

BUS STOP CONCRETE / ASPHALT

# SERVICING LEGEND

300mmØ CSP

HGL 101.79

101.79

O MH118A	SANITARY MANHOLE
MH118A	WATERTIGHT SANITARY MANHOLE
200mmØ SAN	SANITARY SEWER
MH109 MH118	STORM MANHOLE
825mmØ STM	STORM SEWER - LESS THAN 900Ø
900mmØ STM	STORM SEWER - 900Ø AND GREATER
200Ø WATERMAIN	WATERMAIN
CB100 T/G 104.10	STREET CATCHBASIN C/W TOP OF GRATE
CICB101 G/G 104.25	CURB INLET CATCHBASIN C/W GUTTER GRADE
DCB100 T/G 104.10	DOUBLE CATCHBASIN C/W TOP OF GRATE
DCICB101 G/G 104.25	DOUBLE CURB INLET CATCHBASIN C/W GUTTER GRADE
DI101 T/G 103.59	DITCH INLET MANHOLE C/W TOP OF GRATE
CBMH101 T/G 103.59	CATCHBASIN MANHOLE C/W TOP OF GRATE
RYCB T/G 104.35	REAR YARD CATCHBASIN IN ROAD CONNECTING STRUCTURE C/W SOLID GRATE
— <del>O T</del> /G 104.35 INV 103.35	REAR YARD "TEE" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT
OT/G 104.50 INV 103.50	REAR YARD "END" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT
T/G 104.35 INV 103.35	REAR YARD "CUSTOM ANGLED " CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT
T/G 104.35 INV 103.35	REAR YARD "THREE WAY" CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT
	PERFORATED REAR YARD SUBDRAIN

TVS	TAPPING VALVE SLEEVE
<b>⊗</b> <sup>VB</sup>	VALVE AND VALVE BOX
⊗ <sup>V&amp;VC</sup>	VALVE AND VALVE CHAMBER
•□	PARK VALVE CHAMBER C/W SERVICE POST
◆HYD 104.35	FIRE HYDRANT C/W BOTTOM OF FLANGE ELEVATION
200Ø WM RED 150Ø WM	WATERMAIN REDUCER
2 VBENDS	VERTICAL BEND LOCATION
<b>&gt;</b>	SIAMESE CONNECTION (IF REQUIRED)
M	METER (IF REQUIRED)
RM	REMOTE METER (IF REQUIRED)
(A)	WATERMAIN IDENTIFICATION (IF REQUIRED)
1	PIPE CROSSING IDENTIFICATION (IF REQUIRED)
$\triangleleft$	SINGLE SERVICE LOCATION
$\triangleleft$	DOUBLE SERVICE LOCATION
BH 12 102.00	INFERRED REFUSAL (SEE GEOTECHNICAL REPORT)
<i>295009560</i> :	

100 YEAR STORM HYDRAULIC GRADE LINE AT MANHOLE

UNDERSIDE OF FOOTING ELEVATION

PRESSURE REDUCING VALVE

CLAY SEAL IN SEWER / WATERMAIN TRENCH

CSP CULVERT C/W DIAMETER

WATERMAIN TEE CONNECTION

	FAIR	HALL,	MOFFATT & WOODLAND LIMITED LEGEND
		СВ	- CATCH BASIN
		MH	- MANHOLE
		ВМН	- BELL MANHOLE
		WMH	- WATER MANHOLE
		HMH	- HYDRO MANHOLE
		TMH	- CATCH BASIN - MANHOLE - BELL MANHOLE - WATER MANHOLE - HYDRO MANHOLE - TRAFFIC MANHOLE - TRAFFIC HANDHOLE - FIBRE OPTIC MANHOLE
		THH	- TRAFFIC HANDHOLE
		FMH	- FIBRE OPTIC MANHOLE
		LO	- LAIVIF STANDARD
	$\otimes$	UP	- UTILITY POLE
		WV	
			- FIRE HYDRANT
			- BOREHOLE
			- BELL PEDESTAL
			- TRAFFIC LIGHT
			- TRAFFIC CONTROL BOX
		BB	
	$\leftarrow$		- GUY WIRE AND ANCHOR
	•		- BOLLARD
	M		- SIGN
	\$\$\$ (i)		- CONIFEROUS TREE
		Λ/	- DECIDUOUS TREE
			- WATERMAIN
—UH—		Н—	- OVERHEAD UTILITY WIRES
		В—	
		G—	- UNDERGROUND BELL - GAS MAIN
		о Т—	- GAS MAIN - STORM SEWER
	—8		- STORM SEWER - SANITARY SEWER
			- OANTAKT OLVVLIV

