SITE FEATURES

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
TOP OF SLOPE		
TERRACING (3:1 TYPICAL)		
℄ DITCH/SWALE AND DIRECTION OF FLOW		
EDGE OF SHOULDER		
EDGE OF PAVEMENT		
℄ ROAD/ALIGNMENT		
CHAINLINK FENCE	—x—x—	—x—x—
POST AND RAIL FENCE	—○—○—○—○—	—○—○—○—○—
SIDEWALK (TYPE AS NOTED ON DRAWINGS)		
BARRIER CURB (SC1.1)		
MOUNTABLE CURB (SC1.3)		
DEPRESSED CURB	DC	DC
TACTILE WALKING SURFACE INDICATOR "TWSI" (SC7.3)	▒	▒
GUARDRAIL		
JERSEY BARRIERS		
BUILDING ENTRY/EXIT WITH RISERS	▼ xR	▼ xR
BUILDING ENTRY/EXIT BARRIER FREE	▼ BF	▼ BF
BUILDING ENTRY/EXIT OVERHEAD DOOR	▽	▽
POST	◎ POST	◎ POST
SIGN	SIGN	SIGN
BOLLARD	◎ BOLL	◎ BOLL
VEGETATION		

UTILITY AND STRUCTURES

DESCRIPTION	EXISTING	PROPOSED
JOINT UTILITY OVERHEAD LINE		
HYDRO (OVERHEAD)	—OH—	—OH—
HYDRO	—H—	—H—
POWER	— P — P —	— P — P —
ELECTRICAL	—E—	—E—
BELL (OVERHEAD)	—OB—	—OB—
BELL	—B—	—B—
CABLE (OVERHEAD)	—OC—	—OC—
CABLE TV	—C—	—C—
FIBRE OPTIC	—FO—	—FO—
STREETLIGHT	—SL—SL—	—SL—SL—
GASMAIN	—G—G—	—G—G—
JOINT USE TRENCH – BELL/CABLE TV	—BC—	—BC—
JOINT USE TRENCH – HYDRO/CABLE TV	—HC—	—HC—
JOINT USE TRENCH – HYDRO/BELL/CABLE TV	—HBC—	—HBC—
JOINT USE TRENCH – HYDRO/BELL/CABLE TV/GAS	—HBCG—	—HBCG—
JOINT USE TRENCH – BELL/CABLE TV/GAS	—BCG—	—BCG—
DUCT CROSSING WITH NUMBER AND TYPE OF DUCTS	2H,2C,2B	2H,2C,2B
STREETLIGHT (c/w GROUND ROD WHERE REQUIRED)	⊗ LS	⊗ LS
STREETLIGHT DISCONNECT	SD	SD
HYDRO TRANSFORMER	▶	▶
HYDRO SWITCHING KIOSK	⊡	⊡
HYDRO MANHOLE	Ⓗ	Ⓗ
HYDRO METER	◈	◈
UTILITY POLE AND GUY WIRE	—○ UP	—○ UP
CABLE PEDESTAL	C	C
BELL PEDESTAL	B	B
BELL MANHOLE	Ⓑ	Ⓑ
BELL GROUND LEVEL BOX	GLB	GLB
ENDWALL	⊠	⊠
COMMUNITY MAILBOX	CMB ▼	CMB ▼
GAS VALVE	⊗ GV	⊗ GV
GAS METER	◈	◈
TRAFFIC MANHOLE	⬡ TMH	⬡ TMH
TRAFFIC HAND HOLE	▭ HH	▭ HH
TRAFFIC JOINT USE POLE	◎ JUP	◎ JUP
TRAFFIC MAST ARM	MAF	MAF
TRAFFIC CONDUIT	— T — T —	— T — T —

