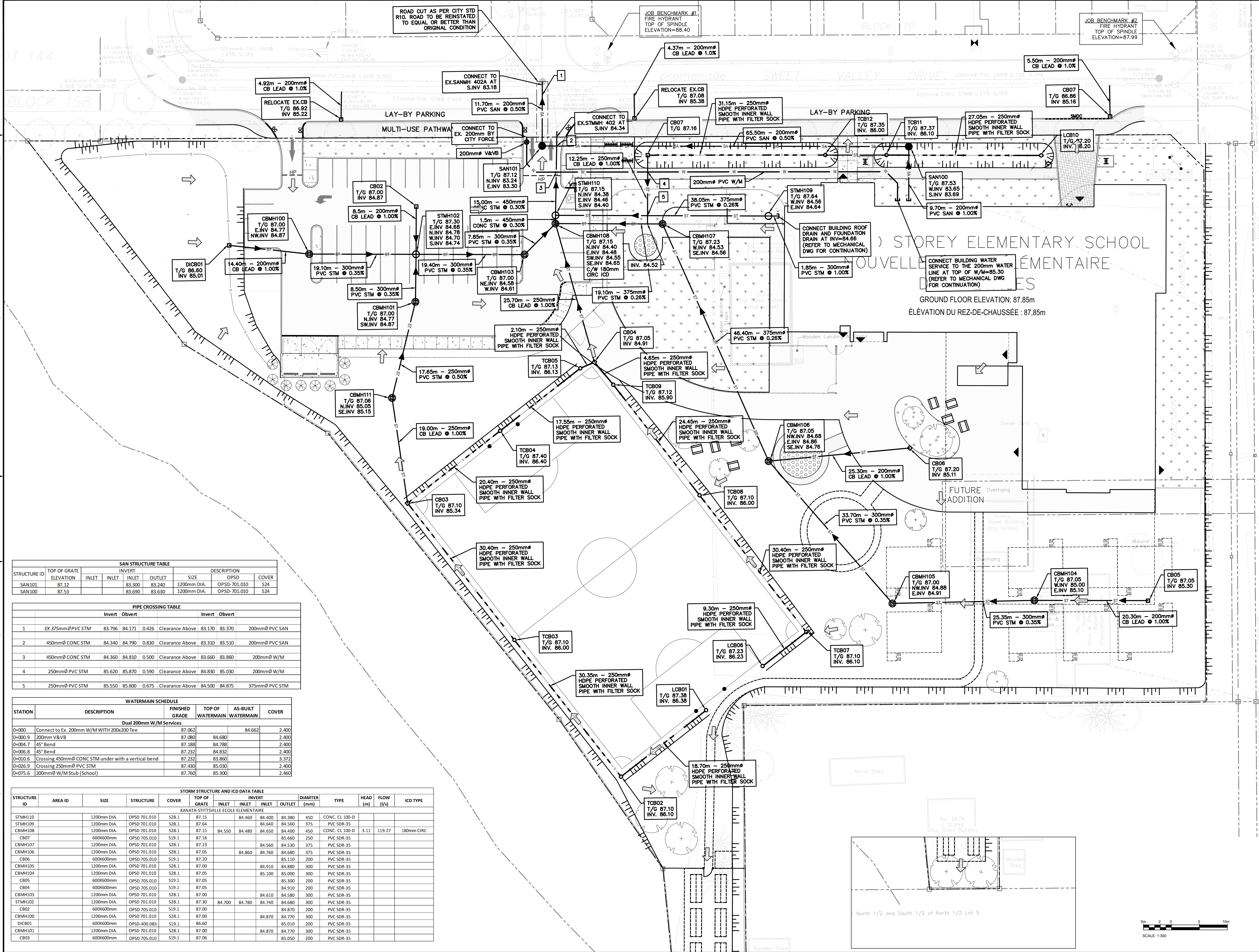
REMARKS: BEARING ARE GRID DERIVED FROM THE CAN-NET REAL TIME NETWORK GPS OBSERVATIONS. REFERENCED TO SPECIFIED CONTROL POINTS 0191680154 AND 0191684161, MTM ZONE 9 (N/30° WEST CONTOUR) (NAD83 ORIGINAL). BENCHMARK #1 N-533845 03 E-384791 31 Z-28.40 BENCHMARK #2 N-533845 03 E-384791 31 Z-27.89

