SEWER NOTES

AVAILABLE) OR AS PER OPSD STANDARDS.

- 1. CONSTRUCT ALL SEWERS AND APPURTENANCES TO CITY OR TOWNSHIP STANDARDS (IF
- 2. SEWER TRENCHING AND BEDDING SHALL CONFORM TO OPSD 802.010 AND 802.013 UNLESS
- 3. BEDDING SHALL BE A MINIMUM 150mm OF GRANULAR "A", COMPACTED TO MINIMUM 95%
- STANDARD PROCTOR DRY DENSITY. CLEAR STONE BEDDING SHALL NOT BE PERMITTED. 4. SUB-BEDDING, IF REQUIRED SHALL BE AS PER THE DIRECTION OF A GEOTECHNICAL ENGINEER.
- 5. BACKFILL TO AT LEAST 300mm ABOVE TOP OF PIPE WITH GRANULAR "A" OR SAND.
- 6. TO MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL (FROM PAVEMENT SUBGRADE TO 2.0m BELOW FINISHED GRADE) SHALL MATCH EXISTING SOIL CONDITIONS.
- 7. SEWERS AND CONNECTIONS 150mm DIAMETER AND SMALLER TO BE PVC SDR 28 OR APPROVED EQUIVALENT. SEWERS AND CONNECTIONS 200mm DIAMETER AND LARGER TO BE PVC SDR 35 OR APPROVED EQUIVALENT.
- 8. INSULATE ALL SEWERS AND/OR SERVICES THAT HAVE LESS THAN 1.5m OF COVER WITH THERMAL INSULATION AS PER OPSD 1109.030.
- 9. SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN AND DETAILED TO WITHIN 1.0m OF BUILDING. ALL ENDS OF SERVICES TO BE PROPERLY CAPPED AND LOCATED WITH 2"x4"x8' LONG MARKER. 10. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS ONSITE, OUTLET CONNECTION TO

THE MAIN AND PIPES 150mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON

- COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES. 11. DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION
- 12. ALL CATCHBASIN AND CATHCBASIN MANHOLE LEADS ARE TO BE MINIMUM 200mmØ WITH MINIMUM 1.0% SLOPE UNLESS OTHERWISE NOTED.
- 13. ALL CATCHBASINS EXCLUDING LANDSCAPE CATCHBASINS ARE TO HAVE 150 mm/ PERFORATED PIPE FOR 3.0m ON ALL AVAILABLE SIDES AS PER CITY OF OTTAWA STANDARD

WATERMAIN NOTES

DRAWING 'R1'.

TO THE SANITARY SEWER MAIN.

