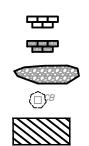
## UTILITY LEGEND

	TRANSFORMER
	TRANSFORMER C/W CONCRETE WINGS
HSG	HYDRO SWITCHGEAR
НМН	HYDRO MANHOLE
$\bigcirc$	BELL PEDESTAL
GLB	BELL GRADE LEVEL BOX (I=600mm, w=1200mm, d=750mm) C/W 1.5 x 3.0m easement
FC	BELL FIBER CABINET (I=1200mm, w=750mm, d=500mm)
CSP	BELL CENTRAL SPLITTING POINTS (I=1175mm, w=1200mm, d=500mm)
	ROGERS PEDESTAL
$\boxtimes$	ROGERS VAULT (I=1000mm, w=1000mm, d=1200mm) C/W 1m x 2m easement
P30 <sup>0</sup> →√	STREET LIGHT
D	STREET LIGHT DISCONNECT
<b> </b> µ	STREET LIGHT GROUNDING
н/в/т/g/s	JOINT UTILITY TRENCH
нн	HYDRO CABLE AND DUCTS
В	BELL CABLE
BB	BELL DUCTS
T	ROGERS CABLE
TT	ROGERS DUCTS
G	GAS
S	STREET LIGHT CABLE
<u> </u>	UTILITY DROP LOCATIONS
<u>10-DUCTS</u> 6-H 4-T	CONCRETE ENCASED DUCT BANK C/W NUMBER OF DUCTS
<u>СМ</u> ВЯ	COMMUNITY MAILBOX
	PROPOSED TREE LOCATION
4	ROOT MANAGEMENT BARRIER

## SEDIMENT EROSION LEGEND

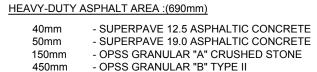


IEAVY DUTY SILT FENCE	
SNOW FENCE	
STRAW BALE CHECK DAM	
TRAW BALE CHECK DAM WITH FILTER CLOTH	
ROCK CHECK DAM	
EDIMENT SACK PLACED UNDER EXISTING CB COVER	
EMPORARY MUD MAT 0.15m THICK 50mm CLEAR STONE ON NON WOVEN FILTER CLOTH	

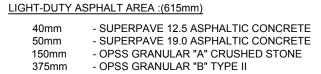
## GENERAL LEGEND

	LIMIT OF CONSTRUCTION
	PHASING LINE
	BARRIER CURB
	MOUNTABLE CURB
	DEPRESSED BARRIER CURB
	CONCRETE SIDEWALK
	- TACTILE WALKING SURFACE INDICATOR
	ASPHALT SIDEWALK / PATHWAY
BUS	BUS STOP CONCRETE / ASPHALT

#### ROADWAY STRUCTURE:



50mm - SUPERPAVE 19.0 ASPHALTIC CONCRETE 150mm - OPSS GRANULAR "A" CRUSHED STONE 450mm - OPSS GRANULAR "B" TYPE II



# SERVICING LEGEND

MH118A SANITARY MANHOLE SANITARY SEWER MH109 MH118 STORM MANHOLE 825mmø STM \_\_\_\_ STORM SEWER - LESS THAN 900 900mmø STM 200ø WATERMAIN WATERMAIN \_\_\_\_\_\_ <u>CB100</u>\_\_\_\_\_\_ STREET CATCHBASIN C/W TOP ( \_\_\_\_\_ CICB1 G/G 104.2 CURB INLET CATCHBASIN C/W G G 104.10 DOUBLE CATCHBASIN C/W TOP C DCICB10 G/G 104.25 DITCH INLET CATCHBASIN C/W G CATCHBASIN MANHOLE C/W TOF CBMH1L T/G 103.59 DITCH INLET MANHOLE C/W TOP -CBIUU T/G 104.10 ICD LOCATION REAR YARD CATCHBASIN IN ROA ■ RYCB T/G 104.35 C/W SOLID GRATE −<del>⊖</del>T/G 104.35 INV 103.35 REAR YARD "TEE" CATCHBASIN ( AND INVERT OUT REAR YARD "END" CATCHBASIN ( GT/G 104.50 NV 103.50 AND INVERT OUT <u>T/G</u> 104.35 INV 103.35 REAR YARD "CUSTOM ANGLED " GRATE AND INVERT OUT REAR YARD "THREE WAY" CATCH \_\_\_\_T/G 104.35 \_\_\_\_\_INV 103.35 GRATE AND INVERT OUT PERFORATED REAR YARD SUBD 300mmø CSP CSP CULVERT C/W DIAMETER ⊗ <sup>V&VB</sup> VALVE AND VALVE BOX **⊗**<sup>V&VC</sup> VALVE AND VALVE CHAMBER FIRE HYDRANT C/W BOTTOM OF 200Ø WM RED 150Ø WM WATERMAIN REDUCER 2 VBENDS VERTICAL BEND LOCATION  $\triangleleft$ SINGLE SERVICE LOCATION  $\triangleleft$ DOUBLE SERVICE LOCATION BH 12 102.00 INFERRED BEDROCK (SEE GEOT HGL 101.79 100 YEAR STORM HYDRAULIC GR HGL 101.79 STRESS TEST STORM HYDRAULI 108 102.40 UNDERSIDE OF FOOTING ELEVA

