

M:\2018\118224\CAD\Design\118224-GP.dwg, 118224-GP-ND, Jun 22, 2021, 11:38am, dcoffey

NOTE:
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

1.	ISSUED FOR REVIEW		JUN 18/21	BHB	
No.	REVISION		DATE	BY	

SCALE		DESIGN	FOR REVIEW ONLY		LOCATION CITY OF OTTAWA THE COMMONS	
1:500		DJC			 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	DRAWING NAME GENERAL PLAN OF SERVICES
		CHECKED BCS				
		DRAWN MFD				
		CHECKED BCS				
		APPROVED BHB				
					PROJECT No. 118224-00	
					REV	REV # 1
					DRAWING No. 118224-GP-ND	

SAN PHASE 1A MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
105	7+168.01	87.69	SE=84.47 NW=84.67 SW=84.31	1,200 mm dia	
107	7+069.70	87.73	NE=84.11 W=84.08	1,200 mm dia	
109	7+041.74	87.56	E=84.02 W=83.99	1,200 mm dia	
111	7+015.20	87.78	E=83.94 NW=83.88	1,200 mm dia	
113	4+459.78	87.98	SW=84.88 NW=84.85 SE=84.82	1,200 mm dia	
121	4+363.67	88.03	W=85.10 NE=85.07	1,200 mm dia	
123	4+340.79	88.21	NW=85.18 E=85.15	1,200 mm dia	
125	4+328.35	88.27	NW=85.28 SE=85.25	1,200 mm dia	
127	4+272.76	88.61	NW=85.42 SE=85.39	1,200 mm dia	

STM PHASE 1A MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
104	7+165.54	87.62	NW=81.98 SE=81.68 SW=83.52 NE=83.90	3,000 mm dia	
106	7+068.19	87.66	NE=83.76 W=83.64	1,200 mm dia	
108	7+042.69	87.50	E=83.90 W=84.10	1,200 mm dia	
110	7+013.66	87.75	E=84.24	1,200 mm dia	
112	4+457.31	87.93	SW=82.73 SE=82.13 NW=83.44	3,000 mm dia	
120	4+365.97	88.00	W=82.93 NE=82.92	2,400 mm dia	
122	4+342.11	88.11	NW=82.99 E=82.98	2,400 mm dia	
124	4+327.22	88.20	NW=83.08 SE=83.07	2,400 mm dia	
126	4+274.26	88.52	NW=83.20 SE=83.19	2,400 mm dia	

ROADWAY CATCHBASIN TABLE (PHASE 1A)					
CB No.	STATION	T/G ELEVATION	INVERT	ICD DIA.	SIZE
1*	7+021	87.81	86.33	127mm	1,200 mm dia CBMH
2**	7+046.78	87.60	86.31	83mm	600 x 600 CB
3**	7+046.78	87.60	86.10	83mm	600 x 600 CB
4**	7+128.30	87.53	86.10	83mm	600 x 600 CB
5**	7+128.30	87.53	86.10	83mm	600 x 600 CB
7*	7+203.11	87.83	86.10	127mm	1,200 mm dia CBMH
8	6+238.28	87.44	85.93	83mm	600 x 600 CB
9	6+238.19	87.43	85.94	152mm	600 x 600 CB
12	4+425	87.64	86.14	83mm	600 x 600 CB
13	4+425	87.79	86.29	83mm	600 x 600 CB
14	4+355	87.80	86.30	83mm	600 x 600 CB
15	4+355	87.80	86.45	83mm	600 x 600 CB
16	4+310	88.01	86.52	83mm	600 x 600 CB
17	4+310	88.02	86.51	83mm	600 x 600 CB
18	4+235	88.13	86.64	83mm	600 x 600 CB
19	4+235	88.14	86.63	83mm	600 x 600 CB
* SOLID COVER ** CURB INLET					

REAR YARD CATCHBASIN TABLE (PHASE 1A)			
RYCB No.	T/G ELEVATION	INVERT	ICD DIA
RYCB 2	87.55	86.05	-
RYCB 3	87.65	86.15	-
RYCB 4	87.63	86.13	-

