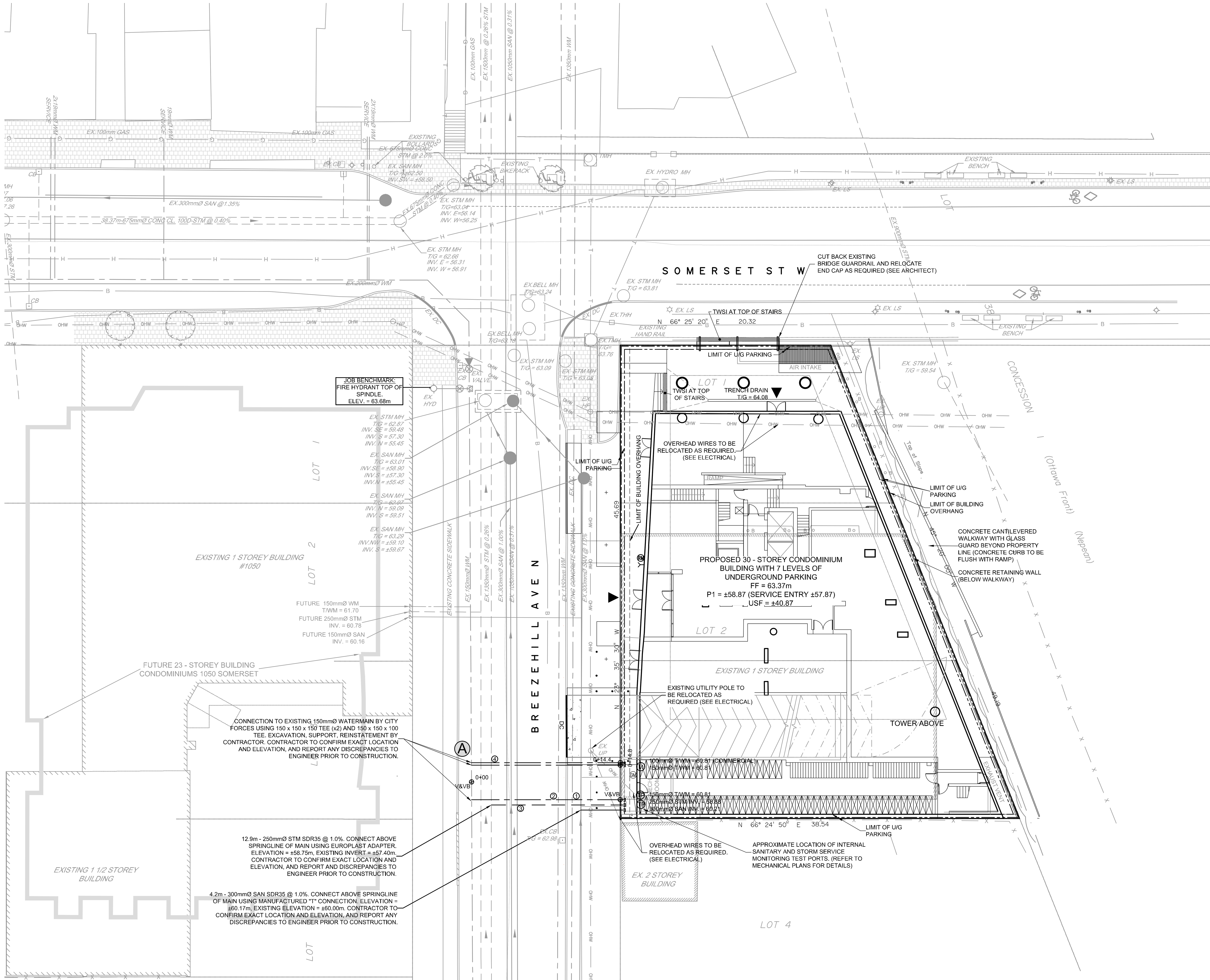
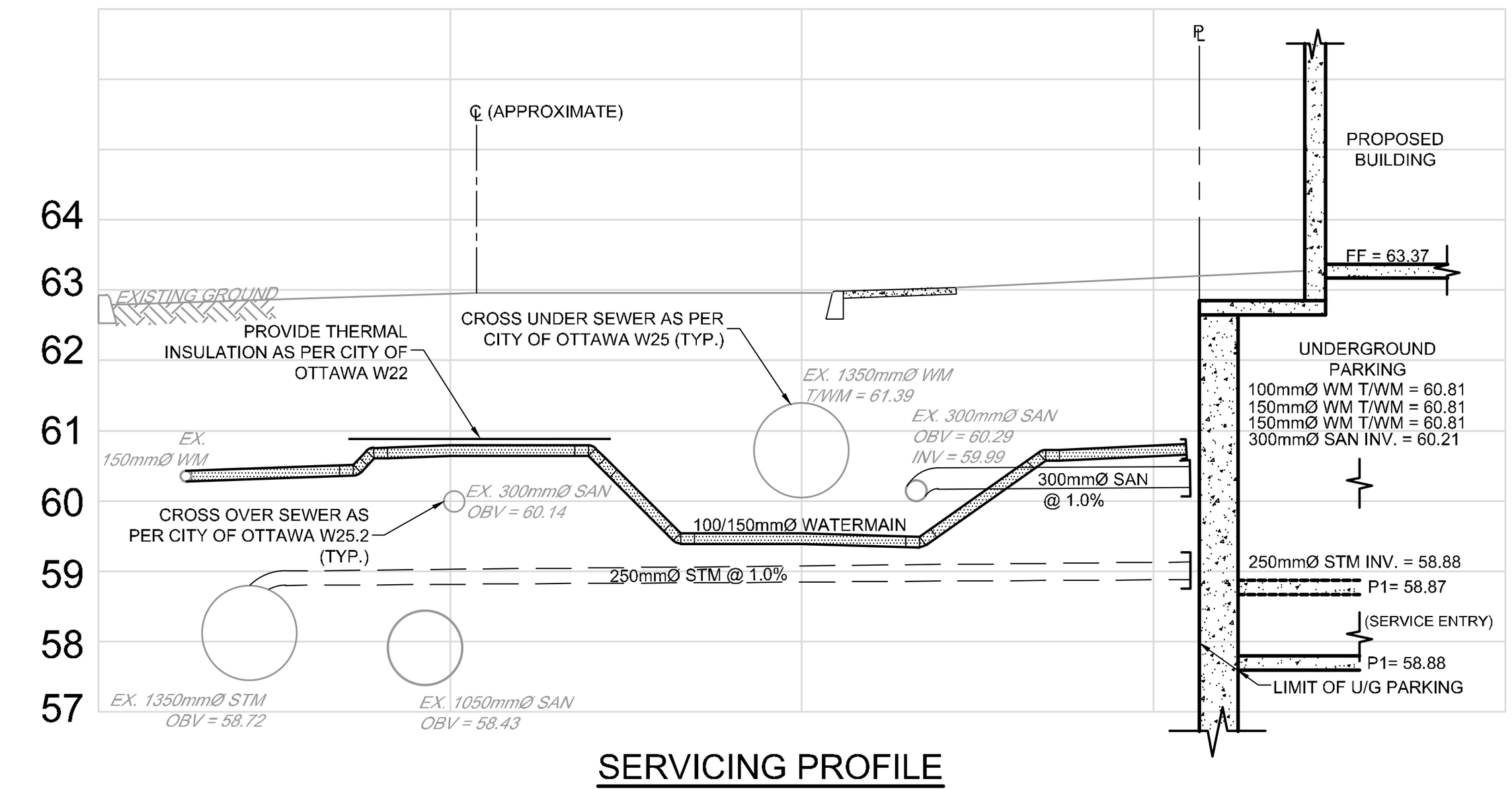
