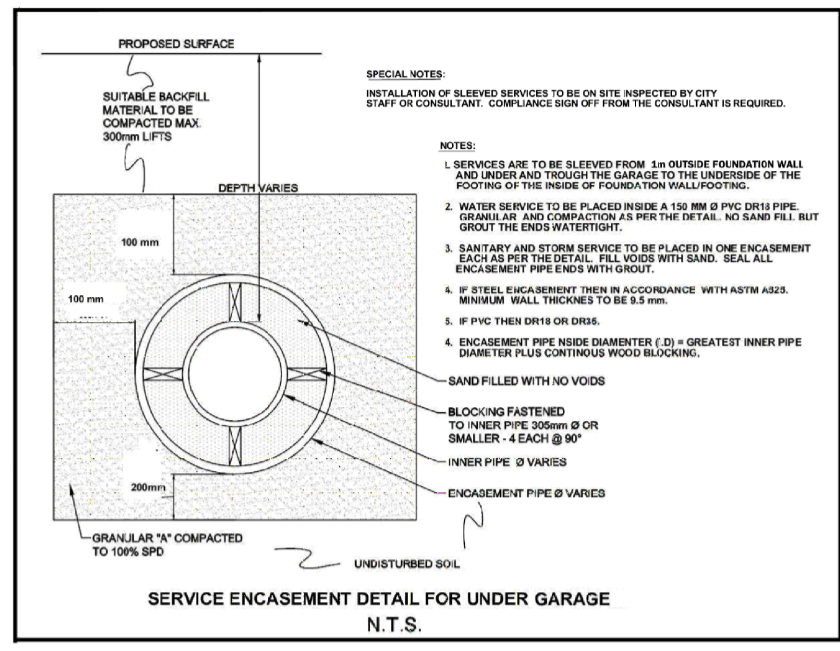


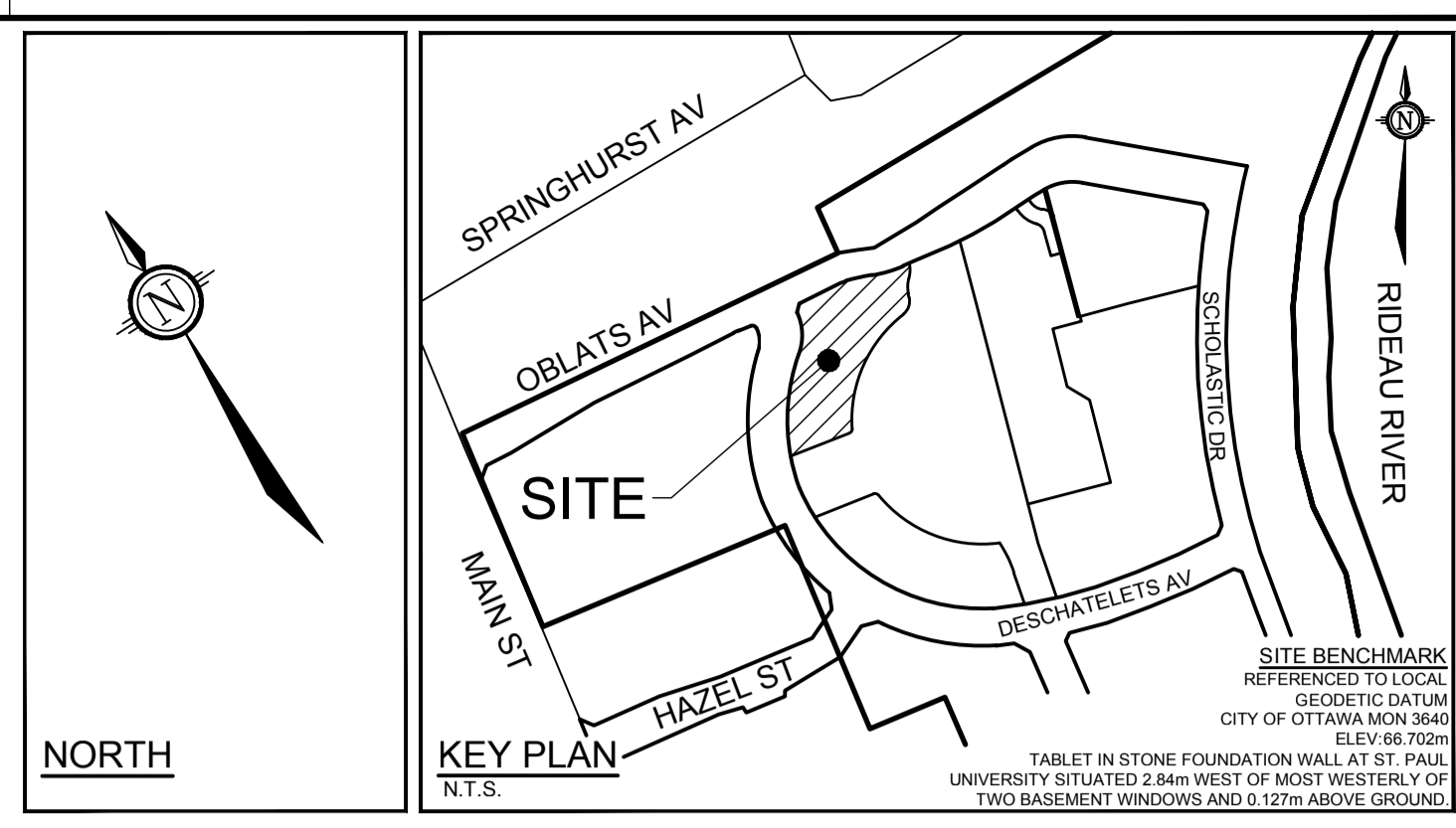
CRITICAL PIPE CROSSING TABLE			PROPOSED SEPARATION
①	250mmØ WM OBV=62.26	250mmØ STM INV=62.76	WM-STM=0.50m
②	250mmØ SAN OBV=61.96	250mmØ STM INV=62.72	SAN-STM=0.78
③	250mmØ WM OBV=62.30	250mmØ SAN INV=62.80	WM-SAN=0.50m
④	250mmØ SAN OBV=61.85	450mmØ STM INV=62.06	SAN-STM=0.21m
⑤	250mmØ SAN OBV=61.66	525mmØ STM INV=61.90	SAN-STM=0.24m