─ UC ─ - UNDERGROUND ROGERS CABLE

─ F ─ - FIBRE OPTICS

		WATERMAIN SCHEDULE							
		Station	Description	Finished Grade	Top of Waterain	As Built Waterai			
Clearance	А	0+000.00	TVS	±102.024	±98.06				
		0+008.67	MON CHAMBER	102.08	99.68				
0.500		0+015.05	45 BEND	101.90	99.50				
		0+015.52	VBEND	101.88	99.48				
0.503		0+015.77	VBEND	101.87	98.62				
		0+020.18	45 BEND	101.88	98.64				
0.500		0+023.03	VBEND	101.88	98.65				
		0+023.28	VBEND	101.88	99.48				
0.500	В	0+026.88	TEE	101.95	99.55				
		0+027.88	11 BEND	101.99	99.59				
0.908		0+032.32	HY DRAINT TEE	102.08	99.68				
		0+036.21	RED 150 - 100	102.10	99.70				
0.501		0+039.72	BLD D SERVICE TEE	102.06	99.66				
		0+061.70	11 BEND	101.99	99.59				
0.273		0+065.80	22 BEND	102.09	99.69				
		0+098.44	VBEND	102.08	99.68				
0.634		0+098.69	VBEND	102.09	98.47				
		0+101.22	45 BEND	101.98	98.47				
0.296		0+101.85	VBEND	102.01	98.47				
3.233		0+102.10	VBEND	102.05	99.65				
		0+104.56	45 BEND	102.19	99.79				
		0+159.83	45 BEND	102.20	99.80				
		0+161.13	45 BEND	102.20	99.80				
		0+188.56	45 BEND	102.38	99.98				
		0+189.80	45 BEND	102.41	99.61				
		0+191.60	VB	102.44	99.61				
	С	0+192.02	CAP	102.32	99.61				
						•			
	В	0+000.00	TEE	101.95	99.55				
		0+014.08	22.5 BEND	102.21	99.81				
		0+021.66	BLD C SERVICE TEE	102.21	99.81				
		0+029.46	BLD F SERVICE TEE	102.22	99.82				
		0+043.01	BLD E SERVICE TEE	102.20	99.80				
		0+045.88	BLD B SERVICE TEE	102.23	99.83				
	D	0+050.50	CAP	102.23	99.83				
	E	0+000.00	BLDG A	102.37	99.61				
		0+003.91	BEND	102.20	99.80				
		0+011.48	CROSSING	102.04	98.84				

BLDG B

102.41 100.01

By Kersten Nitsche at 2:37 pm, Jul 08, 2024

KERSTEN NITSCHE, MCIP RPP MANAGER (A), DEVELOPMENT REVIEW WEST PLANNING, DEVELOPMENT AND BUILDING SERVICES **DEPARTMENT, CITY OF OTTAWA** 

