

LEGEND

- PROPOSED HYDRANT
- PROPOSED VALVE AND VALVE BOX
- PROPOSED 600mm x 600mm CATCH BASIN
- PROPOSED 1200mm CATCH BASIN MANHOLE
- PROPOSED 150mm PERFORATED SUBDRAIN
- PROPOSED STORM MANHOLE (1200mm) UNLESS OTHERWISE NOTED
- PROPOSED SANITARY MANHOLE (1200mm) UNLESS OTHERWISE NOTED
- PROPOSED WATER METER
- PROPOSED REMOTE WATER METER
- PROPOSED SIAMISE CONNECTION
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED STORM SEWER
- PROPERTY LINE
- PROPOSED CAP
- PROPOSED BUILDING ENTRANCE
- PROPOSED SITE LIGHTING
- PROPOSED SERVICING
- PROPOSED REDUCER
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING FENCE
- EXISTING EASEMENT
- EXISTING SITE LIGHTING
- EXISTING MANHOLE
- EXISTING CATCHBASIN
- EXISTING TOP OF GRADE ELEVATION
- EXISTING HYDRANT
- EXISTING VALVE AND VALVE BOX
- EXISTING BUILDING ENTRANCE
- EXISTING LIGHT POLE TO BE RELOCATED

WATERMAIN TABLE			
STATION	FIN/GRADE	T/W GRADE	COMMENT
0+000	74.90	72.50	305mmØ to 203mmØ REDUCER
0+020	74.90	72.50	TOP OF WATERMAIN
0+040	74.90	72.50	TOP OF WATERMAIN
0+059	74.90	72.50	THRUST BLOCK AND 45° BEND
0+080	74.90	72.50	TOP OF WATERMAIN
0+074	74.70	72.30	THRUST BLOCK AND 45° BEND
0+080	74.85	72.45	TOP OF WATERMAIN
0+089.9	74.90	72.50	203x152 HYDRANT TEE AND VALVE
0+100	75.30	72.90	TOP OF WATERMAIN
0+112.3	75.50	73.10	VALVE AND VALVE BOX
0+116.4	75.45	73.05	THRUST BLOCK AND 45° BEND
0+0118.5	75.50	73.10	THRUST BLOCK AND 22.5° BEND
0+120	75.80	73.40	TOP OF WATERMAIN
0+126	76.00	73.60	203mm CAP
0+126	76.45	73.05	TIE INTO EXISTING 203mmØ WATERMAIN
0+135.4	76.17	73.77	THRUST BLOCK AND 22.5° BEND
0+140	76.10	73.70	TOP OF WATERMAIN
0+146.3	76.20	73.80	203mm CAP

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

STRUCTURE TABLE					
STRUCTURE LABEL	SIZE	STRUCTURE OPD No.	FRAME OPD No.	WATERTIGHT COVERS	FILTER CLOTHS
SANMH 303	1200mmØ	701.010	401.010-A	NOT REQUIRED	NOT REQUIRED
STMMH 410	1200mmØ	701.010	401.010-B	REQUIRED	NOT REQUIRED
STMMH 411	1200mmØ	701.010	401.010-B	REQUIRED	NOT REQUIRED
STMMH 412	1200mmØ	701.010	401.010-B	REQUIRED	NOT REQUIRED
CB 413	1200mmØ	701.010	401.010-B	NOT REQUIRED	REQUIRED
STMMH 414	1800mmØ	701.010	401.010-A	REQUIRED	NOT REQUIRED
CBMH 415	1200mmØ	701.010	401.010-B	NOT REQUIRED	REQUIRED
CBMH 416	1200mmØ	701.010	401.010-B	NOT REQUIRED	REQUIRED
CBMH 417	1200mmØ	701.010	401.010-B	NOT REQUIRED	REQUIRED
CBMH 418	1200mmØ	701.010	401.010-B	NOT REQUIRED	REQUIRED
CB 419	1200mmØ	701.010	401.010-B	NOT REQUIRED	REQUIRED
STMMH 421	1200mmØ	701.010	401.010-A	NOT REQUIRED	NOT REQUIRED
CBs 46 TO 52	600mm x 600mm	705.010	400.020	NOT REQUIRED	REQUIRED
DICB 51	600mm x 600mm	705.030	403.010	NOT REQUIRED	REQUIRED