SERVICES AND STRUCTURES

DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER	SA EX.250mmø SAN SA	250mmø SAN
COMBINATION SEWER	EX.300mmø COMB	300mmø COMB
STORM SEWER	ST EX.375mmø STM ST	375mmø STM
STORM SUBDRAIN	EX.150mmø SUBDRAIN	150mmø SUBDRAIN
STORM CULVERT	EX.600mmø CULVERT	600mmø CULVERT
SANITARY MANHOLE	○ EX.SAN	● SANMH 100
COMBINATION MANHOLE	○ EX.COMB	○ COMBMH 100
STORM MANHOLE	○ EX.STM	○ STMMH 200
STORM MANHOLE C/W ICD	◑ EX.STM	◑ MH 30
CATCHBASIN MANHOLE	○ EX.CBMH	◙ CBMH 100
CATCHBASIN	■ EX.CB	■ CB1
CATCHBASIN C/W ICD	▣ EX.CB	▣ CB1
DOUBLE CATCHBASIN	▬ EX.DCB	■■ DCB1
CATCHBASIN ELBOW (S30)	○ EX.CBE	○ CBE
CATCHBASIN TEE (S31)	○ EX.CBT	○ CBT
CURB INLET CATCHBASIN	▥ EX.CICB	■ CICB 1
DITCH INLET CATCHBASIN	▥ EX.DICB	▣ DICB 1
WATERMAIN	200mmø WATERMAIN	200mmø WATERMAIN
IRRIGATION	— IR — IR —	— IR — IR —
VALVE AND VALVE BOX	⊗ V&VB	⊗ V&VB
VALVE AND VALVE CHAMBER	⊗ V&VC	⊗ V&VC
FIRE HYDRANT	FH	FH
SIAMESE CONNECTION	SC	SC
WATER METER	Ⓜ	Ⓜ
REMOTE WATER METER	RM	RM
45° BEND	45°	45°
22.5° BEND	22°	22°
11.25° BEND	11°	11°
TEE	200X150 TEE	200X150 TEE
REDUCER	▷ 200X100 RED	▷ 200X100 RED
CROSS	300X200 CROSS	300X200 CROSS
CURB STOP	⊗	●
WATER WELL	Ⓦ	Ⓦ

GRADING

DESCRIPTION	EXISTING	PROPOSED
GROUND ELEVATION	X 100.00	X 100.00
SWALE ELEVATION	X 100.00(S)	X 100.00(S)
TOP OF GRATE ELEVATION	T/G=100.00	T/G=100.00
TOP OF WALL ELEVATION	X 100.00 T/W	X 100.00 T/W
BOTTOM OF WALL ELEVATION	X 100.00 B/W	X 100.00 B/W
FINISHED FLOOR ELEVATION	FF=100.00	FF=100.00
TOP OF FOUNDATION ELEVATION	TF=100.00	TF=100.00
BASEMENT FLOOR ELEVATION	BF=100.00	BF=100.00
UNDERSIDE OF FOOTING ELEVATION	USF=100.00	USF=100.00
MINIMUM UNDERSIDE OF FOOTING ELEVATION	MUSF=100.00	MUSF=100.00
PARKING LEVEL ELEVATION	P1=100.00	P1=100.00
ORIGINAL GROUND ELEVATION	OG=100.00	OG=100.00
TOP OF ROCK ELEVATION	T/ROCK=100.00	T/ROCK=100.00
CONTOUR LINES	100.00	100.00
SLOPE AND DIRECTION OF FLOW	◀ 2.0%	◀ 2.0%

STORMWATER MANAGEMENT

DESCRIPTION	PROPOSED
MAJOR OVERLAND FLOW ROUTE ONSITE	⇨
MAJOR OVERLAND FLOW ROUTE OFFSITE	⇦
EMERGENCY OVERLAND FLOW ROUTE	⇠
STORM DRAINAGE AREA BOUNDARY	▬ ▬ ▬ ▬
STORM DRAINAGE AREA NUMBER STORM DRAINAGE AREA IN HECTARES RUN-OFF COEFFICENT	1 0.06 0.75
SPILL ELEVATION	— · — · —
5 YEAR PONDING AREA	— 5 YR —
100 YEAR PONDING AREA	— 100 YR —

GEOTECHNICAL

DESCRIPTION	EXISTING	PROPOSED
BOREHOLE	⊕ BH	⊕ BH
TEST PIT	⊞ TP	⊞ TP
COREHOLE	⊕ CH	⊕ CH
PIEZOMETER	⊞ PIZ	⊞ PIZ
MONITORING WELL	⊞ MW	⊞ MW