ISSUED FOR: REVISION

NO.	DATE	DESCRIPTION
1	2023-06-02	ISSUED FOR SPA

IS	RE	DATE	DESCRIPTION

PROJECT NO:	221-12984-00	DATE:	2023-06-01
ORIGINAL SCALE:	1:300	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.	
DESIGNED BY:	D.Y.M.S.		
DRAWN BY:	S.T.R.		
CHECKED BY:	D.Y.		
TITLE:	CIVIL		
TITLE:	SERVICING PLAN		
SHEET NUMBER:	C03		
ISSUED FOR:	SPA		
DATE OF:	2023-06-02		



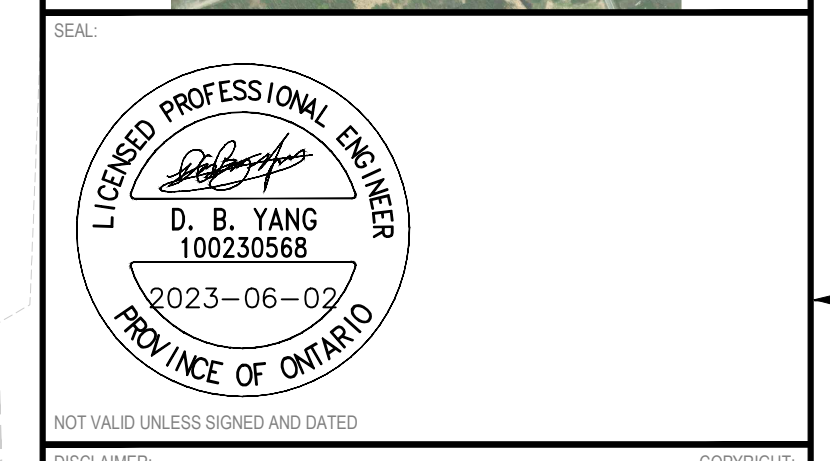
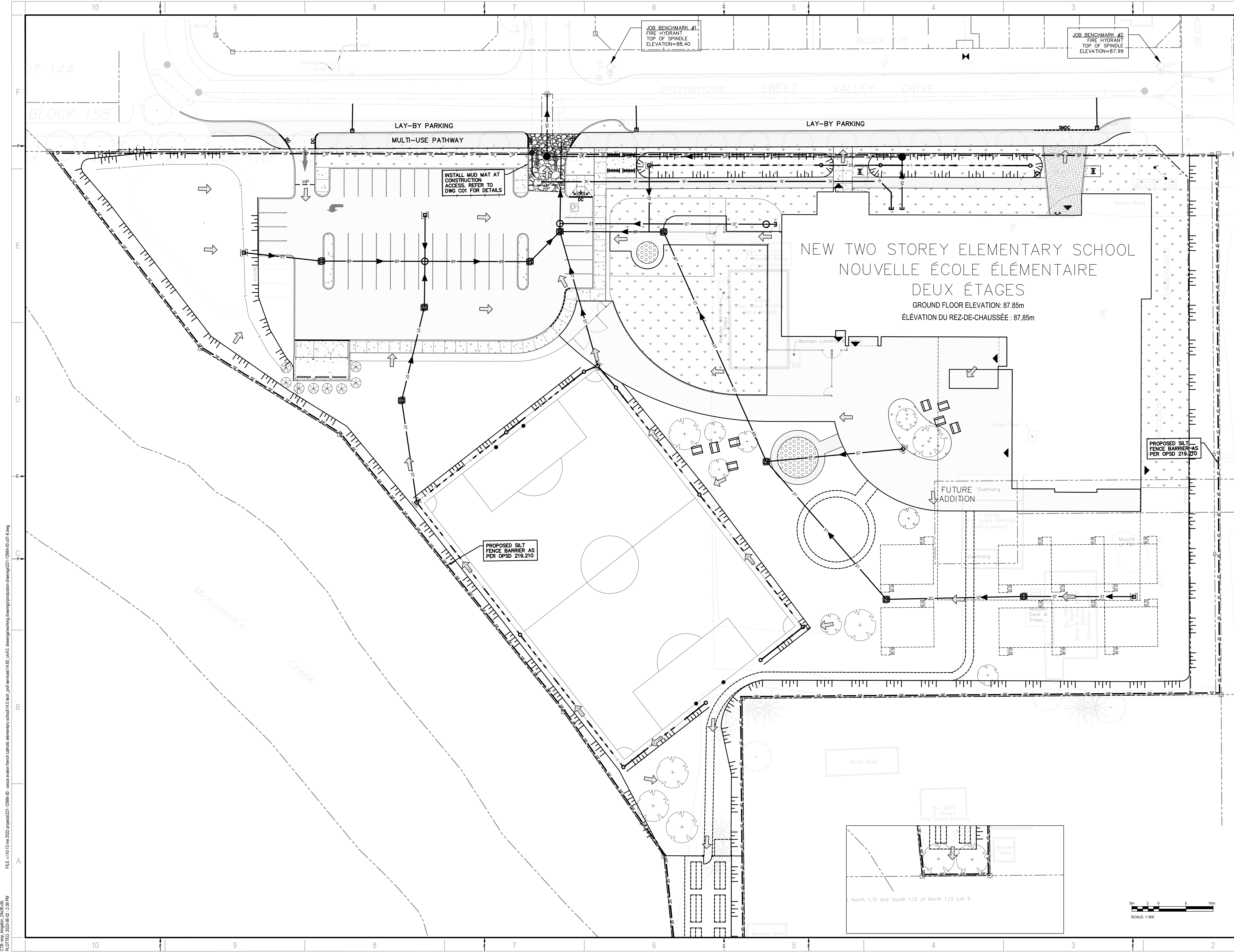
STRUCTURE ID	TOP OF GRATE ELEVATION	INLET INLET	INLET OUTLET	SIZE	OPSD	COVER
SAN101	87.12	83.300	83.240	1200mm DIA.	OPSD-701.010	S24
SAN100	87.53	83.690	83.630	1200mm DIA.	OPSD-701.010	S24

