

CONTRACTOR TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING SERVICES BEFORE COMMENCING CONSTRUCTION AND TO ADVISE THE ENGINEER OF ANY DISCREPANCIES.

CROSS UNDER EXISTING WM
AS PER DETAIL W25.2
EX. T/WM=90.50±

CONNECT TO EXISTING 1050mm Ø
STM SEWER ABOVE SPRINGLINE (SL)
USING BELL END INSERT METHOD
PER S11.2.
PROPOSED STM SERVICE INV.=89.36
EX. STM INV.=88.80±
EX. STM SL= 89.33±

CONNECT TO EXISTING 250mm Ø SAN
PIPE ABOVE SPRINGLINE (SL) WITH TEE
VERTICAL RISER AS PER S11.1.
PROPOSED SAN SERVICE INV.=88.70
TRACTOR TO VERIFY PIPE
LOCATIONS AND CROSSINGS IN THE
FIELD.

EXISTING NRC TWIN 3000
WATERMAINS (PVC DR)

AN @ 0.40

STM @ 0.5% STM147E

SERVICE SHOWN ON
WATERIDGE PH1B PLANS. NO
AS-BUILT INFORMATION
AVAILABLE.
CONTRACTOR TO INVESTIGATE
ON SITE AND IF
EXISTING EXISTING STANDPOST

TVS CONNECTION TO EXISTING
400mm Ø WM BY CITY FORCES.
EXCAVATION, SUPPORT AND


EA. $1/VWM=91.4\%$

PHASE 1B UTILITY
AS-BUILTS NOT YET

THE STATUS OF THE WATERIDGE PHASE 1B UTILITY WORKS SHOWN IS UNKNOWN AS AS-BUILTS NOT YET AVAILABLE. CONTRACTOR TO CONFIRM LOCATION OF ALL UTILITIES.

HABITAT FOR HUMANITY GREATER OTTAWA
768 BELFAST ROAD
OTTAWA, ON K1G 0Z7
PHONE: 613-749-9950

1:200



PROJECT No.	119066-00
REV	REV # 3
DRAWING No.	119066-GP



- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. 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 THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
5. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD, ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
6. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL, AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
7. ALL ELEVATIONS ARE GEODETIC.
8. REFER TO THE GEOTECHNICAL INVESTIGATION REPORT (REPORT NO. PG4965-1, DATED JUNE 21, 2018, PREPARED BY PATERSON GROUP INC.) FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
10. REFER TO SITE SERVISING AND STORMWATER MANAGEMENT REPORT (R-2019-094) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
11. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
12. PROVIDE LINE/PARKING PAINTING.
13. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVISING AS-BUILT INFORMATION SHOWN ON THIS PLAN AS-BUILT INFORMATION MUST INCLUDE MATERIALS, SIZES, SLOPES, INVERTS AND TIE ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES ETC.
14. REFER TO TOPOGRAPHICAL PLAN OF SURVEY (BLOCK 29-REGISTERED PLAN 4M-158) BY ANNIS, O'SULLIVAN VOLLEBECK FOR DETAILS OF THE EXISTING SITE.

50mmØ WATER SERVICE TABLE			
STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
0+00	93.8±	91.4±	TVS CONNECTION TO EXISTING 400mmØ WM
0+14.9	94.38	91.98	STANDPOST AT PROPERTY LINE
0+16.6	94.46	92.06	CAP 1m FROM BUILDING FACE

INLET CONTROL DEVICE DATA - CB1				
ICD TYPE: TEMPEST LMF ICD VORTEX 98 (AS PER S4.1)				
DIAMETER OF OUTLET PIPE: 200mm				
DESIGN EVENT	DESIGN FLOW (L/s)	DESIGN HEAD (m)	WATER ELEVATION (m)	VOLUME (m³)
1:5 YR	10.1	1.46	92.16	1.4
1:100 YR	10.3	1.52	92.22	6.4

SPECIFICATIONS:		<u>SPEC. No.</u>	<u>REPSD</u>
<u>ITEM</u>	<u>CATCH-BASIN (600x600mm)</u>	705.010	OPSD
	STORM / SANITARY MANHOLE (1200x0)	701.010	OPSD
	CB, FRAME & COVER	400.020	OPSD
	STORM / SANITARY MH FRAME & COVER	401.010	OPSD
	SEWER TRENCH - BEDDING (GRANULAR A)		
	COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)		
	STORM SEWER	PVC DR 35	
	SANITARY SEWER	PVC DR 35	
	CATCHBASIN LEED	PVC DR 35	
<p>2. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm HI-40 INSULATION, PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.</p> <p>3. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 0.5%.</p> <p>4. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.</p> <p>5. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N SEAL, PSX, POSITIVE SEAL AND DURA SEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.</p> <p>6. THE OWNER SHALL REQUIRE THAT THE SITE SURVEYING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL AT ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSD 410.07.01, 410.07.16.04 AND 497.07.24. 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 A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.</p> <p>7. STORM MANHOLES AND CBMHs ARE TO HAVE 300mm AND 600mm SUMPS RESPECTIVELY, UNLESS OTHERWISE INDICATED.</p> <p>8. CONTRACTOR TO TELETYPE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER, PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.</p> <p>9. ALL STORM AND SANITARY SERVICES SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS AS PER THE CITY OF OTTAWA STANDARD DETAILS S144 AND S14.1 OR S14.2.</p> <p>10. INFILTRATION PIT IS TO BE 2.6m(W) x 9.0m(L) x 1.6m(D) OF 40-50mm Ø CLEARSTONE WRAPPED WITH NOT WOVEN FILTER CLOTH (TERPAC 360 OR APPROVED EQUAL), WITH 1.2m COVER. BACKFILL TO BE SITE EXCAVATED MATERIAL, FREE OF DELETEDRIUS AND ORGANICS CAN BE PLACED IN 300mm LOOSE LIFTS AND COMPACTED TO 98% SPMD; UNDER DRY AND ABOVE FREEZING CONDITIONS. ALTERNATIVELY, AN ENGINEERED FILL SUCH AS GIB TYPE II CAN BE PLACED IN 300mm LOOSE LIFTS AND COMPACTED TO 98% SPMD.</p>			

1. SPECIFICATIONS:		
ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN	COPPER "TYPE K"	
2. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.		
3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.		
4. PROVIDE MINIMUM 0.50m VERTICAL CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS WHEN WATERMAIN IS BELOW AND A MINIMUM OF 0.25m VERTICAL CLEARANCE WHEN WATERMAIN IS ABOVE.		
5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.		