SAN TRUNK PHASE 1A MANHOLE TABLE				
MH ID	STATION	T/G ELEV	INVERT	SIZE
1A	7+002.18	87.84	NE=83.60	1,200 mm dia
201	7+071.25	87.79	W=83.73 NE=83.76	1,200 mm dia
203	7+041.94	87.61	W=83.67 E=83.70	1,200 mm dia
205	7+014.20	87.83	SW=83.61 E=83.64 SE=83.87	1,200 mm dia

SAN PHASE 3A MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
153	2+135.10	90.00	W=86.84 SE=86.81	1,200 mm dia	
155	2+121.59	90.09	SW=86.94 E=86.91	1,200 mm dia	
157	2+018.97	90.06	NE=87.30	1,200 mm dia	

STM PHASE 3A MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
152	2+135.20	90.00	W=85.59 SE=85.56	1,200 mm dia	
154	2+121.49	90.09	SW=85.68 E=85.65	1,200 mm dia	
156	2+020.46	90.02	NE=86.03	1,200 mm dia	

ROADWAY CATCHBASIN TABLE (PHASE 3A)					
CB No.	STATION	T/G ELEVATION	INVERT	ICD DIA.	SIZE
53	2+079.97	89.71	88.21	94mm	600 x 600 CB
54	2+079.97	89.66	88.16	94mm	600 x 600 CB

SAN PHASE 1B MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
129	4+199.79	88.74	NE=85.63 NW=85.50 SE=85.57	1,200 mm dia	
137	4+137.16	88.74	N=85.76 SE=85.73	1,200 mm dia	
139	4+122.72	88.86	NE=85.86 S=85.83	1,200 mm dia	
141	3+088.10	89.30	NW=86.15 SW=86.09 SE=86.19	1,200 mm dia	
145	1+165.98	89.50	SW=86.36 NW=86.35 SE=86.30	1,200 mm dia	
147	1+102.82	89.32	SW=85.87 NE=86.52	1,200 mm dia	

STM PHASE 1B MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
128	4+198.28	88.65	NE=84.11 SE=83.35 NW=83.36	2,400 mm dia	
136	4+136.62	88.68	N=83.50 SE=83.49	2,400 mm dia	
138	4+123.76	88.80	NE=83.63 S=83.57	2,400 mm dia	
140	3+085.57	89.25	NW=84.10 SE=84.90 SW=83.92	3,000 mm dia	
144	1+163.48	89.48	NW=84.41 SE=84.37 SW=85.01 NE=85.23	2,400 mm dia	
146	1+084.79	89.12	SW=85.36 NE=85.21	1,200 mm dia	
148	1+006.25	88.48	NE=85.56	1,200 mm dia	

ROADWAY CATCHBASIN TABLE (PHASE 1B)					
CB No.	STATION	T/G ELEVATION	INVERT	ICD DIA.	SIZE
20	4+170	88.34	86.84	102mm	600 x 600 CB
21	4+170	88.34	86.92	102mm	600 x 600 CB
22	4+069	88.62	87.27	83mm	600 x 600 CB
23	4+069	88.77	87.12	83mm	600 x 600 CB
25	3+052	88.92	87.42	83mm	600 x 600 CB
26	3+052	88.92	87.42	83mm	600 x 600 CB
27**	1+126.45	89.43	87.93	83mm	600 x 600 CB
28**	1+126.45	89.50	88.00	83mm	600 x 600 CB
29***	1+035.61	88.64	87.14	127mm	600 x 600 CB
30***	1+035.62	88.72	87.22	127mm	600 x 600 CB
31*	1+201.83	89.65	88.15	127mm	1,200 mm dia CBMH
* SOLID COVER ** CURB INLET *** CURB INLET DUAL CATCHBASIN					

