## WATERMAIN . ALL WATERMAIN AND WATER SERVICE MATERIALS AND INSTALLATION SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS AND SPECIFICATIONS. AS PER CITY STANDARD W21, W22 AND W23. EXCAVATION BACKFILL AND ROAD REINSTATEMENT BY

- 2. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m. THERMAL INSULATION SHALL BE INSTALLED WHERE ADEQUATE SEPARATION CANNOT BE ACHIEVED
- 3. ALL WATERMAIN WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE. WATERMAIN CONNECTIONS BY CITY OF OTTAWA FORCES WITH ALL
- . WATERMAIN IS TO BE PVC DR18 WITH TRACER WIRE AS PER CITY OF OTTAWA STANDARD W36 UNLESS OTHERWISE NOTED.
- 5. VALVE BOXES AS PER CITY OF OTTAWA DETAIL W24. 6. ALL FIRE HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W19 AND LOCATED AS PER CITY
- STANDARD W18 AND/OR CITY STANDARD CROSS SECTIONS. 7. WATERMAIN BEDDING IS TO BE AS PER CITY OF
- B. THRUST BLOCKS AND RESTRAINT AS PER CITY OF

OTTAWA DETAIL W17.

T/G=77.05

CB103 -

T/G=77.05 E.INV=74.84

E.INV=74.95

- OTTAWA DWGS: W25.3, W25.4, W25.5 AND W25.6. 9. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS PER CITY OF OTTAWA DWGS: W39, W40,
- 10. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
- 11. DISINFECTION AND TESTING OF WATERMAIN TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
- 12. WATER SERVICES TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W26 AND W35.
- 13. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON

STORAGE

SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.

14. INSTALLATION OF WATER METER AND REMOTE RECEPTACLE SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.

## STORM AND SANITARY SEWERS

- 1. SANITARY AND STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS AND SPECIFICATIONS AND OPSS 407 AND 410.
- 2. SEWER BEDDING AS PER CITY STANDARD S6 & S7.
- 3. ALL SANITARY SEWERS ARE TO BE THE SIZES INDICATED AND THE MATERIAL SHALL BE PVC SDR35.
- 4. ALL STORM SEWERS ARE TO BE THE SIZES INDICATED AND THE MATERIAL SHALL BE PVC SDR35 OR REINFORCED CONCRETE IN ACCORDANCE WITH CSA STANDARDS A257.2 AND A257.3 (JOINTS).
- 5. ALL MANHOLES, CATCHBASINS AND CATCHBASIN MANHOLES TO BE BACKFILLED WITH MIN. 0.3m HORIZONTAL THICKNESS GRANULAR 'A'.
- 6. SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN TO WITHIN 1.0m OF BUILDING WALLS AND PROVIDE
- TEMPORARY CAPS. 7. THE CONTRACTOR SHALL CONDUCT INFILTRATION/EXFILTRATION (AS PER CURRENT OPSS) TESTING ON ALL NEWLY INSTALLED SANITARY SEWERS. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWER INSTALLATION AND SUPERVISED BY THE ENGINEER.
- 8. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED STORM AND SANITARY SEWERS AND EXISTING SEWERS CONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED AND SUPERVISED BY
- THE ENGINEER. 9. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY

STANDARD S11 & S11.1.

CB105 ---

T/G=77.05

SE.INV=75.02

- 10. ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING S14.1.
- 11. MINIMUM SOIL COVER TO BE 2.0m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE COVER CANNOT BE ACHIEVED, THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010.

15.3m-200mmø STM @1.0%

15.6m-200mmø STM @1.0%

CBMH204

T/G=77.35

E.INV=74.15

N.INV=74.21

W.INV=74.55

CBMH205

T/G=77.35

S.INV=74.44

NW.INV=74.84

14.6m-200mmø STM @1.0%

18.4m-200mmø STM @1.0%

∕\$LS/

CB107

T/G=77.05 W.INV = 74.95

"/**‡**τs/

23.2 600mmø<sub>o</sub>STM **@**0 5%

CBMH203 c/w HYDROVEX TYPE ICD

MODEL 125 VHV-2

T/G=77.05

E.INV=73.17

W.INV.=74.03

NE.INV=74.84

STRUCTURE TABLE					
STRUCTURE LABEL	SIZE	STRUCTURE OPSD No. OR CITY STD DWG	FRAME OPSD No. OR CITY STD DWG		
SANMH 301	1200mmØ	701.010	401.010-A		
SANMH 302	1200mmØ	701.010	401.010-A		
SANMH 303	1200mmØ	701.010	401.010-A		
CBs	600mm x 600mm	705.010	400.020		
	1800mmØ	701.010	401.010-B		
STMMH 201	1200mmØ	701.010	401.010-B		
SCIBANAH 128032	1200mmØ	701.010	401.010-B		
CBMH 204	1200mmØ	701.010	401.010-B		
CBMH 205	1200mmØ	701.010	401.010-B		

T/G=77.05 SW.INV=75.04

Gr.

