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513				THE
511 509	LS EX O AS			
507 505	SPHALT W			rovered on rovered on westoor
503 501	75.81 75.41	772.3m		CRT NEIL NESBITT PARK
	1 - 250mmØ W	69.4m - 40		
	RELOCATE EXISTING CB	Ommid SAT		
	RELOCATE EXISTING CB AND CONVERT TO SURFACE INLET PER S19	Q 0.49%		
	VB1 - a WM	ROAD REINSTATEMENT PER R10	NORTH	
	SAN CONTRACTOR	CONNECT TO EX. PER S11.1 LATERAL INV.=89,64 SAN MAIN OBV=88.24		ARY MANHOLE, SEWER & DIRECTION
ÉCOLE ÉLÉMENTAIRE		ONNECT TO EX. PER S11.1 ATERAL INV.=89.81 IM MAIN OBV=89.30		TARY MANHOLE, SEWER & DIRECTION OW M MANHOLE, SEWER & DIRECTION OW
CATHOLIQUE PIERRE-ELLIOTT-TRUDEAU			<u>300mmø_</u> WATEF	
1.00%	MALK			E & VALVE BOX
(39) Lig ASPHALT WALKWAY		S		EGAL BOUNDARY
5 BUILDING SERVICES: WTR: 100mmØ INV=90.58 SAN: 200mmØ INV=90.58		<u>8</u>	GENERAL NOTE	<u>=S:</u>
STM: 20011112 INV=90.58			2. THE ORIGINAL TOPOGRA SUPPLIED FOR INFORMA	UT INFORMATION SHALL BE CONFIRMED F APHY AND GROUND ELEVATIONS, SERVIC ATION PURPOSES ONLY. IT SHALL BE THI
BLOCK 1 (20 UNITS)		P UTMAN	ACCURACY OF ALL INFO	DRMATION OBTAINED FROM THIS PLAN. EDULE ALL WORK WITH OTHER TRADES A
FF1=94.42 TF=93.29	LSO	A	INCLUDING BLASTING. IN	CONSTRUCTION, PROVIDE PROOF OF COI INSURANCE POLICY TO NAME THE OWNEF SYSTEMS AS DETAILED, INCLUDING ALL R
USF=90.96		A CONO EX. CONO	Ch3 EXISTING CONDITIONS O C. DETERMINE THE EXACT L	
CATCHBASIN TABLE		N CRETE	DRAWINGS.	LL NECESSARY PERMITS AND APPROVAL
CB No. T/G ELEVATION INVERT CB1 92.65 91.25			MUNICIPAL AUTHORITIES	
CB2 92.29 90.81 CB3 92.65 91.57		B R A	REMOVE FROM SITE ALL	L EXCESS EXCAVATED MATERIAL UNLESS L ORGANIC MATERIAL AND DEBRIS UNLES GEODETIC AND UTILIZE METRIC UNITS.
SAN MANHOLE TABLE	X. ASPHA	m	SUBSURFACE CONDITIO	CAL INVESTIGATION PROJECT: PG2306-1 (ONS AND CONSTRUCTION RECOMMENDA
MANHOLE ID SIZE (mm) T/G ELEV (M) (m)	ALT WALKI		DISTANCE OF 3.0m, PAR. SEWER NOTES:	B-DRAINS TO BE PROVIDED AT SUBGRADE RALLEL TO THE CURB IN TWO DIRECTIONS
129 1200mmØ 92.63 S=90.49 E=89.81	NAY		1. SPECIFICATIONS: <u>ITEM</u> CATCHBASIN (600x600 STORM / SANITARY M.	
