DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	GENERAL NOTES:  1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE	<ol> <li>MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE CANNOT BE ACHIEVED, EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010</li> </ol>
OUTE FEATURES			OFFINIOSO AND OTPHOTURES			MOOFILANGOLO	CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE.	10. ALL STORM SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
SITE FEATURES			SERVICES AND STRUCTURES		250 4 200	MISCELLANEOUS	<ol> <li>THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND EQUIPMENT</li> </ol>	11. STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24, S24.1 AND S25.
PROPERTY LINE			SANITARY SEWER	SA SA	250mmø SAN	REMOVED X X X REM	FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.	12. SAFETY PLATFORMS SHALL BE IN ACCORDANCE WITH OPSD 404.02.
OP OF SLOPE			COMBINATION SEWER	EX.300mmø COMB	300mmø COMB	RELOCATED	3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION.	13. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
ERRACING (3:1 TYPICAL)			STORM SEWER	<i>EX.375mmø STM</i> ST <i>EX.150mmø SUBDRAIN</i>	375mmø STM	ADJUSTED ADJ	THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY BE DAMAGED OR CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER, WATER AND/OR STORM WATER WORKS. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY	14. STORM SEWER MANHOLES SERVING LOCAL SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 30 STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701 .021.
DITCH/SWALE AND DIRECTION OF FLOW	_···		STORM SUBDRAIN		150mmø SUBDRAIN	HEAVY DUTY PAVEMENT OVER EARTH REFER TO NOTES FOR COMPOSITION	THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WHEN NOTED AND BEFORE	15. SINGLE AND DOUBLE CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S1. AND OPSD 70 RESPECTIVELY. FRAMES AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S19 FOR REAR LOT CATCHBAS
DGE OF SHOULDER			STORM CULVERT	EX.600mmø CULVERT	6 <u>00m</u> m <u>ø C</u> UL <u>VER</u> T	HEAVY DUTY PAVEMENT OVER PARKING STRUCTURE REFER TO NOTES FOR COMPOSITION	PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.	STREET CATCHBASINS.
DGE OF PAVEMENT			SANITARY MANHOLE	○ EX.SAN	SANMH 100	LIGHT DUTY PAVEMENT OVER EARTH	4. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE	16. CURB INLET TYPE CATCH BASIN (CICB) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S3. AND GRAT PER CITY OF OTTAWA STD. S22 AND S23. UNLESS OTHERWISE NOTED.
ROAD/ALIGNMENT			COMBINATION MANHOLE	○ EX.COMB	O COMBMH 100	REFER TO NOTES FOR COMPOSITION	SPECIFIED. ALL DRAWINGS SHOULD NOT BE SCALED BY THE CONTRACTOR. ANY MISSING OR QUESTIONABLE DIMENSIONS ARE TO BE CONFIRMED WITH THE ENGINEER IN WRITING.	17. SINGLE AND DOUBLE CATCHBASIN LEADS SHALL BE 200mm AND 250mm@ (MIN) RESPECTIVELY. 1.0% SLOPE (
HAINLINK FENCE	XX	XX	STORM MANHOLE	○ EX.STM	O STMMH 200	LIGHT DUTY PAVEMENT OVER PARKING STRUCTURE REFER TO NOTES FOR COMPOSITION	5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF THE SAME.	OTHERWISE NOTED.
OST AND RAIL FENCE			STORM MANHOLE C/W ICD	♠ EX.STM	MH 30	ROAD REINSTATEMENT AS PER CITY STANDARD R10	6. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS	18. ALL CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 300mm DEPTH, UNLESS OTHERWISE NOTED.
IDEWALK (TYPE AS NOTED ON DRAWINGS)			CATCHBASIN MANHOLE	○ EX.CBMH	<b>○</b> CBMH 100		FOR CONSTRUCTION PROJECTS", THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.	19. ALL CATCHBASINS SHALL HAVE SUMPS OF 600mm DEPTH, UNLESS OTHERWISE NOTED.