## GRADING LEGEND

1.3%
×104.62
×104.40 (s)
×104.50 (S)н₽
104.60 103.59×
86.45 EX ×
96.79

105.30 т/w×

103.50 в/w×

Ð

F.FL. 96.32

WU

WO

NS

BS

T.FND. 95.96 U.S.F. 93.36 <u>RISERS 0</u> M.U.S.F

(Frost cover not provided for standar BACKSPLIT UNIT (1.5m frost cover F NOISE FENCE LOCATION 

	Г	WATERMAIN SCHEDULE						
		STATION	DESCRIPTION	FINISHED	TOP OF	WATERMAIN COVER	AS-BUILT WATERMAIN	COMMENTS
		A 0+000.00 0+004.77	CONNECT TO EX. 250Ø W/M WITH 250Ø x 200Ø TEE 200Ø – 45° VERTICAL BEND	99.69 99.83	97.38 97.43	2.31 2.40		
<u>G LEGEND</u>		0+005.60 0+006.00	2000 – 45° VERTICAL BEND 2000 V&VB	99.86 99.87	98.03 98.03	1.83 1.84		* INSULATE PER W2 * INSULATE PER W2
SANITARY MANHOLE		B 0+008.17 0+008.67 0+009.47	150Ø x 200Ø TEE 200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND	99.81 99.80 99.77	98.03 98.03 97.37	1.79 1.77 2.40		* INSULATE PER W2 * INSULATE PER W2
SANITARY SEWER STORM MANHOLE		0+010.00 0+018.39	50Ø SERVICE CONNECTION BUILDING 6 50Ø SERVICE CONNECTION BUILDING 6	99.76 100.07	97.36 97.67	2.40 2.40 2.40		
STORM MANHOLE STORM SEWER - LESS THAN 900Ø	—	0+029.19 0+029.84	$200\emptyset - 45^{\circ} \text{ VERTICAL BEND}$ $200\emptyset - 45^{\circ} \text{ VERTICAL BEND}$	100.56 100.58	98.16 98.60	2.40 1.98		* INSULATE PER W2
STORM SEWER - 900Ø AND GREATER		C 0+030.59 0+031.47	200Ø x 200Ø CROSS 200Ø x 150Ø REDUCER	100.62 100.65	98.70 98.77	1.91 1.88		* INSULATE PER W2 * INSULATE PER W2
WATERMAIN		0+032.51 0+036.48	- 150Ø – 45° VERTICAL BEND	100.70 100.79	98.98 98.65	1.71 2.14		* INSULATE PER W2 * INSULATE PER W2
STREET CATCHBASIN C/W TOP OF GRATE		0+037.13 D 0+041.00	150Ø – 45° VERTICAL BEND 200Ø x 150Ø TEE	100.76 100.83	98.36 98.43	2.40 2.40		
CURB INLET CATCHBASIN C/W GUTTER GRADE		0+055.25 0+056.12	50Ø SERVICE CONNECTION BUILDING 5 150Ø CAP	101.29 101.33	98.89 98.93	2.40 2.40		
DOUBLE CATCHBASIN C/W TOP OF GRATE	_	0+064.50 0+066.62 0+071.83	50Ø – 45° BEND 50Ø – 45° BEND 50Ø V&VB	101.68 101.82 102.02	99.28 99.42 99.62	2.40 2.40 2.40		
DITCH INLET CATCHBASIN C/W GUTTER GRADE     CATCHBASIN MANHOLE C/W TOP OF GRATE		E 0+076.47	500 V&VB 500 SERVICE CONNECTION BUILDING 5	102.33	99.93	2.40		
DITCH INLET MANHOLE C/W TOP OF GRATE		D 0+000.00 0+010.60	150Ø x 150Ø TEE 50Ø SERVICE CONNECTION BUILDING 5	100.83	98.43 97.94	2.40 3.46		
ICD LOCATION		0+017.20		101.27	98.88 98.87	2.40 2.40		
REAR YARD CATCHBASIN IN ROAD CONNECTING STRUCTURE C/W SOLID GRATE	_	F 0+029.35	150Ø x 150Ø TEE	101.08	98.68	2.40		
REAR YARD "TEE" CATCHBASIN (300Ø) C/W TOP OF GRATE	_	F 0+000.00 0+003.88	150Ø x 150Ø TEE 50Ø SERVICE CONNECTION BUILDING 5	101.08 101.36	98.68 98.96	2.40 2.40		
	_	0+015.00 0+018.00	50Ø SERVICE CONNECTION BUILDING 5 150Ø CAP	101.81 101.94	99.41 99.54	2.40 2.40		
REAR YARD "END" CATCHBASIN (300Ø) C/W TOP OF GRATE AND INVERT OUT		0+020.13 0+023.37	50Ø V&VB 50Ø – 45° BEND	102.03 102.16	99.63 99.76	2.40 2.40		
