SATISFACTION OF THE CITY OF OTTAWA AND THE CONSULTANT.

THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMAINS, 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 HYDRO, BELL, CABLE TV, AND CONSUMERS 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 FAIRHALL MOFFATT & WOODLAND LTD. DATED ON OCTOBER 04, 2019, 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.

D. 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.

. 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.

2. ALL PROPERTY LINE GRADES ARE TO MATCH EXISTING.

3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.

. 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 PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING

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.

8. ABIDE BY RECOMMENDATIONS OF GEOTECHNICAL REPORT. REPORT ANY VARIATIONS IN OBSERVED CONATIONS FROM THOSE INCLUDED IN REPORT.

19. REPORT REFERENCES i. STORMWATER MANAGEMENT REPORT, PREPARED BY WSP CANADA INC, PROJ. NO.

19M-01935-00, MARCH 31,2023. . GEOTECHINCAL INVESTIGATION REPORT, PREPARED BY EXP SERVICE INC., PROJ NO. OTT-00214936-C0, MARCH 2023.

NOTES: EROSION AND SEDIMENT CONTROL

CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MONITORING, REPAIR AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL FEATURES. AND MEETING ASSOCIATED LEED REQUIREMENT **

PRIOR TO START OF CONSTRUCTION:

UP ANY AREAS SO AFFECTED

APPLICABLE REGULATORY AGENCY

1.1. INSTALL SILT FENCE IN LOCATION SHOWN ON DWG C05. INSTALL FILTER FABRIC OR SILT SACK FILTERS IN ALL THE CATCHBASINS AND MANHOLES TO REMAIN DURING CONSTRUCTION WITHIN THE SITE (SEE TYPICAL 1.3. INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.

2. DURING CONSTRUCTION:

2.1. 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 SUMPS 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 SEEDED 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)

2.10. NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE FIELD ENGINEER. 2.11. CITY ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM

VEHICULAR TRACKING AS REQUIRED. 2.12. DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPED. 2.13. 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

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

NOTES: WATERMAIN

1. ALL WATERMAIN AND WATERMAIN APPURTANANCES, MATERIALS, 14. ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND

(PVC) CLASS 150 DR 18 MEETING AWWA SPECIFICATION C900.

3. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW 16. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6. FINISHED GRADE. WHERE WATERMAINS CROSS OVER OTHER UTILITIES, A MINIMUM 0.30m CLEARANCE SHALL BE MAINTAINED; WHERE WATERMAINS 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 20. ALL CATCHBASIN LEADS TO BE MINIMUM 200mm DIAMETER AT MINIMUM 1.0% 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.

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

7. FIRE HYDRANT LOCATION AND INSTALLATION AS PER CITY OF OTTAWA NOTES: SERVICES LATERALS STANDARD W18 & W19. CONTRACTOR TO PROVIDE FLOW TEST AND PAINTING

8. IF WATER MAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY

OF NEW HYDRANT IN ACCORDANCE WITH CITY STANDARDS.

NOTES: SANITARY SEWER AND MANHOLES

THE MANUFACTURER.

9. 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

10. 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.

11. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.

12. MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES AS PER THE

13. ANY SANITARY SEWER WITH LESS THAN 2.5m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR APPROVED BY THE FNGINFFR

NOTES: PARKING LOT AND WORK IN PUBLIC RIGHTS OF WAY

1. CONTRACTOR TO REINSTATE ROAD CUTS AS PER CITY OF OTTAWA DETAIL R10.

2. CONTRACTOR TO PREPARE SUBGRADE, INCLUDING PROOFROLLING, TO THE SATISFACTION OF THE GEOTECHNICAL CONSULTANT PRIOR TO THE COMMENCEMENT OF PLACEMENT OF GRANULAR B MATERIAL.

3. FILL TO BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT REQUIREMENTS.

4. 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

5. GRANULAR A MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL CONSULTANT OF GRANULAR B PLACEMENT.

6. 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

7. ASPHALT MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL CONSULTANT OF GRANULAR A PLACEMENT.

8. 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.

9. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING LINE AND GRADE IN ACCORDANCE WITH THE PLANS, AND FOR PROVIDING THE CONSULTANT WITH VERIFICATION PRIOR TO PLACEMENT

10. 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.

11. PAVEMENT STRUCTURE (MATERIAL TYPES AND THICKNESS) FOR HEAVY DUTY AND LIGHT DUTY AREAS TO BE AS SPECIFIED IN THE GEOTECHNICAL REPORT AND SHOWN ON THE

NOTES: STORM SEWERS AND STRUCTURES CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. PROVIDE CCTV INSPECTION REPORTS FOR ALL NEW STORM SEWERS, SERVICES AND CB LEADS. 2. ALL WATERMAIN 300mm DIAMETER AND SMALLER TO BE POLY VINYL CHLORIDE 15. STORM SEWERS 450mm DIAMETER AND SMALLER SHALL BE PVC SDR-35, WITH RUBBER GASKET PER CSA A-257.3. 17. ALL STORM MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01. FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24.1.

18. ANY NEW OR EXISTING STORM SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22. OR APPROVED

19. CB IN LANDSCAPE AREAS SHALL BE AS PER CITY OF OTTAWA STANDARD S31.

21. 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 AND FRAME/COVER AS PER OPSD 401.010 TYPE B. SANITARY MH'S AS PER OPSD 701.010 TYPE A BASE WITH BENCHING, AND FRAME/COVER AS PER OPSD 401.010

VALVES AND ASSEMBLES SHALL BE INSTALLED AS PER CITY OF OTTAWA 22. INSTALLATION OF FLOW CONTROL ICD'S TO BE VERIFIED BY QUALITY VERIFICATION ENGINEER RETAINED BY CONTRACTOR.