PHASE 1-150mmø

7.3m-200mmø

∴Cødar.∴Heidge∴

SAN @0.6%

INV.=74.47

SANMH303 ---

T/G=76.85 E.INV=74.37

N.INV.=74.43

WATERMAIN PVC DR18 STUB

V → Φ<sub>LS</sub>

		WAT	ERMAIN TABLE
STATION	FIN/GRADE	T/W GRADE	COMMENT
0+000	76.45	74.05	TIE INTO EXISTING WATERMAIN ON SANDHILL RD
0+001.6	76.45	74.05	STM CROSSING
0+004.2	76.45	74.28	SAN CROSSING
0+012.5	76.51	73.50	VALVE AND VALVE BOX
0+016.9	76.60	73.30	THRUST BLOCK
0+022.2	76.60	73.14	SAN CROSSING
0+024.2	76.54	73.58	STM CROSSING
0+025.2	76.53	73.54	STM CROSSING
0+035	76.60	73.60	TOP OF WATERMAIN
0+045	76.60	73.80	TOP OF WATERMAIN
0+052.8	76.50	74.00	THRUST BLOCK AND 150mmØ WM CONNECTION
0+053.8	76.55	74.00	WM CAPPED
•			

Concrete Walk

70.4-600mmø STM @0.5%

			BLE	SING TA	ER CROS	N / SEWI	TERMAI	WA			
CLEARANCES	WATERMAIN		STORM SEWER		SANITARY SEWER						
	(mm)	Obvert	Dia.	Invert	Obvert	Dia. (	Invert	Obvert	Invert Dia.	LOCATION	
		Elev	(mm)	Elev	Elev	(mm)	Elev	Elev	(mm)	Elev	
w)	130mm (STM Belov				73.33	675	72.65	73.71	250	73.46	1
w)	850mm (STM Belov				72.64	250	72.39	73.74	250	73.49	2
w)	890mm (STM Belov	74.05	200	73.85	73.01	675	72.33				3
w)	250mm (SAN Belov	74.28	200	74.08				73.83	250	73.58	4
w)	180mm(STM Belov				73.37	600	72.77	73.80	250	73.55	5
w)	500mm (WM Belov	73.14	200	72.94				73.84	200	73.64	6
w)	170mm (STM Belov				73.46	600	72.86	73.83	200	73.63	7
w)	250mm (STM Belov	73.58	200	73.38	73.13	250	72.88				8
w)	250mm (STM Belov	73.54	200	73.34	73.09	200	72.89				9
w)	630mm (STM Belov				73.20	200	73.00	74.03	200	73.83	10
w)	810mm (STM Belov				73.63	600	73.03	74.64	200	74.44	11