REAR YARD "CUSTOM ANGLED " CATCHBASIN (450Ø) C/W TOP OF GRATE AND INVERT OUT		0+025.49 G 0+027.47	50Ø – 45° BEND 50Ø SERVICE CONNECTION BUILDING 5	102.31 102.46	99.91 100.06	2.40 2.40		
REAR YARD "THREE WAY" CATCHBASIN (450Ø) C/W TOP OF	_	<b>F</b> 0+000.00	150Ø x 150Ø TEE	101.08	98.68	2.40		
		0+009.88 0+021.00	50Ø SERVICE CONNECTION BUILDING 6 50Ø SERVICE CONNECTION BUILDING 6	100.84 100.57	98.44 98.17	2.40 2.40		
PERFORATED REAR YARD SUBDRAIN CSP CULVERT C/W DIAMETER		0+023.66 0+025.82	150Ø CAP 50Ø V&VB	100.50 100.45	98.10 98.05	2.40 2.40		
VALVE AND VALVE BOX	E	0+029.50 0+031.62	50Ø – 45° BEND 50Ø – 45° BEND	100.36 100.33	98.15 98.30	2.21 2.03		* INSULATE PER W22 * INSULATE PER W22
VALVE AND VALVE CHAMBER		H 0+033.44	50Ø SERVICE CONNECTION BUILDING 6	100.34	97.94	2.40		
FIRE HYDRANT C/W BOTTOM OF FLANGE ELEVATION		C 0+000.00 0+004.50 0+005.30	200Ø x 200Ø CROSS 200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND	100.62 100.52 100.51	98.70 98.31 97.40	1.91 2.22 3.10		* INSULATE PER W22 * INSULATE PER W22
M WATERMAIN REDUCER		0+005.30	200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND	100.51 100.46 100.45	97.40 97.44 98.05	3.10 3.02 2.40		
		0+008.15	2000 – 45° VERTICAL BEND 2000 x 1500 HY DRANT TEE 500 SERVICE CONNECTION BUILDING 7	100.45	98.05 98.05 98.05	2.40 2.40 2.40		
SINGLE SERVICE LOCATION DOUBLE SERVICE LOCATION		Q 0+017.80 0+024.36	150Ø SERVICE CONNECTION BUILDING 7 150Ø SERVICE CONNECTION BUILDING 4 200Ø – 45° VERTICAL BEND	100.49	98.09 97.89	2.40 2.40 2.40		
		0+024.84	2000 – 45° VERTICAL BEND 2000 – 45° VERTICAL BEND 500 SERVICE CONNECTION BUILDING 7	100.29	98.31 98.34	1.98 1.91		* INSULATE PER W22 * INSULATE PER W22
INFERRED BEDROCK (SEE GEOTECHNICAL REPORT) 100 YEAR STORM HYDRAULIC GRADE LINE AT MANHOLE		0+034.35	$200\emptyset - 45^{\circ} \text{ VERTICAL BEND}$ $200\emptyset - 45^{\circ} \text{ VERTICAL BEND}$	100.34	98.37 97.95	1.96 2.40		* INSULATE PER W22
STRESS TEST STORM HYDRAULIC GRADE LINE AT MANHOLE	_	<b>S</b> 0+055.78 0+073.36	150Ø SERVICE CONNECTION BUILDING 3 200Ø x 150Ø HY DRANT TEE	100.26 100.28	97.86 97.88	2.40 2.40		
UNDERSIDE OF FOOTING ELEVATION (WITH LOT #)	_	0+089.03 0+089.59	200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND	100.22	97.82 98.32	2.40 1.89		* INSULATE PER W22
CLAY SEAL IN SEWER / WATERMAIN TRENCH	_	0+091.84 0+092.40	200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND	100.20 100.22	98.32 97.82	1.88 2.40		* INSULATE PER W22
	_	l 0+096.86 0+100.60	200Ø x 200Ø CROSS 200Ø x 150Ø REDUCER	100.43 100.33	98.03 97.93	2.40 2.40		
	_	0+101.13 0+107.35	50Ø SERVICE CONNECTION BUILDING 1 -	100.32 100.18	97.92 97.94	2.40 2.24		* INSULATE PER W22
		0+110.42 0+113.00	- 50Ø SERVICE CONNECTION BUILDING 1	100.18 100.18	97.94 97.78	2.24 2.40		* INSULATE PER W22