TYPE A. ADJUSTMENT SECTIONS SHALL BE AS PER OPSD 704.010.

SLOPE UNLESS OTHERWISE SPECIFIED.

23. NO SERVICE LATERLAS ARE TO BE DIRECTLY CONNECTED TO A MANHOLE.

BINDER

SUBBASE

BASECOURSE

24. SERVICE LATERLAS THAT HAVE INSUFFICIENT COVER ARE TO BE THERMAL INSULATED AS PER CITY OF OTTAWA STANDARD W22.

25. ALL SERVICE LATERALS, LOCATED WITHIN THE ROW, ARE TO BE AT A MIN. OF 1% PAVEMENT STRUCTURE - HEAVY DUTY (BUSES AND TRUCKS) **THICKNESS** COURSE MATERIAL SURFACE HL3 OR SUPERPAVE 12.5 AC 50 mm

HL8 OR SUPERPAVE 19.0 AC

OPSS GRANULAR 'A'

OPSS GRANULAR 'B' TYPE II

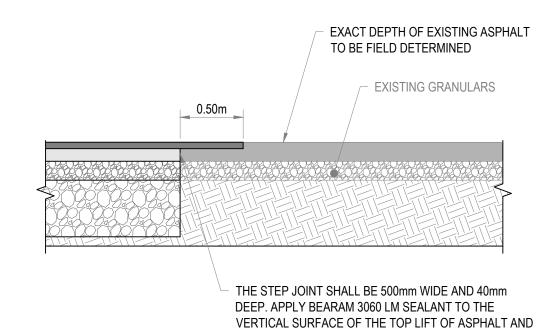
PAVEMEN	PAVEMENT STRUCTURE - LIGHT DUTY(CARS ONLY)									
COURSE	MATERIAL	THICKNESS								
SURFACE	HL3 OR SUPERPAVE 12.5 AC	65 mm								
BASECOURSE	OPSS GRANULAR 'A'	150 mm								
SUBBASE	OPSS GRANULAR 'B' TYPE II	300 mm								

60 mm

150 mm

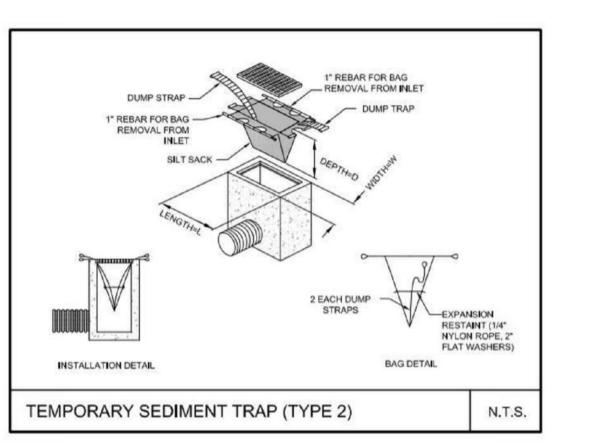
450 mm

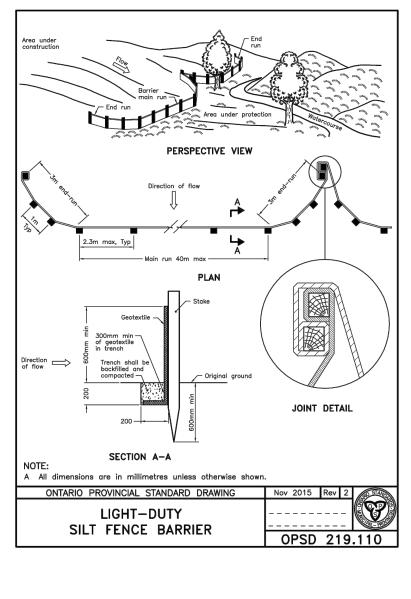
WATERM					
STATION	DESCRIPTION	FINISHED	EXISTING	PROP. TOP	AS-BUILT
0+000	Connect to Ex. 305mm W/M with 300x200 TEE		56.390		54.280
0+003.30	Crossing Existing 600mm Sanitary Sewer		56.410	54.010	
0+005.40	Crossing Existing 1050mm Storm Sewer		56.390	52.692	
0+012.64	DMA VC	56.540		54.140	
0+013.40	45 degree bend	56.560		54.160	
0+014.06	45 degree bend	56.580		54.180	
0+016.13	200 X 200 TEE	56.570		54.170	
0+016.13	200mm V&VB	56.590		54.190	
0+016.13	W/M STUB	56.620		54.220	
0+017.13	200 X 200 TEE	56.570		54.170	
0+017.13	200mm V&VB	56.580		54.180	
0+017.13	W/M STUB	56.590		54.190	
0+025.30	45 degree bend	56.600		54.200	
0+026.52	45 degree bend	56.610		54.210	
0+081.71	200 X 200 TEE	56.680		54.280	
0+081.71	200mm V&VB	56.700		54.300	
0+081.71	Fire Hydrant	56.730		54.330	
0+155.12	45 degree bend	57.130		54.730	
0+156.61	45 degree bend	57.150		54.750	
0+158.70	200x150 TEE	57.140		54.740	
0+158.70	200mm V&VB	57.150		54.750	
0+158.70	Fire hydrant	57.150		54.750	
	200mm V&VB	56.860		54.460	
0+167.32	45 degree bend	56.790		54.390	
	200x150 Reducer	56.790		54.390	
0+175.49	Connect to Ex. 150mm W/M with 150x150 TEE		56.690		54.290