11 16

Pipe Interference Table

PIPE 1

Bottom 99.350

Bottom 98.970

 $\mathsf{STM}$ 

Bottom 99.148

Bottom 99.122

Bottom 100.671

Bottom 100.253

SAN

SAN

SAN

Bottom 100,438

1

4

6

PIPE 2

Top 98.850

Top 98.467

Top 98.648

Top 98.622

Top 99.763

Top 99.753

Top 99.221

Top 99.804

Top 99.010

CATCHBASIN/CATCHBASIN MANHOLE/DITCH INLET DA	\ T A
	1 I A

	E ID STORM AREA ID	STRUCTURE	FRAME & COVER	ELEVATION			OUTLET PIPE		INLET CONTROL DEVICE				
STRUCTURE ID				TOP OF	INVERT		DIAMETER		100yr	RESTRICTED FLOW		ORIFICE SIZE	COMMENTS
				GRATE	INLET	OUTLET	(mm)	ТҮРЕ	Dynamic HEAD	(I/s)	ICD TYPE	CIRCULAR (mm dia.)	
CB5	MH113	OPSD 705.010	S19	102.05		100.650	200	PVC DR35	1.650			1	
CB8	CBMH140	OPSD 705.010	S19	101.60		100.200	200	PVC DR35	1.650				
CB12	MH112	OPSD 705.010	S19	102.05		100.650	200	PVC DR35	1.650				
CB103	CB103	OPSD 701.010	S28.1	102.10		100.700	200	PVC DR35	1.500				
CB104	CB104	OPSD 701.010	S28.1	102.10		100.700	200	PVC DR35	1.500				
CB110	MH110	OPSD 705.010	S19	102.10		100.700	200	PVC DR35	1.650				
CB111	MH110B	OPSD 705.010	S19	102.07		100.670	200	PVC DR35	1.650				
CB130	MH111	OPSD 705.010	S19	102.07		100.670	200	PVC DR35	1.650				
CBMH101	CBMH101	OPSD 701.010	S28.1	101.75		99.476	300	PVC DR35	2.424				
CBMH105	CBMH105	OPSD 701.010	S28.1	101.90	99.038	98.978	600	PVC DR35	3.222				
CBMH106	CBMH106	OPSD 701.010	S28.1	101.90	98.929	98.899	375	PVC DR35	3.189	108.00	CUSTOM IPEX HF	157	
CBMH115	CBMH115	OPSD 701.010	S28.1	101.85	99.088	99.058	525	PVC DR35	3.054				
CBMH120	CBMH120	OPSD 701.010	S28.1	101.75	99.413	99.383	300	PVC DR35	2.517				
CBMH121	CBMH121	OPSD 701.010	S28.1	101.80	99.217	99.157	525	PVC DR35	2.906				
CBMH140	CBMH140	OPSD 701.010	S28.1	101.80	99.152	98.884	300	PVC DR35	3.066	6.00	CUSTOM IPEX LMF	32	

### NOTES:

- 1. ALL MATERIALS AND CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS & SPECIFICATIONS OR OPSD/OPSS IF CITY DRAWINGS AND SPECIFICATIONS DO NOT
- 2. THE POSITION OF UNDERGROUND AND ABOVEGROUND SERVICE, UTILITIES AND STRUCUTRES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS. AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH SERVICE, UTILITIES AND STRUCTURES IS NOT GUARENTEED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING SERVICES AND UTILITIES PRIOR TO CONSTRUCTION.
- 3. THE CONTRACTOR SHALL REPORT ALL CONFLICTS, DISCOVERIES OF ERROR AND DESCREPENCIES TO THE
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND ASSUME RESPONSIBILITY FOR ALL UTILITIES WHETHER OR NOT SHOW ON THESE DRAWINGS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL LANDS BEYOND THE SITE LIMITS. ANY AREAS BEYOND THE SITE LIMITS. WHICH ARE DISTURBED DURING CONSTRUCTION. SHALL BE REPAIRED AND RESTORED TO ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ADJACENT LAND OWNER, THE OWNER, THE OWNERS REPRESENTATIVES AND/OR THE AUTHORITY HAVING JURSIDICTION AT THE EXPENSE OF THE CONTRACTOR.
- 6. WHERE NECESSARY, THE CONTRACTOR SHALL IMPLEMENT A TRAFFIC MANAGEMENT PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE LATEST VERSION OF THE M.T.O. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ALL TEMPORARY TRAFFIC CONTROL MEASURES MUST BE REMOVED UPON THE COMPLETION OF THE WORKS.
- 7. SHOULD ANY BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE OWNER TO CONTACT THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATE, AND WORK WITHIN THE AREA SHALL BE CEASED UNTIL FUTHER NOTICE.
- 8. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL REPORT PG3798-2 REV2 DATED NOV 23, 2022 PREPARED BY PATERSON GROUP.
- 9. FOR GEODETIC BENCHMARK AND GEOMETRIC LAYOUT OF STREET AND LOTS, REFER TO TOPOGRAPHICAL SURVEY AND PLAN OF SUBDIVISION PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. BENCHMARK BASED ON CAN--NET VIRTUAL REFERENCE SYSTEM NETWORK.
- 10. FOR SITE PLAN INFORMATION, REFER TO SITE PLAN PREPARED BY A49 ARCHITECTURE
- 11. THESE DRAWINGS ARE NOT TO BE SCALED OR USED FOR LAYOUT PURPOSES
- 12. ROADWAY SECTIONS REQUIRING GRADE RAISE TO PROPOSED SUB GRADE LEVEL TO BE FILLED WITH ACCEPTABLE NATIVE EARTH BORROW OR IMPORTED OPSS SELECTED SUBGRADE MATERIAL IF NATIVE MATERIAL IS DEFICIENT AS PER RECOMMENDATION OF GEOTECHNICAL ENGINEER.
- 13. IN AREAS WHERE EXISTING GROUND IS BELOW THE PROPOSED ELEVATION OF SEWER AND WATERMAINS, GRADE RAISING AND FILLING IS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. AS PER CITY GUIDELINES ALL WATERMAINS IN FILL AREAS ARE TO BE TIED WITH RESTRAINING JOINTS AND THRUST BLOCKS.
- 14. REFER TO DRAWING C-011 FOR CROSS SECTIONS.