REAR YARD CATCHBASIN TABLE (PHASE 1B)			
RYCB No.	T/G ELEVATION	INVERT	ICD DIA
RYCB 6	88.33	85.72	-
RYCB 7	88.60	86.49	-
RYCB 8	88.46	86.97	-
RYCB 11	89.12	87.35	-
TEE 5	88.02	86.09	-
TEE 11	88.05	86.68	-
TEE 13	88.29	87.00	-
TEE 17	88.63	87.38	-
TEE 22	88.71	87.40	-

SAN PHASE 3B MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
101	8+062.94	87.45	SE=84.73 NE=84.70	1,200 mm dia	
103	8+054.47	87.49	NW=84.63 SW=84.66	1,200 mm dia	

STM PHASE 3B MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
100	8+065.05	87.50	NE=81.63 SE=80.70	3,000 mm dia	
102	8+054.51	87.54	NW=81.64 SW=81.64	3,000 mm dia	

ROADWAY CATCHBASIN TABLE (PHASE 3B)					
CB No.	STATION	T/G ELEVATION	INVERT	ICD DIA.	SIZE
6*	8+077.65	87.39	86.89	127mm	600 x 600 CB
55	8+030	87.27	86.77	83mm	600 x 600 CB
56	8+030	87.27	86.77	83mm	600 x 600 CB
57****	8+069.57	87.26	86.76	83mm	600 x 600 CB
* SOLID COVER **** DUAL CATCHBASIN					

SAN PHASE 2A MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
151	2+197.38	89.82	SW=86.61 NW=86.60 SE=86.55	1,200 mm dia	
159	9+463.92	90.10	W=86.92 NE=86.89	1,200 mm dia	
161	9+449.79	90.18	NW=87.02 E=86.99	1,200 mm dia	
163	9+340.58	90.31	N=87.31 SE=87.28	1,200 mm dia	
165	9+282.76	90.32	S=87.49	1,200 mm dia	

STM PHASE 2A MANHOLE TABLE					
MH ID	STATION	T/G ELEV	INVERT	SIZE	
150	2+194.87	89.83	NW=85.35 SE=84.68 SW=84.68	3,000 mm dia	
158	9+465.14	90.07	W=85.22 NE=85.21	1,800 mm dia	
160	9+448.56	90.16	NW=85.30 E=85.29	1,800 mm dia	
162	9+341.85	90.30	N=85.66 SE=85.65	1,800 mm dia	
164	9+281.41	90.28	N=86.35 S=85.90	1,800 mm dia	
166	9+252.70	90.42	NW=86.48 S=86.47	1,200 mm dia	
168	9+151.55	90.39	NW=87.03 SE=86.80	1,200 mm dia	
170	9+057.63	91.05	SE=87.36	1,200 mm dia	

ROADWAY CATCHBASIN TABLE (PHASE 2A)					
CB No.	STATION	T/G ELEVATION	INVERT	ICD DIA.	SIZE
31a	2+172.35	89.47	87.65	127mm	600 x 600 CB
32	2+235.53	89.07	87.57	94mm	600 x 600 CB
33**	2+235.52	89.15	87.97	127mm	600 x 600 CB
35	2+172.35	89.47	87.97	127mm	600 x 600 CB
36	9+535.97	89.51	88.01	108mm	600 x 600 CB
37	9+535.97	89.51	88.01	108mm	600 x 600 CB
38	9+396.24	89.79	88.29	83mm	600 x 600 CB
39	9+395.97	89.79	88.60	83mm	600 x 600 CB
40	9+294.96	90.23	88.77	83mm	600 x 600 CB
41	9+294.96	90.13	88.63	83mm	600 x 600 CB
42	9+139.87	90.30	88.73	94mm	600 x 600 CB
43	9+140	90.29	88.79	94mm	600 x 600 CB
52*	9+351.61	90.27	88.80	83mm	600 x 600 CB
* SOLID COVER ** CURB INLET					