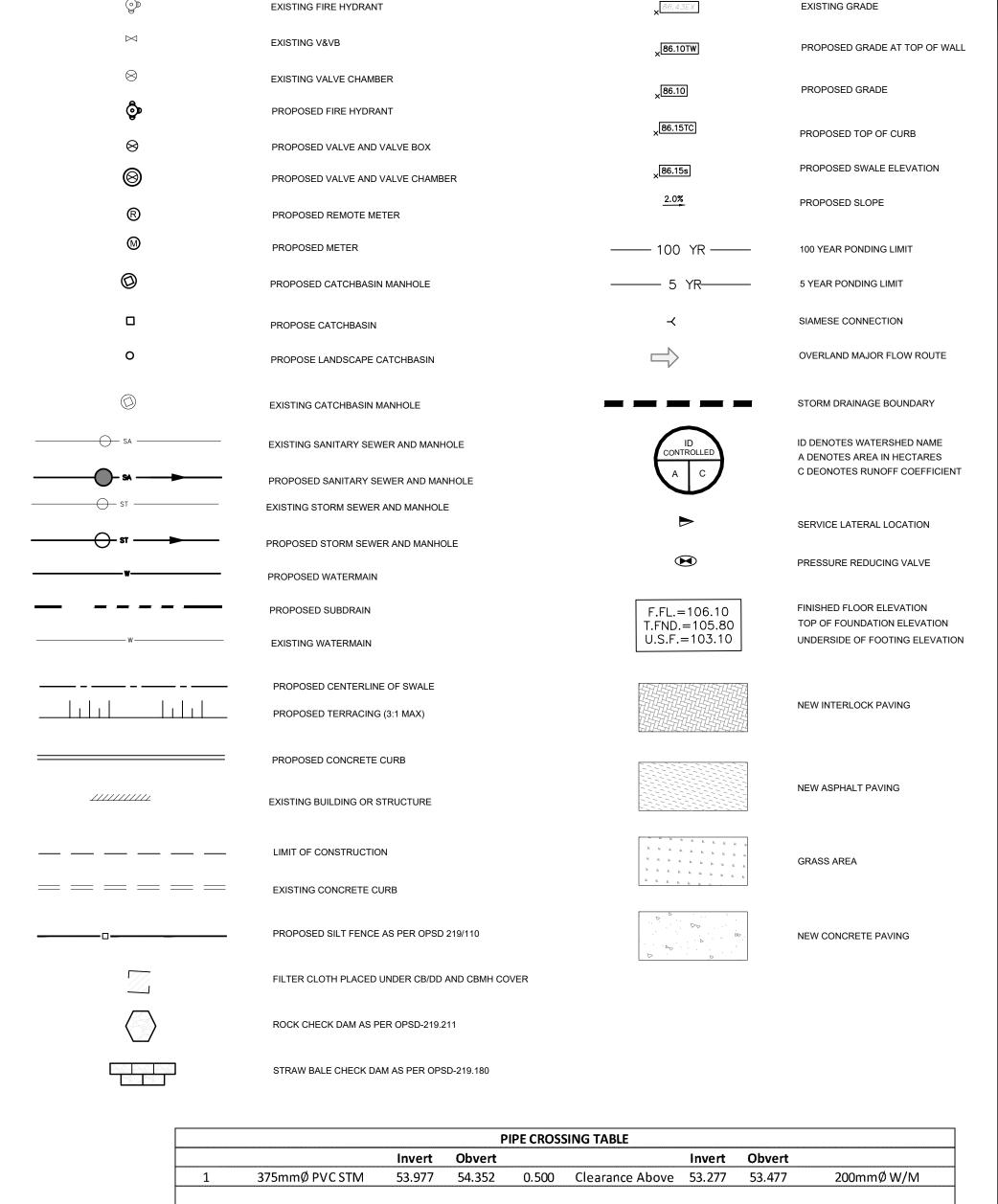


TYPICAL STEP CONNECTION (NTS)

PROVIDE 50mm OVERBANDING AT THE SURFACE.







LEGEND:

3	EX.600mm	Ø CONC SAN	53.014	3.709 0	.797 C	learance Unde	r 53.810	54.010	200m	nmØ W/M
4	300mmØ	PVCSAN	54.680 5	4.980 0	.315 C	learance Above	e 53.182	54.365	EX.1050m	mØCONC STM
					STOR	M STRUCTURE	TABLE			
		STRUCTURE	TOP OF	10.10.7557.10.1		NVERT IN INVERT OUT		DES	ESCRIPTION	
		ID	GRATE	IINVE	KIIN	INVERTOUT	SIZE		OPSD	COVER
		STMH01	56.94		54.870	54.850	1200mm DIA	. OPS	D 701.010	S24.1
		STMH02	56.79		54.820	54.760	1200mm DIA	OPS	D 701.010	S24.1
		STMH03	56.88	54.720	54.760	54.700	1200mm DIA	OPS	D 701.010	S24.1
		STMH04	56.63		54.010	53.990	1200mm DIA	OPS	D 701.010	S24.1

