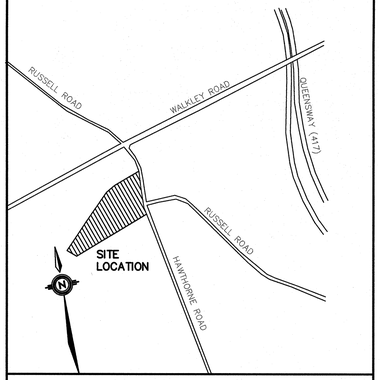


KEY PLAN

LEGEND

- PROPOSED HYDRANT
- PROPOSED VALVE AND VALVE BOX
- CB 1 — PROPOSED 600mm x 600mm CATCH BASIN C/W 150mm Ø PERFORATED SUBDRAIN
- CBMH 1 — PROPOSED 1200mmØ CATCH BASIN MANHOLE C/W 150mm Ø PERFORATED SUBDRAIN
- MH 401 — PROPOSED STORM MANHOLE (1200mmØ UNLESS OTHERWISE NOTED)
- MH 301 — PROPOSED SANITARY MANHOLE (1200mmØ UNLESS OTHERWISE NOTED)
- PROPOSED SITE LIGHTING
- PROPERTY LINE
- 100 YEAR PONDING AREA
- 100 YR — 100 YEAR PONDING LEVEL
- 5 YR — 5 YEAR PONDING LEVEL
- PROPOSED BUILDING ENTRANCE
- PROPOSED GRADE
- 71.85 — EXISTING ELEVATION
- 2.0% — PROPOSED SLOPE AND DRAINAGE DIRECTION
- T/G=88.45 — PROPOSED TOP OF GRATE ELEVATION
- PROPOSED RETAINING WALL
- PROPOSED BARRIER CURB
- EXISTING BUILDING ENTRANCE
- EXISTING SITE LIGHTING
- EXISTING MANHOLE
- EX CB — EXISTING CATCHBASIN
- T/G=88.45 — EXISTING TOP OF GRATE ELEVATION
- EXISTING HYDRANT
- EXISTING VALVE AND VALVE BOX
- EXISTING LIGHT POLE TO BE RELOCATED
- EMERGENCY OVERLAND FLOW ROUTE
- RUNOFF COEFFICIENT — STORM DRAINAGE AREA
- 0.78 / 0.06 / A301 — STORM DRAINAGE AREA NUMBER
- STORM DRAINAGE AREA

5 AND 100 YEAR SURFACE STORAGE VOLUMES

DRAINAGE AREA ID	TOTAL AREA (sq.m)	5 YEAR AREA (sq.m)	5 YEAR DEPTH (m)	5 YEAR VOLUME (cub.m)	100 YEAR AREA (sq.m)	100 YEAR DEPTH (m)	100 YEAR VOLUME (cub.m)
A301	3400	180	0.15	9.0	492	0.26	42.6
A302	1090	178	0.15	8.9	475	0.26	41.2
A303	1380	327	0.15	16.4	626	0.26	54.3
A304	920	189	0.15	9.5	451	0.26	39.1
A305	920	161	0.15	8.1	424	0.26	36.8
A306	1980	142	0.15	7.1	254	0.20	17.0
A307*	9360	9400	0.02	188	9400	0.041	388
A308	820	206	0.15	10.3	492	0.25	41.0
A309	800	191	0.15	9.6	476	0.25	39.7
A310	1050	245	0.15	12.3	600	0.25	50.0
A601*	5530	5530	0.02	94.5	5530	0.041	229.8
A602	690	48	0.05	0.8	155	0.20	10.3
A603	820	196	0.10	6.5	518	0.25	43.2
A604	1920	525	0.15	26.3	1188	0.30	118
A605	5180	670	0.15	33.5	1280	0.30	128
A606	1990	504	0.15	25.2	917	0.30	91.7
A607	1100	0	0	0	0	0	0
TOTAL	38950			446.7			1382.2