ARRIER CURB (SC1.1)			CATCHBASIN	■ EX.CB	■ CB1	RIP-RAP AS PER OPSD 810.010	7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED	<ol> <li>INSTALL 6.0m OF 100mmØ SUBDRAIN AT EACH ROADWAY CATCH-BASIN PER CITY DETAIL R1. SUBDRAINS ARE INSTALLED ON THE UPSTREAM SIDE OF THE CATCHBASINS ONLY.</li> </ol>
OUNTABLE CURB (SC1.3)			CATCHBASIN C/W ICD	<b>■</b> EX.CB	■ CB1	CONCRETE	DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, THE CITY OF OTTAWA AND THE AUTHORITY HAVING JURISDICTION.	21. CONTRACTOR SHALL ENSURE THAT CATCHBASINS ARE INSTALLED AT THE LOW POINT OF SAG CURB WORKS
EPRESSED CURB	DC	DC	DOUBLE CATCHBASIN	<b>■</b> EX.DCB	■■ DCB1	LANDSCAPE	8. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.	22. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED. WHERE T
ACTILE WALKING SURFACE INDICATOR "TWSI" (SC7.3)			CATCHBASIN ELBOW (S30)	O <i>EX.CBE</i>	O CBE		9. THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON	TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADDITIONAL BEDDING, A TYPE OF BEDDING OR A HIGHER PIPE STRENGTH AT HIS OWN EXPENSE AND SHALL ALSO BE RESPONSIBLE IN THE RESPONSIBLE I
JARDRAIL			CATCHBASIN TEE (S31)	○ EX.CBT	O CBT		CITY STREETS. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. BOOK 7 AND T.A.C MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).	TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
ERSEY BARRIERS	— #—— #—— —	— #—— #——	CURB INLET CATCHBASIN	□ EX.CICB	■ CICB 1		10. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING	23. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED STORM SEWERS AND EXICONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.
JILDING ENTRY/EXIT WITH RISERS	▼xR	▼xR	DITCH INLET CATCHBASIN	₪ EX.DICB	■ DICB 1	SERVICING TRENCHES	JURISDICTION.	WATERMAIN NOTES
JILDING ENTRY/EXIT BARRIER FREE	<b>▼</b> BF	<b>▼</b> BF	WATERMAIN	200mmø_WATERMAIN	200mmø WATERMAIN	1-100mm STORM SERVICE (PVC SDR28) ▼	11. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED.	ALL WATERMAIN MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANI
JILDING ENTRY/EXIT OVERHEAD DOOR	<u> </u>		IRRIGATION	IR IR	IR IR	1-19mm WATER SERVICE (TYPE 'K' COPPER OR PEX PIPE) TYPE 'A' 1-135mm SANITARY SERVICE (PVC SDR28)	12. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.	SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECI (OPSS).
OST	© POST	© POST	VALVE AND VALVE BOX	⊗ V&VB	⊗ V&VB	2-100mm STORM SERVICE (PVC SDR28) ▼	13. THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. AS-BUILT SITE SERVICING & GRADING DRAWINGS SHALL BE MAINTAINED ON SITE BY THE CONTRACTOR.	2. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE. WATERMAIN CONNECT
GN	Þ SIGN	Þ SIGN	VALVE AND VALVE CHAMBER	⊗ V&VC	<b>⊗</b> ∨&∨C	2-100mm STORM SERVICE (PVC SDR26)  2-19mm WATER SERVICE (TYPE 'K' COPPER OR PEX PIPE) TYPE 'B'  2-135mm SANITARY SERVICE (PVC SDR28)		OTTAWA FORCES WITH ALL EXCAVATION BACKFILL AND ROAD REINSTATEMENT BY CONTRACTOR.