2 EX.1050mm ØCONC STM 53.192 54.375 0.500 Clearance Above 52.492 52.692

STMH05

CBMH06

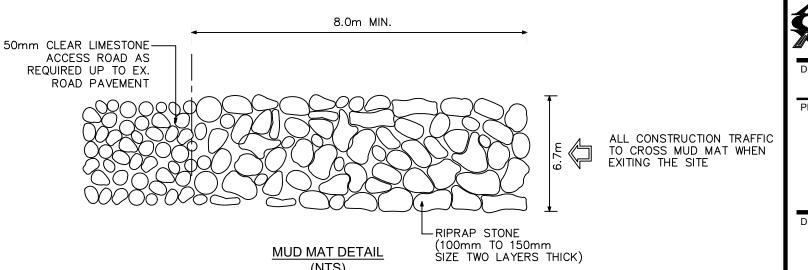
57.06

56.90

	SAN STRUCTURE TABLE										
STRUCTURE ID	TOP OF GRATE	INVE	DT IN	INVERT OUT	DESCRIPTION						
STRUCTURE ID	ELEVATION	IIIVE	IVI IIN	INVERTOUT	SIZE	OPSD	COVER				
SAMH01	56.56		53.30	53.28	1200mm DIA.	OPSD-701.010	S24				
SAMH02	56.50	53.23	53.01	53.01	1200mm DIA.	OPSD-701.010	S24				

54.950 | 1200mm DIA. | OPSD 701.010 |

55.140 | 1200mm DIA. | OPSD 701.010



GENERAL NOTES: THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS OMISSIONS INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED. CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



KEY PLAN

SUBJECT TO APPROVAL

BENCH MARK No.1 ELEVATION=56.43 FI EVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM THE WESTERLY LIMIT OF PART 1, PLAN 5R-6112 SHOWN AS HAVING A BEARING OF N28'27'30"W.

TOWNSHIP: CITY OF OTTAWA

D.Y. 2023-04-03 COMMENTS D.Y. 2022-09-13 01 ISSUED FOR SPA REVISIONS DATE BY HORIZONTAL SCALE:

SCALE: 1:300 DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

D. B. YANG

200mmØ W/M

S24.1

S28.4

2611 Queensview Dr. Ottawa, ON Canada K2B 8K2 t: 613.829.2800 f: 613.829.8299 www.wspgroup.co

> 2705460 ONTARIO INC. C/O ANAND AGGARWAL MANOR PARK MANAGEMENT 231 BRITTANY DRIVE, SUITE D OTTAWA, ON K1K 0R8

roderick lahey architect in beech street, offawa, ontario K1S

ANNIS,O'SULLIVAN, VOLLEBEKK Ontario Land Surveyors 14 CONCOURSE GATE, SUITE 500, NEPEAN, ONTARIO, K2E 7S TEL.(613)727-0850 FAX(613)727-1079

