

GENERAL NOTES:

- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- 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 THIS DRAWING.
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- ALL ELEVATIONS ARE GEODETIC.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUS LOOP AND HARD SURFACE AREAS AND DIMENSIONS.
- REFER TO STORMWATER MANAGEMENT REPORT (R-XXXX-XXX) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
- SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- REFER TO ARCHITECT'S DRAWING FOR LINE/PARKING PAINTING DETAILS.

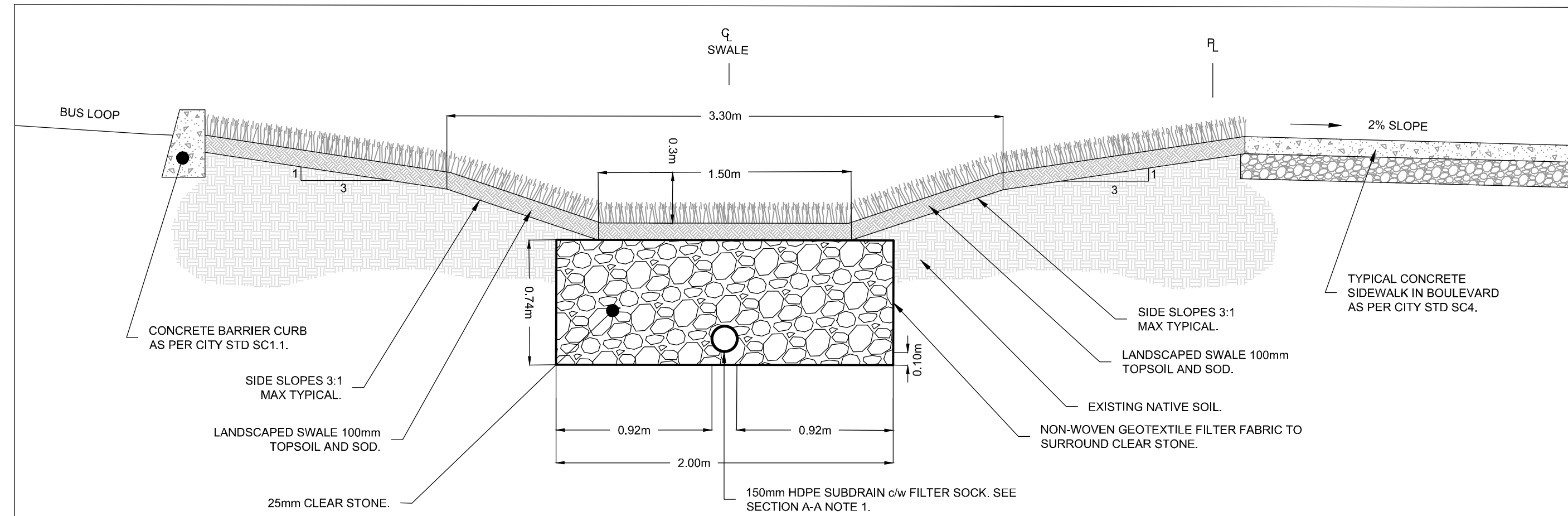
PAVEMENT STRUCTURE:

	LIGHT DUTY 40mm HLB OR HL4 50mm HLB 150mm GRAN "A" 300mm GRAN "B" TYPE II
	HEAVY DUTY 50mm HLB OR SP12.5 CAT D 60mm HLB OR SP 19 CAT D 150mm GRAN "A" 450mm GRAN "B" TYPE II

PAVEMENT COMPOSITION AS PER GEOTECHNICAL REPORT

GRADING NOTES:

- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
- EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
- ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
- MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
- ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
- ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
- REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