	Invert	Obvert	
1	EX 375mm PVC STM	83.796 84.171 0.426	Clearance Above 83.170 83.370 200mm PVC SAN
2	450mm CONC STM	84.340 84.790 0.830	Clearance Above 83.310 83.510 200mm PVC SAN
3	450mm CONC STM	84.360 84.810 0.500	Clearance Above 83.660 83.860 200mm W/M
4	250mm PVC STM	85.620 85.870 0.590	Clearance Above 84.830 85.030 200mm W/M
5	250mm PVC STM	85.550 85.800 0.675	Clearance Above 84.500 84.875 375mm PVC STM

STATION	DESCRIPTION	FINISHED GRADE	TOP OF WATERMAIN	AS-BUILT WATERMAIN	COVER
0+000	Connect to Ex. 200mm W/M WITH 200x200 Tee	87.062		84.662	2.400
0+000.9	200mm V&V/B	87.080	84.680		2.400
0+004.7	45° Bend	87.188	84.788		2.400
0+006.8	45° Bend	87.232	84.832		2.400
0+010.6	Crossing 450mm CONC STM under with a vertical bend	87.232	83.860		3.372
0+026.9	Crossing 250mm PVC STM	87.430	85.030		2.400
0+075.6	200mm W/M Stub (School)	87.760	85.300		2.400