D.Y. J.T. D.Y. **PROJECT**

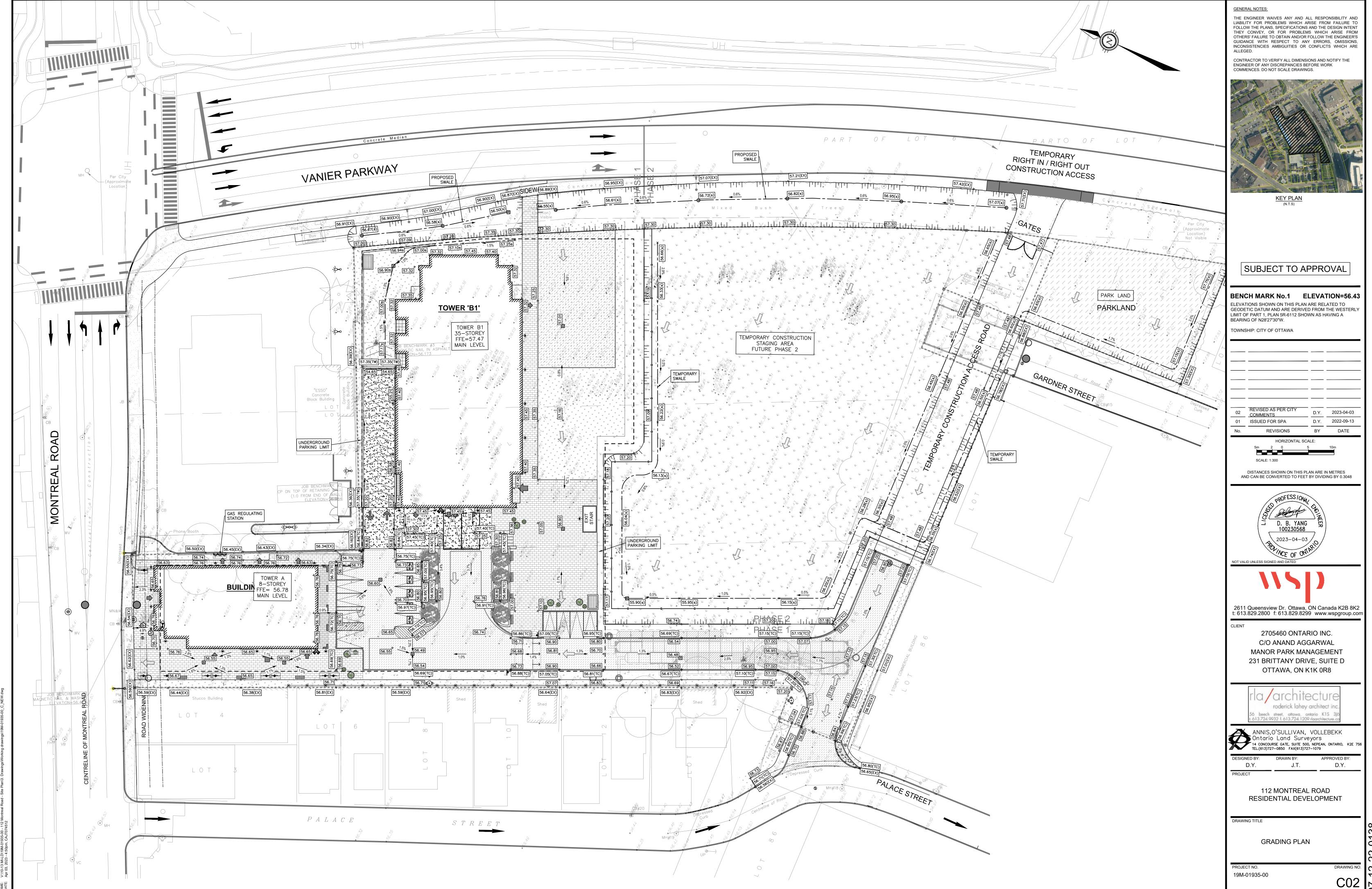
112 MONTREAL ROAD

RESIDENTIAL DEVELOPMENT

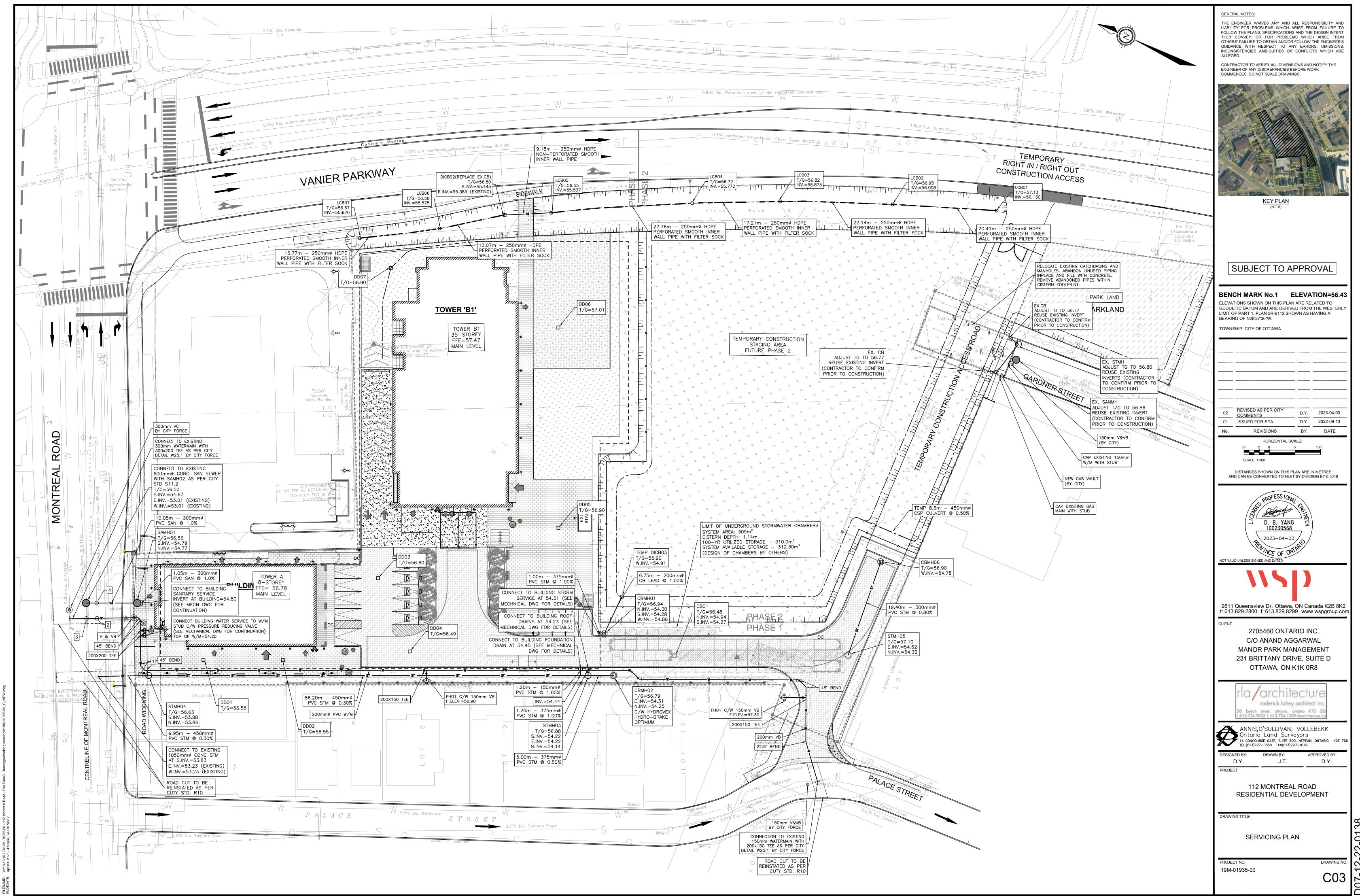
NOTES AND DETAILS

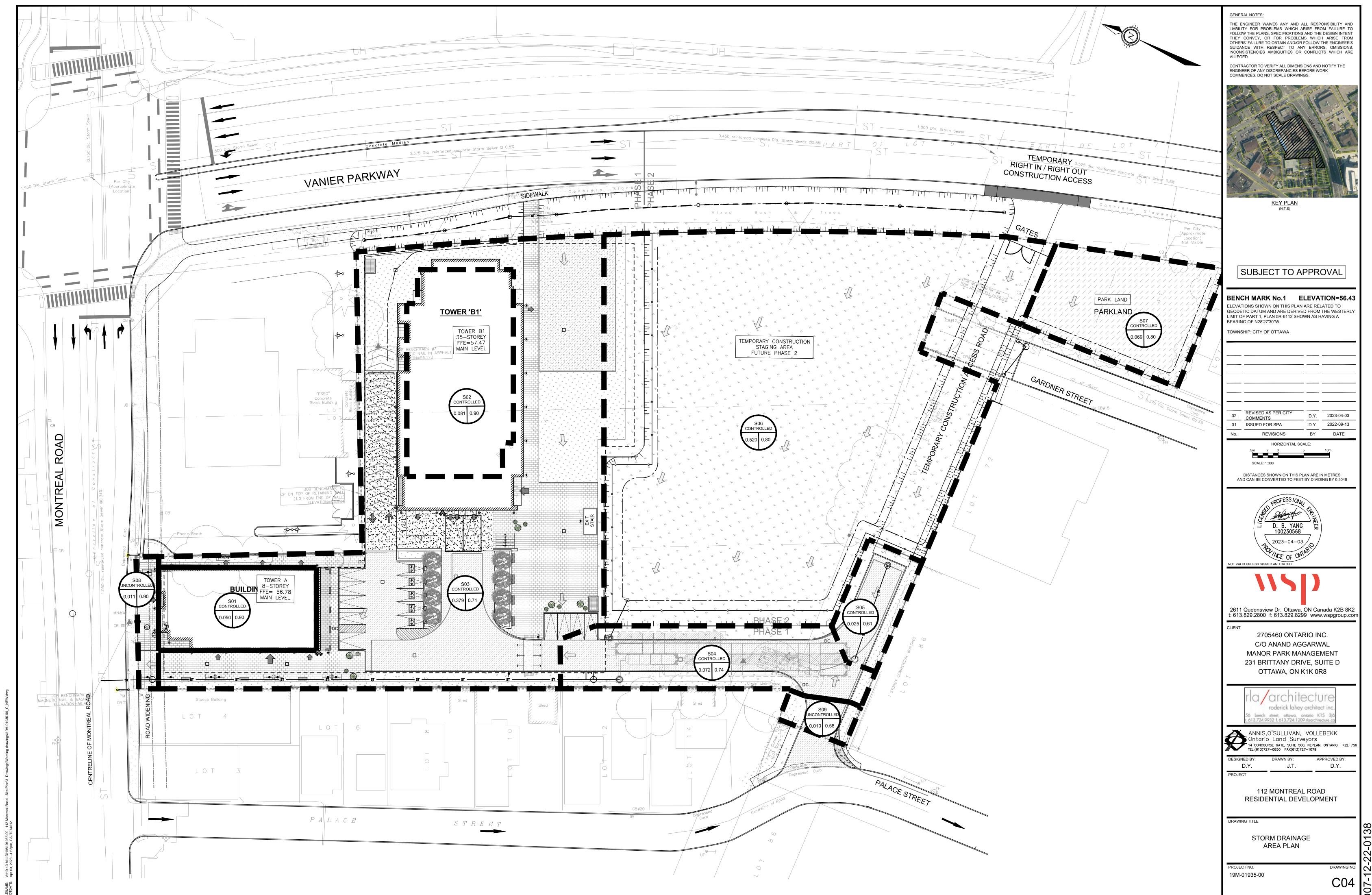
PROJECT NO. 19M-01935-00

C01

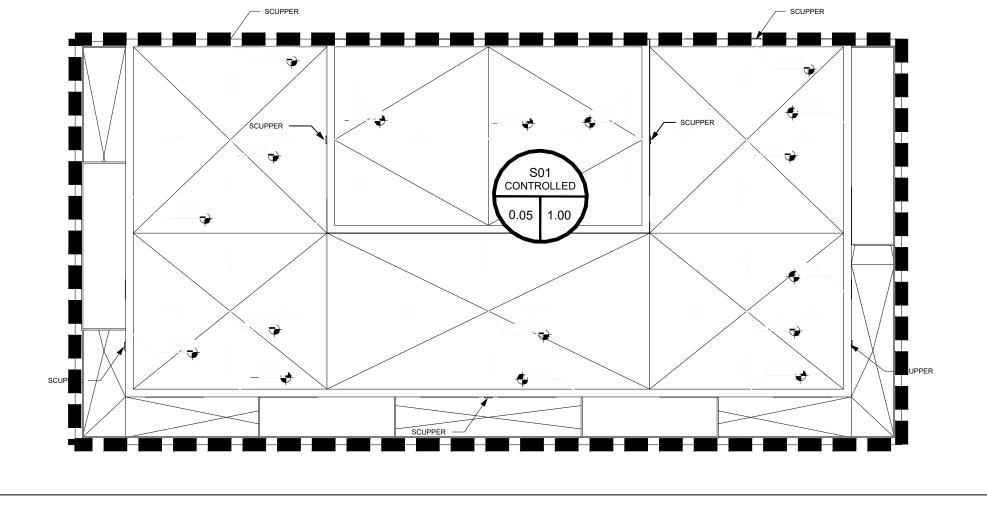


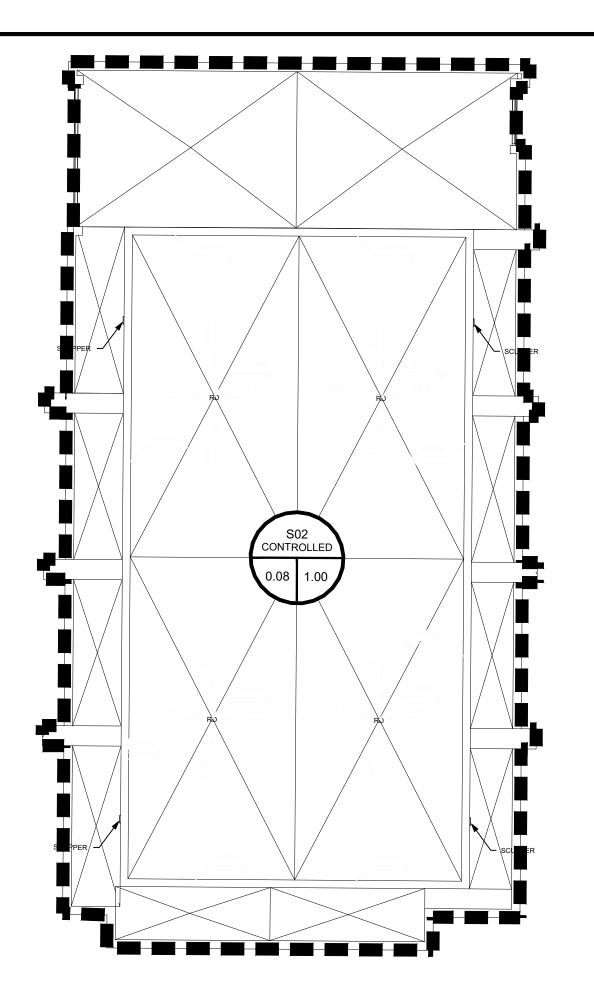
#18856





#18856





Adjustable Accutrol Weir

Adjustable Flow Control for Roof Drains

ADJUSTABLE ACCUTROL (for Large Sump Roof Drains only)

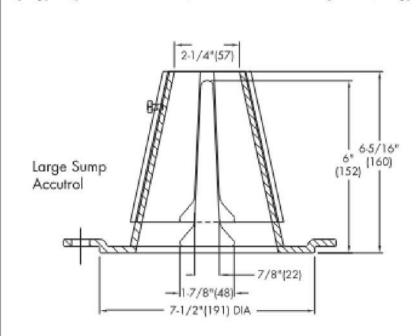
For more flexibility in controlling flow with heads deeper than 2", Watts Drainage offers the Adjustable Accutrol. The Adjustable Accutrol Weir is designed with a single parabolic opening that can be covered to restrict flow above 2" of head to less than 5 gpm per inch, up to 6" of head. To adjust the flow rate for depths over 2" of head, set the slot in the adjustable upper cone according to the flow rate required. Refer to Table 1 below.

Note: Flow rates are directly proportional to the amount of weir opening that is exposed.

EXAMPLE:

For example, if the adjustable upper cone is set to cover 1/2 of the weir opening, flow rates above 2"of head will be restricted to 2-1/2 gpm per inch of head.

Therefore, at 3"of head, the flow rate through the Accutrol Weir that has 1/2 the slot exposed will be: [5 gpm (per inch of head) x 2 inches of head] + 2-1/2 gpm (for the third inch of head) = 12-1/2 gpm.





1/2 Weir Opening Exposed Shown Above

TABLE 1. Adjustable Accutrol Flow Rate Settings

w.: a :	1"	2"	3"	4"	5"	6"				
Weir Opening Exposed	Flow Rate (gallons per minute)									
Fully Exposed	5	10	15	20	25	30				
3/4	5	10	13.75	17.5	21.25	25				
1/2	5	10	12.5	15	17.5	20				
1/4	5	10	11.25	12.5	13.75	15				
Closed	5	5	5	5	5	5				

Fully Exposed	3	10	15	20	25	30
3/4	-5	10	13.75	17.5	21.25	25
1/2	5	10	12.5	15	17.5	20
1/4	5	10	11.25	12.5	13.75	15
Closed	5	5	5	5	5	5

Job Name Job Location

Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • Watts.com

ES-WD-RD-ACCUTROLADJ-CAN 1615

Contractor Contractor's P.O. No. Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For

precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold. USA: Tel: (800) 338-2581 • Fax: (828) 248-3929 • Watts.com Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • Watts.ca