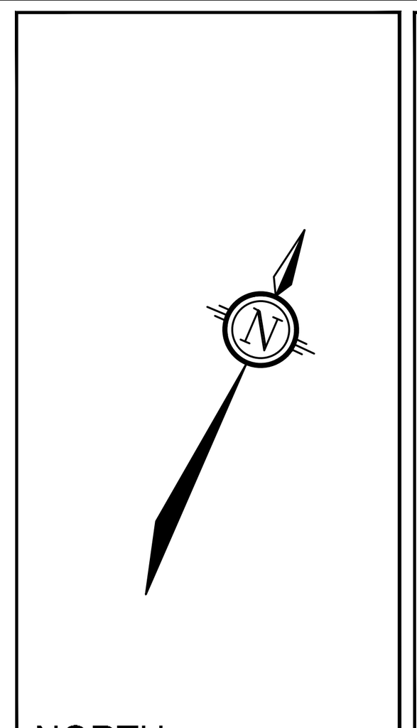
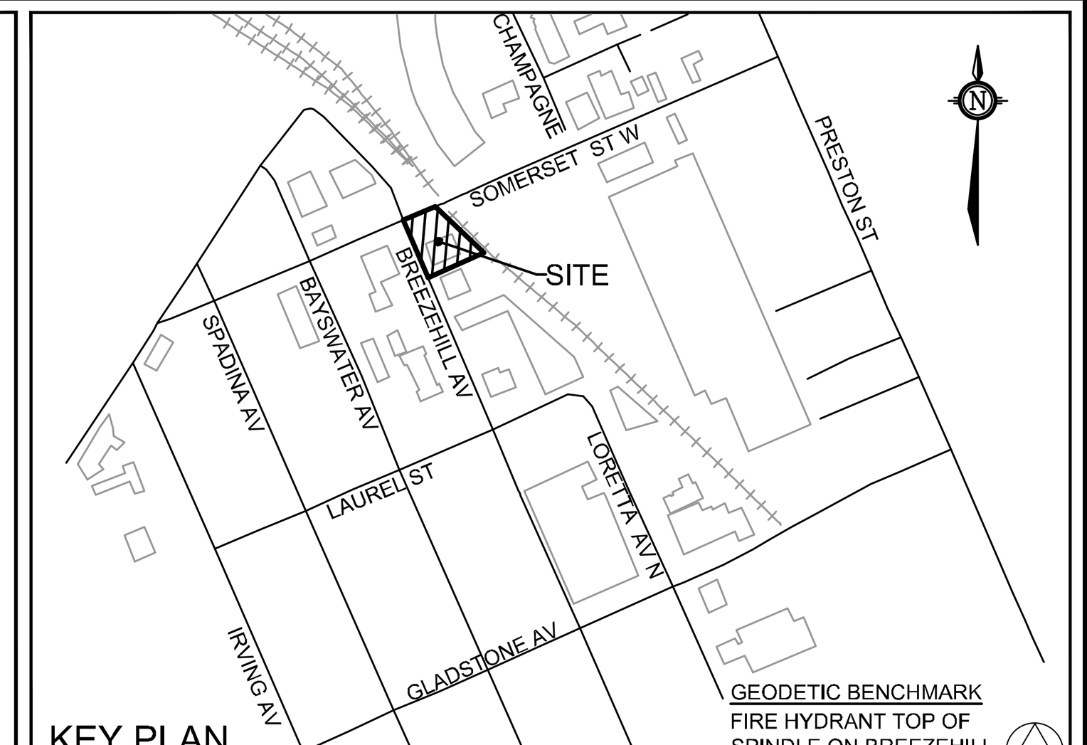