MISCELLANEOUS

DESCRIPTION	
REMOVED	X X X ○ REM
RELOCATED	○ REL
ADJUSTED	○ ADJ
HEAVY DUTY PAVEMENT OVER EARTH REFER TO NOTES FOR COMPOSITION	☐
HEAVY DUTY PAVEMENT OVER PARKING STRUCTURE REFER TO NOTES FOR COMPOSITION	▒
LIGHT DUTY PAVEMENT OVER EARTH REFER TO NOTES FOR COMPOSITION	▩
LIGHT DUTY PAVEMENT OVER PARKING STRUCTURE REFER TO NOTES FOR COMPOSITION	░
ROAD REINSTATEMENT AS PER CITY STANDARD R10	▨
RIP-RAP AS PER OPSD 810.010	▦
CONCRETE	▓
LANDSCAPE	⁘

SERVICING TRENCHES

1-100mm STORM SERVICE (PVC SDR28) 1-19mm WATER SERVICE (TYPE 'K' COPPER OR PEX PIPE) 1-135mm SANITARY SERVICE (PVC SDR28)	▼ TYPE 'A'
2-100mm STORM SERVICE (PVC SDR28) 2-19mm WATER SERVICE (TYPE 'K' COPPER OR PEX PIPE) 2-135mm SANITARY SERVICE (PVC SDR28)	▽ TYPE 'B'

PAVING STRUCTURE COMPOSITION

STREETS 1, 2, 3 AND 4

HEAVY DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES SHALL BE AS FOLLOWS:

40mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE
50mm HL-8 OR SUPERPAVE (PG) 58-34 19.0 ASPHALTIC CONCRETE
150mm BASE – OPSS GRANULAR A CRUSHED STONE
400mm SUBBASE – OPSS GRANULAR B TYPE II
SUBGRADE – EITHER FILL, IN SITU SOIL OR OPSS GRANUALR B TYPE I OR II

BLOCKS 27 AND 47

HEAVY DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES OVER EARTH SHALL BE AS FOLLOWS:

40mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE
50mm HL-8 OR SUPERPAVE (PG) 58-34 19.0 ASPHALTIC CONCRETE
150mm BASE – OPSS GRANULAR A CRUSHED STONE
400mm SUBBASE – OPSS GRANULAR B TYPE II
SUBGRADE – EITHER FILL, IN SITU SOIL OR OPSS GRANUALR B TYPE I OR II

LIGHT DUTY PAVEMENT STRUCTURE FOR NEW PARKING OVER EARTH SHALL BE AS FOLLOWS:

65mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE
150mm BASE – OPSS GRANULAR A CRUSHED STONE
300mm SUBBASE – OPSS GRANULAR B TYPE II
SUBGRADE – EITHER FILL, IN SITU SOIL OR OPSS GRANUALR B TYPE I OR II

HEAVY DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES AREAS OVER PARKING STRUCTURES SHALL BE AS FOLLOWS:

40mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE
50mm HL-8 OR SUPERPAVE (PG) 58-34 19.0 ASPHALTIC CONCRETE
150mm BASE – OPSS GRANULAR A CRUSHED STONE
100mm SUBBASE – OPSS GRANULAR B TYPE II
BELOW GRANULAR B REFER TO ARCHITECTURAL PLANS

LIGHT DUTY PAVEMENT STRUCTURE FOR NEW ACCESS LANES AREAS OVER PARKING STRUCTURES SHALL BE AS FOLLOWS:

65mm HL-3 OR SUPERPAVE (PG) 58-34 12.5 ASPHALTIC CONCRETE
150mm BASE – OPSS GRANULAR A CRUSHED STONE
100mm SUBBASE – OPSS GRANULAR B TYPE II
BELOW GRANULAR B REFER TO ARCHITECTURAL PLAN

ROADWAY CURB DETAILS & SUMMARY

(BARRIER CURB PER SC1.1) ℄ (MOUNTABLE CURB PER SC1.3)
BC | MC

ROADWAY CURB SUMMARY				
STREET NAME	SIDE	CURB TYPE	STATION	
			FROM	TO
STREET 1	LEFT	BARRIER (SC1.1)	1+000	1+116
	RIGHT	BARRIER (SC1.1)	1+000	1+116
STREET 2	LEFT	BARRIER (SC1.1)	0+000	0+131
		MOUNTABLE (SC1.3)	0+131	0+814
	RIGHT	BARRIER (SC1.1)	0+000	0+132
		MOUNTABLE (SC1.3)	0+132	0+392
		BARRIER (SC1.1)	0+392	0+408
		MOUNTABLE (SC1.3)	0+408	0+814
STREET 3	LEFT	MOUNTABLE (SC1.3)	4+000	4+147
	RIGHT	MOUNTABLE (SC1.3)	4+000	4+147
STREET 4	LEFT	MOUNTABLE (SC1.3)	5+000	5+193
		BARRIER (SC1.1)	5+193	5+207
	RIGHT	BARRIER (SC1.1)	5+000	5+207
SAMANTHA EASTOP	LEFT	MOUNTABLE (SC1.3)	7+000	7+047
	RIGHT	MOUNTABLE (SC1.3)	7+000	7+047

