



LEGEND

---	SITE BOUNDARY	---	EXISTING STORM MANHOLE AND SEWER
--->	PROPOSED STORM MANHOLE AND SEWER WITH DIRECTION OF FLOW	---	EXISTING SANITARY MANHOLE AND SEWER
--->	PROPOSED SANITARY MANHOLE AND SEWER WITH DIRECTION OF FLOW	---	EXISTING WATERMAIN
--->	PROPOSED WATERMAIN	---	EXISTING OVERHEAD WIRES
--->	PROPOSED VALVE AND VALVE BOX	---	EXISTING VALVE AND VALVE BOX
--->	PROPOSED HYDRANT	---	EXISTING FIRE HYDRANT
---	PROPOSED RETAINING WALL	---	EXISTING CATCHBASIN
---	PROPOSED RETAINING WALL CW CHAIN LINK FENCE	---	EXISTING CURB INLET CATCHBASIN
---	PROPOSED CATCHBASIN MANHOLE	---	EXISTING ADJACENT LEGAL LINE
---	PROPOSED CATCHBASIN	---	EXISTING TREES
---	PROPOSED REAR YARD ELBOW	---	EXISTING STREETLIGHT
---	PROPOSED REAR YARD TEE	---	EXISTING UTILITY POLE
---	PROPOSED TRENCH DRAIN		
---	PROPOSED BUILDING ENTRANCE / EXIT		

PIPE CROSSING TABLE

CROSSING #	WATERMAIN	SANITARY	STORM
1	INV = 61.63 OBV = 61.83	INV = 61.63 OBV = 61.83	INV = 63.53 OBV = 63.78
2	INV = 61.97 OBV = 62.17	INV = 61.97 OBV = 62.17	INV = 63.24 OBV = 63.24
3	INV = 62.08 OBV = 62.33	INV = 62.08 OBV = 62.33	INV = 63.01 OBV = 63.26
4	INV = 63.20 OBV = 63.40	INV = 63.20 OBV = 63.40	INV = 64.10 OBV = 64.10
5	INV = 62.50 OBV = 62.60	INV = 62.50 OBV = 62.60	INV = 64.00 OBV = 64.20

* WATERMAIN CROSSING AS PER W25 & W25.2 PROVIDE THERMAL INSULATION AS PER W22 WHERE THERE IS LESS THAN 2.4m COVER

CATCHBASIN / ICD TABLE

CB No.	SIZE (mm)	MATERIAL	T/G ELEV (m)	INVERT (m)	ICD DIA. (mm) (EQUIVALENT)	IPEX TEMPEST LMF ICD MODEL
1	600x600	CONC	64.65	INV. SE=63.10 INV. NE=63.10	0.059	LMF 83
2	600x600	CONC	64.65	INV. SE=63.10 INV. NW=63.40	0.046	LMF 65
3	600x600	CONC	65.75	INV. SE=63.40 INV. NW=63.40	0.045	LMF 69
4	600x600	CONC	66.70	INV. NE=65.10 INV. SW=65.10	0.045	LMF 71
CBM1	1200	CONC	67.00	INV. SE=62.83 INV. NE=62.77		
RYT 1	900	HDPE	65.00	INV. NE=63.71 INV. SW=63.17		
RYT 2	900	HDPE	69.50	INV. NE=67.90 INV. SW=63.72		
RYT 3	375	HDPE	69.60	INV. SW=67.99 INV. SE=68.05		
RYT 4	375	HDPE	69.95	INV. NW=68.40 INV. SE=68.40		
RYE 1	375	HDPE	70.35	INV. NW=68.86		
TRENCH DRAIN			66.59	INV. NW=64.60		

RELEASE RATE TABLE

STRUCTURE	5-YEAR RELEASE RATE	100-YEAR RELEASE RATE
CB 1	4.9 L/S	7.5 L/S
CB 2	4.4 L/S	4.5 L/S
CB 3	4.9 L/S	6.4 L/S
CB 4	3.9 L/S	5.5 L/S
TRENCH DRAIN (UNCONTROLLED)	4.7 L/S	11.1 L/S
ROOF DRAINS BUILDING A	4.8 L/S	6.3 L/S
ROOF DRAINS BUILDING B	2.9 L/S	3.8 L/S
*STORM OUTLET TO EXISTING 375mm PIPE	*27.8 L/S	*42.0 L/S
UNCONTROLLED OFFSITE FLOWS	8.1 L/S	14.5 L/S
TOTAL CALCULATED SITE RELEASE RATE	35.9 L/S	56.5 L/S
TOTAL ALLOWABLE RELEASE RATE FROM SITE	56.6 L/S	56.6 L/S

SAN MANHOLE TABLE

MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)
MH203A	1200	64.70	INV. E = 61.56 INV. W = 61.56

* THE TOTAL MODELLED FLOW TO THE EXISTING STORM OUTLET PIPE IS SLIGHTLY LESS THAN SIMPLY ADDING UP THE INDIVIDUAL AREAS AS THERE IS FLOW ATTENUATION PROVIDED BY THE PIPE NETWORK ITSELF, BASED ON TIME OF FLOW IN THE PIPE AS WELL AS FRICTION/HEAD LOSSES.

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**

REVISIONS

No.	REVISION	DATE	BY
7.	ISSUED FOR SITE PLAN APPROVAL	AUG 11/23	DDB
6.	ISSUED FOR CITY OF OTTAWA REVIEW	JUN 2/23	DDB
5.	ISSUED FOR CITY OF OTTAWA REVIEW	JAN 27/23	DDB
4.	ISSUED FOR CITY OF OTTAWA REVIEW	MAY 06/22	DDB
3.	ISSUED FOR COORDINATION	APR 6/22	DDB
2.	ISSUED FOR CITY OF OTTAWA REVIEW	MAR 22/22	DDB
1.	ISSUED FOR CITY OF OTTAWA REVIEW	DEC 23/21	DDB

SCALE
1:250

FOR REVIEW ONLY

DESIGN: DDB
CHECKED: DDB
DRAWN: MTM / SM
CHECKED: DDB
APPROVED: DDB

PROFESSIONAL ENGINEER
D. D. BLAIR
100122737
Aug 11 2023
PROVINCE OF ONTARIO

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone: (613) 254-9643
Facsimile: (613) 254-5867
Website: www.novatech-eng.com

CITY OF OTTAWA
HILLSIDE COMMONS
ORLEANS TOWN CENTER

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No.: 120237-00
REV: REV # 7
DRAWING No.: 120237-GP

M:\2020\120237\CAD\Design\120237-GP.dwg, GP, Aug 04, 2023 - 2:41pm, smattewes

D07-12-21-0229

#18628