LEGEND		0+115.74 0+117.15	150Ø CAP 50Ø V&VB	100.18 100.18	97.78 97.78	2.40 2.40		
		0+119.55 0+121.67	50Ø – 45° BEND 50Ø – 45° BEND	100.18 100.23	97.78 97.83	2.40 2.40		
PROPOSED SWALE C/W FLOW DIRECTION		J 0+123.04	50Ø SERVICE CONNECTION BUILDING 1	100.25	97.85	2.40		
PROPOSED DITCH C/W FLOW DIRECTION AND SLOPE SLOPE C/W FLOW DIRECTION		l 0+000.00 0+003.56 0+017.90	200Ø x 200Ø CROSS 200Ø x 150Ø REDUCER	100.36	98.03 97.96 97.54	2.40 2.40		
MAJOR OVERLAND FLOW ROUTE		0+017.90 0+021.71 0+024.03	150Ø - 45° BEND 150Ø - 45° BEND	99.89 99.89 99.89	97.54 97.29 97.45	2.40 2.60 2.44		
PROPOSED SPOT GRADE		0+024.03	50Ø SERVICE CONNECTION BUILDING 1 50Ø SERVICE CONNECTION BUILDING 1 150Ø CAP	99.89 99.88	97.43 97.39 97.48	2.44 2.49 2.40		
PROPOSED SWALE GRADE		0+040.20 0+042.89	50Ø V&VB 50Ø – 45° BEND	99.90 99.86	97.50 97.46	2.40 2.40		
PROPOSED SWALE HIGH POINT GRADE		0+045.02 K 0+046.27	50Ø – 45° BEND 50Ø SERVICE CONNECTION BUILDING 1	100.03 100.13	97.63 97.73	2.40 2.40		
LOT CORNER GRADE C/W EXISTING GRADE		L 0+000.00 0+003.51		100.91	98.51 98.52	2.40		
TIE INTO EXISTING GRADE		0+003.51	50Ø SERVICE CONNECTION BUILDING 2 50Ø SERVICE CONNECTION BUILDING 2 50Ø SERVICE CONNECTION BUILDING 2	100.92 100.81 100.69	98.41 98.11	2.40 2.40 2.58		
RETAINING WALL		0+021.18 0+023.18 0+028.87	200Ø – 45° BEND	100.65	98.11 98.25 98.00	2.30 2.40 2.40		
TOP OF RETAINING WALL GRADE		0+020.87 0+029.87 0+031.37	200Ø – 45° BEND 200Ø MONITORING VALVE CHAMBER 200Ø V&VB	100.38	98.00 97.98 97.93	2.40 2.40 2.40		
TERRACING 3:1 MAXIMUM UNLESS NOTED OTHERWISE		M 0+038.37	CONNECT TO EXISTING WITH 2500 × 2000 TEE	100.00	97.79	2.40		
PROPOSED BOTTOM OF RETAINING WALL GRADE PRESSURE REDUCING VALVE (Based on the higher of the sewer obverts, or hydraulic grade line)	_	I 0+000.00 L 0+013.81	200Ø x 200Ø CROSS 200Ø x 200Ø TEE	100.43 100.91	98.03 98.51	2.40 2.40		
FINISHED FLOOR ELEVATION	F	0+016.94 0+033.71	200Ø x 150Ø REDUCER 150Ø – 45° BEND	101.12 101.67	98.72 99.27	2.40 2.40		
TOP OF FOUNDATION ELEVATION     UNDERSIDE OF FOOTING ELEVATION     TOTAL NUMBER OF RISERS	F	0+037.52 0+039.84	150Ø – 45° BEND 50Ø SERVICE CONNECTION BUILDING 2	101.69 101.65	99.29 99.25	2.40 2.40		
TOTAL NUMBER OF RISERS     MINIMUM UNDERSIDE OF FOOTING     MINIMUM GARAGE GRADE		0+049.46 0+053.62	50Ø SERVICE CONNECTION BUILDING 2 150Ø CAP	101.62 101.61	99.23 99.22	2.39 2.39		* INSULATE PER W22 * INSULATE PER W22
WALKUP UNIT	E	0+054.95 0+057.21	50Ø V&VB 50Ø – 45° BEND	101.56 101.45	99.16 99.05	2.40 2.40		
WALKOUT UNIT		0+059.33 N 0+060.58	50Ø – 45° BEND 50Ø SERVICE CONNECTION BUILDING 1	101.29 101.25	98.89 98.85	2.40 2.40		
NON-STANDARD FOUNDATION (Frost cover not provided for standard unit)		<b>c</b> 0+000.00	200Ø x 200Ø CROSS	100.62	98.70	1.91		* INSULATE PER W2
		0+000.75 0+001.40	200Ø – 45° VERTICAL BEND 200Ø – 45° VERTICAL BEND	100.63 100.64 100.65	98.70 98.24 98.25	1.93 2.40		* INSULATE PER W2
