

LEGEND

---	SITE BOUNDARY	---	EXISTING ADJACENT PROPERTY LINE
---	PROPOSED STORM SEWER AND DIRECTION OF FLOW	---	EXISTING STORM MANHOLE AND SEWER
---	PROPOSED SANITARY SEWER AND DIRECTION OF FLOW	---	EXISTING SANITARY MANHOLE AND SEWER
---	PROPOSED WATERMAIN	---	EXISTING WATERMAIN
---	PROPOSED VALVE AND VALVE BOX	---	EXISTING VALVE AND VALVE BOX
---	PROPOSED WATER METER LOCATION	---	EXISTING FIRE HYDRANT
---	PROPOSED REMOTE METER LOCATION	---	EXISTING CATCHBASIN
---	PROPOSED SANITARY / STORM MONITORING TEST PORT	---	EXISTING TOP OF GRATE
---	PROPOSED TRENCH DRAIN	---	EXISTING UTILITY POLE CW GUY WIRES
---	PROPOSED SIAMISE CONNECTION	---	EXISTING LIGHT STANDARD
---	PROPOSED BUILDING ENTRANCE	---	EXISTING ROGERS NETWORK ACCESS POINT
---	PROPOSED LIMITS OF UNDERGROUND PARKING	---	EXISTING BELL GRADE LEVEL BOX
---	PROPOSED RETAINING WALL	---	EXISTING TREES
---	PROPOSED BARRIER CURB	---	
---	PROPOSED DEPRESSED CURB	---	
---	PROPOSED DOWNSPOUT	---	

- GENERAL NOTES:**
- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
 - 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.
 - OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
 - BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
 - 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 THE CITY OF OTTAWA AND ENGINEER.
 - 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 LANDFILL FACILITY.
 - ALL ELEVATIONS ARE GEODETIC.
 - REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
 - REFER TO SERVICES DESIGN BRIEF PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
 - SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
 - PROVIDE LINE/PARKING PAINTING.
 - CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING THE AS-BUILT ELEVATION OF EVERY DESIGN GRADE SHOWN ON THIS PLAN.
 - REFER TO GEOTECHNICAL REPORT NO. 1668819, DATED JUNE 2017, PREPARED BY GOLD ALDER ASSOCIATES 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.
 - ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS. ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS WILL APPLY WHERE NO CITY STANDARDS ARE AVAILABLE.
 - ALL PRIVATE APPROACHES MUST BE CONSTRUCTED AS PER CITY SPECIFICATION SC13.

APPROXIMATE LOCATION OF INTERNAL SANITARY AND STORM SERVICE MONITORING TEST PORTS. (REFER TO MECHANICAL PLANS FOR DETAILS)

PROPOSED 10.6m - 150mmØ PVC DR 18 WATERMAIN, CONNECT TO EXISTING 250mmØ WATERMAIN USING A 250 x 150 TEE. CONTRACTOR TO CONFIRM EXACT LOCATION AND ELEVATION, AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION. EXISTING TWM AT MAINLINE = 61.22±

PROPOSED 7.7m - 200mmØ SDR 35 SANITARY SEWER @ 1.0%, CONNECT ABOVE SPRINGLINE OF EXISTING 250mmØ MAINLINE. CONTRACTOR TO CONFIRM EXACT LOCATION AND ELEVATION, AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION. EXISTING 250mmØ SANITARY INVERT AT CONNECTION = 60.09±, PROPOSED 200mmØ SANITARY INVERT AT CONNECTION = 61.03±

PROPOSED 6.0m - SDR 35 200mmØ SDR 35 STORM SEWER @ 1.0%, CONNECT ABOVE SPRINGLINE OF EXISTING 300mmØ MAINLINE USING MANUFACTURED 'T' CONNECTION. CONTRACTOR TO CONFIRM EXACT LOCATION AND ELEVATION, AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION. EXISTING 300mmØ STORM INVERT AT CONNECTION = 61.44±, PROPOSED 200mmØ STORM INVERT AT CONNECTION = 61.61±