STRUCTURE ID	AREA ID	SIZE	STRUCTURE	COVER	TOP OF GRATE	INLET INLET	INLET INLET	OUTLET	DIAMETER (mm)	TYPE	HEAD (m)	FLOW (l/s)	ICD TYPE
STMH109		1200mm DIA.	OPSD 701.010	S28.1	87.15	84.460	84.400	84.380	450	CONC. CL 100-D			
STMH109		1200mm DIA.	OPSD 701.010	S28.1	87.64	84.640	84.560	375	PVC SDR-35		3.11	119.27	180mm CIRC
CBM108		1200mm DIA.	OPSD 701.010	S28.1	87.15	84.550	84.650	84.400	450	CONC. CL 100-D			
CB07		600x600mm	OPSD 705.010	S19.1	87.16			85.660	250	PVC SDR-35			
CBM107		1200mm DIA.	OPSD 701.010	S28.1	87.23			84.560	375	PVC SDR-35			
CBM106		1200mm DIA.	OPSD 701.010	S28.1	87.05			84.680	375	PVC SDR-35			
CB06		600x600mm	OPSD 705.010	S19.1	87.20			85.110	200	PVC SDR-35			
CBM105		1200mm DIA.	OPSD 701.010	S28.1	87.00			84.910	300	PVC SDR-35			
CBM104		1200mm DIA.	OPSD 701.010	S28.1	87.05			85.100	300	PVC SDR-35			
CB05		600x600mm	OPSD 705.010	S19.1	87.05			85.300	200	PVC SDR-35			
CB04		600x600mm	OPSD 705.010	S19.1	87.05			84.910	200	PVC SDR-35			
CBM103		1200mm DIA.	OPSD 701.010	S28.1	87.00			84.610	300	PVC SDR-35			
STMH102		1200mm DIA.	OPSD 701.010	S28.1	87.30	84.700	84.740	84.680	300	PVC SDR-35			
CB02		600x600mm	OPSD 705.010	S19.1	87.00			84.870	200	PVC SDR-35			
CBM101		1200mm DIA.	OPSD 701.010	S28.1	87.00			84.770	300	PVC SDR-35			
CB01		600x600mm	OPSD-400.083	S19.1	86.60			85.010	200	PVC SDR-35			
CBM101		1200mm DIA.	OPSD 701.010	S28.1	87.00			84.870	300	PVC SDR-35			
CB03		600x600mm	OPSD 705.010	S19.1	87.06			85.050	200	PVC SDR-35			

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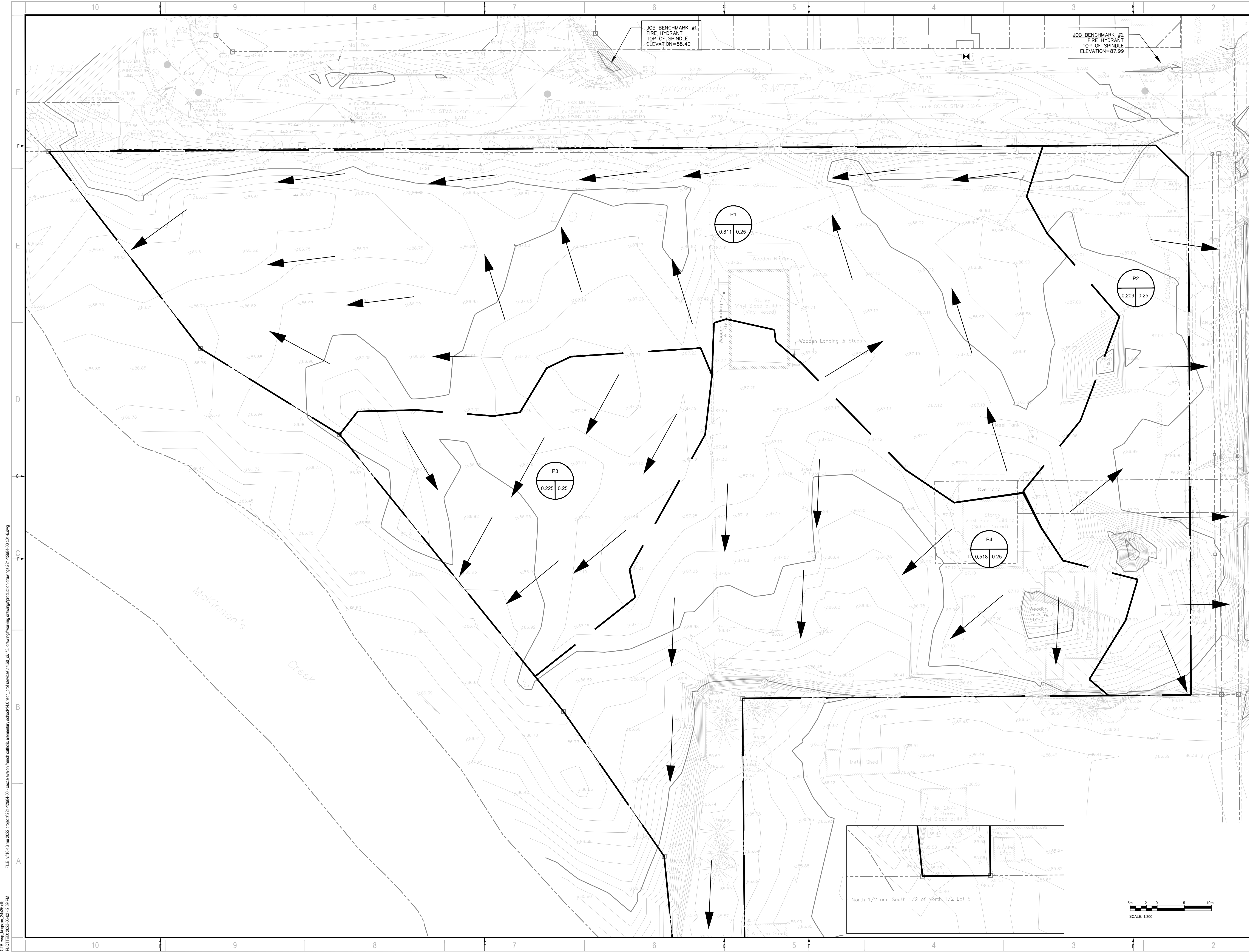
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NO.	DATE	DESCRIPTION
1	2023-06-02	ISSUED FOR SPA