GENERAL NOTES FOR SERVICING

- WATERMAIN SHALL MAINTAIN A MINIMUM OF 2.4m COVER OR THERMAL INSULATION SHALL BE PROVIDED AS PER W22. PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES AS PER W23, AND WATERMAIN OVER SEWER AS PER W25.2.
- CONTRACTOR TO INSULATE ALL STORM AND SANITARY SEWER LEADS, SERVICES AND MAINS WHICH HAVE A DEPTH OF COVER LESS THAN 2.0m FOR STORM AND 2.5m FOR SANITARY. THERMAL INSULATION REQUIREMENTS TO BE AS PER SEWER INSULATION DETAIL.

NOTES: SEWER

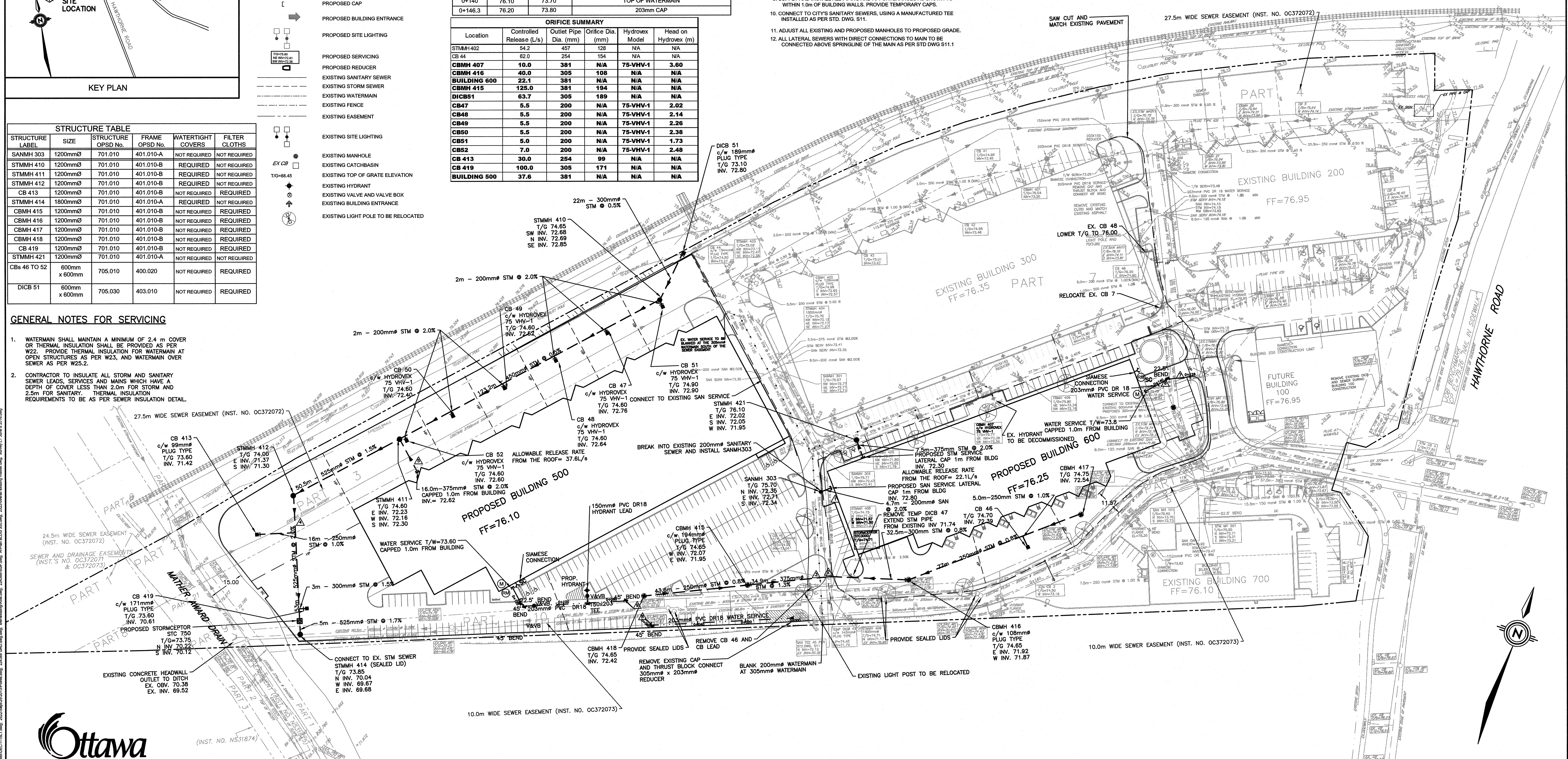
- CATCHBASINS SHALL BE PRECAST 600 x 600 AS PER OPD STD. 705.01. FRAMES AND COVERS SHALL BE AS PER OPD 400.01
- SEWER BEDDING AS PER OPD STD. 802.03 WITH MIN. 150mm GRANULAR 'A' BEDDING COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS, AND IN PARTICULAR, WITH O.P.S.S. 407, AND 410.
- ALL SANITARY SEWERS ARE TO BE THE SIZES INDICATED AND THE MATERIAL SHALL BE PVC.
- ALL STORM SEWER TO BE PVC SDR 35 OR APPROVED EQUIVALENT.
- ALL MANHOLES, CATCHBASINS AND CATCHBASIN MANHOLES TO BE BACKFILLED WITH MIN. 0.3m HORIZ. THICKNESS OF GRANULAR 'A'.
- ALL MANHOLES AND CBMH TO BE OPD 701.010 & 701.011 COVERS TO BE PER CITY OF OTTAWA STANDARDS.
- UG CONTRACTOR TO CONFIRM LOCATION(S) AND ELEVATION(S) OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER, WATER AND/OR STORM WATER WORKS. THE ENGINEER SHALL BE INFORMED IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, CONFLICTS, OMISSIONS etc THAT ARE
- SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN TO WITHIN 1.0m OF BUILDING WALLS. PROVIDE TEMPORARY CAPS.
- CONNECT TO CITY'S SANITARY SEWERS, USING A MANUFACTURED TEE INSTALLED AS PER STD. DWG. S11.
- ADJUST ALL EXISTING AND PROPOSED MANHOLES TO PROPOSED GRADE.
- ALL LATERAL SEWERS WITH DIRECT CONNECTIONS TO MAIN TO BE CONNECTED ABOVE SPRINGLINE OF THE MAIN AS PER STD DWG S11.1