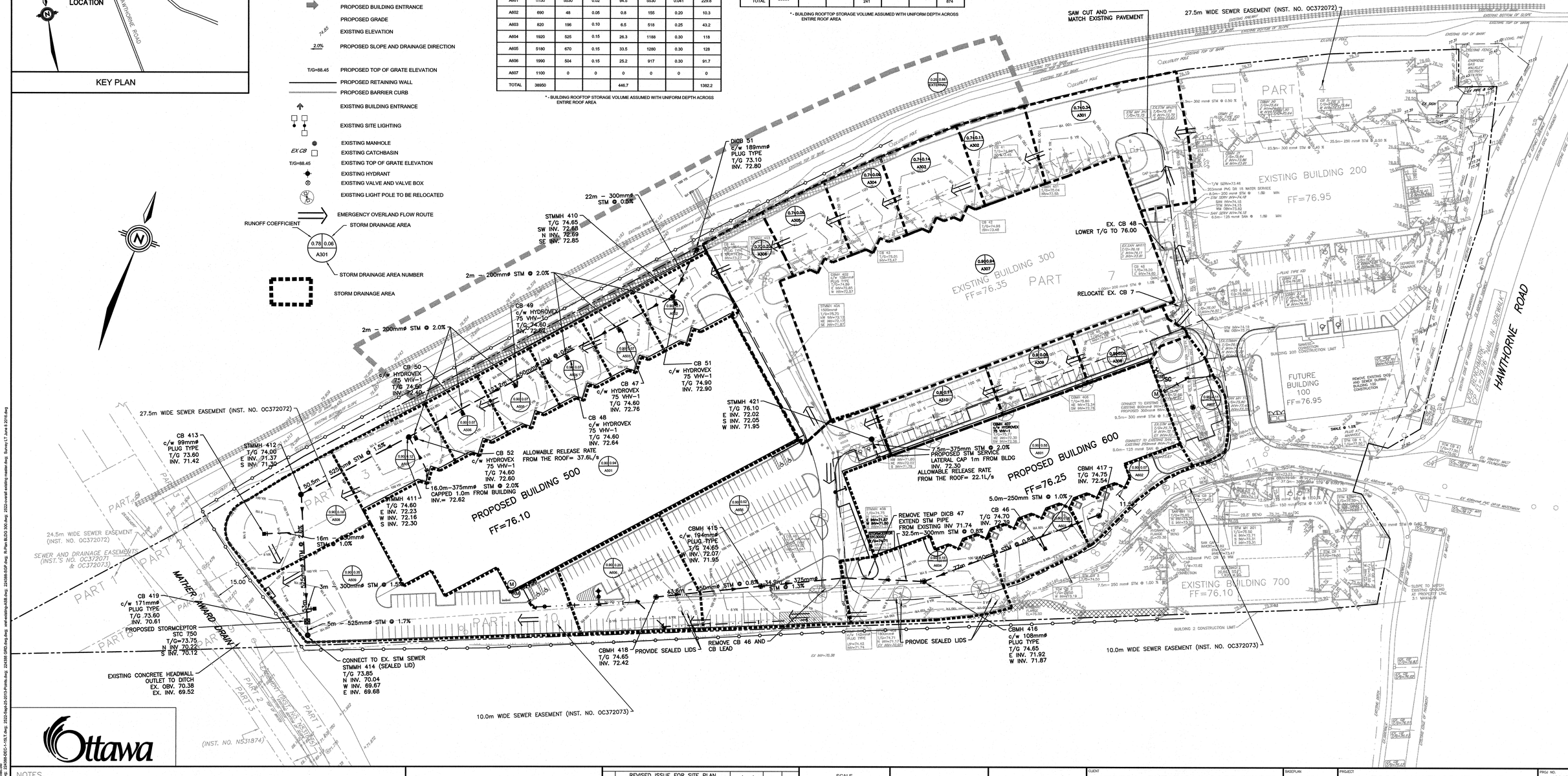
* - BUILDING ROOFTOP STORAGE VOLUME ASSUMED WITH UNIFORM DEPTH ACROSS ENTIRE ROOF AREA

