



KEY PLAN
N.T.S.

LEGEND

	SANITARY MANHOLE, SEWER & DIRECTION OF FLOW		ROAD CATCHBASIN
	STORM MANHOLE, SEWER & DIRECTION OF FLOW		ROAD CATCHBASIN WITH ICD
	WATERMAIN AND DIAMETER		LANDSCAPE TYPE CATCHBASIN
	VALVE & VALVE BOX		REAR YARD CATCH BASIN
	VALVE & VALVE CHAMBER		CATCH BASIN MANHOLE
	BEND AND THRUST BLOCK		SINGLE SERVICE LOCATION
	HYDRANT C/W VALVE & LEAD		DOUBLE SERVICE LOCATION
	CAP		PHASING BOUNDARY
	REDUCER		
	PRESSURE REDUCING VALVE		

GENERAL NOTES:

- DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVICING AND SURVEY INFORMATION SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
- CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING, INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND THE CITY AS CO-INSURED.
- CONNECT TO EXISTING SYSTEMS AS DETAILED, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO EXISTING CONDITIONS OR BETTER.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS.
- OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE COMMENCING CONSTRUCTION.
- RESTORE ALL TRENCHES AND SURFACE FEATURES TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF MUNICIPAL AUTHORITIES.
- REMOVE FROM SITE ALL DEBRIS AND EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
- REFER TO GEOTECHNICAL INVESTIGATION (DATED MARCH 7, 2019), PREPARED BY GEMTEC FOR SUBSURFACE CONDITIONS AND CONSTRUCTION RECOMMENDATIONS.
- PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE ROADSIDE CATCHBASIN FOR A DISTANCE OF 3.0m, PARALLEL TO THE CURB IN TWO DIRECTIONS.

SEWER NOTES:

1. SPECIFICATIONS:	SPEC. No.	REFERENCE
CATCH-BASIN (600x600mm)	705.010	OPSD
CATCH-BASIN MANHOLE (1200)	701.010	OPSD
STORM / SANITARY MANHOLE (1200)	701.010	OPSD
ROADSIDE CB, FRAME & COVER	S2 & S19	CITY OF OTTAWA
CB/MH FRAME & COVER	S25 & S24.1	CITY OF OTTAWA
STORM / SANITARY MH FRAME & COVER	S24.1 / S24 & S25	CITY OF OTTAWA
STORM SEWER	PVC DR 35 OR CONC.	(CLASS SPECIFIED ON PROFILE DRAWINGS)
SANITARY SEWER	PVC DR 35	
CATCH-BASIN LEAD	PVC DR 35	

- INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm H-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
- SERVICES ARE TO BE CONSTRUCTED TO PROPERTY LINE AT MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED).
- PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
- SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1.
- THE SITE SERVICING CONTRACTOR SHALL PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPS5 410.07.16 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.
- STORM MANHOLES AND CB/MHS SHALL HAVE 300mm SUMP'S UNLESS OTHERWISE INDICATED.
- CONTRACTOR TO TELEPHONE (CITYV) ALL PROPOSED SEWERS, 200mm OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

WATERMAIN NOTES:

1. GENERAL:	DETAIL No.	REFERENCE
ITEM	W17	CITY OF OTTAWA
WATERMAIN TRENCHING	W22	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W25 / W25.2	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER / OVER SEWER		

- THE WATERMAIN SHALL BE PVC DR 18 IN ACCORDANCE WITH MATERIAL SPECIFICATION MW-18.1, UNLESS OTHERWISE INDICATED.
- SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
- PROVIDE MINIMUM 0.50m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
- WATER SERVICE SHALL BE CONSTRUCTED TO SERVICE POST AT PROPERTY LINE, UNLESS OTHERWISE INDICATED.
- PRESSURE REDUCING VALVES SHALL BE INSTALLED AT ALL UNITS.

STM MANHOLE TABLE				
MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
CBMH15	1800	105.34	E=102.78 S=102.48 NW=102.33	E=450 S=750 NW=900
501	1200	104.30	SW=101.22 NE=101.15	SW=300 NE=375
503	1200	105.84	W=102.69 NE=102.64	W=250 NE=300
505	1200	105.78	NW=103.15 E=102.94	NW=375 E=250
507	1200	105.66	SW=103.14 NE=102.30	SW=300 NE=300
509	1200	105.67	W=102.87 SE=103.94 NE=103.02	W=450 SE=375 NE=300

SAN MANHOLE TABLE				
MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
778	1200	105.46	NW=101.91 S=101.97	NW=200 S=200
952	1200	105.90	NE=102.01 W=102.04	NE=200 W=200
954	1200	105.86	E=102.30 NW=102.65	E=200 NW=200
956	1200	105.76	SE=102.07 N=102.04	SE=200 N=200
958	1200	105.64	S=101.95 NE=101.92	S=200 NE=200

REAR YARD CATCHBASIN TABLE			
RYCB No.	T/G ELEVATION	INVERT	ICD DIA.
LCB30	105.55	NW=104.05 SE=104.05	83mm
LCB31	105.73	NW=104.33	-
LCB35	104.16	SW=102.60 NE=102.60	CB-LANDSCAPE
RYCB10	104.29	NE=102.89	CB-LANDSCAPE
RYCB11	105.14	N=103.51 SE=103.59	108mm
RYCB9	104.37	SE=103.42	83mm
CBMH16	104.28	SE=102.56 NE=102.56	83mm

CATCHBASIN TABLE			
CB No.	T/G ELEVATION	INVERT	ICD DIA.
187	104.57	103.17	83mm
188	104.57	103.17	83mm
189	105.54	104.14	94mm
190	105.54	104.14	94mm
191	105.51	104.11	83mm
192	105.51	104.11	83mm
DICB1	104.72	103.32	-
193	104.37	102.97	102mm
194	104.37	102.97	102mm
195	103.92	102.42	83mm

PRESSURE REDUCING VALVE TABLE PHASE 5	
LOT / BLOCK	PRESSURE REDUCING VALVE
T1 - T47	YES

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, 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.

SCALE		
1:500		
DESIGN	LRW	
CHECKED	MAB	
DRAWN	DTD	
CHECKED	MAB	
APPROVED	JGR	
No.	REVISION	DATE BY
2	ISSUED FOR APPROVAL (2nd SUBMISSION)	MAR 12/19 MAB
1	ISSUED FOR APPROVAL	DEC 7/18 MAB

5572 FERNBANK ROAD

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CITY OF OTTAWA
FERNBANK CROSSING - PHASE 5

GENERAL PLAN OF SERVICES

PROJECT No. 108180-19

REV REV #2

DRAWING No. 108180-19-GP