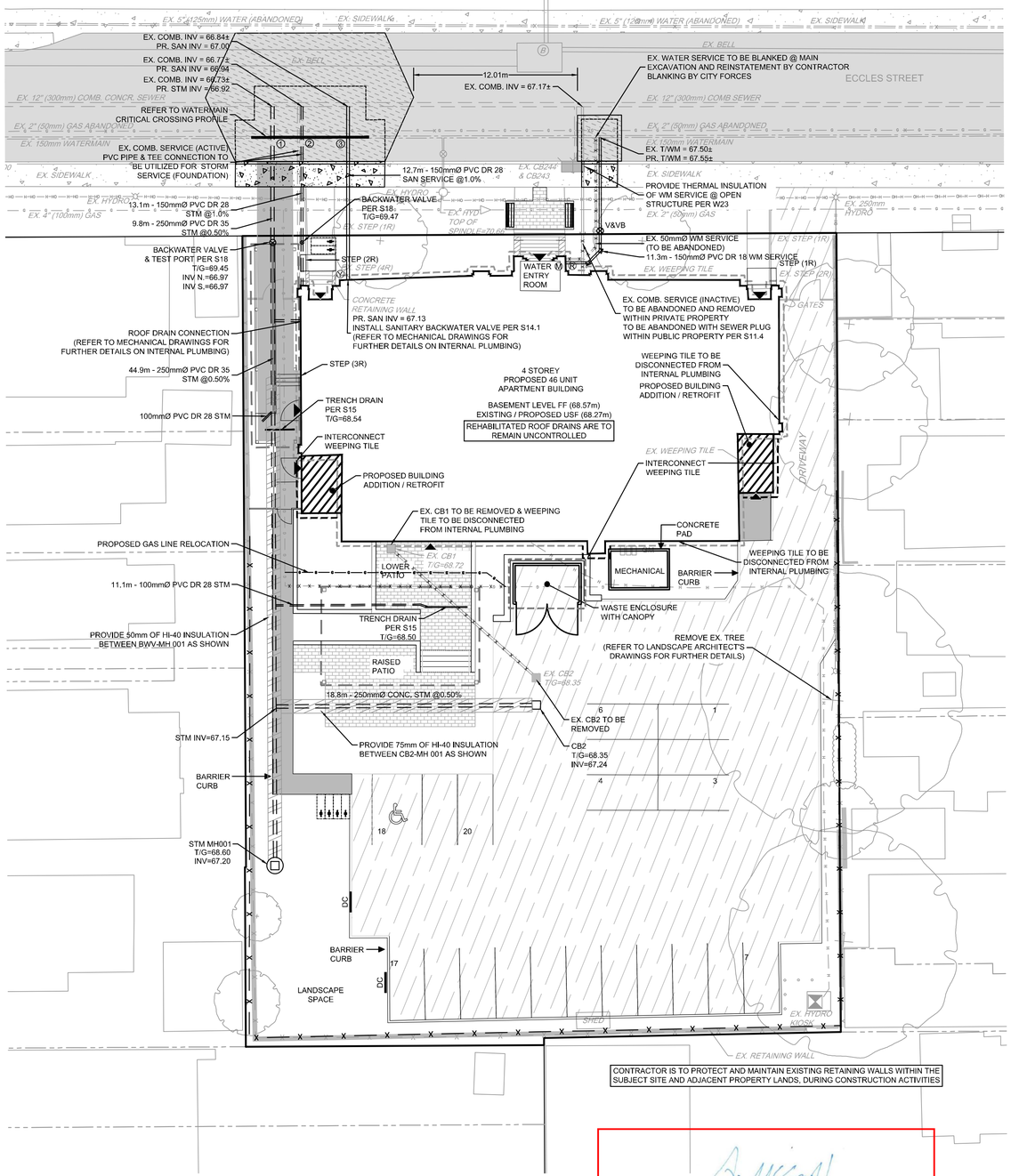


CONTRACTOR IS TO PROTECT AND MAINTAIN EXISTING RETAINING WALLS WITHIN THE SUBJECT SITE AND ADJACENT PROPERTY LANDS, DURING CONSTRUCTION ACTIVITIES

NOTE:
CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, AND ARE TO MAINTAIN THE EXISTING DRAINAGE PATTERNS / SYSTEMS, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

USE PROTECTION FENCING AND BEST EFFORTS TO REDUCE IMPACT TO ADJACENT LANDS' EXISTING FEATURES INCLUDING, BUT NOT LIMITED TO, RETAINING WALLS, FENCES, HARD AND SOFT LANDSCAPE. ANY DISTURBED AREA IS TO BE REINSTATED TO EXISTING CONDITIONS OR BETTER, TO THE SATISFACTION OF PROPERTY OWNER AND CITY.