BACKSPLIT UNIT (1.5m frost cover on footings)		0+001.72 0+006.71 0 0+009.69	200Ø CAP 50Ø V&VB 50Ø SERVICE CONNECTION BUILDING 5	100.65 100.77 100.99	98.25 98.37 98.59	2.40 2.40 2.40		
		_						
NOISE FENCE LOCATION		<b>B</b> 0+000.00	150Ø x 200Ø TEE           150Ø - 45° VERTICAL BEND           150Ø - 45° VERTICAL BEND	99.81 99.81 99.81	98.03 98.07 97.41	1.79 1.74 2.40		* INSULATE PER W2 * INSULATE PER W2
NOISE FENCE LOCATION		0+004.10		99.81	97.41 97.50	2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00	50Ø SERVICE CONNECTION BUILDING 7			0 40	1	
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03	50Ø SERVICE CONNECTION BUILDING 7 150Ø CAP 50Ø V&VB	99.89 99.85	97.49 97.45	2.40 2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø - 45° BEND	99.89 99.85 99.83 100.10	97.49 97.45 97.43 97.70	2.40 2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø – 45° BEND           50Ø – 45° BEND           50Ø SERVICE CONNECTION BUILDING 7	99.89 99.85 99.83 100.10 100.19	97.49 97.45 97.43 97.70 97.79	2.40 2.40 2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95	50Ø SERVICE CONNECTION BUILDING 7         150Ø CAP         50Ø V&VB         50Ø - 45° BEND         50Ø SERVICE CONNECTION BUILDING 7         200Ø x 150Ø TEE         150Ø - 45° VERTICAL BEND	99.89 99.85 99.83 100.10 100.19 100.49 100.46	97.49 97.45 97.43 97.70 97.79 98.09 98.06	2.40 2.40 2.40 2.40 2.40 2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95 0+003.35 0+005.65	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø SERVICE CONNECTION BUILDING 7           200Ø x 150Ø TEE           150Ø - 45° VERTICAL BEND           150Ø - 45° VERTICAL BEND           150Ø - 45° VERTICAL BEND	99.89           99.85           99.83           100.10           100.19           100.49           100.46           100.47           100.59	97.49 97.45 97.43 97.70 97.79 98.09 98.06 98.46 98.46	2.40 2.40 2.40 2.40 2.40 2.40 2.40 2.02 2.13		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95 0+003.35 0+005.65 0+006.05 0+009.53	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø - 45° BEND           50Ø SERVICE CONNECTION BUILDING 7           200Ø x 150Ø TEE           150Ø - 45° VERTICAL BEND	99.89           99.85           99.83           100.10           100.49           100.49           100.46           100.47           100.59           100.61           100.74	97.49 97.45 97.43 97.70 97.79 98.09 98.06 98.46 98.46 98.46 98.21 98.34	2.40 2.40 2.40 2.40 2.40 2.40 2.02 2.13 2.40 2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95 0+003.35 0+005.65 0+006.05 0+009.53 R 0+013.38	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø = 45° BEND           50Ø SERVICE CONNECTION BUILDING 7           200Ø x 150Ø TEE           150Ø - 45° VERTICAL BEND           150Ø SERVICE CONNECTION BUILDING 4	99.89           99.85           99.83           100.10           100.49           100.49           100.46           100.59           100.61           100.74	97.49 97.45 97.43 97.70 97.79 98.09 98.06 98.46 98.46 98.46 98.21 98.34 98.66	2.40 2.40 2.40 2.40 2.40 2.40 2.02 2.13 2.40 2.40 2.40 2.40		