SERVICING PROFILE
1:100



NORTH



KEY PLAN
N.T.S.

GEODETIC BENCHMARK
FIRE HYDRANT TOP OF SPINDLE ON BREEZEHILL AVE. ELEV. = 63.68m

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 $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 ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
9) REFER TO STORMWATER MANAGEMENT REPORT(R-2013-004, DATED JAN. 31, 2013) AND SERVICING DESIGN BRIEF (R-2013-003, DATED JAN. 31, 2013) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
10) SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
11) PROVIDE LINE/PARKING PAINTING.
12) 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, ETC.
13) REFER TO GEOTECHNICAL REPORT (NO. PG 2674-2R, DATED JUNE 3, 2015) PREPARED BY PATTERSON GROUP 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.
14) ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS. ONTARIO PROVINCIAL STANDARDS WILL APPLY WHERE NO CITY STANDARDS ARE AVAILABLE.
15) ALL PRIVATE APPROACHES MUST BE CONSTRUCTED AS PER CITY SPECIFICATION SC13

SEWER NOTES:

1) SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
SEWER SERVICE CONNECTION - RIGID PIPE	S 11	CITY OF OTTAWA
SEWER SERVICE ABANDONMENT	S 11.4	CITY OF OTTAWA
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200Ø)	701.010	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
SEWER TRENCH - BEDDING (GRANULAR A)		OPSD
COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)		OPSD
STORM SEWER	PVC DR 35	
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	

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.
3) SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
4) 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.
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) THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 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 A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
7) FULL PORT BACKWATER VALVES ARE REQUIRED ON THE SANITARY SERVICES. INSTALLED AS PER THE MANUFACTURES RECOMMENDATIONS AND A BACKWATER VALVE IS REQUIRED ON THE STORM SERVICES / FOUNDATION DRAINS FOR EACH BUILDING; INSTALLED AS PER STD. DWG S14.
8) STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
9) CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS.
10) REINSTATE ALL EXISTING PAVEMENT, CURB AND BOULEVARDS AS PER CITY OF OTTAWA R10.
11) ALL EXISTING SANITARY AND STORM SERVICES ARE TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY OF OTTAWA'S SEWER OPERATIONS.