DURING SERVICING, GRADING, AND REINSTATEMENT WORKS, TIE INTO EXISTING ELEVATIONS AND ELIMINATE ENCROACHMENT INTO ADJACENT PROPERTY LANDS, WHERE POSSIBLE. PERMISSION REQUIRED FOR WORKS ON ADJACENT PROPERTY LANDS.

ANDREW MCCREIGHT
MANAGER (A), DEVELOPMENT REVIEW CENTRAL
PLANNING, REAL ESTATE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
By Andrew McCreight at 2:49 pm, Sep 21, 2022

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.

GENERAL NOTES:

1) 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 $2,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED AND THE CITY OF OTTAWA AS THIRD PARTY.
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. SITE BENCHMARK IS A HYDRANT LOCATED IN FRONT OF THE SUBJECT SITE.
8) REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
9) SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10). ALL ROAD CUTS TO BE REINSTATED WITH FULL MILL OVERLAY AS PER CITY OF OTTAWA STANDARDS (R10).
10) CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, AND ALL SURFACE ELEVATION AS-BUILT GRADES.
11) NO EXCESS DRAINAGE SHALL BE DIRECTED ONTO NEIGHBOURING PROPERTY.
12) NO ALTERATIONS TO EXISTING GRADES ARE PERMITTED BEYOND THE PROPERTY LINE.
13) REFER TO ARCHITECT'S DRAWINGS FOR ADDITIONAL DETAILS ON THE PROPOSED BUILDING ADDITION / RETROFITS.
14) REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR ADDITIONAL DETAILS ON THE HARDSCAPE AND SOFTSCAPE AREAS, AND PLANTINGS.
15) REFER TO THE 'SERVICING BRIEF AND STORMWATER MANAGEMENT REPORT' (R-2022-011) DATED FEBRUARY 2, 2022 PREPARED BY NOVATECH FOR ADDITIONAL DETAILS ON THE SITE SERVICING AND STORMWATER MANAGEMENT FOR THE SUBJECT SITE.

WATERMAIN NOTES:

1) SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION AT OPEN STRUCTURES	W23	CITY OF OTTAWA
WATERMAIN CORSSING ABOVE SEWERS	W25.2	CITY OF OTTAWA
WATERMAIN SERVICE (150mmØ)	PVC DR 18	CITY OF OTTAWA
WATER METER	W32	

2) SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD 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 FORCES.
3) WATERMAIN SERVCE SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
4) PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.

SEWER NOTES:

1) SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
SEWER TRENCH	S6 & S7	CITY OF OTTAWA
BEDDING (GRANULAR A) COVER (GRANULAR A OR GRANULAR B TYPE I WITH MAXIMUM PARTICLE SIZE = 25mm) WITH MAXIMUM PARTICLE SIZE=25mm)		
SANITARY SERVICE	PVC DR 28	
STORM SEWER	PVC DR 35	
STORM SERVICE (FOUNDATION)	PVC DR 28	
SEWER CONNECTIONS	S 11	CITY OF OTTAWA
BACKWATER VALVE TYPE	S 14 AND EITHER S14.1 OR S14.2	CITY OF OTTAWA

2) SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD AND SPECIFICATIONS.
3) ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14, AND S14.1 OR S14.2. REFER TO MECANICAL PLANS FOR DETAILS.
4) INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 2.0m COVER WITH HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
5) FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
6) 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.

STORM MANHOLE AND CATCHBASIN TABLE

CB No.	T/G ELEVATION	INVERT	DESCRIPTION
CB2	68.35	67.22	600mm x 600mm CB (OPSD 705.010), W/ 600mm SUMP & S19.1 COVER
STM MH001	68.94	N. =67.14 S. =67.15 SE. =67.15	1200mmØ MH (OPSD 701.010), W/ S19 FRAME & COVER

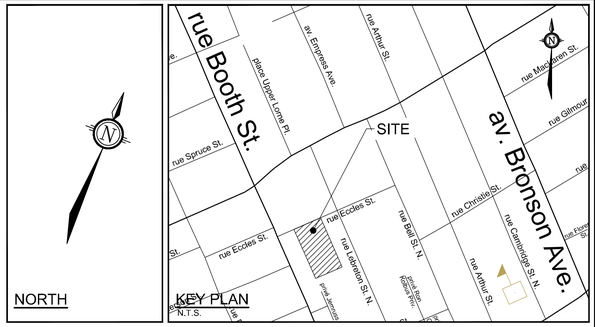
INLET CONTROL DEVICE TABLE

CB No.	ICD TYPE (IPEX MODEL #)	DIAMETER OF OUTLET PIPE	2-YEAR			100-YEAR		
			DESIGN FLOW	DESIGN HEAD	WATER ELEV.	DESIGN FLOW	DESIGN HEAD	WATER ELEV.
CB2	TEMPEST VORTEX LMF 105	300mm Ø	10.5 L/s	1.15m	68.52m	11.0 L/s	1.27m	68.64m

THE DESIGN HEAD IS BASED ON THE WATER ELEVATION TO THE CENTER OF THE ORIFICE AT THE CENTER OF THE PIPE.