DLLARD	⊚ BOLL	⊚ BOLL	FIRE HYDRANT	- <b>Ó</b> -FH	-Ó-FH	Z-100HHH SANHANI SENVICE (FVC SUKZO)	14. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.	3. ALL PVC WATERMAIN SHALL BE PVC DR18 IN ACCORDANCE WITH AWWA. C-900, CLASS 150 OR PVCO IN ACCORDANCE AWWA C-909, WITH AWWA/CSA PRESSURE RATING OF 235 PSI (1620 kPa) OR APPROVED EQUAL.
EGETATION			SIAWIESE CONNECTION	Y`sc	Ƴsc		15. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED AY THE CONTRACTOR. REVIEW WITH ENGINEER AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.	WATERMAINS TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UN
		7.\	WATER METER	<u>(M)</u> 	<b>W</b>		16. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW	OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL
			REMOTE WATER METER	RM	RM	PAVING STRUCTURE COMPOSITION	16. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.	<ol><li>ALL PVC WATERMAINS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER W ACCORDANCE WITH CITY OF OTTAWA STD. W36.</li></ol>
			45° BEND	<b>√</b> ₁ 45°	<b>⁴₁45</b> *		17. ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY EXP. SERVICES INC, DATED MAY 14, 2021.	6. WATER SERVICES ARE TO BE TYPE K SOFT COPPER, OR PEX TUBING AS PER CITY OF OTTAWA STD. W26 UNI
TILITY AND STRUCTURES			22.5° BEND	~ 22°	~ 22*	STREETS 1, 2, 3 AND 4	18. THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED	OTHERWISE SPECIFIED. ALL WATER SERVICES CROSSING SEWERS ARE TO BE INSTALLED AS PER CITY OF W38. WATER SERVICES SHALL BE MARKED WITH A "50mm X IOOmm", EXTENDING FROM THE INVERT TO 1.0m.
DINT UTILITY OVERHEAD LINE			11.25° BEND	⊢ 11°	H11'	HEAVY DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES SHALL BE AS	AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND	PAINTED BLUE. STAND POSTS/SHUT-OFFS SHALL BE INSTALLED AT THE PROPERTY LINE.
YDRO (OVERHEAD)	OH	——————————————————————————————————————	TEE	₼ 200X150 TEE	₼ 200X150 TEE	40mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE	CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.	7. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W
YDRO	———Н-———	———н———	REDUCER	>200X100 RED	>200X100 RED	50mm HL-8 OR SUPERPAVE (PG) 58-34 19.0 ASPHALTIC CONCRETE 150mm BASE - OPSS GRANULAR A CRUSHED STONE	19. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".	8. VALVE BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA DETAIL W24.
DWER	— P — P —	— Р — Р —	CROSS	⊕300X200 CROSS	± 300X200 CROSS	400mm SUBBASE - OPSS GRANULAR B TYPE II SUBGRADE - EITHER FILL, IN SITU SOIL OR OPSS GRANUALR B TYPE I OR	20. FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY FAIRHALL MOFFAT WOODLAND LIMITED. DATED JANUARY 14, 2020.	<ol><li>ALL FIRE HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W19 AND LOCATED AS PER CITY STANDARD CITY STANDARD CROSS SECTIONS.</li></ol>
ECTRICAL	E	——Е——	CURB STOP	⊗	•			10. ALL WATERMAINS TO BE INSTALLED AT MINIMUM COVER OF 2.4m.
ELL (OVERHEAD)	OB	OB	WATER WELL	<b>(W)</b>	<b>(0)</b>	BLOCKS 27 AND 47	21. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS.	11. THRUST BLOCKS AND RESTRAINT AS PER CITY OF OTTAWA DWGS: W25.3 AND W25.4, W25.5 AND W25.6.
ELL	———В———	———В———				HEAVY DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES OVER EARTH SHALL BE AS FOLLOWS:	<ol> <li>ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.</li> </ol>	12. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USE
ABLE (OVERHEAD)	OC	oc	GRADING			40mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE	23. STREET LIGHTING SHALL BE TO CITY OF OTTAWA STANDARDS.	HALF THAT RECOMMENDED BY THE MANUFACTURER.