5 AND 100 YEAR SURFACE STORAGE VOLUMES

DRAINAGE AREA ID	TOTAL AREA (sq.m)	5 YEAR AREA (sq.m)	5 YEAR DEPTH (m)	5 YEAR VOLUME (cub.m)	100 YEAR AREA (sq.m)	100 YEAR DEPTH (m)	100 YEAR VOLUME (cub.m)
A501*	9430	9430	0.02	161.3	9430	0.041	392.1
A502	960	168	0.15	8	447	0.30	44.7
A503	670	123	0.15	6.1	480	0.30	48
A504	670	159	0.15	8	485	0.30	48.6
A505	670	186	0.15	9.3	449	0.30	44.9
A506	670	156	0.15	7.8	445	0.30	45.5
A507	1180	294	0.15	14.7	1021	0.30	102
A508	1750	386	0.15	19.3	890	0.2	59.3
A509	3530	466	0.15	23.3	466	0.15	23.3
EXTERNAL	8800	0	0	0	235	0.62	48.6
TOTAL	28330			241			874

* - BUILDING ROOFTOP STORAGE VOLUME ASSUMED WITH UNIFORM DEPTH ACROSS ENTIRE ROOF AREA

ORIFICE SUMMARY					
Location	Controlled Release (L/s)	Outlet Pipe Dia. (mm)	Orifice Dia. (mm)	Hydrovex Model	Head on Hydrovex (m)
STMMH 402	54.2	457	128	N/A	N/A
CB 44	62.0	254	154	N/A	N/A
CBMH 407	**10.0**	**381**	**N/A**	**75-VHV-1**	**3.60**
CBMH 416	**40.0**	**305**	**108**	**N/A**	**N/A**
BUILDING 600	**22.1**	**381**	**N/A**	**N/A**	**N/A**
CBMH 415	**125.0**	**381**	**194**	**N/A**	**N/A**
DICB51	**63.7**	**305**	**189**	**N/A**	**N/A**
CB47	**5.5**	**200**	**N/A**	**75-VHV-1**	**2.02**
CB48	**5.5**	**200**	**N/A**	**75-VHV-1**	**2.14**
CB49	**5.5**	**200**	**N/A**	**75-VHV-1**	**2.26**
CB50	**5.5**	**200**	**N/A**	**75-VHV-1**	**2.38**
CB51	**5.0**	**200**	**N/A**	**75-VHV-1**	**1.73**
CB52	**7.0**	**200**	**N/A**	**75-VHV-1**	**2.48**
CB 413	**30.0**	**254**	**99**	**N/A**	**N/A**
CB 419	**100.0**	**305**	**171**	**N/A**	**N/A**
BUILDING 500	**37.6**	**381**	**N/A**	**N/A**	**N/A**



NOTES

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, 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 DESCRIPTION	DATE	BY	APPD
6	REVISED ISSUE FOR SITE PLAN APPROVAL BUILDING 500 & 600	13/10/16	ML	AA
5	ADDED EXTERNAL DRAINAGE STM SEWER	02/08/16	ML	AA
4	REVISED PER CITY COMMENTS	12/05/16	ML	AA
3	REVISED PER CITY COMMENTS	18/04/16	ML	AA
2	REVISED ISSUE FOR SITE PLAN APPROVAL BUILDING 500 & 600	11/12/15	ML	AA
1	ISSUED FOR SITE PLAN APPROVAL BUILDING 500 & 600	09/11/15	ML	AA

SCALE 1:750

LICENSED PROFESSIONAL ENGINEER M.A. ANSARI Oct. 13/2016 PROVINCE OF ONTARIO

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PROJECT
3020 HAWTHORNE ROAD
BUILDING 500, 600
CITY OF OTTAWA

TITLE
STORMWATER MANAGEMENT PLAN

PROJ. NO. 224388
SURVEY exp.
DATE OCT 2015
DRAWING NO. SWM1

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