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95 0+003.35 0+005.65 0+006.05 0+009.53 R 0+013.38 S 0+000.00 0+002.95	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø - 45° BEND           50Ø SERVICE CONNECTION BUILDING 7           200Ø x 150Ø TEE           150Ø - 45° VERTICAL BEND	99.89           99.85           99.83           100.10           100.49           100.46           100.47           100.59           100.61           100.74           101.06           100.26           100.46	97.49 97.45 97.43 97.70 97.79 98.09 98.06 98.46 98.46 98.46 98.46 98.21 98.34 98.66 97.86 98.06	2.40 2.40 2.40 2.40 2.40 2.40 2.02 2.13 2.40 2.40 2.40 2.40 2.40 2.40		* INSULATE PER W2
NOISE FENCE LOCATION		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95 0+003.35 0+005.65 0+009.53 R 0+013.38 S 0+000.00 0+002.95 0+003.35 0+005.65	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø = 45° BEND           50Ø SERVICE CONNECTION BUILDING 7           200Ø x 150Ø TEE           150Ø - 45° VERTICAL BEND           150Ø SERVICE CONNECTION BUILDING 4	99.89           99.85           99.83           100.10           100.49           100.46           100.47           100.59           100.74           101.06           100.26           100.46           100.26           100.47           100.59	97.49 97.45 97.43 97.70 97.79 98.09 98.06 98.46 98.46 98.21 98.34 98.66 97.86 98.66 97.86 98.06 98.46 98.46	2.40 2.40 2.40 2.40 2.40 2.40 2.40 2.02 2.13 2.40 2.40 2.40 2.40 2.40 2.40 2.40 2.40		* INSULATE PER W22 * INSULATE PER W22 * INSULATE PER W22 * INSULATE PER W22 * INSULATE PER W22
BACKSPLIT UNIT (1.5m frost cover on footings) NOISE FENCE LOCATION NOISE FENCE GATE		0+004.79 0+014.00 0+017.76 0+025.03 0+028.68 0+030.80 P 0+031.48 Q 0+000.00 0+002.95 0+003.35 0+005.65 0+006.05 0+009.53 R 0+013.38 S 0+000.00 0+002.95 0+003.35	50Ø SERVICE CONNECTION BUILDING 7           150Ø CAP           50Ø V&VB           50Ø - 45° BEND           50Ø - 45° BEND           50Ø SERVICE CONNECTION BUILDING 7           200Ø x 150Ø TEE           150Ø - 45° VERTICAL BEND           150Ø SERVICE CONNECTION BUILDING 4	99.89           99.85           99.83           100.10           100.49           100.46           100.47           100.61           100.74           101.06           100.26           100.46	97.49 97.45 97.43 97.70 97.79 98.09 98.06 98.46 98.46 98.21 98.34 98.34 98.66 97.86 98.06 98.46	2.40 2.40 2.40 2.40 2.40 2.40 2.02 2.13 2.40 2.40 2.40 2.40 2.40 2.40 2.40 2.40		* INSULATE PER W2