ABLE TV		c	GROUND ELEVATION	X 100.00	X 100.00	50mm HL-8 OR SUPERPAVE (PG) 58-34 19.0 ASPHALTIC CONCRETE 150mm BASE - OPSS GRANULAR A CRUSHED STONE	SANITARY SEWER NOTES	13. DISINFECTION AND TESTING OF WATERMAIN TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
BRE OPTIC	F0		SWALE ELEVATION	X 100.00(S)	X 100.00(S)	400mm SUBBASE — OPSS GRANULAR B TYPE II SUBGRADE — EITHER FILL, IN SITU SOIL OR OPSS GRANUALR B TYPE I OR		14. WATER METERS TO BE INSTALLED AS PER W30 FOR WATER SERVICES.
TREETLIGHT	10		TOP OF GRATE ELEVATION	T/G=100.00	T/G=100.00	LIGHT DUTY PAVEMENT STRUCTURE FOR NEW PARKING OVER EARTH SHALL	<ol> <li>ALL SANITARY SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS</li> </ol>	<ol> <li>THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRE AND DISINFECTION OF THE WATERMAN.</li> </ol>
	SLSL		TOP OF WALL ELEVATION	X 100.00 T/W	X 100.00 T/W	AS FOLLOWS:		16. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY O
ASMAIN	G G			,	·	65mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE 150mm BASE - OPSS GRANULAR A CRUSHED STONE	<ol> <li>ALL SANITARY SEWERS SHALL BE PVC SDR 35, IPEX "RING-TITE" (OR EQUIVALENT), AS PER CSA STANDARD 8182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE NOTED.</li> </ol>	W25.2 AND W25, RESPECTIVELY, WHERE WATERMAN COVER IS LESS THAN 2.4m.
DINT USE TRENCH — BELL/CABLE TV	BC	BC	BOTTOM OF WALL ELEVATION	X 100.00 B/W	X 100.00 B/W	300mm SUBBASE - OPSS GRANULAR B TYPE II SUBGRADE - EITHER FILL, IN SITU SOIL OR OPSS GRANUALR B TYPE I OR	II 3. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B BEDDING UNLESS	17. WHERE THE SEPARATION BETWEEN SERVICES AND MANHOLES IS LESS THAN 1.2m, WATER SERVICES ARE AS PER CITY OF OTTAWA STD. W23.
DINT USE TRENCH - HYDRO/CABLE TV	——————————————————————————————————————	———НС ———	FINISHED FLOOR ELEVATION	FF=100.00	FF=100.00		OTHERWISE NOTED.	18. AS PER CITY GUIDELINE. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY
DINT USE TRENCH - HYDRO/BELL/CABLE TV	———— НВС ———	HBC	TOP OF FOUNDATION ELEVATION	TF=100.00	TF=100.00	HEAVY DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES AREAS OVER PARKING STRUCTURES SHALL BE AS FOLLOWS:	<ol> <li>ALL SANITARY LATERALS ARE TO BE PVC SDR 28, IPEX "RING-TITE" (OR EQUIVALENT), ANY COLOR EXCEPT WHITE AND MARKED WITH A 50mm X 100mm WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0m ABOVE GRADE PAINTED RED.</li> </ol>	CROSSING OVER THE SEWER, AS PER CITY STD W25.2. FOR CROSSING UNDER SEWER, THE MINIMUM VERTICE IS 0.50M AS PER CITY STD. W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE
OINT USE TRENCH — HYDRO/BELL/CABLE TV/GAS		HBCG	BASEMENT FLOOR ELEVATION	BF=100.00	BF=100.00	40mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE 50mm HL-8 OR SUPERPAVE (PG) 58-34 19.0 ASPHALTIC CONCRETE	5. SEWER BEDDING AS PER CITY STANDARD S6 & S7. GRANULAR 'A' BEDDING TO BE INCREASED TO 300mm WHERE SEWERS	REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SECENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIB
OINT USE TRENCH — BELL/CABLE TV/GAS	BCG	BCG ———	UNDERSIDE OF FOOTING ELEVATION MINIMUM UNDERSIDE OF FOOTING	USF=100.00	USF=100.00	150mm BASE — OPSS GRANULAR A CRUSHED STONE 100mm SUBBASE — OPSS GRANULAR B TYPE II	ARE BELOW THE GROUNDWATER TABLE.	SEWER.