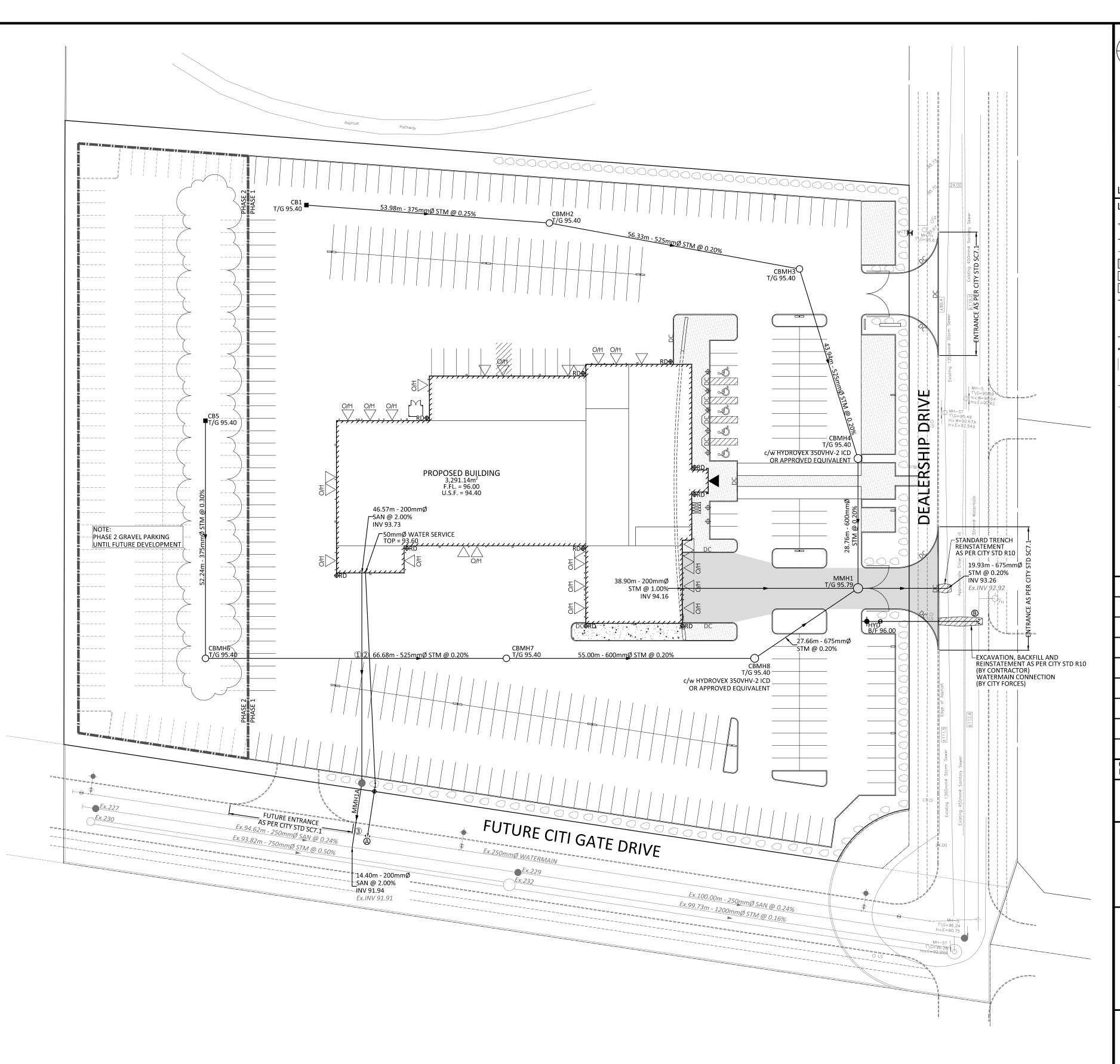
- 1. CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY OR TOWNSHIP STANDARDS.
- 2. INDUSTRIAL/COMMERCIAL SERVICE CONNECTIONS TO BE 50mm COPPER PIPING AND SHALL CONFORM TO ASTM B88 TYPE 'K' SOFT.
- 3. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 2.4m. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER CITY OR TOWNSHIP STANDARDS (IF AVAILABLE) OR OPSD 1109.030.
- 4. IF THE WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS EQUAL TO OR LESS THAN THAT WHICH IS RECOMMENDED BY THE
- 5. USE APPROVED SADDLE CONNECTION WITH MAIN (CORPORATION) STOP AS PER CITY OF OTTAWA STANDARD DRAWING 'W26'.
- 6. CONNECTION TO EXISTING BY CITY OR TOWNSHIP FORCES. EXCAVATION, BACKFILLING AND REINSTATEMENT IS TO BE COMPLETED BY THE CONTRACTOR.
- 7. THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES AS PER CITY OR TOWNSHIP STANDARDS (IF AVAILABLE) OR OPSD 1109.030.
- 8. THERMAL INSULATION OF WATERMAINS UNDER ROAD SIDE DITCHES AS PER CITY OF OTTAWA STANDARD DRAWING 'W21'.
- 9. SWABING, CHLORINATION AND CONTINUITY TESTING FOR PROPOSED WATER SERVICES IS TO FOLLOW CITY OF OTTAWA SPECIAL PROVISIONS #SP-4491 & SP-4494.