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Roof Drains

								WATT Drains	
							Number of		
				sterii		Area controlled by	Drains Req. (~1		Width / Length
Catchment ID	Status	Common Name	Area (ha.)	Area (m²)	Area to Cistern 1 (m ²)	Rooftop (m ²)	Drain / 150 m2)	Area Per Drain	(m)
501	Controlled	Building A	0.05	500	190	310	5	62.00	7.87
502	Controlled	Building B1	0.081	810	447	363	4	90.75	9.53

	Yo.										
METRIC		Flow Rate (m3/sec)									
Weir opening	25.4	25.4 50.8 76.2 101.6 127.0									
	0.02540	0.05080	0.07620	0.10160	0.12700	0.15240					
Fully Exposed	0.000315451	0.000630902	0.000946353	0.001261804	0.001577255	0.001892706					
3/4	0.000315451	0.000630902	0.00086749	0.001104079	0.001340667	0.001577255					
1/2	0.000315451	0.000630902	0.000788628	0.000946353	0.001104079	0.001261804					
1/4	0.000315451	0.000630902	0.000709765	0.000788628	0.00086749	0.000946353					
Closed	0.000315451	0.000315451	0.000315451	0.000315451	0.000315451	0.000315451					

Table 3-3: Post-Development Modelling Results (C)