### NOTES

OTTAWA STANDARD DRAWINGS & SPECIFICATIONS OR OPSD/OPSS IF CITY DRAWINGS AND SPECIFICATIONS DO NOT APPLY. 2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING SERVICES AND UTILITIES PRIOR TO CONSTRUCTION AND SHALL PROTECT AND ASSUME RESPONSIBILITY FOR ALL UTILITIES

1. ALL MATERIALS AND CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE CURRENT CITY OF

- WHETHER OR NOT SHOW ON THESE DRAWINGS. 3. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL REPORT DATED JANUARY, 2020, PREPARED BY GOLDER ASSOCIATES.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. WHERE 50mm OR LESS FLEXIBLE WATERMAIN CONNECTS TO LARGER DIAMETER WATERMAIN, THE CONNECTION SHALL BE MADE AS PER CITY OF OTTAWA STANDARD W37.2.
- 8. SILT FENCE TO BE ERECTED PRIOR TO EARTH WORKS BEING COMMENCED. SILT FENCE TO BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED OR UNTIL START OF SUBSEQUENT PHASE.
- 9. STRAW BALE SEDIMENT TRAPS TO BE PLACED AND MAINTAINED IN EXISTING AND CONSTRUCTED ROAD SIDE DITCHES. TRAPS TO REMAIN AND BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED (IF APPLICABLE).
- 10. SILT SACK TO BE PLACED AND MAINTAINED UNDER COVER OF ALL CATCHBASINS. GEOTEXTILE SILT SACK IN STREET CBs TO REMAIN UNTIL ALL CURBS ARE CONSTRUCTED. GEOTEXTILE FABRIC IN RYCBs TO REMAIN UNTIL VEGETATION IS ESTABLISHED. ALL CATCHBASINS TO BE REGULARLY INSPECTED AND CLEANED, AS NECESSARY, UNTIL SOD AND CURBS ARE CONSTRUCTED.
- 11. ALL CONNECTIONS TO EXISTING WATERMAINS ARE TO BE COMPLETED BY CITY FORCES. CONTRACTOR IS TO EXCAVATE, BACKFILL, COMPACT AND REINSTATE.
- 12. ALL LEADS FOR STREET CB'S TO AND CICB'S CONNECTED TO MAIN SHALL BE 250mmØ PVC DR35 @ MIN 2% SLOPE UNLESS NOTED OTHERWISE. ALL LEADS FOR RYCB'S CONNECTED TO MAIN SHALL BE 200mmØ PVC DR35 @ MIN 1% SLOPE UNLESS NOTED OTHERWISE. 13. THESE DRAWINGS ARE NOT TO BE SCALED OR USED FOR LAYOUT PURPOSES.
- 14. THE COMPOSITE UTILITY PLAN HAS BEEN REVIEWED BY IBI GROUP FOR CONFORMITY TO THE DESIGN CONCEPT FOR THE DEVELOPMENT AND FOR GENERAL ARRANGEMENT ONLY AND AS SUCH SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN EITHER LAYOUT OR WORKMANSHIP.
- 15. THIS DRAWING IS A COMPILATION OF OTHER UTILITY DESIGNS AND DOES NOT INDICATE IN ANY WAY THAT THE PARTY SIGNING THIS DRAWING HAS DESIGNED OR APPROVED THE RESPECTIVE UTILITY PLANTS INDICATED ON THIS DRAWING. THE DRAWING WAS PREPARED TO BE USED AS REFERENCE ONLY AS PER REQUIREMENTS OF THE CITY OF OTTAWA. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE IT HAS REVIEWED THE CURRENT AND EXISTING DESIGNS BY HYDRO, STREET LIGHTING, BELL, CANADA POST, O.C. TRANSPO, CABLE TV AND ANY OTHER PARTIES INCLUDED BUT NOT MENTIONED AND COMPLETE THE INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE STAKEHOLDER UTILITY DESIGNS.
- 16. THE HGL PROVIDED IS BASED ON HYDRAULIC MODELING COMPLETED USING XPSWMM AND THE 100 YEAR CHICAGO STORM EVENT (C3H10010).
- 17. ALL UTILITY BOXES (I.E. PEDESTALS, TRANSFORMERS, ETS) ARE TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF OTTAWA'S "GUIDELINES FOR UTILITY PEDESTALS WITHIN THE ROAD RIGHT OF WAY"