REFER TO GRADING PLAN (C200 & C201) FOR TRANSITION LOCATIONS

GENERAL NOTES:

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE.
2. 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 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.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION. 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 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 PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.
4. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED. ALL DRAWINGS SHOULD NOT BE SCALED BY THE CONTRACTOR. ANY MISSING OR QUESTIONABLE DIMENSIONS ARE TO BE CONFIRMED WITH THE ENGINEER IN WRITING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF THE SAME.
6. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS", THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, THE CITY OF OTTAWA AND THE AUTHORITY HAVING JURISDICTION.
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.
9. THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON 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).
10. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
11. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED.
12. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
13. THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. AS-BUILT SITE SERVICING & GRADING DRAWINGS SHALL BE MAINTAINED ON SITE BY THE CONTRACTOR.
14. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.
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.
16. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.
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.
18. THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED 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 CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.
19. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".
20. FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY FAIRHALL MOFFAT WOODLAND LIMITED. DATED JANUARY 14, 2020.
21. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS.
22. 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.
23. STREET LIGHTING SHALL BE TO CITY OF OTTAWA STANDARDS.

SANITARY SEWER NOTES

1. 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 (OPSS).
2. 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.
3. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B BEDDING UNLESS OTHERWISE NOTED.
4. ALL SANITARY LATERALS ARE TO BE PVC SDR 28, IPEX "RING-TITE" (OR EQUIVALENT), ANY COLOR EXCEPT WHITE AND MARKED WITH A 5Omm X 100mm WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0m ABOVE GRADE PAINTED RED.
5. SEWER BEDDING AS PER CITY STANDARD S6 & S7. GRANULAR 'A' BEDDING TO BE INCREASED TO 300mm WHERE SEWERS ARE BELOW THE GROUNDWATER TABLE.
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.
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 VIEWED BY THE ENGINEER.
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.
9. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
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. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMDD.
11. ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING S14.1.
12. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
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
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.

STORM SEWER NOTES

1. ALL STORM 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 (OPSS).
2. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT). ALL 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).
3. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
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 SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMDD.
5. SEWER BEDDING AS PER CITY STANDARD S6 & S7.
6. ALL STORM LATERALS SHALL BE PVC SDR 28, WHITE IN COLOR AND MARKED WITH A 50mm X IOOmm WOODEN MARKER EXTENDING FROM THE INVERT TO 1.0M ABOVE GRADE PAINTED GREEN.
7. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
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
9. 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
10. ALL STORM SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
11. STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24, S24.1 AND S25.
12. SAFETY PLATFORMS SHALL BE IN ACCORDANCE WITH OPSD 404.02.
13. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
14. STORM SEWER MANHOLES SERVING LOCAL SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 300mm SUMP. FOR STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701 .021.
15. SINGLE AND DOUBLE CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S1. AND OPSD 705.020, RESPECTIVELY. FRAMES AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S19 FOR REAR LOT CATCHBASINS, AND STREET CATCHBASINS.
16. CURB INLET TYPE CATCH BASIN (CICB) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S3. AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S22 AND S23, UNLESS OTHERWISE NOTED.
17. SINGLE AND DOUBLE CATCHBASIN LEADS SHALL BE 200mm AND 250mmØ (MIN) RESPECTIVELY, 1.0% SLOPE (MIN.) UNLESS OTHERWISE NOTED.
18. ALL CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 300mm DEPTH, UNLESS OTHERWISE NOTED.
19. ALL CATCHBASINS SHALL HAVE SUMPS OF 600mm DEPTH, UNLESS OTHERWISE NOTED.
20. INSTALL 6.0m OF 100mmØ SUBDRAIN AT EACH ROADWAY CATCH-BASIN PER CITY DETAIL R1. SUBDRAINS ARE TO BE INSTALLED ON THE UPSTREAM SIDE OF THE CATCHBASINS ONLY.
21. CONTRACTOR SHALL ENSURE THAT CATCHBASINS ARE INSTALLED AT THE LOW POINT OF SAG CURB WORKS.
22. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADDITIONAL BEDDING, A DIFFERENT TYPE OF BEDDING OR A HIGHER PIPE STRENGTH AT HIS OWN EXPENSE AND SHALL ALSO BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
23. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED STORM SEWERS AND EXISTING SEWERS CONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.