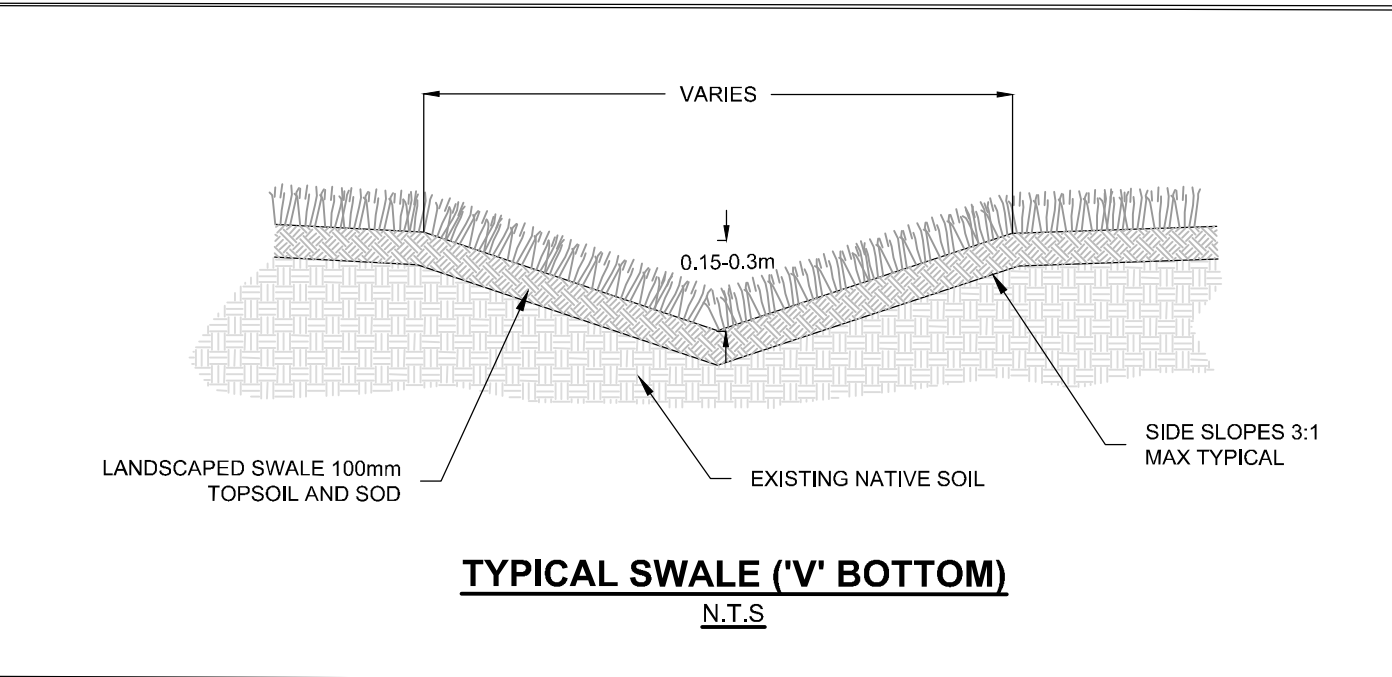
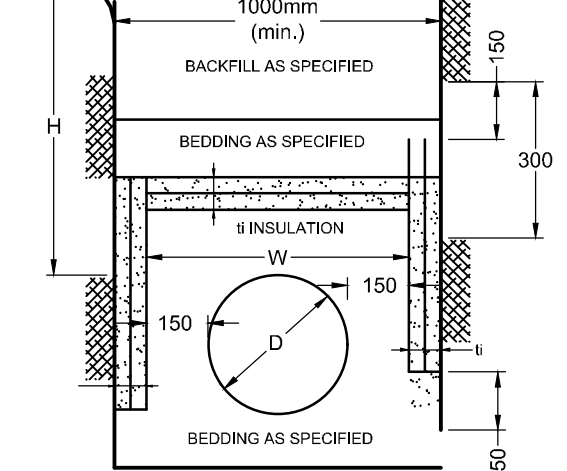


SEWER & WATERMAIN INSULATION NOTES:

- INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.5m COVER AND ALL WATERMAIN WITH LESS THAN 2.4m OF COVER WITH EXPANDED POLYSTYRENE INSULATION AS PER OPSD 1109.020.
- THE THICKNESS OF INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm REDUCTION IN THE REQUIRED DEPTH OF COVER WITH 50mm MINIMUM (SEE TABLE)

COVER SEWER / WATER (mm)	INSULATION THICKNESS (mm)
1500-1200 / 2400-2100	50
1200-900 / 2100-1800	75
900-600 / 1800-1500	100

T = THICKNESS OF INSULATION (mm)
W = WIDTH OF INSULATION (mm)
D = O.D. OF PIPE (mm)



PIPE CROSSING TABLE				
CROSSING NO.	STORM INVERT	SANITARY INVERT	TOP OF WATERMAIN	BOTTOM OF UTILITY TRENCH (ASSUMED)
1	73.68	72.57	-	-
2	73.59	-	73.12	-
3	73.70	-	-	74.24 GAS
4	73.71	-	-	74.44 SL
5	73.72	-	-	74.46 BELL

LEGEND

	PROPERTY LINE
	PROPOSED ELEVATION
	PROPOSED TOP OF CURB ELEVATION
	PROPOSED SWALE ELEVATION
	EXISTING ELEVATION
	GRADE AND DIRECTION
	PROPOSED BARRIER CURB (PER SC1.1)
	PROPOSED OVERHEAD WIRES
	EMERGENCY OVERLAND FLOW ROUTE
	PROPOSED STORM PIPE
	PROPOSED STORM PIPE WITH INSULATION
	PROPOSED SWALE AND DIRECTION OF FLOW
	MAXIMUM 3:1 SIDESLOPE (UNLESS OTHERWISE INDICATED)
	PROPOSED HIGH POINT
	TOP OF SLOPE
	PROPOSED FENCE
	REMOVALS
	PROPOSED RIPRAP
	PROPOSED 1200mm STORM MANHOLE