PROJECT NO:	221-12984-00	DATE:	2023-06-01
ORIGINAL SCALE:	1:300	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.	
DESIGNED BY:	D.Y./M.S.		
DRAWN BY:	S.T.R.		
CHECKED BY:	D.Y.		

DISCIPLINE:	CIVIL
TITLE:	<b>EROSION AND SEDIMENT CONTROL PLAN</b>
SHEET NUMBER:	C04
ISSUE:	ISSUED FOR SPA
DATE OF:	2023-06-02
REV #:	0



JOB BENCHMARK #1  
FIRE HYDRANT  
TOP OF SPINDLE  
ELEVATION=88.40

JOB BENCHMARK #2  
FIRE HYDRANT  
TOP OF SPINDLE  
ELEVATION=87.99



**EDWARD J CUHACI & ASSOCIATES ARCHITECTS Inc.**  
171 Slater St. Suite 100, Ottawa, Ontario, K1P 5H7  
Fax: (613) 236-1944 Telephone: (613) 236-7135 E-mail: info@cuhaci.com



300-2611 QUEENSWAY DRIVE  
OTTAWA ONTARIO CANADA K2B 8K2  
TEL: 1-613-829-2800 | FAX: 1-613-829-8299 | WWW.WSPGROUP.COM

PROJECT:  
**ÉCOLE ÉLÉMENTAIRE CATHOLIQUE  
AVALON III**  
TENTH LINE ROAD  
OTTAWA, ON

CONSEIL DES ÉCOLES CATHOLIQUES DU CENTRE-EST  
4000, RUE LABELLE, OTTAWA, ON K1J 1A1



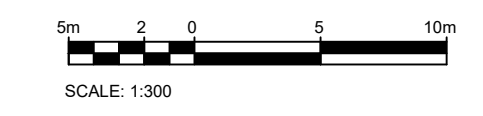
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IS	RE	DATE	DESCRIPTION
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PROJECT NO: 221-12984-00	DATE: 2023-06-01
ORIGINAL SCALE: 1:300	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.
DESIGNED BY: D.Y./M.S.	
DRAWN BY: S.T.R.	
CHECKED BY: D.Y.	