Crossing No.	Pipe Interfer PIPE 1	PIPE 2	Clearance
1	STM	WTR	0.737
2	Bottom 98.718 WTR	Top 97.981 STM	
	Bottom 98.105 STM	Top 97.855 WTR	0.250
3	Bottom 98.700	Top 98.208	0.492
4	WTR Bottom 97.633	SAN Top 96.777	0.856
5	STM Bottom 97.954	WTR Top 97.453	0.501
6	STM Bottom 97.939	SAN Top 97.342	0.597
7	STM	SAN	0.745
8	Bottom 97.612 SAN	Top 96.867 WTR	0.585
	Bottom 99.394 WTR	Top 98.810 STM	
9	Bottom 97.929	Top 97.678 SAN	0.251
10	WTR Bottom 97.867	Top 97.062	0.805
11	WTR Bottom 97.892	SAN Top 97.284	0.608
12	WTR Bottom 98.308	STM Top 98.058	0.250
13	STM Bottom 99.375	WTR Top 98.876	0.500
14	WTR	STM	0.251
15	Bottom 98.600 WTR	Top 98.350 SAN	0.253
	Bottom 98.780 WTR	Top 98.526 SAN	
16	Bottom 98.204	Top 97.448	0.756
17	WTR Bottom 98.101	STM Top 97.852	0.250
18	WTR Bottom 98.152	SAN Top 97.902	0.250
19	SAN Bottom 97.955	WTR Top 97.454	0.500
20	WTR	STM	0.250
21	Bottom 97.731 WTR	Top 97.481 SAN	0.282
	Bottom 97.661 WTR	Top 97.380 SAN	
22	Bottom 97.925 STM	Top 97.672 STM	0.253
23	Bottom 98.790	Top 97.321	1.469
24	STM Bottom 98.760	SAN Top 96.877	1.883
25	STM Bottom 98.667	WTR Top 98.161	0.506
26	STM Bottom 97.292	SAN Top 97.022	0.269
28	STM	SAN	0.419
29	Bottom 97.662 STM	Top 97.243 STM	
	Bottom 98.846 STM	Top 98.302 SAN	0.544
30	Bottom 98.512 STM	Top 97.542 SAN	0.970
31	Bottom 98.237	Top 97.772	0.466
32	STM Bottom 98.802	SAN Top 97.349	1.453
33	STM Bottom 98.054	SAN Top 97.395	0.660
34	STM Bottom 98.010	SAN Top 97.598	0.412
35	STM	SAN Top 97.787	0.273
36	Bottom 98.059 STM	SAN	0.252
	Bottom 96.226 WTR	Top 95.974 STM	
37	Bottom 97.956	Top 97.221 STM	0.735
38	SAN Bottom 99.237	Top 97.072	2.165
39	SAN Bottom 99.237	STM Top 97.183	2.054
40	SAN Bottom 97.600	STM Top 97.263	0.337
41	SAN Bottom 98.571	STM Top 96.977	1.594
42	SAN	STM	0.875
43	Bottom 98.389 SAN	Top 97.514 STM	0.486
	Bottom 98.389 STM	Top 97.903 SAN	
44	Bottom 99.345 SAN	Top 98.133 WTR	1.212
46	Bottom 98.639	Top 98.107	0.532
47	SAN Bottom 99.330	WTR Top 98.215	1.115
48	SAN Bottom 99.330	WTR Top 98.494	0.837
49	WTR	SAN Top 98.814	0.250
50	Bottom 99.063 WTR	SAN	0.302
	Bottom 99.116 WTR	Top 98.814 SAN	
51	Bottom 97.900 SAN	Top 96.909 WTR	0.991
52	Bottom 97.955	Top 97.455	0.500
53	WTR Bottom 97.780	SAN Top 97.512	0.268
54	WTR Bottom 98.243	SAN Top 97.993	0.250
55	WTR Bottom 99.922	SAN Top 99.495	0.427
56	SAN	WTR	0.361
	Bottom 99.319 SAN	Top 98.958 WTR	
57	Bottom 99.319 WTR	Top 98.572 SAN	0.746
58	Bottom 98.012	Top 97.762	0.250

	BJECT AREA	BANK STREET						
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NOTES	<u>.</u>							
NOTES.	1. SEE DRAWING C-010, C-011 FOR ADDITIONAL DETAILS AND							
	2. STTE BENCHMARK OBTAINED FROM LEGAL SURVEYOR ANNIS O'SULLIVAN VOLLEBEKK LTD. TOP SPINDLE OF HYDRANT ON PINGWI PLACE, ELEV.=102.60m							
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	SED AS PER CITY COI ED FOR SPA	MMENTS	DGY DGY	2020:09:18 2019:12:18				
No.	REVISI	ONS	Ву	Date				
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ΙB	IBI GROUP 400 – 333 Preston Street Ottawa ON K1S 5N4 Canada tel 613 225 1311 fax 613 225 9868 ibigroup.com							
Project Title	Project Title 1055 CEDAR CREEK DRIVE							
U. 45. Ya	PROFESSIONAL FROM D. B. Yannoulopoulos BOLINCE OF ONTHRO							
Drawing Title GENERAL NOTES, LEGEND AND CB DATA TABLE								
Scale	Scale N.T.S.							
Design	RM/WZ	Date SEI	PT. 2	019				
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