UNIT #	SANITARY SERVICE		STORM SERVICE		WATER SERVICE	
	LENGTH (m)	INVERT	LENGTH (m)	INVERT	LENGTH (m)	TOP W/M
T1-1	5.9	63.45	4.4	63.45	8.2	63.05
T1-2	4.6	63.45	3.1	63.45	6.4	63.05
T2-3	3.2	63.85	4.7	63.85	1.4	63.45
T2-4	3.6	63.85	-	-	5.6	63.45
T3-5	4.6	63.70	6.4	63.70	2.3	63.30
T3-6	4.6	63.70	-	-	6.6	63.30
T4-7	5.5	64.00	-	-	3.5	63.60
T4-8	4.2	64.00	2.7	64.00	5.8	63.60
T5-9	4.7	63.85	-	-	2.7	63.45
T5-10	5.5	63.85	4.0	63.85	7.6	63.45
T6-11	3.0	63.70	4.5	63.70	1.2	63.30
T6-12	6.5	63.70	-	-	4.6	63.30
T6-13	8.2	63.70	-	-	6.0	63.30
T6-14	7.8	63.70	9.3	63.70	5.4	63.30

Services are to be constructed as per S11.3.

- LEGEND**
- SITE BOUNDARY
  - PROPOSED CURB
  - PROPOSED SANITARY MANHOLE & SEWER
  - PROPOSED STORM MANHOLE & SEWER
  - PROPOSED WATERMAIN
  - PROPOSED CATCHBASIN AND LEAD
  - PROPOSED CATCHBASIN MANHOLE
  - PROPOSED DIRECTION OF FLOW
  - PROPOSED VALVE & VALVE BOX LOCATION
  - PROPOSED STAND POST LOCATION
  - PROPOSED SERVICE LOCATION
    - SAN - 135mmØ PVC DR28 @ 2.0% (1.0% MIN)
    - STM - 100mmØ PVC DR28 @ 2.0% (1.0% MIN)
    - WATER - 19mmØ PEX
  - PROPOSED SERVICE LOCATION CW SLEEVE
    - SAN - 135mmØ PVC DR28 @ 2.0% (1.0% MIN)
    - STM - 100mmØ PVC DR28 @ 2.0% (1.0% MIN)
    - WATER - 19mmØ PEX
  - PROPOSED SERVICE LOCATION CW SLEEVE
    - SAN - 135mmØ PVC DR28 @ 2.0% (1.0% MIN)
    - WATER - 19mmØ PEX
  - EXISTING SANITARY MANHOLE & SEWER
  - EXISTING STORM MANHOLE AND SEWER
  - EXISTING WATERMAIN
  - EXISTING VALVE AND VALE BOX
  - EXISTING FIRE HYDRANT CW LEAD
  - EXISTING CATCHBASIN
  - PROPOSED ROAD CUT LIMITS
  - PROPOSED INSULATION FOR SHALLOW SEWERS AS PER S35



**SOURCE REFERENCE:**  
 TOPOGRAPHIC PLAN OF SURVEY OF PART OF LOT "H" CONCESSION "D" (RIDEAU FRONT), PREPARED BY ANNIS, O-SULLIVAN, VOLLEBEK LTD. ON DECEMBER 15, 2017.  
**TOPOGRAPHIC INFORMATION:**  
 HORIZONTAL DATUM: NAD 83 (ORIGINAL), MTM - ZONE 9  
 1. VERTICAL DATUM: CGVD28.78  
 2. ANNIS, O-SULLIVAN, VOLLEBEK LTD'S TOPOGRAPHIC PLAN OF SURVEY  
 3. NOVATECH TOPOGRAPHIC SURVEY, APRIL 2024