LEGEND

Symbol	Description
DC	PROPOSED DEPRESSED CURB
150mmØ	PROPOSED WATERMAIN AND DIAMETER
V&VB	PROPOSED WATER VALVE LOCATION
RM	PROPOSED REMOTE WATER METER
	PROPOSED SIAMESE CONNECTION
	PROPOSED CAP
	PROPOSED BOLLARD
GM	PROPOSED GAS METER
TP	PROPOSED SANITARY / STORM TEST PORT
M	PROPOSED WATER METER
	PROPOSED BUILDING ENTRANCE
	PROPOSED LIMIT OF UNDERGROUND PARKING
	PROPOSED LIMIT OF BUILDING OVERHANG
	BOUNDARY LINE
DC	EXISTING DEPRESSED CURB
	EXISTING HYDRO TRANSFORMER
B	EXISTING BOLLARD
SP	EXISTING WATER STANDPIPE
EX. LS	EXISTING LAMP POST
T/V	EXISTING TOP OF VALVE
T/G	EXISTING TOP OF GRATE
EX.CB	EXISTING CATCH BASIN
	EXISTING FIRE HYDRANT
SANMH	EXISTING SANITARY MANHOLE & SEWER
STMMH	EXISTING STORM MANHOLE & SEWER
250mmØ WM	EXISTING WATERMAIN
EX. V&VB	EXISTING VALVE & VALVE BOX
T	EXISTING UNDERGROUND TELEPHONE CABLE
G	EXISTING UNDERGROUND GAS
OHW	EXISTING OVERHEAD WIRES
H	EXISTING UNDERGROUND HYDRO
B	EXISTING UNDERGROUND BELL
	EXISTING TREES / VEGETATION
	EXISTING CURB
EX UP	EXISTING UTILITY POLE C/W GUY WIRES
X	EXISTING FENCE

(A) WATERMAIN TABLE (x3 SERVICES)

STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	DESCRIPTION
0+00.0	62.80	±60.40✱	CONNECT TO EXISTING 150mmØ WATERMAIN
	62.80	±60.40	V&VB
0+05.0	62.94	60.54	STATION
0+10.0	63.02	60.62	STATION
0+14.4	63.20	60.80	STAND POST AT PROPERTY LINE
0+14.8	63.21	60.81	WATERMAIN CAP

✱EXACT DEPTH OF EXISTING WATERMAIN TO BE DETERMINED AT TIME OF EXCAVATION, CONTRACTOR TO CONFIRM TOP OF WATERMAIN. PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W23 WHERE COVER IS LESS THAN 2.4m

CRITICAL PIPE CROSSING TABLE			CLEARENCE
①	150mmØ WM T/WM = 59.48✱	300mmØ SAN OBV= 59.98	0.50m
	150mmØ WM T/WM = 59.49✱	300mmØ SAN OBV= 59.99	0.50m
	250mmØ STM OBV= 59.09	300mmØ SAN INV= 60.00	0.91m
②	250mmØ STM OBV = 59.08	1350mmØ WM T/WM= ±61.39	0.96m
	150mmØ WM T/WM = 59.54	1350mmØ WM T/WM= ±61.39	0.50m
	150mmØ WM T/WM = 59.54	1350mmØ WM T/WM= ±61.39	0.50m
③	150mmØ WM T/WM = 60.78✱	300mmØ STM OBV= 60.13	0.50m
	150mmØ WM T/WM = 60.79✱	300mmØ STM OBV= 60.14	0.50m
	250mmØ STM OBV = 59.02	300mmØ STM INV= 59.84	0.82m
	250mmØ STM INV = 58.77	1050mmØ SAN OBV= 58.47	0.30m
④	150mmØ WM T/WM. = 60.43	1350mmØ STM OBV= 58.74	1.54m
	150mmØ WM T/WM. = 60.42	1350mmØ STM OBV= 58.75	1.52m

✱PROVIDE THERMAL INSULATION FOR WATERMAIN AS PER CITY OF OTTAWA DETAIL W23 WHERE COVER IS LESS THAN 2.4m. VERTICAL BENDS TO BE PROVIDED WHERE REQUIRED AS PER W25

WATERMAIN NOTES:

1) SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
CONNECTION DETAIL FROM EXISTING TO NEW WM	W25.1	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
WATERMAIN (150mm)	PVC DR 18	
WATERMAIN (50mm)	TYPE K COPPER	
THERMAL INSULATED AT OPEN STRUCTURE	W23	CITY OF OTTAWA
19mm WATER SERVICE CONNECTIONS	W26	CITY OF OTTAWA
50mm WATER SERVICE CONNECTIONS	W33	CITY OF OTTAWA
WATER SERVICE INSTALATION AT SEWER CROSSING.	W38	CITY OF OTTAWA

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 OFFICIALS.
3) WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD. DWG W22.
4) PROVIDE MINIMUM 0.50m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
5) WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
6) WATER DEMAND = TBD
7) ALL EXISTING WATER SERVICES TO BE BLANKED AT MAIN. EXCAVATION AND REINSTATEMENT BY CONTRACTOR.