PROPOSED BUILDING - ROOF DRAIN TABLE

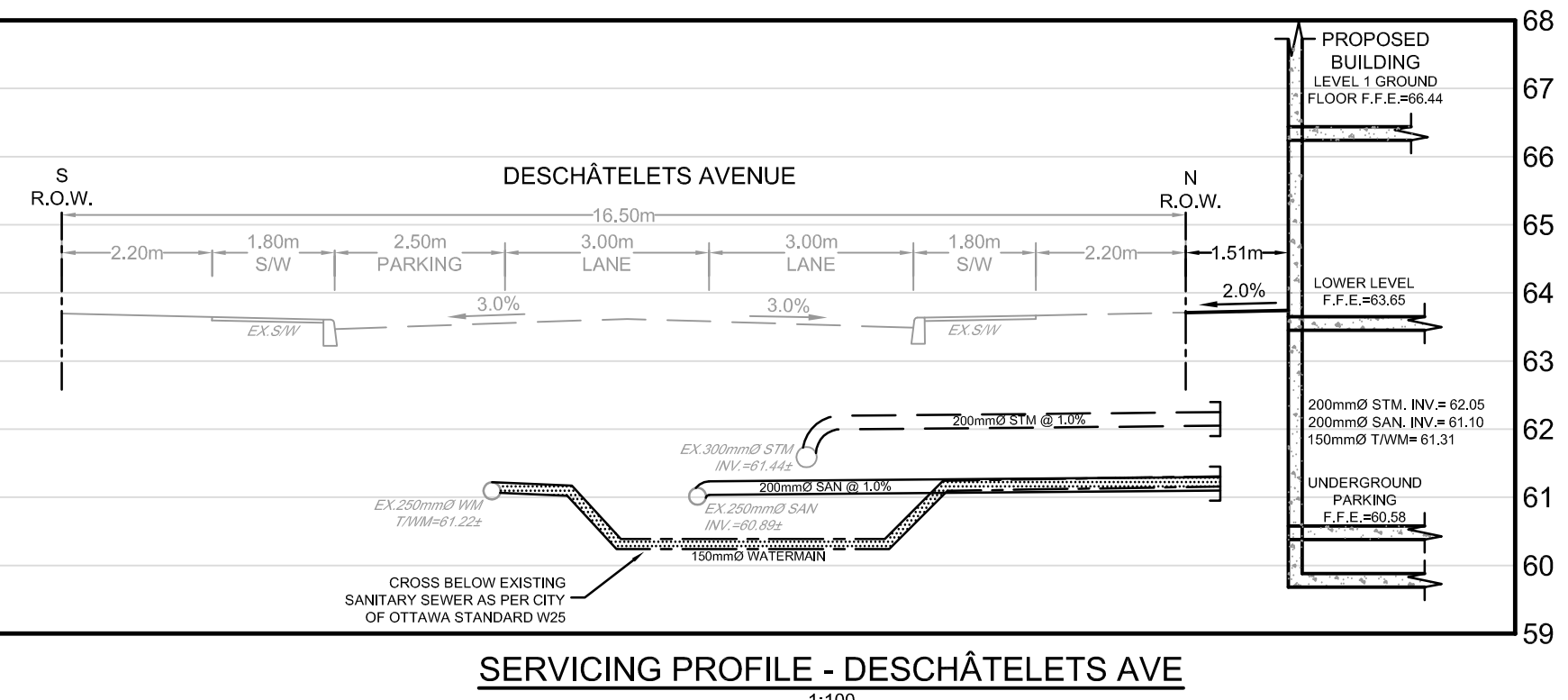
AREA ID	ZURN SPECIFICATION	NOTCHES	POST DEVELOPMENT ZURN ROOF DRAIN CONTROL PARAMETERS		1:100 - YEAR EVENT	
			HEAD(m)	Q(l/s)	HEAD(m)	Q(l/s)
R	N/A	-	-	-	-	-
TOTAL			-	-	-	-

ROOF AREAS WILL NOT HAVE CONTROLLED ROOF DRAINS AND WILL DIRECT RUNOFF VIA THE DOWNSPOUTS.

WATERMAIN TABLE - DESCHÂTELETS AVE
(MIN COVER = 2.4m)

STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	DESCRIPTION
0+00	63.56±	61.22±	CONNECT TO EXISTING 250mmØ WATERMAIN
0+01.0	63.56±	61.18	45° VERTICAL BEND
0+01.8	63.61±	60.39	45° VERTICAL BEND
0+03.0	63.59±	60.39	CROSS BELOW EXISTING 250mmØ SANITARY
0+05.7	63.52±	60.39	45° VERTICAL BEND
0+06.6	63.94±	61.24	45° VERTICAL BEND
0+10.2	63.71±	61.31	WATER VALVE AT PROPERTY LINE
0+10.6	63.71±	61.31	CAP 1.0m OFF BUILDING