- GENERAL NOTES:**
- DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO START 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. ASSIST INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND TIG ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
  - CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
  - BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE. 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 STRUCTURAL PLANS FOR UNDERSIDE OF FOOTING AND TOP OF FOUNDATION INFORMATION.
  - REFER TO GEOTECHNICAL INVESTIGATION PG6948-1 (DATED FEBRUARY 1, 2024), PREPARED BY PATERSON GROUP
  - CONTRACTOR TO PROVIDE THE CONSULTANT WITH A MARKED UP COPY OF THE GENERAL PLAN OF SERVICES INDICATING ALL SERVICES AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND TIG ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
  - ALL WORK TO BE CONSTRUCTED TO CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS.

**SEWER NOTES:**

- SPECIFICATIONS:
 

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MAINTENANCE HOLE (12000)	701.010	OPSD
STORM / SANITARY MH FRAME & COVER	S24.1 / S24 & S25	CITY OF OTTAWA
STORM SEWER	PVC SDR 35	CITY OF OTTAWA
SANITARY SEWER	PVC SDR 35	CITY OF OTTAWA
CATCHBASIN LEAD	PVC SDR 35	CITY OF OTTAWA
SEWER TRENCH	PVC SDR 35	CITY OF OTTAWA
SANITARY AND STORM SERVICES	PVC SDR28 (S11.3)	CITY OF OTTAWA
OBHM FRAME & COVER	S25 & S28.1	CITY OF OTTAWA
CB FRAME & COVER	S19	CITY OF OTTAWA

**SAN MANHOLE TABLE**

MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)
401	1200mmØ	65.26	NW=63.10
403	1200mmØ	64.96	SE=62.89
405	1200mmØ	65.49	NW=62.78
407 <sup>1</sup>	1200mmØ	65.21	SE=62.44
409	1200mmØ	65.41	W=61.73
411 <sup>1</sup>	1200mmØ	65.23	E=62.27

1. MAINTENANCE HOLE TO HAVE EXTERNAL DROP STRUCTURE AS PER OPSD 1003.010

**STM MANHOLE TABLE**

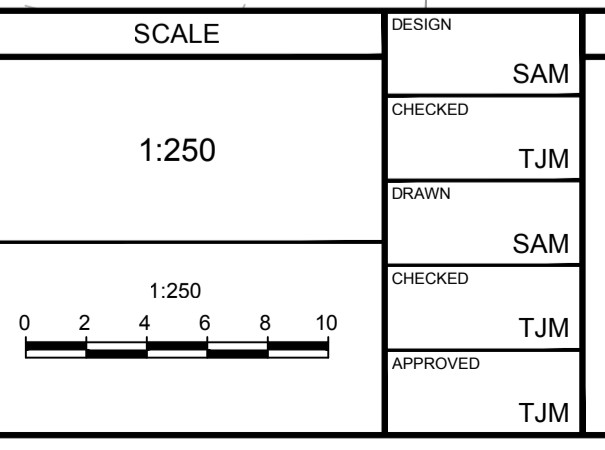
MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)
400	1200mmØ	65.24	NW=63.09
402	1200mmØ	64.88	SE=62.89
404	1200mmØ	65.53	W=63.26
406	1200mmØ	65.21	E=62.82

**CATCHBASIN TABLE**

CB ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)	ICD DIA (m)	100yr CAPTURE RATE (L/s)
CB-1	610 x 610 CB	64.92	SW=63.72	LMF 60	3.7
CB-3	610 x 610 CB	64.84	NW=63.64	83mmØ	15.9
CB-5	610 x 610 CB	65.13	N=63.93	83mmØ	16.2
CBMH-4	1,200mm dia CBMH	65.15	W=63.95	83mmØ	15.5

**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.

No.	REVISION	DATE	BY
4.	REVISED PER CITY COMMENTS	NOV 29/24	TJM
3.	RE-ISSUED FOR SITE PLAN APPROVAL	OCT 17/24	TJM
2.	ISSUED FOR SITE PLAN APPROVAL	AUG 14/24	TJM
1.	ISSUED FOR DISCUSSION	APR 26/24	TJM



DESIGN: SAM  
 CHECKED: TJM  
 DRAWN: SAM  
 CHECKED: TJM  
 APPROVED: TJM

**PROFESSIONAL ENGINEER**  
 T. J. MCKAY  
 100195434  
 November 29, 2023  
 PROVINCE OF ONTARIO

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 Website: www.novatech-eng.com

LOCATION: CITY OF OTTAWA GREYSTONE VILLAGE  
 DRAWING NAME: BLOCK 29 GENERAL PLAN OF SERVICES  
 PROJECT No.: 114025  
 REV: REV #4  
 DRAWING No.: 114025-FT-GP1

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D07-12-24-0130