NOTES: WATERMAIN

- ALL WATERMAIN WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE.
- INSTALLATION OF WATER METER AND REMOTE RECEPTACLE SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
- HYDRANT LOCATION AND INSTALLATION AS PER STD. DWG. W18 & W19
- ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m. OTHERWISE PROVIDE THERMAL INSULATION AS PER STD DWG W22 (SHALLOW TRENCHES) & STD DWG W23 (AT OPEN STRUCTURES).
- WATERMAIN BEDDING IS TO BE AS PER CITY OF OTTAWA DETAIL W-17.
- CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS PER CITY OF OTTAWA DETAILS W-40 AND W-42.
- IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.

CROSSING INFO:

- CROSSING #1 STM INV=72.75 SAN CBV=72.25
- CROSSING #2 SAN INV=72.20 STM CBV=71.90
- CROSSING #3 WM INV=72.30 SAN INV=71.95
- CROSSING #4 STM INV=70.91 SAN CBV=64.46
- CROSSING #5 WM INV=72.23 SAN CBV=64.41
- CROSSING #6 WM INV=73.75** SAN CBV=73.49
- CROSSING #7 WM INV=73.86** STM CBV=73.86
- CROSSING #8 WM INV=72.21 SAN CBV=70.19
- CROSSING #9 WM INV=72.19 STM CBV=71.39



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.

NO.	REVISION DESCRIPTION	DATE	BY	APPD
7	REVISED ISSUE FOR SITE PLAN APPROVAL BUILDING 500 & 600	13/10/16	ML	AA
6	PROPOSED SERVICING TO ACCOMMODATE EXTERNAL DRAINAGE	14/07/16	ML	AA
5	ADDED EXTERNAL DRAINAGE STM SEWER	27/05/16	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

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

1172321 ONTARIO INCORPORATED
223 COLONNADE RD. S., OTTAWA
K2E 7K3 613-723-7490

exp. BUILDINGS • EARTH & ENVIRONMENT • ENERGY • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

3020 HAWTHORNE ROAD
BUILDING 500, 600
CITY OF OTTAWA

SITE SERVICING PLAN

PROJECT: 224388
DATE: OCTOBER 2015
SS1