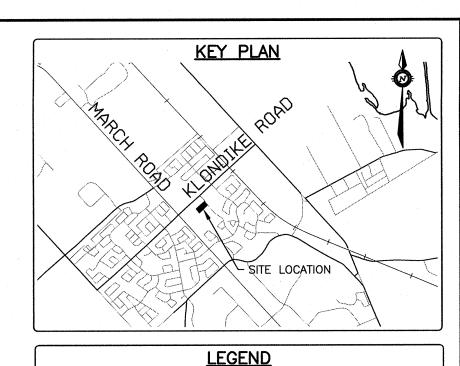
STORAGE

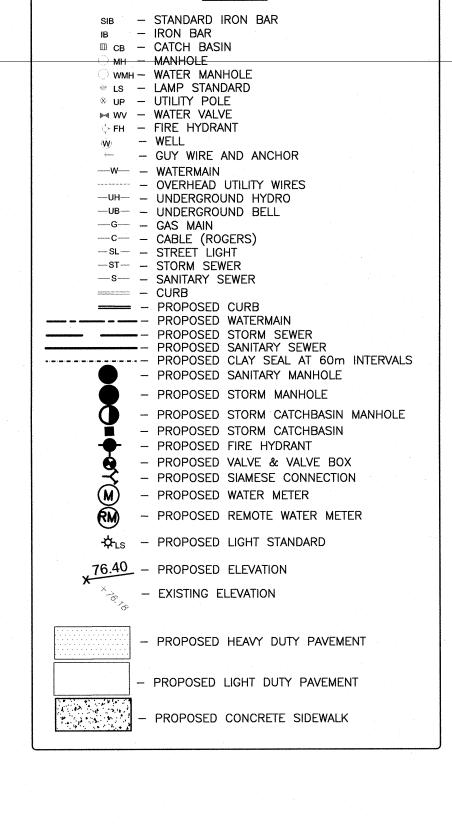
Elev=78.56

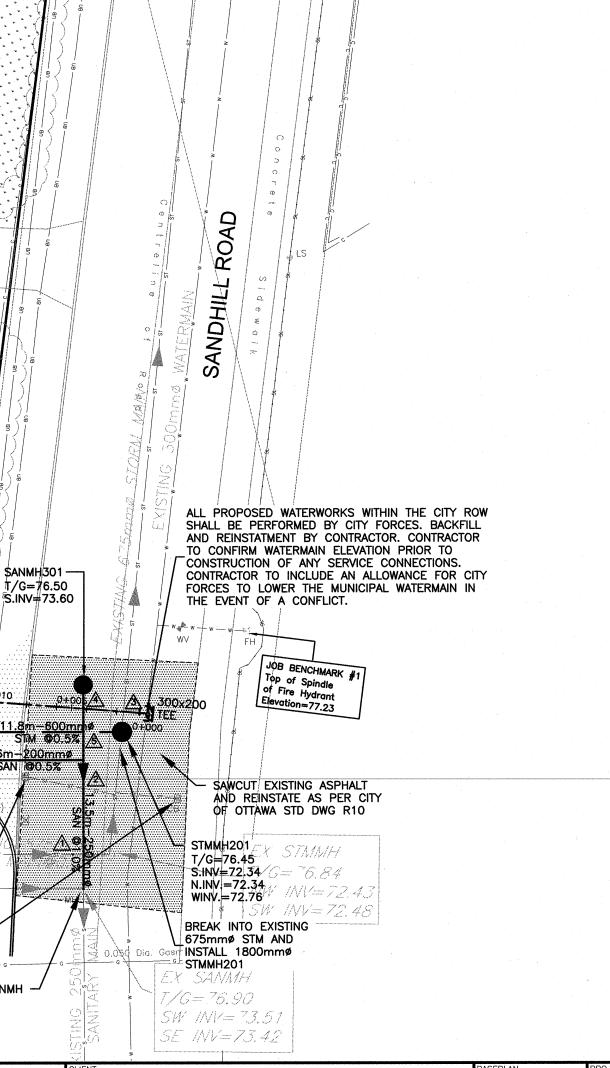
1 Storey Building (Brick & Siding)

150mmø WATERMAIN PVC DR18 STUB FOR PHASE 2

Door Sill Elev=78.57







EX STMMH

|NW|/NV=71.3

SE MV=71.4

APPROVED ☐ REFUSED ☐

DERRICK MOODIE, MANAGER DEVELOPMENT REVIEW WEST PLANNING INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

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ices: Aler I O O O Campy, Aler Neyplandwg,	CAUTION 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
ž	STRUCTURES AND ASSUME ALL LIABILITY FOI

DAMAGE TO THEM.

**PRELIMINARY** NOT FOR CONSTRUCTION

∕\$\ts/

CB102 -

T/G=77.05

E.INV=74.71

REVISED AS PER CITY COMMENTS 02/11/18 AE HORIZONTAL 03/10/18 AE A ISSUED FOR COORDINATION 29/06/18 AE ISSUED FOR SITE PLAN APPROVAL 3/09/17 ML ISSUED FOR SITE PLAN APPROVAL REVISION DESCRIPTION DATE BY APPE

2.7m-200mmø

CB101 c/w HYDROVEX TYPE ICD MODEL 100 VHV-1

T/G=76.40 N.INV=72.99

STM @1.0%

Ma . ausq. M.A. ANSARI 23/11/2/018

JOB BENCHMARK #2

Magnetic Nail in Utility

Pole Elevation=76.075

Asphalt

- 6.4m-250mmø

INV.=73.74

STM STUB @0.5% FOR PHASE 2

- 8.3m-200mmø SAN STUB @0.5% FOR PHASE 2 INV=73.66

STMMH202 -

T/G=76.60 E.INV=72.79

W.INV=72.82

SAWCUT EXISTING ASPHALT AND MATCH EXISTING GRADES

6.4m-150mmø -

STM STUB @1.0% FOR PHASE 2

200mmø PVC WATERMAIN DR18 0+040 0+035 0+030 0+025

41.2m-200mmø SAN @2.0%

SANMH302 -

T/G=76.60

E.INV=73.58

W.INV=73.58

 $INV = \pm 72.57 - 7$ 

FOR EXISTING CATCHBASINS PRIOR TO CONSTRUCTION EXISTING SANMH -

PROVIDE ESC MEASURES =

AS PER NOTE #12

INV.=73.77

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• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •

• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

ML AA ECT MANAGER

AA

DTT-00238504-/ KMA MOSQUE AND COMMUNITY CENTRE 351 SANDHILL ROAD, OTTAWA, ON F M & W 2016-12-09 SITE SERVICING SS-1

PHASE 1