SEWER NOTES:

- SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND AS MODIFIED.
- SPECIFICATIONS:
ITEM: STORM MANHOLE (1200mm)
SPEC. No.: 701.010/701.011
REFERENCE: OPSD
ITEM: STORM FRAME AND COVER
SPEC. No.: 401.010 - TYPE 'B'
REFERENCE: OPSD
ITEM: CATCH-BASIN (600x600)
SPEC. No.: 705.010
REFERENCE: OPSD
ITEM: CATCH-BASIN FRAME AND COVER
SPEC. No.: 400.020
REFERENCE: OPSD
ITEM: STORM SEWER (450mm Ø)
SPEC. No.: PVC DR 35
REFERENCE: OPSD
ITEM: STORM SEWER (450mm Ø +)
SPEC. No.: ULTRA-RIB / CONC CLASS 650
REFERENCE: OPSD
ITEM: SUBDRAIN
SPEC. No.: HDPE PERF. NON-PERF. PIPE
REFERENCE: CITY OF OTTAWA
ITEM: PERF. PIPE INSTALLATION
SPEC. No.: S29
REFERENCE: CITY OF OTTAWA
ITEM: SEWER TRENCH
SPEC. No.: S6
REFERENCE: CITY OF OTTAWA
- PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED. REFER TO THE GEOTECHNICAL INVESTIGATION FROM EXP SERVICES INC. FOR THE PROPOSED BUS DROP-OFF LANE VINCENT PUBLIC SCHOOL 745 SMYTH ROAD DATED DEC 22, 2020.
- INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.5m COVER WITH HI-40 RIGID INSULATION. REFER TO THE INSULATION DETAIL ON THIS DRAWING.
- FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-A-SEAL, POK POSITIVE SEAL AND DURASEAL). THE CONCRETE GRADE FOR THE PIPE CAN BE ELIMINATED.
- ALL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
- ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR TO TELETYPE (CCTV) ALL PROPOSED SEWERS, 200mm Ø OR GREATER TO ENSURE THAT THEY ARE CLEAN AND OPERATIONAL UPON COMPLETION OF CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES. OBTAIN APPROVAL FROM THE CITY'S SEWER OPERATIONS.
- THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSD 410.07.18, 410.07.19 AND 407.24. 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 A CERTIFIED PROFESSIONAL ENGINEER, WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.

EROSION AND SEDIMENT CONTROL NOTES:

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

- THE OWNER AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL. SUCH AS BUT NOT LIMITED TO INSTALLING FILTER CLOTHS ACROSS MANHOLE/CATCHBASIN LIDS TO PREVENT SEDIMENTS FROM ENTERING STRUCTURES AND INSTALL AND MAINTAIN A LIGHT DUTY SILT FENCE BARRIER AS REQUIRED.
- THE CONTRACTOR SHALL PLACE FILTER BAGS UNDER THE CATCHBASIN AND MANHOLE GRATES FOR THE DURATION OF CONSTRUCTION AND WILL REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION.
- SILT FENCING FOR ENTIRE PERIMETER OF SITE, SHALL BE UTILIZED TO CONTROL EROSION FROM THE SITE DURING CONSTRUCTION.
- EROSION AND SEDIMENT CONTROL MEASURES MAY BE MODIFIED IN THE FIELD AT THE DISCRETION OF THE CITY OF OTTAWA SITE INSPECTOR OR CONSERVATION AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE ROADS ARE KEPT FREE OF MUD AND DEBRIS.

NOTES:

REFER TO REMOVAL PLAN 122204-REM FOR EXISTING REMOVALS

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.

APPROVED
By Lily Xu at 1:05 pm, Jul 03, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES
DEPARTMENT, CITY OF OTTAWA

NOT FOR
CONSTRUCTION

REVISION		DATE	BY
2.	REVISED PER CITY COMMENTS	NOV 8/23	CJR
1.	ISSUED WITH SITE PLAN APPLICATION	MAR 24/23	CJR

SCALE	
1:250	
0 2 4 6 8 10	

DESIGN	MA
CHECKED	CJR
DRAWN	MA
CHECKED	CJR
APPROVED	JLS

FOR REVIEW ONLY	
PROFESSIONAL ENGINEER	
LICENSE NO. 7724	
FEB 7/24	
PROVINCE OF ONTARIO	

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LOCATION CITY OF OTTAWA 745 SMYTH ROAD	PROJECT NO. 122204
DRAWING NAME GRADING AND SERVICING PLAN	REV #2
DRAWING NO. 122204-GS	