807.030, OR HIGHER

- 15. THE CONTRACTOR SHALL IMPLEMENT THE EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE COMMENCEMENT OF ANY SITE CONSTRUCTION. ALL EROSION AND SEDIMENT CONTRAL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE ENGINEER, OR ANY REGULATORY AGENCY. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL VEGETATION IS ESTABLISH OR UNTIL THE START OF A SUBSEQUENT PHASE.
- 16. CONTRACTORS SHALL BE RESPONSIBLE FOR KEEPING CLEAN ALL ROADS WHICH BECOME COVERED IN DUST,
- DEBRIS AND/OR MUD AS A RESULT OF ITS CONSTRUCTION OPERATIONS. 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE
- SHOULD THE MAXIMUM OPSD TRENCH WIDTH BE EXCEEDED. 18. ALL PIPE, CULVERTS, STRUCTURES REFER TO NOMINAL INSIDE DIMENSIONS.
- 19. SHOULD CLAY SEALS BE REQUIRED, THEY SHALL BE INSTALLED AS PER THE RECOMMENDATIONS WITHIN THE
- GEOTECHNICAL REPORT. 20. UNLESS SPECIFICALLY NOTED OTHERWISE, PIPE MATERIALS SHALL BE AS FOLLOWS; -WATERMAINS TO BE PVC DR18 -SANITARY SEWER TO BE PVC DR35 -PERFORATED STORM SEWERS IN REAR YARDS AND LANDSCAPE AREAS TO BE HDPE -STORM SEWERS 375MM DIAMETER AND LESS TO BE PVC DR35 -STORM SEWERS 450MM DIAMETER AND GREATER TO BE CONCRETE, CLASS AS PER OPSD 807.010 OR
- 21. ALL CONNECTIONS TO EXISTING WATERMAINS ARE TO BE COMPLETED BY CITY FORCES. CONTRACTOR IS TO
- EXCAVATE, BACKFILL, COMPACT AND REINSTATE. 22. ANY WATERMAIN WITH LESS THAN 2.4M, AND ANY SEWER WITH LESS THAN 2.0M DEPTH OF COVER REQUIRES
- THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22 AND W35, OR AS APPROVED BY THE
- 23. ALL FIRE HYDRANTS AS PER CITY STANDARD W19, c/w 150mmØ LEAD UNLESS OTHERWISE SPECIFIED. 24. ALL STUBBED SEWERS SHALL HAVE PRE-MANUFACTURED CAPS INSTALLED.
- 25. ALL CATCHBASINS SHALL HAVE A 600MM SUMP. ALL CATCHBASIN MANHOLES, AND ALL STORM MANHOLES
- WITH OUTLETTING PIPE SIZES LESS THAN 900MM, SHALL HAVE A 300MM SUMP. 26. ALL SANITARY MANHOLES SHALL BE EQUIPPED WITH A WATERTIGHT COVER.

MAIN SHALL BE 200MMØ PVC DR35 @ MIN 1% SLOPE UNLESS NOTED OTHERWISE.

