

- 1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- 2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- 3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- 4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$2,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
- 5. COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD & AWWA GUIDELINES - ALL CURRENT VERSIONS AND 'AS AMENDED'.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF MUNICIPAL AUTHORITIES.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED
- 8. ALL ELEVATIONS ARE GEODETIC.
- 9. REFER TO GEOTECHNICAL INVESTIGATION PG4975-1, DATED JULY 04, 2019, PREPARED BY PATERSON GROUP INC., FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
- 10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
- 11. REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2019-155) PREPARED BY NOVATECH.
- 12. SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE-IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10)

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.

CITY OF OTTAWA - S6 & S7

- 3. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2. REFER TO MECHANICAL PLANS FOR DETAILS. 4. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
- 5. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.5m COVER WITH 125mm THICK HI-40 RIGID INSULATION.
- 6. TYPICAL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS UNLESS OTHERWISE INDICATED.
- 7. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO
- 8. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL APPLICABLE SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS,
- 9. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL
- SUBMIT A CERTIFIED COPY OF THE TEST RESULTS. 10. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, GREATER THAN 200mmØ PRIOR TO BASE COURSE ASPHALT. UPON

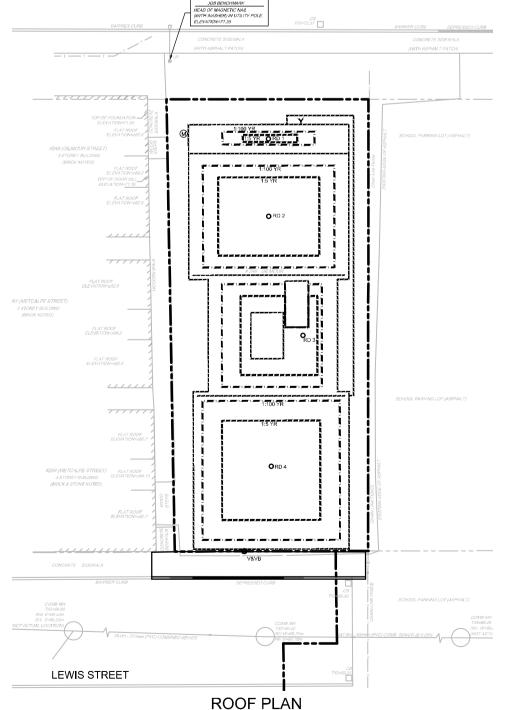
WATERMAIN NOTES:

1. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.

WATERMAIN TRENCHING THERMAL INSULATION IN SHALLOW TRENCHES THERMAL INSULATION BY OPEN STRUCTURES WATERMAIN CROSSING BELOW SEWERS

CITY OF OTTAWA PVC DR 18 (100mm AND LARGER)

- 3. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR, CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS. EXCAVATION, INSTALLATION OF SERVICE, BACKFILL AND RESTORATION BY THE CONTRACTOR.
- 4. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
- 5. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
- 6. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE



SCALE 1:250

LSC/RRE

LSC/RRB

FST

SCALE

1:125

2.5

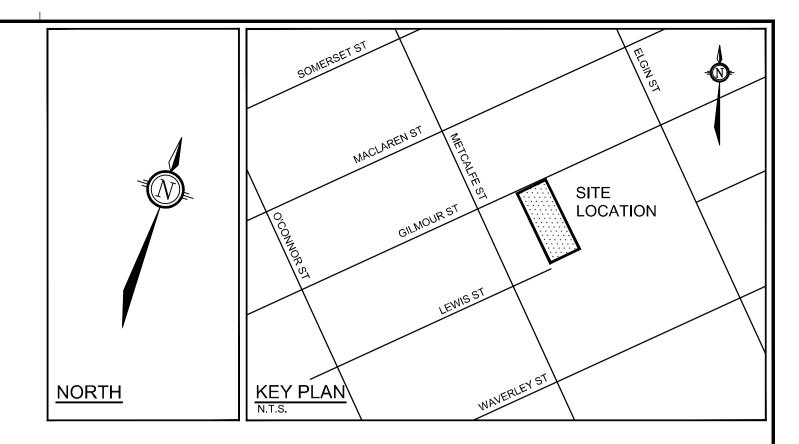
FOR REVIEW ONLY

Karage I with

F.S. THAUVETTE

100041399

AUG. 28,2020



<u>LEGEND</u>			
	PROPERTY LINE	—— ОН ——	- EXISTING OVERHEAD WIRES
	PROPOSED SANITARY SERVICE		EXISTING CONCRETE CURB
	PROPOSED STORM SERVICE	SANMH	EXISTING SANITARY MANHOLE & SEWER
RD o	CONTROLLED FLOW ROOF DRAIN	CBMH 🔘	EXISTING CATCHBASIN MANHOLE
•		STMMH	EXISTING STORM MANHOLE & SEWER
	PROPOSED BARRIER CURB	CB	EXISTING CATCHBASIN C/W
DC_	PROPOSED DEPRESSED CURB		CATCHBASIN LEAD
		HYD - SV&VB	EXISTING HYDRANT & VALVE
<u>150mmØ</u>	PROPOSED WATER SERVICE AND DIAMETER	~1	
V&VB ⊗	PROPOSED VALVE & VALVE BOX		EXISTING TREES / VEGETATION
С	PROPOSED CAP	EX UP	EXISTING UTILITY POLE C/W GUY WIRES
Y	PROPOSED SIAMESE CONNECTION		EVICENCE SENCE
, (A)	DDODOGED WATER METER & DEMOTE METER	\times \times	EXISTING FENCE
(M) (RM)	PROPOSED WATER METER & REMOTE METER	250mmØ WM	EXISTING WATERMAIN
	THERMAL INSULATION OVER WATER SERVICE	HYD_ \(\rightarrow\)	EXISTING HYDRANT C/W VALVE & LEAD
FFE	PROPOSED FINISHED FLOOR ELEVATION		ADDDOVIMATE LIMIT OF 40
TF	PROPOSED TOP OF FOUNDATION ELEVATION		APPROXIMATE LIMIT OF 40mm FULL ROADWAY WIDTH ASPHALT
BFE	PROPOSED BASEMENT FLOOR ELEVATION		OVERLAY PER CITY STANDARDS
USF	PROPOSED UNDERSIDE OF FOOTING ELEVATION		
M	PROPOSED GAS METER		

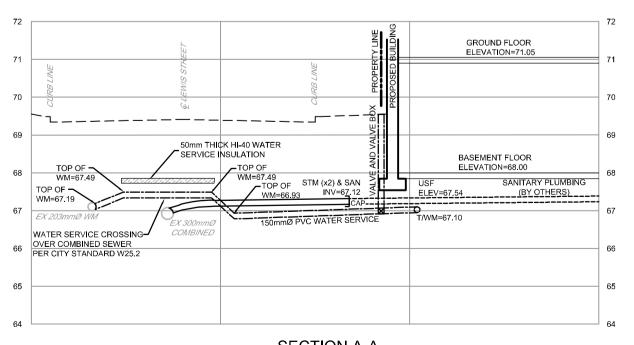
F	ROOF DRAIN TABLE: AREA R-1 TO R-4 (ROOF DRAINS 1, 2, 3 & 4)								
AREA ID '	ROOF DRAIN No. (WATTS MODEL)**	ROOF DRAIN OPENING SETTING	1:5 YEAR RELEASE RATE	APPROX. 5 YR PONDING DEPTH	1:100 YEAR RELEASE RATE	APPROX. 100 YR PONDING DEPTH			
R-1	RD 1 (RD-100-A-ADJ)	1/4 EXPOSED	0.63 L/s	5 cm	0.75 L/s	9 cm			
R-2	RD 2 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	10 cm	0.87 L/s	13 cm			
R-3	RD 3 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	10 cm	0.87 L/s	13 cm			
R-4	RD 4 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	10 cm	0.87 L/s	14 cm			

**ALL CONTROLLED FLOW ROOF DRAINS FOR THE PROPOSED BUILDING TO BE WATTS ADJUSTABLE ACCUTROL ROOF DRAINS.

* REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2019-155) PREPARED BY NOVATECH FOR DRAINAGE AREA IDENTIFIERS AND STORMWATER MANAGEMENT DETAILS.

	SITE FLOWS & STORMWATER MANAGEMENT TABLE									
DESIGN EVENT	PRE-DEVELOPMENT CONDITIONS		POST-DEVELOPMENT CONDITIONS							
	UNCONTROLLED FLOW (L/s)	ALLOWABLE RELEASE RATE (L/s)	A-1 FLOW (L/s)	A-2 FLOW (L/s)	A-3 FLOW (L/s)	R 1-4 FLOW (L/s)	TOTAL FLOW (L/s)	REDUCTION IN FLOW (L/s OR %)*		
1:5 YR	3.5	10.0	0.24	0.88	0.46	2.76	4.34	N/A		
1:100 YR	7.1	10.0	0.48	1.70	0.92	3.36	6.46	0.64 OR 9%		

* REDUCED FLOW COMPARED TO PRE-DEVELOPMENT UNCONTROLLED CONDITIONS



SECTION A-A SCALE 1:100

Suite 200, 240 Michael Cowpland Drive Ottawa, Ontario, Canada K2M 1P6 (613) 254-9643 Telephone

Facsimile

Website

(613) 254-5867

www.novatech-eng.com

CITY OF OTTAWA 246 GILMOUR STREET DRAWING NAME 118221 GENERAL PLAN OF SERVICES REV # 5

118221-GP

96

0