WATERMAIN NOTES

1. ALL WATERMAIN 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 (OPSS).
2. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE. WATERMAIN CONNECTIONS BY CITY OF OTTAWA FORCES WITH ALL EXCAVATION BACKFILL AND ROAD REINSTATEMENT BY CONTRACTOR.
3. ALL PVC WATERMAIN SHALL BE PVC DR18 IN ACCORDANCE WITH AWWA. C-900, CLASS 150 OR PVCO IN ACCORDANCE WITH AWWA C-909, WITH AWWA/CSA PRESSURE RATING OF 235 PSI (1620 kPa) OR APPROVED EQUAL.
4. WATERMAINS TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
5. ALL PVC WATERMAINS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W36.
6. WATER SERVICES ARE TO BE TYPE K SOFT COPPER, OR PEX TUBING AS PER CITY OF OTTAWA STD. W26 UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICES CROSSING SEWERS ARE TO BE INSTALLED AS PER CITY OF OTTAWA STD. W38. WATER SERVICES SHALL BE MARKED WITH A "50mm X IOOmm", EXTENDING FROM THE INVERT T0 1.0m ABOVE GRADE PAINTED BLUE. STAND POSTS/SHUT-OFFS SHALL BE INSTALLED AT THE PROPERTY LINE.
7. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.
8. VALVE BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA DETAIL W24.
9. ALL FIRE HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W19 AND LOCATED AS PER CITY STANDARD W18 AND/OR CITY STANDARD CROSS SECTIONS.
10. ALL WATERMAINS TO BE INSTALLED AT MINIMUM COVER OF 2.4m.
11. THRUST BLOCKS AND RESTRAINT AS PER CITY OF OTTAWA DWGS: W25.3 AND W25.4, W25.5 AND W25.6.
12. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
13. DISINFECTION AND TESTING OF WATERMAIN TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
14. WATER METERS TO BE INSTALLED AS PER W30 FOR WATER SERVICES.
15. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAN.
16. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY, WHERE WATERMAN COVER IS LESS THAN 2.4m.
17. WHERE THE SEPARATION BETWEEN SERVICES AND MANHOLES IS LESS THAN 1.2m, WATER SERVICES ARE TO BE INSULATED AS PER CITY OF OTTAWA STD. W23.
18. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.25M FOR CROSSING OVER THE SEWER, AS PER CITY STD W25.2. FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE IS 0.50M AS PER CITY STD. W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.

ROADWAY SPECIFICATIONS

1. ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL UNSUITABLE MATERIAL SUCH AS FILL, PEAT AND MARL WITHIN THE ROADWAY LIMITS IS TO BE EXCAVATED, REMOVED AND REPLACED WITH ENGINEERED FILL. EXCAVATION AND BACKFILLING WORK SHALL BE COMPLETED AS PER THE GEOTECHNICAL REPORT PREPARED BY EXP SERVICES INC. AND SHALL BE PERFORMED UNDER DIRECT SUPERVISION OF A GEOTECHNICAL ENGINEER. SITE GRADING WORK WITHIN THE FOOTPRINTS OF PROPOSED BULDINGS, SERVICES AND ROADWAYS SHOULD CONSIST OF THE REMOVAL OF FILL, PEAT AND MARL TO THE SURFACE OF BEDROCK OR NATIVE SOIL, WHICHEVER OCCURS FIRST.
2. ALONG ROADWAYS, FOLLOWING THE REMOVAL OF ALL PEAT/ORGANIC AND FILL MATERIAL TO SUBGRADE LEVEL, THE SUBGRADE SHOULD BE PROOFROLLED USING A 10-TON VIBRATORY ROLLER IN THE PRESENCES OF A GEOTECHNICIAN. ANY SOFT AREAS DETECTED SHOULD BE SUBEXCAVATED AND REPLACED WITH IMPORTED MATERIAL, OR BY APPROVED ON-SITE MATERIAL WHICH IS FREE OF ORGANICS, BOULDERS AND/OR COBBLES. APPROVED SUBGRADE FILL SHOULD BE PLACED IN 300mm LIFTS AND COMPACTED TO 98% SPMDD.
3. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SCI.1.1(BARRIER CURB) AND SC1.3 (MOUNTABLE CURB), AS NOTED. PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS AND DRIVEWAYS.
4. ROAD SUBDRAINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R1. SUBDRAINS SHALL BE 6M IN LENGTH AT CATCHBASINS. SUBDRAINS SHALL BE INSTALLED BOTH SIDES AT LOWPOINTS AND ON THE HIGH SIDE AT FLOWBY CATCHBASINS.
5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R10 AND OPSD 509.010, OPSS 310.
6. GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300MM AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
7. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.
8. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
9. SUB- EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300MM LIFTS.
10. PAVEMENT STRUCTURE: REFER TO LEGEND.