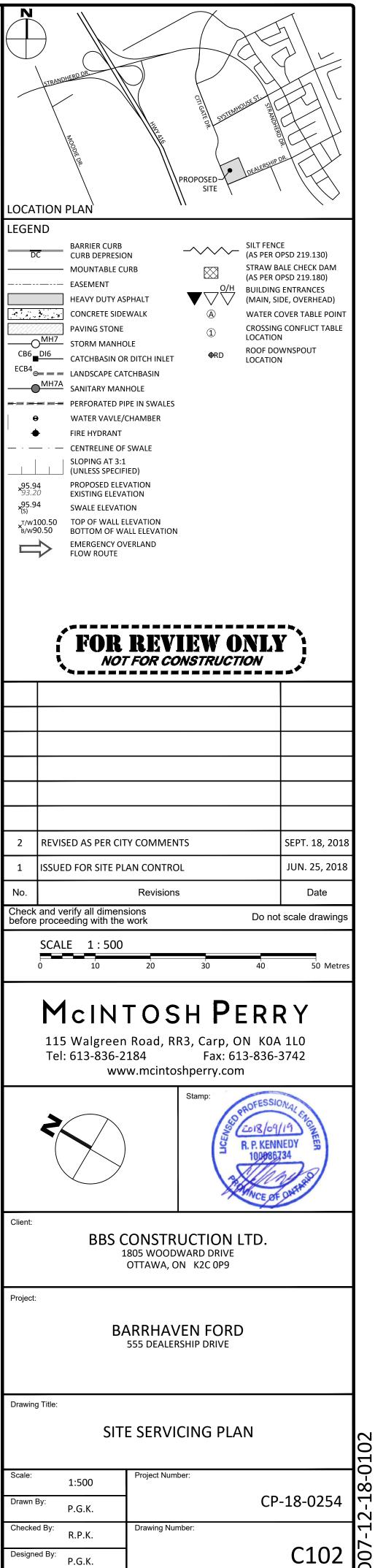
	STM STRUCTURE TABLE					
NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION		
CB1	95.40		SE94.023	COVER CITY STD S19 FRAME CITY STD S19 STRUC. OPSD 705.010		
CB5	95.40		SW94.085	COVER CITY STD S19 FRAME CITY STD S19 STRUC. OPSD 705.010		
CBMH2	95.40	NW93.888	\$93.738	COVER CITY STD S28.1 FRAME CITY STD S25 STRUC. OPSD 701.010		
СВМНЗ	95.40	N93.625	SW93.595	COVER CITY STD S28.1 FRAME CITY STD S25 STRUC. OPSD 701.010		
СВМН4	95.40	NE93.507	SW93.432	COVER CITY STD S28.1 FRAME CITY STD S25 STRUC. OPSD 701.011		
СВМН6	95.40	NE93.928	SE93.778	COVER CITY STD S28.1 FRAME CITY STD S25 STRUC. OPSD 701.010		
СВМН7	95.40	NW93.645	SE93.570	COVER CITY STD S28.1 FRAME CITY STD S25 STRUC. OPSD 701.010		
СВМН8	95.40	NW93.460	SE93.385	COVER CITY STD S28.1 FRAME CITY STD S25 STRUC. OPSD 701.011		
MMH1	95.79	NE93.375 NW93.330 NW93.775	SE93.300	MONITORING MANHOI COVER CITY STD S24.1 FRAME CITY STD S25 STRUC. OPSD 701.012		

CROSSING CONFLICT TABLE			
LOCATION	DESCRIPTION	SEPARATION	
1	525mmØ STM SEWER INV 93.70 200mmØ SAN SERVICE OBV 93.55	0.15	
2	525mmØ STM SEWER INV 93.70 50mmØ WATER SERVICE TOP 93.26	0.44	
3	250mmØ WATERMAIN INV 93.66 200mmØ SAN SERVICE OBV 92.20	1.46	

	WATER COVER TABLE				
LOCATION	STATION	FINISHED GRADE	TOP OF PIPE	DEPTH OF PIPE	
A - 250 x 50 TEE	0+000.00	96.790	94.390	2.400	
VALVE	0+010.00	96.990	94.590	2.400	
11.25° BEND	0+011.40	96.890	94.490	2.400	
BUILDING	0+059.31	96.000	93.600	2.400	
B - 250 x 150 TEE	0+000.00	96.000	93.600	2.400	
VALVE	0+021.85	95.980	93.580	2.400	
HYDRANT	0+024.85	95.900	93.500	2.400	

		SAN STRUCTURE TABLE				
İ	NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION	
	MMH1A	96.88	NE92.800	W92.228	MONITORING MANHOLE COVER CITY STD S24 FRAME CITY STD S25 STRUC. OPSD 701.010	





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