LOCATION ELEVATIONS CLEARANCE		s $ + \infty - + - + \circ - $	ROADSIDE CB, FRAME STORM / SANITARY M STORM SEWER SANITARY SEWER	1E & COVER S2 & S19
C1 WM INV=89.91 SAN OBV=88.24 1.67m	Mar - John - Joh	5m - 300m	CATCHBASIN LEAD	PVC DR 35 SAN/STM) THAT HAVE LESS THAN 1.5m CO
C2 WM INV=89.87 STM OBV=89.29 0.58m C3 SAN INV=89.66 STM OBV=99.30 0.36m		mg STM (3. SERVICES ARE TO BE C	CONSTRUCTED TO 1.0m FROM BUILDING R AND BACKFILL ARE TO BE COMPACTED
C3 STM OBV=89.30 0.30m C4 SAN INV=90.51 STM OBV=90.21 0.30m		0.36%	DENSITY. THE USE OF 0	CLEAR CRUSHED STONE AS A BEDDING
C5 STM INV=90.06 WM OBV=89.47 0.59m			7. THE SITE SERVICING C	ARE TO BE INSTALLED ON SERVICES AS F CONTRACTOR SHALL PERFORM FIELD TES IALL BE COMPLETED IN ACCORDANCE WI
WATERMAIN TABLE 185.5 ^{m1} - 750 ^{mm} 97.4 ^m - 750 ^{mm}			COMPLETED ON ALL SA TESTS SHALL BE PERF	SANITARY SERVICES TO CONFIRM PROPER FORMED IN THE PRESENCE OF THE ENGI ND CBMHS SHALL HAVE 300mm SUMPS UN
Station ELEVATION WATERMAIN DESCRIPTION 0+000.00 92.33 89.93 CONNECT TO EXISTING	O LS		9. CONTRACTOR TO TELE	EVISE (CCTV) ALL PROPOSED SEWERS, 2 PLETION OF CONTRACT, THE CONTRACTO
0+015.98 92.63 90.23 VB1 0+027.71 92.60 90.20 45° H. BEND 0+030.54 92.54 90.14 45° H. PEND			10. ALL CATCH BASIN LEAD	ADS SHALL BE 200mmØ @ 1.0% (MIN.) UNLE HALL HAVE 600mm SUMPS UNLESS INDICA
0+030.54 92.54 90.14 45° H. BEND 0+032.32 92.54 90.14 V. BEND 0+033.01 92.56 89.47 V. BEND		(MS2)	WATERMAIN NC 1. GENERAL: ITEM	
0+034.11 92.56 89.47 V. BEND 0+034.80 92.56 90.16 V. BEND	E2505666	4007771	WATERMAIN TRENCH THERMAL INSULATION	HING DN IN SHALLOW TRENCHES ING BELOW SEWER / OVER SEWER
0+040.06 92.79 90.58 CAP		MOWM	2. THE WATERMAIN SHAL	LL BE PVC DR 18 IN ACCORDANCE WITH N E WITH TRACING WIRE AND CATHODIC PF
STM MANHOLE TABLE MANHOLE ID SIZE T/G ELEV INVERT 100YR 100YR HEAD 100YR ICD DESIGN FLOW 100YR HEAD	- DDIVE		AND SPECIFICATIONS.	CUCT ALL WATERMAINS AND APPURTENAN EXCAVATION, INSTALLATION, BACKFILL / HUT-OFFS AT THE MAIN AND CHLORINATI
MANHOLE ID (mm) (m) (m) ICD DESIGN FLOW (m) 137 1200mmØ 92.94 E=91.14 N=90.65 - Image: Comparison of the second seco	LDS DRIVE		200mmØ WM 4. WATERMAIN SHALL BE	E MINIMUM 2.4m DEPTH BELOW GRADE UN
a 139 1200mm/ 92.90 NE=90.21 -			6. HORIZONTAL CLEARAN	NCE BETWEEN WATERMAIN AND SEWERS
CBMH1 1200mmØ 92.50 SW=90.04 E=90.04 TEMPEST LMF (VORTEX 50) 3.5 2.68		400mmØ WM	BACKFILL AND REINSTA	STING WATERMAIN BY CITY FORCES. CIVIL TATE SURFACE TO EXISTING CONDITIONS
NOTE: THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER				CITY OF OTTAWA 285 MOUNTSH
UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN,		1:200 MAB	PROFESSIONAL Engineers, Planners & Landscape	C Architects
THE ACCURACY OF THE POSITION OF SUCH Image UTILITIES AND STRUCTURES IS NOT GUARANTEED. Image Image <		1:200 0 2 4 6 8 CHECKED DTD CHECKED CHECKED	Image: Constraint of the second se	(2M 1P6 (3) 254-9643 SERVICING F
N LOCATION OF ALL SUCH UTILITIES AND	UBMISSION FEB 24/23 MAB REVISION DATE BY	APPROVED MAB	Facsimile (613 Website www.novated	3) 254-5867
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	The second secon
72.3m- 1350mm@ STM @ 0.16%	NELL NESBITT & AND ARK DARK SITE SITE SUMMER AND ARK SITE SUMMER AND ARK SITE SUMMER AND ARK SITE SUMMER AND ARK SUMMER AND ARK
	NORTH KEY PLAN
	Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image: Sever & Direction Image:
	S VALVE & VALVE BOX CATCH BASIN MANHOLE
	SITE LEGAL BOUNDARY CB1 ROAD CATCHBASIN EXISTING PROPERTY & ROW LINES
	GENERAL NOTES:
E CELLO	 DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT 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.