- 27. ALL LEADS FOR STREET CATCHBASIN'S AND CURB INLET CATCHBASIN'S CONNECTED TO MAIN SHALL BE 200MMØ PVC DR35 @ MIN 2% SLOPE UNLESS NOTED OTHERWISE. ALL LEADS FOR RYCB'S CONNECTED TO
- 28. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL STREET CATCHBASINS SHALL BE INSTALLED WITH TWO 3.0M MINIMUM SUBDRAINS INSTALLED LONGITUDINALLY, PARALLEL WITH THE CURB. ALL CATCHBASINS IN ASPHALT AREAS, NOT ADJACENT TO A CURB, SHALL BE INSTALLED WITH FOUR - 3.0M MINIMUM SUBDRAINS INSTALLED ORTHOGONALLY.
- 29. INLET CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMPLETING THE ROAD BASE (GRANULAR A).
- 30. ALL SEWER SERVICE LATERALS WITH MAINLINE CONNECTIONS DEEPER THAN 5.0M REQUIRE A CONTROLLED SETTLEMENT JOINT.
- 31. EACH BUILDING SHALL BE EQUIPPED WITH A SANITARY AND STORM SEWER BACKWATER VALVE AND CLEAN-OUT ON ITS PRIMARY SERVICE, AS PER ONTARIO BUILDING CODE REQUIREMENTS (BY OTHERS).
- 32. THE HGL PROVIDED IS BASED ON HYDRAULIC MODELING COMPLETED USING PCSWMM AND THE 100 YEAR CHICAGO STORM EVENT (C3H10010).
- 33. THE SUBGRADE OF ALL STRUCTURES, PIPE, ROADS, SIDEWALKS, WALKWAYS, AND BUILDINGS SHALL BE INPSECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 34. TOP COURSE ASPHALT SHALL NOT BE PLACED UNTIL THE FINAL CCTV INSPECTION AND NECESSARY REPAIRS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA.
- 35. ALL RETAINING WALLS GREATER THAN 1.0M IN HEIGHT SHALL BE DESIGNED BY A QUALIFIED STRUCTURAL
- 36. ALL RETAINING WALLS GREATER THAN 0.6M IN HEIGHT REQUIRE A GUARD. ANY GUARD ON A RETAINING WALL GREATER THAN 1.0M IN HEIGHT SHALL BE DESIGNED BY THE QUALIFIED STRUCTURAL ENGINEER
- RESPONSIBLE FOR THE WALL DESIGN.
- 37. UPON COMPLETION OF THE RETAINING WALL, THE CONTRACTOR SHALL REQUEST A CONFORMANCE CERTIFICATE FROM THE QUALIFIED ENGINEER RESPONSIBLE FOR THE WALL DESIGN.
- 38. ALL CURBS SHALL BE CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS SC1.1. TYPICAL BARRIER CURB HEIGHT SHALL BE 150MM UNLESS NOTED OTHERWISE.

# **ROADWAY STRUCTURE:**

CAR ONLY PARKING AREAS:(500mm)

50mm - SUPERPAVE 12.5 ASPHALTIC CONCRETE 150mm - OPSS GRANULAR "A" CRUSHED STONE 300mm - OPSS GRANULAR "B" TYPE II

COLLECTOR ROAD :(690mm)

40mm - SUPERPAVE 12.5 ASPHALTIC CONCRETE - SUPERPAVE 19.0 ASPHALTIC CONCRETE 150mm - OPSS GRANULAR "A" CRUSHED STONE

450mm - OPSS GRANULAR "B" TYPE II

CLIENT HUNTINGTON

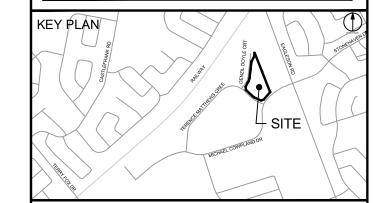
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ISSUES						
No.	DATE					
1	ISSUED FOR CITY REVIEW	2022-12-09				
2	REVISED PER CITY COMMENTS	2023-03-09				
3	REVISED PER CITY COMMENTS	2023-07-07				
4	REVISED PER CITY COMMENTS	2023-07-19				
5	REVISED PER CITY COMMENTS	2023-09-22				
6	REVISED PER CITY COMMENTS	2023-11-13				
7	REVISED PER CITY COMMENTS	2023-12-20				

SEE 010, 011, 012 FOR NOTES, LEGEND, CB TABLE, STREET SECTIONS AND DETAILS



#### CONSULTANTS

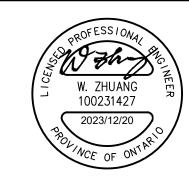
Project Coordinator: Huntington Properties Architect: A49 Architecture Landscape:

Fotenn Mechanical & Electrical: Goodkey, Weedmark & Associates Limited

Annis O'Sullivan Vollebekk Ltd.

Geotech: Paterson Group

SEAL



IBI GROUP Suite 400 – 333 Preston Street Ottawa ON K1S 5N4 Canada tel 613 225 1311 / 613 241 3300 fax 613 225 9868 ibigroup.com

## PROJECT

PROPOSED SELF STORAGE DEVELOPMENT

75 MICHAEL COWPLAND

ECT NO:	
70	
N DV.	

13547 DRAWN BY: CHECKED BY: S.L. / D.D. T.R.B. PROJECT MGR: APPROVED BY: T.R.B.

SHEET TITLE **DETAILS AND NOTES** 

SHEET NUMBER C-010

6

Ö 10mm A

ts/c-010 DETAILS AND NOTES.dwg LiDO7-12-22-0174

CITY

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