UCT CROSSING WITH NUMBER AND TYPE OF DUCTS	2H,2C,2B	2H,2C,2B	ELEVATION	MUSF=100.00	MUSF=100.00	BELOW GRANULAR B REFER TO ARCHITECTURAL PLANS	6. SANITARY SEWER MANHOLES SHALL BE BENCHED AS PER OPSD 701.021. SANITARY MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24 AND S25. SAFETY PLATFORMS SHALL BE AS PER OPSD 404.02. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.	ROADWAY SPECIFICATIONS
TREETLIGHT (c/w GROUND ROD WHERE REQUIRED)	≱——⊗ o rs	21.∯ <b>⊗</b> —∺	PARKING LEVEL ELEVATION	P1=100.00	P1=100.00	LIGHT DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES AREAS OVER		ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE COOR OF CONSTRUCTION. ALL UNSUITABLE MATERIAL SUCH AS FILL, PEAT AND MARL WITHIN THE ROADWAY LIMIT
TREETLIGHT DISCONNECT	[SD] ■	<u>si</u>	ORIGINAL GROUND ELEVATION	OG=100.00	OG=100.00	PARKING STRUCTURES SHALL BE AS FOLLOWS: 65mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE	<ol> <li>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 VIEWED BY THE ENGINEER.</li> </ol>	EXCAVATED, REMOVED AND REPLACED WITH ENGINEERED FILL. EXCAVATION AND BACKFILLING WORK SHAL COMPLETED AS PER THE GEOTECHNICAL REPORT PREPARED BY EXP SERVICES INC. AND SHALL BE PERFOR
YDRO TRANSFORMER			TOP OF ROCK ELEVATION	T/ROCK=100.00	T/ROCK=100.00	150mm BASE — OPSS GRANULAR A CRUSHED STONE 100mm SUBBASE — OPSS GRANULAR B TYPE II	8. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED SANITARY SEWERS AND EXISTING	DIRECT SUPERVISION OF A GEOTECHNICAL ENGINEER. SITE GRADING WORK WITHIN THE FOOTPRINTS OF P BULDINGS, SERVICES AND ROADWAYS SHOULD CONSIST OF THE REMOVAL OF FILL, PEAT AND MARL TO THE
YDRO SWITCHING KIOSK		O	CONTOUR LINES	100.00	100.00	BELOW GRANULAR B REFER TO ARCHITECTURAL PLAN	8. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED SANITARY SEWERS AND EXISTING SEWERS CONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.	BEDROCK OR NATIVE SOIL, WHICHEVER OCCURS FIRST.
YDRO MANHOLE	$\bigoplus$	$oldsymbol{\Theta}$	SLOPE AND DIRECTION OF FLOW	2.0%	2.0%	ROADWAY CURB DETAILS & SUMMARY	9. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.	<ol> <li>ALONG ROADWAYS, FOLLOWING THE REMOVAL OF ALL PEAT/ORGANIC AND FILL MATERIAL TO SUBGRADE LI SUBGRADE SHOULD BE PROOFROLLED USING A 10-TON VIBRATORY ROLLER IN THE PRESENCES OF A GEOT</li> </ol>
YDRO METER	♦	•				(BARRIER CURB PER SC1.1) (MOUNTABLE CURB PER SC1.3)	10. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE SANITARY SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT.	SOFT AREAS DETECTED SHOULD BE SUBEXCAVATED AND REPLACED WITH IMPORTED MATERIAL, OR BY APP MATERIAL WHICH IS FREE OF ORGANICS, BOULDERS AND/OR COBBLES. APPROVED SUBGRADE FILL SHOULD SHOULD AND COMPACTED TO 200/ CRIMED.