GENERAL NOTES FOR GRADING

1. IT SHALL BE THE BUILDER'S RESPONSIBILITY TO ENSURE THAT GRADING AROUND HYDRANTS, TRANSFORMERS, AND UTILITY PEDESTALS, ETC., MEET CURRENT CITY OF OTTAWA, HYDRO AND UTILITY COMPANY REQUIREMENTS.
2. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
3. CONTRACTOR TO ADJUST EXISTING CATCH BASINS, MANHOLES, FIRE HYDRANTS, VALVE CHAMBERS AND VALVE BOXES TO FINAL GRADE AS REQUIRED.
4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING FOUNDATIONS OF ADJACENT BUILDINGS DURING EXCAVATION AND CONSTRUCTION PERIOD.
5. GRADING IN GRASSED AREAS WILL BE BETWEEN 2% TO 7%. GRADES IN EXCESS OF 7% WILL REQUIRE A MAXIMUM 3:1 TERRACING.

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 STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

JOB BENCH MARK JBM ▲

TOP OF HEAD OF MAGNETIC NAIL SET IN SIDE OF CONCRETE SIGN BASE 0.2± ABOVE GRADE ELEVATION=120.77
NORTHING=5014575.29 EASTING=349007.23

TOPOGRAPHIC INFORMATION

PART OF LOT 12, CONCESSION 12, GEOGRAPHIC TOWNSHIP OF GOULBOURN, CITY OF OTTAWA.
TOPOGRAPHIC INFORMATION PROVIDED BY FAIRHALL MOFFATT & WOODLAND LIMITED O.L.S (TP388Z) SURVEY DATED JANUARY 14, 2020.
SITE GRID SYSTEM MTM NAD 83, ZONE 9,

REV	REVISION DESCRIPTION	DATE	BY	APPD

REV	REVISION DESCRIPTION	DATE	BY	APPD
1	ISSUED FOR APPROVAL	05/12/22	SAB	BMT

SCALE

NORTH

DESIGNED BY
LICENSED PROFESSIONAL ENGINEER
J.L. FITZPATRICK
2022-05-12
PROVINCE OF ONTARIO

REVIEWED BY
Bruce Thomas
LICENSED PROFESSIONAL ENGINEER
B. M. THOMAS
2022-05-12
PROVINCE OF ONTARIO

OWNER
LATITUDE HOMES
1202 CARP ROAD
STITTSVILLE, ON. K2S 1B9

exp.
exp Services Inc.
t: +1.613.688.1899 | f: +1.613.225.7330
2650 Queensview Drive, Unit 100
Ottawa, ON K2B 8H6
Canada
www.exp.com
• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

BASEPLAN	SK
DESIGN	JLF
CHECKED	BMT
CAD	SK
PROJECT MANAGER	JLF
APPROVED	BMT

PROJECT
HAZELDEAN HORIZONS
6171 HAZELDEAN ROAD
OTTAWA, ONTARIO.

TITLE
LEGENDS AND NOTES

PROJECT No.	258780
SURVEY	Z38800-FMW
DATE	24/07/20
DRAWING No.	C001

Filename: \\exp\data\ott\ott-00258780-a0\60 execution\65 drawings\c001 legends and notes.dwg
Last Saved:5/4/2022 12:16:45 PM Last Plotted: 5/12/2022 10:33:49 AM Plotted by: butlers
Pen Table: exp-64.ctb
References: _xref-TTL.dwg