DISCIPLINE: CIVIL
TITLE: PRE-DEVELOPMENT DRAINAGE AREA PLAN
SHEET NUMBER: C05
SHEET # OF: ISSUE: ISSUED FOR SPA
DATE OF: 2023-06-02
REV #: 0



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BEARING NOTE: BEARINGS ARE GRID DERIVED FROM THE CAN-NET REAL TIME NETWORK GPS OBSERVATIONS. REFERENCED TO SPECIFIED CONTROL POINTS (191980/54 AND 0191984/51), MTM ZONE 9 (P/30 WEST CONTOUR) (NAD83 ORIGINAL). BENCHMARK #1 N: 5032945.03 E: 384791.31 Z: 28.40 BENCHMARK #2 N: 5032945.03 E: 384895.02 Z: 27.89

ISSUED FOR - REVISION	DATE	DESCRIPTION
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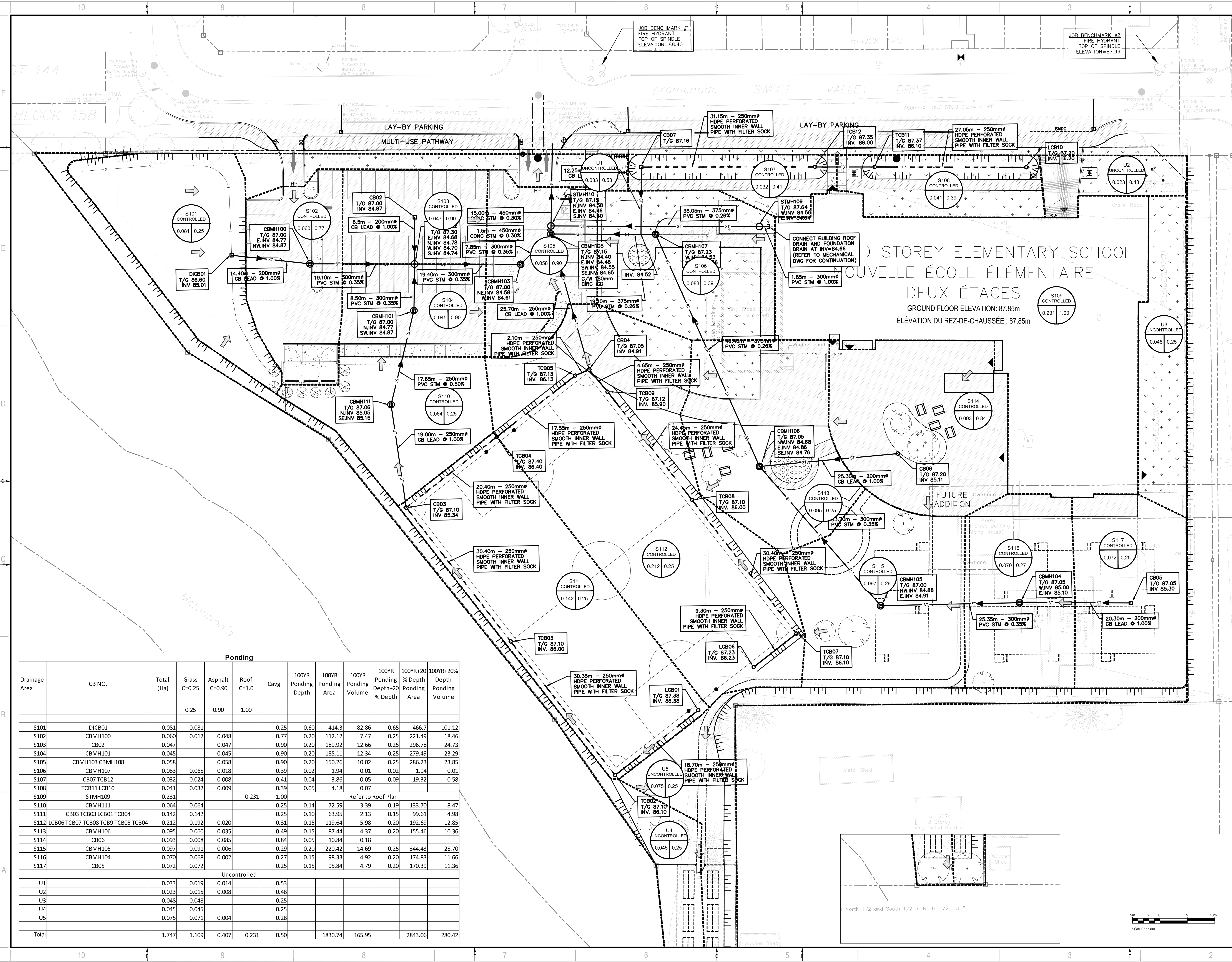
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221-12984-00	2023-06-01