* EXACT DEPTH OF EXISTING WATERMAIN TO BE DETERMINED AT TIME OF EXCAVATION. CONTRACTOR TO CONFIRM TOP OF WATERMAIN. PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W23 WHERE COVER IS LESS THAN 2.4m



- SEWER NOTES:**
- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
SEWER SERVICE CONNECTION - RIGID PIPE	S11	CITY OF OTTAWA
SEWER SERVICE ABANDONMENT	S11.4	CITY OF OTTAWA
SEWER TRENCH - BEDDING (GRANULAR A)	S6 S7 W17	CITY OF OTTAWA / OPSD
SEWER TRENCH - COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)	S6 S7 W17	CITY OF OTTAWA / OPSD
STORM SEWER	PVC DR 36	
SANITARY SEWER	PVC DR 36	
 - INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm H-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
 - SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
 - 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.
 - FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
 - 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 OPSD 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.
 - FULL PORT BACKWATER VALVES ARE REQUIRED ON THE SANITARY SERVICES, INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS AND A BACKWATER VALVE IS REQUIRED ON THE STORM SERVICES / FOUNDATION DRAINS FOR EACH BUILDING, INSTALLED AS PER STD. DWG S14.
 - CONTRACTOR TO TELEVOICE (CCTV) ALL PROPOSED SEWERS/LATERALS.
 - REINSTATE ALL EXISTING PAVEMENT, CURB AND BOULEVARDS AS PER CITY OF OTTAWA R10.
 - ALL EXISTING SANITARY AND STORM SERVICES ARE TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY OF OTTAWA'S SEWER OPERATION.
 - MONITORING TEST PORTS FOR BUILDING SERVICES TO BE INSTALLED IN PARKING GARAGE.

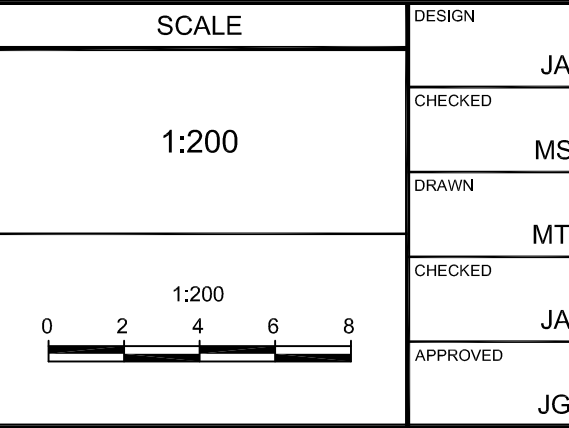
- WATERMAIN NOTES:**
- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
CONNECTION DETAIL FROM EXISTING TO NEW WM	W25.1	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
WATERMAIN (150mmØ)	PVC DR 18	
WATERMAIN (50mmØ)	TYPE 'K' COPPER	
THERMAL INSULATED AT OPEN STRUCTURE	W23	CITY OF OTTAWA
WATER SERVICE INSTALLATION AT SEWER CROSSING	W38	CITY OF OTTAWA
 - SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHARACTERIZATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
 - WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD. DWG W22.
 - PROVIDE MINIMUM 0.50m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS WHEN WATERMAIN IS BELOW AND MINIMUM 0.25m CLEARANCE WHEN WATERMAIN IS ABOVE.
 - WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
 - WATER DEMAND = A.D.D. x T.B.D. / 1000. M.D.D. = T.B.D. / 1000. M.H.D. = T.B.D. / 1000
 - ALL EXISTING WATER SERVICES TO BE BLANKED AT MAIN BY CITY FORCES. EXCAVATION AND REINSTATEMENT BY CONTRACTOR.

NOTE:
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.

**PRELIMINARY
NOT FOR
CONSTRUCTION**

NO.	REVISION	DATE	BY
2.	ISSUED WITH SITE PLAN APPLICATION	APR 27/18	JAG
1.	ISSUED FOR DISCUSSION PURPOSES ONLY	SEP 5/17	JAG



FOR REVIEW ONLY

DESIGNED BY: JAG

CHECKED BY: MSP

DRAWN BY: MTM

APPROVED BY: JAG

DATE: APR 27/18

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LOCATION
CITY OF OTTAWA
The Grove at Greystone Village

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT NO.: 114025-3A
REV # 2
DRAWING NO.: 114025-GP(3A)