RETURN PERIOD	THE PROPERTY OF THE PARTY OF TH			STORAG TE¹, AND PTH		UNCONTROLLED FLOW RATE ²			
(YEARS)	то	WER A		TO	WER B	1	(L/S)		
	(m ³)	(L/s)	(m)	(m ³)	(L/s)	(m)			
5	4.5	1.5	0.054	6.4	1.2	0.073	2.9		
100	11.5	1.5	0.086	15.4	1.2	0.142	8.3		

¹ Based on the critical duration resulting in maximum storage utilized on each roof surface

² Based on the critical duration resulting in the maximum flow released from the site

GENERAL NOTES:

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



KEY PLAN (N.T.S)

SUBJECT TO APPROVAL

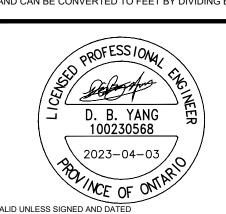
BENCH MARK No.1 ELEVATION=56.43 ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM THE WESTERLY LIMIT OF PART 1, PLAN 5R-6112 SHOWN AS HAVING A BEARING OF N28'27'30"W.

TOWNSHIP: CITY OF OTTAWA

02	REVISED AS PER CITY COMMENTS	D.Y.	2023-04-03
01	ISSUED FOR SPA	D.Y.	2022-09-13

REVISIONS HORIZONTAL SCALE:

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048





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2705460 ONTARIO INC. C/O ANAND AGGARWAL

MANOR PARK MANAGEMENT 231 BRITTANY DRIVE, SUITE D OTTAWA, ON K1K 0R8



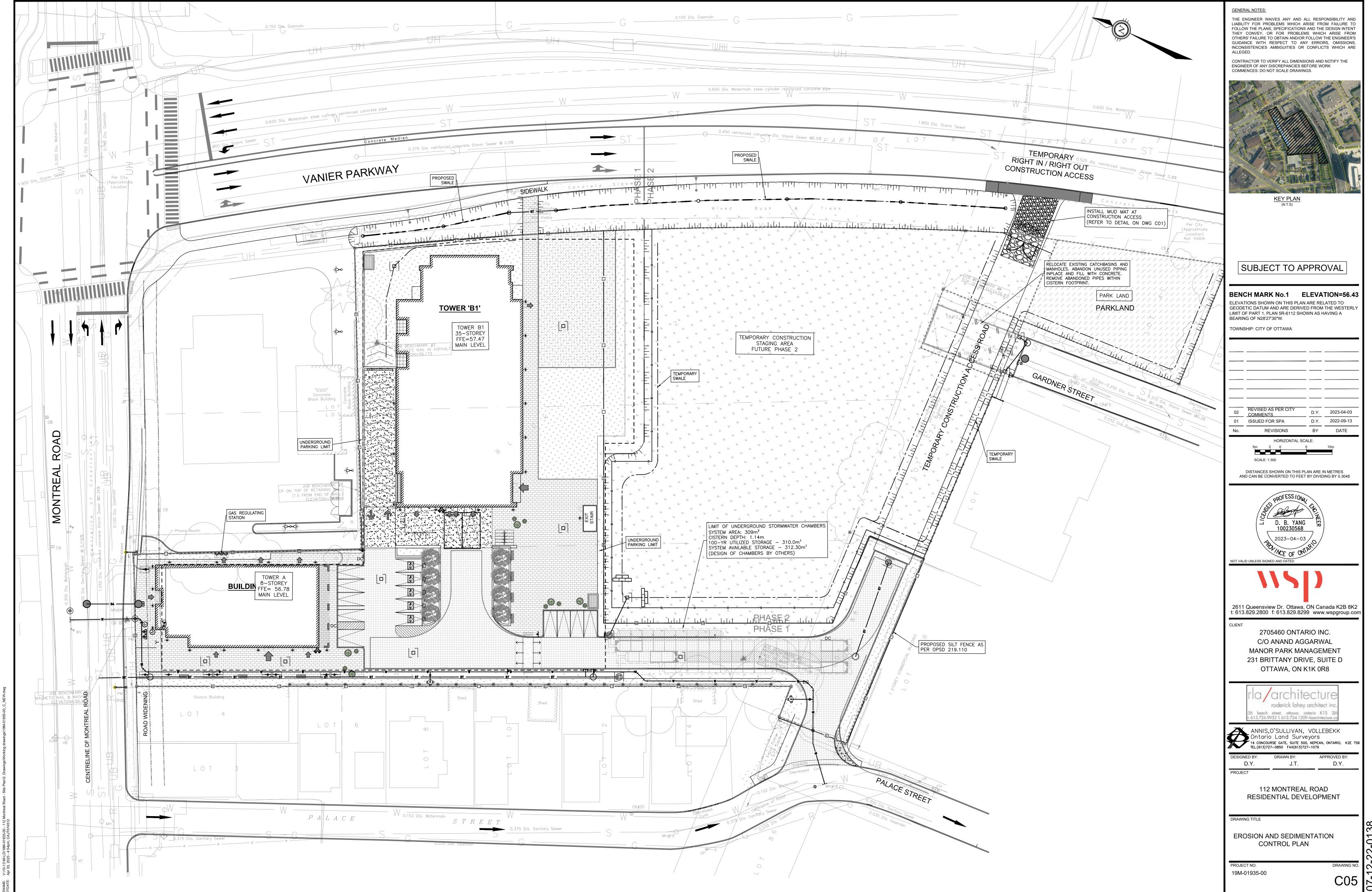


112 MONTREAL ROAD RESIDENTIAL DEVELOPMENT

ROOF DRAINAGE PLAN

PROJECT NO. 19M-01935-00

C04A



#18856