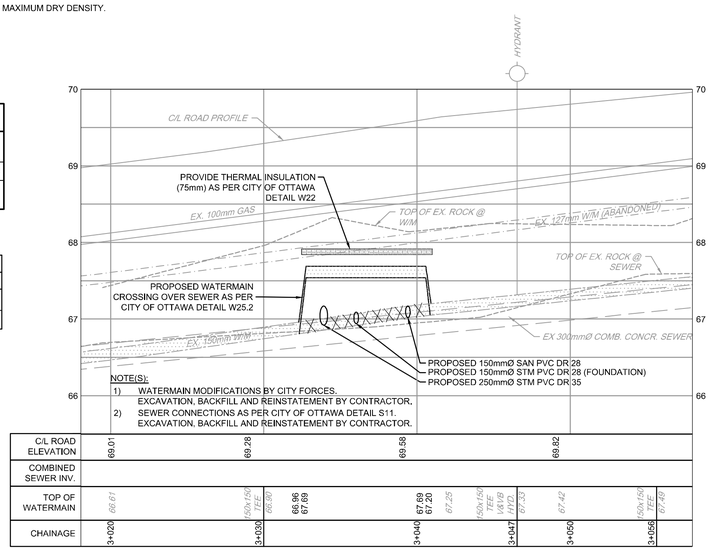
CRITICAL PIPE CROSSING TABLE

①	150mmØ TOP OF WM=67.69	250mmØ STM OBV=67.17
②	150mmØ TOP OF WM=67.69	150mmØ STM OBV=67.09
③	150mmØ TOP OF WM=67.69	150mmØ SAN OBV=67.17



LEGEND

- 200mmØ WM — PROPOSED WATERMAIN
- PROPOSED VALVE LOCATION
- V&VB — VALVE & VALVE BOX
- HYD — PROPOSED HYDRANT C/W VALVE & LEAD
- T/F=98.45 — PROPOSED TOP OF BOTTOM FLANGE
- BEND — PROPOSED BEND AND THRUSTBLOCK 11.25°, 22.5°, 45° or TEE (SEE PLAN AND PROFILES)
- PROPOSED SANITARY MH & SEWER
- PROPOSED STORM MH & SEWER
- LYCB — PROPOSED LANDSCAPE TEE CATCHBASIN & PERFORATED SUBDRAIN PER S29, S30, S31
- LYCB — PROPOSED LANDSCAPE ELBOW CATCHBASIN & PERFORATED SUBDRAIN PER S29, S30, S31
- RYCBMH — PROPOSED REAR YARD CATCHBASIN MANHOLE & LEAD
- RYCB — PROPOSED REAR YARD CATCHBASIN & LEAD
- CB — PROPOSED ROAD CATCHBASIN
- DIRECTION OF FLOW
- Ⓡ — REMOTE METER
- Ⓜ — WATER METER
- Ⓨ — SIAMESE WATER CONNECTION
- PROPOSED ENTRANCE
- ======== — CANOPY
- ① — CRITICAL PIPE CROSSING LOCATION, SEE TABLE FOR DATA
- EXISTING CONCRETE SIDEWALK
- PROPOSED CONCRETE SIDEWALK REINSTATEMENT
- EXISTING ASPHALT TO REMAIN
- PROPOSED OVERLAY
- PROPOSED TRENCH EXCAVATION LIMITS
- PROPOSED CONCRETE WALKWAY
- PROPOSED INSULATION
- X — X — X — EXISTING FENCE - CHAINLINK



WATERMAIN CRITICAL CROSSING SECTION
1:200

No.	REVISION	DATE	BY
5.	ISSUED FOR CITY REVIEW	APR 04/22	BHB
4.	REVISED PER CITY COMMENTS	MAR 29/22	BHB
3.	ISSUED FOR CITY REVIEW	FEB 02/22	BHB
2.	ISSUED FOR COORDINATION	JAN 21/22	BHB
1.	ISSUED FOR COORDINATION	JAN 11/22	BHB

SCALE
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DESIGN AN
CHECKED BCS
DRAWN AN
CHECKED BCS
APPROVED BHB

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER
B. C. SWEET
100206031
April 4, 2022
PROVINCE OF ONTARIO

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Facsimile (613) 254-5867
Website www.novatech-eng.com

LOCATION
CITY OF OTTAWA
44 ECCLES STREET

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No. 121255-00
REV REV # 5
DRAWING No. 121255-GP

D07-12-22-0024
#18671

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