TILITY POLE AND GUY WIRE	(—OUP	(—OUP				BC MC	DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT.  BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMDD.	300mm LIFTS AND COMPACTED TO 98% SPMDD.
ABLE PEDESTAL	<u>©</u>	<u>C</u>	STORMWATER MANAGEMENT			,	11. ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING \$14.1.	3. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SCI.1.1(BARRIER CURB) AND SC1.3 CURB), AS NOTED. PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS AND DRIVEWAYS.
ELL PEDESTAL	B	B	MAJOR OVERLAND FLOW ROUTE ONSITE			ROADWAY CURB SUMMARY	12. WITHIN THE FROST ZONE. THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE	4. ROAD SUBDRAINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R1. SUBDRAINS SHALL BE 6M IN L
ELL MANHOLE	<u>(B)</u>	<u>(B)</u>				STREET SIDE CURB TYPE STATION TO	DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.	CATCHBASINS. SUBDRAINS SHALL BE INSTALLED BOTH SIDES AT LOWPOINTS AND ON THE HIGH SIDE AT FLO CATCHBASINS.
ELL GROUND LEVEL BOX	GLB	GLB	MAJOR OVERLAND FLOW ROUTE OFFSITE			NAME SIDE CORB TIPE FROM TO	13. MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED. EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010	5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTT
NDWALL		CMBI	EMERGENCY OVERLAND FLOW ROUTE		-<\^1]	LEFT   BARRIER (SC1.1)	14. SERVICE LATERALS TO BE INSTALLED AS PER CITY OF OTTAWA DETAIL S11.1. VERTICAL RISER CONNECTIONS MAY BE	AND OPSD 509.010, OPSS 310.
DMMUNITY MAILBOX	<u>UMD</u>	<u>CMD</u>	STORM DRAINAGE AREA BOUNDARY			STREET 1 RIGHT BARRIER (SC1.1) 1+000 1+116	14. SERVICE LATERALS TO BE INSTALLED AS PER CITY OF OTTAWA DETAIL S11.1. VERTICAL RISER CONNECTIONS MAY BE REQUIRED. ENSURE MINIMUM 250mm SPATIAL SEPARATION BETWEEN SANITARY LATERALS AND STORM SEWER MAIN.	6. GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300MM AROUND ALL STRUCTURES WITHIN P
AS VALVE	⊗ GV	⊗ GV	STORM DRAINAGE AREA NUMBER		1	BARRIER (SC1.1) 0+000 0+131	STORM SEWER NOTES	7. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.
AS METER	<b>\bigotimes</b>	<b>©</b>	STORM DRAINAGE AREA IN HECTARES RUN-OFF COEFFICENT		$ \left(\begin{array}{c} 0.06 \\ 0.75 \end{array}\right) $	MOUNTABLE (SC1.3) 0+131 0+814	1. ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND	8. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY F BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
RAFFIC MANHOLE	○ TMH	○TMH	SPILL ELEVATION			BARRIER (SC1.1) 0+000 0+132	SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).	9. SUB- EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300MM LIFTS.
RAFFIC HAND HOLE	□ HH	□ HH	5 YEAR PONDING AREA		5 YR	STREET 2 MOUNTABLE (SC1.3) 0+132 0+392	2. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT). ALL	10. PAVEMENT STRUCTURE: REFER TO LEGEND.