ORIGINAL SCALE:	DATE:
1:300	

DESIGNED BY: D.Y./M.S.  
DRAWN BY: S.T.R.  
CHECKED BY: D.Y.

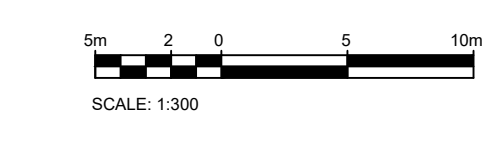
DISCIPLINE:	TITLE:
CIVIL	STORM DRAINAGE AREA PLAN

SHEET NUMBER: C06  
ISSUE: ISSUED FOR SPA  
DATE OF: 2023-06-02



**Ponding**

Drainage Area	CB NO.	Total (Ha)	Grass C=0.25	Asphalt C=0.90	Roof C=1.00	Cavg	100YR Ponding Depth	100YR Ponding Area	100YR Ponding Volume	100YR+20% Ponding Depth	100YR+20% Ponding Area	100YR+20% Ponding Volume
S101	DICB01	0.081	0.081			0.25	0.60	414.3	82.86	0.65	466.7	101.12
S102	CBMH100	0.060	0.012	0.048		0.77	0.20	112.12	7.47	0.25	221.49	18.46
S103	CB02	0.047		0.047		0.90	0.20	189.92	12.66	0.25	296.78	24.73
S104	CBMH101	0.045		0.045		0.90	0.20	185.11	12.34	0.25	279.49	23.29
S105	CBMH103 CBMH108	0.058		0.058		0.90	0.20	150.26	10.02	0.25	286.23	23.85
S106	CBMH107	0.083	0.065	0.018		0.39	0.02	1.94	0.01	0.02	1.94	0.01
S107	CB07 TCB12	0.032	0.024	0.008		0.41	0.04	3.86	0.05	0.09	19.32	0.58
S108	TCB11 LCB10	0.041	0.032	0.009		0.39	0.05	4.18	0.07			
S109	STMH109	0.231			0.231	1.00						
S110	CBMH111	0.064	0.064			0.25	0.14	72.59	3.39	0.19	133.70	8.47
S111	CB03 TCB03 LCB01 TCB04	0.142	0.142			0.25	0.10	63.95	2.13	0.15	99.61	4.98
S112	LCB06 TCB07 TCB08 TCB9 TCB05 TCB04	0.212	0.192	0.020		0.31	0.15	119.64	5.98	0.20	192.69	12.85
S113	CBMH106	0.095	0.060	0.035		0.49	0.15	87.44	4.37	0.20	155.46	10.36
S114	CB06	0.093	0.008	0.085		0.84	0.05	10.84	0.18			
S115	CBMH105	0.097	0.091	0.006		0.29	0.20	220.42	14.69	0.25	344.43	28.70
S116	CBMH104	0.070	0.068	0.002		0.27	0.15	98.33	4.92	0.20	174.83	11.66
S117	CB05	0.072	0.072			0.25	0.15	95.84	4.79	0.20	170.39	11.36
Uncontrolled												
U1		0.033	0.019	0.014		0.53						
U2		0.023	0.015	0.008		0.48						
U3		0.048	0.048			0.25						
U4		0.045	0.045			0.25						
U5		0.075	0.071	0.004		0.28						
<b>Total</b>		<b>1.747</b>	<b>1.109</b>	<b>0.407</b>	<b>0.231</b>	<b>0.50</b>		<b>1830.74</b>	<b>165.95</b>		<b>2843.06</b>	<b>280.42</b>



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