PROPOSED BUILDING - ROOF DRAIN TABLE

AREA ID	ZURN SPECIFICATION	NOTCHES	POST DEVELOPMENT ZURN ROOFDRAIN CONTROL PARAMETERS: 1:5 - YEAR EVENT HEAD(m)	1:5 Q(l/s)	1:5 VOL(m³)	1:100 - YEAR EVENT HEAD(m)	1:100 Q(l/s)	1:100 VOL(m³)
R-01	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.40	1.91	0.14	0.52	4.20
R-02	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.42	1.87	0.15	0.55	4.13
R-03	ZCF121-1W-X4-Z-105-10-77	1	0.12	0.43	2.60	0.15	0.56	5.61
R-04	---	---	0.00	0.67	0.00	0.00	1.27	0.00
R-05	---	---	0.00	0.67	0.00	0.00	1.27	0.00
R-06	---	---	0.00	0.67	0.00	0.00	1.27	0.00
R-07	ZCF121-1W-X1-Z-105-10-77	1	0.03	0.51	0.10	0.05	0.72	0.28
R-08	ZCF121-1W-X1-Z-105-10-77	1	0.04	0.51	0.11	0.05	0.73	0.30
R-09	---	---	0.00	0.53	0.00	0.00	1.01	0.00
R-10	---	---	0.00	0.57	0.00	0.00	1.08	0.00
R-11	---	---	0.00	0.61	0.00	0.00	1.16	0.00
R-12	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.39	1.57	0.14	0.51	3.48
R-13	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.40	2.23	0.14	0.52	4.86
R-14	ZCF121-1W-X4-Z-105-10-77	1	0.10	0.37	0.96	0.13	0.49	2.16
R-15	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.40	1.80	0.14	0.52	3.97
R-16	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.40	1.78	0.14	0.52	3.92
R-17	ZCF121-1W-X4-Z-105-10-77	1	0.11	0.40	1.77	0.14	0.52	3.89
R-18	ZCF121-1W-X4-Z-105-10-77	1	0.07	0.27	0.05	0.10	0.38	0.15
R-19	ZCF121-1W-X4-Z-105-10-77	1	0.10	0.36	0.35	0.13	0.48	0.86
R-20	ZCF121-1W-X4-Z-105-10-77	1	0.07	0.27	0.05	0.10	0.38	0.15
TOTAL				9.24	17.16		14.45	37.95

ROOF AREAS R-01 TO R-20 WILL HAVE CONTROLLED ROOF DRAINS WHICH WILL DIRECT RUNOFF TO THE OUTLET VIA THE BUILDINGS INTERNAL PIPES.
REFER TO DRAWING 112191-STM FOR STORM DRAINAGE AREAS.

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.

M:\2012\112191\CAD\Design\112191-GP.dwg, PLANS-B1, Feb 19, 2021 - 9:55am, cferguson

CLARIDGE HOMES

CLARIDGE HOMES
SUITE 2001,
210 GLADSTONE AVENUE,
OTTAWA , ONTARIO
K2P 0Y6.

NOTE:
CONTRACTOR TO CONFIRM ELEVATIONS OF INFRASTRUCTURE IN THE STREET PRIOR TO EXTENDING SERVICES INTO THE SITE AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.

No.	REVISION	DATE	BY
05.	REVISED PER CITY COMMENTS	FEB 18/21	JAG
04.	ISSUED FOR COORDINATION	DEC 01/20	JAG
03.	REVISED PER CITY COMMENTS	AUG 24/15	JAG
02.	REVISED PER CITY COMMENTS	OCT 31/13	JAG
01.	ISSUED WITH SITE PLAN APPLICATION	JAN 31/13	GJM

SCALE 1:200

DESIGN: JAG
CHECKED: GJM/JGR
DRAWN: MTM/BET
CHECKED: JAG
APPROVED: GJM/JGR

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER
G.J. MacDONALD
PROVINCE OF ONTARIO

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

LOCATION
CITY OF OTTAWA
1040 SOMERSET STREET WEST

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No. 112191-01
REV: REV # 05
DRAWING No. 112191-GP

PLANB1.DWG - 1000mmx707mm