RAFFIC JOINT USE POLE	⊚ JUP	⊚ JUP	100 YEAR PONDING AREA		100 YR	RIGHT BARRIER (SC1.1) 0+392 0+408	NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.L (LATEST AMENDMENT). PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3 (LATEST AMENDMENT).	GENERAL NOTES FOR GRADING
RAFFIC MAST ARM	=O= MAF	÷O= MAF				MOUNTABLE (SC1.3) 0+408 0+814	3. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE	
RAFFIC CONDUIT	— т — т —	— т — т —				LEFT MOUNTABLE (SC1.3) 4+000 4+147	SPECIFIED.	<ol> <li>IT SHALL BE THE BUILDER'S RESPONSIBILITY TO ENSURE THAT GRADING AROUND HYDRANTS, TRANSFORME PEDESTALS, ETC., MEET CURRENT CITY OF OTTAWA, HYDRO AND UTILITY COMPANY REQUIREMENTS.</li> </ol>
						STREET 3	4. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE STORM SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. RIGID STORM PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.030. DURING CONSTRUCTION THE CONTRACTOR	2. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS
			GEOTECHNICAL			RIGHT MOUNTABLE (SC1.3) 4+000 4+147	STORM PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.030. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMDD.	APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
			BOREHOLE	-ф- вн	- <b>ф</b> -ВН	MOUNTABLE (SC1.3) 5+000 5+193	5. SEWER BEDDING AS PER CITY STANDARD S6 & S7.	<ol> <li>CONTRACTOR TO ADJUST EXISTING CATCH BASINS, MANHOLES, FIRE HYDRANTS, VALVE CHAMBERS AND VA FINAL GRADE AS REQUIRED.</li> </ol>
			TEST PIT	TP	TP	STREET 4 BARRIER (SC1.1) 5+193 5+207	6. ALL STORM LATERALS SHALL BE PVC SDR 28. WHITE IN COLOR AND MARKED WITH A 50mm X IOOmm WOODEN MARKER	4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING FOUNDATIONS OF ADJAC
			COREHOLE	<del>-</del>	<del>ф</del> сн	RIGHT BARRIER (SC1.1) 5+000 5+207	EXTENDING FROM THE INVERT TO 1.0M ABOVE GRADE PAINTED GREEN.	DURING EXCAVATION AND CONSTRUCTION PERIOD.
			PIEZOMETER	+ PIZ	⊕ PIZ	SAMANTHA LEFT MOUNTABLE (SC1.3) 7+000 7+047	7. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.	<ol><li>GRADING IN GRASSED AREAS WILL BE BETWEEN 2% TO 7%. GRADES IN EXCESS OF 7% WILL REQUIRE A MAX TERRACING.</li></ol>
			MONITORING WELL	ф мw	ф мw	EASTOP RIGHT MOUNTABLE (SC1.3) 7+000 7+047	8. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE	
			WONTOKING WELL	WWW	₩ ₩₩	REFER TO GRADING PLAN (C200 & C201) FOR TRANSITION LOCATIONS	DIFFERENTIAL FROST REAVING IN THE SUBGRADE	
ION DE	NCH MARK JBM 🛦				I	SCALE DESIGNED	REVIEWED BY OWNER	BASEPLAN PROJECT PR
DITION OF ALL POLE LINES, TOP OF HEAD	O OF MAGNETIC NAIL SET IN SIDE OF C	ONCRETE SIGN					LATITUDE HOMES	HAZELDEAN HORIZONS
GROUND AND OVERGROUND UTILITIES NORTHING=50	BOVE GRADE ELEVATION=120.77 014575.29 EASTING=349007.23						1202 CARP ROAD STITTSVILLE, ON. K2S 1B9	JLF 6171 HAZELDEAN ROAD CHECKED OTTAWA, ONTARIO.
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	P OF GOULBOURN, CITY OF	OTTAWA.					t: +1.613.688.1899 [f: +1.613.225.7330 2650 Queensview Drive, Unit 100 Ottawa, ON K2B 8H6 Canada	PROJECT MANAGER  LEGENDS AND NOTES
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ON OF ALL SUCH UTILITIES AND TOPOGRAPHIC WOODLAND LI	: INFORMATION PROVIDED BY FAIRHALL I IMITED O.L.S (TP388Z) SURVEY DATED J 'STEM MTM NAD 83, ZONE 9,		REV REVISION DESCRIPTION	DATE BY APPD REV		DATE BY APPD	BUILDINGS • EARTH & ENVIRONMENT • ENERGY •	APPROVED