CRITICAL PIPE CROSSING TABLE				PROPOSED SEPARATION	REQUIRED SEPARATION
①	250mmØ STM INV=85.47	200mmØ SAN OBV=84.67		STM-SAN=0.80m	STM-SAN=0.30m
②	250mmØ STM OBV=85.71		200mmØ WM INV=86.21	STM-WM=0.50m	STM-WM=0.50m
③		525mmØ SAN OBV=84.38	200mmØ WM INV=85.48	SAN-WM=0.90m	SAN-WM=0.50m
④		300mmØ SAN OBV=84.98	200mmØ WM INV=85.48	SAN-WM=0.50m	STM-SAN=0.50m
⑤	1350mmØ STM OBV=83.33		250mmØ WM INV=85.12	STM-WM=1.79m	STM-WM=0.50m
⑥	1350mmØ STM OBV=83.33	525mmØ SAN INV=83.85		STM-SAN=0.52m	STM-SAN=0.30m
⑦	1350mmØ STM OBV=83.33	300mmØ SAN INV=84.30		SAN-SAN=0.97m	STM-SAN=0.30m
⑧		525mmØ SAN OBV=84.38	300mmØ SAN INV=84.88	SAN-SAN=0.30m	SAN-SAN=0.30m
⑨	525mmØ STM OBV=83.97		300mmØ SAN INV=84.88	STM-SAN=0.81m	STM-SAN=0.30m
⑩		200mmØ SAN OBV=85.06	200mmØ WM INV=85.56	STM-WM=0.50m	SAN-WM=0.50m
⑪	525mmØ STM OBV=83.97		200mmØ WM INV=85.35	STM-WM=1.39m	STM-WM=0.50m
⑫	600mmØ STM OBV=84.72	300mmØ SAN INV=85.60		STM-SAN=0.88m	STM-SAN=0.30m
⑬	600mmØ STM INV=84.73		200mmØ WM INV=86.17	STM-WM=1.44m	STM-WM=0.50m
⑭		200mmØ SAN OBV=85.83	200mmØ WM INV=86.17	SAN-WM=0.34m	SAN-WM=0.50m
⑮	300mmØ STM OBV=85.20		200mmØ WM INV=86.63	STM-WM=1.43m	STM-WM=0.50m
⑯	300mmØ STM OBV=85.20		200mmØ WM INV=86.63	STM-WM=1.43m	STM-WM=0.50m
⑰	250mmØ STM OBV=85.16	200mmØ SAN INV=86.15		STM-WM=0.99m	STM-WM=0.30m
⑱	250mmØ STM OBV=85.16		200mmØ WM INV=86.59	STM-WM=1.43m	STM-WM=0.50m
⑲		200mmØ SAN OBV=86.32	200mmØ WM INV=86.62	SAN-WM=0.30m	STM-WM=0.50m
⑳	1200mmØ STM OBV=85.55		200mmØ WM INV=86.86	STM-WM=1.31m	STM-WM=0.50m
㉑		300mmØ SAN OBV=86.60	200mmØ WM INV=86.90	SAN-WM=0.30m	SAN-WM=0.50m
㉒	250mmØ STM OBV=85.54		200mmØ WM INV=86.91	STM-WM=1.37m	STM-WM=0.50m
㉓	250mmØ STM OBV=85.54	250mmØ SAN INV=86.36		STM-SAN=0.80m	STM-SAN=0.30m
㉔	1200mmØ STM OBV=85.61	250mmØ SAN INV=86.36		STM-SAN=0.75m	STM-SAN=0.30m
㉕	1200mmØ STM OBV=85.86		200mmØ WM INV=87.24	STM-WM=1.38m	STM-WM=0.50m
㉖		250mmØ SAN OBV=86.79	200mmØ WM INV=87.24	SAN-WM=0.45m	SAN-WM=0.50m
㉗	1200mmØ STM OBV=85.87	250mmØ SAN INV=86.61		STM-SAN=0.74m	STM-SAN=0.30m
㉘		250mmØ SAN OBV=87.43	200mmØ WM INV=87.73	SAN-WM=0.30m	STM-WM=0.50m
㉙	1050mmØ STM OBV=86.56		200mmØ WM INV=87.44	STM-WM=0.88m	STM-WM=0.50m