UTMAN PARK	 CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS. BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING. INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND THE CITY AS CO-INSURED.
7453	5. CONNECT TO EXISTING SYSTEMS AS DETAILED, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO EXISTING CONDITIONS OR BETTER.
	6. 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.
	7. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE COMMENCING CONSTRUCTION.8. RESTORE ALL TRENCHES AND SURFACE FEATURES TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF
	MUNICIPAL AUTHORITIES. 9. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. EXCAVATE AND REMOVE FROM SITE ALL ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
	10. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. 11. REFER TO GEOTECHNICAL INVESTIGATION PROJECT: PG2306-1 (JANUARY 31, 2013), PREPARED BY PATERSON GROUP FOR
	SUBSURFACE CONDITIONS AND CONSTRUCTION RECOMMENDATIONS. 12. PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE ROADSIDE CATCHBASIN FOR A DISTANCE OF 3.0m, PARALLEL TO THE CURB IN TWO DIRECTIONS. SEWER NOTES:
	1. SPECIFICATIONS: ITEM SPEC. No. CATCHBASIN (600x600mm) 705.010 STORM / SANITARY MANHOLE (1200Ø) 701.010 OPSD ROADSIDE CB, FRAME & COVER S2 & S19 CITY of OTTAWA STORM / SANITARY MH FRAME & COVER S24.1 / S24 & S25 CITY of OTTAWA STORM SEWER PVC DR 35 / CONC SANITARY SEWER PVC DR 35 CATCHBASIN LEAD PVC DR 35
	 INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
	 SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM BUILDING FACE AT MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED). 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.
	 SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1. BACKWATER VALVES ARE TO BE INSTALLED ON SERVICES AS PER CITY STANDARDS (S14, S14.1, S14.2).
	7. THE SITE SERVICING CONTRACTOR SHALL PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16 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 THE ENGINEER.
	 STORM MANHOLES AND CBMHS SHALL HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO CONNECTING THE PROPOSED SEWERS. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS &
	APPURTENANCES. 10. ALL CATCH BASIN LEADS SHALL BE 200mmØ @ 1.0% (MIN.) UNLESS SHOWN OTHERWISE.
15225257	11. ALL CATCH BASINS SHALL HAVE 600mm SUMPS UNLESS INDICATED OTHERWISE. WATERMAIN NOTES: 1. GENERAL:
	ITEM DETAIL. No. REFERENCE WATERMAIN TRENCHING W17 CITY OF OTTAWA THERMAL INSULATION IN SHALLOW TRENCHES W22 CITY OF OTTAWA WATERMAIN CROSSING BELOW SEWER / OVER SEWER W25 / W25.2 CITY OF OTTAWA THRUST BLOCK W25.3 CITY OF OTTAWA
	 THE WATERMAIN SHALL BE PVC DR 18 IN ACCORDANCE WITH MATERIAL SPECIFICATION MW-18.1, UNLESS OTHERWISE INDICATED, COMPLETE WITH TRACING WIRE AND CATHODIC PROTECTION.
	 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.
300mmØ_WM	 WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. PROVIDE MINIMUM 0.30m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
	 PROVIDE MINIMUM 0.30M CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS. HORIZONTAL CLEARANCE BETWEEN WATERMAIN AND SEWERS IS 2.5m (MIN.). CONNECTION TO EXISTING WATERMAIN BY CITY FORCES. CIVIL CONTRACTOR TO EXCAVATE TRENCH, PLACE BEDDING,
	BACKFILL AND REINSTATE SURFACE TO EXISTING CONDITIONS OR BETTER.
FOR REVIEW ONLY	CITY OF OTTAWA 285 MOUNTSHANNON DRIVE - BLOCK 1
PROFESSIONAL L.R. WILSON 100160065 R.R. WILSON 100160065 R.R. WILSON 100160065 R.R. WILSON 100160065	Engineers, Planners & Landscape Architects Suite 200, 240 Michael Cowpland Drive Ottawa, Ontario, Canada K2M 1P6 Telephone (613) 254-9643

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